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MSPN GMBH

Märkische Stanz-Partner



[**nitrocyl**Gasdruckfedern]

[**nitrocyl**GasSprings]

Stand / Revision Status: 30.10.2020

Inhalt Katalog 1: Stanznormalien (D)
Content Catalogue 1: Standard die components (D)

Artikel Article	Best.-Nr. Order no.	Seite Page
A		
Aufwerferstifte, gehärtet, DIN 1530 A – ISO 6750	TH 750	TH 9
Auswerferstifte, DIN 1530 Form D	TH 75[illegible]	TH [illegible]

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„Clicking“ on the Article name, the Order- or Page-no. in the main table of contents opens the corresponding article-page.

Inhalt
Content

	Schneidstempel	Punches	Best.-Nr. Order no.	Seite Page
	Schneidstempel DIN 9861, Form D, HSS	Punches DIN 9861, Form D, HSS	SE 775	SE 1 SE [illegible]

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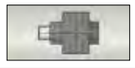
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[23.01.2020]

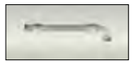
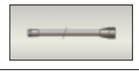
	NitroCyl- Gasdruckfedern	NitroCyl- Gas springs	Best.-Nr. Order no.	Seite Page
	Technische Informationen	Technical information		NC.9 - 23
	niedrigbauend, Serie NC.010.00 200 - 5000 daN, Hub 7 - 125 mm, Ø 25 - 105 mm	smaller height, NC.010.00 series 200 - 5000 daN, Stroke 7 - 125 mm, Ø 25 - 105 mm	NC.010.00	NC.010. 1 - 17
	niedrigbauend, System FP, Serie NC.015.00, 170 - 20000 daN, Hub 7 - 125 mm, Ø 19 - 195 mm	smaller height, FP system, NC.015.00 series, 170 - 20000 daN, Stroke 7 - 125 mm, Ø 19 - 195 mm	NC.015	NC.015. 1 - 27
	niedrigbauend, System NK, Serie NC.016.00, 190 - 3960 daN, Hub 7 - 125 mm, Ø 25 - 95 mm	smaller height, NK system, NC.016.00 series, 190 - 3960 daN, Hub 7 - 125 mm, Ø 25 - 95 mm	NC.016	NC.016. 1 - 17
	niedrigbauend, G1/8“, Serie NC.028.00 740 - 2385 daN, Hub 10 - 125 mm, Ø 45 - 75 mm	smaller height, G1/8“, NC.028.00 series 740 - 2385 daN, Hub 10 - 125 mm, Ø 45 - 75 mm	NC.028	NC.028. 1 - 9
	kompakt, Serie NC.030.00 420 - 18410 daN, Hub 6 - 65 mm, Ø 25 - 150 mm	compact, NC.030.00 series 420 - 18410 daN, Stroke 6 - 65 mm, Ø 25 - 150 mm	NC.030.00	NC.030. 1 - 19
	kompakt, G1/8“, Serie NC.030.20 1000 - 18410 daN, Hub 6 - 65 mm, Ø 38 - 150 mm	compact, side connection, G1/8“, NC.030.20 series, 1000 - 18410 daN, Stroke 6 - 65 mm, Ø 38 - 150 mm	NC.030.20	NC.030. 21 - 35
	mittlere Größen, Serie NC.040.00 200 - 10000 daN, Hub 10 - 200 mm, Ø 25 - 150 mm	medium sizes, NC.040.00 series 200 - 10000 daN, Stroke 10 - 200 mm, Ø 25 - 150 mm	NC.040	NC.040. 1 - 23
	mit erhöhter Kraft, Serie NC.041.00 150 - 7950 daN, Hub 10 - 80 mm, Ø 19 - 95 mm	with higher force, NC.041.00 series 150 - 7950 daN, Stroke 10 - 80 mm, Ø 19 - 95 mm	NC.041	NC.041. 1 - 17
	mit erhöhter Kraft, Serie NC.042.00 810 - 4190 daN, Hub 12 - 80 mm, Ø 38 - 75 mm	with higher force, NC.042.00 series 810 - 4190 daN, Stroke 12 - 80 mm, Ø 38 - 75 mm	NC.042	NC.042. 1 - 11
	Mini-Gasdruckfedern, Serie NC.05X.00 20 - 200 daN, Hub 7 - 125 mm, Ø 12 - 25 mm	Micro springs, NC.05X.00 series 20 - 200 daN, Stroke 7 - 125 mm, Ø 12 - 25 mm	NC.05X	NC.05X. 1 - 21
	Standard, Serie NC.060.09 300 - 5000 daN, Hub 10 - 125 mm, Ø 38 - 120 mm	Standard, NC.060.09 series 300 - 5000 daN, Stroke 10 - 125 mm, Ø 38 - 120 mm	NC.060.09	NC.060. 1 - 13
	Standard nach VDI 3003, Serie NC.060.10, 150 - 10000 daN, Hub 10 - 300 mm, Ø 32 - 195 mm	Standard acc. to VDI 3003, NC.060.10 series, 150 - 10000 daN, Stroke 10 - 300 mm, Ø 32 - 195 mm	NC.060.10	NC.060. 15 - 33
	mit Körpergewinde, Serie NC.060.20 50 - 300 daN, Hub 10 - 125 mm, Ø M28x1,5 - M38x1,5	threaded springs, NC.060.20 series 50 - 300 daN, Stroke 10 - 125 mm, Ø M28x1,5 - M38x1,5	NC.060.20	NC.060. 35 - 39
	Standard, mittlere Größe, Serie NC.060.29 750 - 7500 daN, Hub 12,5 - 250 mm, Ø 50 - 150 mm	Standard, medium size NC.060.29 series, 750 - 7500 daN, Stroke 12,5 - 250 mm, Ø 50 - 150 mm	NC.060.29	NC.060. 41 - 51
	Verzögerungszylinder, Serie NC.061.10 300 - 7500 daN, Hub 25 - 125 mm, Ø 45 - 195 mm	Delayed gas spring, NC.061.10 series, 300 - 7500 daN, Stroke 25 - 125 mm, Ø 45 - 195 mm	NC.061.10	NC.061. 1 - 13
	kompakt, erhöhte Kraft, Serie NC.064.10 300 - 18410 daN, Hub 10 - 300 mm, Ø 32 - 195 mm	compact, higher force, NC.064.10 series, 300 - 18410 daN, Stroke 10 - 300 mm, Ø 32 - 195 mm	NC.064.10	NC.064. 1 - 23
	Standard mit Kopfgewinde, Serie NC.070 250 - 500 daN, Hub 12,7 - 100 mm, Ø M36x1 - M46x1	Threaded springs, NC.070 series, 250 - 500 daN, Stroke 12,7 - 100 mm, Ø M36x1 - M46x1	NC.070.00	NC.070. 1 - 9
	Standard, mit Durchgangsbohrung Serie NC.080, 500 - 2200 daN, Hub 10 - 100 mm, Ø 50 - 95 mm	Hollowsprings, NC.080 series, 500 - 2200 daN, Stroke 10 - 100 mm, Ø 50 - 95 mm	NC.080.00	NC.080. 1 - 7
	Abdrückstifte nach DIN 3004 50 - 200 daN, Hub 10 - 125 mm, Ø M16x1,5 - M24x1,5	Plungers acc. to DIN 3004 50 - 200 daN, Stroke 10 - 125 mm, Ø M16x1,5 - M24x1,5	NC.091 - NC.094	NC.091. 1 - 11

	NitroCyl-Gasdruckfedern	NitroCyl-Gas springs	Best.-Nr. Order no.	Seite Page
	Gasdruckfedern, Teileheber	Gas springs, Lifters	NCF.1 NCF.3	NC.120. 1 - 2

	Zubehör Gasdruckfedern	Gas spring accessories	Best.-Nr. Order no.	Seite Page
	Abfüllarmaturen	Charging assemblies	HS NCA 3000	NC.130.15
	Ablassventile	Bleeding valves	NCR.99.061	NC.130.20
	Anschlussstücke	Adapters	NCI.BK.KRM6	NC.130.22
	Anschlussstücke	Adapters	NCI.BK.KRM8	NC.130.22
	Anschlussstücke	Adapters	NCI.BK.KRMK	NC.130.23
	Anschlussstücke	Adapters	NCI.BK.KCMK	NC.130.23
	Anschlussstücke	Adapters	NCI.BK.KTMK	NC.130.23
	Anschlussstücke, 1-fach	One way adapters	NCZ.01	NC.130.24
	Anschlussstücke, 2-fach	Two way adapters	NCZ.02	NC.130.24
	Anschlussstücke, 3-fach	Three way adapters	NCZ.03	NC.130.25
	Anschlussstücke, 4-fach	Four way adapters	NCZ.04	NC.130.25
	Anschlussstücke, 5-fach	Five way adapters	NCZ.05	NC.130.26
	Anschlussstücke, gerade	Straight fittings	HS NF 1001-4-G1/8“	NC.130.17
	Anschlussstücke Kreuz	Adapters cross	HS NF 5501-4	NC.130.17
	Anschlussstücke mit Adapter	Straight fittings with adapter	HS NF 1003-4-G1/8“	NC.130.20
	Anschlussstücke mit Ventil und Schutzkappe	Adapters with valve and cover	NCI.00.012	NC.130.21
	Bithalter	Bit holder	NCTU.00.041	NC.130.28

[23.01.2020]

Inhalt
Content
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

	Zubehör Gasdruckfedern	Gas spring accessories	Best.-Nr. Order no.	Seite Page
	Drehmomentschlüssel	Torque wrenches	NCTU.00.009	NC.130.28
	Druckeinheiten	Accumulators	NCTU.00.016	NC.130.31
	Druckplatten	Thrust plates	NCP SPVD NCP SPFI NCP SPPS	NC.130.1 NC.130.2
	Druckwächter	Pressure monitors	HS Z 20	NC.130.7
	Entlüftungs-Werkzeuge, G1/8“ Entlüftungs-Werkzeuge, M6	Bleeding tools, G1/8“ Bleeding tools, M6	NCTU.00.550	NC.130.28
	Hinweisschilder	Signs	NC Hinweis-schild	NC.130.14
	Hochdruckschläuche	High pressure hoses, flexible	HS NH 220 NCX.20.00.010	NC.130.18 NC.130.22
	Hochdruckschläuche komplett mit Pressarmaturen, 24° Konus	High pressure hoses, complete with pressed-on adapters, 24° Taper	HS NH 220…	NC.130.18
	Kontroll-/Ladearmaturen	Pressure controller units	NCCA.1.1	NC.130.16
	Kontrollarmaturen	Control panels	NCCP.600.CPLC.0X.1 NCCP.600.CPLM.0X.1	NC.130.5
	Kontrollarmaturen 600 bar Kontrollarmaturen 400 bar	Control panels 600 bar Control panels 400 bar	NCTU.00.038 NCTU.00.042 NCTU.00.043	NC.130.20
	Kraftmessgeräte mit digitaler Anzeige für Gasdruckfedern, Standgerät	Dynamometers with digital display, Floor	NCTU.300	NC.130.30
	Kraftmessgeräte mit digitaler Anzeige für Gasdruckfedern, Tischgerät	Dynamometers with digital display, Table	NCTU.200	NC.130.29
	Ladeadapter	Charging adapters	NCQ	NC.130.11 NC.130.20 NC.130.23
	Ladeschläuche	Charging hoses	HS NCCS	NC.130.15
	L-Anschlussstücke	L-Connectors	HS NF 3301-4	NC.130.17
	Montage-Werkzeuge (Kolbenstange), M6 Montage-Werkzeuge (Kolbenstange), M8	Assembly tools (Piston rod), M6 Assembly tools (Piston rod), M8	NCTU.00.006 NCTU.00.008	NC.130.27
	Multi-Kontrollarmaturen	Multi-Control-Units	NCCP.400.CPFG...01	NC.130.6
	Pressarmaturen, 45°	Crimping fittings, 45°	HS NHP 5-45	NC.130.18
	Pressarmaturen, 90°	Crimping fittings, 90°	HS NHP 5-90	NC.130.18

[NC]

	Zubehör Gasdruckfedern	Gas spring accessories	Best.-Nr. Order no.	Seite Page
	Pressarmaturen, gerade	Crimping fittings, straight	**HS NHP 5 NCT.BKRT**	**NC.130.18 NC.130.22**
	Schläuche	Hoses	**NCX.12**	**NC.130.21**
	Schläuche	Hoses	**NCX.13**	**NC.130.21**
	Schläuche	Hoses	**NCX.15**	**NC.130.21**
	Schläuche	Hoses	**NCX.BK NCX.BK…G**	**NC.130.22**
	Schlauchpressen	Crimping presses	**HS KarryKrimp 1**	**NC.130.34**
	Schlauschellen	Hose clamps	**NCR.99.176 NCR.99.102**	**NC:130.20 NC.130.22**
	Sechskantschlüssel	Hexagon socket head wrenches	**NCTU.00.030**	**NC.130.27**
	Steckkupplungen	Female quick release couplings	**HS 11-770-2700**	**NC.130.12**
	Stecknippel	Male quick release couplings	**NCT.QCM.14**	**NC.130.11**
	Stecknippel	Male quick release couplings	**HS 11-700-8555**	**NC.130.12**
	Stopfen	Plugs	**NCR.99.008**	**NC.130.28**
	T-Anschlussstücke	T-Couplings	**HS NF 3001-4 HS NF 3501-4**	**NC.130.17**
	Ventile	Valves	**NCTU.01.002 NCR.99.082 NCR.99.147**	**NC.130.27**
	Ventil-Werkzeuge	Valve-tools	**NCTU.00.003**	**NC.130.27**
	Ventil-Zangen	Valve-pliers	**NCTU.00.001**	**NC.130.27**
	Verschlussstopfen	Plugs	**NCR.99.039**	**NC.130.21**
	Verteilerblöcke	Distribution blocks	**NCCC.1.2 NCCC.1.4 NCCC.6.6**	**NC.130.8 NC.130.9**
	Verteilerleisten	Distribution blocks	**NCCC.1.7**	**NC.130.9**
	Verteilerleisten	Distribution blocks	**NCCC.1.10.01**	**NC.130.10**

Inhalt
Content
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

	Zubehör Gasdruckfedern	Gas spring accessories	Best.-Nr. Order no.	Seite Page
	Werkzeugsätze für Montage	Toolkits for assembling	**NCTU.00.033**	**NC.130.32 NC.130.33**
	Winkelstücke 45°	Threaded joints, 45°	**HS NF 4501-4**	**NC.130.17**
	Winkelstücke 90°	Threaded joints, 90°	**HS NF 2501-4**	**NC.130.17**
	Winkelstücke 90°	Threaded joints, 90°	**HS NF 2001-4**	**NC.130.17**

[23.01.2020]

Märkische Stanz-Partner

[technischeHinweise]

NitroCyl Gasdruckfedern

Gasdruckfedern sind eine sinnvolle Ergänzung zu den in der Praxis benutzten Schrauben, Teller- oder Urelastfedern. Allerdings sind die Vorteile der Gasdruckfedern beachtlich. So können auch in Werkzeuge und Pressen mit begrenztem Einbauraum hohe Kräfte und Hubwege eingebracht werden. Ein weiterer Vorteil ist der geringe Druckanstieg, wie auch die einfache Kraftveränderung gegenüber den Schrauben-, Teller- oder Urlastfedern. So können sich diese Vorteile positiv bei der Teilefertigung und bei den Werkzeugen und Pressen auswirken.
Die Gasdruckfedern werden mit dem umweltfreundlichen Medium “Stickstoff” gefüllt. Durch das variable Befüllen der Gasdruckfedern zwischen 20 bar min. und 150/180 bar max. ist es möglich, die exakte Kraft, die benötigt wird, zu erreichen. Es ist darauf zu achten, dass der max. Druck für die einzelnen Gasdruckfeder-Typen von max. 150/180 bar nicht überschritten wird. NitroCyl Gasdruckfedern können je nach Anforderung als Einzelelement oder auch im Verbund (Schlauchverbindungen) eingesetzt werden. Die Gasdruckfedern werden nach neuesten Technologien gefertigt und haben einen hohen Qualitäts-Standard.
Sind Werkzeuge, Vorrichtungen oder Pressen mit Gasdruckfedern bestückt, so sollte mit einem Hinweis-Schild (welches gut sichtbar sein sollte) darauf hingewiesen werden.

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ACHTUNG

Werkzeug/Presse ist mit Gasdruckfedern bestückt.

Fülldruck max. 150 bar - 180 bar

Achtung:
Arbeiten am System nur im drucklosen Zustand.
Bitte Wartungsanleitung lesen.

Druck max. ..... bar Arbeitsdruck ..... bar

Achtung:
Wartungsarbeiten nur, wenn das Stickstoff-System drucklos ist. Lesen Sie die Wartungsanleitung. Wartungsarbeiten werden auch durch unser Fachpersonal ausgeführt. Bitte sprechen Sie uns an.

Gasdruckfedern und Stickstoffsysteme unterliegen hinsichtlich Wartungsintervallen u.ä. gesetzlichen Vorschriften, die länderspezifisch voneinander abweichen. In Deutschland sind diese z.B. u.a. in der Betriabssicherheitsverordnung geregelt.

NitroCyl Gasdruckfedern werden entsprechend der Druckgeräte-Richtlinie PED 2014/68/EU.

Vom Europäischen Parlament und dem Europarat wurde im Mai 1997 die neue Druckgeräte-Richtlinie angenommen und seit dem 29. Mai 2002 in der gesamten EG zwingend vorgeschrieben. Gasdruckfedern sind per Definition “Druckbehälter”.

Märkische Stanz-Partner

[technicalinformation]

NitroCyl Gas Springs

Gas Springs are a perfect addition to the commonly used mechanical-, urelast- or disc-springs, offering quite some advantages. For example, even in dies and presses providing limited space, high forces and long strokes can be accomplished.

Another advantage is the slow pressure increase as well as the easy readjustment of forces when needed. Gas springs are filled with the environment-friendly „nitrogen“ - gas.

By charging the spring in between 20 and 150 (in some cases 180 max. !!) bar, the user has the possibility to obtain exactly the force needed for the specific application.

NitroCyl Gas Springs may be used as stand-alones, but can be hosed together as well.
They are manufactured using the latest production technologies and with high technical and safety standards.
In case dies or presses utilize gas springs, a big-enough sign should inform the user about them being built in.

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Attention

This die / this press utilizes nitrogen gas springs with high pressure
(150 bar - 180 bar) and the resulting very high forces.

Repair and maintenance must only take place after the unit(s)
have been unloaded and unpressured !

Pressure max. ..... bar Working pressure ..... bar

Attention:
Repair and Maintenance must onlytake place of after the unit(s) have been unloaded and unpressured !
Please read maintenance manual. If you require assistance, please contact us.

Gas springs and corresponding systems are subject to (f.e.) preventive maintenance as outlined in country specific legislation. In Germany this is governed for example by the Industrial Safety Regulation, amongst others.

NitroCyl gas springs are manufactured in accordance with the PED-directive PED 2014/68/EU.

In May 1997 the European Parliament and the Council of Europe agreed on the new „Pressure Equipment Directive“, which in 2002 became law throughout the EC.

[NC]

[23.01.2020]

Information
Information
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Märkische Stanz-Partner

[bedienungsanleitung]

NitroCyl-Gasdruckfedern

Einbau, Sicherheits- und Bedienungshinweise

Die richtige Auswahl von Gasdruckfedern und Zubehör während der Konstruktionsphase hilft Kosten und Probleme zu vermeiden und sichert so einen zuverlässigen Betrieb der Werkzeuge und Maschinen zu.

Sicherheit
Stickstoff-System-Federn sind befüllte Druckbehälter mit einem Maximal-Druck von 150/180 bar. Wartungsarbeiten oder Änderungen an Stickstoff-System-Federn dürfen nur im drucklosen Zustand vorgenommen werden.
Achtung: System durch Öffnen der Ventile drucklos machen!!!
Diese Arbeiten sollten nur vom geschulten Personal der Firmen NitroCyl oder MSPN durchgeführt werden.
Bei unsachgemäßem Einsatz von Gasdruckfedern oder Systemen drohen Gefahren für:
• Gesundheit
• Werkzeuge oder Pressen
was mit hohen Kosten verbunden sein kann.

Anwendung/ Einbau
Gasdruckfedern dürfen nur mit handelsüblichem Stickstoff befüllt werden. Der Befüll-Druck liegt bei min. 20 bar und max. 150/180 bar bei einer Raumtemperatur von 20 °C. Der max. Druck darf nicht überschritten werden, da sonst keine Gewährleistung für die Sicherheit und Standzeit der Gasdruckfedern gegeben ist. Auch sollte die max. Arbeitstemperatur von 80 °C nicht überschritten werden.
Hohe Temperaturen wirken sich negativ auf die Dichtungen aus und minimieren so die Standzeit.

NitroCyl-Gasdruckfedern sollten über das Bodengewinde oder Flansche sowie Haltestücke befestigt werden. Werden Gasdruckfedern in Aufnahmebohrungen / Kavitäten eingebracht, so sollte der Aufnahmedurchmesser nur ca. 1 mm größer als der Feder-Außendurchmesser sein, um so unerwünschtes Kippen auszuschließen. Wird eine Gasdruckfeder mit einem kleineren Körperdurchmesser in einen größeren Bohrungsdurchmesser eingebaut und nicht befestigt, so muss eine Ausgleichshülse über die Federn geschoben werden. Die Tiefe der Aufnahmebohrung / Kavität sollte ca. 85 % der Körperlänge nicht unterschreiten.

Die Kolbenstange der Gasdruckfeder sollte vor Schmutz und mechanischer Beschädigung geschützt werden. Es ist auch darauf zu achten, dass ein Überfluten der Gasdruckfeder mit Öl / Ziehemulsion vermieden wird. Das Überfluten kann durch Einbringen von Drainage-Bohrungen / -Kanälen vermieden werden.
Auch muss darauf geachtet werden, dass die Kolbenstange der Gasdruckfeder bei Entlastung nicht ungebremst zurückschnellt. In diesem Fall können innere Bauteile zerstört werden.

Der Einbau der Gasdruckfedern im Werkzeug oder in der Presse muss immer parallel zur Krafteinleitung erfolgen. Ebenso muss die Gasdruckfeder, die Auflagefläche für Zylinderflansche und die betätigte Kontaktfläche im rechten Winkel zur Krafteinleitung stehen. Die beaufschlagten Kontaktflächen sollten eine ausreichende Härte aufweisen.

Das Gewinde in der Feder-Kolbenstange darf nicht benutzt werden, um die Federn zu fixieren, z. B. um die Gasdruckfeder mit dem Werkzeug der Abstreiferplatte zu verschrauben. Es können hierdurch seitliche Kräfte auftreten, was zu Beschädigungen an Dichtungen und Kolbenstange führt. Dies hätte eine Verringerung der Standzeit zur Folge. Das Kolbenstangen-Gewinde dient ausschließlich Wartungs- und Reparaturarbeiten.

Nach Möglichkeit sollte eine 10 %ige Hub-Reserve berücksichtigt werden.

Maximale Kolbengeschwindigkeit: 0,5 / 1,6 / 2,0 m/sec (Gasdruckfeder-Typen abhängig).

[NC]

[23.01.2020]

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[operatinginstructions]

NitroCyl Gas Springs

Assembly, Maintenance, Safety

The careful selection of gas springs and corresponding components during the design phase reduces cost and eliminates possible problems, and thereby ensures a reliable performance of dies and presses during production.

Safety:
Gas springs are high-charged pressure devices with a max. pressure of 150 bar (in some cases 180 bar max. !!). Repair and maintenance must only take place after the unit(s) have been unloaded and unpressured!
This happens through opening of the filling- / bleeding - valve of any given system.
Any repair or maintenance work should only be handled by skilled technicians of MSP-N, or people at the customer's plant that have been specifically trained for these tasks by MSP-N - technicians.
If not handled 100% accurately, there are dangerous threats for the health (possibly life !!!) of the people involved, as well as potentially for dies and presses.

Assembly:
Gas springs may only be charged with Nitrogen. The pressure ranges between 20 and 150 bar (in some cases 180 bar max. !!) at room temperature (20 °C). The maximum nominal pressure must not be exceeded, since safety and operating lifetime will suffer and cannot longer be guaranteed. Additionally, the working temperature should not exceed 80 °C, since higher temperatures have a negative impact on the lifetime of the seals.

NitroCyl gas springs should be mounted using bottom threads, flanges or clamps. If put in cavities, the corresponding diameter should be only 1 mm larger than the spring OD to avoid tilting. If a gas spring with a smaller diameter needs to be put into a cavity with a larger OD and is not mounted, a compensating sleeve may be used. The depth of the cavity should - if possible - be at least 85% of the gas spring body-length.
The gas spring rod should be protected from dirt and mechanical damage. A „flooding" of the gas spring with oils or similar fluids must be avoided. If needed, drain-holes have to be provided.

It has to be kept in mind, that the rods must not return into 0-Position at full speed, which can destroy internal components.

Gas springs have to be mounted in dies and presses parallel to the direction of the force - application. At the same time the flange-flats and the attached surfaces - which should have a sufficient hardness - need to be at an angle of 90° to the force-application.

It is prohibited to use the thread in the rod to fix the gas spring, f. e. to connect the spring to a stripper plate. Since this mounting could result in side load forces, the rod itself and seals could be damaged, thereby reducing lifetime.
The rod-thread is meant for maintenance - purposes only.

A 10% stroke-buffer should be considered (min. 3 mm).

The maximum rod-speed, depending on the gas-spring family, of 0,5 / 1,6 or 2,0 m/sec. needs to be respected.

Information
Information
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

NitroCyl

Konformitätserklärung

NitroCyl - Gasdruckfedern

ZUGELASSEN PED 2014/68/EU

EU KONFORMITÄTSERKLÄRUNG

ausgestellt gemäß: der Druckgeräte-Richtlinie PED 2014/68/EU

Wir erklären hiermit die Übereinstimmung der nachstehend beschriebenen Produkte mit der Druckgeräte-Richtlinie PED 2014/68/EU gemäß folgender Konformitäts-Bewertung:

- Modul A
  „Interne Fertigungskontrolle".

  Modul A2:
  „Interne Fertigungskontrolle mit Überwachung der Abnahme", zertifiziert vom TÜV SÜD ATISAE als befugte technische Prüforganisation (Zertifizierungsstelle Nr. 0053).

Produktbeschreibung:

Gasdruckfedern zum Einbau in Werkzeuge oder Maschinen.

NitroCyl S.A. C/Arriurdina 1 E-01015 VITORIA -SPANIEN

NitroCyl

Declaration of Conformity

NitroCyl - Gas Springs

APPROVED PED 2014/68/EU

EU DECLARATION OF CONFORMITY

Issued in accordance with the Pressure Equipment Directive 2014/68/EU

We hereby declare that in the compliance with the above Directive, the products detailed below have been designed and manufactured in accordance with the following conformity assessment:

- Module A
„Internal production control“.

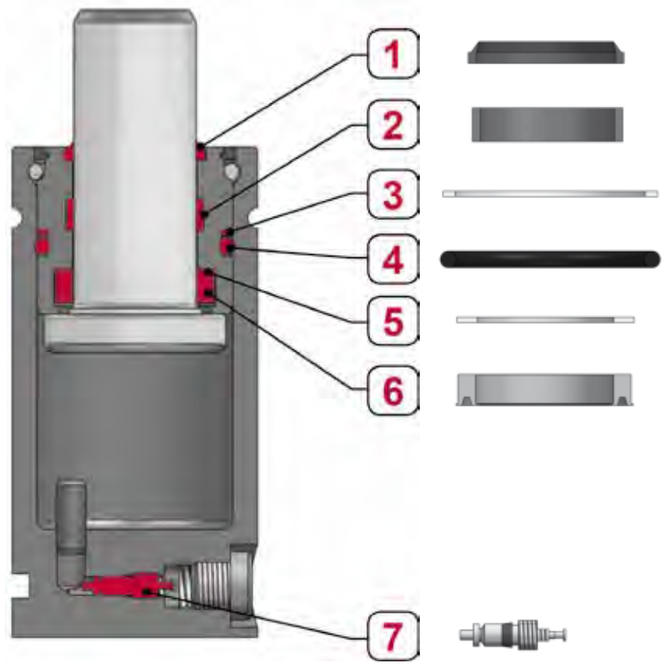
- Module A2
„Internal manufacturing checks with monitoring of the final assessment“
as approved by ATISAE (Notified Body No. 0053).

Product description: Gas Springs, intended for installation in a tool or machine.

NitroCyl S.A. C/Arriurdina 1 E-01015 VITORIA -SPANIEN

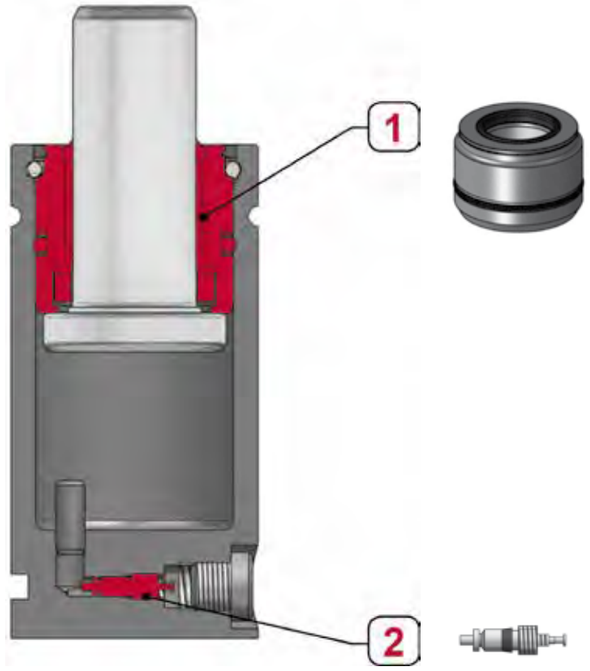
Information
Information
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Dort, wo in Werkzeugen, Maschinen oder sonstigen Vorrichtungen Federelemente aus Stahl, Elastomere oder Gummi aufgrund ihrer Größe nicht unterzubringen sind, bieten sich die äußerst kompakten autonomen NitroCyl-Stickstoff-Federsysteme an. Die Federn werden nach strengen Qualitätskriterien und entsprechend den üblichen Sicherheitsvorschriften gefertigt.
Durch einen speziell konstruierten Kolbenkopf wird gewährleistet, dass bei defekten oder beschädigten Federn ein Herausschleudern der Kolbenstange aus dem Federkörper verhindert wird.
Die autonomen Gasdruckfedern sind mit einem eigenen Speicherraum für handelsüblichen Stickstoff ausgestattet und benötigen keinen zusätzlichen Speichertank. Sollte es nötig sein, können die Federn durch Schläuche miteinander verbunden und über eine Kontrollarmatur befüllt werden.
Alle Gasdruckfedern werden, soweit nicht anders angegeben, mit einem max. Fülldruck von **150/180/200 bar** ausgeliefert. Aus Gründen der Sicherheit sollte ein Fülldruck von 20 bar nicht unterschritten werden, da sich die Dichtsysteme verändern und Undichtigkeiten auftreten können.



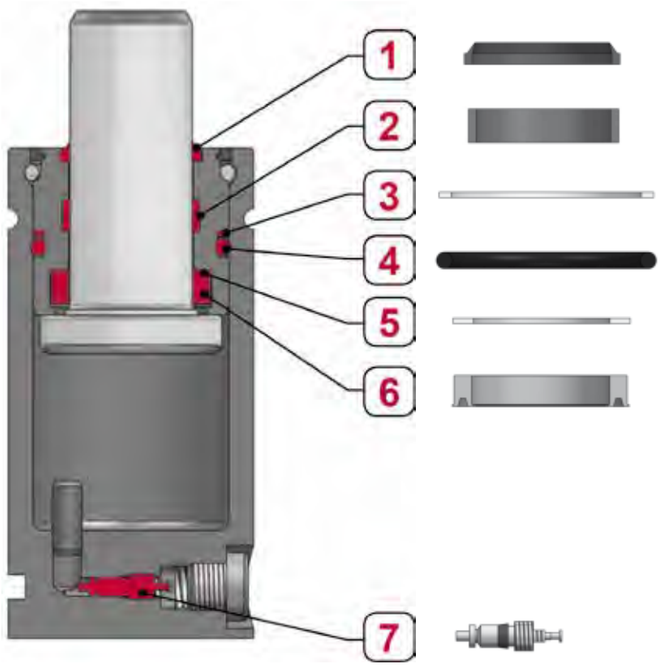
Zusatzinformation:
- Beim Einbau sollte die Rechtwinkligkeit zwischen Federkörper und Grundfläche auf jeden Fall angestrebt werden, wenngleich der Federkörper auftretende Seitendrücke aufgrund einer Winkelabweichung der Kolbenstange von 1-2° im Normalfall absorbieren kann.
- Bei exaktem Einbau und unter Berücksichtigung aller Kriterien kann von einer langen Lebensdauer ausgegangen werden.
- Die Federauslegung sollte so erfolgen, dass die Kolbenstange nicht permanent über den maximalen Hub fährt. In diesem Fall wäre die Wahl der nächstgrößeren Hublänge sinnvoll.

Hinweis:
Bei Verschlauchung empfehlen wir ausschließlich Gasdruckfedertypen mit Anschlussgewinde G1/8“ zu verwenden.



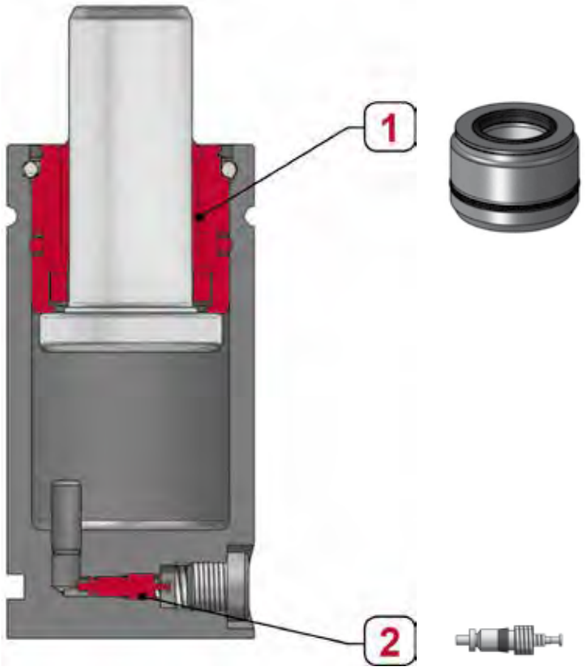
[23.01.2020]
[23.01.2020]

Wherever in dies, machines and fixtures mechanical springs made out of steel, urelast or rubber cannot (because of their size) be accommodated, NitroCyl gas springs present themselves as a perfect alternative.
They are manufactured using the latest production technologies and with high technical and safety standards.
The design of the lower rod avoids the ejection of the rod itself in case of a defect or damage.
The stand-alone gas springs have their own nitrogen-storage built in and do not need any additional external tanks.
If needed / wanted, they can be hosed together and charged via a control panel.
The charging pressure at 20 ºC is 150 bar, exceptions to run at 180 and 200 bar.
For safety reasons, a minimum pressure of 20 bar should be kept at all times, since otherwise the sealing system may change up to a point of unreliability.



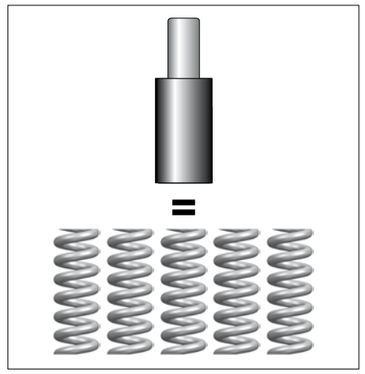
Additional information:

- It has to be ensured, that the gas spring does not overstroke. If there seems to be a possibility for that scenario, the next longer stroke-length must be used.
- Although usually the gas spring can absorb a non-perpendicularity of 1-2 degrees. During assembly it is important to align the gas spring body under an as-exact-as-possible 90º angle to the mounting, parallel surface.
- If the instructions are followed, a long service life can be assumed. For exact, gas-spring-specific information please contact our technical support.
- In case gas springs need to be hosed together, we recommend using G1/8 - threads only.



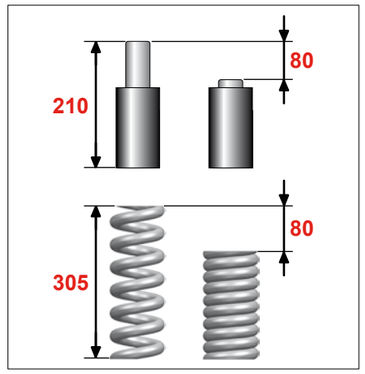
[23.01.2020]
Information
Information
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Beansprucht weniger Platz, Höhe und Volumen



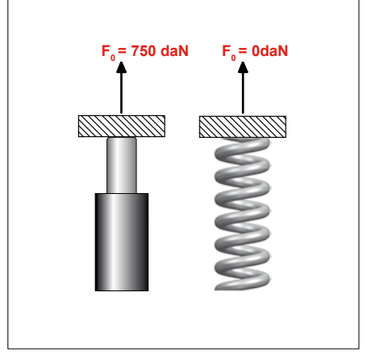
Reduction of surface area used, height, and volume occupied.

Im Allgemeinen beträchliche Verminderung der Höhe bei gleichem Hub und gleicher Kraft. Kompaktere Werkzeugkonstruktion möglich.



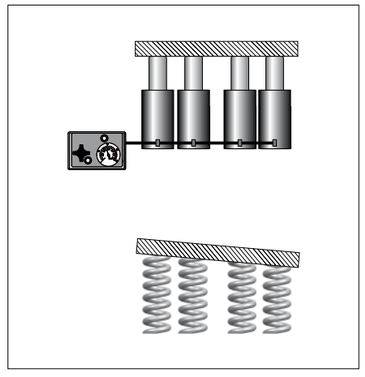
Considerable height reduction for the same work stroke and force. Compact tool construction possible.

Kein Bedarf an Vorrichtungen für Vorspannen, Führung und Aufnahme. Beseitigung der Vorspannung.



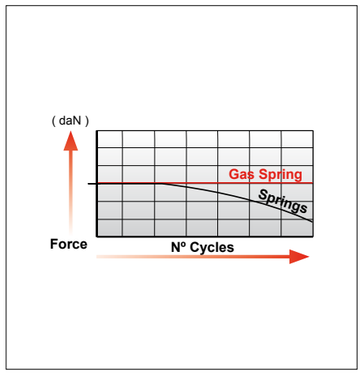
Considerable reduction of retaining devices to preload. No preload required.

Stets ausgeglichene und gleichförmige Kraft an allen Kontaktpunkten. Ständige Sichtanzeige des Betriebsdrucks.



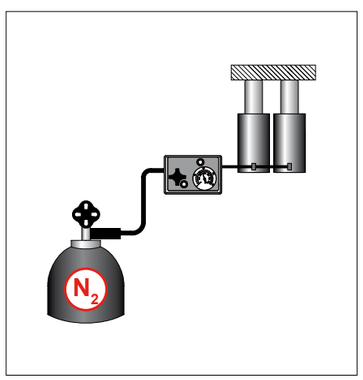
Always the same force on each contact point. System may be continually pressure monitored.

Bessere Kontrolle des Werkstücks während der Phasen des Formens und des Ziehens. Bessere Qualität der fertigen Werkstücke. Weniger Ausschuss.



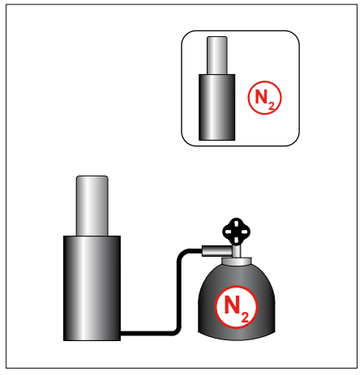
Controlled production conditions on sheet metal parts during forming and drawing operations. Less rejection of final products.

Anpassung der Zylinder an die effektiv erforderliche Kraft. Gewissheit der definierten Kräfte. Verwendung desselben Zylinders für unterschiedliche Arbeiten.



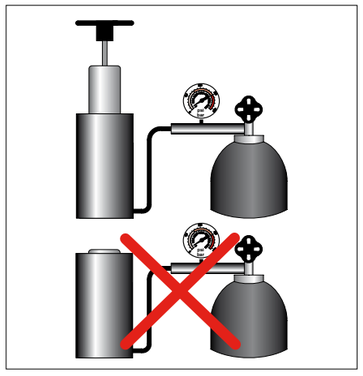
Gas springs adjustable to provide the real forces required. Assurance of defined forces. The same cylinder may be re-used for different applications.

Gasdruckfedern dürfen nur mit Stickstoff (N_2) gefüllt werden.



Charge only with NITROGEN (N_2).

Befüllung der Gasdruckfeder nur bei voll ausgefahrener Kolbenstange.

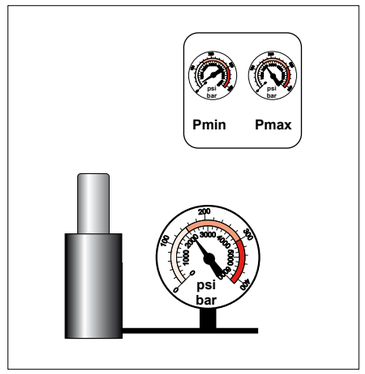


Never fill a gas spring when the piston rod is not fully extended.

[23.01.2020]

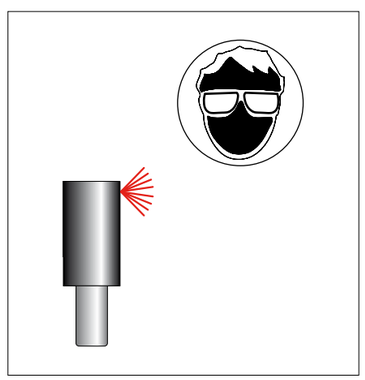
[23.01.2020]

Befüllen Sie die Gasdruckfedern nur zwischen dem zulässigen Maximal- und Minimal-Druck.



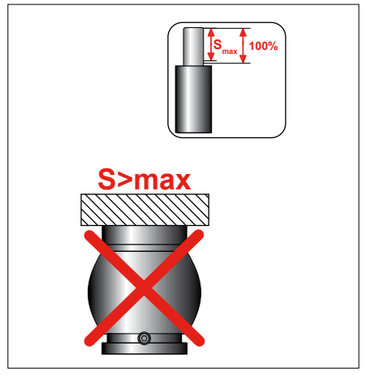
Only charge the gas springs within the allowed pressure-ranges.

Beim Entladen Ventil nicht auf Personen richten.



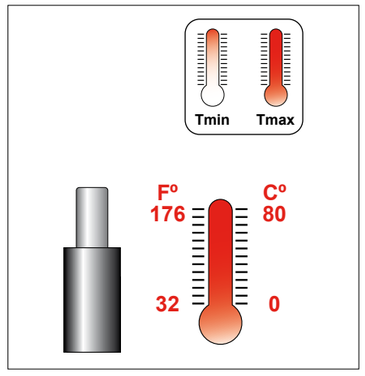
When discharging a gas spring point the gas flow away from operator or anybody else.

Es wird empfohlen, eine 10%ige Hubreserve einzuplanen. Ein Überhub führt zur Zerstörung der Gasdruckfeder mit großen Risiken für Gesundheit und Leben von Personen.



Maximum recommended stroke 90%. Overstroke would cause damages to the cylinder and jeopardize health and even life of people.

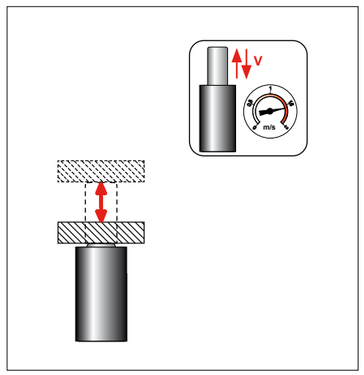
Arbeitstemperatur



Operating temperature

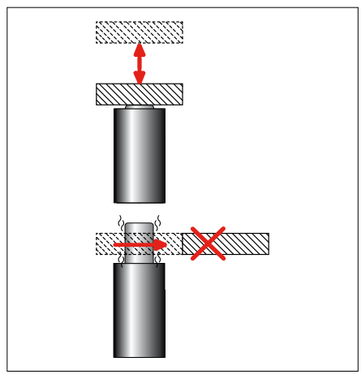
[NC]

Überschreiten Sie nicht die maximal zulässige Kolbengeschwindigkeit.



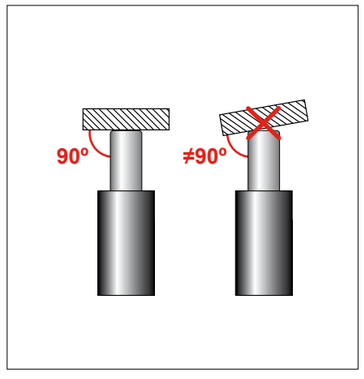
Do not exceed the maximum allowed rod speed.

Ein freier Rückhub muss vermieden werden, um Beschädigungen an der Gasdruckfeder zu vermeiden.



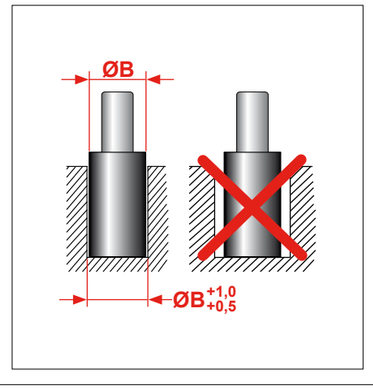
Avoid free release of the piston rod, this would cause damages to the gas spring.

Es dürfen keine seitlichen Kräfte auf die Gasdruckfedern wirken, da sich sonst die Lebensdauer wesentlich verringert.



Gas springs must always work completely perpendicular to the contact surface. Side loads increase wearing and reduce life expectancy.

Werden Gasdruckfedern in Kavitäten eingebaut, so sollte der Bohrungs-Ø nur 1 mm größer als der Federdurchmesser sein.

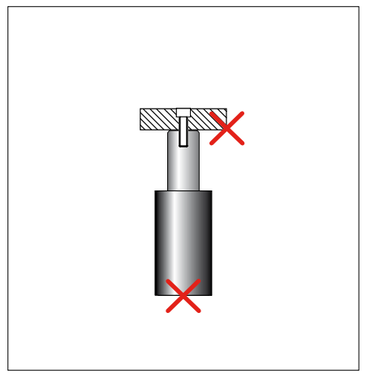


When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter.

[23.01.2020]

[23.01.2020]

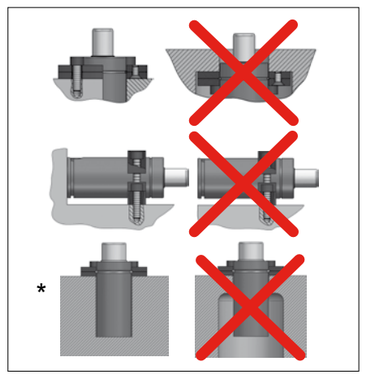
Das Gewinde in der Kolbenstange dient nur zu Wartungsarbeiten und darf nicht zur Befestigung der Gasdruckfeder benutzt werden.
Das Mittengewinde im Boden einiger Gasdruckfedern sollte unter Berücksichtigung möglicher Seitenkräfte - besonders bei langhubigen Federn - nur sehr selektiv für die Befestigung genutzt werden.
In jedem Fall müssen die Schraubenlängen so gewählt werden, dass das tiefer liegende Ventil nicht beschädigt wird.



Do not use the piston rod threaded hole for fixing the gas spring into the tool. This hole is only to be used for maintenance operations. The centre-thread in the bottom of these gas springs be used very carefully, especially taking possible side loads of long-stroke springs into account.
In any case: In order not to destroy the internal valve, the screw-lengths have to be given special consideration and selected carefully.

Die Fixierung der Gasdruckfeder sollte mit der vorgesehenen Befestigung erfolgen.

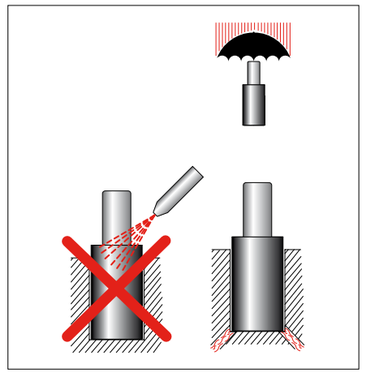
* Nur für den Fall eines zweiteiligen Zylinderkörpers



Fix the gas spring into the appropriate mount.

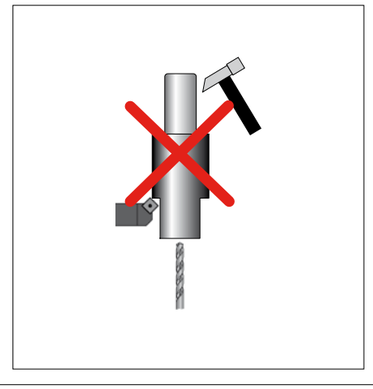
* Only applies in case of two-part body design.

Schützen Sie die Gasdruckfedern vor Kontakt mit festen oder flüssigen Verschmutzungen. Bei Einbau in Kavitäten müssen Drainage-Kanäle eingebracht werden.



Protect the gas springs from solid or liquid contaminants. Provide adequate drainage in gas springs pockets.

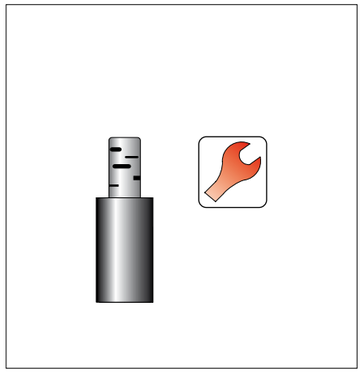
Schützen Sie die Gasdruckfeder insgesamt (besonders Körper und Kolbenstangen) gegen mechanische Beschädigung.



Avoid whatever impatct and do not perform any mechanical work on the gas spring body or piston rod.

[NC]

Gasdruckfedern mit Kratzern auf der Kolbenstangenoberfläche sollten ersetzt werden.



Gas springs with scratches on the piston rod surface should be replaced.

Arbeiten an den Gasdruckfedern dürfen ausschließlich von geschulten Mitarbeitern durchgeführt werden. Die technischen Hinweise, Vorgaben und Anweisungen von NitroCyl / MSPN müssen unbedingt und jederzeit befolgt werden.



Gas springs maintenance must be carried out only by skilled personnel, with the appropriate training, and always following the operating and service instructions from NitroCyl / MSPN.

Die meisten NitroCyl-Gasdruckfedern können durch Verschlauchung in einem Verbundsystem arbeiten. Das erleichtert das Steuern, Ablesen und das Anpassen des Druckes.



Most of NitroCyl gas springs can be used into linked systems. Linked systems allow users to easily monitor, control and adjust pressure.

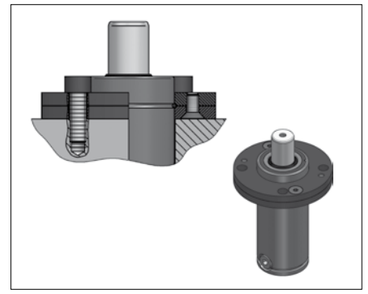
Die Bestimmungen der Druckgeräte-Richtlinie (2014/68/EU) sind besonders zu beachten. NitroCyl empfiehlt, die Gasdruckfedern nach 2 Millionen Hüben, spätestens nach 10 Jahren, zu ersetzen.



Follow the regulation related to the pressure equipment devices 2014/68/EU as for inspection and safety of gas springs. NitroCyl recommend to replace gas springs after 2 million strokes.

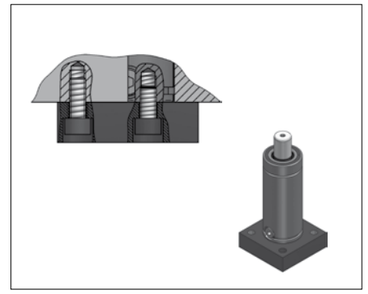
Information
Information
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Oberer runder Nut-Flansch



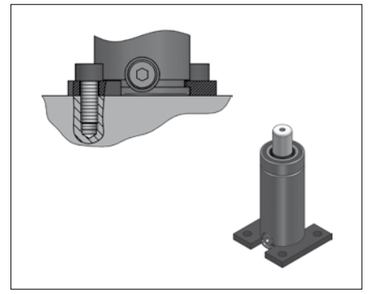
Upper round groove flange

Untere Befestigungsplatte



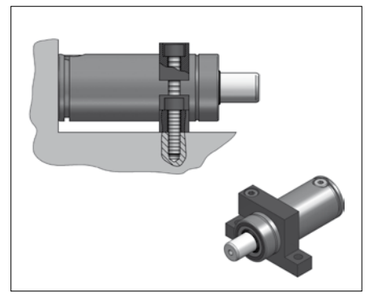
Bottom mount plate

Unterer quadratischer Nut-Flansch



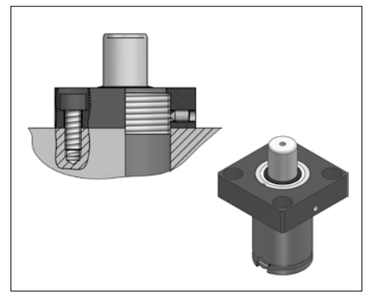
Lower square groove flange

Stütz-Flansch



Support mount

Körpergewinde-Flansch

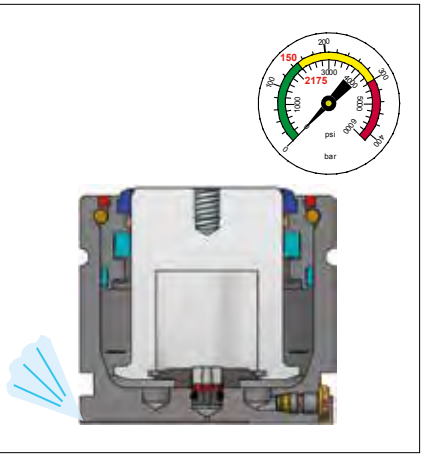


Threaded body flange

Überdruck



Wird durch Anwendungsfehler der maximale Fülldruck überschritten, aktiviert sich automatisch das SP-Sicherheitssystem. Die Feder wird drucklos und damit ein Bersten verhindert.

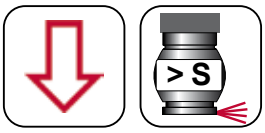


Over-Pressure

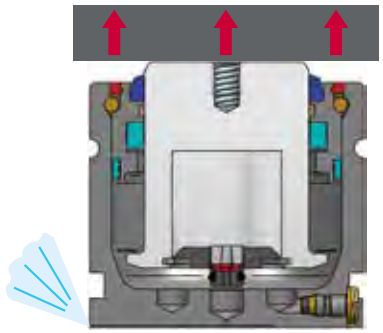


In case the maximum allowed charging pressure is exceeded, the safety system SP is activated, depressurizes the gas spring and prevents an uncontrolled bursting of the spring.

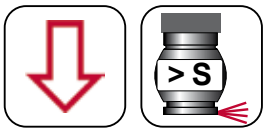
Überhub



Überschreitet der Anwender den maximal zulässigen Hub, entlädt das SS-Sicherheitssystem die Gasdruckfeder komplett und vermeidet so Schäden durch Bersten oder herausschießende Teile.

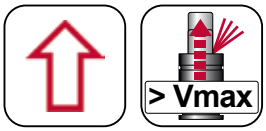


Over-Stroke

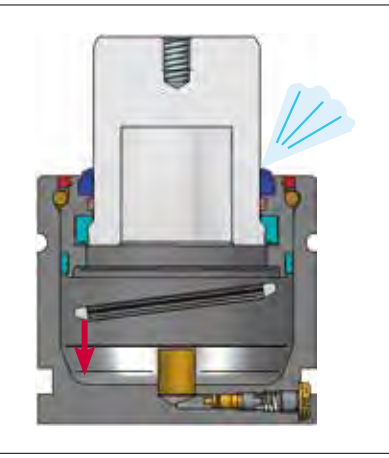


If the maximum allowed stroke is exceeded, the safety system SS unpressurizes the gas spring completely, thereby preventing damages through bursting and / or ejecting parts and components.

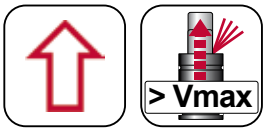
Freier Rückhub



Kommt es durch unsachgemäße Behandlung der Gasdruckfeder zu einem Festklemmen der Kolbenstange, verhindert das SV-Sicherheitssystem ein Herausschießen der Kolbenstange, die Gasdruckfeder wird kontrolliert druckentleert.

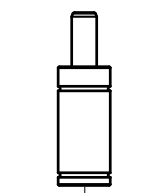


Over-Speed

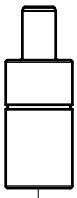


If due to an inappropriate handling the piston rod is first jammed and afterwards released to return at high speed, the SV Safety System makes sure, that the rod cannot blast out of the gas spring body. The spring is automatically and safely discharged.

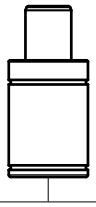
Größenübersicht Serie NC.010.00



NC.010.00.00200.2
200 daN
7 - 100 mm
Ø25

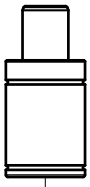


NC.010.00.00300.2
300 daN
7 - 125 mm
Ø32



NC.010.00.00500
470 daN
10 - 125 mm
Ø38

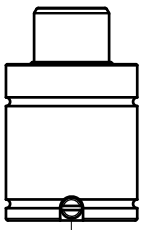
Gas spring index NC.010.00 series



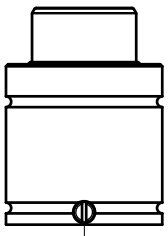
NC.010.00.00700
712 daN
10 - 125 mm
Ø45



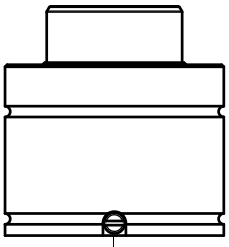
NC.010.00.01000.1
985 daN
10 - 125 mm
Ø50



NC.010.00.01500.1
1530 daN
12 - 125 mm
Ø63

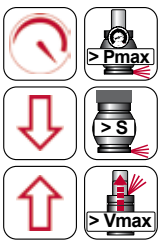


NC.010.00.03000
2945 daN
12 - 125 mm
Ø75



NC.010.00.05000
4980 daN
12 - 125 mm
Ø105

SICHERHEITSSYSTEME



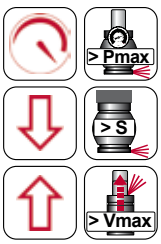
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

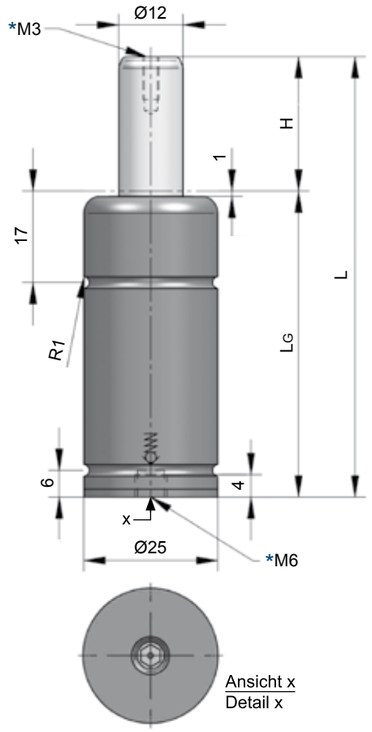
Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

[NC]

NC.010.00.00200...2



Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

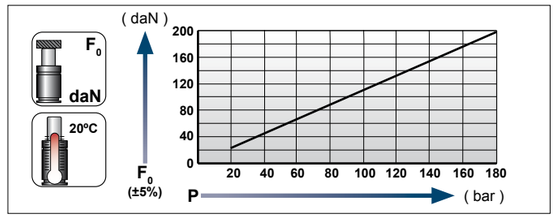
Specifications:

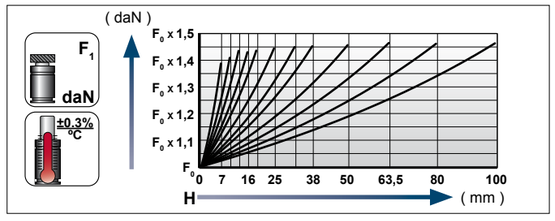
Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

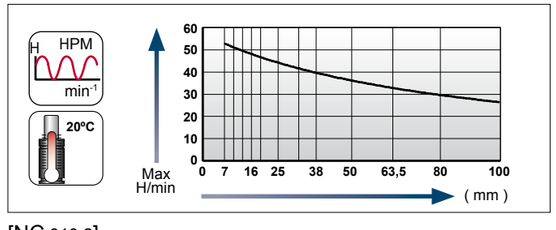
One-way spring is irreparable!

NC.010.00.00200.016.2

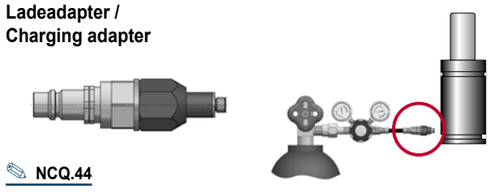
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (180 bar) Anfang / Initial [daN]	 Ende / Final [daN]
007	46	39	200	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	52	42	200	
012,7	57,4	44,7	200	
016	64	48	200	
019	70	51	200	
025	82	57	200	
032	96	64	200	
038	108	70	200	
050	132	82	200	
063,5	159	95,5	200	
080	192	112	200	
100	232	132	200	







Ladeadapter / Charging adapter

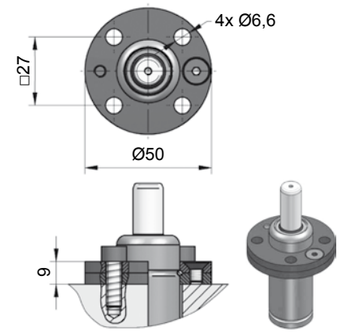


NCQ.44

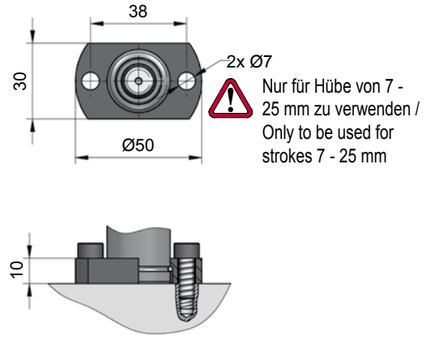
[20.01.2020]

GDF, niedrigbauend
GS, smaller height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

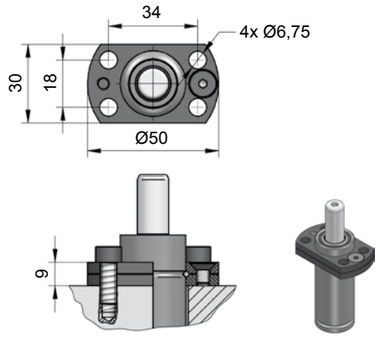
Flansche für / Flanges for **NC.010.00.00200…2**



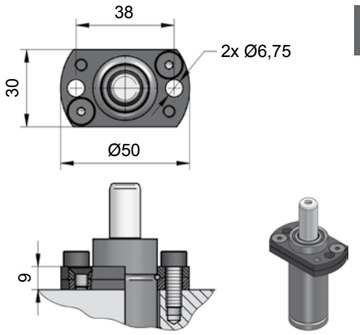
NC.88.00.025.0114



NC.88.00.025.0119



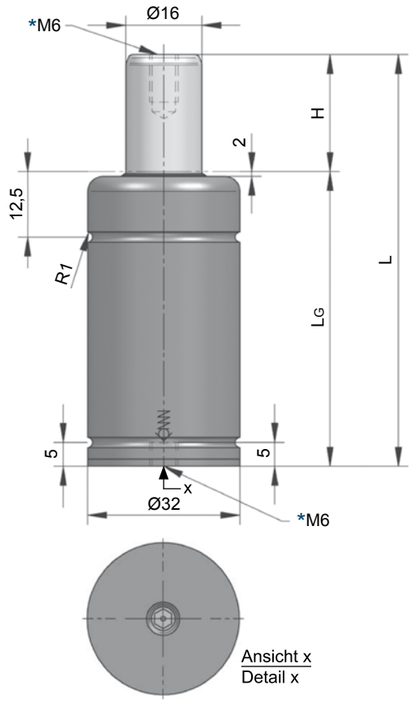
NC.88.00.025.0144



NC.88.00.025.0149

[20.01.2020]

NC.010.00.00300...2



Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

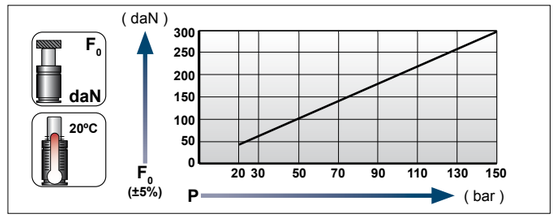
Specifications:

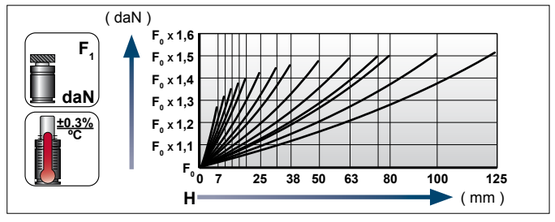
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

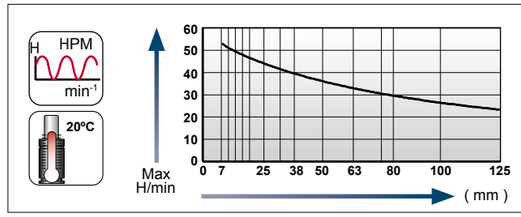
One-way spring is irreparable!

NC.010.00.00300.016.2

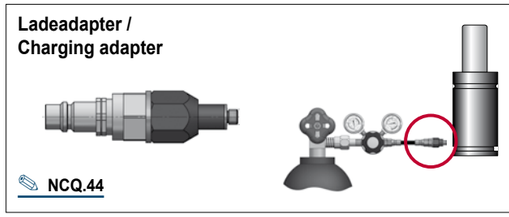
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
007	51	44	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	57	47	300	
013	63	50	300	
016	69	53	300	
019	75	56	300	
025	87	62	300	
032	101	69	300	
038	113	75	300	
050	137	87	300	
063	163	100	300	
075	187	112	300	
080	197	117	300	
100	237	137	300	
125	287	162	300	







Ladeadapter / Charging adapter

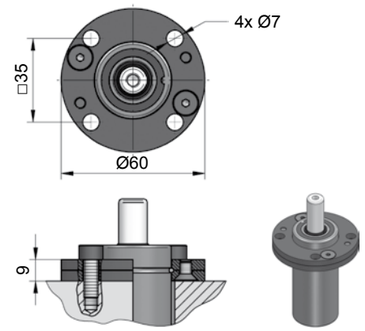


NCQ.44

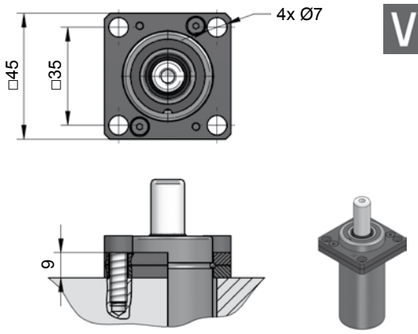
[20.01.2020]

GDF, niedrigbauend
GS, smaller height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

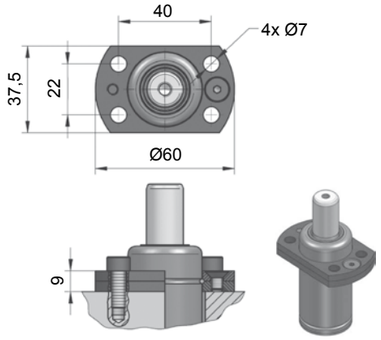
Flansche für / Flanges for **NC.010.00.00300…2**



NC.88.00.032.0114



NC.88.00.032.0134

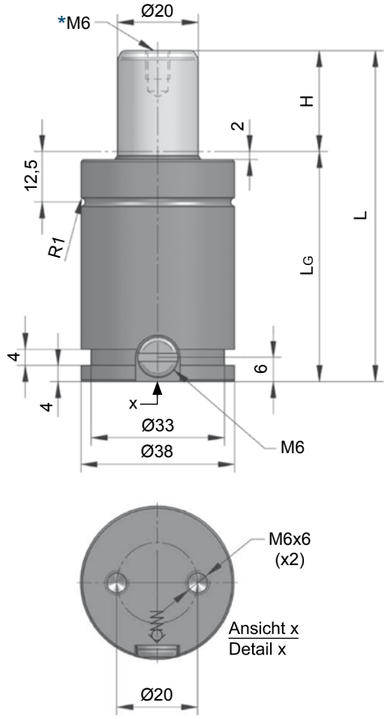


NC.88.00.032.0144

[20.01.2020]

[NC]

NC.010.00.00500



Technische Daten:

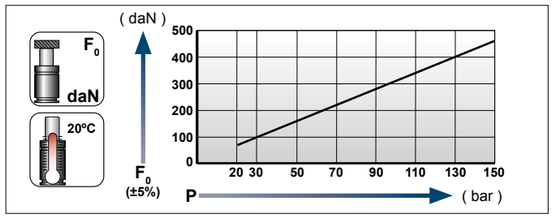
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

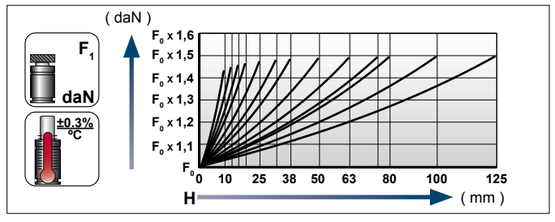
Specifications:

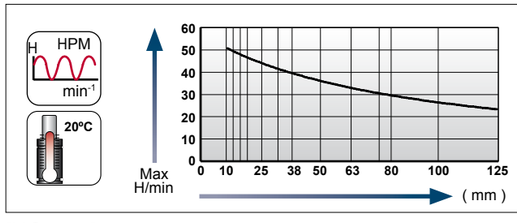
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.010.00.00500.025

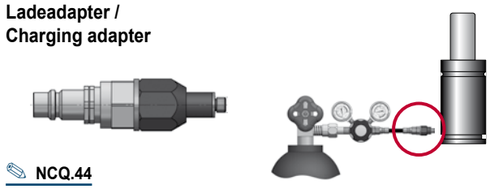
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (145 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	52	42	470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	58	45	470	
016	64	48	470	
019	70	51	470	
025	82	57	470	
032	96	64	470	
038	108	70	470	
050	132	82	470	
063	158	95	470	
075	182	107	470	
080	192	112	470	
100	232	132	470	
125	282	157	470	







Ladeadapter / Charging adapter

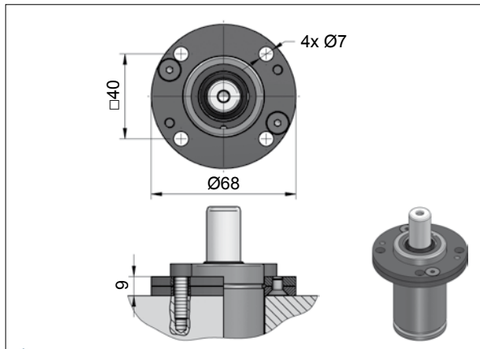


NCQ.44

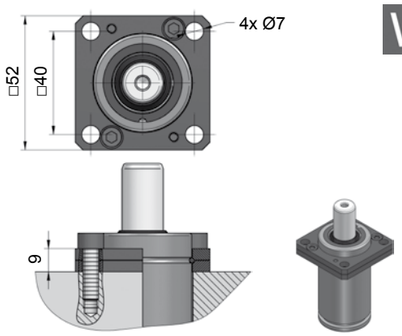
[20.01.2020]

GDF, niedrigbauend
GS, smaller height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

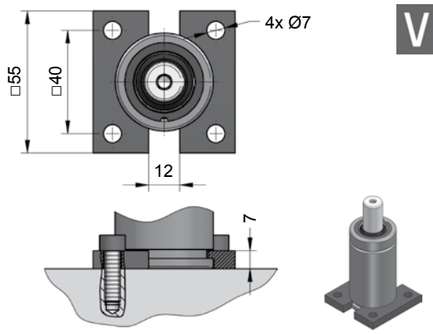
Flansche für / Flanges for **NC.010.00.00500**



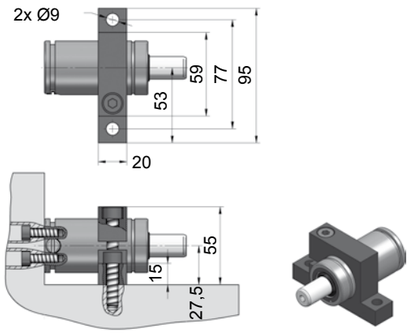
NC.88.00.038.0114



NC.88.00.038.0134



NC.88.00.038.0320

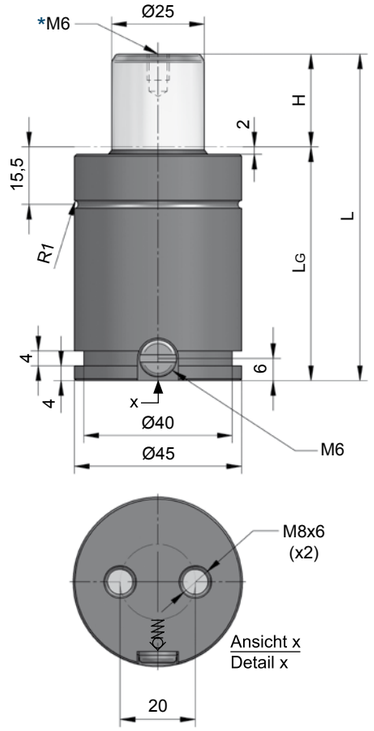


NC.88.00.038.0402

[20.01.2020]

[NC]

NC.010.00.00700



Technische Daten:

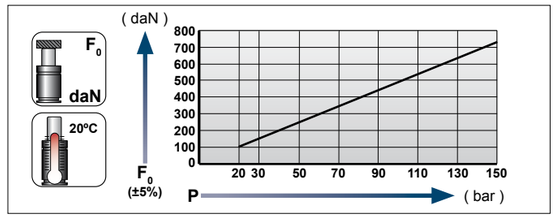
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

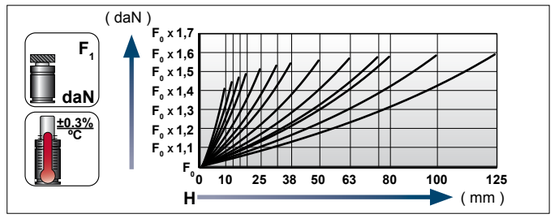
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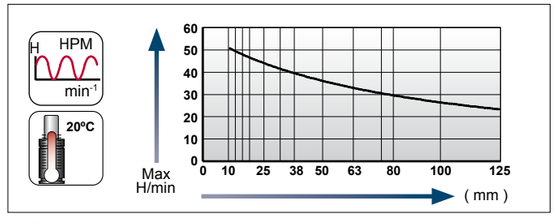
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.010.00.00700.025

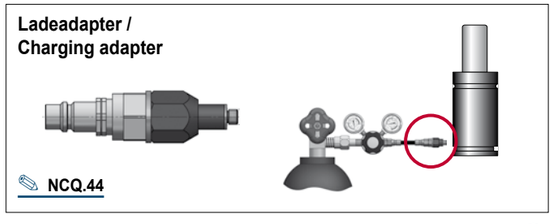
H Hub / Stroke	L ±0,25	LG	Kraft / Force (145 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	58	48	712	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	64	51	712	
016	70	54	712	
019	76	57	712	
025	88	63	712	
032	102	70	712	
038	114	76	712	
050	138	88	712	
063	164	101	712	
075	188	113	712	
080	198	118	712	
100	238	138	712	
125	288	163	712	







Ladeadapter / Charging adapter

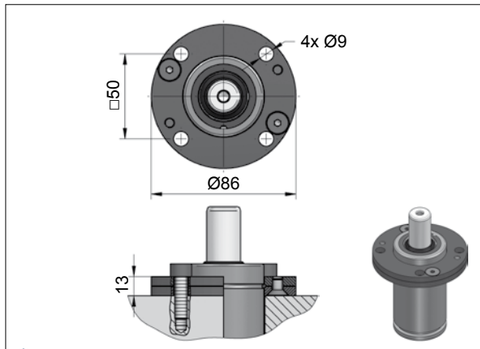


NCQ.44

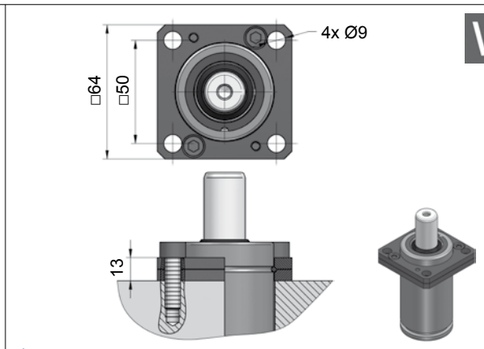
[20.01.2020]

GDF, niedrigbauend
GS, smaller height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

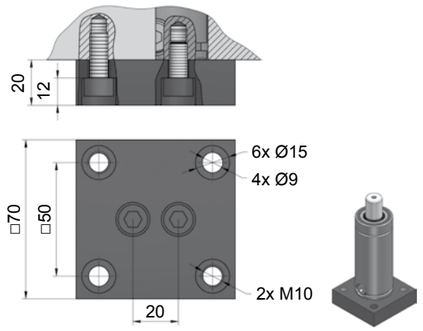
Flansche für / Flanges for **NC.010.00.00700**



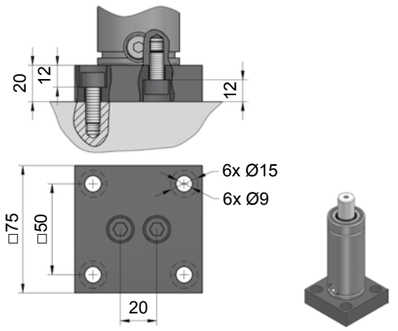
NC.88.00.045.0114



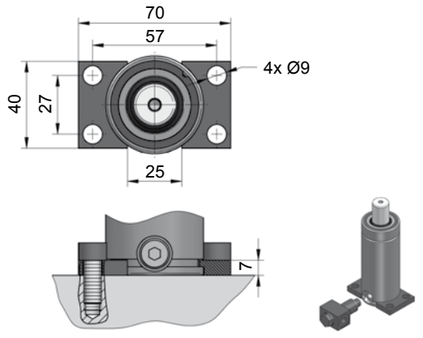
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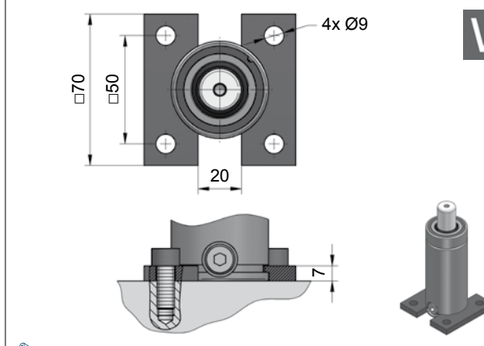
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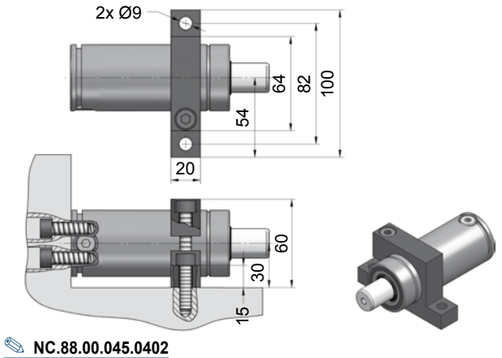
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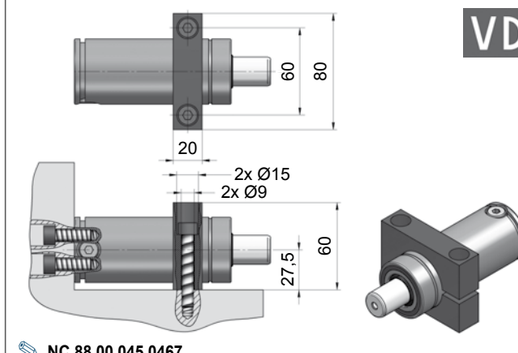
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NC.88.00.045.0320



NC.88.00.045.0402

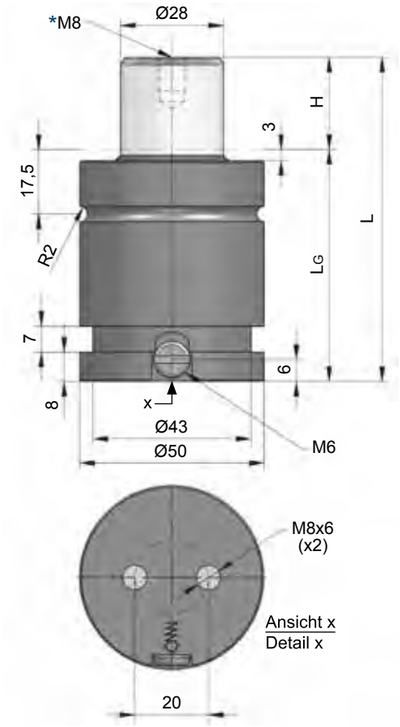


NC.88.00.045.0467

[20.01.2020]

[NC]

NC.010.00.01000...1



Technische Daten:

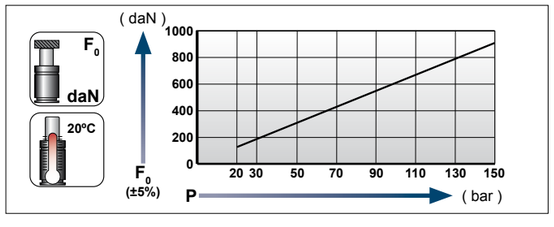
Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

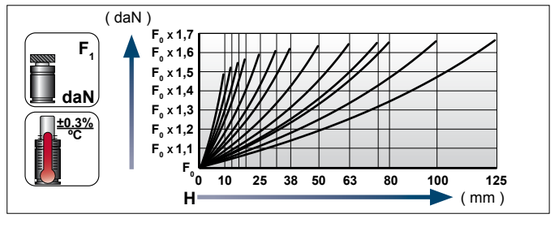
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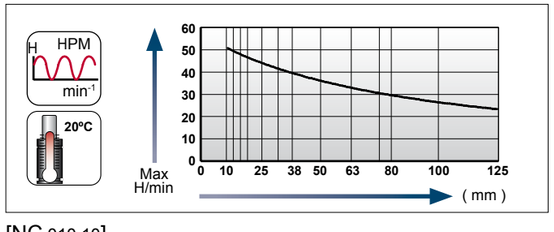
Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.010.00.01000.038.1

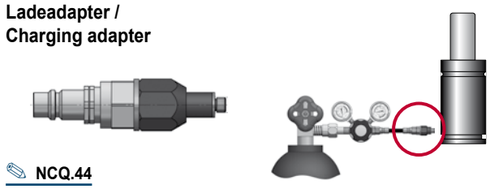
H Hub / Stroke	L ±0,25	LG	Kraft / Force (160 bar) Anfang / Initial [daN]	Kraft / Force (160 bar) Ende / Final [daN]
010	58	48	985	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	64	51	985	
016	70	54	985	
019	76	57	985	
025	88	63	985	
032	102	70	985	
038	114	76	985	
050	138	88	985	
063	164	101	985	
075	188	113	985	
080	198	118	985	
100	238	138	985	
125	288	163	985	







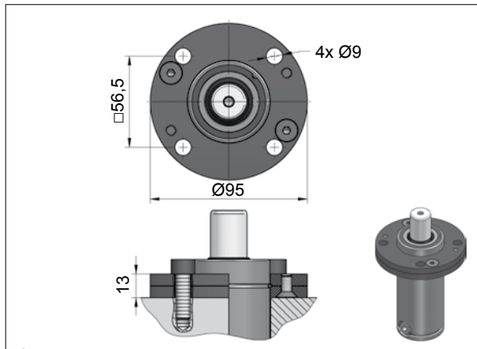
Ladeadapter / Charging adapter



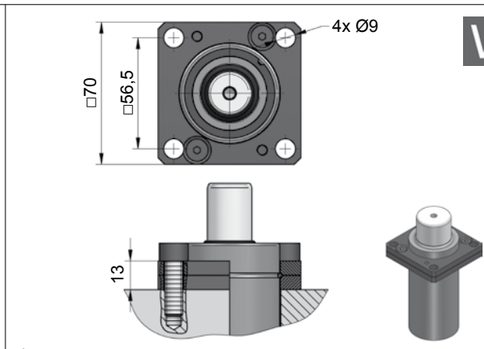
NCQ.44

[28.01.2020]
[20.01.2020]

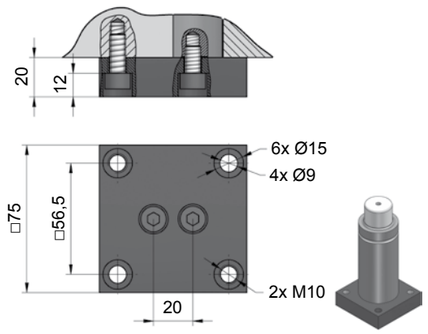
Flansche für / Flanges for **NC.010.00.01000...1**



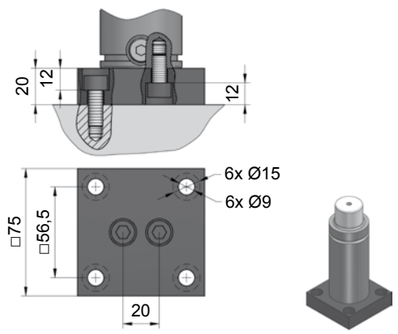
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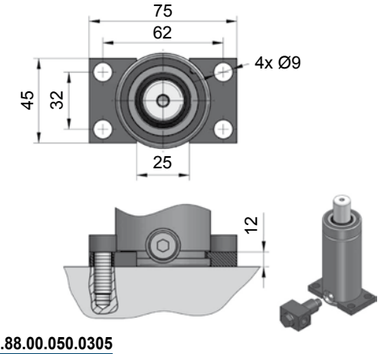
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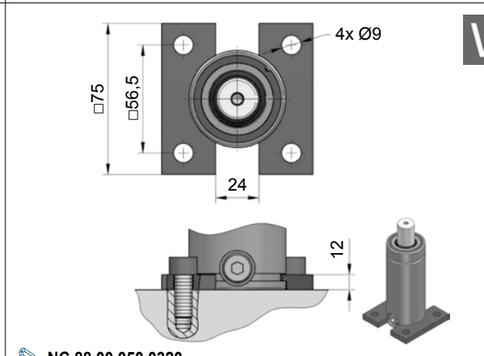
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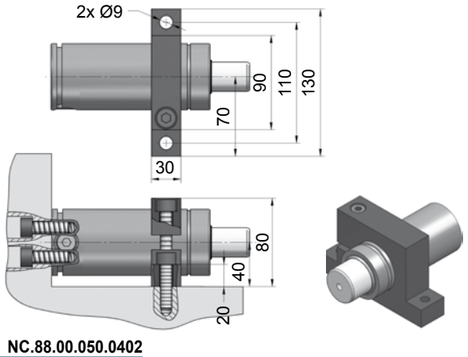
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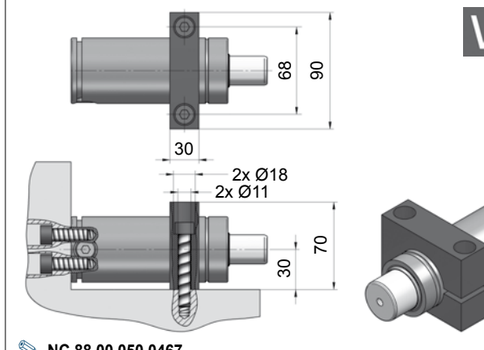
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NC.88.00.050.0320

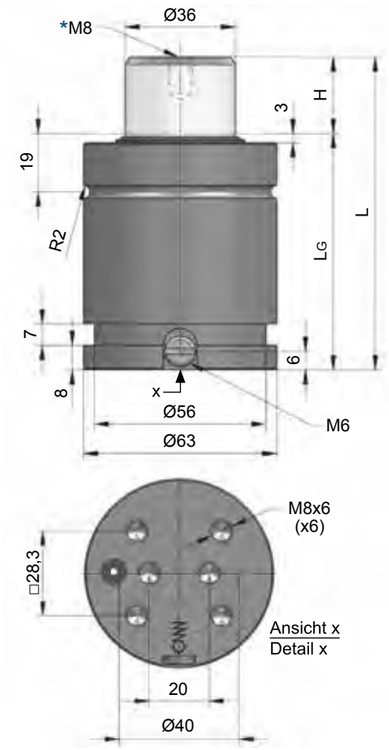


NC.88.00.050.0402



NC.88.00.050.0467

NC.010.00.01500...1



Technische Daten:

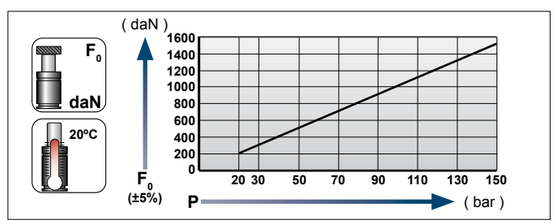
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

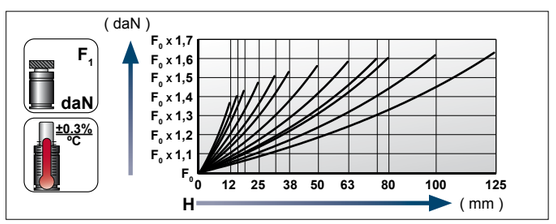
Specifications:

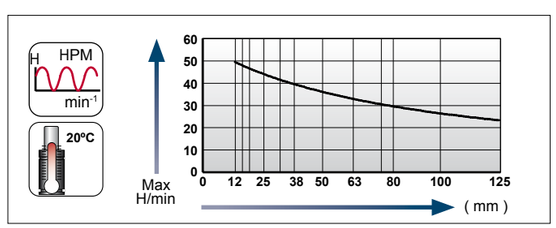
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.010.00.
01500.038.1

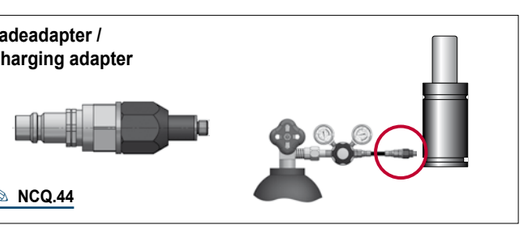
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
012	76	64	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	84	68	1530	
019	90	71	1530	
025	102	77	1530	
032	116	84	1530	
038	128	90	1530	
050	152	102	1530	
063	178	115	1530	
075	202	127	1530	
080	212	132	1530	
100	252	152	1530	
125	302	177	1530	







Ladeadapter /
Charging adapter



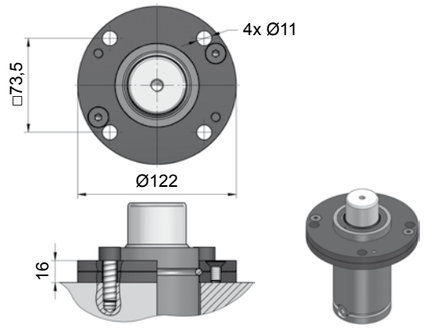
NCQ.44

[20.01.2020]

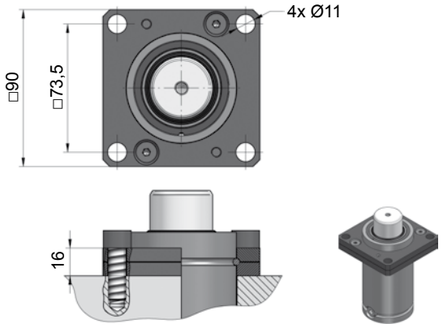
[20.01.2020]

GDF, niedrigbauend
GS, smaller height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.010.00.01500…1**

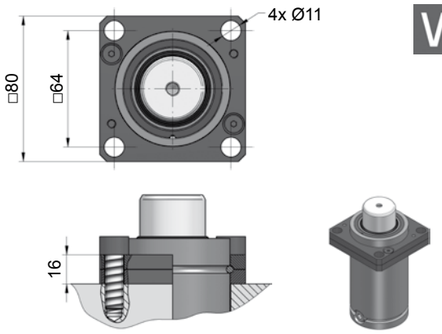


NC.88.00.063.0114

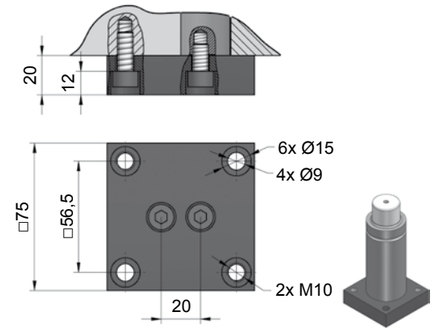


NC.88.00.063.0139

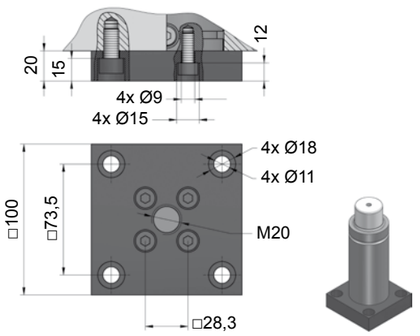
VDI



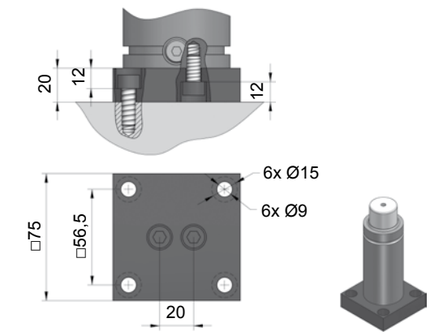
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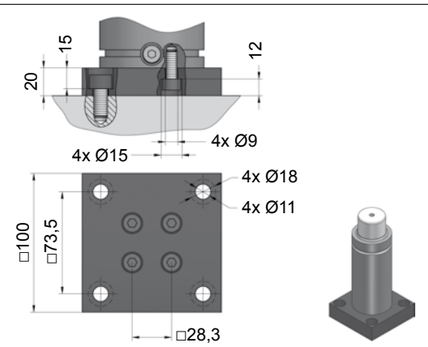
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NC.88.00.075.0236

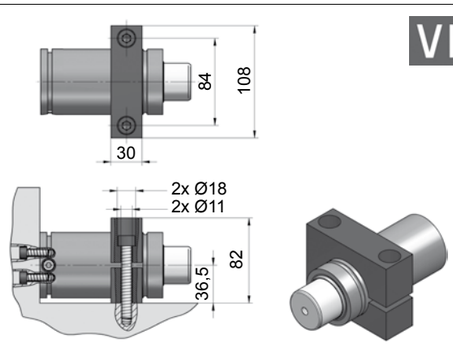


NC.88.00.063.0241



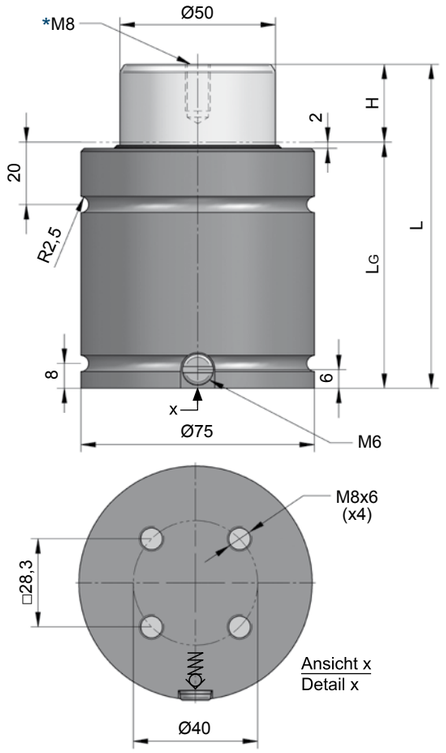
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VDI



NC.88.00.063.0467

NC.010.00.03000



Technische Daten:

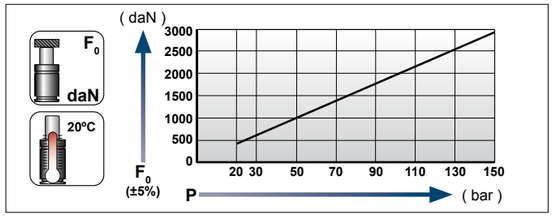
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

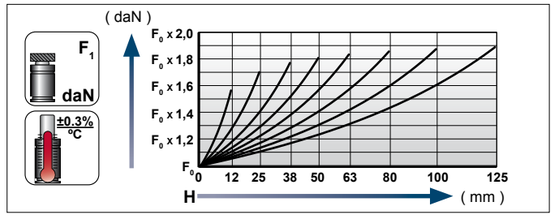
Specifications:

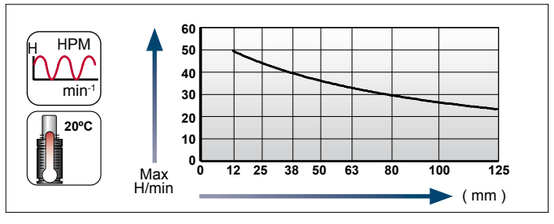
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.010.00.
03000.025

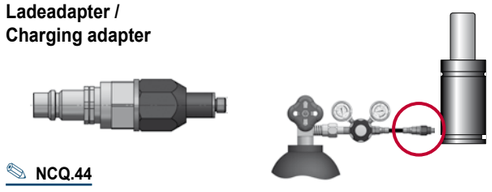
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
012	78	66	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	104	79	2945	
038	130	92	2945	
050	154	104	2945	
063	180	117	2945	
080	214	134	2945	
100	254	154	2945	
125	304	179	2945	







Ladeadapter /
Charging adapter



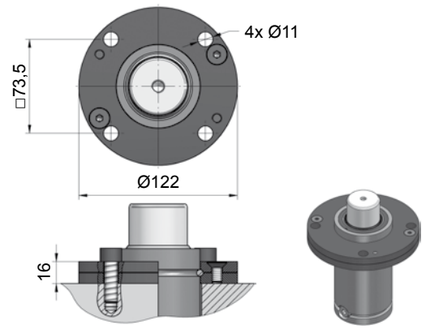
NCQ.44

[20.01.2020]

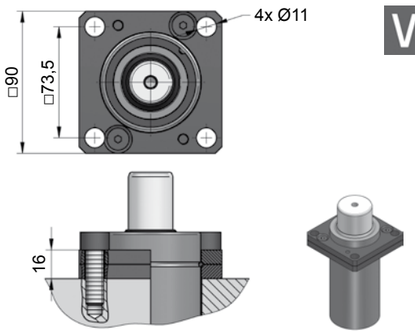
[20.01.2020]

GDF, niedrigbauend
GS, smaller height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

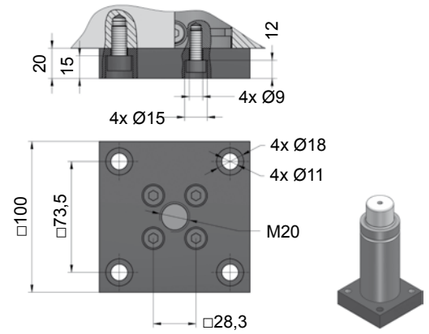
Flansche für / Flanges for **NC.010.00.03000**



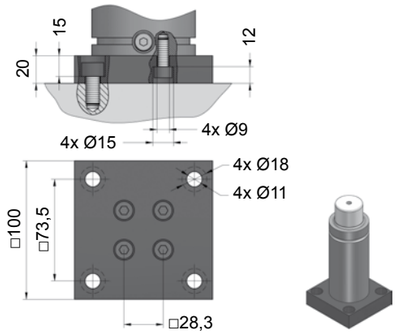
NC.88.00.075.0114



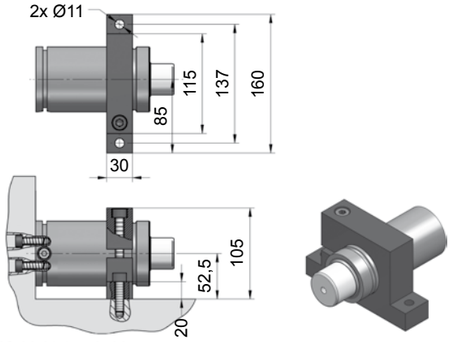
NC.88.00.075.0134



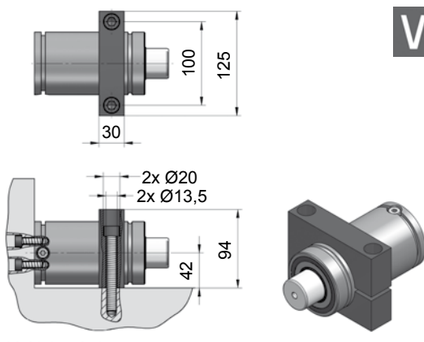
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NC.88.00.075.0241



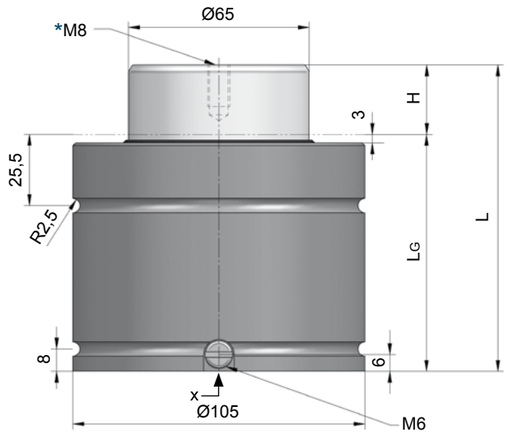
NC.88.00.075.0402

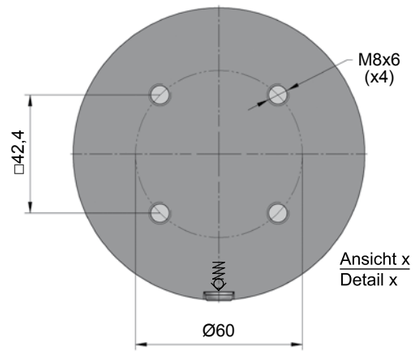


NC.88.00.075.0467

[NC]

NC.010.00.05000





Technische Daten:

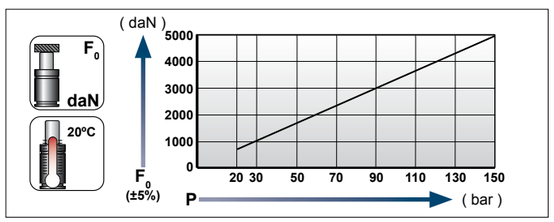
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

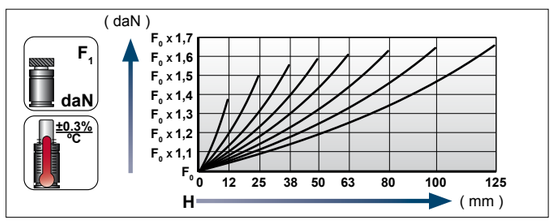
Specifications:

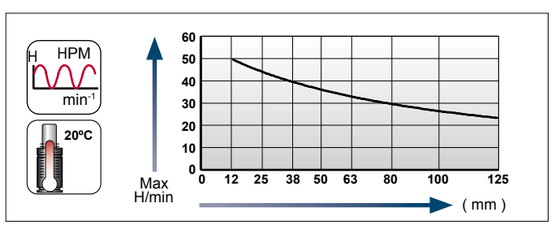
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.010.00.
05000.012

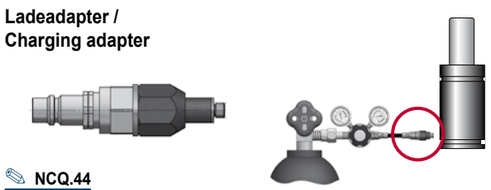
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
012	84	72	4980	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	110	85	4980	
038	136	98	4980	
050	160	110	4980	
063	186	123	4980	
080	220	140	4980	
100	260	160	4980	
125	310	185	4980	







Ladeadapter /
Charging adapter



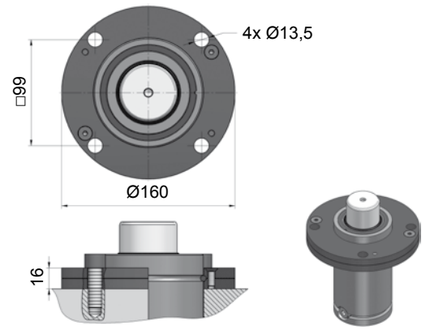
NCQ.44

[20.01.2020]

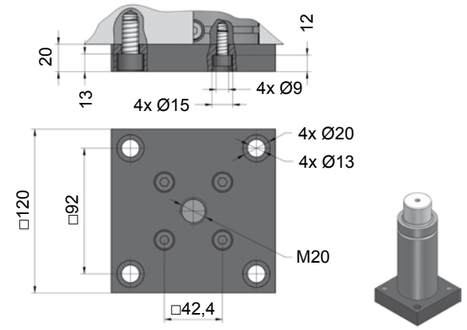
[20.01.2020]

GDF, niedrigbauend
GS, smaller height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

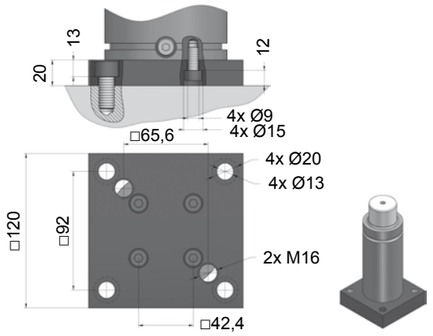
Flansche für / Flanges for **NC.010.00.05000**



NC.88.00.105.0114



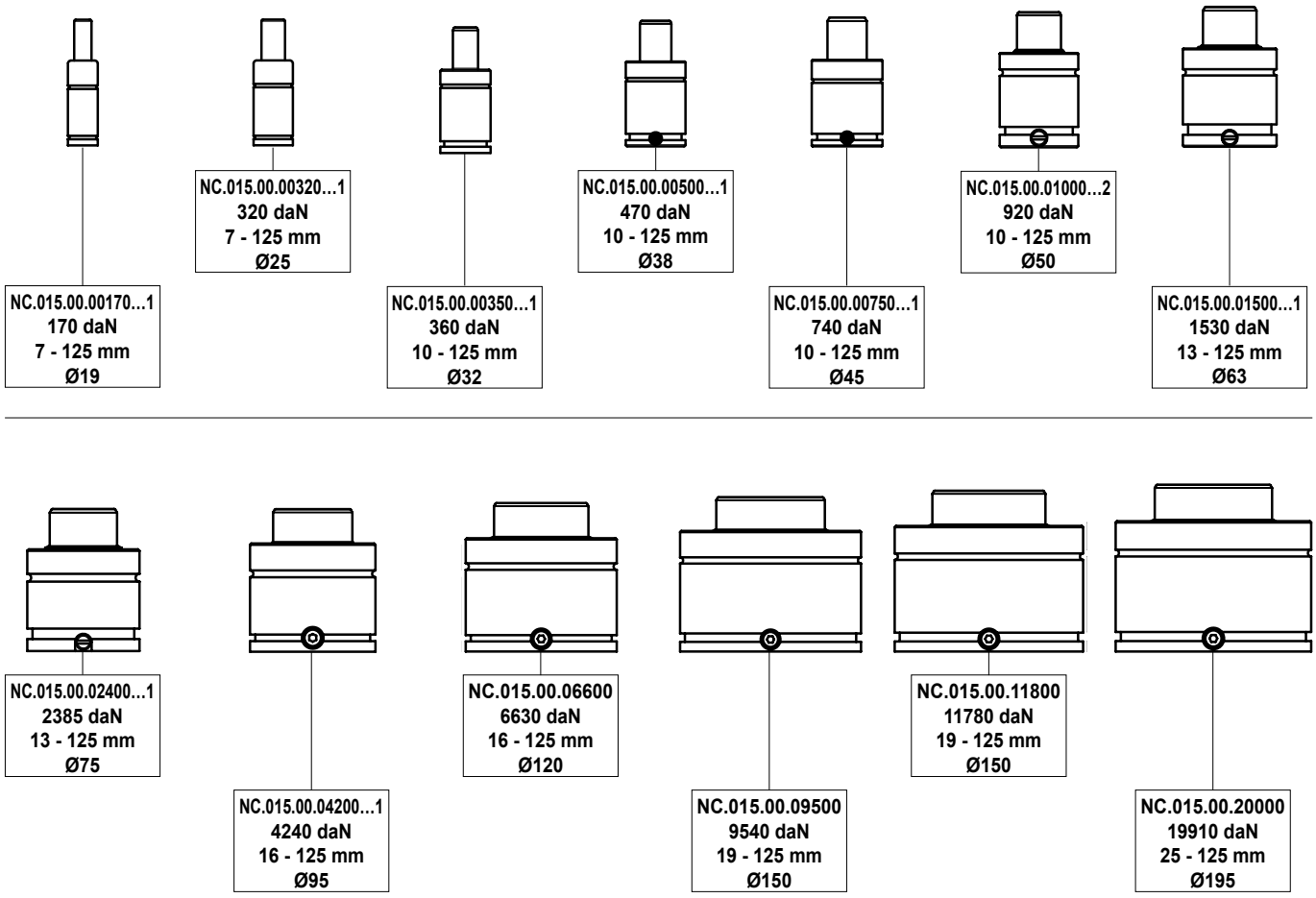
NC.88.00.105.0236



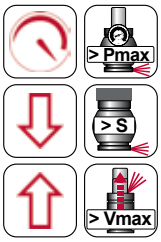
NC.88.00.105.0241

Größenübersicht Serie NC.015.00

Gas spring index NC.015.00 series



SICHERHEITSSYSTEME



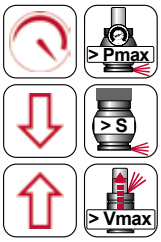
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

[NC]

NC.015.00.00170...1

Technische Daten:

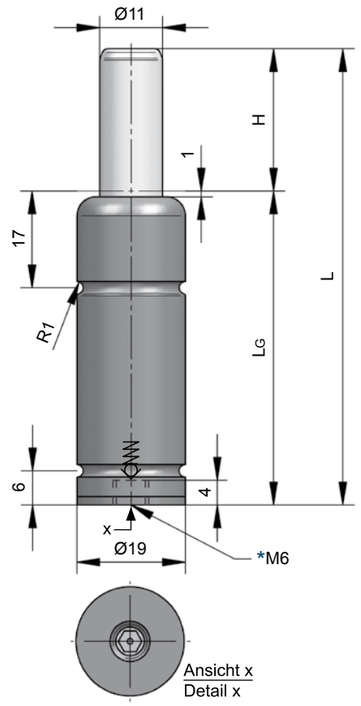
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

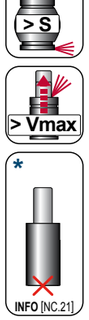
Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

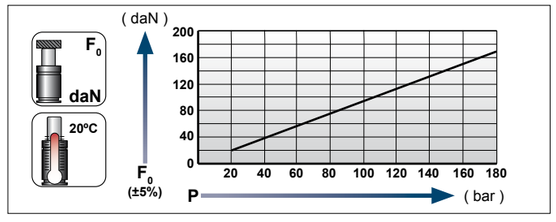


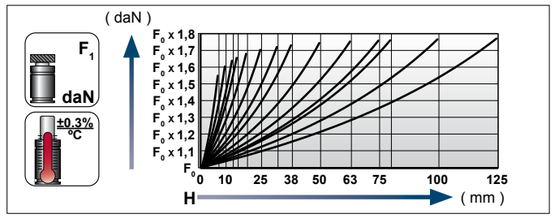


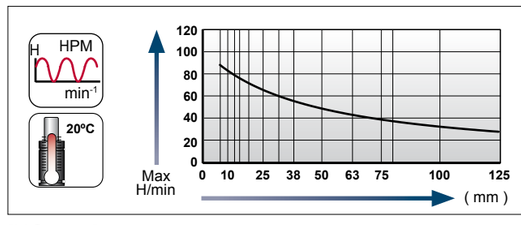


NC.015.00.
00170.038.1

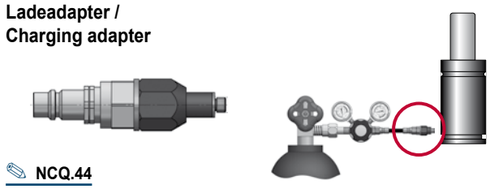
H Hub / Stroke	L ±0,25	LG	Kraft / Force (180 bar) Anfang / Initial [daN]	Ende / Final [daN]
007	44	37	170	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	50	40	170	
013	56	43	170	
015	60	45	170	
019	68	49	170	
025	80	55	170	
032	94	62	170	
038	106	68	170	
050	130	80	170	
063	156	93	170	
075	185	110	170	
080	195	115	170	
100	235	135	170	
125	285	160	170	







Ladeadapter / Charging adapter

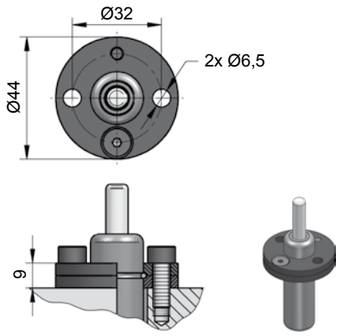


NCQ.44

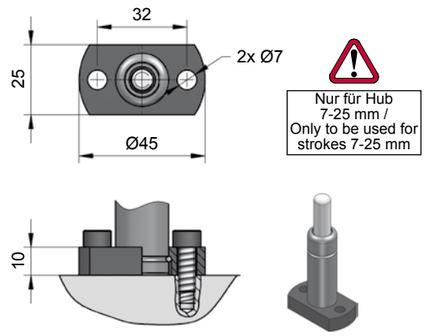
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

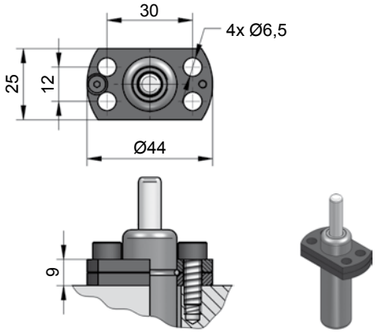
Flansche für / Flanges for **NC.015.00.00170...1**



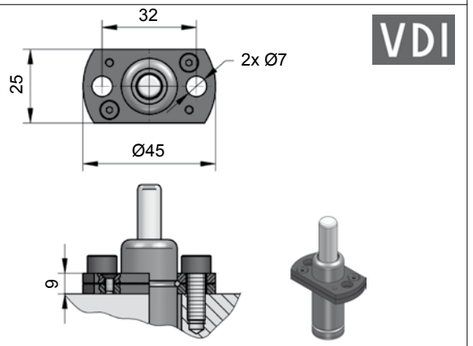
NC.88.00.019.0114



NC.88.00.019.0119



NC.88.00.019.0144



NC.88.00.019.0159

[22.01.2020]

[NC]

NC.015.00.00320...1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

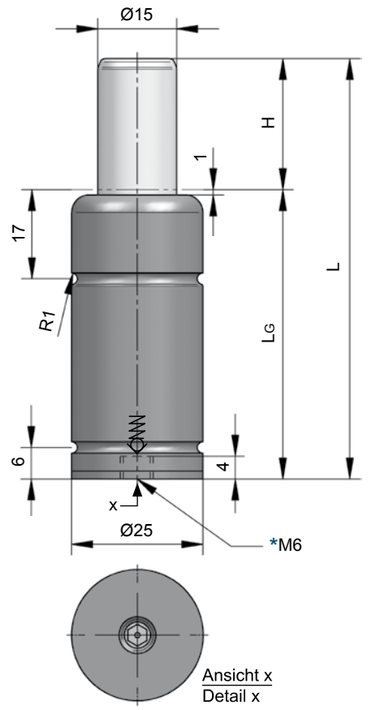
Einwegfeder ist nicht reparierbar!

Specifications:

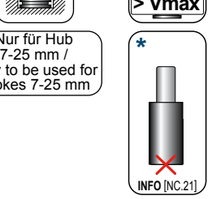
Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

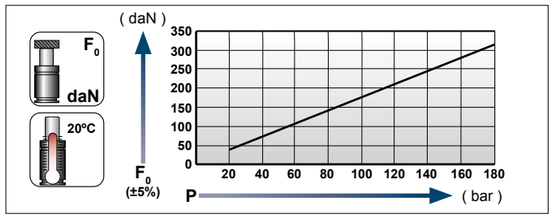
NC.015.00.00320.012.1

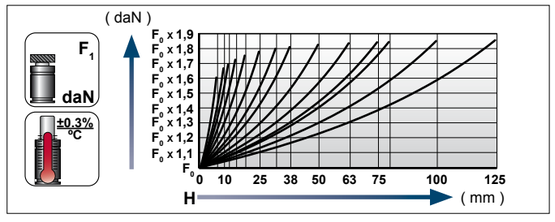


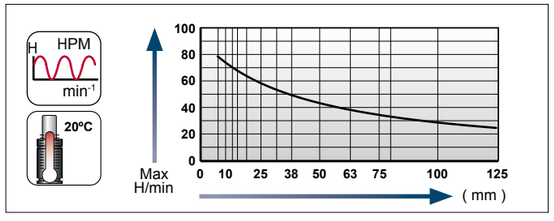




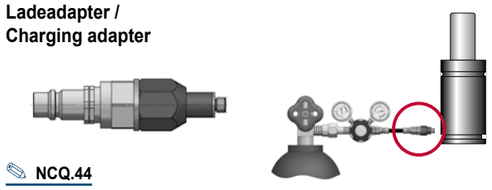
H Hub / Stroke	L ±0,25	LG	Kraft / Force (180 bar) Anfang / Initial [daN]	 Ende / Final [daN]
007	44	37	320	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	50	40	320	
012	54	42	320	
015	60	45	320	
019	68	49	320	
025	80	55	320	
032	94	62	320	
038	106	68	320	
050	130	80	320	
063	156	93	320	
075	185	110	320	
080	195	115	320	
100	235	135	320	
125	285	160	320	







Ladeadapter / Charging adapter

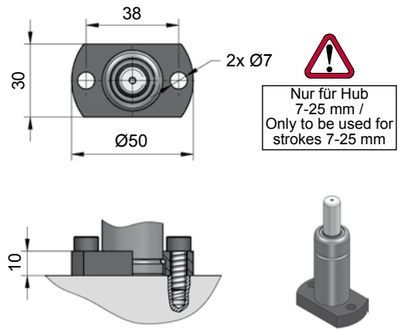


NCQ.44

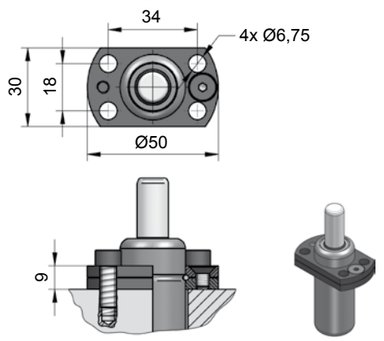
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.015.00.00320…1**

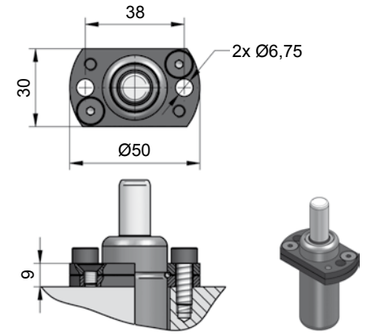


NC.88.00.025.0144

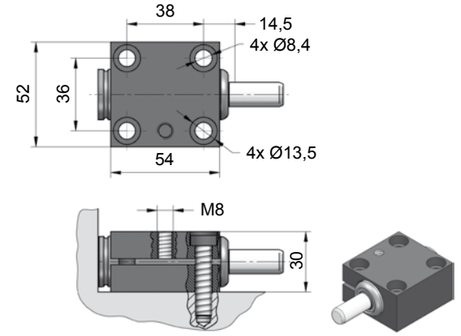


NC.88.00.025.0144

VDI



NC.88.00.025.0149



NC.88.00.025.0402

[22.01.2020]

[NC]

NC.015.00.00350...1

Technische Daten:

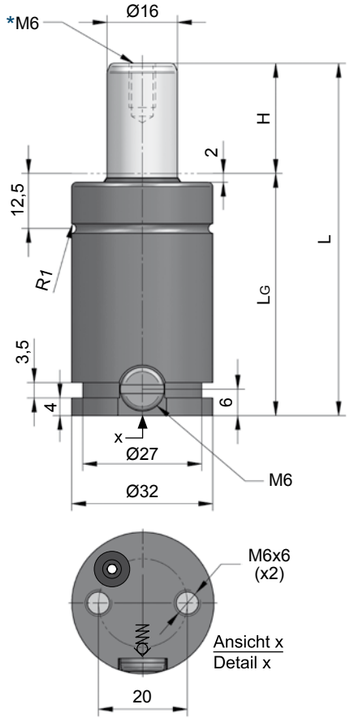
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!



PED 2014/68/EU

VDI 3003

> Pmax

> S

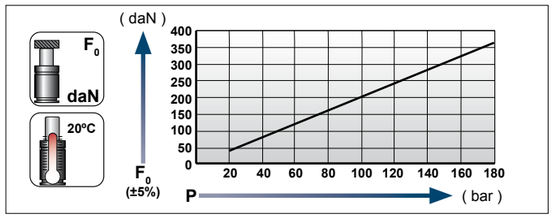
> Vmax

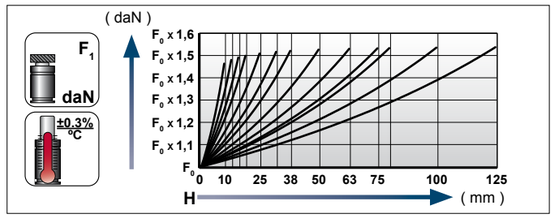
INFO [NC.21]

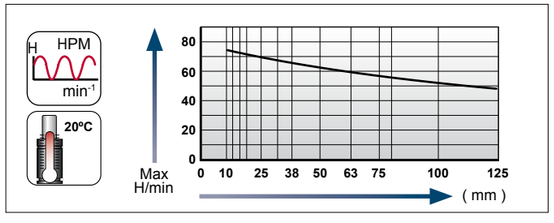
MAIL

NC.015.00.00350.013.1

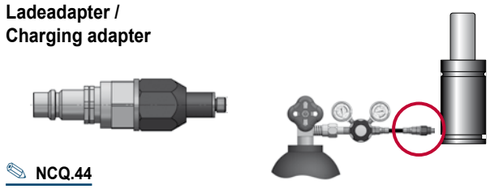
H Hub / Stroke	L ±0,25	LG	Kraft / Force (180 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	50	40	360	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	56	43	360	
016	62	46	360	
019	68	49	360	
025	80	55	360	
032	94	62	360	
038	106	68	360	
050	130	80	360	
063	156	93	360	
075	180	105	360	
080	190	110	360	
100	230	130	360	
125	280	155	360	







Ladeadapter / Charging adapter

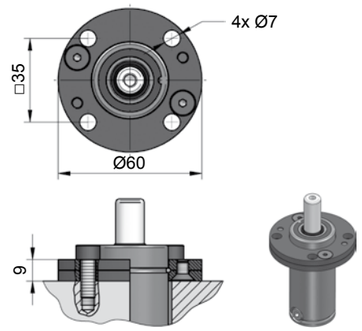


NCQ.44

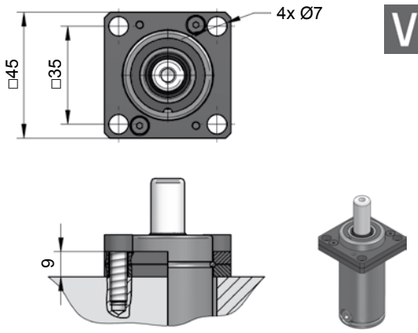
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

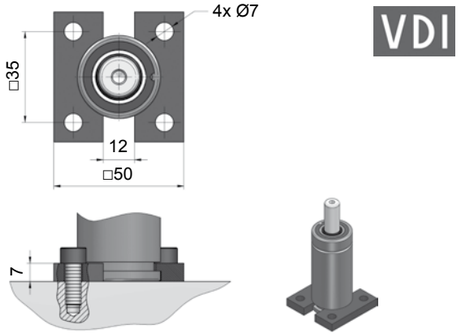
Flansche für / Flanges for **NC.015.00.00350.1**



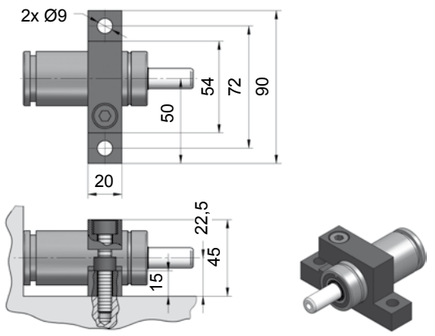
NC.88.00.032.0114



NC.88.00.032.0134



NC.88.00.032.0320



NC.88.00.032.0402

[22.01.2020]

[NC]

NC.015.00.00500...1

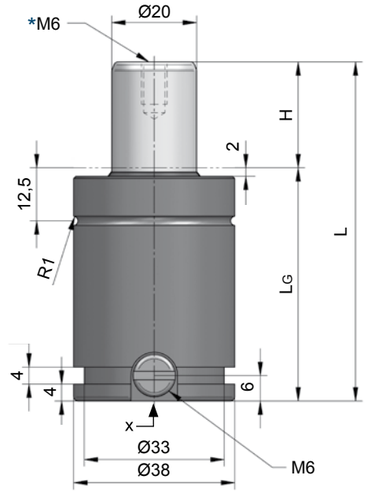
Technische Daten:

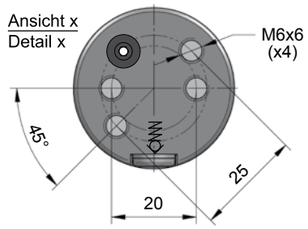
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.015.00.00500.016.1

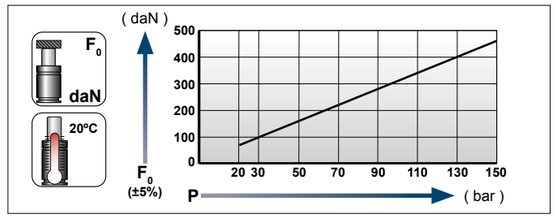


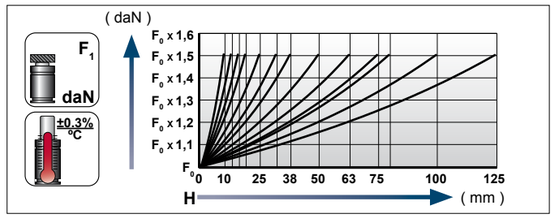


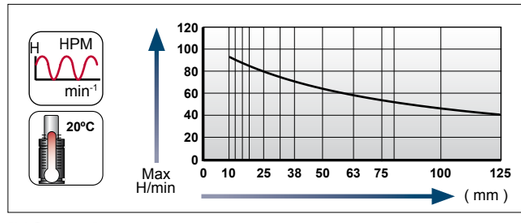
INFO [NC.21]

MAIL

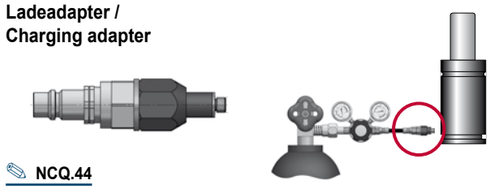
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	50	40	470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	56	43	470	
016	62	46	470	
019	68	49	470	
025	80	55	470	
032	94	62	470	
038	106	68	470	
050	130	80	470	
063	156	93	470	
075	180	105	470	
080	190	110	470	
100	230	130	470	
125	280	155	470	







Ladeadapter / Charging adapter

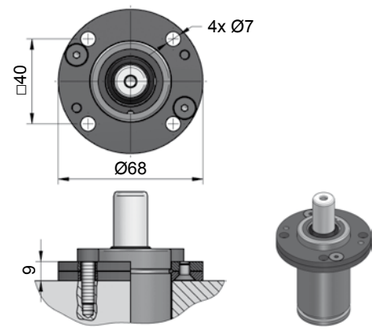


NCQ.44

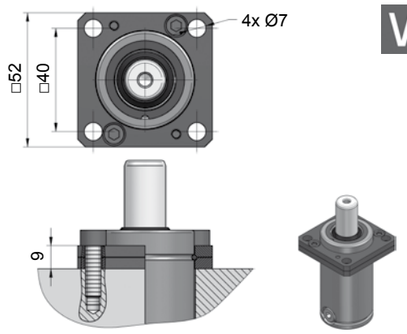
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

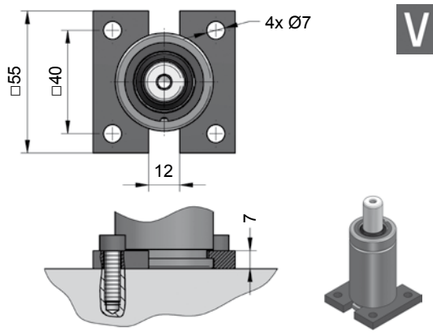
Flansche für / Flanges for **NC.015.00.00500...1**



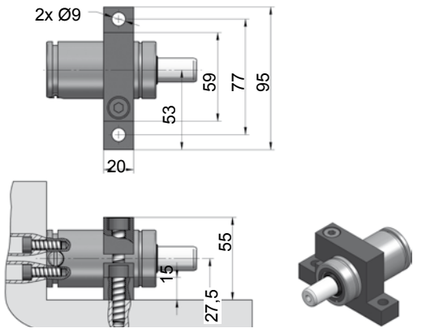
NC.88.00.038.0114



NC.88.00.038.0134



NC.88.00.038.0320

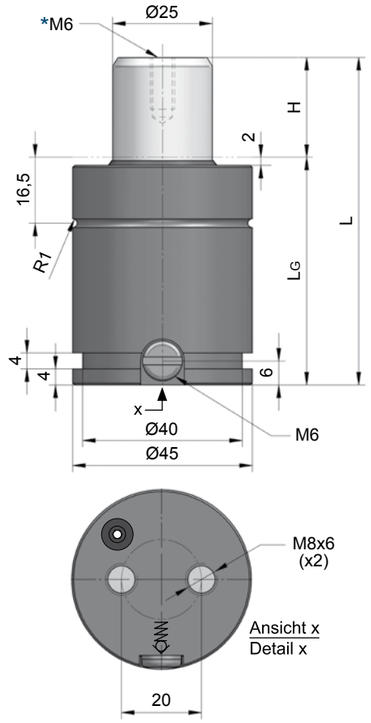


NC.88.00.038.0402

[22.01.2020]

[NC]

NC.015.00.00750...1



Technische Daten:

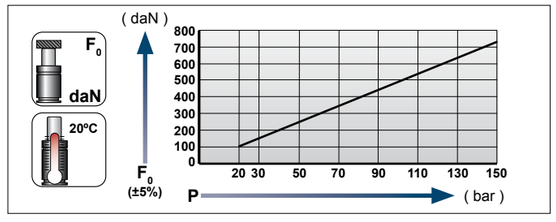
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

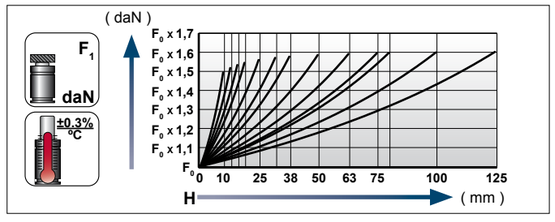
Specifications:

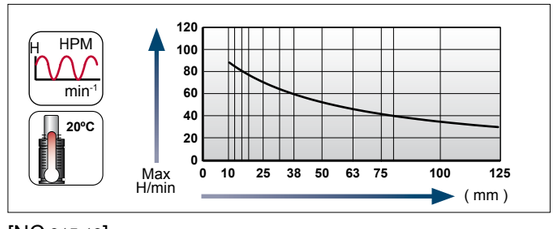
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.015.00.00750.025.1

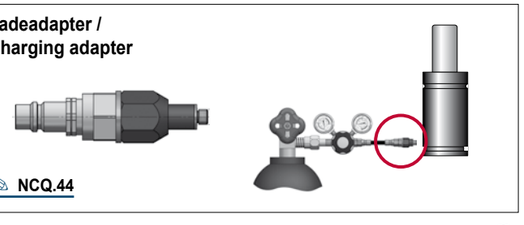
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	52	42	740	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	58	45	740	
016	64	48	740	
019	70	51	740	
025	82	57	740	
032	96	64	740	
038	108	70	740	
050	132	82	740	
063	158	95	740	
075	182	107	740	
080	192	112	740	
100	232	132	740	
125	282	157	740	







Ladeadapter / Charging adapter



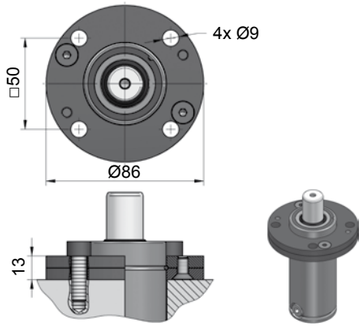
NCQ.44

[22.01.2020]

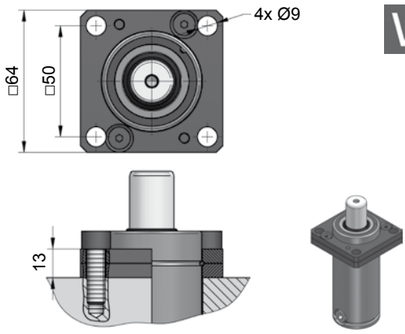
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

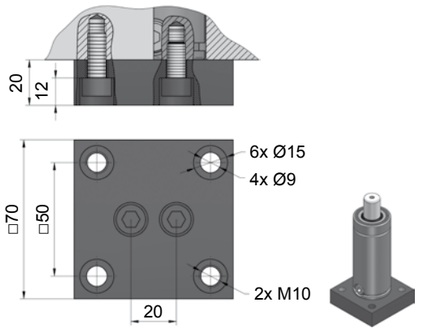
Flansche für / Flanges for **NC.015.00.00750...1**



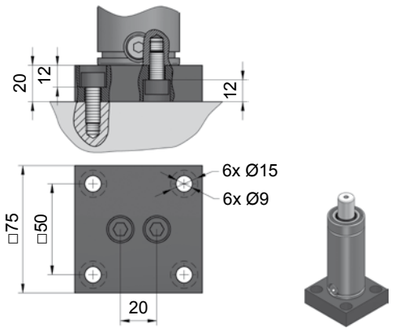
NC.88.00.045.0114



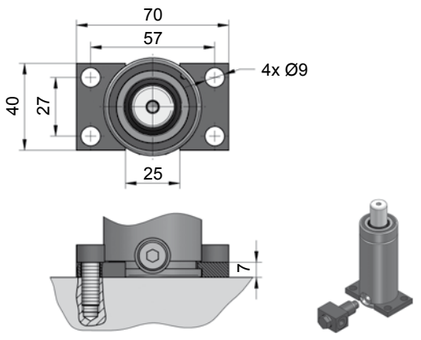
NC.88.00.045.0134



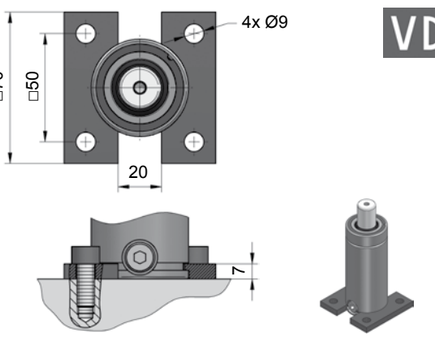
NC.88.00.045.0236



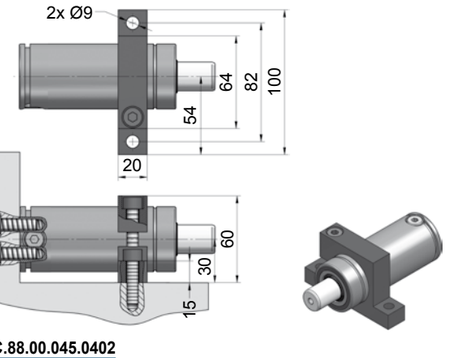
NC.88.00.045.0241



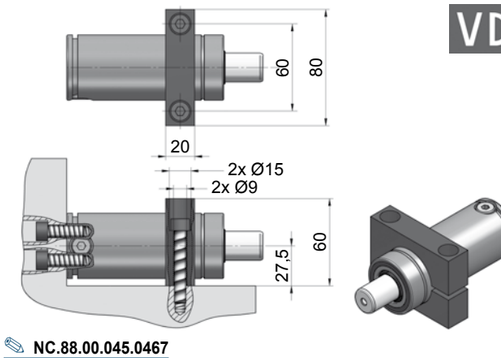
NC.88.00.045.0305



NC.88.00.045.0320

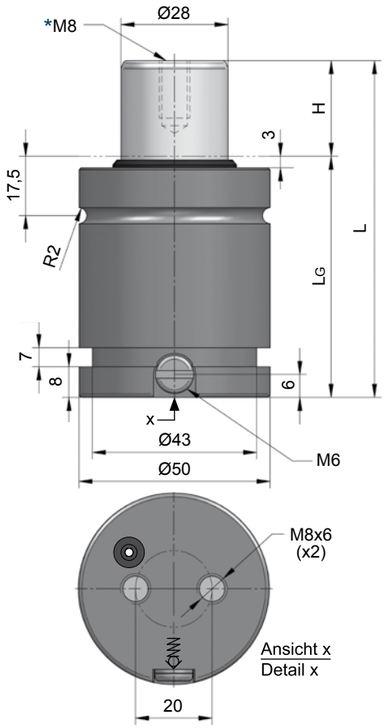


NC.88.00.045.0402



NC.88.00.045.0467

NC.015.00.01000...2



Technische Daten:

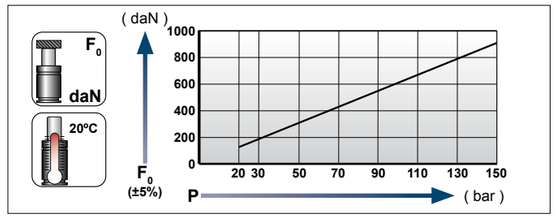
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

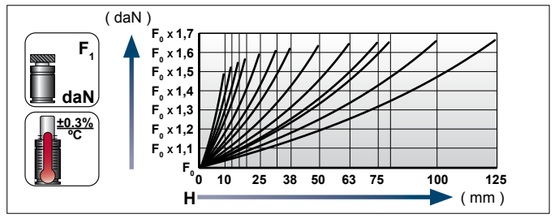
Specifications:

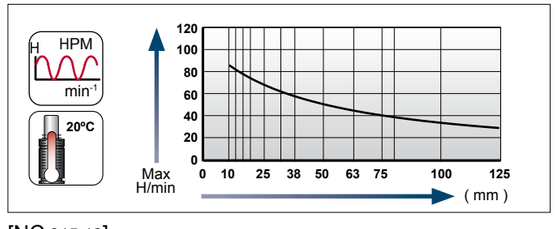
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.015.00.01000.032.2

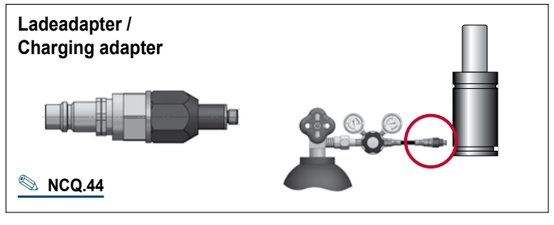
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	58	48	920	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	64	51	920	
016	70	54	920	
019	76	57	920	
025	88	63	920	
032	102	70	920	
038	114	76	920	
050	138	88	920	
063	164	101	920	
075	188	113	920	
080	198	118	920	
100	238	138	920	
125	288	163	920	







Ladeadapter / Charging adapter



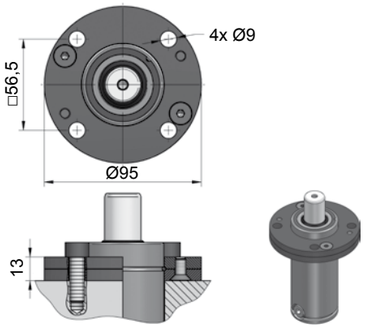
NCQ.44

[22.01.2020]

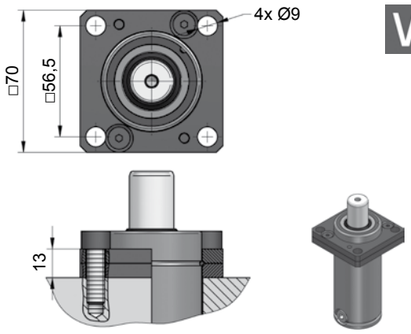
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

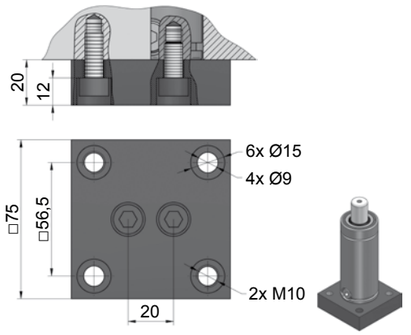
Flansche für / Flanges for **NC.015.00.01000…2**



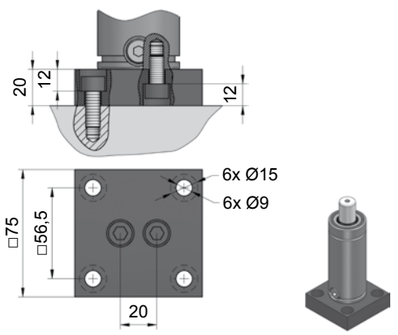
NC.88.00.050.0114



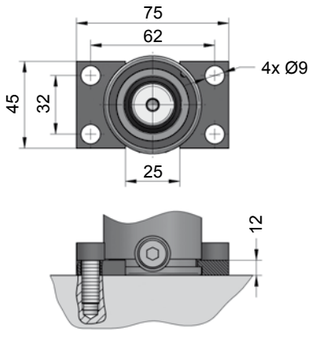
NC.88.00.050.0134



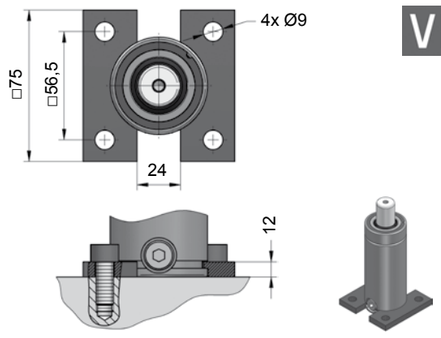
NC.88.00.050.0236



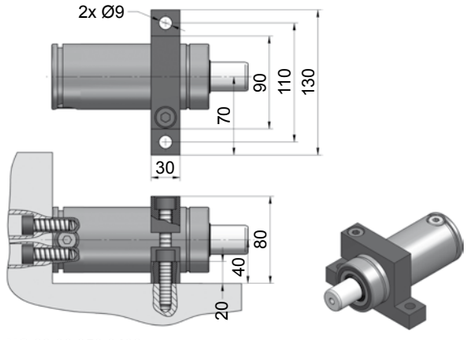
NC.88.00.050.0241



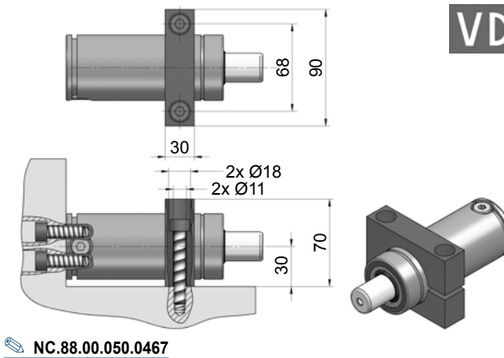
NC.88.00.050.0305



NC.88.00.050.0320

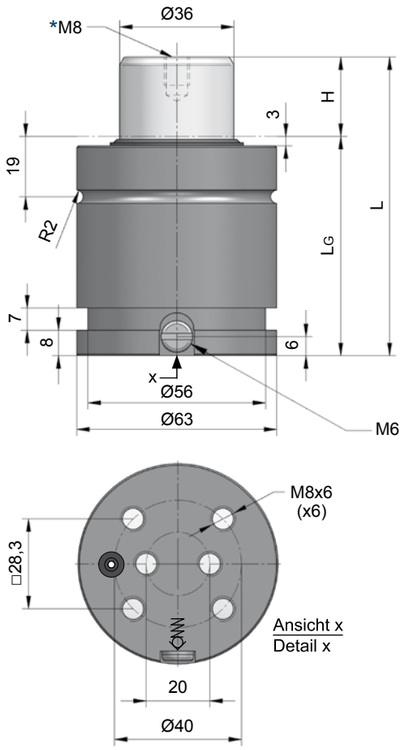


NC.88.00.050.0402



NC.88.00.050.0467

NC.015.00.01500…1



Technische Daten:

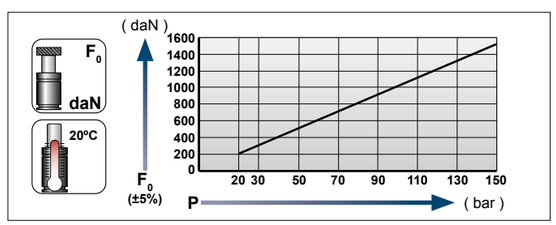
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

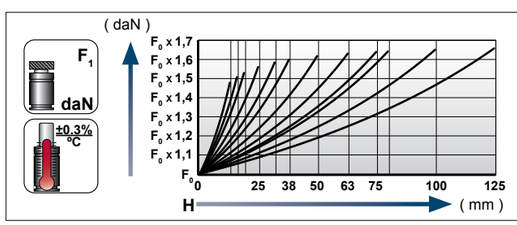
Specifications:

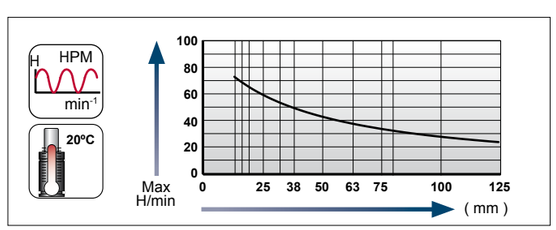
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.015.00.01500.050.1

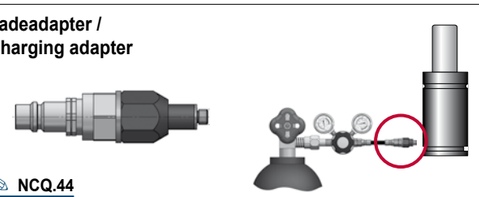
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	70	57	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	76	60	1530	
019	82	63	1530	
025	94	69	1530	
032	108	76	1530	
038	120	82	1530	
050	144	94	1530	
063	170	107	1530	
075	194	119	1530	
080	204	124	1530	
100	244	144	1530	
125	294	169	1530	







Ladeadapter / Charging adapter



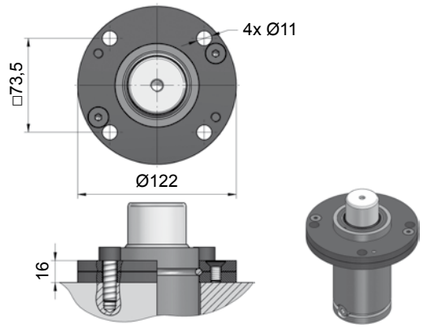
NCQ.44

[22.01.2020]

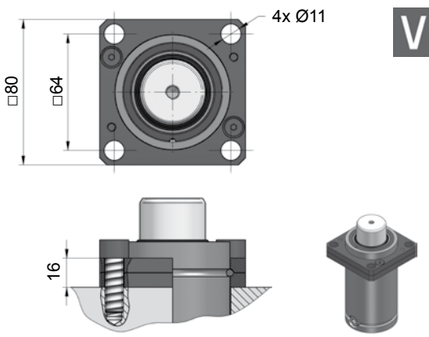
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

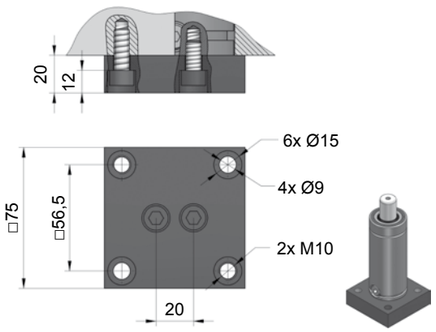
Flansche für / Flanges for **NC.015.00.01500…1**



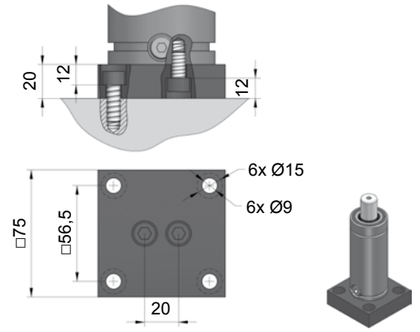
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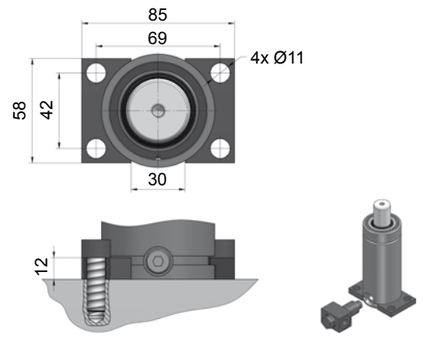
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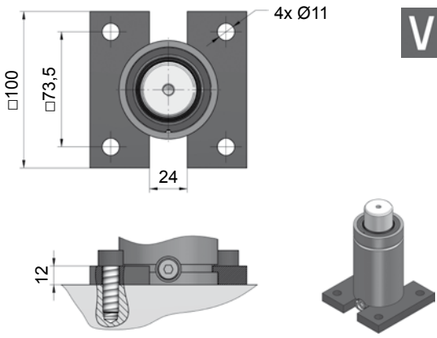
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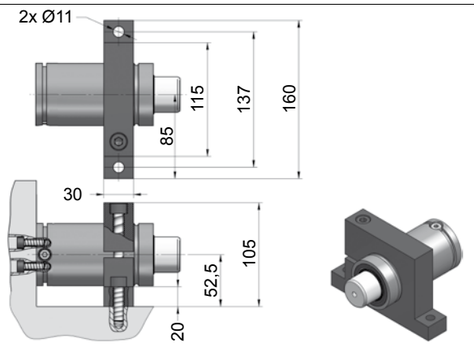
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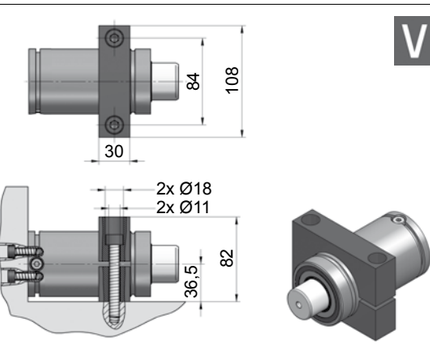
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NC.88.00.063.0335



NC.88.00.063.0402



NC.88.00.063.0467

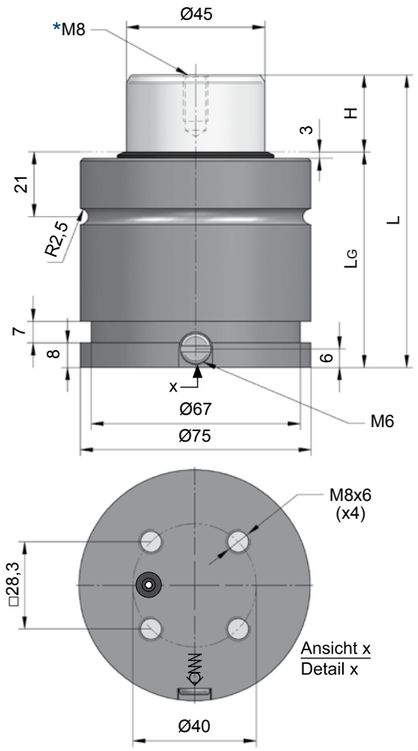
NC.015.00.02400...1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s



INFO [NC.21]

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VDI 3003

> Pmax

> S

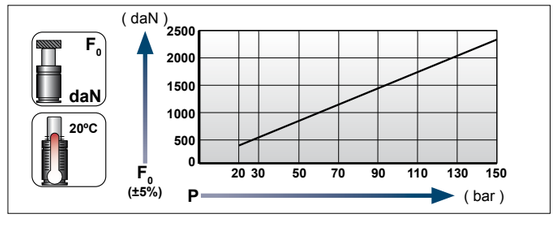
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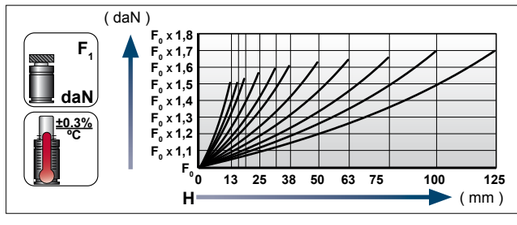
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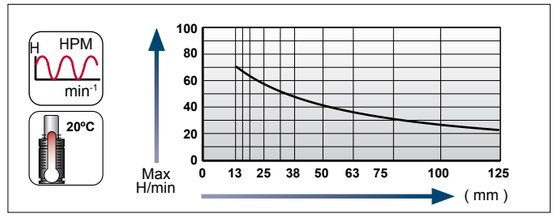
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NC.015.00.
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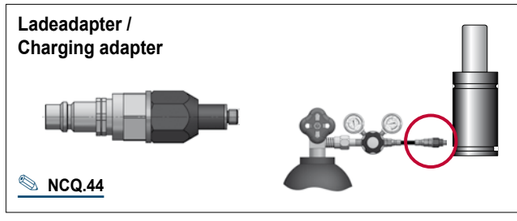
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	71	58		Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	77	61	2385	
019	83	64	2385	
025	95	70	2385	
032	109	77	2385	
038	121	83	2385	
050	145	95	2385	
063	171	108	2385	
075	195	120	2385	
080	205	125	2385	
100	245	145	2385	
125	295	170	2385	







Ladeadapter / Charging adapter



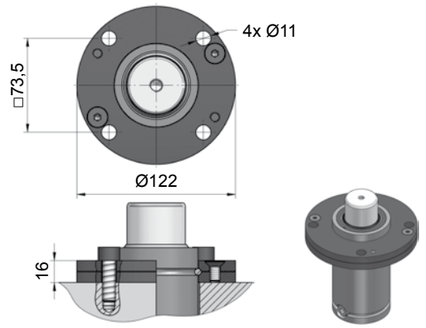
NCQ.44

[22.01.2020]

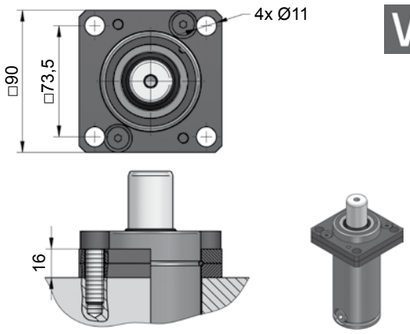
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

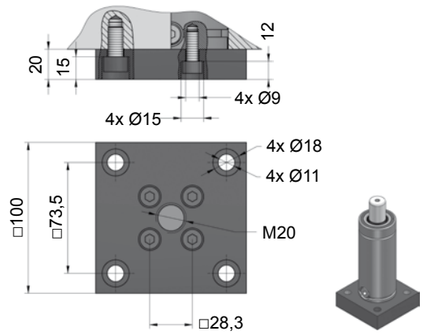
Flansche für / Flanges for **NC.015.00.02400...1**



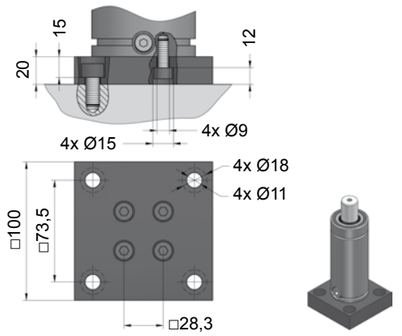
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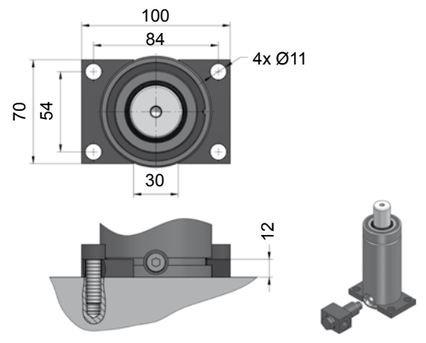
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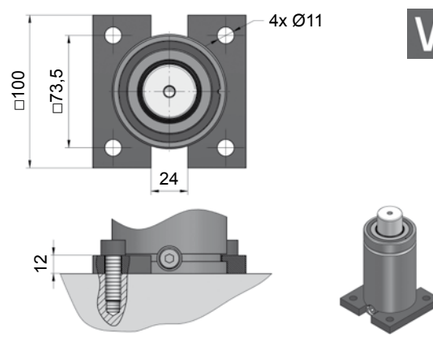
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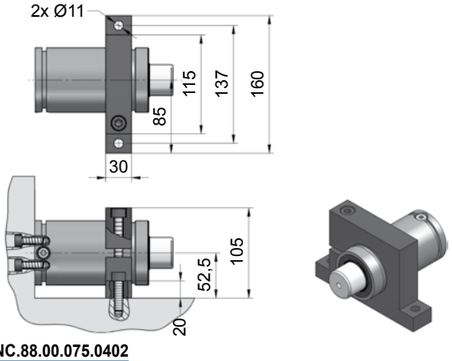
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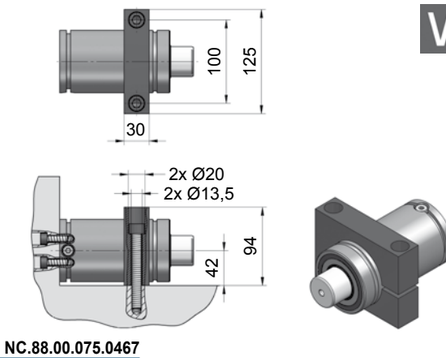
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NC.88.00.075.0320



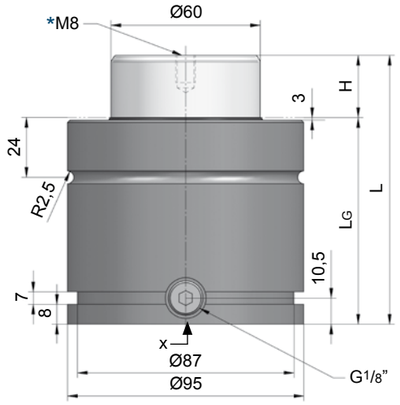
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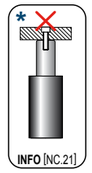


NC.88.00.075.0467

[NC]

NC.015.00.04200...1







VDI 3003







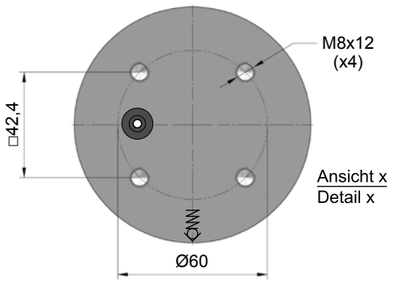


Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

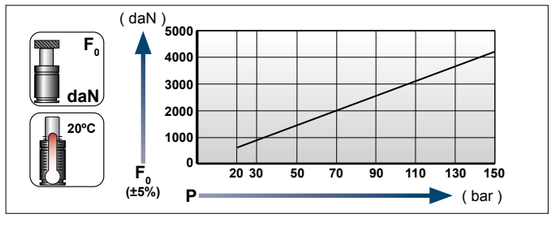
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

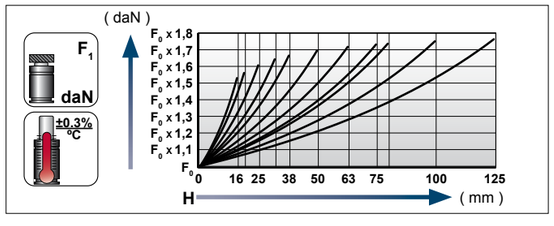


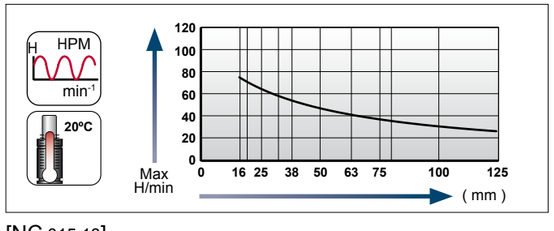
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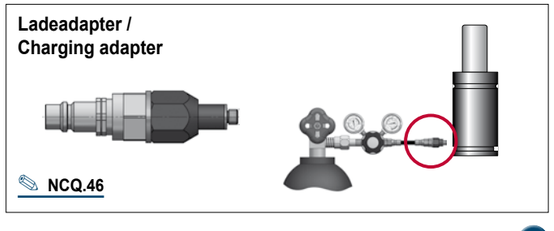
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
016	90	74	4240	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	96	77	4240	
025	108	83	4240	
032	122	90	4240	
038	134	96	4240	
050	158	108	4240	
063	184	121	4240	
075	208	133	4240	
080	218	138	4240	
100	258	158	4240	
125	308	183	4240	







Ladeadapter / Charging adapter

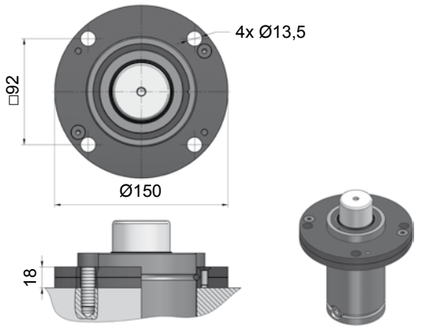


NCQ.46

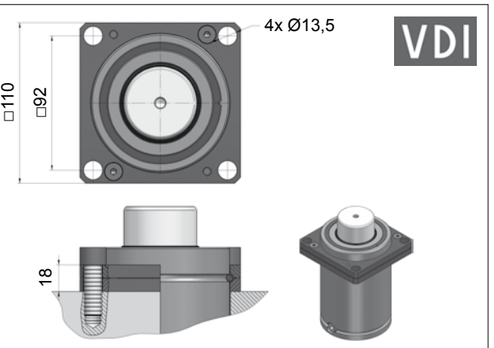
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

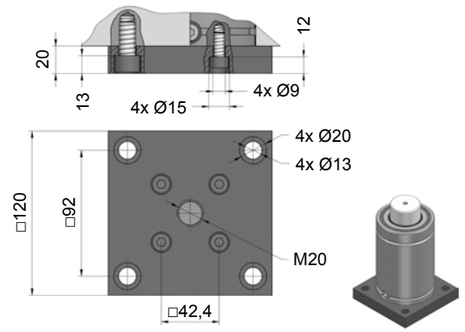
Flansche für / Flanges for **NC.015.00.04200...1**



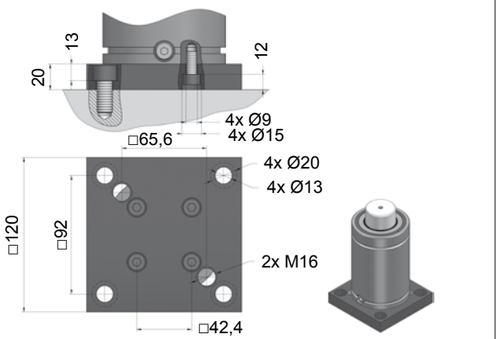
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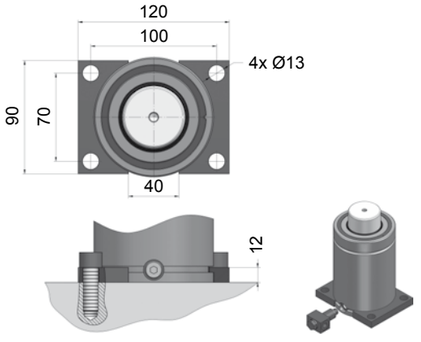
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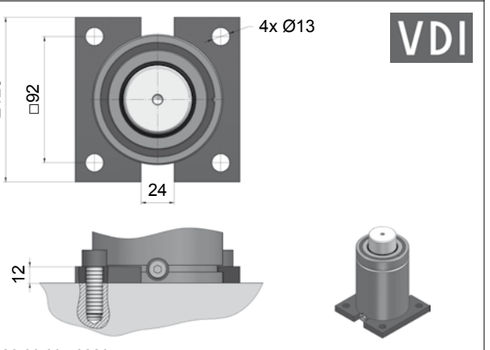
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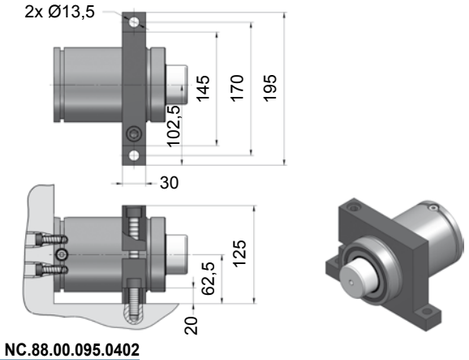
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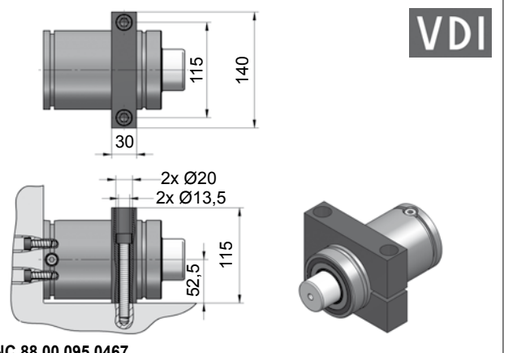
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NC.88.00.095.0320



NC.88.00.095.0402

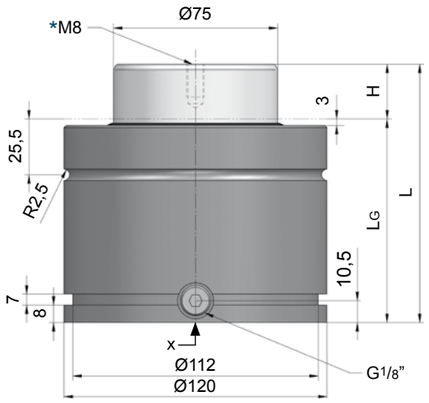


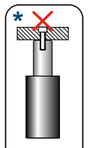
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[22.01.2020]

[NC]

NC.015.00.06600





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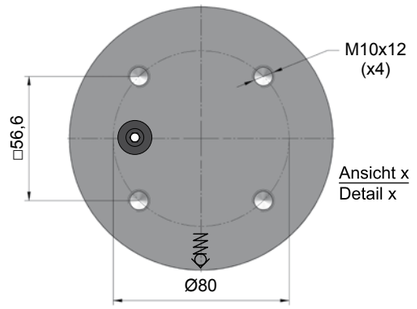
VDI 3003











Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

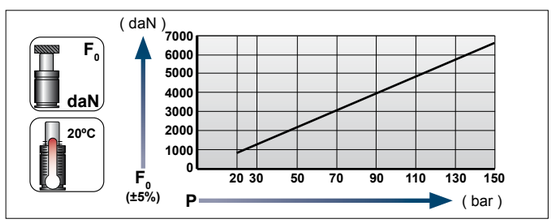
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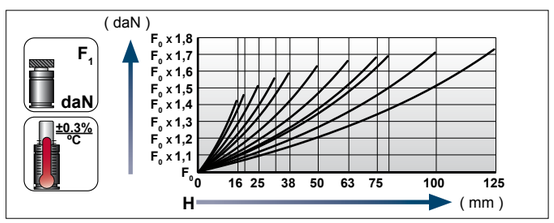
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

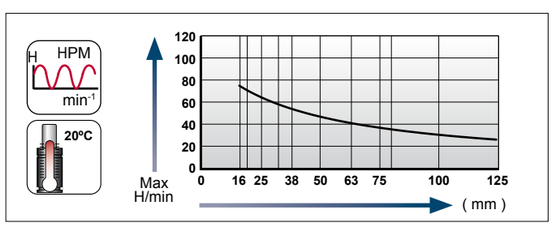
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MAIL

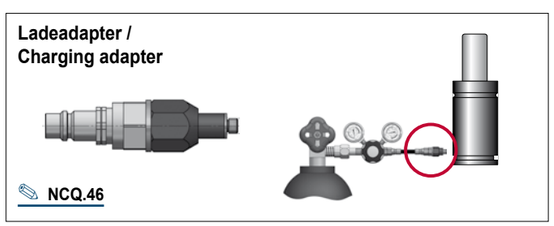
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
016	100	84	6630	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	106	87	6630	
025	118	93	6630	
032	132	100	6630	
038	144	106	6630	
050	168	118	6630	
063	194	131	6630	
075	218	143	6630	
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125	318	193	6630	







Ladeadapter / Charging adapter



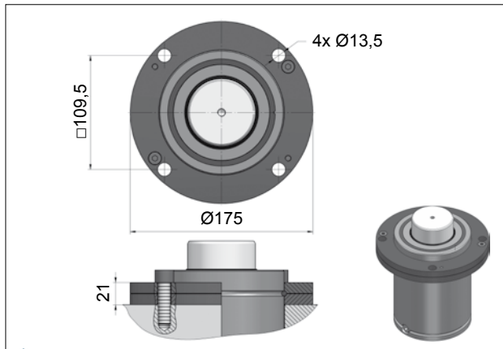
NCQ.46

[22.01.2020]

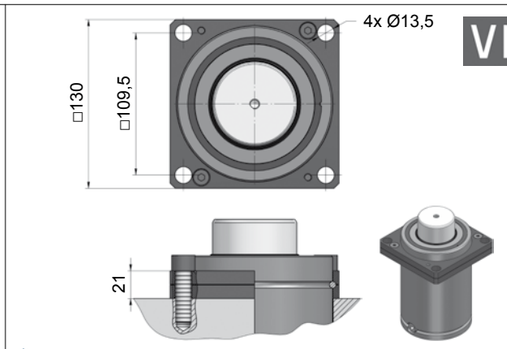
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

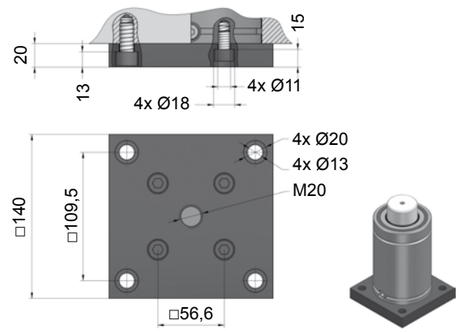
Flansche für / Flanges for **NC.015.00.06600**



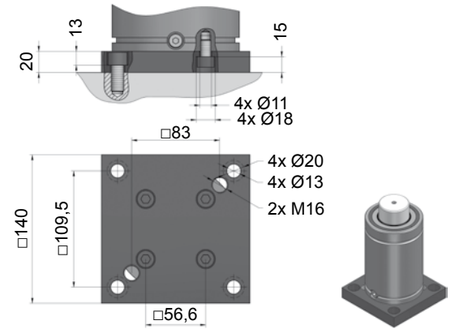
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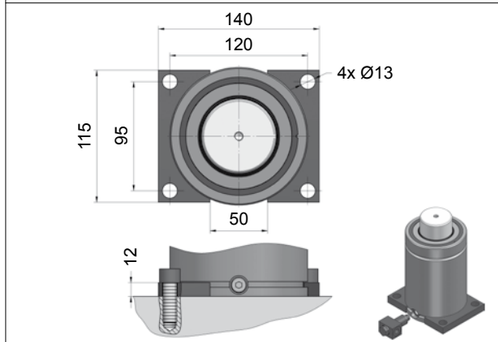
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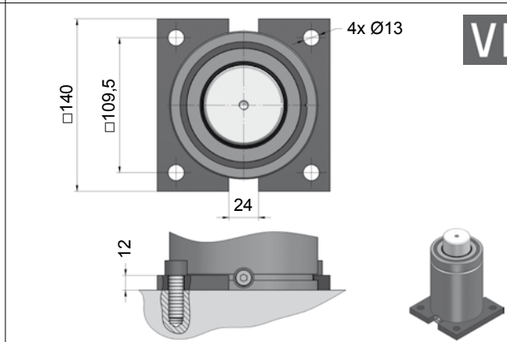
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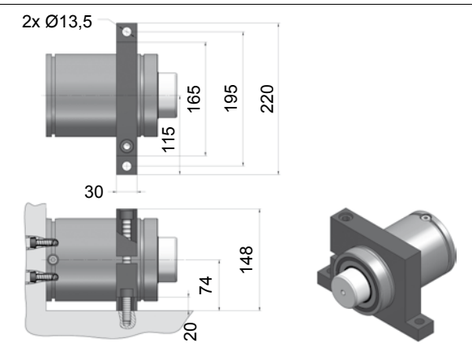
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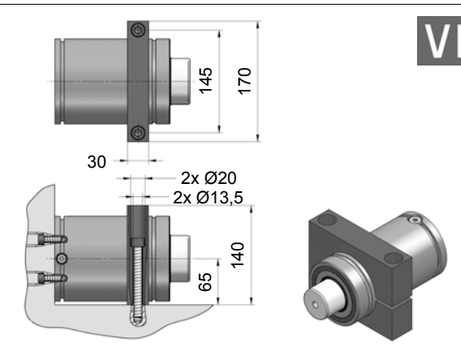
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NC.88.00.120.0320

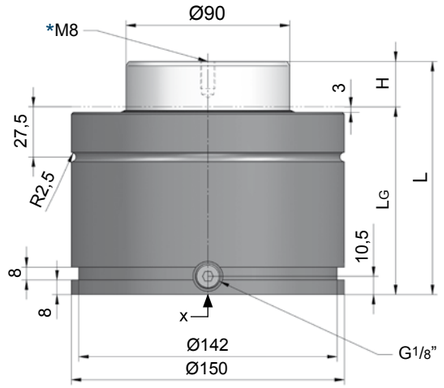


NC.88.00.120.0402



NC.88.00.120.0467

NC.015.00.09500

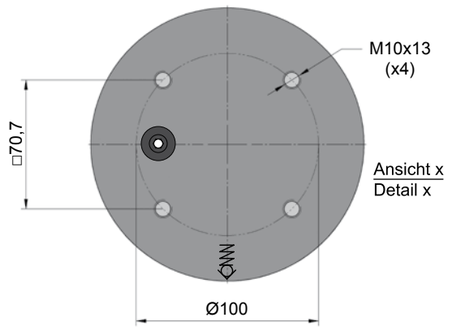


Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

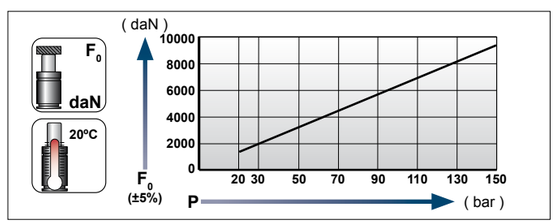
Specifications:

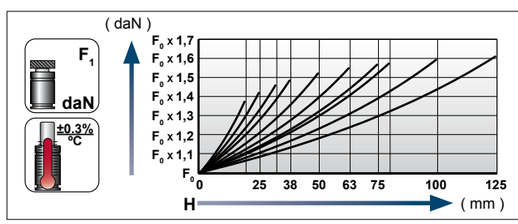
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

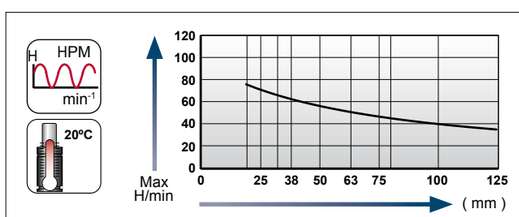


NC.015.00.
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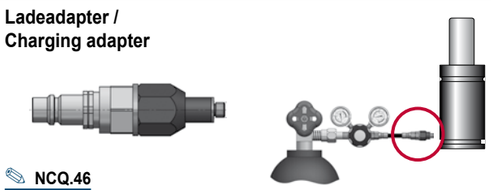
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
019	116	97	9540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	128	103	9540	
032	142	110	9540	
038	154	116	9540	
050	178	128	9540	
063	204	141	9540	
075	228	153	9540	
080	238	158	9540	
100	278	178	9540	
125	328	203	9540	







Ladeadapter / Charging adapter



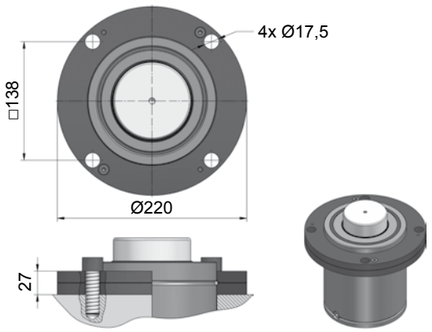
NCQ.46

[22.01.2020]

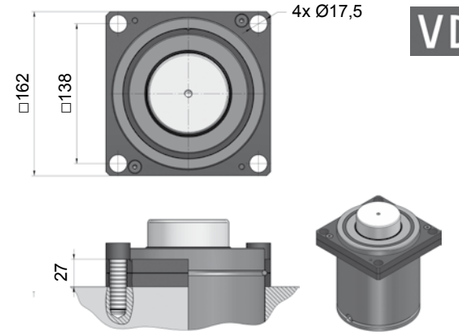
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

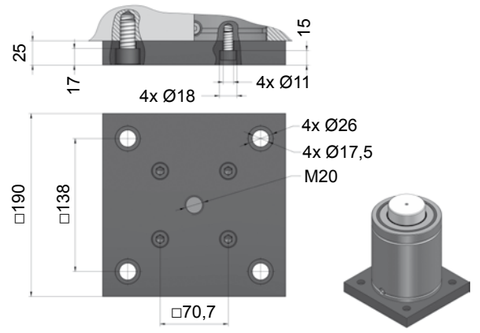
Flansche für / Flanges for **NC.015.00.09500**



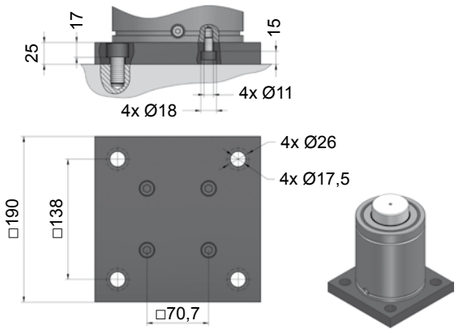
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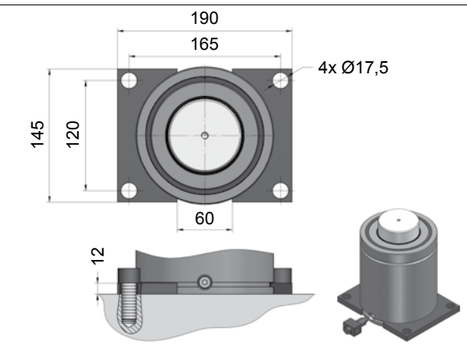
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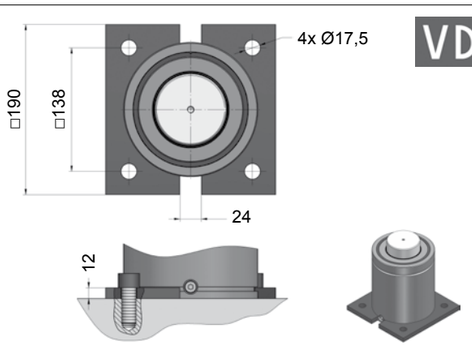
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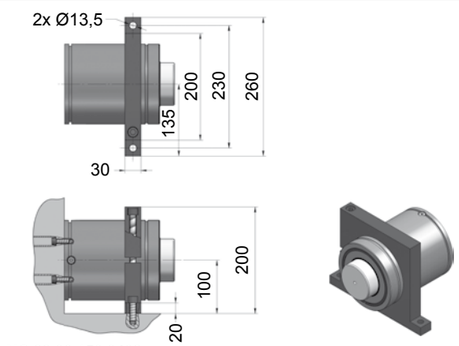
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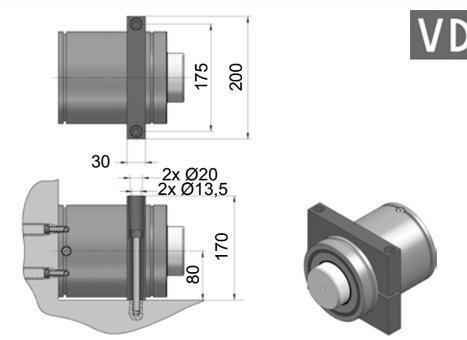
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NC.88.00.150.0320

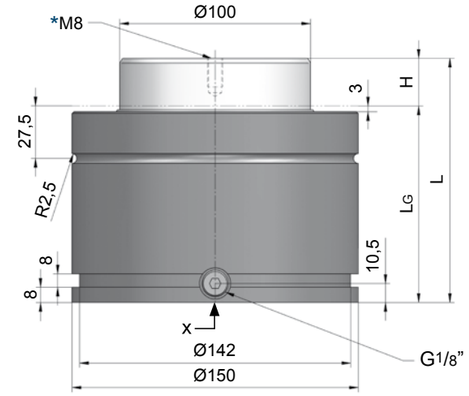


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NC.88.00.150.0467

NC.015.00.11800

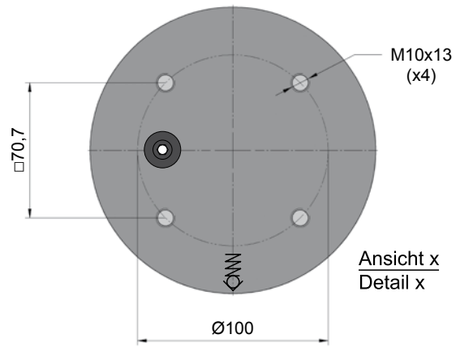


Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

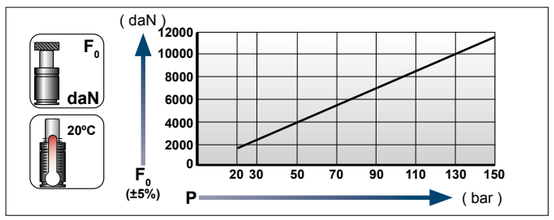
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

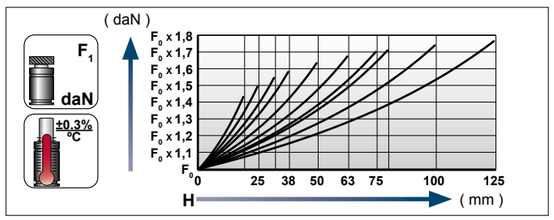


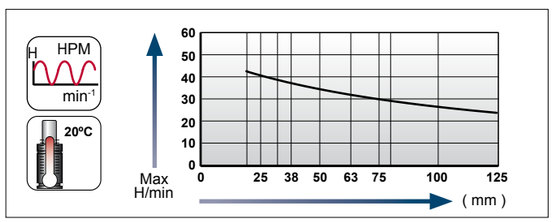
NC.015.00.
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> Pmax
> S
> Vmax
Flex Rod
INFO [NC.21]
MAIL

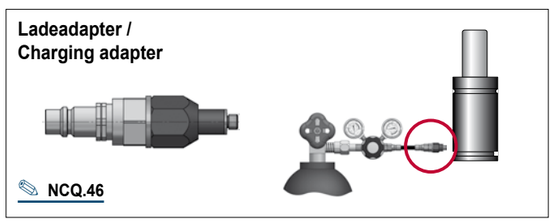
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
019	116	97	11780	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	128	103	11780	
032	142	110	11780	
038	154	116	11780	
050	178	128	11780	
063	204	141	11780	
075	228	153	11780	
080	238	158	11780	
100	278	178	11780	
125	328	203	11780	







Ladeadapter / Charging adapter



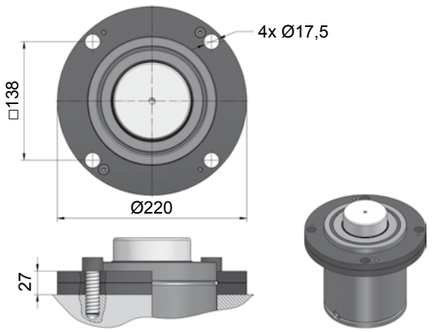
NCQ.46

[22.01.2020]

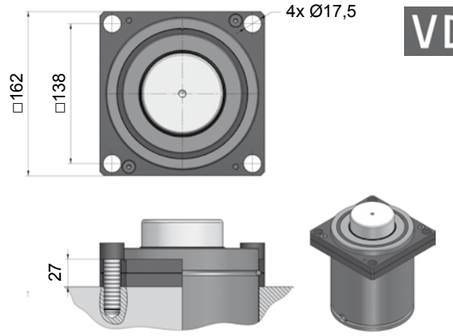
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

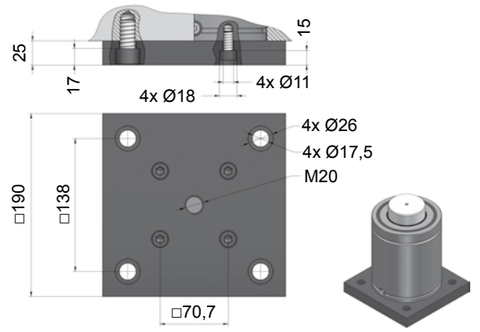
Flansche für / Flanges for **NC.015.00.11800**



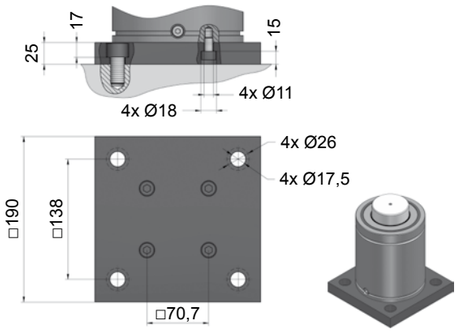
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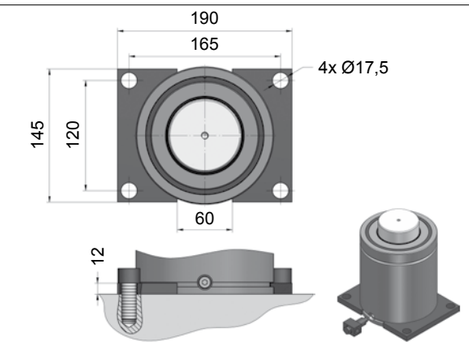
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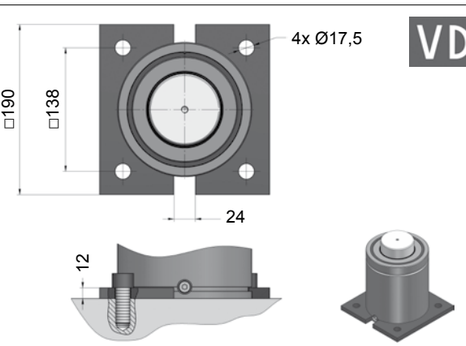
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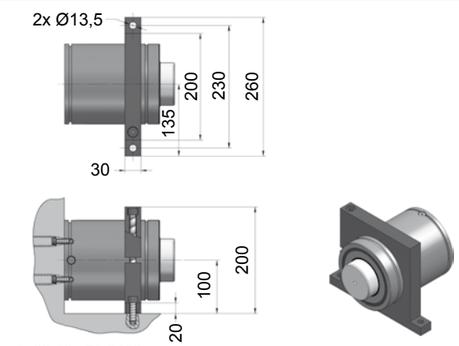
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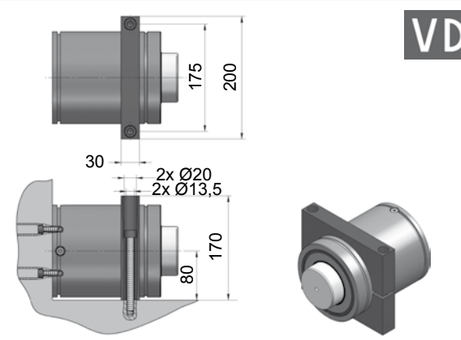
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NC.88.00.150.0320

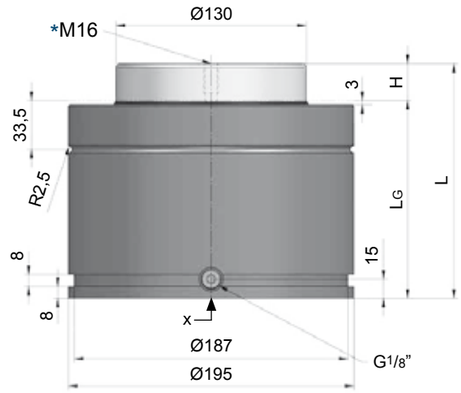


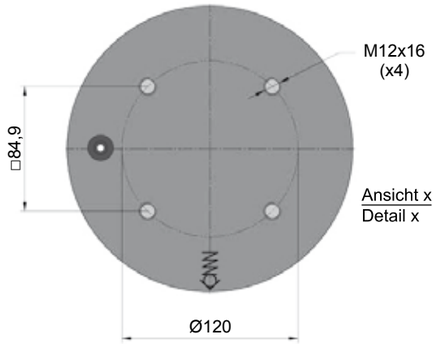
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NC.88.00.150.0467

NC.015.00.20000





Technische Daten:

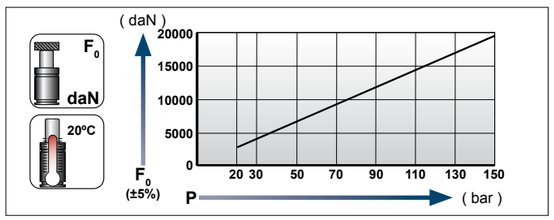
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

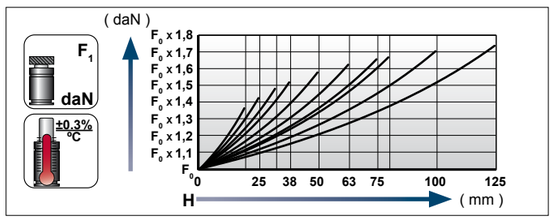
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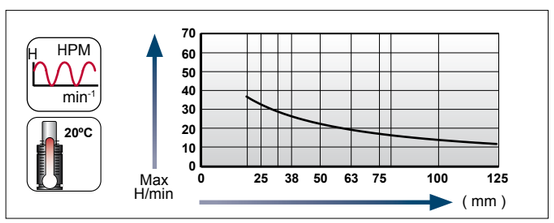
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.015.00.
20000.050

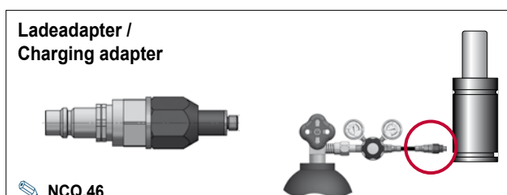
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
019	148	129	19910	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	160	135	19910	
032	174	142	19910	
038	186	148	19910	
050	210	160	19910	
063	236	173	19910	
075	260	185	19910	
080	270	190	19910	
100	310	210	19910	
125	360	235	19910	







**Ladeadapter /
Charging adapter**



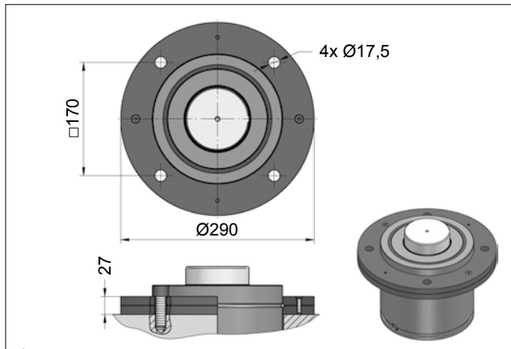
NCQ.46

[22.01.2020]

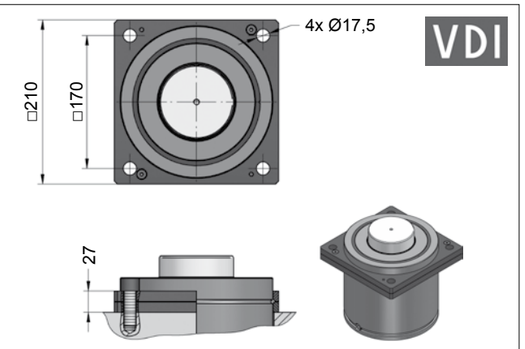
[22.01.2020]

GDF, niedrigbauend, System FP
GS, smaller height, FP series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

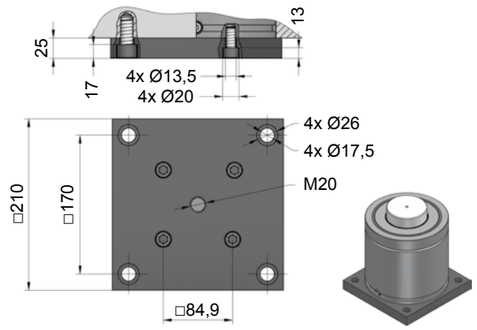
Flansche für / Flanges for **NC.015.00.20000**



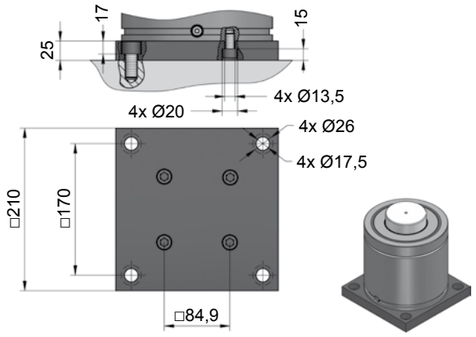
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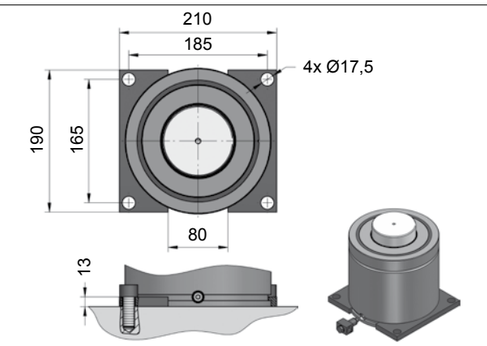
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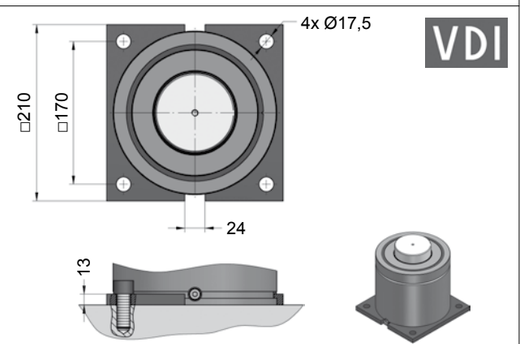
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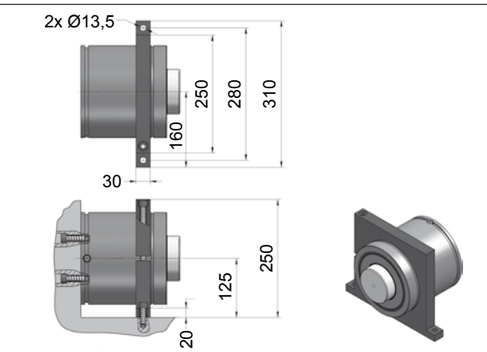
NC.88.00.195.0241



NC.88.00.150.0305

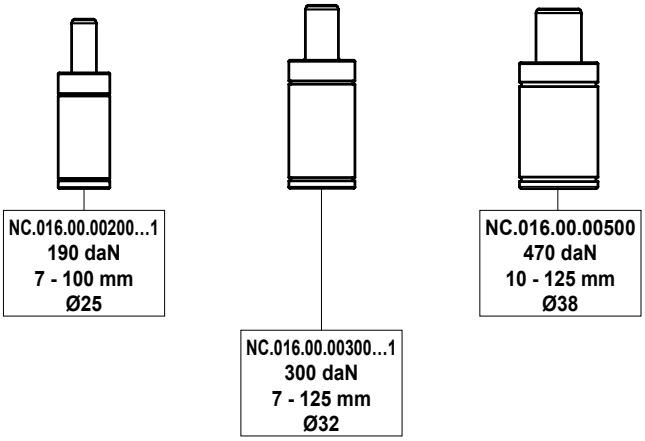


NC.88.00.195.0320

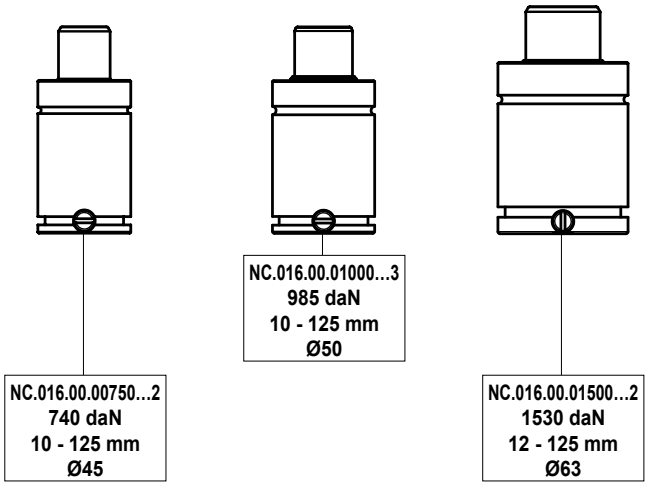


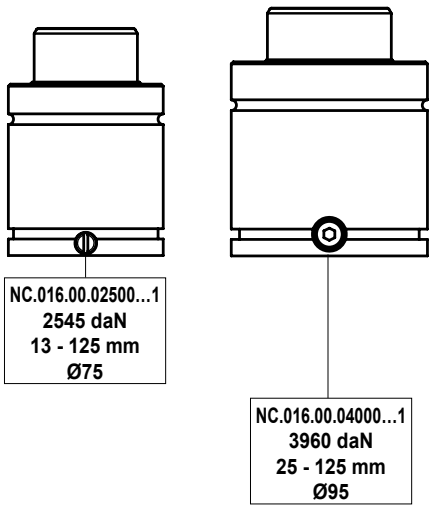
NC.88.00.195.0402

Größenübersicht Serie NC.016.00

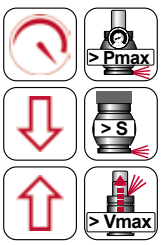


Gas spring index NC.016.00 series





SICHERHEITSSYSTEME



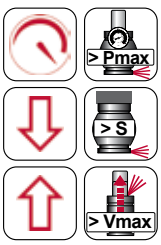
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

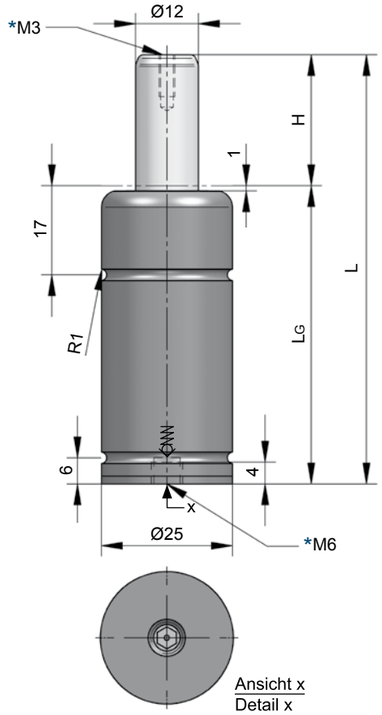
Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

[NC]

NC.016.00.00200...1



Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

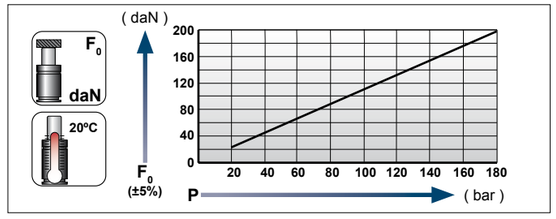
Specifications:

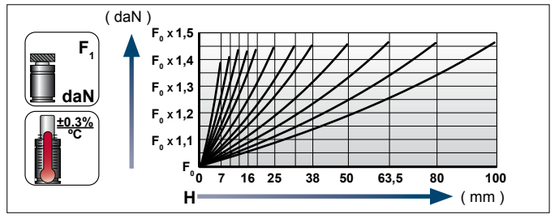
Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

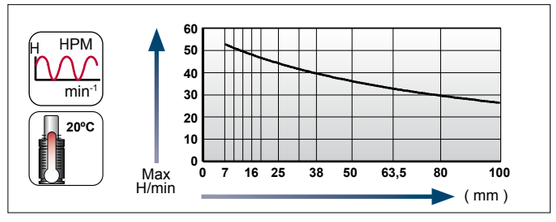
One-way spring is irreparable!

NC.016.00.00200.007.1

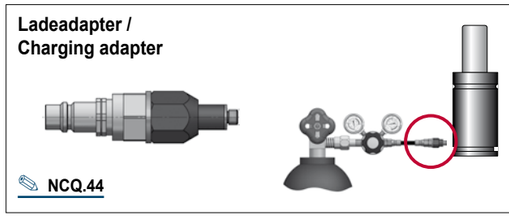
H Hub / Stroke	L ±0,25	LG	Kraft / Force (170 bar) Anfang / Initial [daN]	Ende / Final [daN]
007	46	39	190	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	52	42	190	
012,7	57,4	44,7	190	
016	64	48	190	
019	70	51	190	
025	82	57	190	
032	96	64	190	
038	108	70	190	
050	132	82	190	
063,5	159	95,5	190	
080	192	112	190	
100	232	132	190	







Ladeadapter / Charging adapter

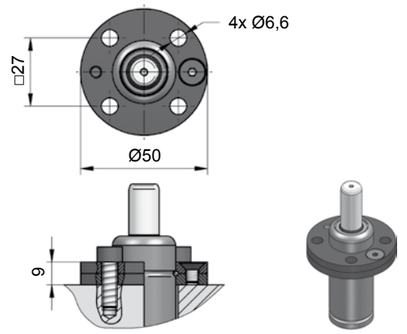


NCQ.44

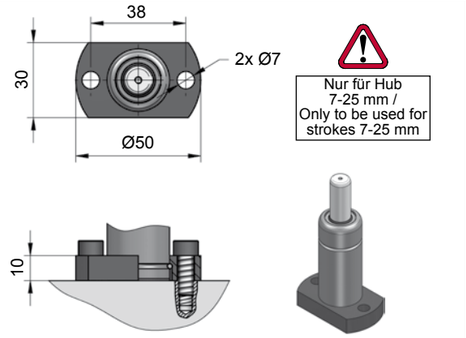
[16.04.2020]

GDF, niedrigbauend, System NK
GS, smaller height, NK series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

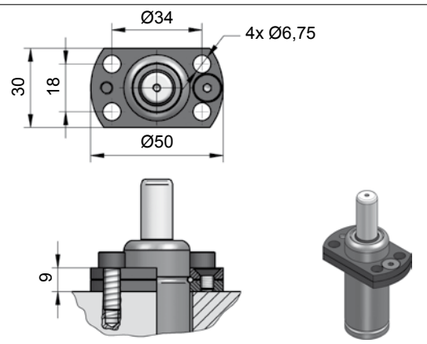
Flansche für / Flanges for **NC.016.00.00200…1**



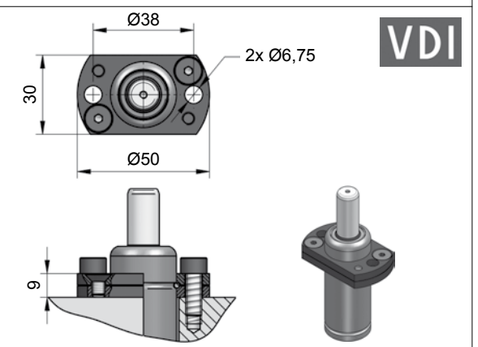
NC.88.00.025.0114



NC.88.00.025.0119



NC.88.00.025.0144

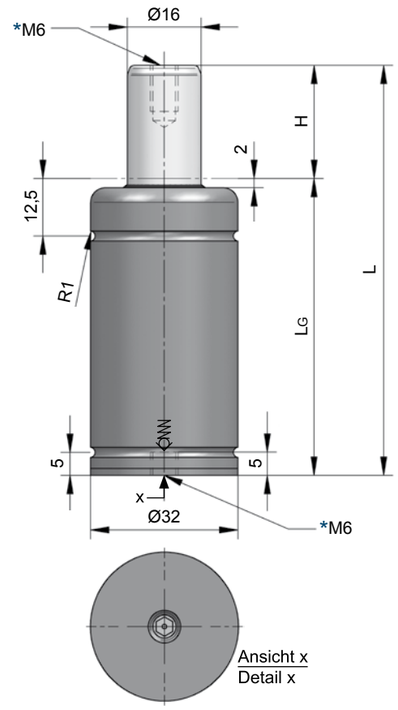


NC.88.00.025.0149

[16.04.2020]

[NC]

NC.016.00.00300...1



Technische Daten:

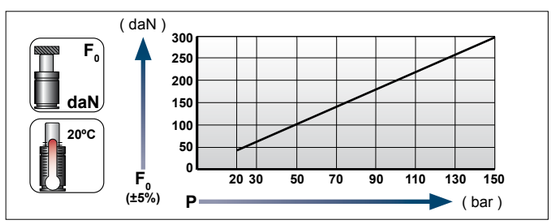
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

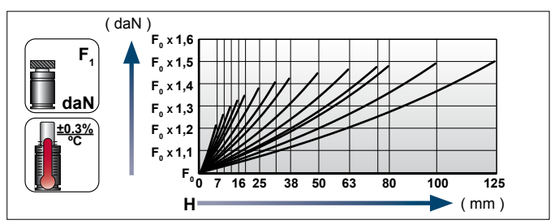
Specifications:

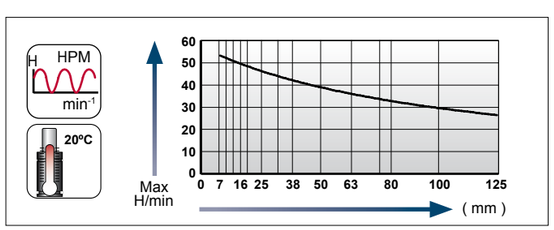
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.016.00.00300.025.1

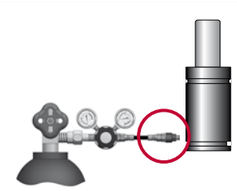
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
007	53	46	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	59	49	300	
013	65	52	300	
016	71	55	300	
019	77	58	300	
025	89	64	300	
032	103	71	300	
038	115	77	300	
050	139	89	300	
063	165	102	300	
075	189	114	300	
080	199	119	300	
100	239	139	300	
125	289	164	300	







Ladeadapter / Charging adapter

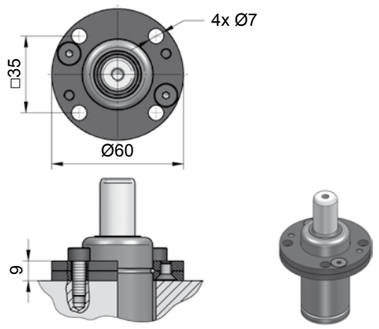


NCQ.44

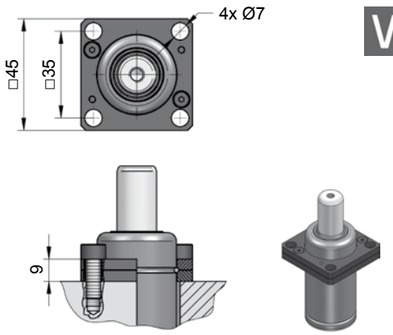
[16.04.2020]

GDF, niedrigbauend, System NK
GS, smaller height, NK series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

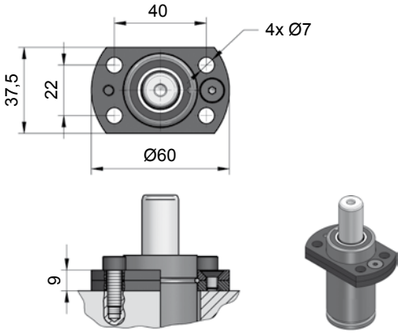
Flansche für / Flanges for **NC.016.00.00300...1**



NC.88.00.032.0114



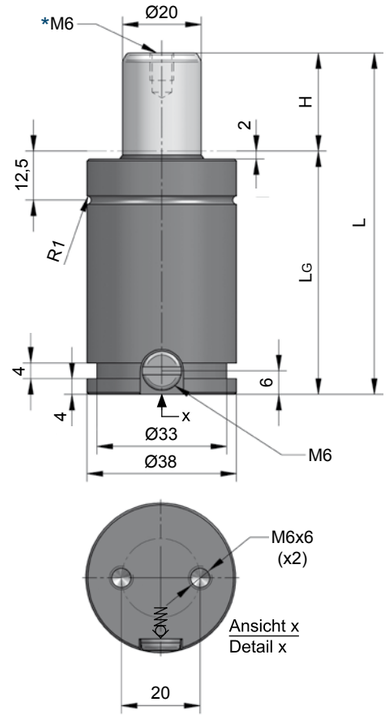
NC.88.00.032.0134



NC.88.00.032.0144

[16.04.2020]

NC.016.00.00500



Technische Daten:

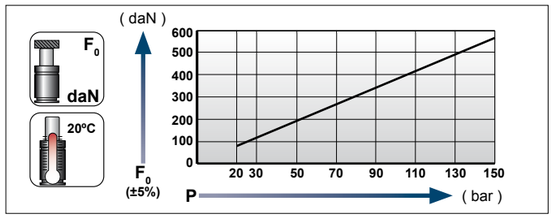
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

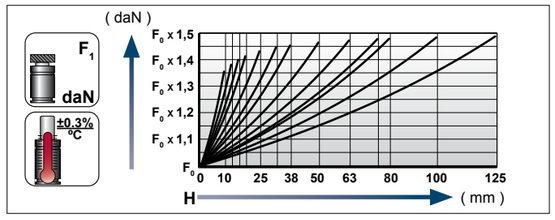
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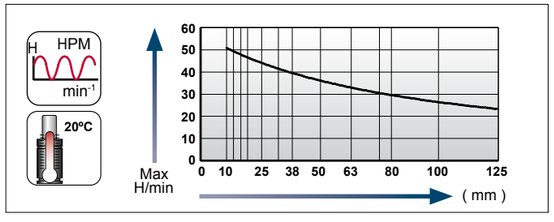
Pressure medium:	N_2
Max. charging pressure:	150 bar
Min. charging pressure:	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.016.00.00500.038

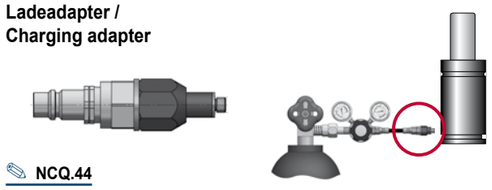
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	57	47	470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	63	50	470	
016	69	53	470	
019	75	56	470	
025	87	62	470	
032	101	69	470	
038	113	75	470	
050	137	87	470	
063	163	100	470	
075	187	112	470	
080	197	117	470	
100	237	137	470	
125	287	162	470	







Ladeadapter / Charging adapter

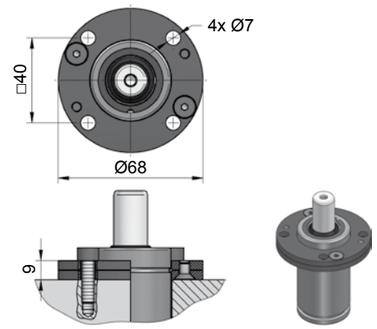


NCQ.44

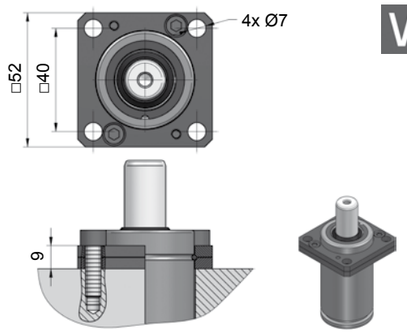
[16.04.2020]

GDF, niedrigbauend, System NK
GS, smaller height, NK series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

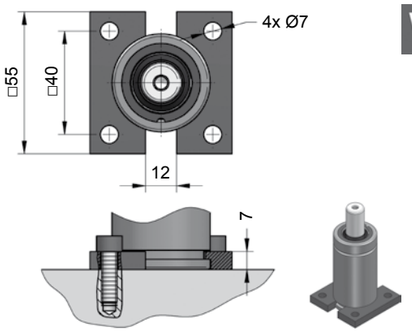
Flansche für / Flanges for **NC.016.00.00500**



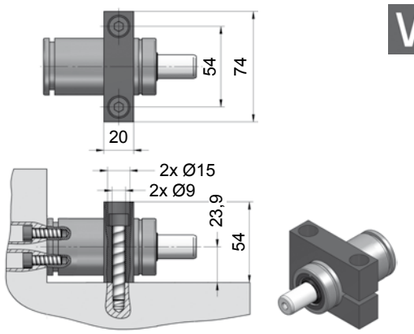
NC.88.00.038.0114



NC.88.00.038.0134



NC.88.00.038.0320

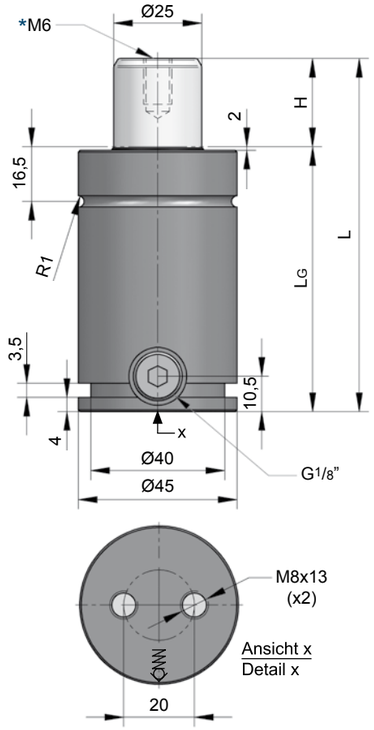


NC.88.00.038.0467

[16.04.2020]

[NC]

NC.016.00.00750...2



Technische Daten:

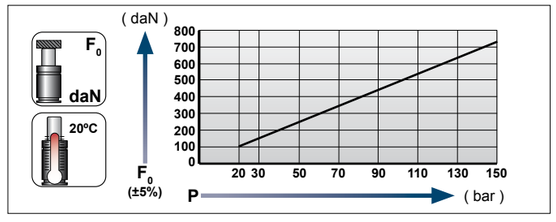
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

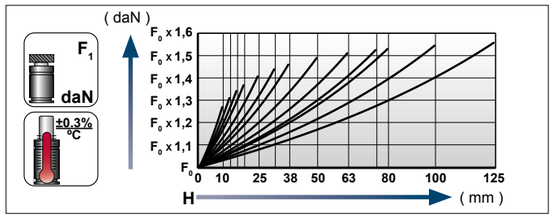
Specifications:

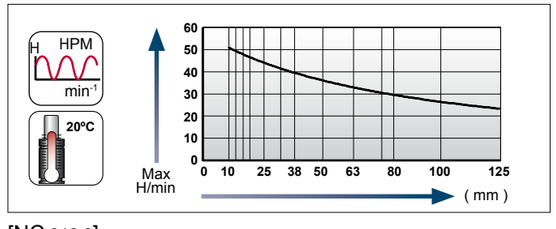
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.016.00.00750.025.2

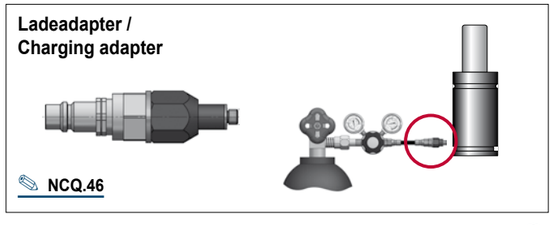
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	70	60	740	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	76	63	740	
016	82	66	740	
019	88	69	740	
025	100	75	740	
032	114	82	740	
038	126	88	740	
050	150	100	740	
063	176	113	740	
075	200	125	740	
080	210	130	740	
100	250	150	740	
125	300	175	740	







Ladeadapter / Charging adapter



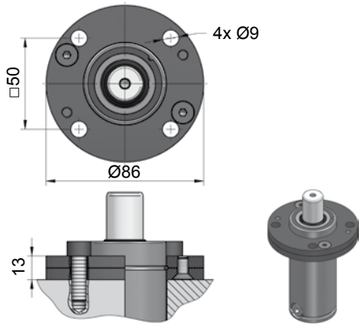
NCQ.46

[16.04.2020]

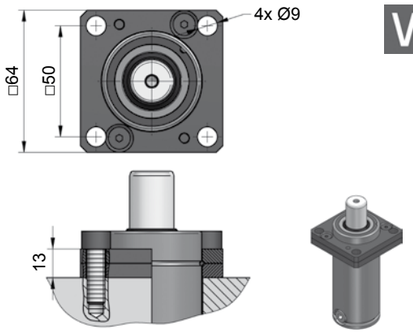
[16.04.2020]

GDF, niedrigbauend, System NK
GS, smaller height, NK series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

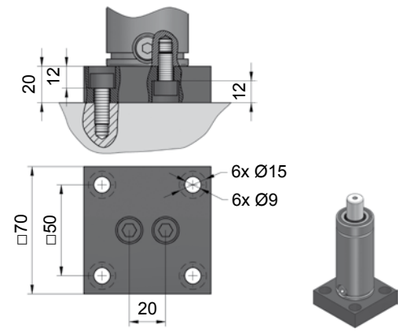
Flansche für / Flanges for **NC.016.00.00750…2**



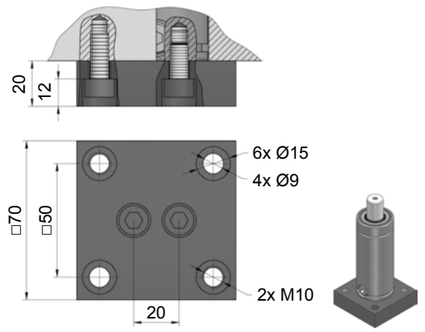
NC.88.00.045.0114



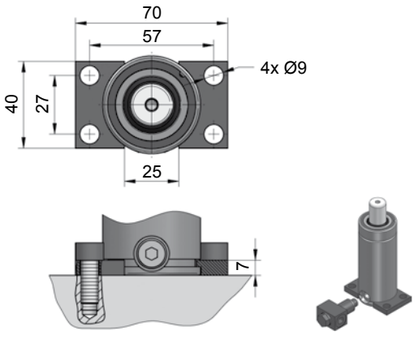
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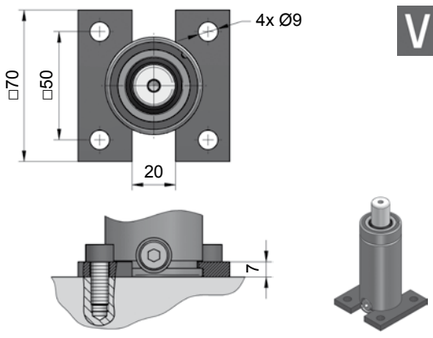
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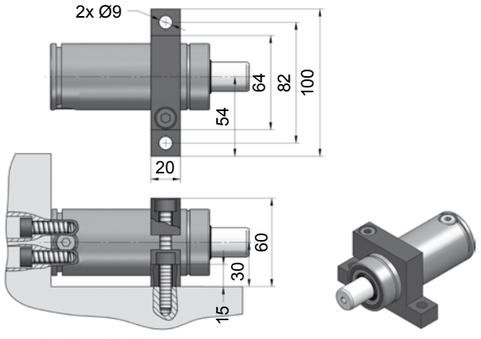
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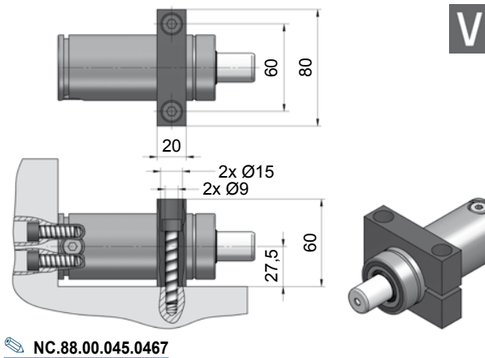
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NC.88.00.045.0320



NC.88.00.045.0402



NC.88.00.045.0467

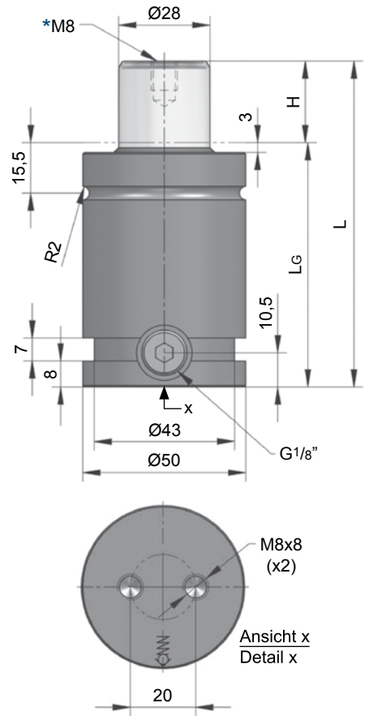
NC.016.00.01000...3

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

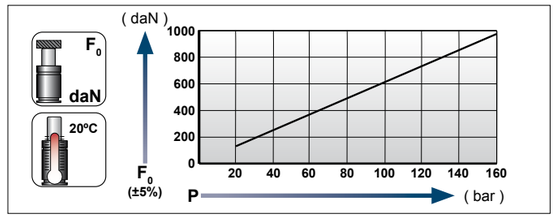
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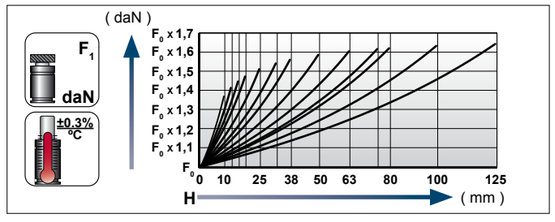
Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

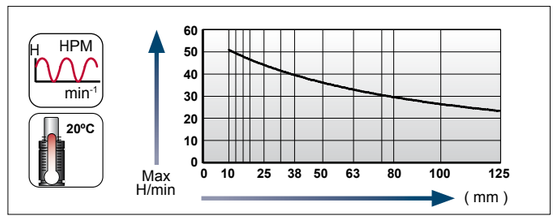


NC.016.00.
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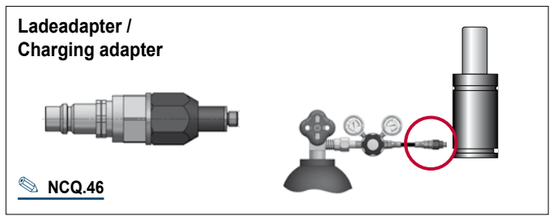
H Hub / Stroke	L ±0,25	LG	Kraft / Force (160 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	70	60	985	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	76	63	985	
016	82	66	985	
019	88	69	985	
025	100	75	985	
032	114	82	985	
038	126	88	985	
050	150	100	985	
063	176	113	985	
075	200	125	985	
080	210	130	985	
100	250	150	985	
125	300	175	985	







Ladeadapter / Charging adapter



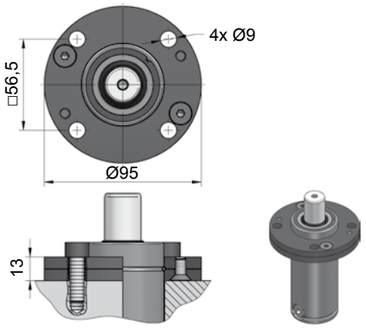
NCQ.46

[16.04.2020]

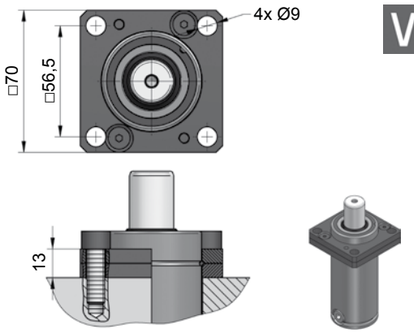
[16.04.2020]

GDF, niedrigbauend, System NK
GS, smaller height, NK series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

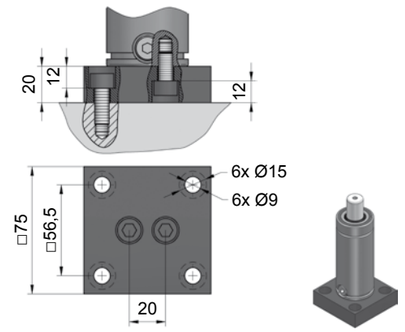
Flansche für / Flanges for **NC.016.00.01000…3**



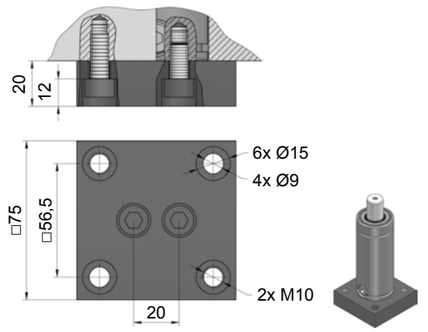
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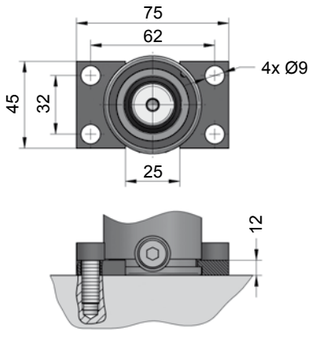
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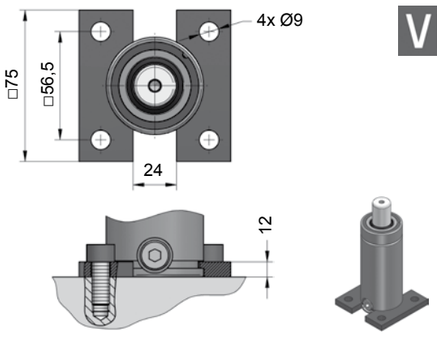
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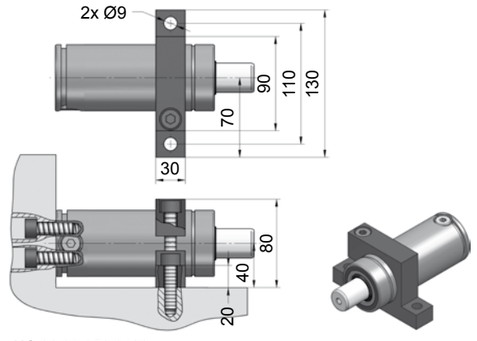
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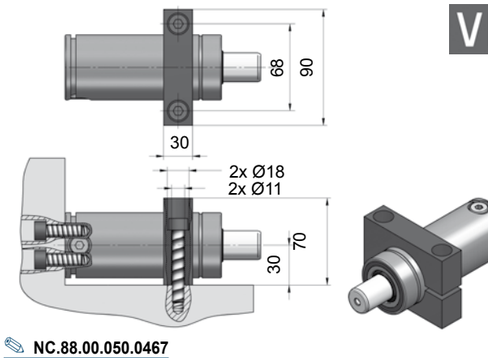
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NC.88.00.050.0320



NC.88.00.050.0402



NC.88.00.050.0467

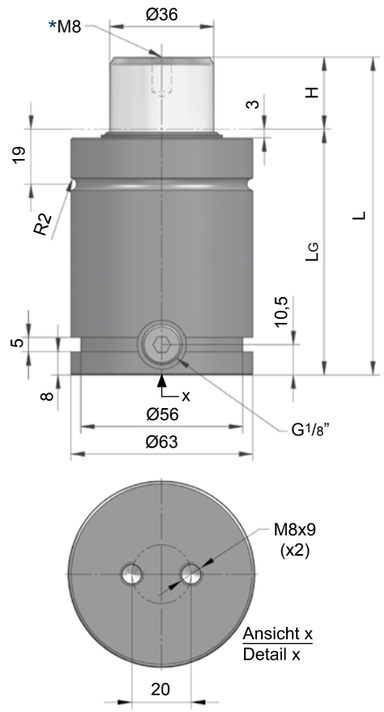
NC.016.00.01500...2

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

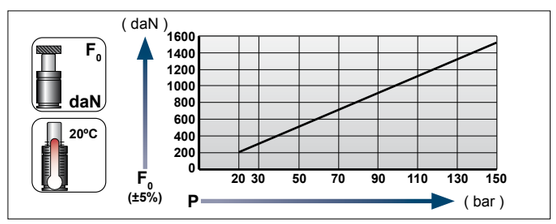
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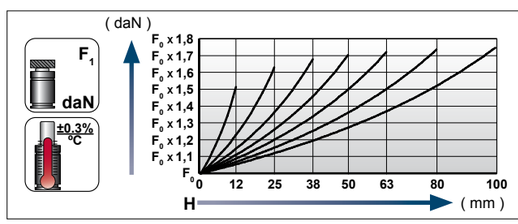
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

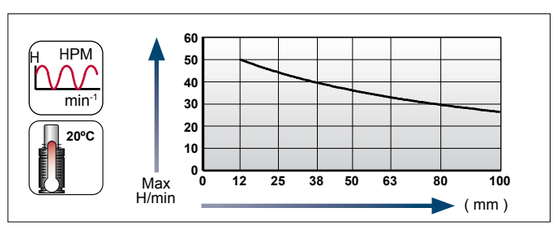


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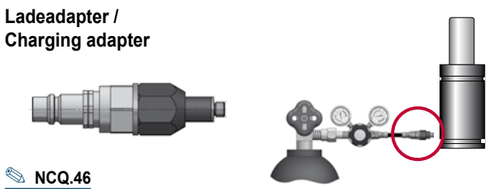
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
012	84	72	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	110	85	1530	
038	136	98	1530	
050	160	110	1530	
063	186	123	1530	
080	220	140	1530	
100	260	160	1530	







Ladeadapter / Charging adapter

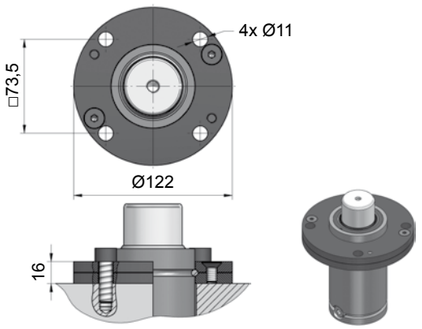


NCQ.46

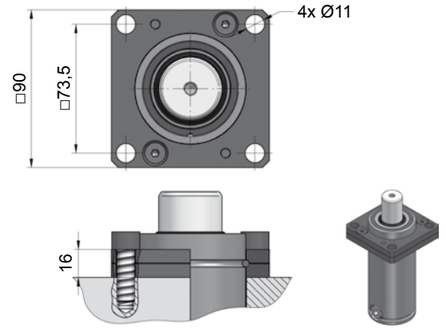
[16.04.2020]

[16.04.2020]

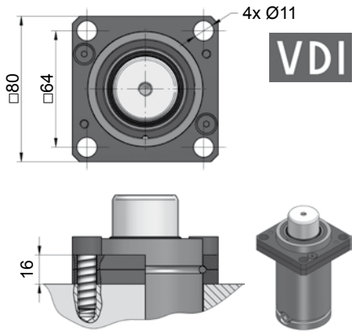
Flansche für / Flanges for **NC.016.00.01500…2**



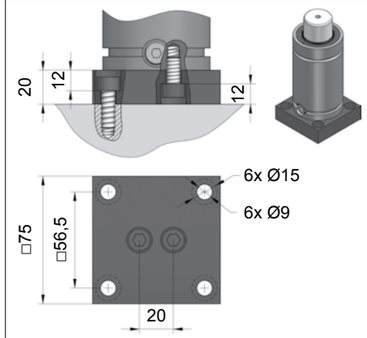
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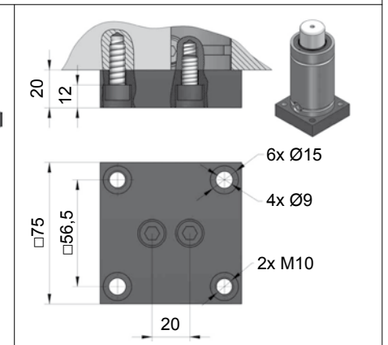
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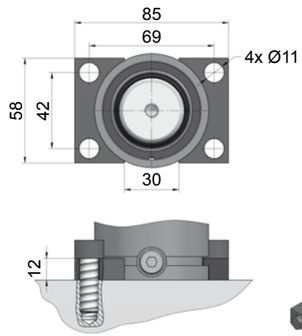
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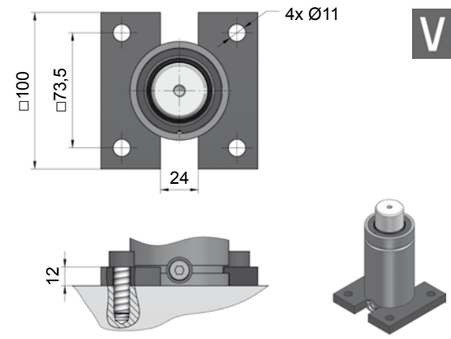
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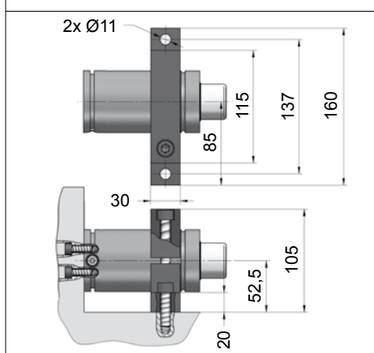
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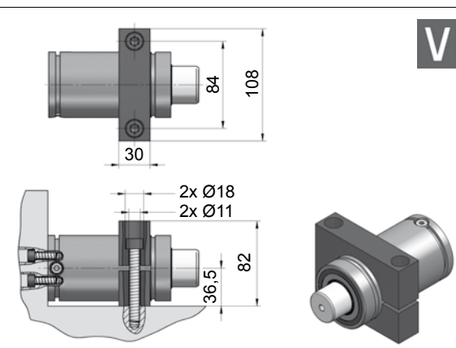
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NC.88.00.063.0335

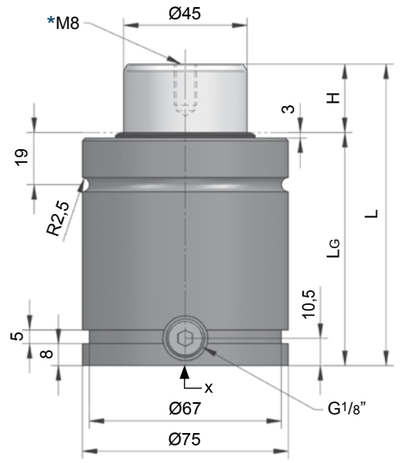


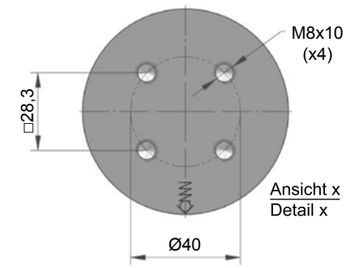
NC.88.00.063.0402



NC.88.00.063.0467

NC.016.00.02500...1





Technische Daten:

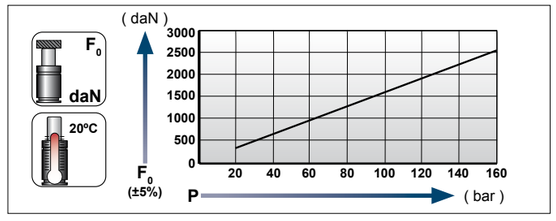
Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

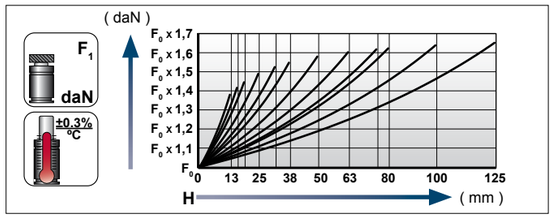
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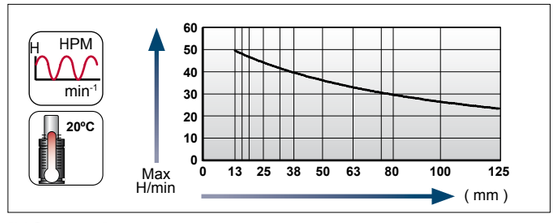
Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.016.00.02500.100.1

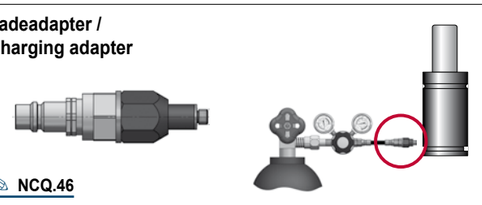
H Hub / Stroke	L ±0,25	LG	Kraft / Force (160 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	86	73	2545	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	92	76	2545	
019	98	79	2545	
025	110	85	2545	
032	124	92	2545	
038	136	98	2545	
050	160	110	2545	
063	186	123	2545	
075	210	135	2545	
080	220	140	2545	
100	260	160	2545	
125	310	185	2545	







Ladeadapter / Charging adapter



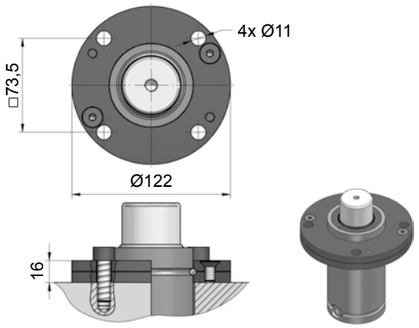
NCQ.46

[16.04.2020]

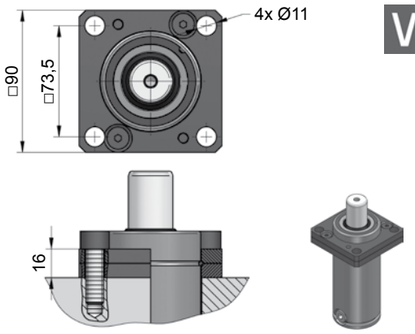
[16.04.2020]

GDF, niedrigbauend, System NK
GS, smaller height, NK series
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

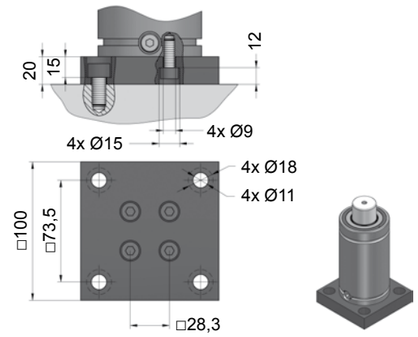
Flansche für / Flanges for **NC.016.00.02500…1**



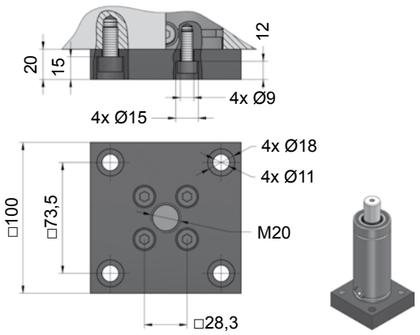
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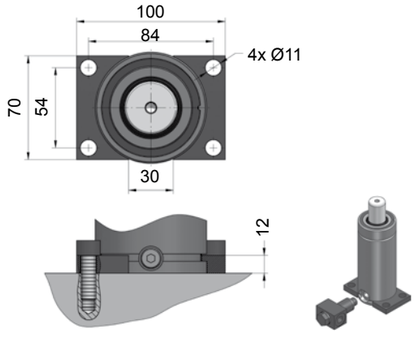
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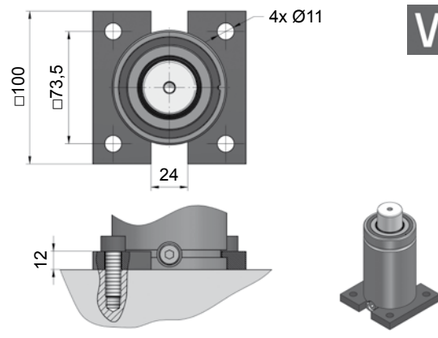
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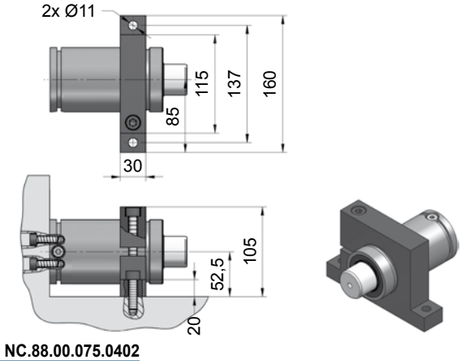
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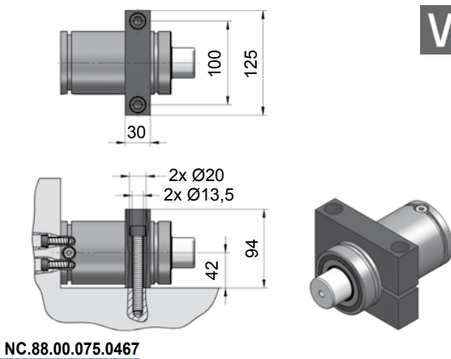
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NC.88.00.075.0320

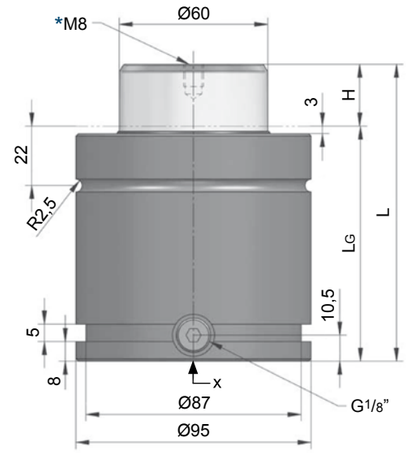


NC.88.00.075.0402



NC.88.00.075.0467

NC.016.00.04000...1

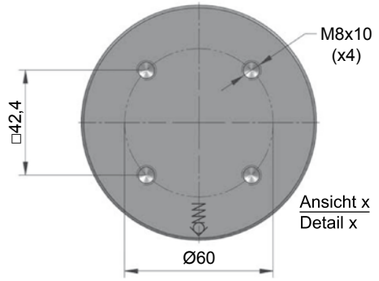


Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

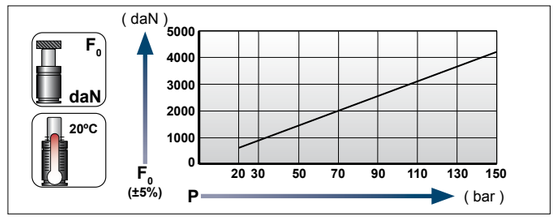
Specifications:

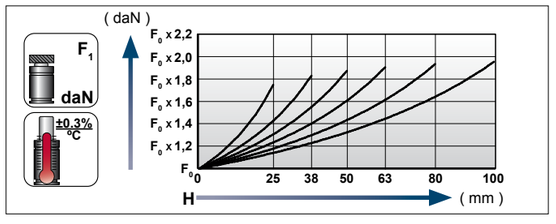
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

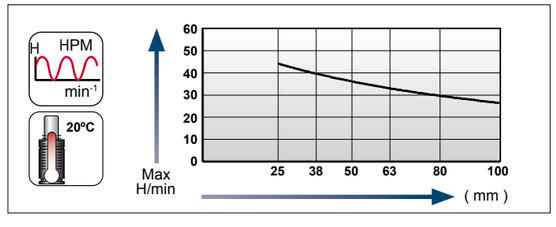


NC.016.00.
04000.100.1

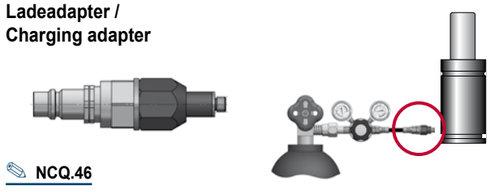
H Hub / Stroke	L ±0,25	LG	Kraft / Force (140 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	120	95	3960	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	146	108	3960	
050	170	120	3960	
063	196	133	3960	
080	230	150	3960	
100	270	170	3960	







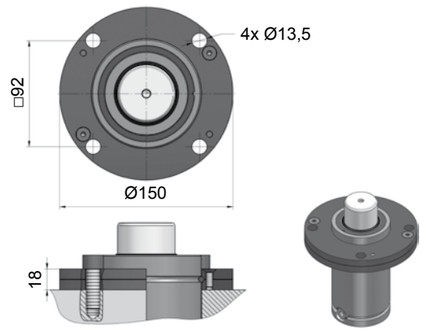
Ladeadapter / Charging adapter



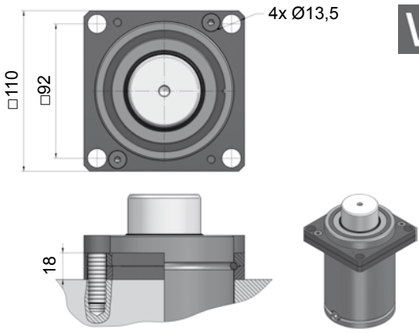
NCQ.46

[31.01.2020]
[16.04.2020]

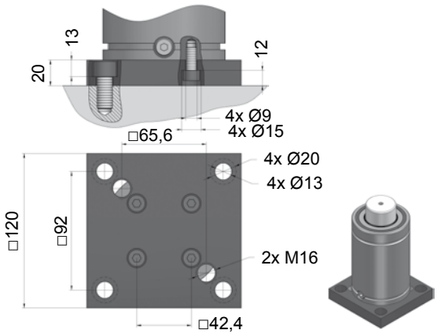
Flansche für / Flanges for **NC.016.00.04000…1**



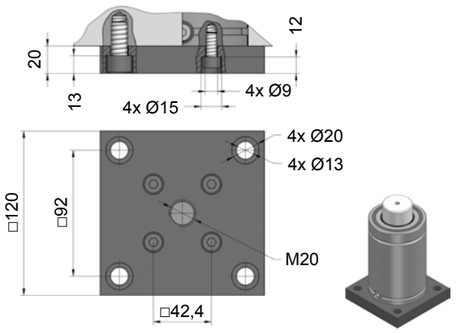
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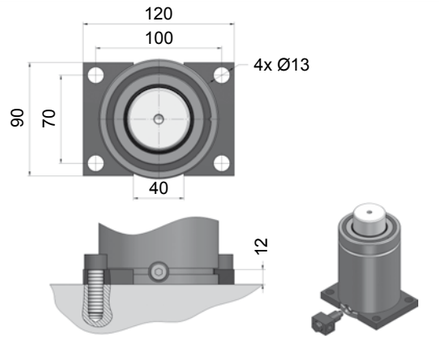
NC.88.00.095.0134



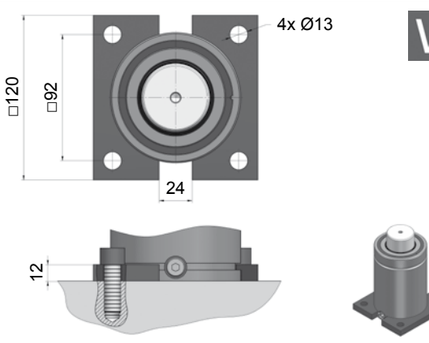
NC.88.00.095.0221



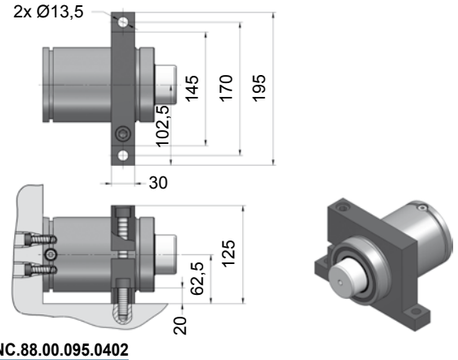
NC.88.00.095.0276



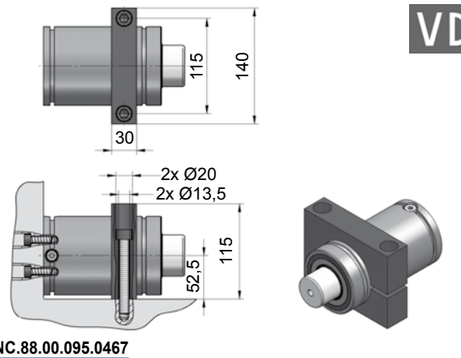
NC.88.00.095.0305



NC.88.00.095.0320



NC.88.00.095.0402



NC.88.00.095.0467

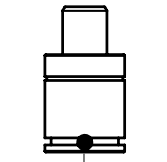
Technische Information Serie NC.028.00

Die Gasdruckfedern der Serie **NC.028.00** sind baugleich mit den kleineren Abmessungen der Serie **NC.015.00**, haben aber einen verstärkten Boden zur Unterbringung eines G1/8“-Anschlussgewindes.

Technical information NC.028.00 series

The **NC.028.00**-gas springs have the same outside dimensions as the smaller size **NC.015.00**-series. However, in order to accomodate a G1/8“ - thread, their base plate is thicker.

Größenübersicht Serie NC.028.00

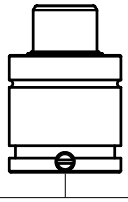


NC.028.00.00750...2
740 daN
10 - 125 mm
Ø45

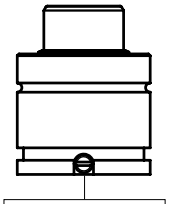


NC.028.00.01000...2
920 daN
10 - 125 mm
Ø50

Gas spring index NC.028.00 series

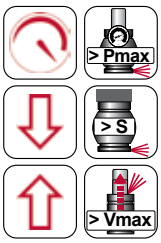


NC.028.00.01500
1530 daN
13 - 125 mm
Ø63



NC.028.00.02400...2
2385 daN
13 - 125 mm
Ø75

SICHERHEITSSYSTEME



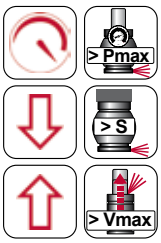
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



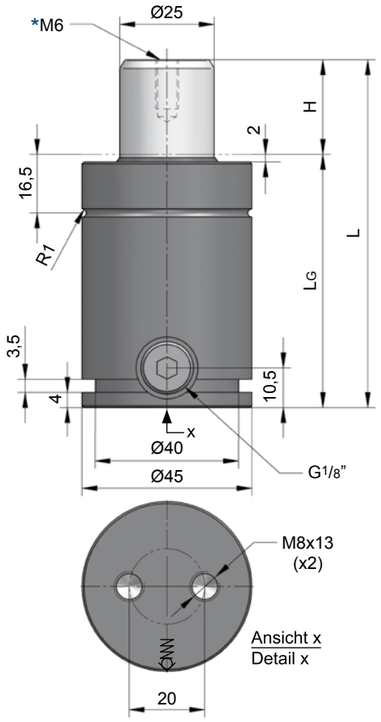
Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

NC.028.00.00750...2



Technische Daten:

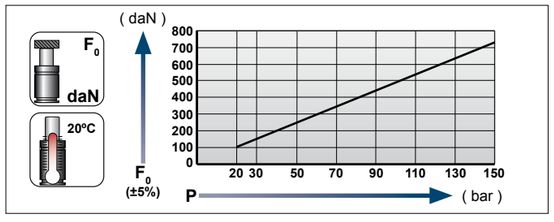
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

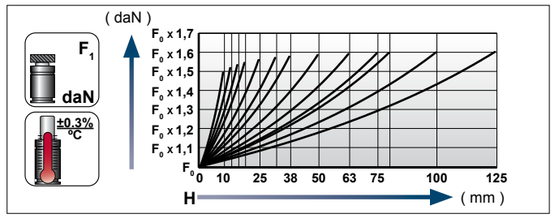
Specifications:

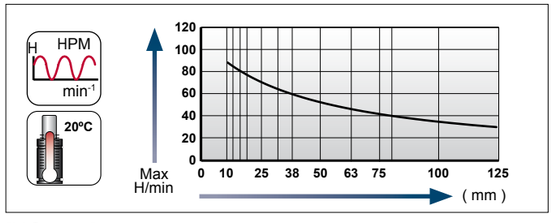
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.028.00.00750.025.2

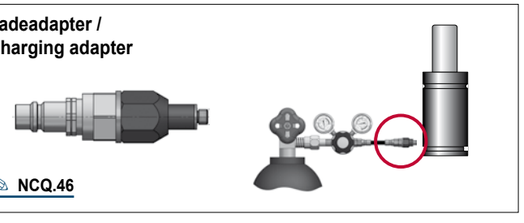
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	62	52	740	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	68	55	740	
016	74	58	740	
019	80	61	740	
025	92	67	740	
032	106	74	740	
038	118	80	740	
050	142	92	740	
063	168	105	740	
075	192	117	740	
080	202	122	740	
100	242	142	740	
125	292	167	740	







Ladeadapter / Charging adapter

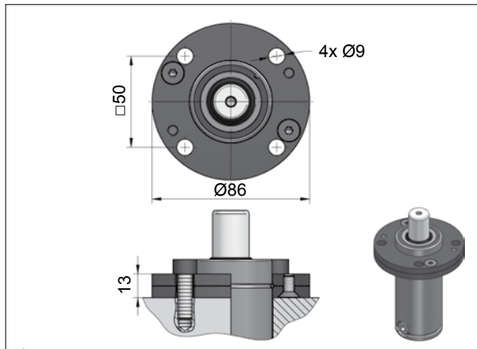


NCQ.46

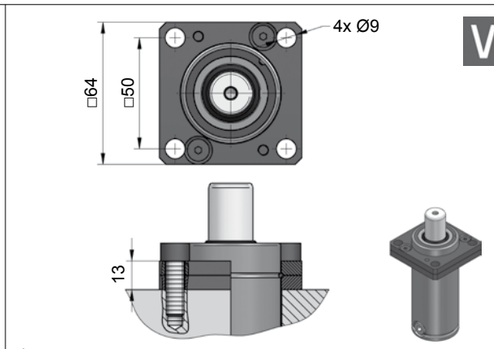
[27.01.2020]

GDF, niedrigbauend, G1/8“
GS, smaller height, G1/8“
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

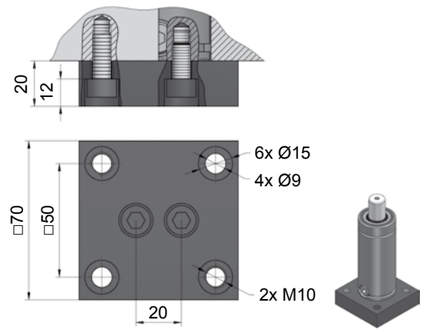
Flansche für / Flanges for **NC.028.00.00750…2**



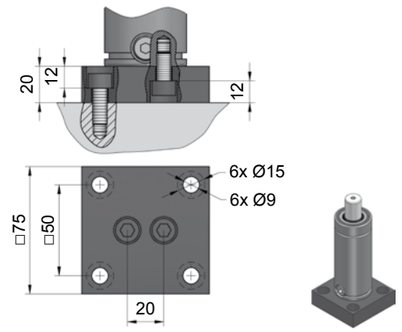
NC.88.00.045.0114



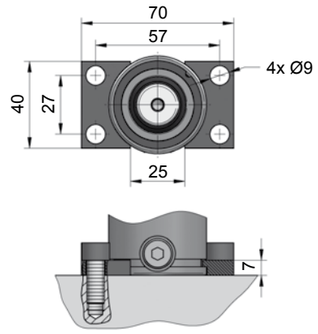
NC.88.00.045.0134



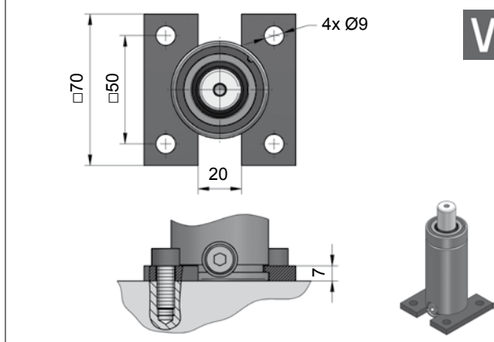
NC.88.00.045.0236



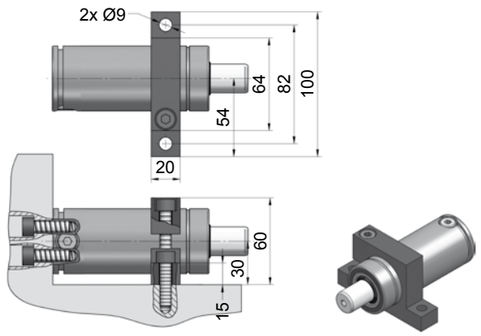
NC.88.00.045.0241



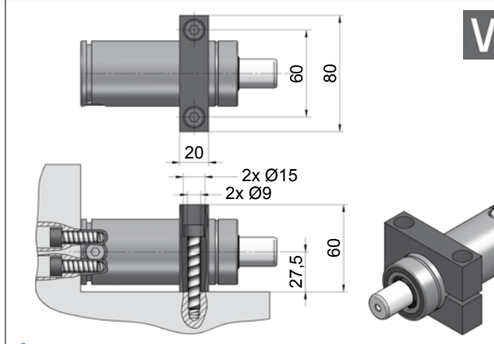
NC.88.00.045.0305



NC.88.00.045.0320



NC.88.00.045.0402



NC.88.00.045.0467

[27.01.2020]

[NC]

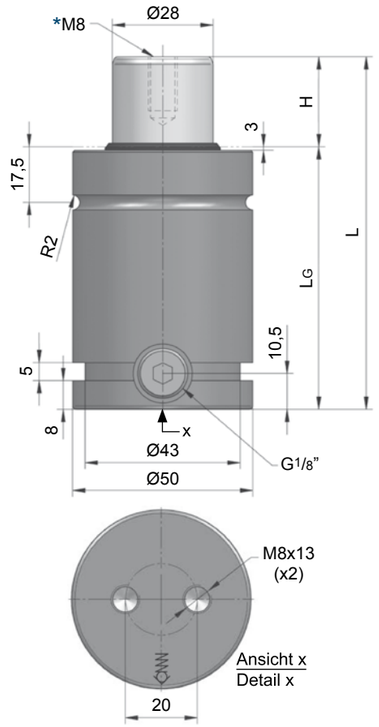
NC.028.00.01000...2

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

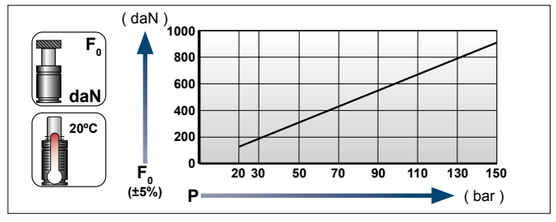
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

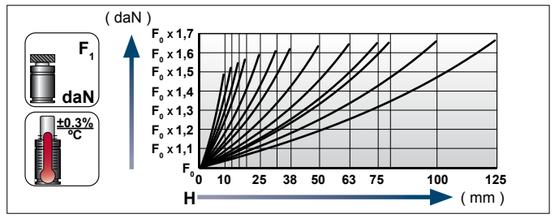


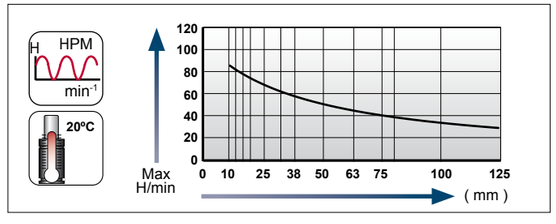
INFO [NC.21]

NC.028.00.
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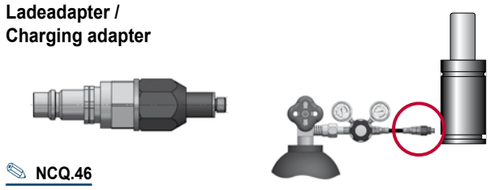
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	68	58	920	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	74	61	920	
016	80	64	920	
019	86	67	920	
025	98	73	920	
032	112	80	920	
038	124	86	920	
050	148	98	920	
063	174	111	920	
075	198	123	920	
080	208	128	920	
100	248	148	920	
125	298	173	920	







Ladeadapter / Charging adapter



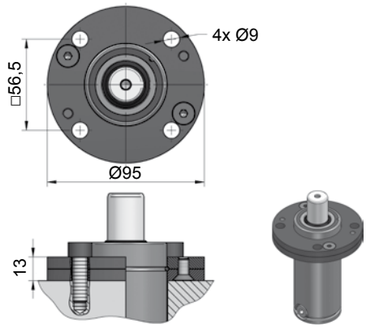
NCQ.46

[27.01.2020]

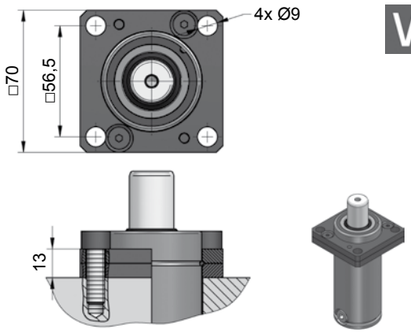
[27.01.2020]

GDF, niedrigbauend, G1/8“
GS, smaller height, G1/8“
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

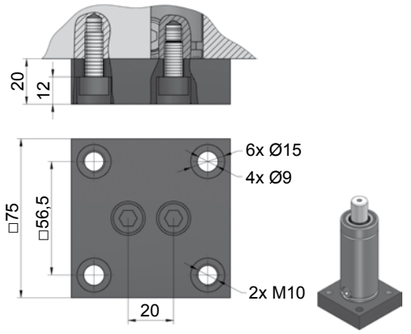
Flansche für / Flanges for **NC.028.00.01000…2**



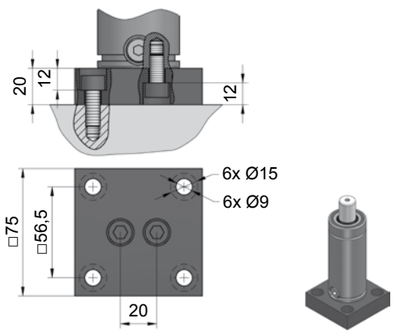
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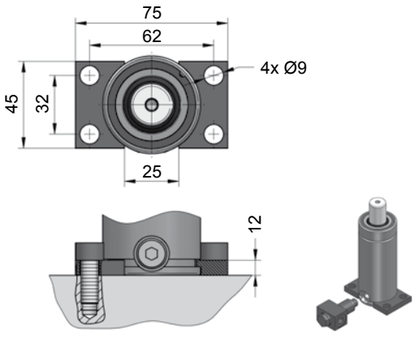
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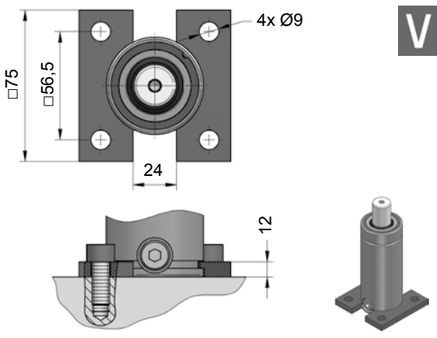
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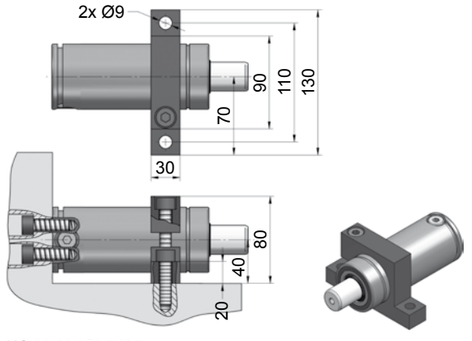
NC.88.00.050.0241



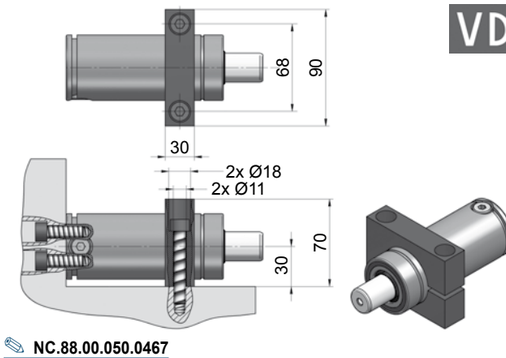
NC.88.00.050.0305



NC.88.00.050.0320

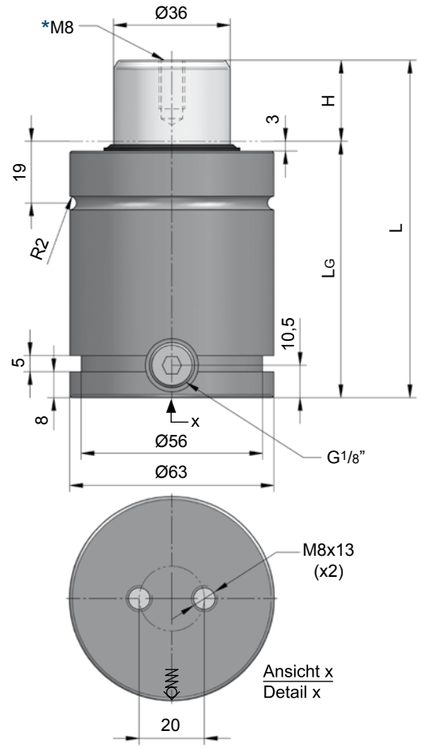


NC.88.00.050.0402



NC.88.00.050.0467

NC.028.00.01500



Technische Daten:

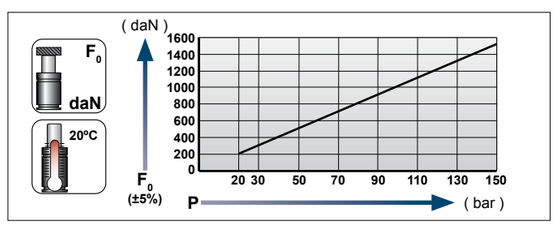
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

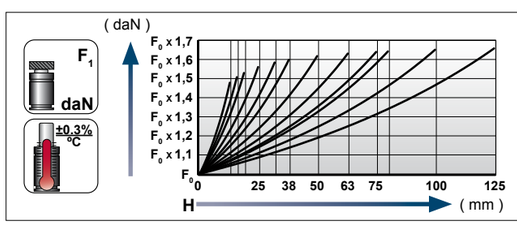
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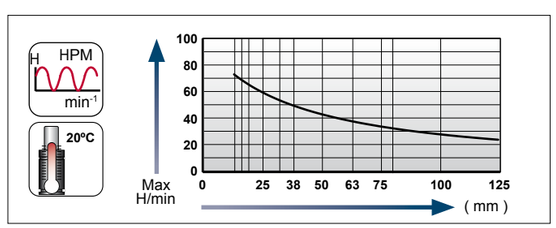
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.028.00.
01500.050

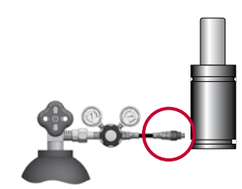
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
013	80	67	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	86	70	1530	
019	92	73	1530	
025	104	79	1530	
032	118	86	1530	
038	130	92	1530	
050	154	104	1530	
063	180	117	1530	
075	204	129	1530	
080	214	134	1530	
100	254	154	1530	
125	304	179	1530	







**Ladeadapter /
Charging adapter**

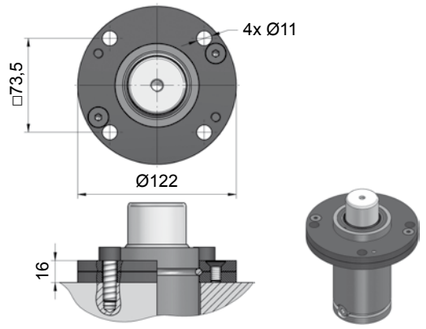


NCQ.46

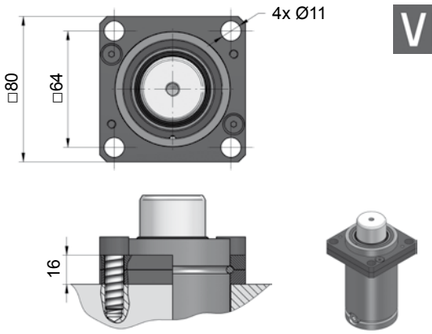
[27.01.2020]

GDF, niedrigbauend, G1/8“
GS, smaller height, G1/8“
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

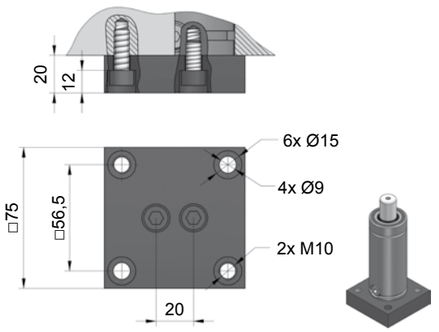
Flansche für / Flanges for **NC.028.00.01500**



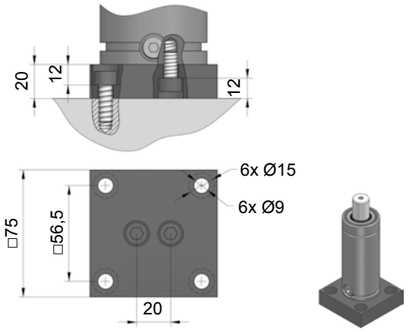
NC.88.00.063.0114



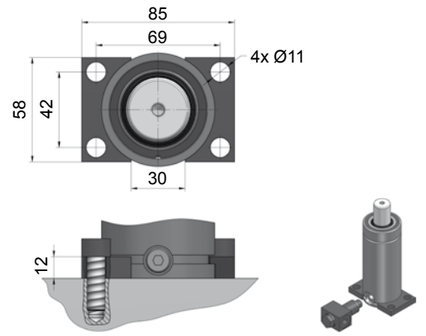
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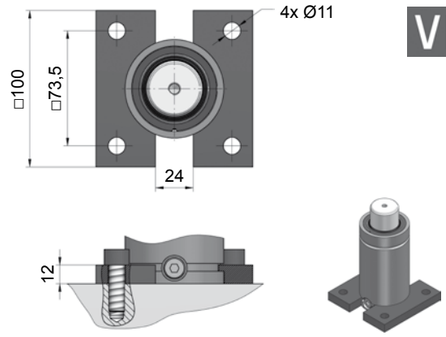
NC.88.00.063.0236



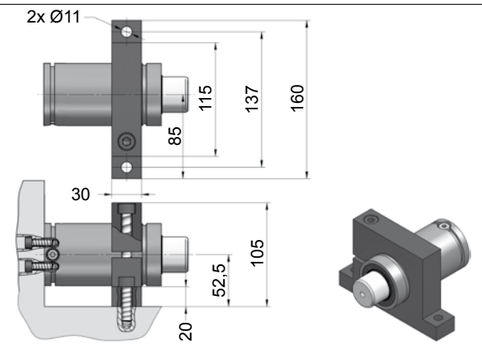
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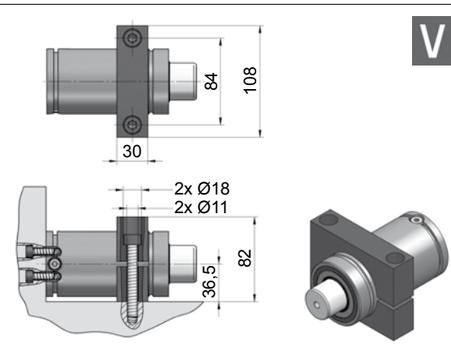
NC.88.00.063.0305



NC.88.00.063.0335



NC.88.00.063.0402

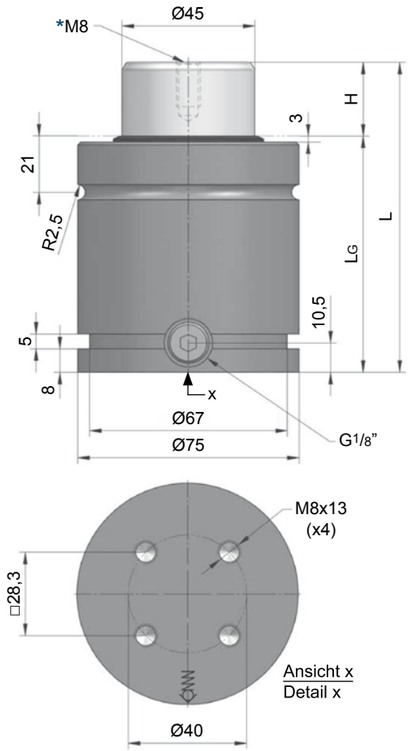


NC.88.00.063.0467

[27.01.2020]

[NC]

NC.028.00.02400...2



Technische Daten:

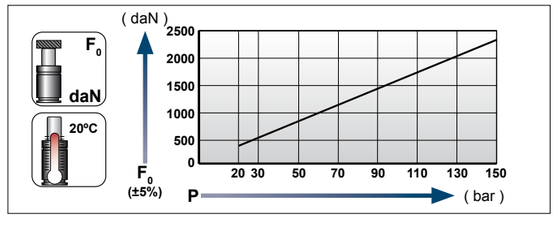
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

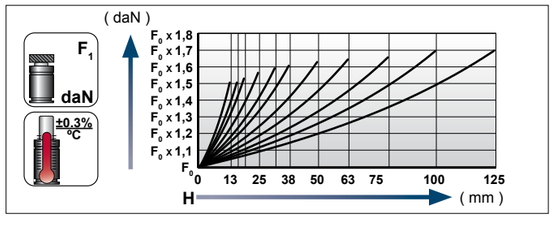
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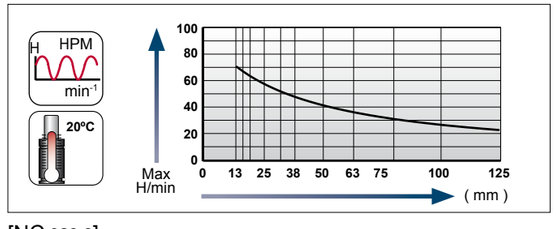
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.028.00.02400.075.2

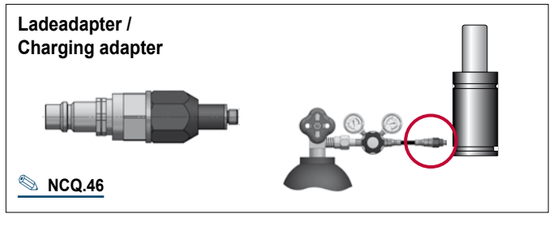
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	81	68	2385	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	87	71	2385	
019	93	74	2385	
025	105	80	2385	
032	119	87	2385	
038	131	93	2385	
050	155	105	2385	
063	181	118	2385	
075	205	130	2385	
080	215	135	2385	
100	255	155	2385	
125	305	180	2385	







Ladeadapter / Charging adapter



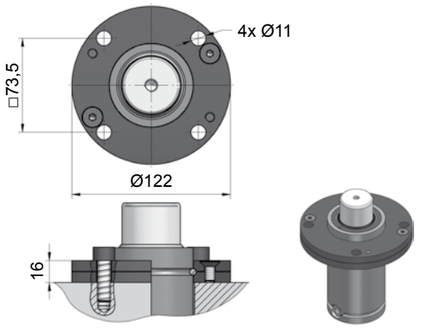
NCQ.46

[27.01.2020]

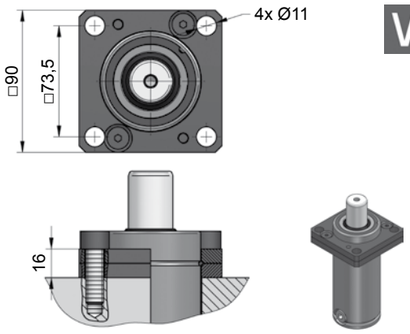
[27.01.2020]

GDF, niedrigbauend, G1/8“
GS, smaller height, G1/8“
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

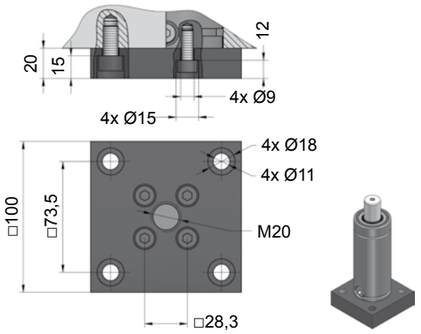
Flansche für / Flanges for **NC.028.00.02400...2**



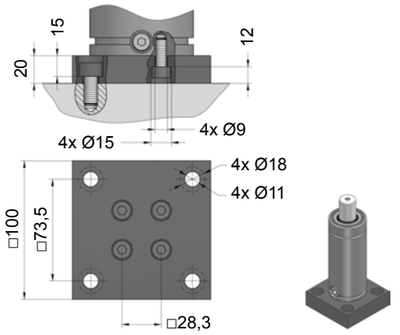
NC.88.00.075.0114



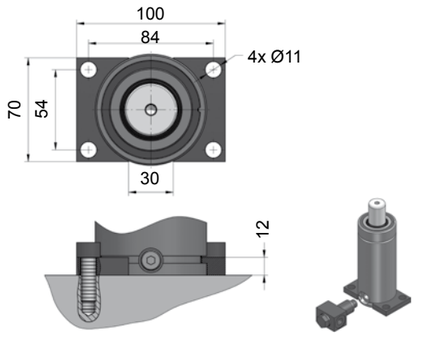
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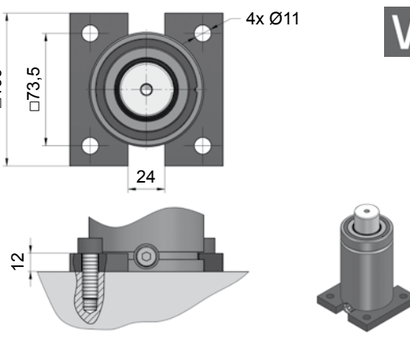
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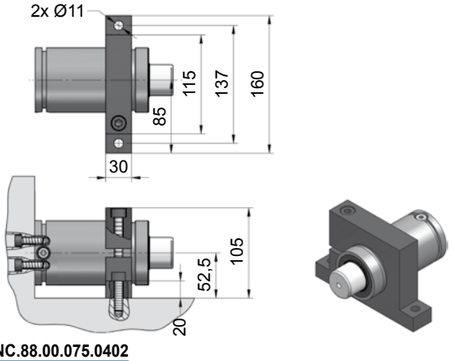
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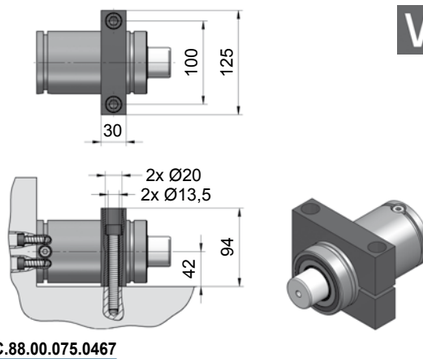
NC.88.00.075.0305



NC.88.00.075.0320



NC.88.00.075.0402



NC.88.00.075.0467

Technische Information Serie NC.030.00

Beim Einsatz von Gasdruckfedern ist darauf zu achten, dass diese vor Schmutz, Ziehölen und sonstigen Fluiden geschützt werden. Zwar verfügen die meisten Gasdruckfedern über einen Schmutzabstreifer, der das Eindringen von Fremdkörpern verhindern soll, allerdings besteht der beste Schutz darin, erst gar keine Verunreinigung an die Zylinder kommen zu lassen.

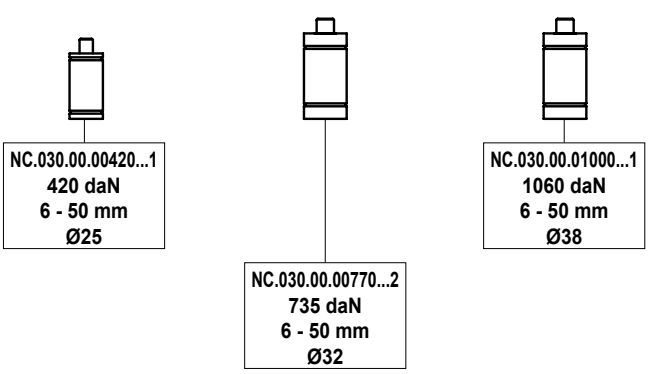
Die Gasdruckfedern der **NC.030**-Serie haben einen besonderen Aufbau (Kolben mit Kolbenkopf). Bei diesem Zylinder-Typ entsteht an der Zylinder-Oberseite ein Saugeffekt, der Flüssigkeiten oder Schmutz in den Zylinder-innenraum ziehen kann. Da sich der Raum für den Stickstoff dadurch verringert, entsteht ein kontinuierlich ansteigender Druck, der letztendlich zum frühzeitigen Ausfall des Zylinders führen kann. Aus diesem Grund müssen die Gasdruckfedern **NC.030** konsequent gegen Verunreinigung geschützt werden.

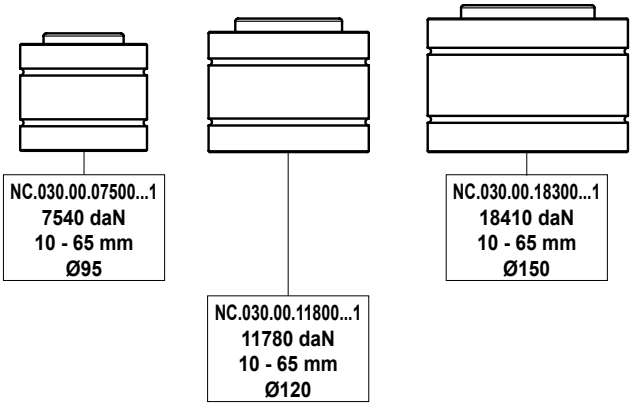
Technical information NC.030.00 series

Using gas springs it is mandatory to protect them from dirt, oil and similar fluids. For that reason, most springs have a plastic dirt-scraper, to prevent the penetration of these external particles. However, the best protection is not to let any dirt get to the springs at all in the first place.

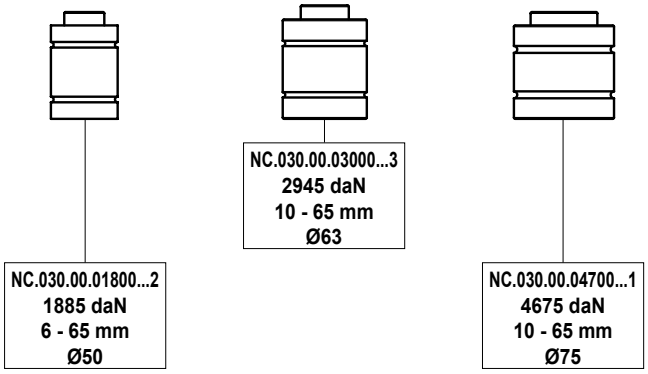
Due to the specific design of the **NC.030.00**-gas springs there is a „sucking“ effect at the top of the cylinder body. This effect can lead to foreign particles being pulled inside. Since the room designated for the nitrogne thereby continously decreases, the cylinder life - time may be negatively affected. It is for this reason, that the gas springs of this series must be well protected against dirt and fluids.

Größenübersicht Serie NC.030.00

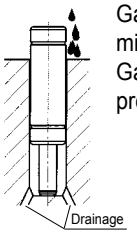




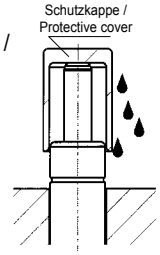
Gas spring index NC.030.00 series

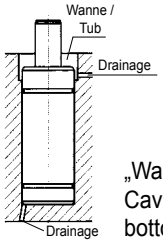


Gasdruckfeder-Einbau „über Kopf“ mit Drainage im Boden / Upside-Down - Application, drain-hole at the bottom



Gasdruckfeder mit Schutzkappe / Gas spring with protective cover





„Wanne“ mit Drainage oben, zusätzlich Boden-Drainage / Cavity with upper drain-hole, additional drain hole at the bottom

SICHERHEITSSYSTEME



Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

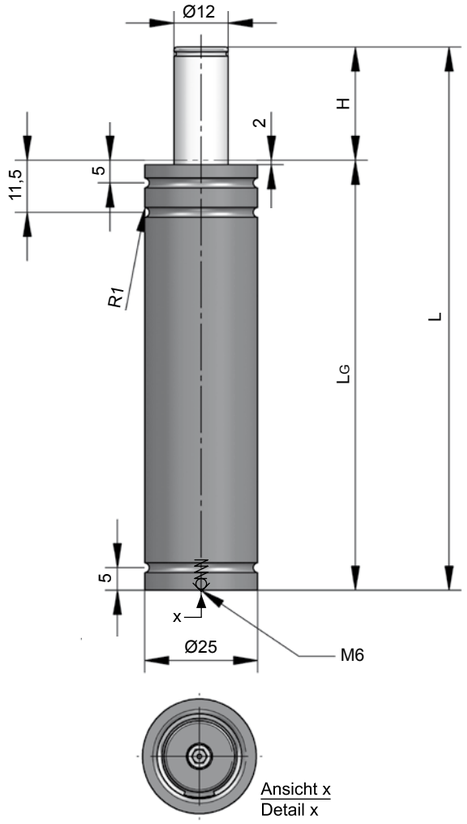
NC.030.00.00420...1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	165 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s
Ventil:	**NCR.99.082**

Specifications:

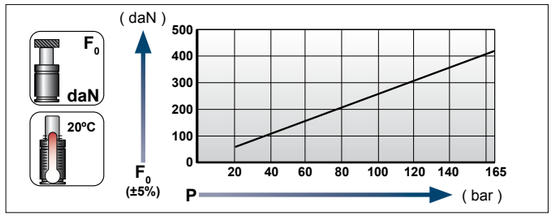
Pressure medium:	N_2
$P_{max.}$ (20 °C):	165 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s
Valve:	**NCR.99.082**

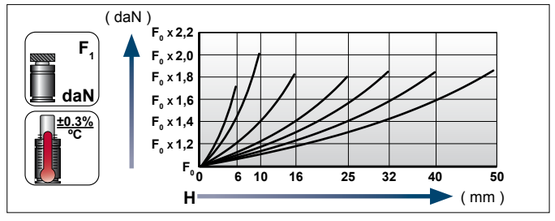


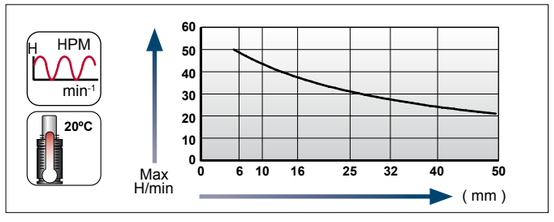
NC.030.00.00420.032.1

Ansicht x
Detail x

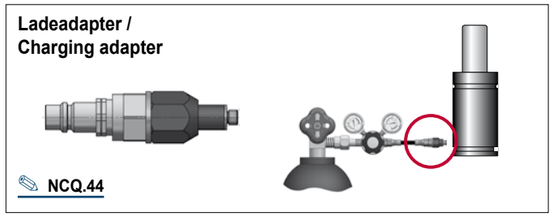
H Hub / Stroke	L ±0,25	LG	Kraft / Force (165 bar) Anfang / Initial [daN]	Ende / Final [daN]
006	56	50	420	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	70	60	420	
016	91	75	420	
025	120	95	420	
032	140	108	420	
040	165	125	420	
050	195	145	420	







Ladeadapter /
Charging adapter

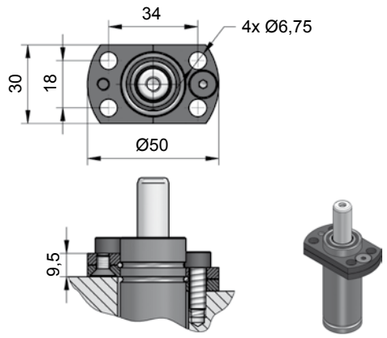


NCQ.44

[28.01.2020]

GDF, kompakt
GS, compact
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

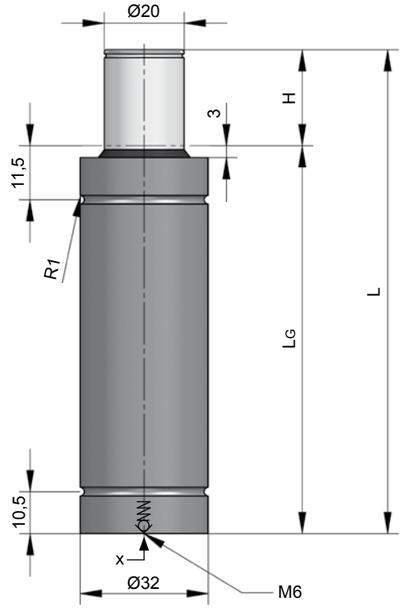
Flansche für / Flanges for **NC.030.00.00420…1**



NC.88.00.025.0144

[28.01.2020]

NC.030.00.00770...2



Technische Daten:

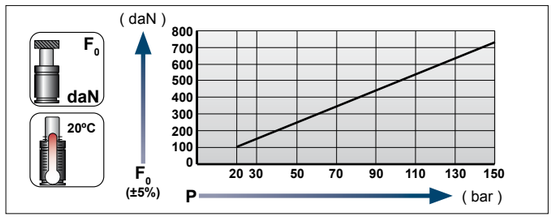
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

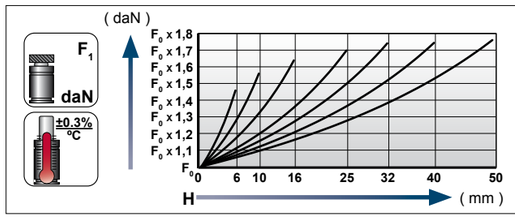
Specifications:

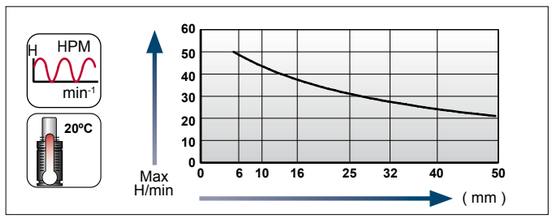
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

NC.030.00.00770.032.2

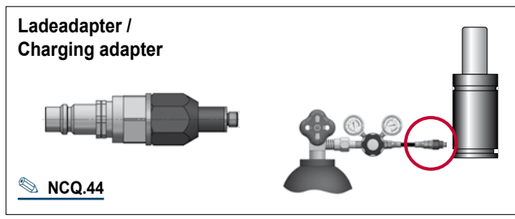
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
006	63	57	735	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	75	65	735	
016	93	77	735	
025	120	95	735	
032	140	108	735	
040	165	125	735	
050	195	145	735	







Ladeadapter / Charging adapter

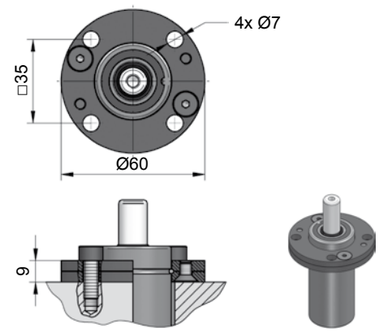


NCQ.44

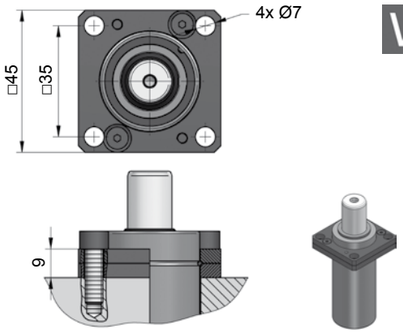
[28.01.2020]

GDF, kompakt
GS, compact
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.030.00.00770…2**



NC.88.00.032.0114



NC.88.00.032.0134

[28.01.2020]

[NC]

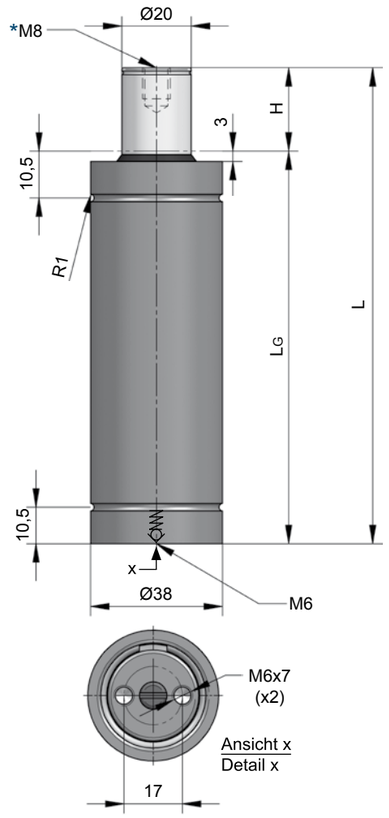
NC.030.00.01000...1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

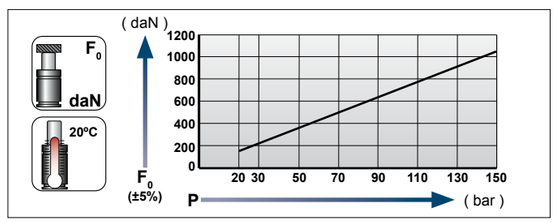
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

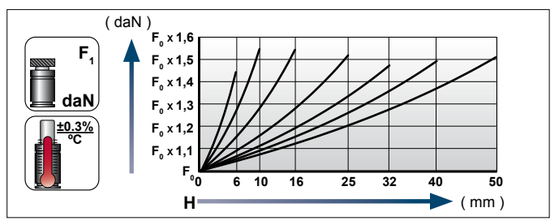


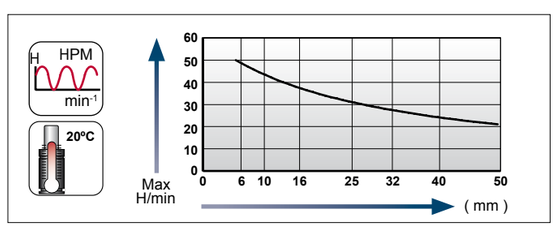


NC.030.00.
01000.016.1

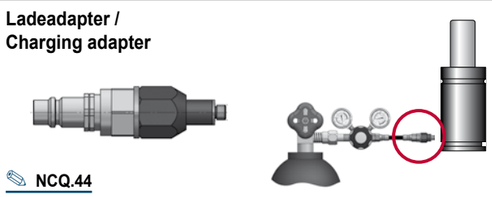
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
006	61	55	1060	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	78	68	1060	
016	100	84	1060	
025	135	110	1060	
032	167	135	1060	
040	195	155	1060	
050	230	180	1060	







Ladeadapter / Charging adapter

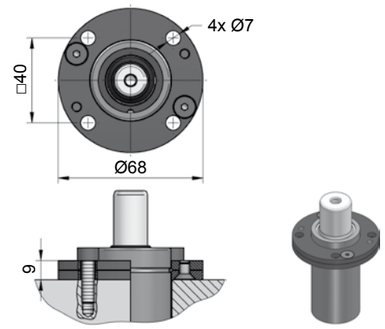


NCQ.44

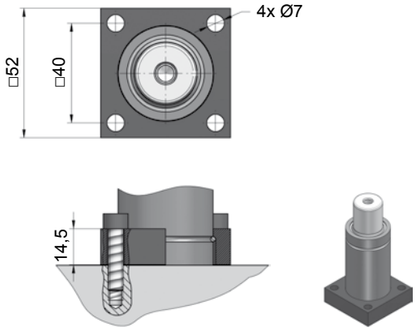
[28.01.2020]

[28.01.2020]

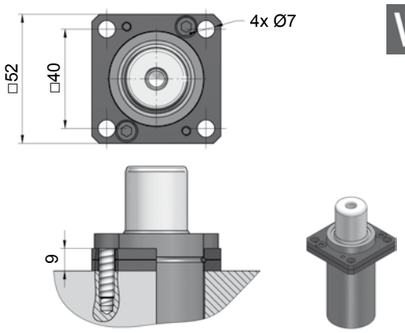
Flansche für / Flanges for **NC.030.00.01000…1**



NC.88.00.038.0114



NC.88.00.038.0119



NC.88.00.038.0134

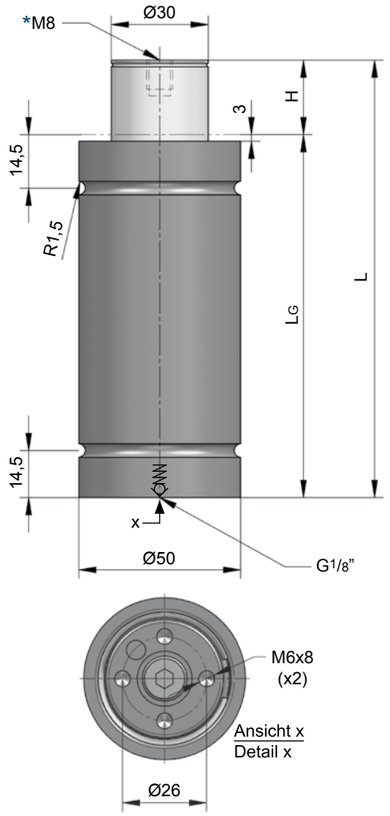
NC.030.00.01800...2

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

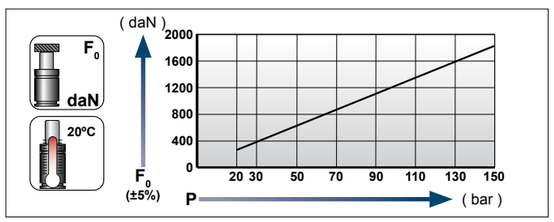


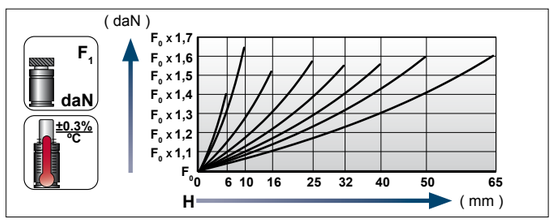
INFO [NC.21]

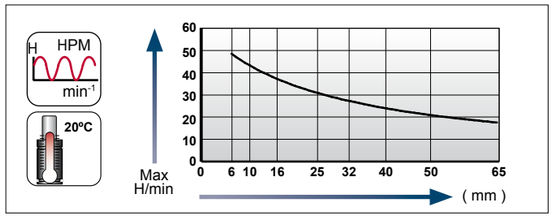
NC.030.00.01800.025.2

MAIL

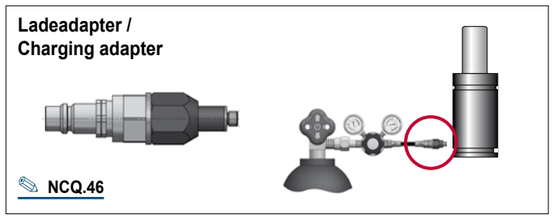
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
006	66	60	1885	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	80	70	1885	
016	106	90	1885	
025	135	110	1885	
032	162	130	1885	
040	190	150	1885	
050	220	170	1885	
065	271	206	1885	







Ladeadapter / Charging adapter

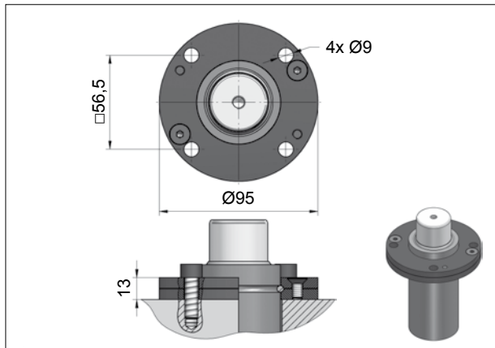


NCQ.46

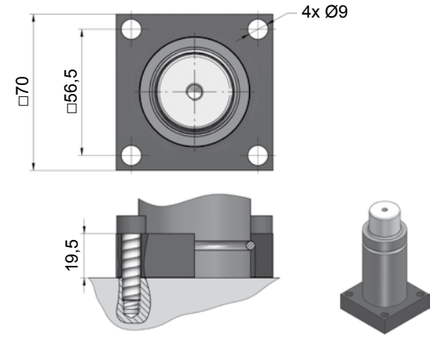
[28.01.2020]

[28.01.2020]

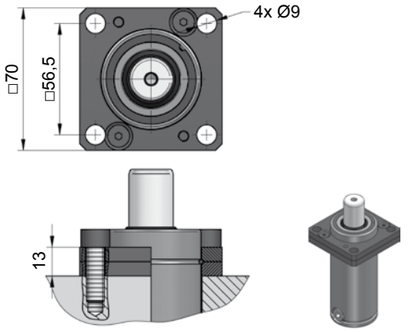
Flansche für / Flanges for **NC.030.00.01800…2**



NC.88.00.050.0149



NC.88.00.050.0154



NC.88.00.050.0159

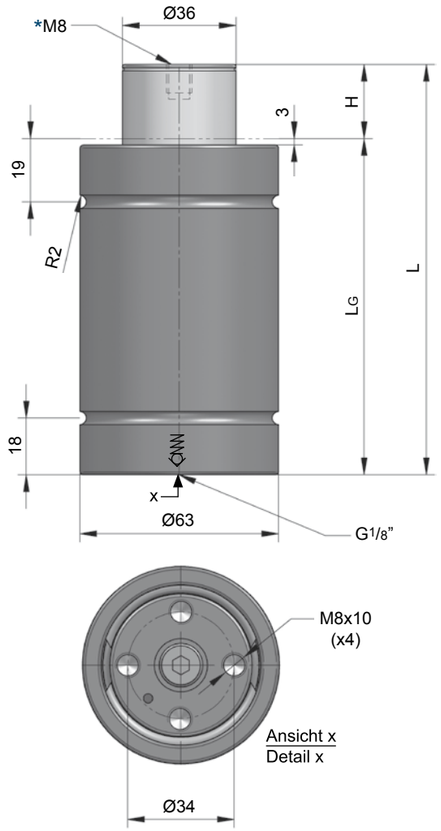
NC.030.00.03000...3

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

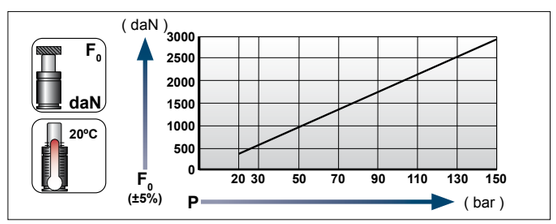


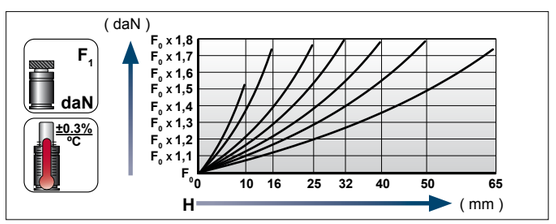
INFO [NC.21]

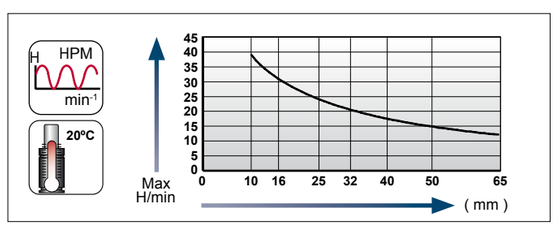
NC.030.00.
03000.016.3

MAIL

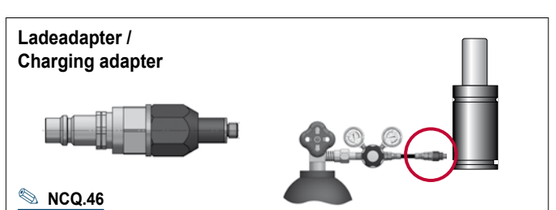
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	85	75	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	103	87	2945	
025	130	105	2945	
032	150	118	2945	
040	175	135	2945	
050	205	155	2945	
065	256	191	2945	







Ladeadapter / Charging adapter

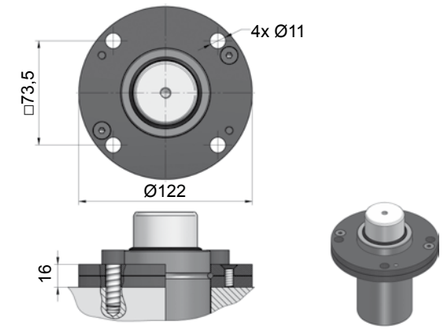


NCQ.46

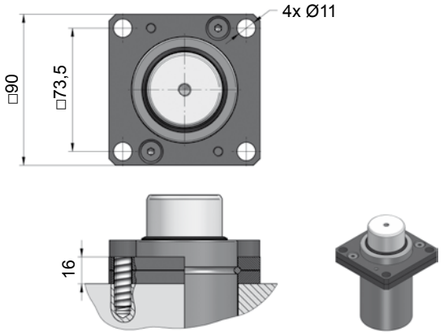
[28.01.2020]

[28.01.2020]

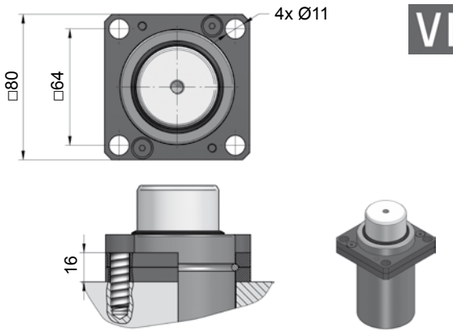
Flansche für / Flanges for **NC.030.00.03000…3**



NC.88.00.063.0114



NC.88.00.063.0139



NC.88.00.063.0169

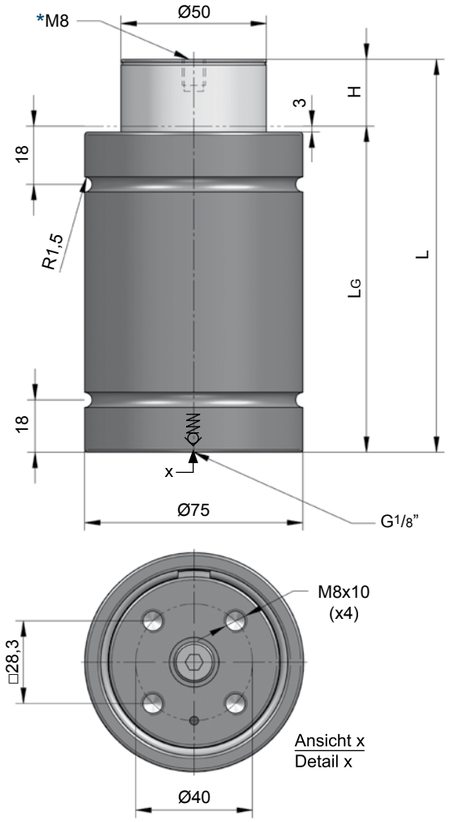
NC.030.00.04700...1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s



ZUGELASSEN PED 2014/68/EU

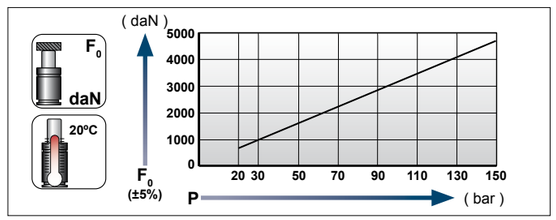
> Pmax

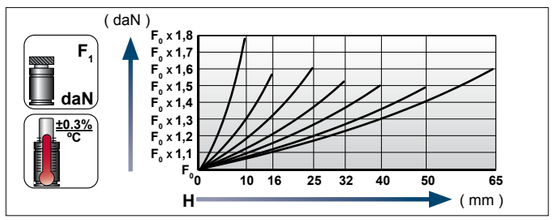
* INFO [NC.21]

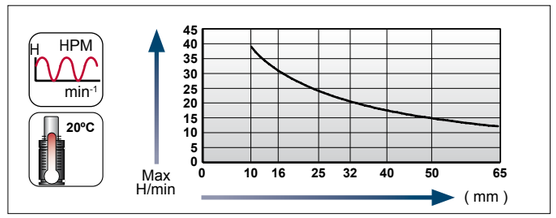
NC.030.00.04700.032.1

MAIL

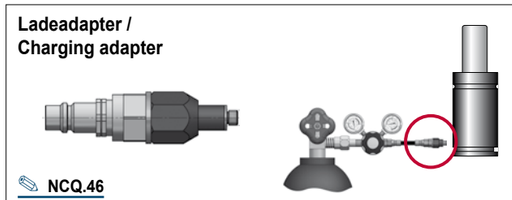
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	80	70	4675	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	106	90	4675	
025	135	110	4675	
032	167	135	4675	
040	200	160	4675	
050	240	190	4675	
065	273	208	4675	







Ladeadapter / Charging adapter

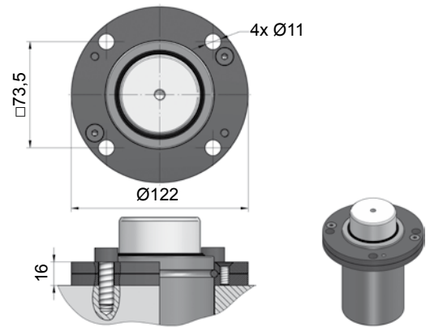


NCQ.46

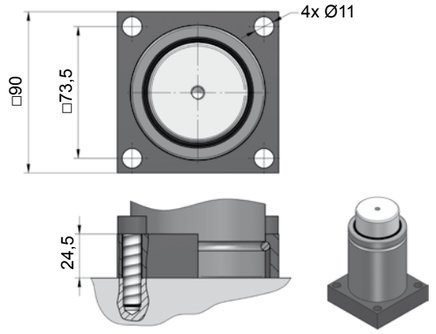
[28.01.2020]

[28.01.2020]

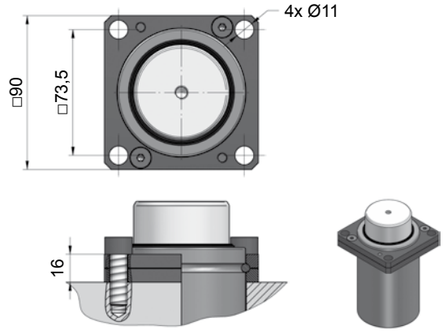
Flansche für / Flanges for **NC.030.00.04700...1**



NC.88.00.075.0149



NC.88.00.075.0154



NC.88.00.075.0159

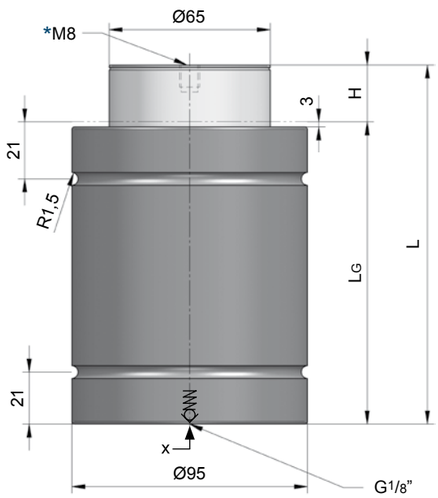
NC.030.00.07500...1

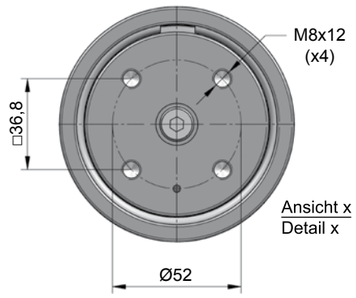
Technische Daten:

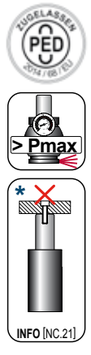
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 -80 °C
Max. piston rod speed:	0,5 m/s

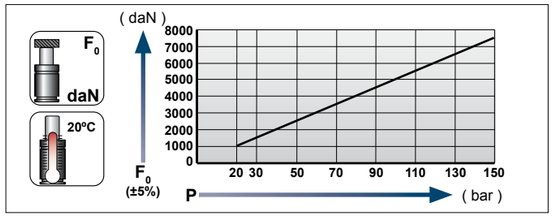


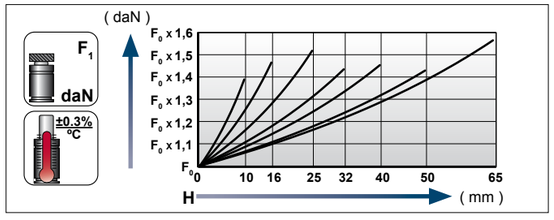


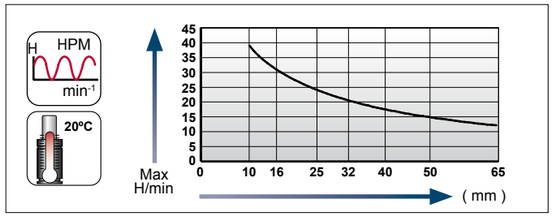


NC.030.00.
07500.040.1

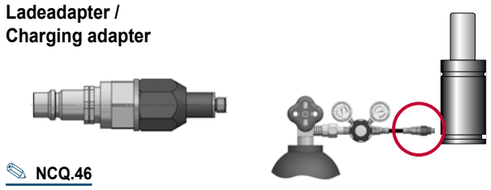
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	90	80	7540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	116	100	7540	
025	145	120	7540	
032	182	150	7540	
040	210	170	7540	
050	255	205	7540	
065	279	214	7540	







Ladeadapter /
Charging adapter

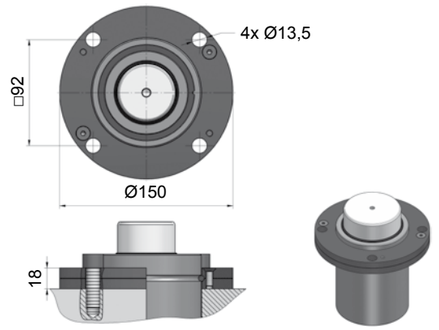


NCQ.46

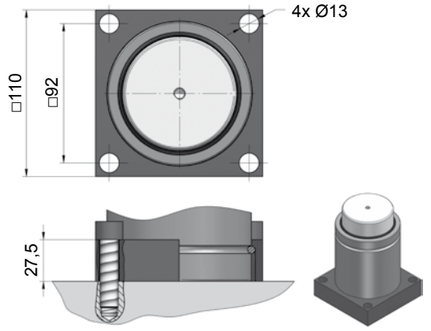
[28.01.2020]

GDF, kompakt
GS, compact
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.030.00.07500…1**



NC.88.00.095.0149



NC.88.00.095.0154

NC.88.00.095.0159

[28.01.2020]

[NC]

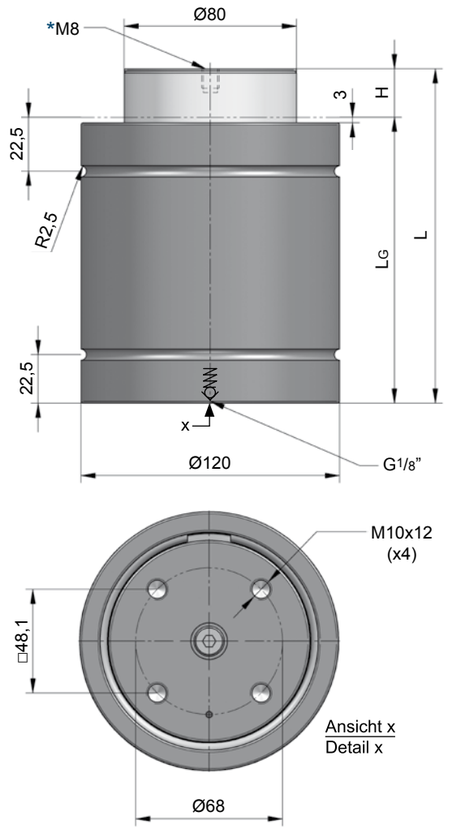
NC.030.00.11800...1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

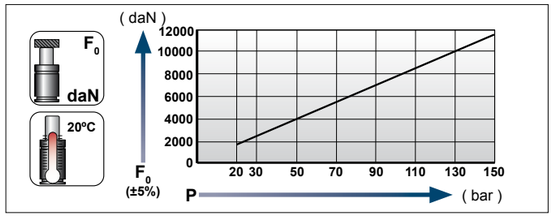
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

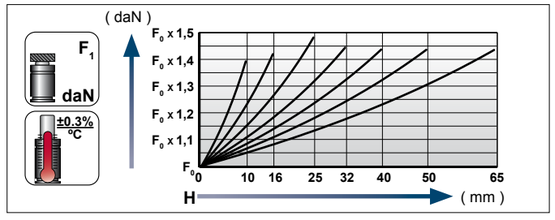


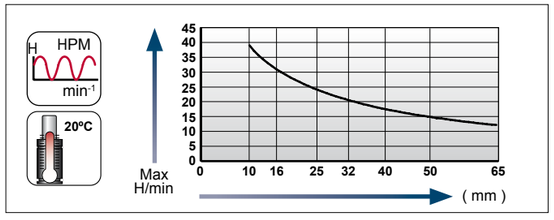
INFO [NC.21]

NC.030.00.11800.050.1

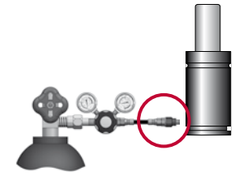
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	100	90	11780	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	126	110	11780	
025	155	130	11780	
032	187	155	11780	
040	220	180	11780	
050	260	210	11780	
065	320	255	11780	







Ladeadapter / Charging adapter

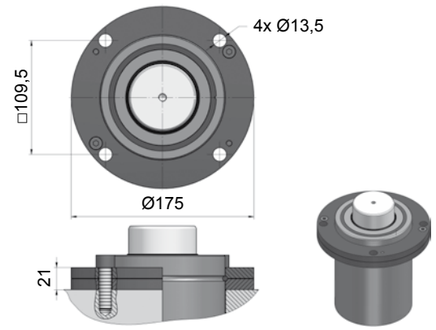


NCQ.46

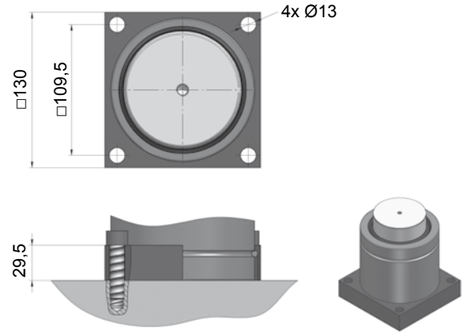
[28.01.2020]

GDF, kompakt
GS, compact
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

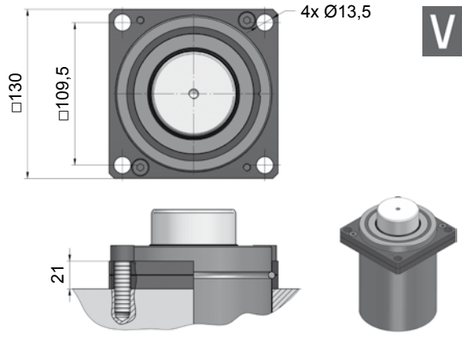
Flansche für / Flanges for **NC.030.00.11800…1**



NC.88.00.120.0114



NC.88.00.120.0119



NC.88.00.120.0134

[28.01.2020]

[NC]

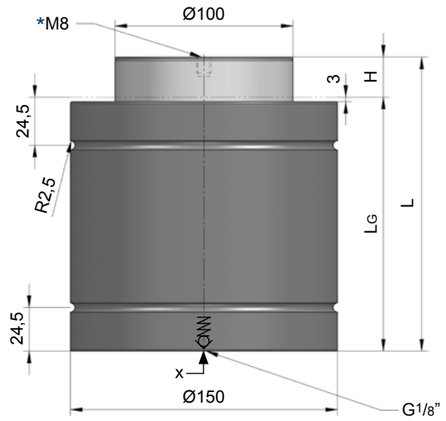
NC.030.00.18300...1

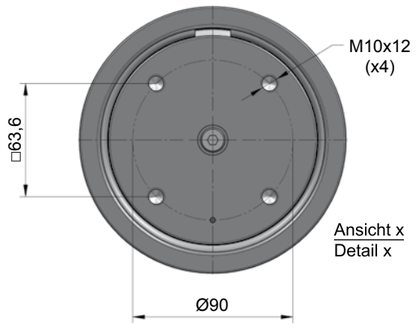
Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

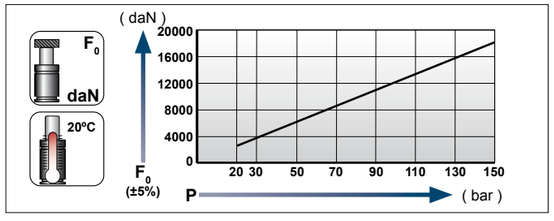
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

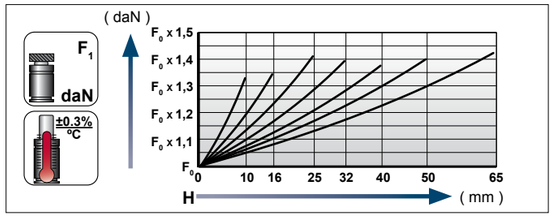


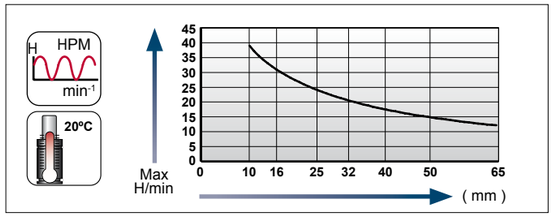


NC.030.00.
18300.010.1

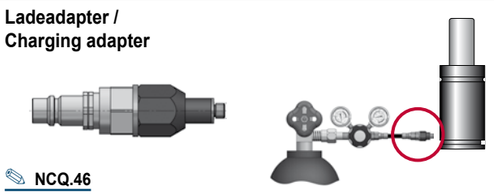
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	110	100	18410	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	136	120	18410	
025	165	140	18410	
032	197	165	18410	
040	235	195	18410	
050	270	220	18410	
065	323	258	18410	







Ladeadapter /
Charging adapter

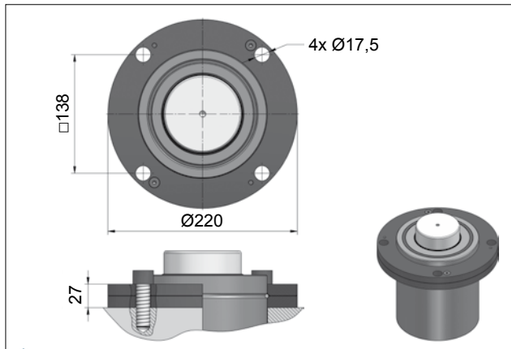


NCQ.46

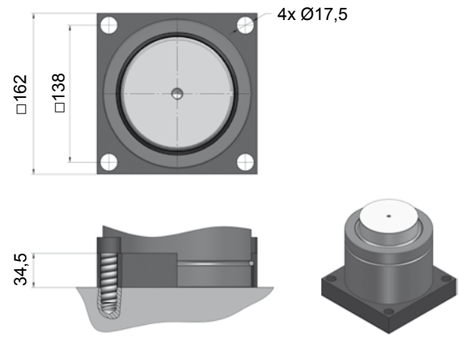
[28.01.2020]

GDF, kompakt
GS, compact
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

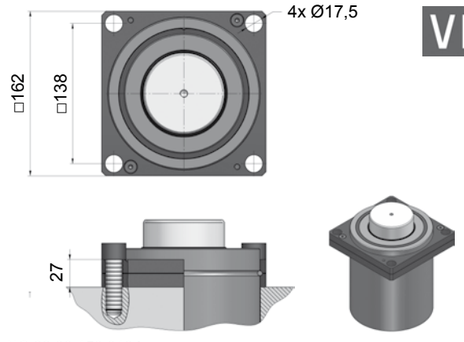
Flansche für / Flanges for **NC.030.00.18300...1**



NC.88.00.150.0114



NC.88.00.150.0119



NC.88.00.150.0134

[28.01.2020]

[NC]

Technische Information Serie NC.030.20

Beim Einsatz von Gasdruckfedern ist darauf zu achten, dass diese vor Schmutz, Ziehölen und sonstigen Fluiden geschützt werden. Zwar verfügen die meisten Gasdruckfedern über einen Schmutzabstreifer, der das Eindringen von Fremdkörpern verhindern soll, allerdings besteht der beste Schutz darin, erst gar keine Verunreinigung an die Zylinder kommen zu lassen.

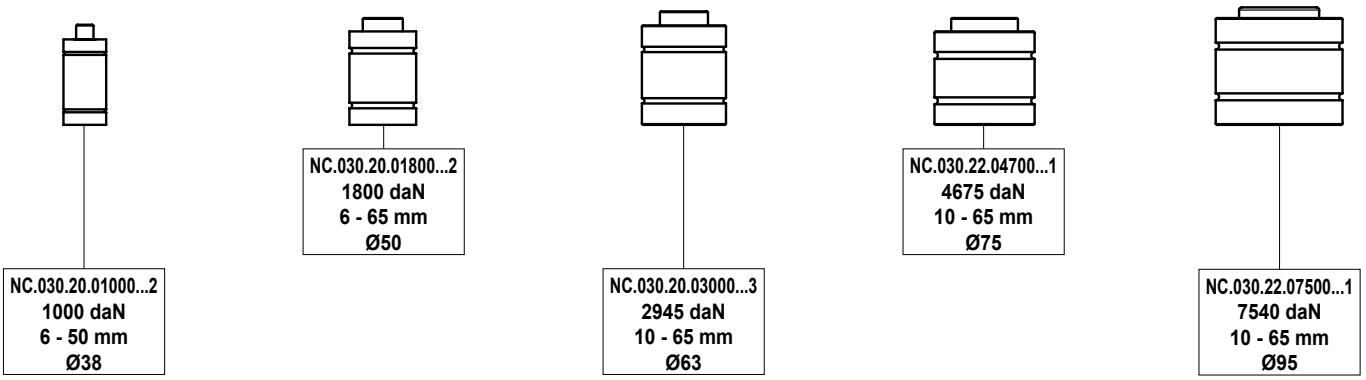
Die Gasdruckfedern der **NC.030**-Serie haben einen besonderen Aufbau (Kolben mit Kolbenkopf). Bei diesem Zylinder-Typ entsteht an der Zylinder-Oberseite ein Saugeffekt, der Flüssigkeiten oder Schmutz in den Zylinderinnenraum ziehen kann. Da sich der Raum für den Stickstoff dadurch verringert, entsteht ein kontinuierlich ansteigender Druck, der letztendlich zum frühzeitigen Ausfall des Zylinders führen kann. Aus diesem Grund müssen die Gasdruckfedern **NC.030** konsequent gegen Verunreinigung geschützt werden.

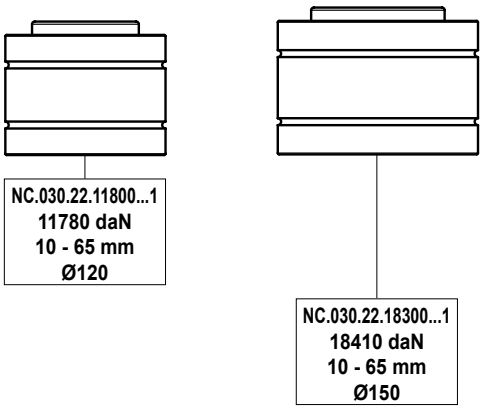
Technical information NC.030.20 series

Using gas springs it is mandatory to protect them from dirt, oil and similar fluids. For that reason, most springs have a plastic dirt-scraper, to prevent the penetration of these external particles. However, the best protection is not to let any dirt get to the springs at all in the first place.

Due to the specific design of the **NC.030**-gas springs there is a „sucking“ effect at the top of the cylinder body. This effect can lead to foreign particles being pulled inside. Since the room designated for the nitrogne thereby continously decreases, the cylinder life - time may be negatively affected. It is for this reason, that the gas springs of this series must be well protected against dirt and fluids.

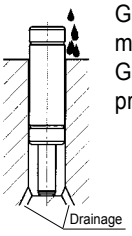
Größenübersicht Serie NC.030.20



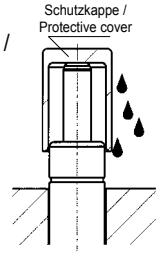


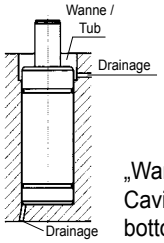
Gas spring index NC.030.20 series

Gasdruckfeder-Einbau „über Kopf“ mit Drainage im Boden / Upside-Down - Application, drain-hole at the bottom



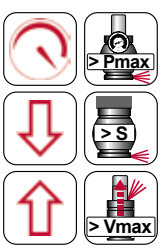
Gasdruckfeder mit Schutzkappe / Gas spring with protective cover





„Wanne“ mit Drainage oben, zusätzlich Boden-Drainage / Cavity with upper drain-hole, additional drain hole at the bottom

SICHERHEITSSYSTEME



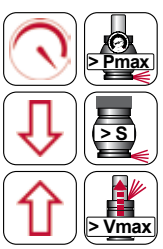
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

[NC]

NC.030.20.01000...2

Technische Daten:

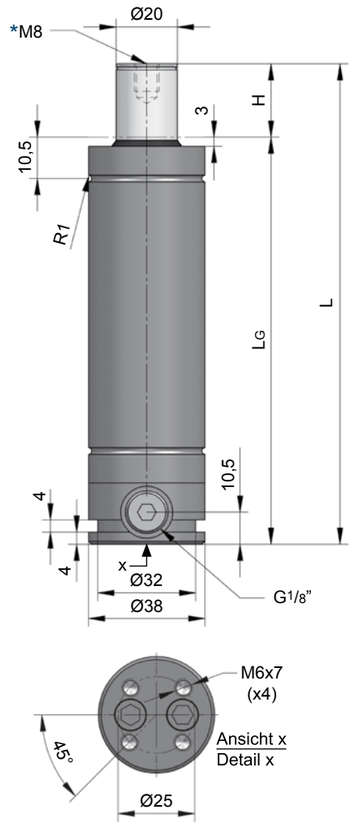
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!

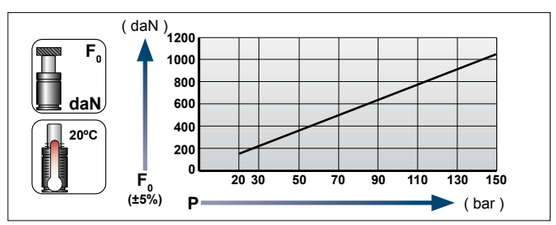


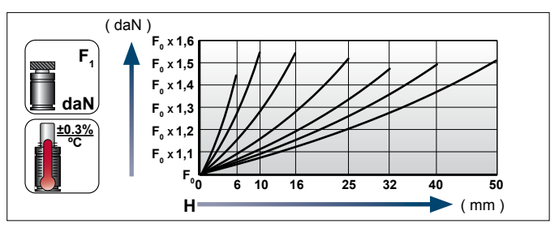
INFO [NC.21]

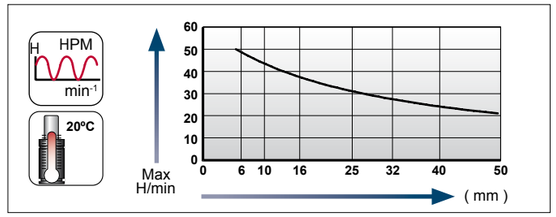
Gasdruckfeder kann nur im Verbund eingesetzt werden (ohne Ventil) / Gas spring only to be used in a permanent connection (valveless)

NC.030.20.
01000.016.2

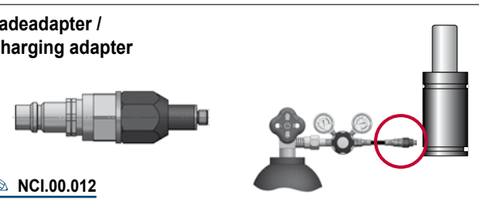
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
006	81	75	1000	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	98	88	1000	
016	120	104	1000	
025	155	130	1000	
032	187	155	1000	
040	215	175	1000	
050	250	200	1000	







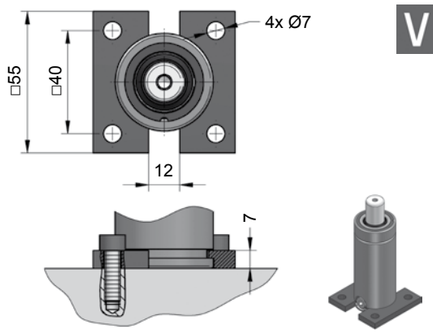
Ladeadapter / Charging adapter



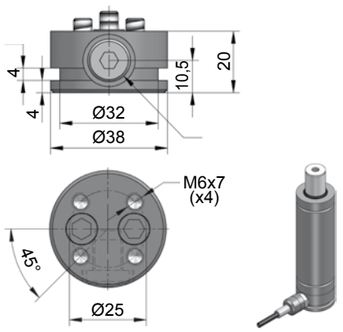
NCI.00.012

MAIL

Flansche für / Flanges for **NC.030.20.01000…2**



NC.88.00.038.0320



NC.030.00.01000.77.1

[NC]

NC.030.20.01800...2

Technische Daten:

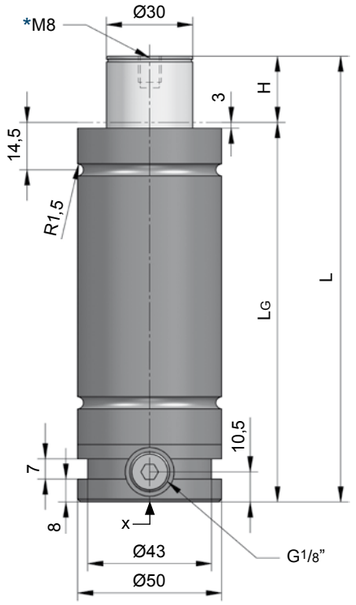
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!

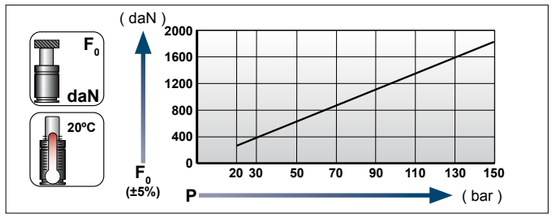


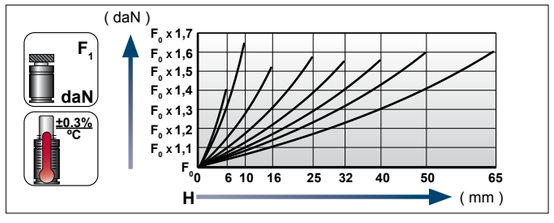
INFO [NC.21]

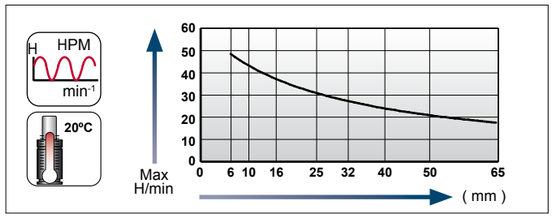
Gasdruckfeder kann nur im Verbund eingesetzt werden (ohne Ventil) / Gas spring only to be used in a permanent connection (valveless)

NC.030.20. 01800.025.2

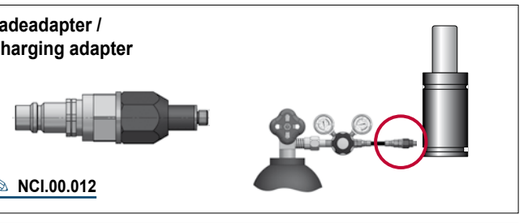
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
006	86	80	1800	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	100	90	1800	
016	126	110	1800	
025	155	130	1800	
032	182	150	1800	
040	210	170	1800	
050	240	190	1800	
065	291	226	1800	







Ladeadapter / Charging adapter

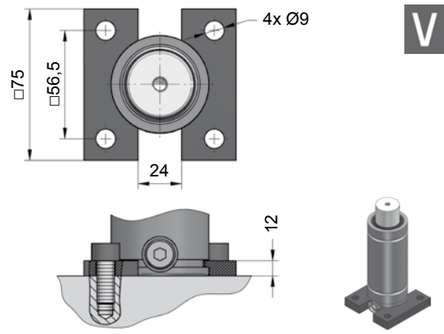


NCI.00.012

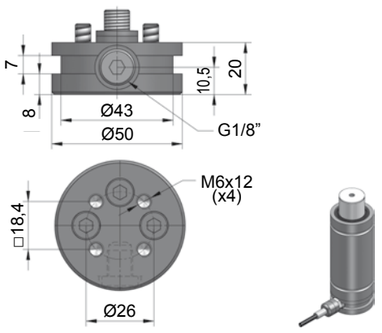
[29.01.2020]

GDF, kompakt, seitlicher Anschluss
GS, compact, side connection
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.030.20.01800…2**



NC.88.00.050.0320



NC.030.00.01800.77.1

[29.01.2020]

[NC]

NC.030.20.03000...3

Technische Daten:

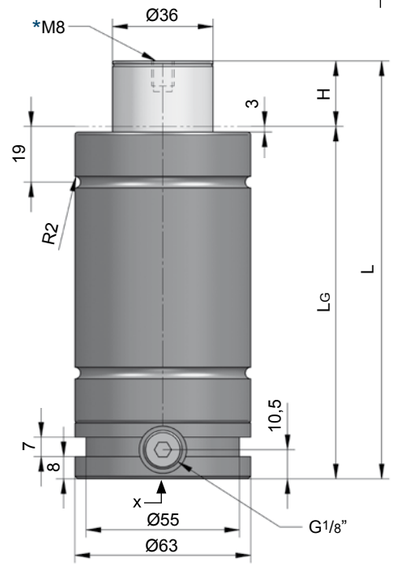
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!

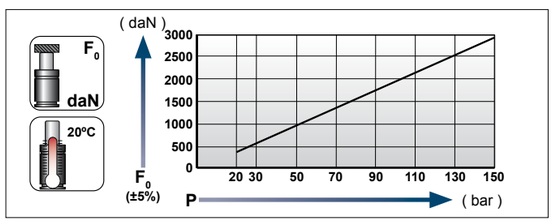


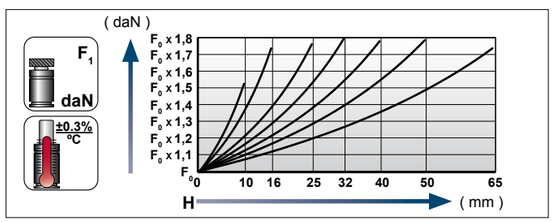
INFO [NC.21]

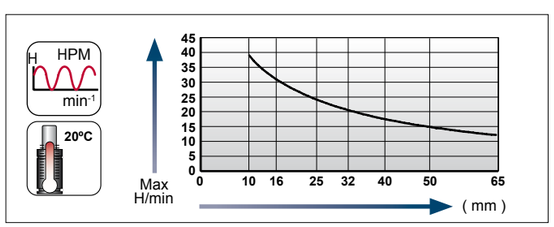
Gasdruckfeder kann nur im Verbund eingesetzt werden (ohne Ventil) / Gas spring only to be used in a permanent connection (valveless)

NC.030.20.03000.016.3

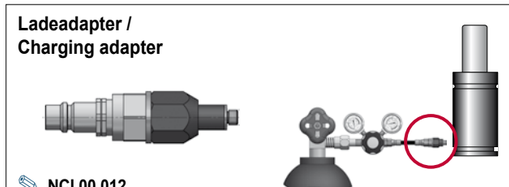
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	105	95	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	123	107	2945	
025	150	125	2945	
032	170	138	2945	
040	195	155	2945	
050	225	175	2945	
065	276	211	2945	







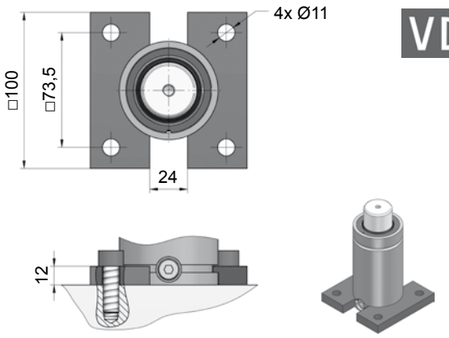
Ladeadapter / Charging adapter



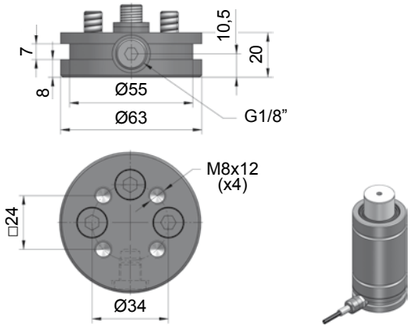
NCI.00.012

[29.01.2020]

Flansche für / Flanges for **NC.030.20.03000…3**



NC.88.00.063.0335

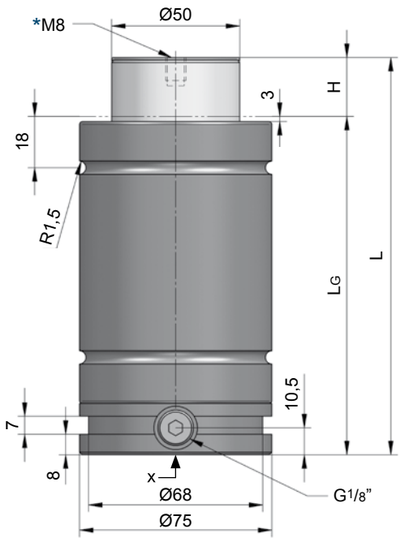


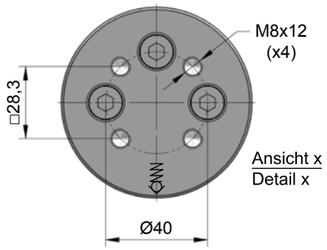
NC.030.00.03000.77.1

[29.01.2020]

[NC]

NC.030.22.04700...1





Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

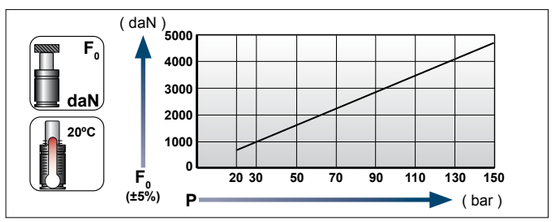
Specifications:

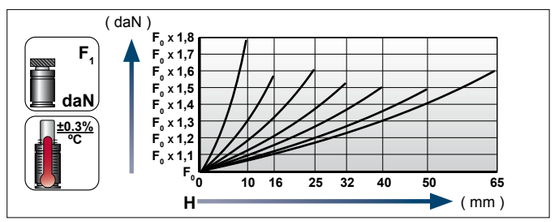
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

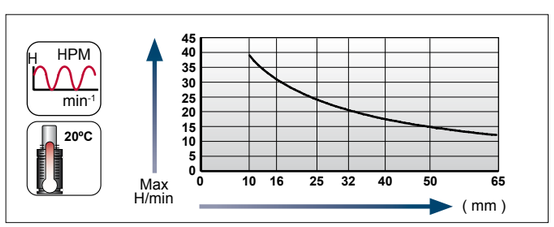
Attention: Maintenance only at manufacturer's site!

NC.030.22.04700.032.1

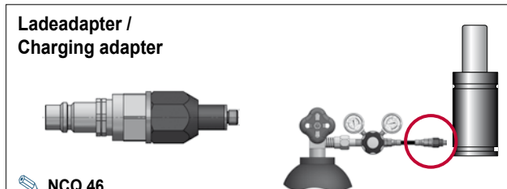
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	100	90	4675	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	126	110	4675	
025	155	130	4675	
032	187	155	4675	
040	220	180	4675	
050	260	210	4675	
065	293	228	4675	







Ladeadapter / Charging adapter

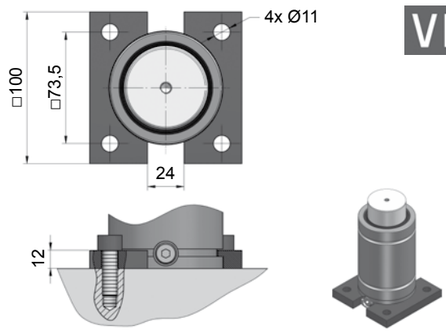


NCQ.46

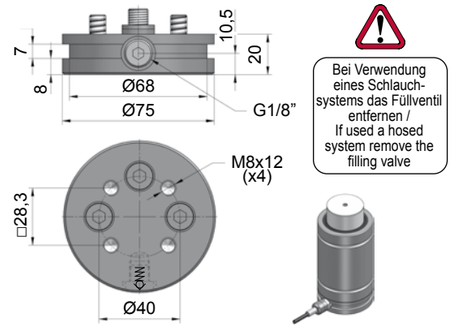
[29.01.2020]

GDF, kompakt, seitlicher Anschluss
GS, compact, side connection
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.030.22.04700…1**



NC.88.00.075.0320



NC.030.00.04700.77.1

[29.01.2020]

[NC]

NC.030.22.07500...1

Technische Daten:

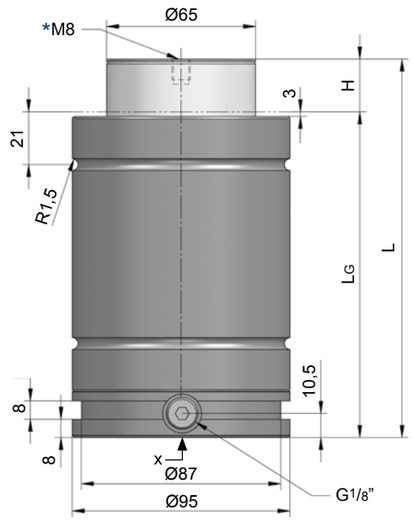
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

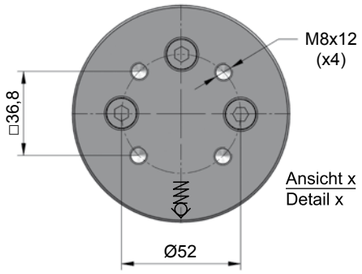
Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

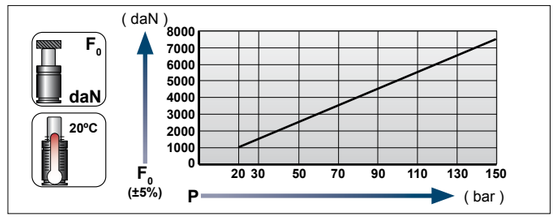
Attention: Maintenance only at manufacturer's site!

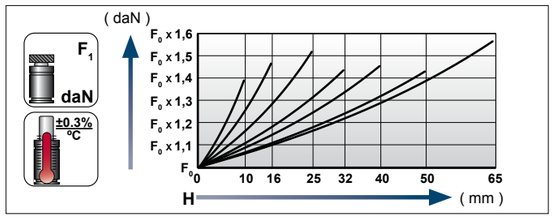


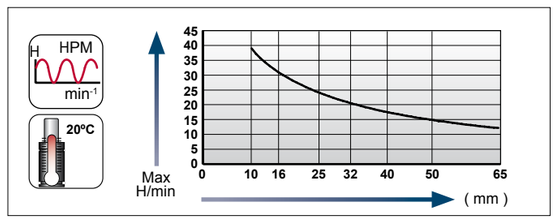


NC.030.22.
07500.040.1

H Hub / Stroke	L ±0,25	Lg	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	110	100	7540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	136	120	7540	
025	165	140	7540	
032	202	170	7540	
040	230	190	7540	
050	275	225	7540	
065	299	234	7540	







Ladeadapter / Charging adapter

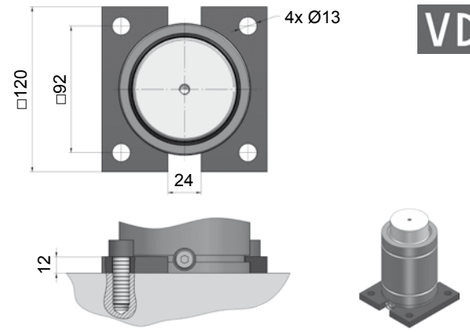


NCQ.46

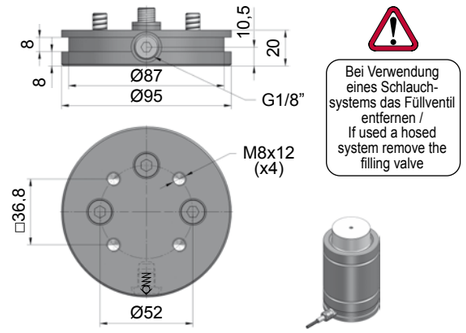
[29.01.2020]

GDF, kompakt, seitlicher Anschluss
GS, compact, side connection
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.030.22.07500…1**



NC.88.00.095.0320



NC.030.00.07500.77.1

[29.01.2020]

NC.030.22.11800...1

Technische Daten:

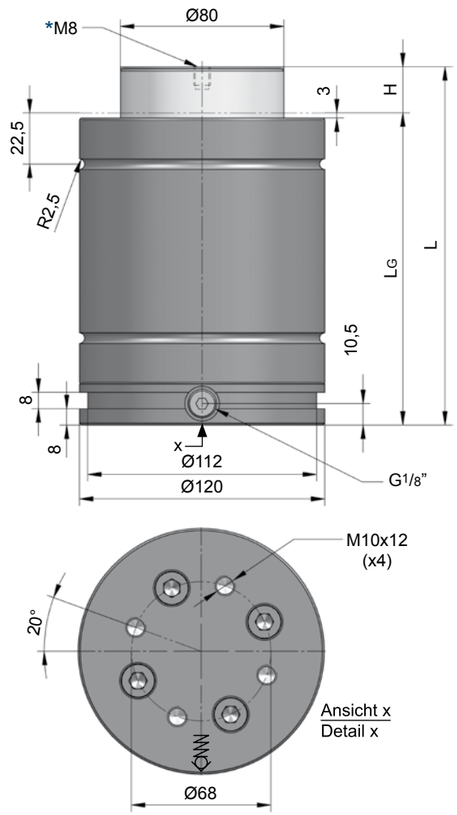
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!

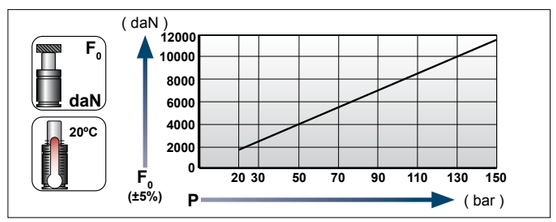


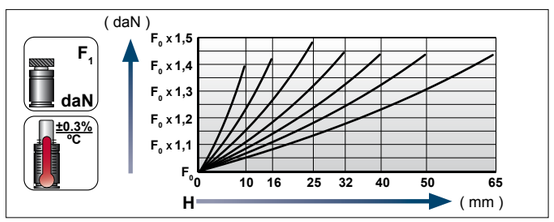
INFO [NC.21]

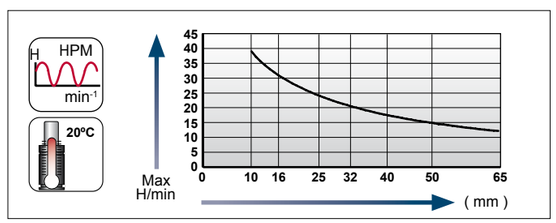
NC.030.22.
11800.050.1

MAIL

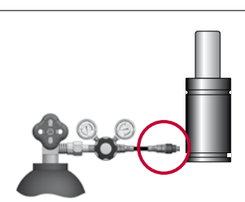
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	120	110	11780	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	146	130	11780	
025	175	150	11780	
032	207	175	11780	
040	240	200	11780	
050	280	230	11780	
065	340	275	11780	







Ladeadapter / Charging adapter

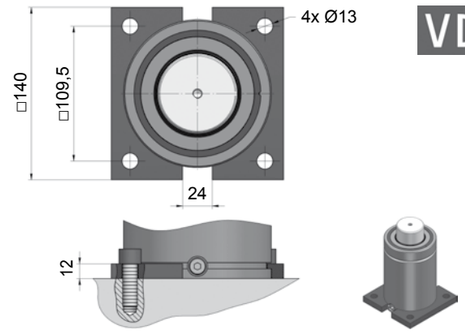


NCQ.46

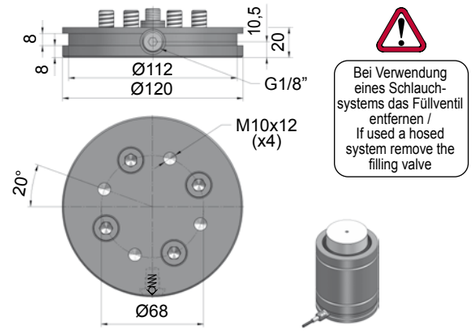
[29.01.2020]

GDF, kompakt, seitlicher Anschluss
GS, compact, side connection
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.030.22.11800…1**



NC.88.00.120.0320

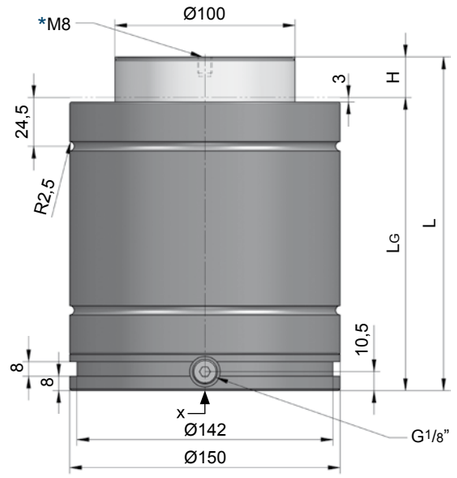


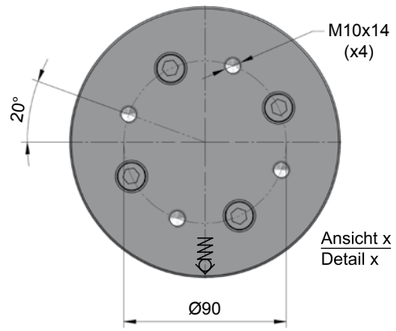
NC.030.00.11800.77.1

[29.01.2020]

[NC]

NC.030.22.18300...1





Ansicht x
Detail x

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

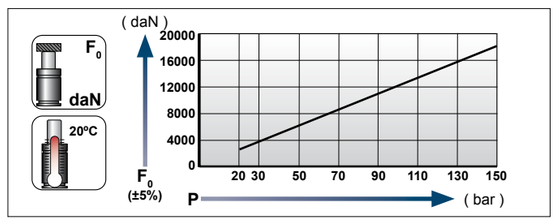
Specifications:

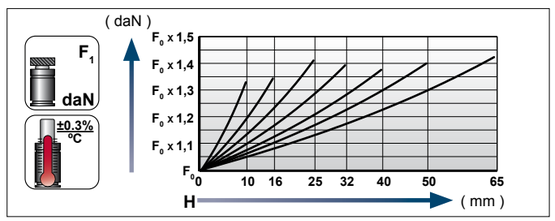
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

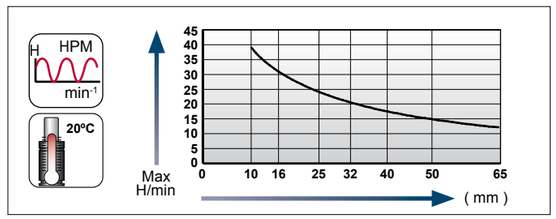
Attention: Maintenance only at manufacturer's site!

NC.030.22.
18300.010.1

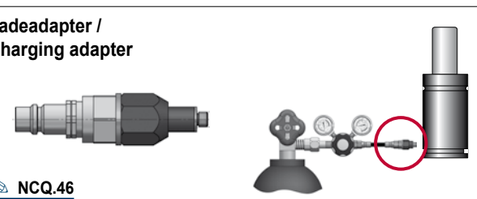
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	130	120	18410	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	156	140	18410	
025	185	160	18410	
032	217	185	18410	
040	255	215	18410	
050	290	240	18410	
065	343	278	18410	







Ladeadapter / Charging adapter

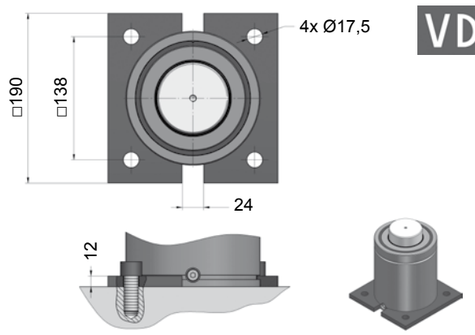


NCQ.46

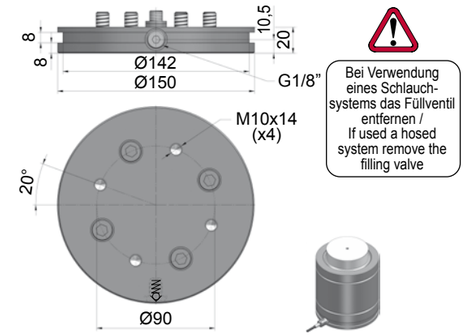
[29.01.2020]

GDF, kompakt, seitlicher Anschluss
GS, compact, side connection
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.030.22.18300…1**



NC.88.00.150.0320



NC.030.00.18300.77.1

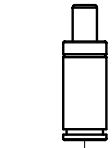
[29.01.2020]

[NC]

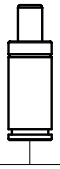
Größenübersicht Serie NC.040.00



NC.040.00.00200
205 daN
10 - 80 mm
Ø25

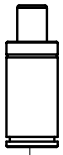


NC.040.00.00300
300 daN
10 - 125 mm
Ø32

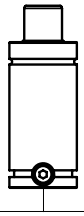


NC.040.00.00350...1
350 daN
10 - 125 mm
Ø32

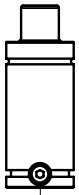
Gas spring index NC.040.00 series



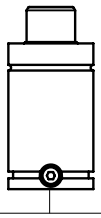
NC.040.00.00500...2
470 daN
10 - 125 mm
Ø38



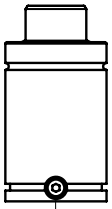
NC.040.00.00600...1
570 daN
12 - 100 mm
Ø45



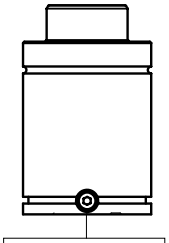
NC.040.00.01000...1
985 daN
13 - 200 mm
Ø50



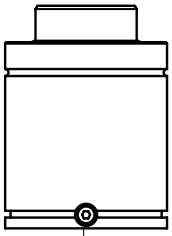
NC.040.00.01500...2
1530 daN
13 - 200 mm
Ø63



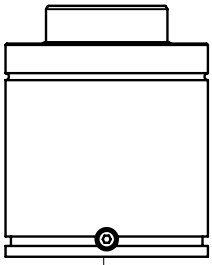
NC.040.00.02500...1
2465 daN
25 - 200 mm
Ø75



NC.040.00.04000...1
3960 daN
25 - 200 mm
Ø95

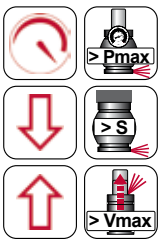


NC.040.00.06500...1
6405 daN
25 - 200 mm
Ø120



NC.040.00.10000
9540 daN
25 - 200 mm
Ø150

SICHERHEITSSYSTEME



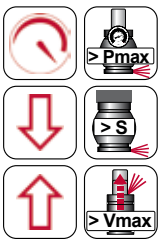
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

[NC]

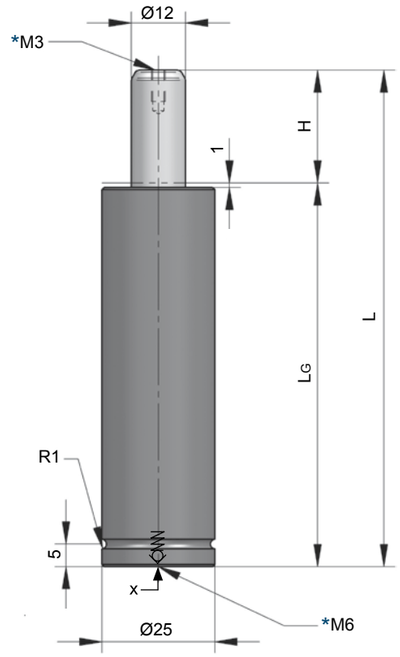
NC.040.00.00200

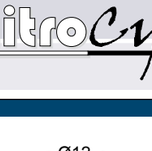
Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

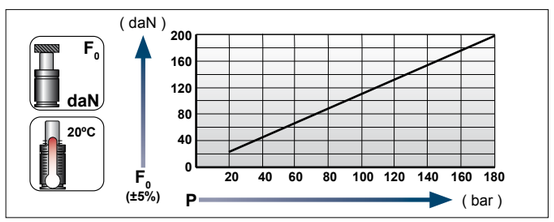


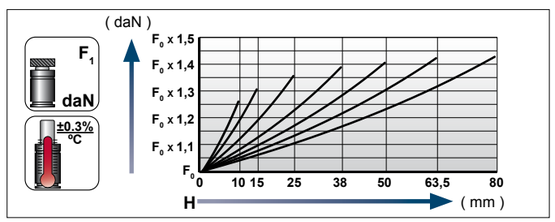


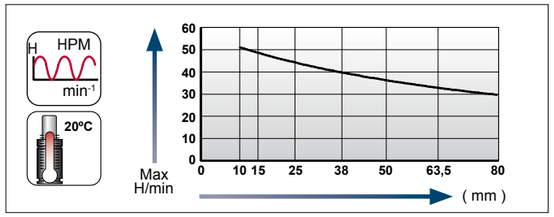
Ansicht x
Detail x

NC.040.00.00200.015

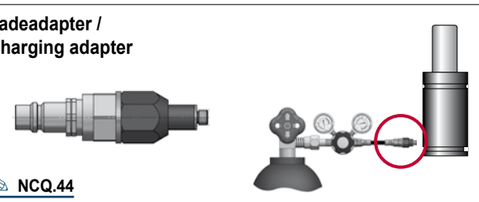
H Hub / Stroke	L ±0,25	LG	Kraft / Force (180 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	80	70	205	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	90	75	205	
025	110	85	205	
038	136	98	205	
050	160	110	205	
063,5	186,5	123	205	
080	220	140	205	







Ladeadapter / Charging adapter

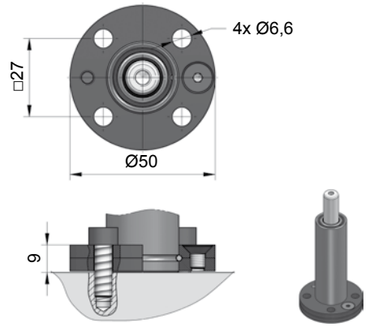


NCQ.44

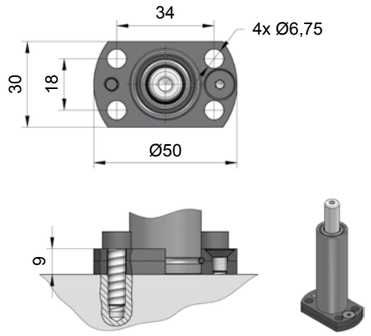
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

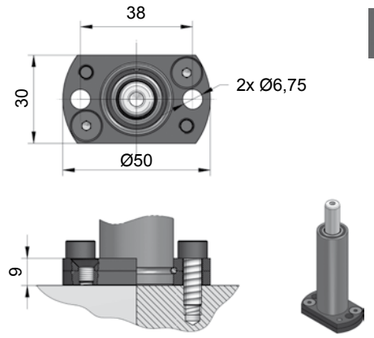
Flansche für / Flanges for **NC.040.00.00200**



NC.88.00.025.0114



NC.88.00.025.0144

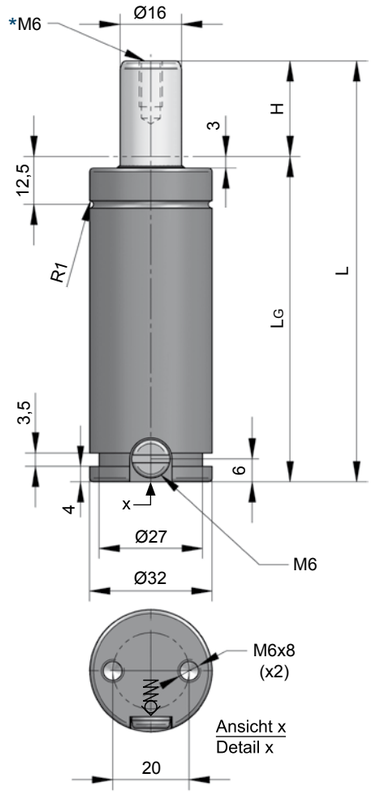


NC.88.00.025.0149

[04.02.2020]

[NC]

NC.040.00.00300



Technische Daten:

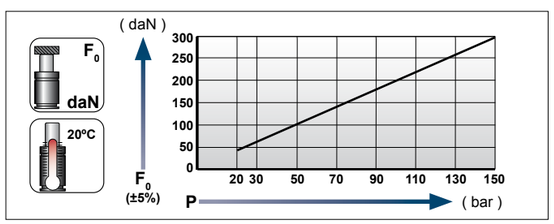
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

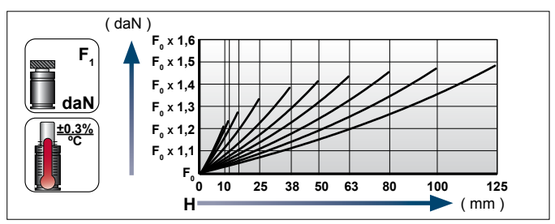
Specifications:

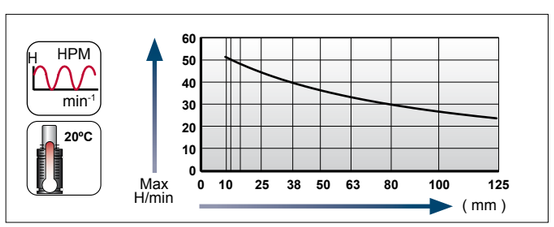
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.040.00.00300.012

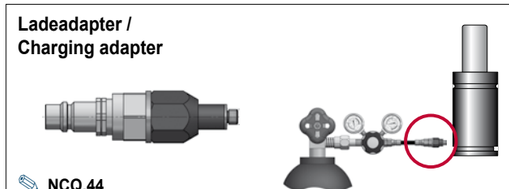
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	80	70	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
012	84	72	300	
016	92	76	300	
025	110	85	300	
038	136	98	300	
050	160	110	300	
063	186	123	300	
080	220	140	300	
100	260	160	300	
125	310	185	300	







Ladeadapter / Charging adapter

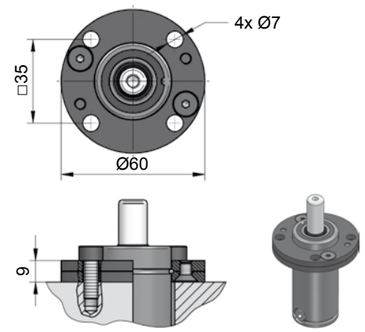


NCQ.44

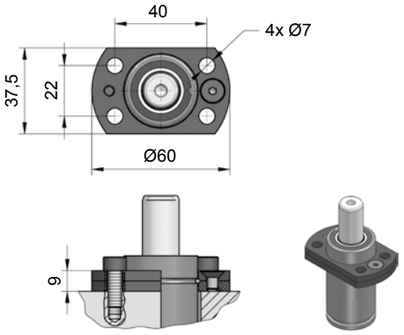
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.040.00.00300**

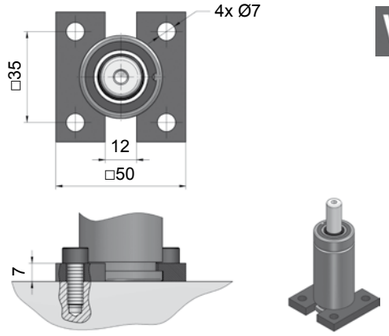


NC.88.00.032.0114



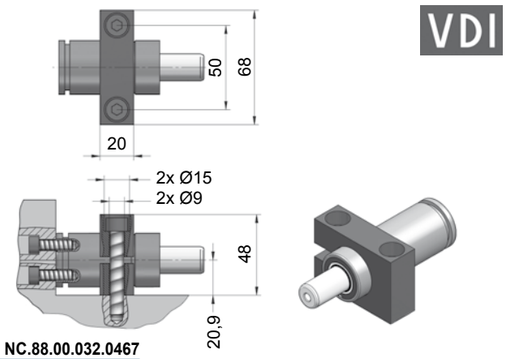
NC.88.00.032.0144

VDI



NC.88.00.032.0320

VDI

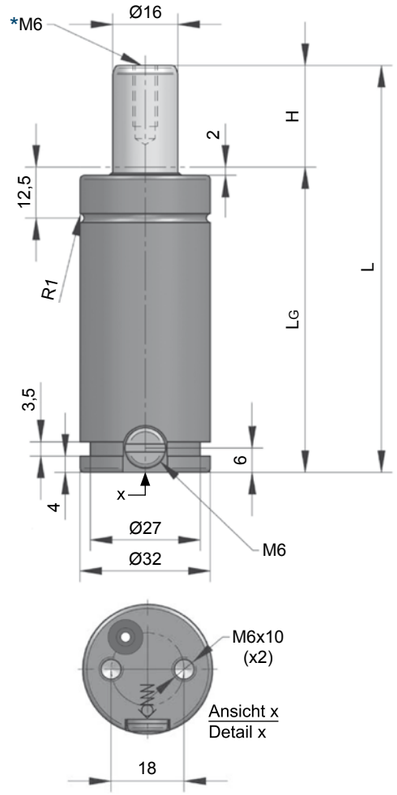


NC.88.00.032.0467

[04.02.2020]

[NC]

NC.040.00.00350...1



Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

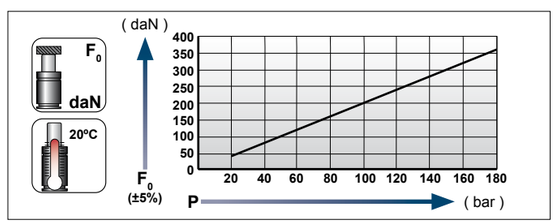
Specifications:

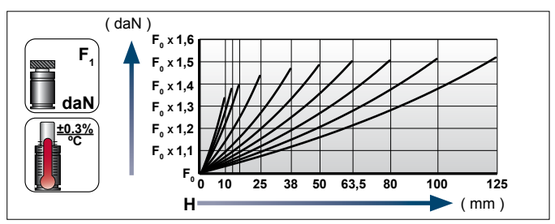
Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

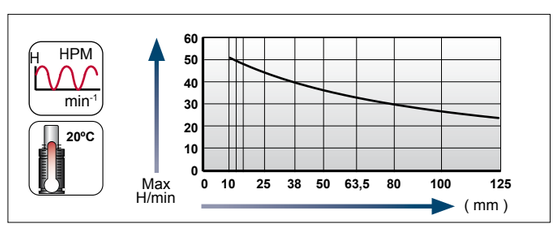
> Pmax
> S
> Vmax
INFO [NC.21]
MAIL

NC.040.00.00350.015.1

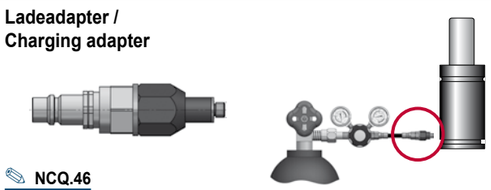
H Hub / Stroke	L ±0,25	LG	Kraft / Force (175 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	70	60	350	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
012,7	75,4	62,7	350	
016	82	66	350	
025	100	75	350	
038	126	88	350	
050	150	100	350	
063,5	177	113,5	350	
080	210	130	350	
100	250	150	350	
125	300	175	350	







Ladeadapter / Charging adapter

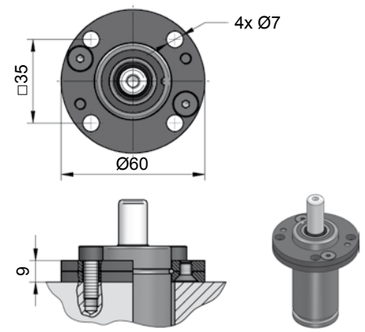


NCQ.46

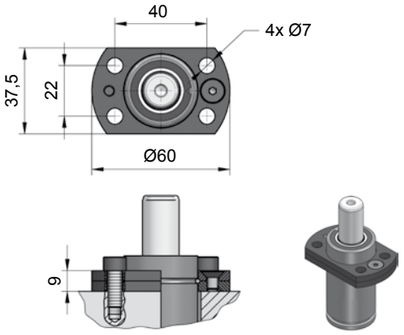
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.040.00.00350...1**

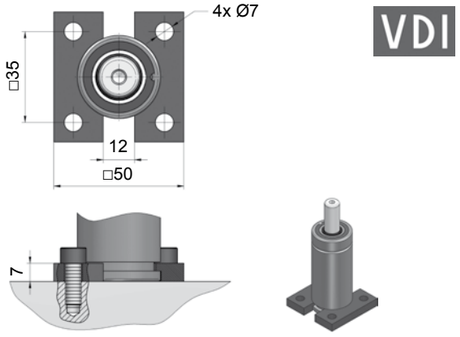


NC.88.00.032.0114



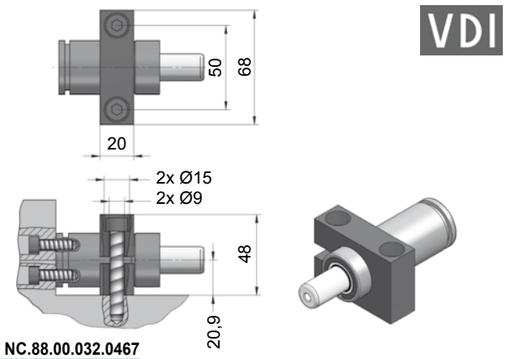
NC.88.00.032.0144

VDI



NC.88.00.032.0320

VDI

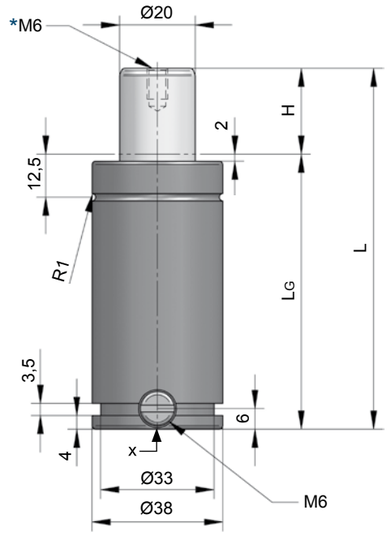


NC.88.00.032.0467

[04.02.2020]

[NC]

NC.040.00.00500…2



Technische Daten:

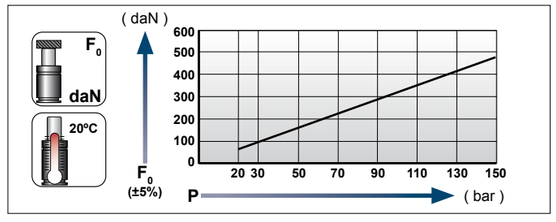
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

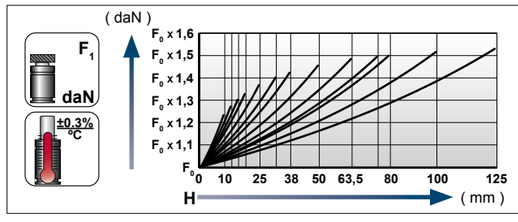
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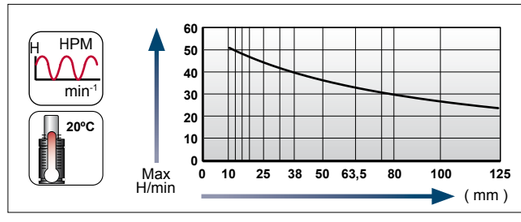
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.040.00.00500.038.2

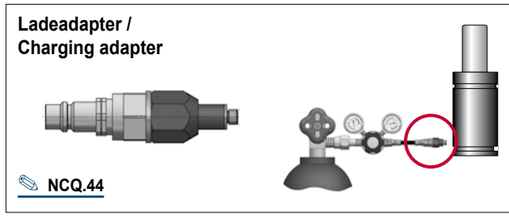
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	75	65	470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	81	68	470	
016	87	71	470	
019	93	74	470	
025	105	80	470	
032	119	87	470	
038	131	93	470	
050	155	105	470	
063,5	187	123,5	470	
075	210	135	470	
080	220	140	470	
100	260	160	470	
125	310	185	470	







Ladeadapter / Charging adapter

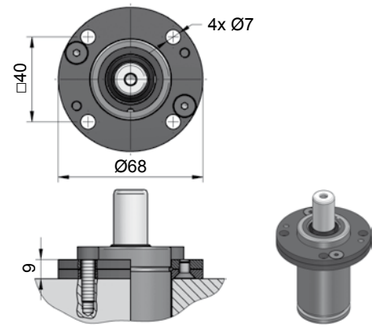


NCQ.44

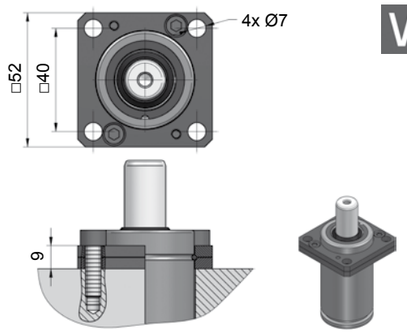
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

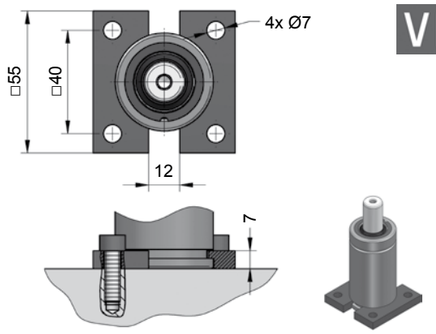
Flansche für / Flanges for **NC.040.00.00500…2**



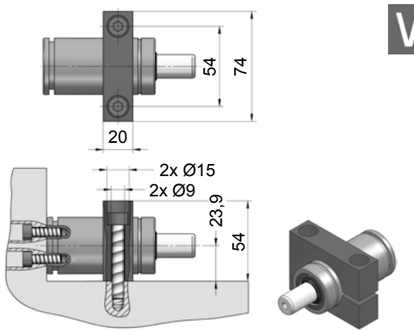
NC.88.00.038.0114



NC.88.00.038.0134



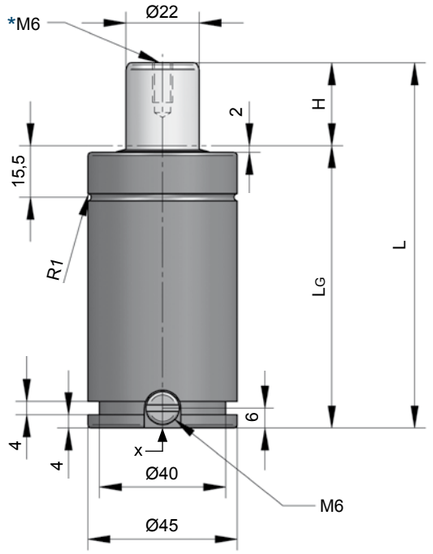
NC.88.00.038.0320



NC.88.00.038.0467

[04.02.2020]

NC.040.00.00600...1



Technische Daten:

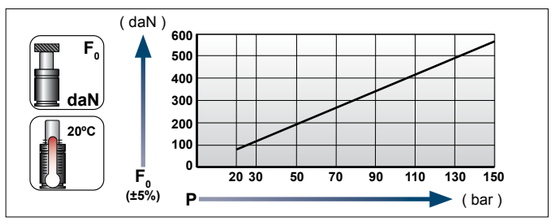
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

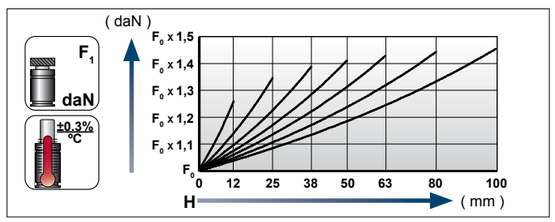
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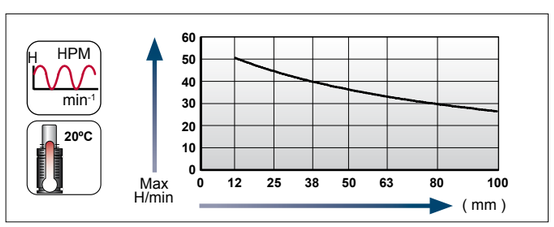
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.040.00.00600.038.1

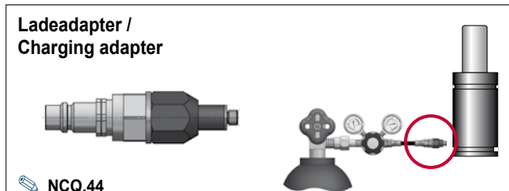
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
012	84	72	570	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	110	85	570	
038	136	98	570	
050	160	110	570	
063	186	123	570	
080	220	140	570	
100	260	160	570	







Ladeadapter / Charging adapter



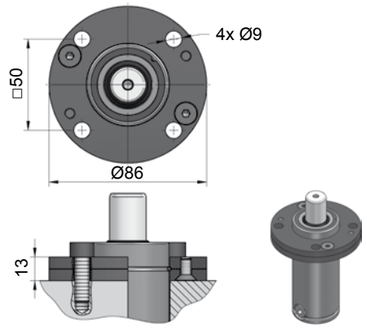
NCQ.44

[04.02.2020]

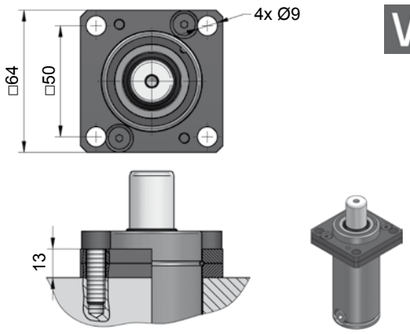
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

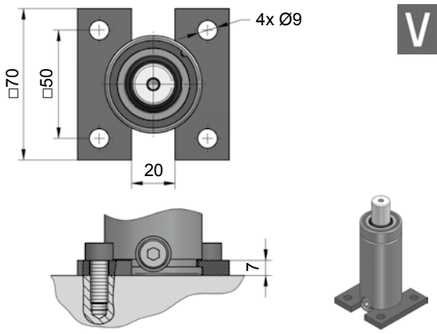
Flansche für / Flanges for **NC.040.00.00600...1**



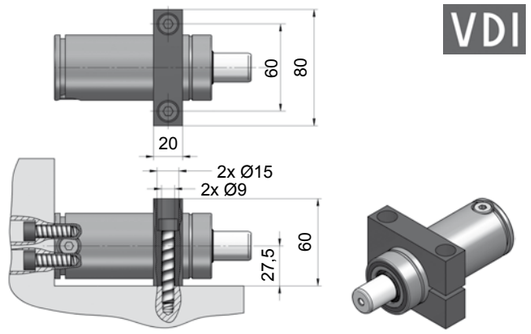
NC.88.00.045.0114



NC.88.00.045.0134

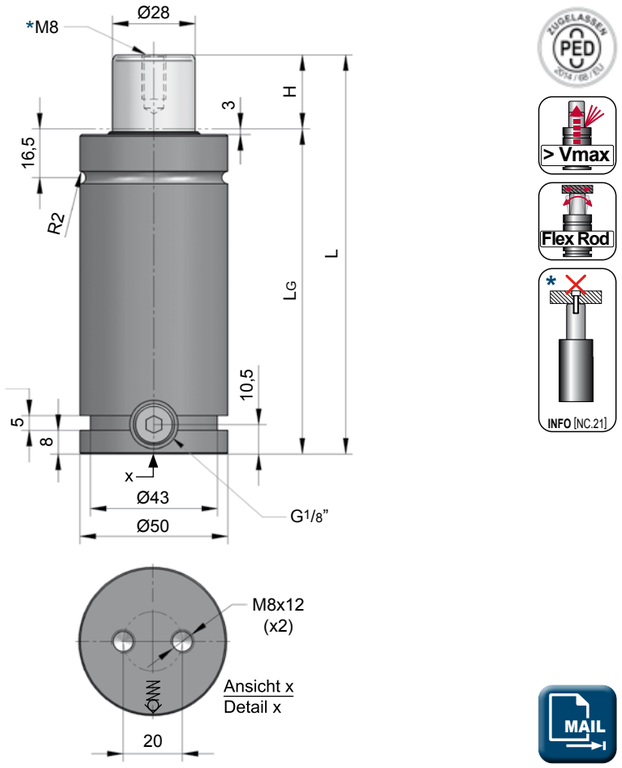


NC.88.00.045.0320



NC.88.00.045.0467

NC.040.00.01000...1



Technische Daten:

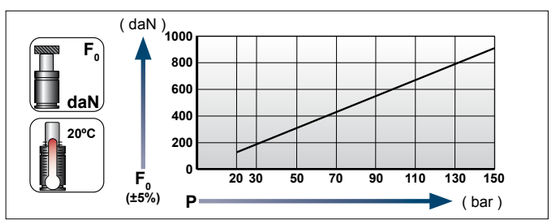
Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

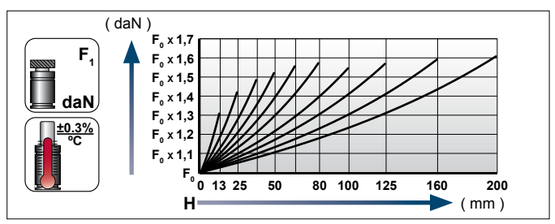
Specifications:

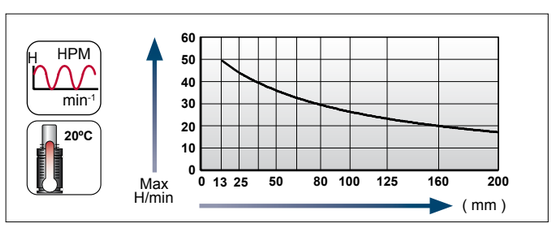
Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.040.00.
01000.038.1

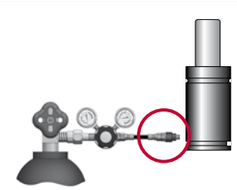
H Hub / Stroke	L ±0,25	LG	Kraft / Force (160 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	111	98	985	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	135	110	985	
038	161	123	985	
050	185	135	985	
063,5	212	148,5	985	
080	245	165	985	
100	295	195	985	
125	345	220	985	
160	415	255	985	
200	495	295	985	







Ladeadapter /
Charging adapter



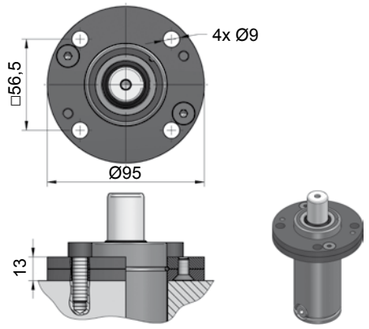
NCQ.46

[04.02.2020]

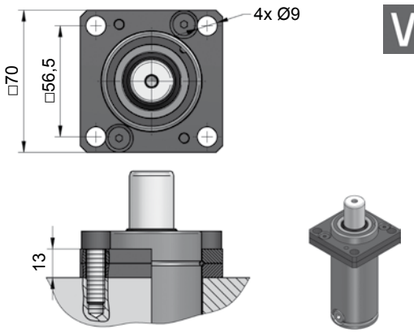
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

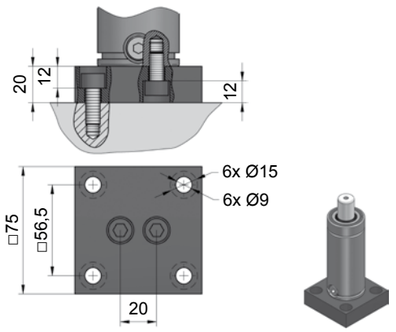
Flansche für / Flanges for **NC.040.00.01000...1**



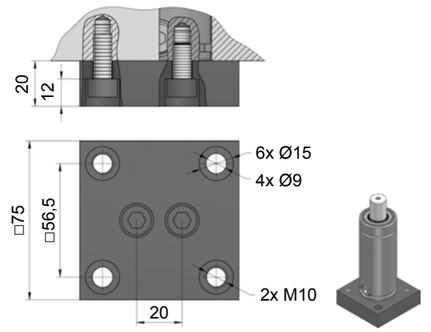
NC.88.00.050.0114



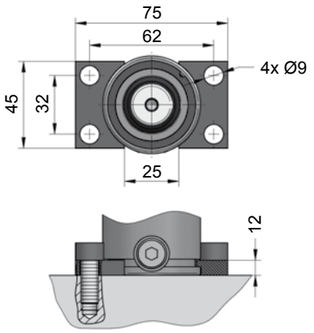
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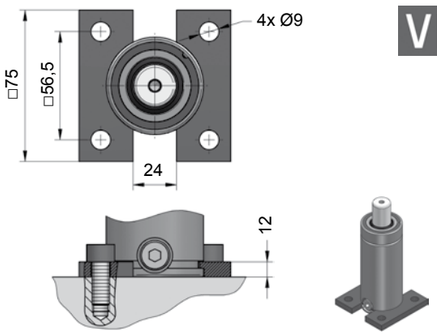
NC.88.00.050.0221



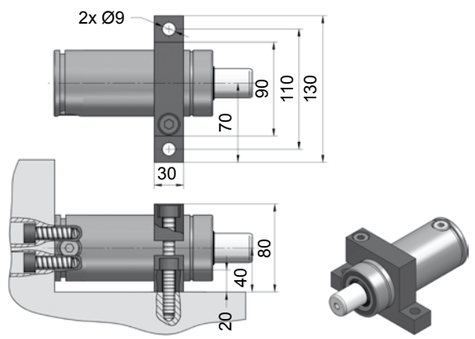
NC.88.00.050.0276



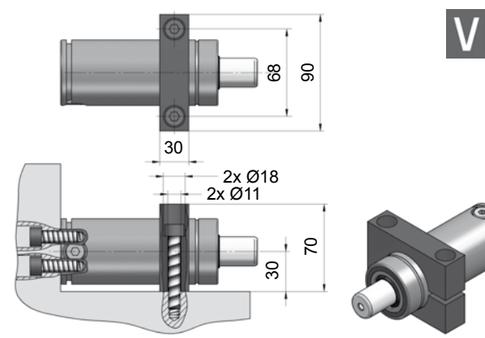
NC.88.00.050.0305



NC.88.00.050.0320

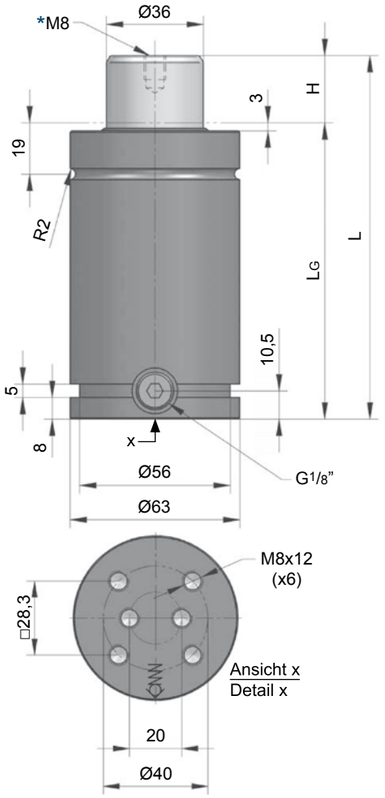


NC.88.00.050.0402



NC.88.00.050.0467

NC.040.00.01500…2



Technische Daten:

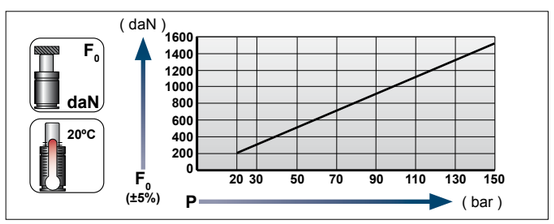
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

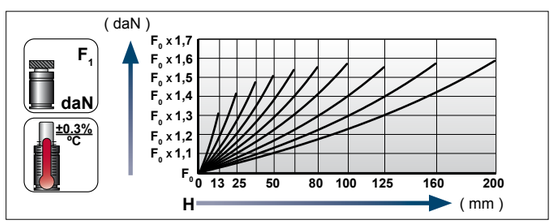
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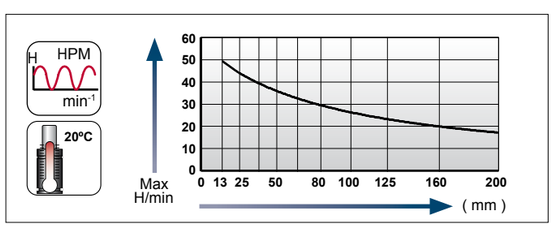
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.040.00.
01500.050.2

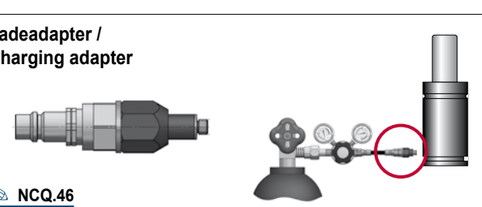
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
013	111	98	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	135	110	1530	
038	161	123	1530	
050	185	135	1530	
063,5	211	148,5	1530	
080	245	165	1530	
100	285	185	1530	
125	345	220	1530	
160	415	255	1530	
200	495	295	1530	







**Ladeadapter /
Charging adapter**



NCQ.46

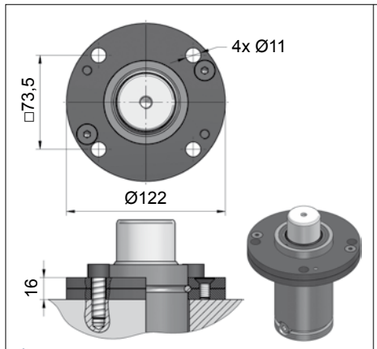
[NC.040.14]

[04.02.2020]

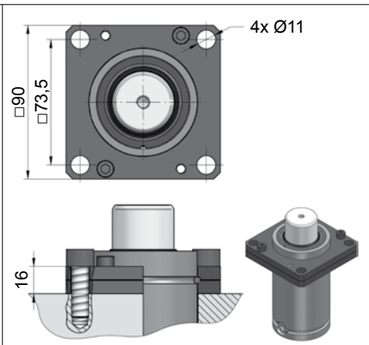
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

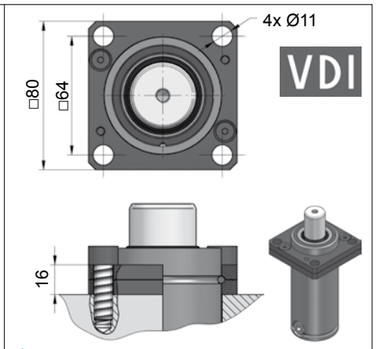
Flansche für / Flanges for **NC.040.00.01500…2**



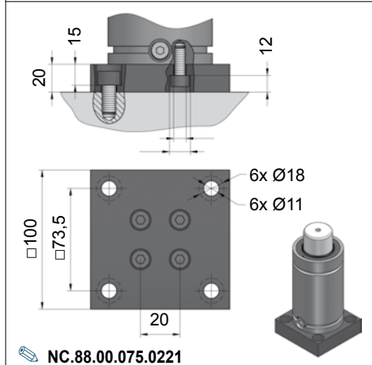
NC.88.00.063.0114



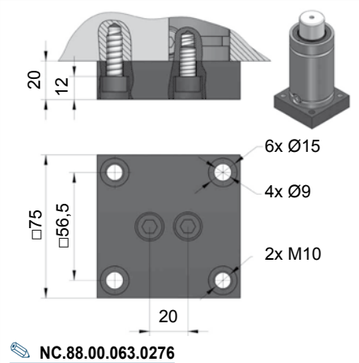
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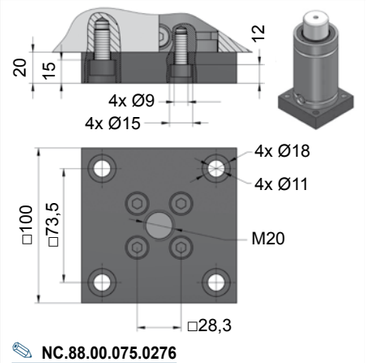
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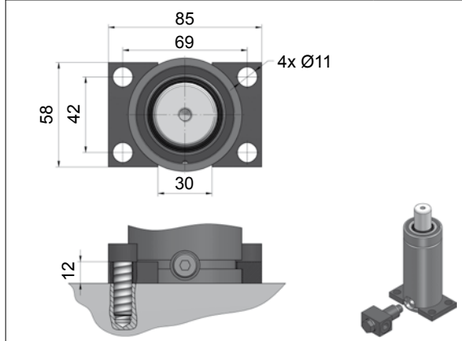
NC.88.00.075.0221



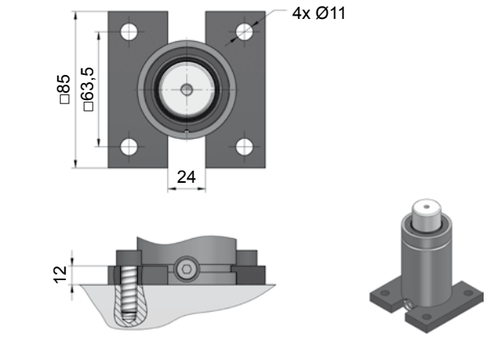
NC.88.00.063.0276



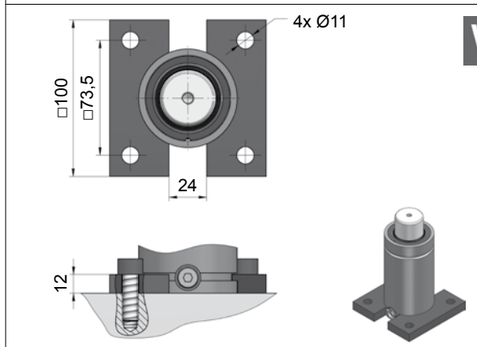
NC.88.00.075.0276



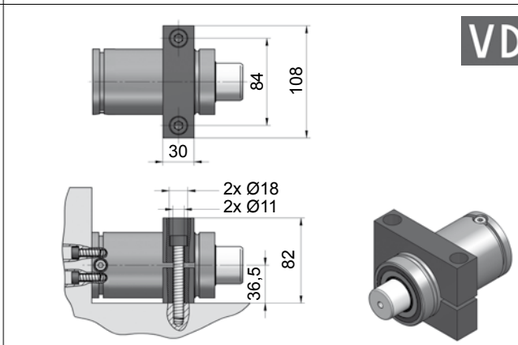
NC.88.00.063.0305



NC.88.00.063.0330



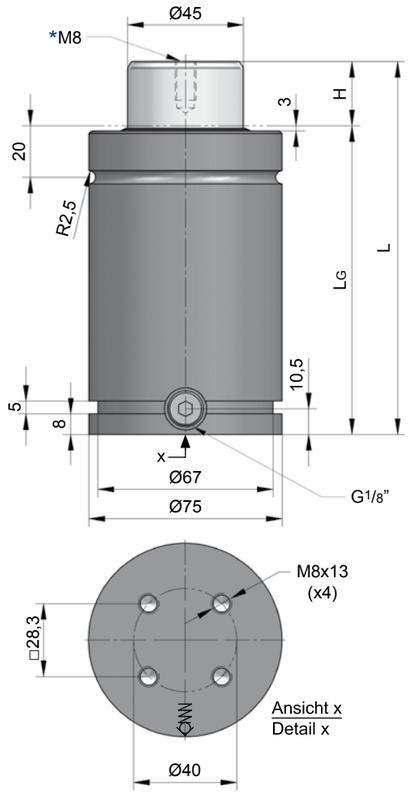
NC.88.00.063.0335



NC.88.00.063.0467

[NC.040.15]

NC.040.00.02500...1



Technische Daten:

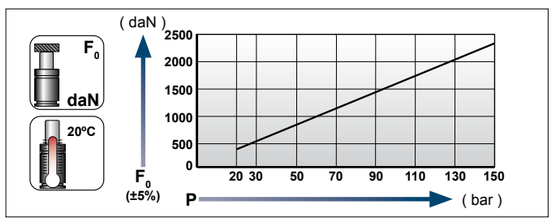
Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

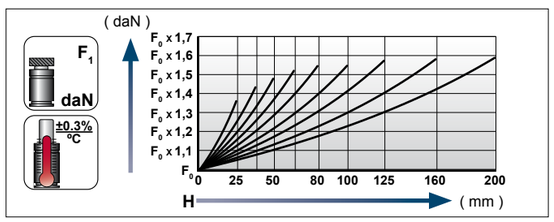
Specifications:

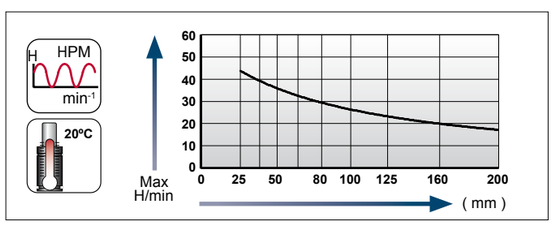
Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.040.00.02500.063.1

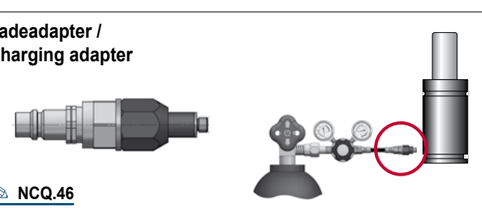
H Hub / Stroke	L ±0,25	LG	Kraft / Force (155 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	145	120	2465	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	171	133	2465	
050	195	145	2465	
063,5	222	158,5	2465	
080	255	175	2465	
100	300	200	2465	
125	350	225	2465	
160	425	265	2465	
200	510	310	2465	







Ladeadapter / Charging adapter

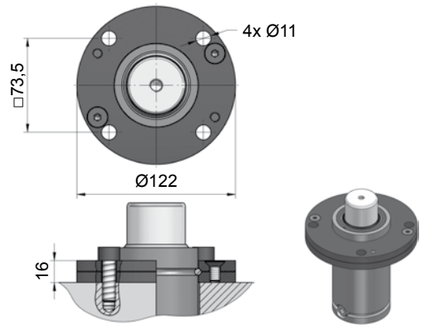


NCQ.46

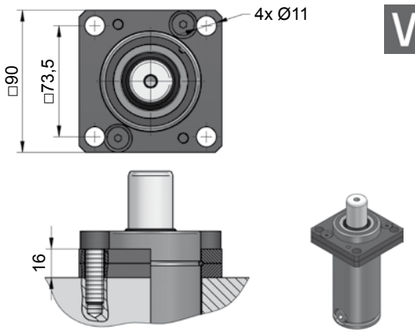
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

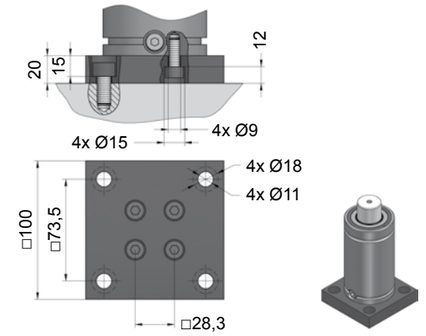
Flansche für / Flanges for **NC.040.00.02500...1**



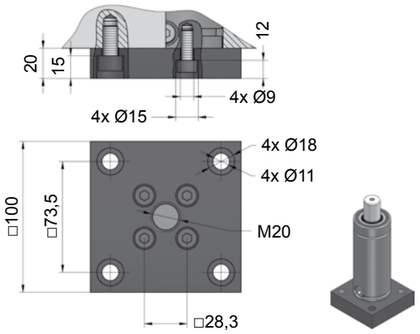
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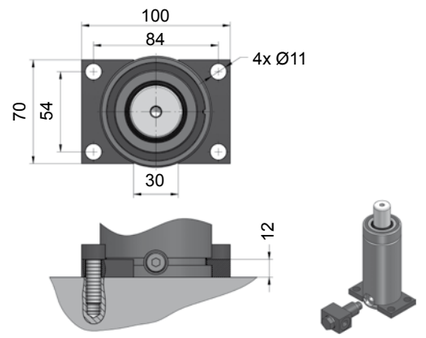
NC.88.00.075.0134



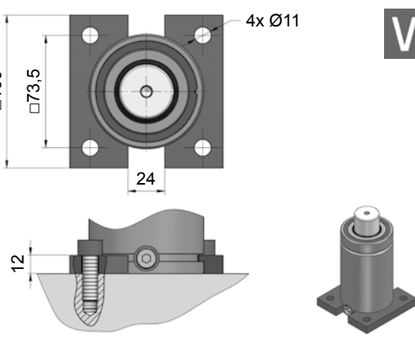
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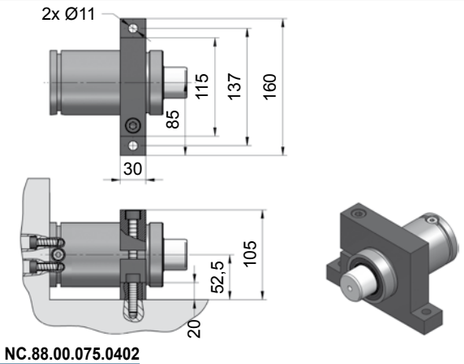
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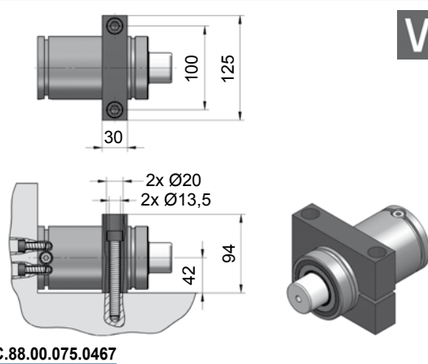
NC.88.00.075.0305



NC.88.00.075.0320



NC.88.00.075.0402



NC.88.00.075.0467

[04.02.2020]

[NC]

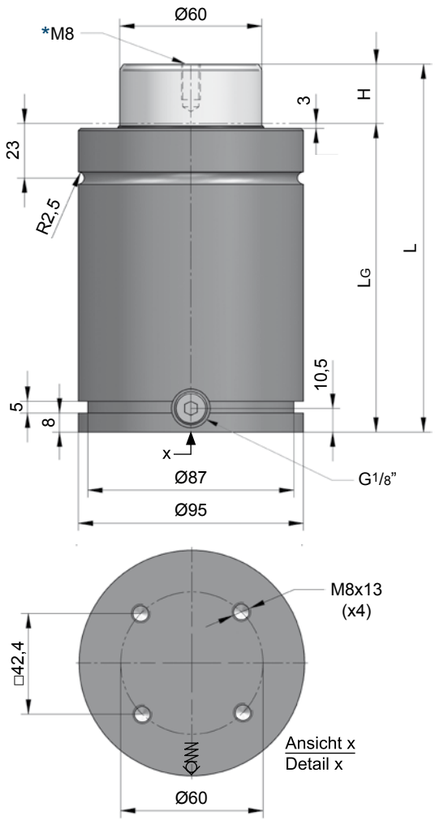
NC.040.00.04000...1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

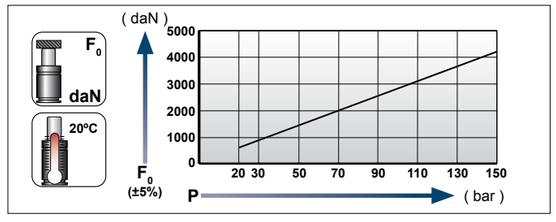
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

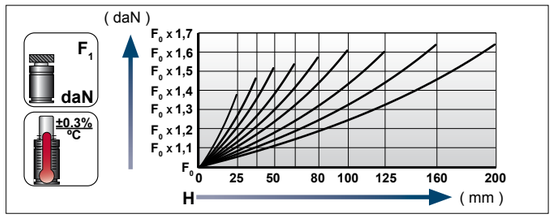


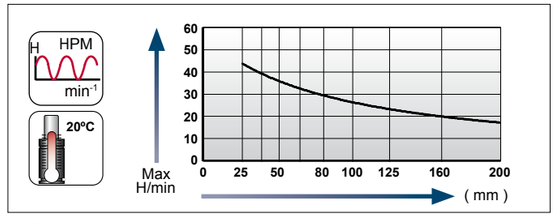
INFO [NC.21]

NC.040.00.
04000.080.1

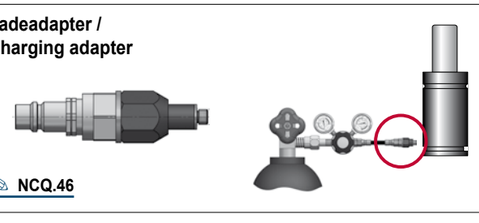
H Hub / Stroke	L ±0,25	LG	Kraft / Force (140 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	155	130	3960	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	181	143	3960	
050	205	155	3960	
063,5	237	173,5	3960	
080	270	190	3960	
100	310	210	3960	
125	370	245	3960	
160	440	280	3960	
200	530	330	3960	







Ladeadapter / Charging adapter

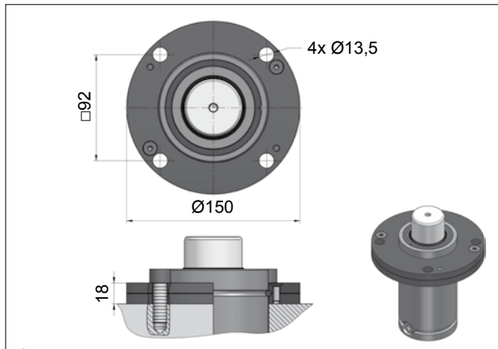


NCQ.46

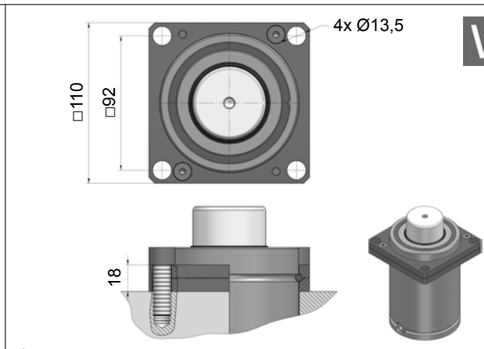
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

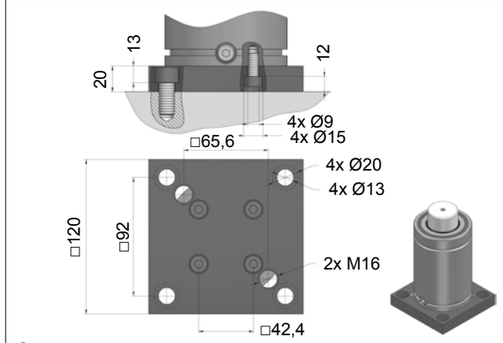
Flansche für / Flanges for **NC.040.00.04000...1**



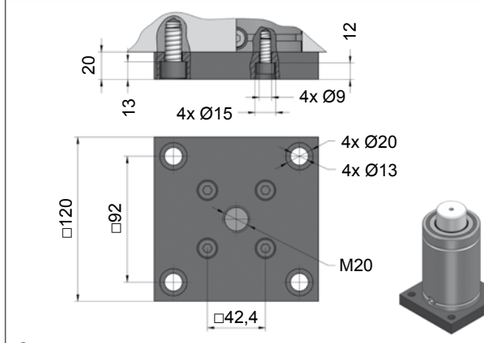
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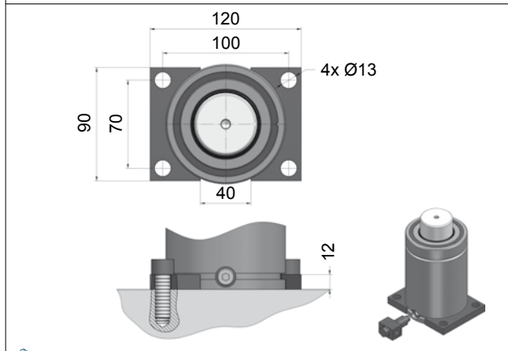
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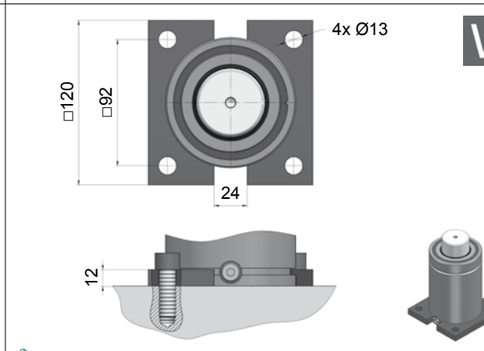
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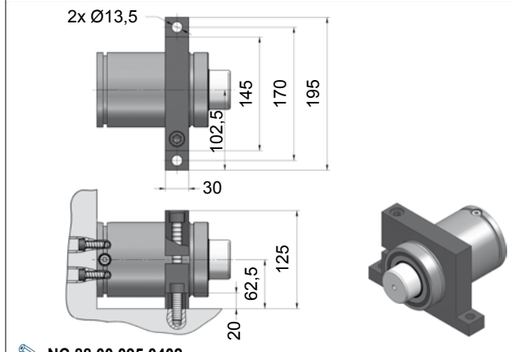
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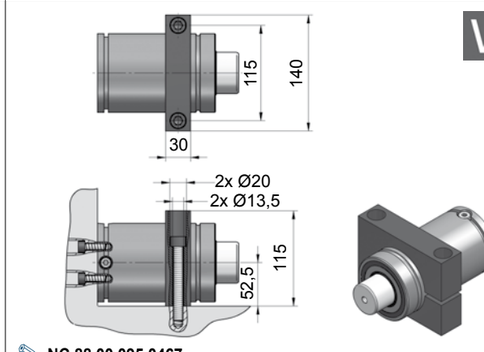
NC.88.00.095.0305



NC.88.00.095.0320



NC.88.00.095.0402



NC.88.00.095.0467

[04.02.2020]

[NC]

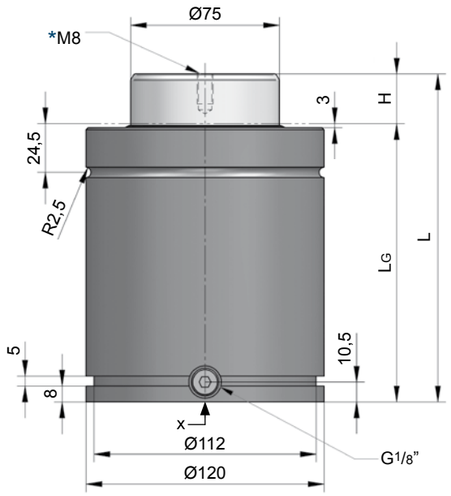
NC.040.00.06500...1

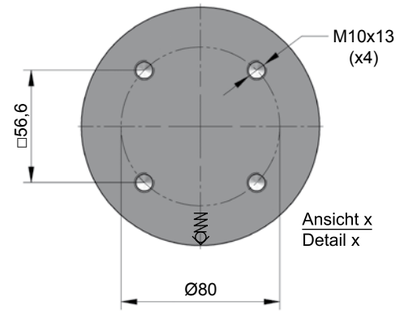
Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

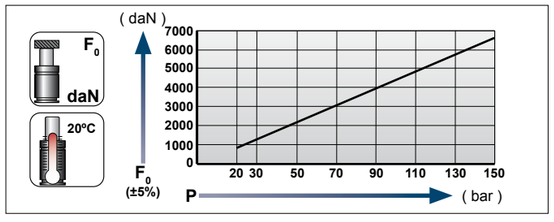
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

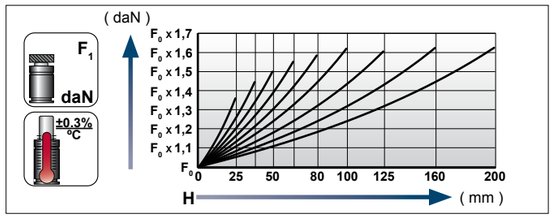


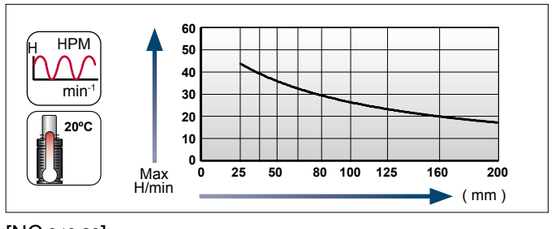


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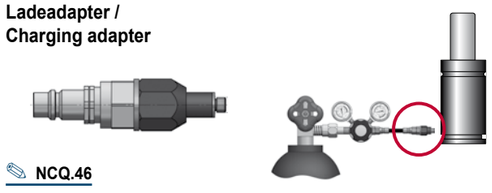
H Hub / Stroke	L ±0,25	LG	Kraft / Force (145 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	165	140	6405	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	191	153	6405	
050	215	165	6405	
063,5	242	178,5	6405	
080	275	195	6405	
100	315	215	6405	
125	375	250	6405	
160	450	290	6405	
200	540	340	6405	







Ladeadapter / Charging adapter

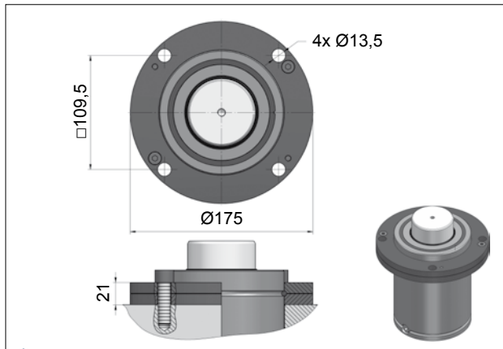


NCQ.46

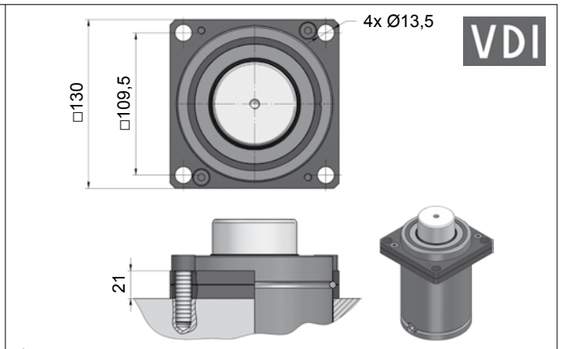
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

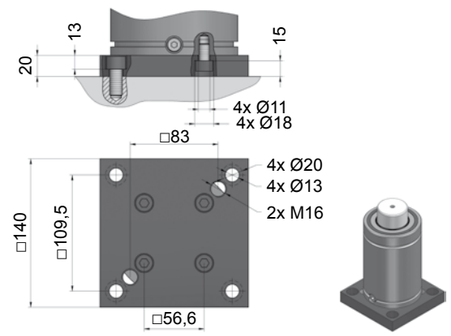
Flansche für / Flanges for **NC.040.00.06500...1**



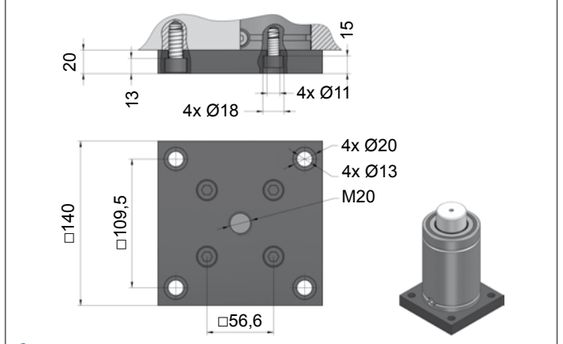
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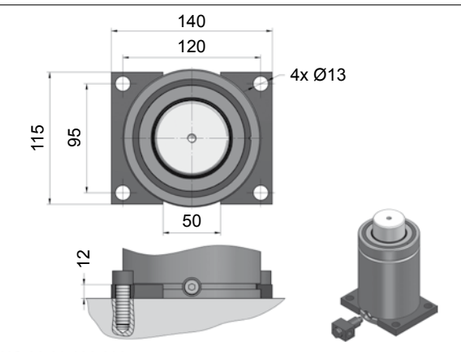
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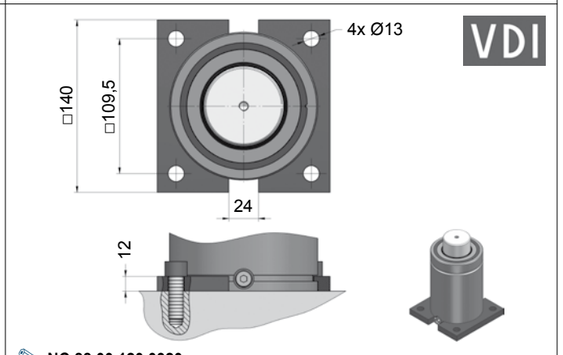
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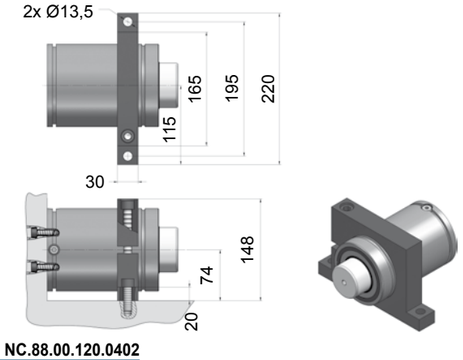
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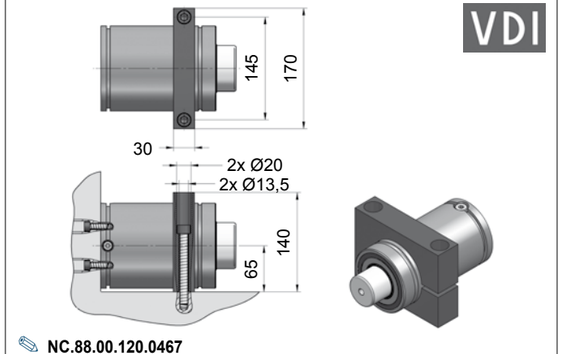
NC.88.00.120.0305



NC.88.00.120.0320



NC.88.00.120.0402



NC.88.00.120.0467

[04.02.2020]

[NC]

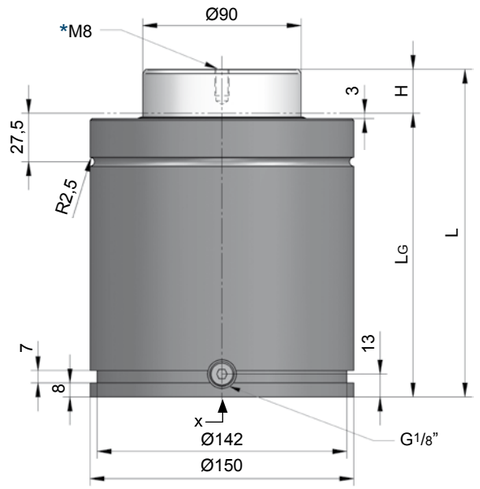
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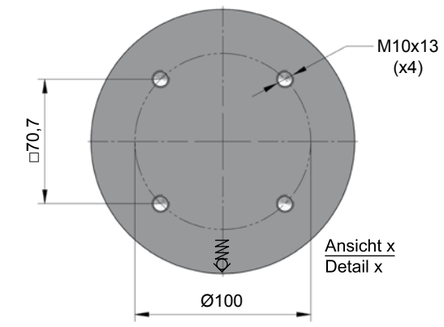
Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s





ZUGELASSEN PED 2014/68/EU

> Vmax

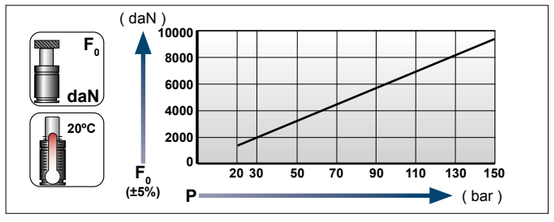
Flex Rod

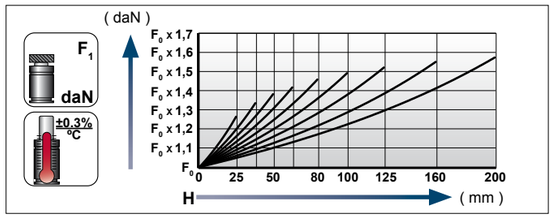
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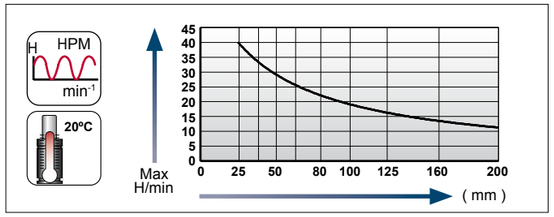
MAIL

NC.040.00.10000.100

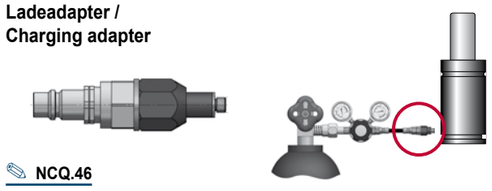
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	186	161	9540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	212	174	9540	
050	236	186	9540	
063,5	263	199,5	9540	
080	296	216	9540	
100	336	236	9540	
125	386	261	9540	
160	456	296	9540	
200	536	336	9540	







Ladeadapter / Charging adapter

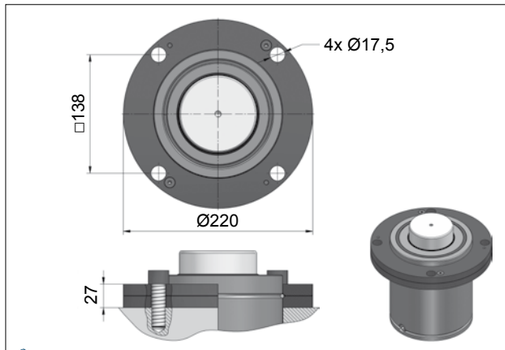


NCQ.46

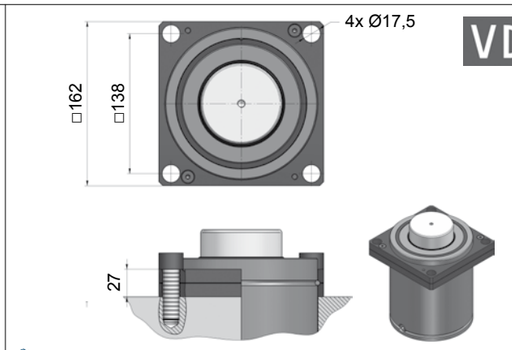
[04.02.2020]

GDF, mittlere Größen
GS, medium sizes
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

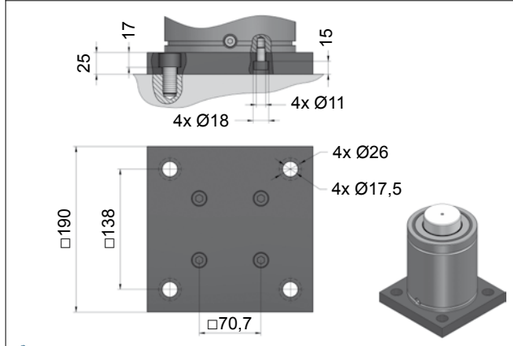
Flansche für / Flanges for **NC.040.00.10000**



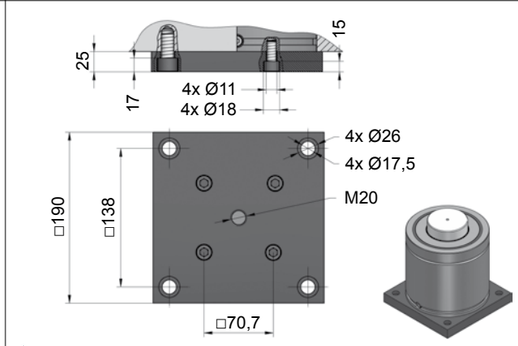
NC.88.00.150.0114



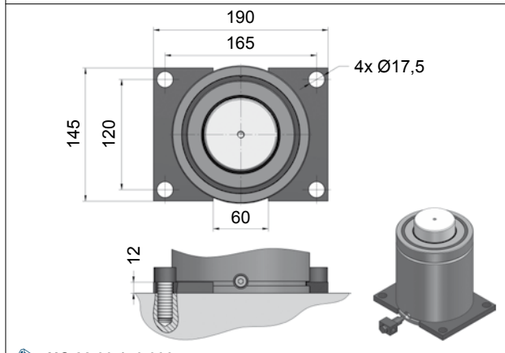
NC.88.00.150.0134



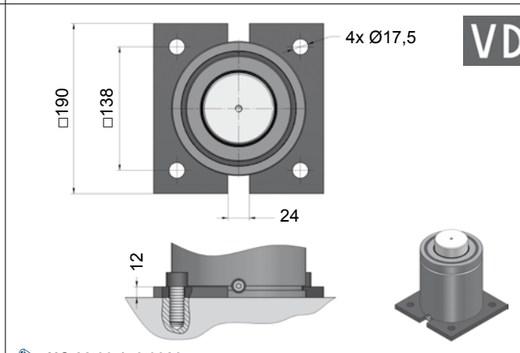
NC.88.00.150.0221



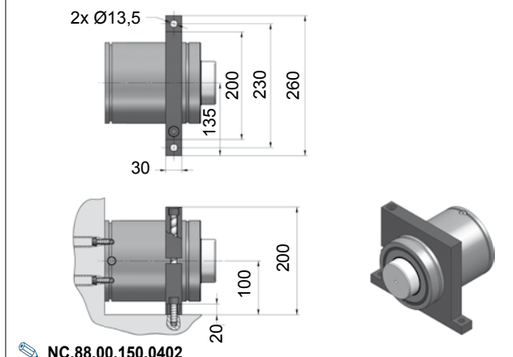
NC.88.00.150.0276



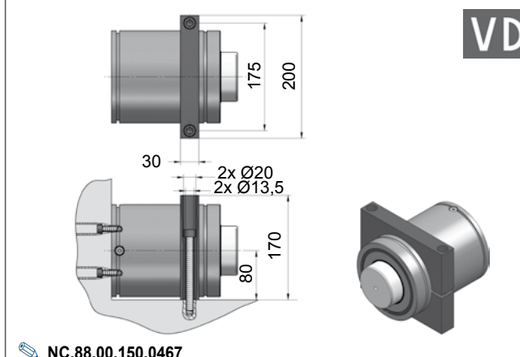
NC.88.00.150.0305



NC.88.00.150.0320



NC.88.00.150.0402



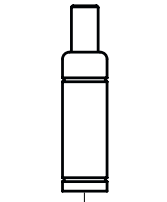
NC.88.00.150.0467

[04.02.2020]

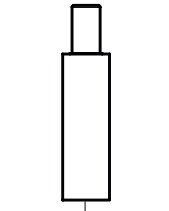
[NC]

Größenübersicht Serie NC.041.00

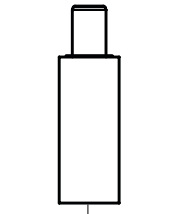
Gas spring index NC.041.00 series



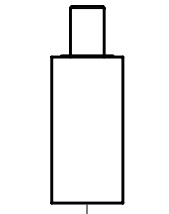
NC.041.00.00150...1
150 daN
10 - 80 mm
Ø19



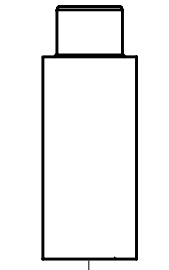
NC.041.00.00300...1
300 daN
10 - 80 mm
Ø25



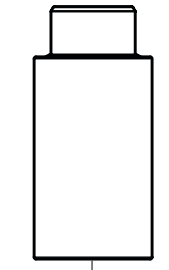
NC.041.00.00500...1
485 daN
10 - 80 mm
Ø32



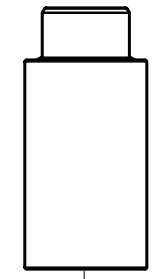
NC.041.00.01000...1
960 daN
10 - 80 mm
Ø38



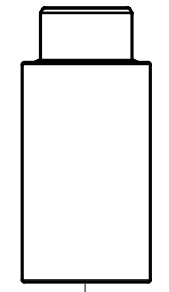
NC.041.00.02000...2
1925 daN
10 - 80 mm
Ø50



NC.041.00.03000...1
2860 daN
10 - 80 mm
Ø63



NC.041.00.05000...1
4925 daN
10 - 80 mm
Ø75



NC.041.00.08000...1
7950 daN
10 - 80 mm
Ø95

NC.041.00.00150…1

Technische Daten:

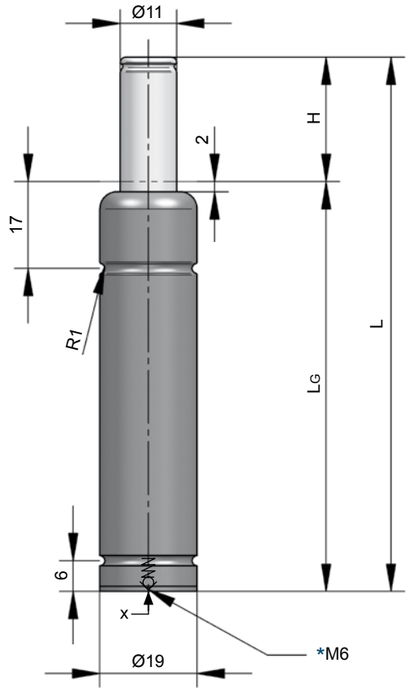
Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Einwegfeder ist nicht reparierbar!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

One-way spring is irreparable!





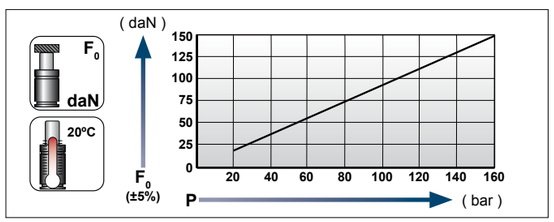


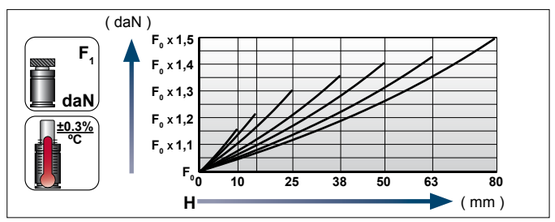


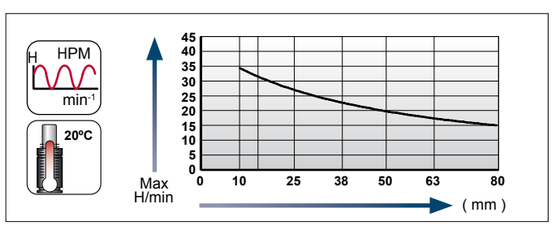
NC.041.00. 00150.015.1



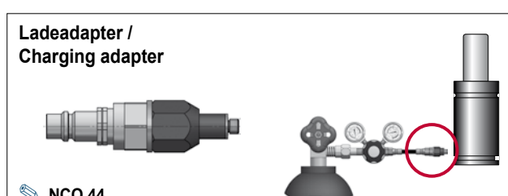
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (160 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	75	65	150	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	85	70	150	
025	105	80	150	
038	135	97	150	
050	160	110	150	
063	190	127	150	
080	220	140	150	







Ladeadapter / Charging adapter



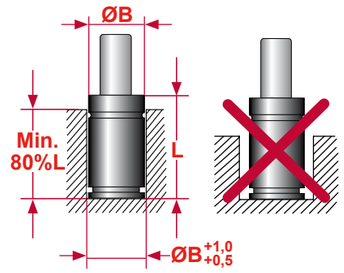
NCQ.44

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Einbauhinweis für / Mounting instruction for **NC.041.00.00150…1**

Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.



When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

[NC]

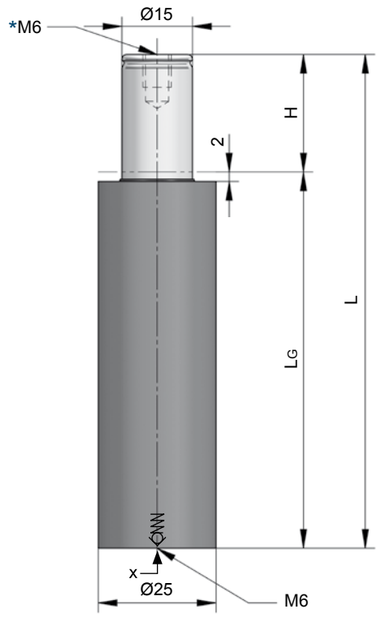
NC.041.00.00300...1

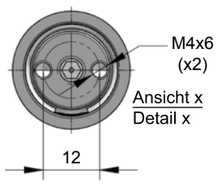
Technische Daten:

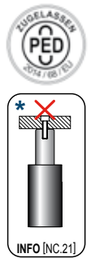
Medium:	N_2
$P_{max.}$ (20 °C):	170 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	170 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

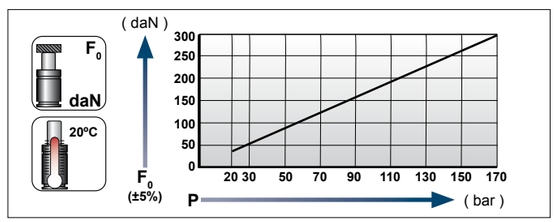


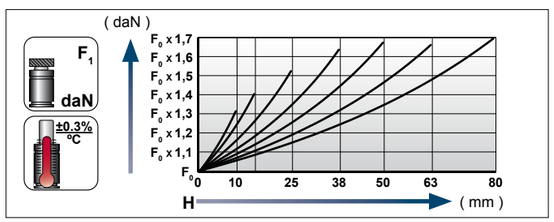


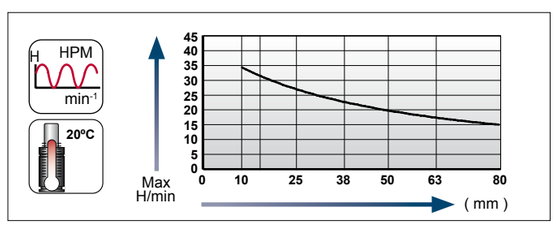


NC.041.00.00300.015.1

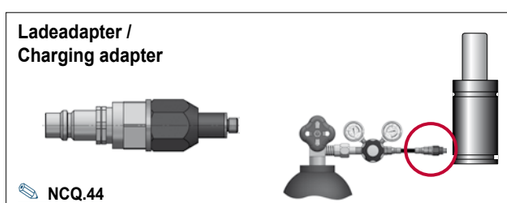
H Hub / Stroke	L ±0,25	LG	Kraft / Force (170 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	75	65	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	85	70	300	
025	105	80	300	
038	130	92	300	
050	155	105	300	
063	185	122	300	
080	220	140	300	







Ladeadapter / Charging adapter

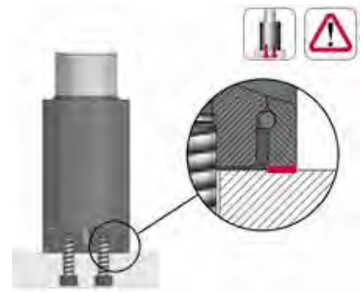


NCQ.44

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

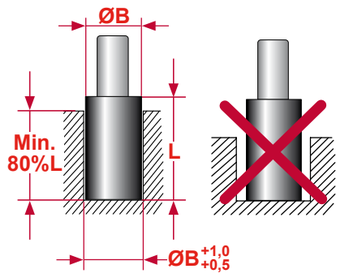
Einbauhinweise für / Mounting instructions for **NC.041.00.00300...1**

Gasdruckfedern vom Typ **NC.041.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.041.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.



When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

NC.041.00.00500…1

Technische Daten:

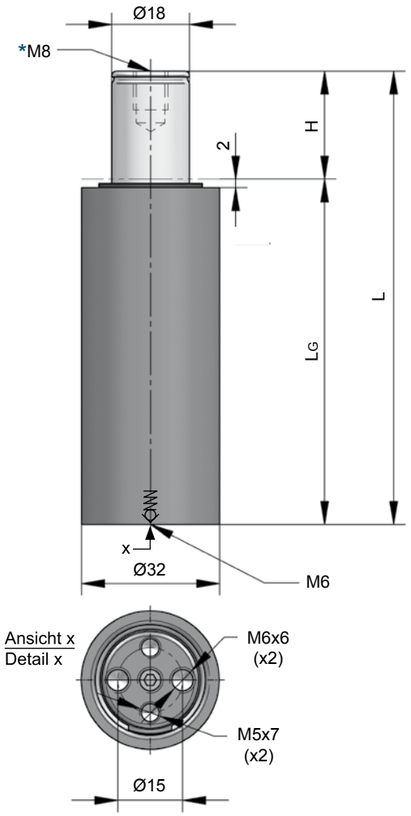
Medium:	N_2
$P_{max.}$ (20 °C):	200 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N2
$P_{max.}$ (20 °C):	200 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!

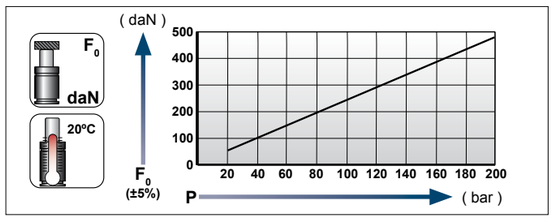


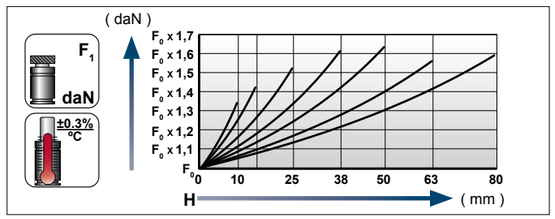
INFO [NC.21]

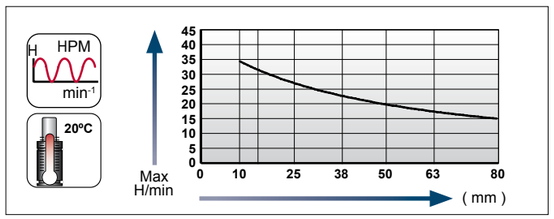
NC.041.00.00500.025.1

MAIL

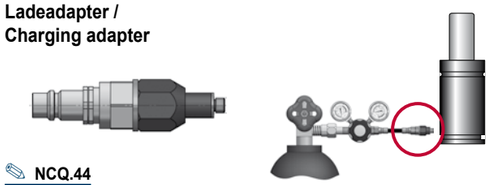
H Hub / Stroke	L ±0,25	LG	Kraft / Force (190 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	75	65	485	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	85	70	485	
025	105	80	485	
038	130	92	485	
050	155	105	485	
063	190	127	485	
080	225	145	485	







Ladeadapter / Charging adapter



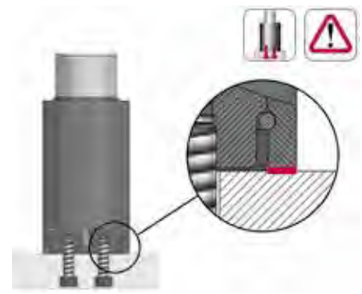
NCQ.44

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

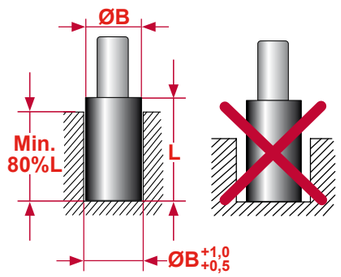
Einbauhinweise für / Mounting instructions for **NC.041.00.00500…1**

Gasdruckfedern vom Typ **NC.041.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.041.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.



When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

NC.041.00.01000...1

Technische Daten:

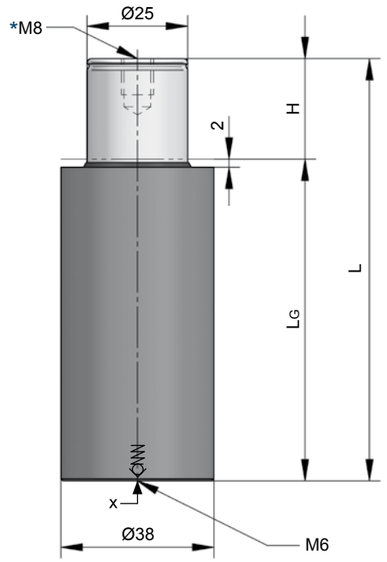
Medium:	N_2
$P_{max.}$ (20 °C):	205 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

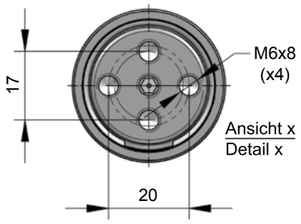
Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N2
$P_{max.}$ (20 °C):	205 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!

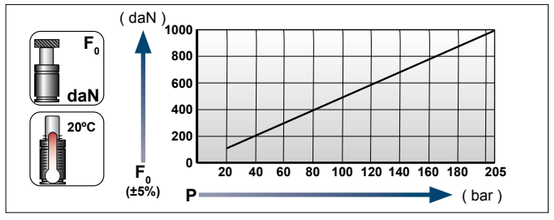


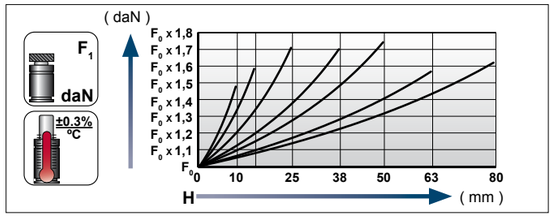


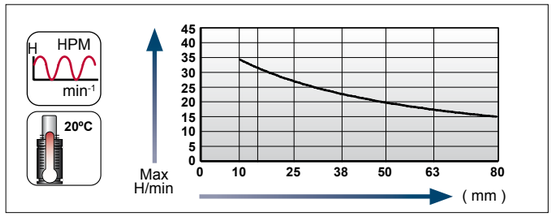


NC.041.00.
01000.038.1

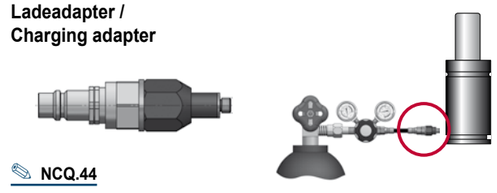
H Hub / Stroke	L ±0,25	LG	Kraft / Force (195 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	75	65	960	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	85	70	960	
025	105	80	960	
038	135	97	960	
050	160	110	960	
063	205	142	960	
080	240	160	960	







Ladeadapter / Charging adapter



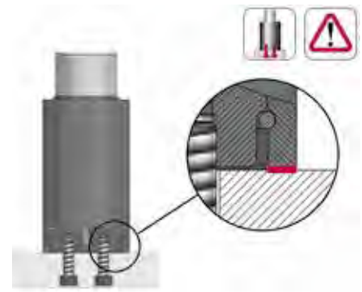
NCQ.44

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

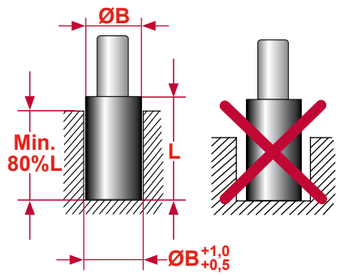
Einbauhinweise für / Mounting instructions for **NC.041.00.01000...1**

Gasdruckfedern vom Typ **NC.041.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.041.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

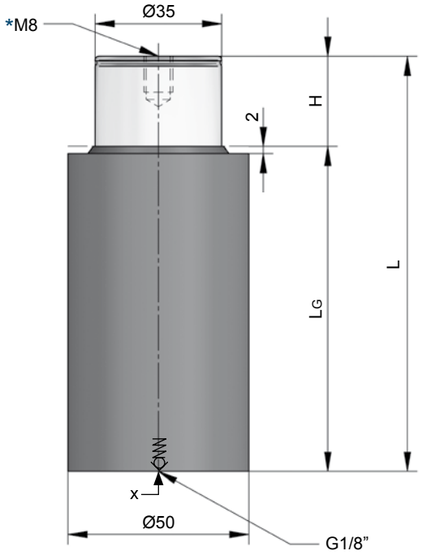
Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.

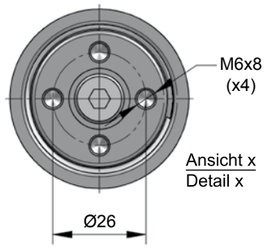


When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

NC.041.00.02000…2





Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	210 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

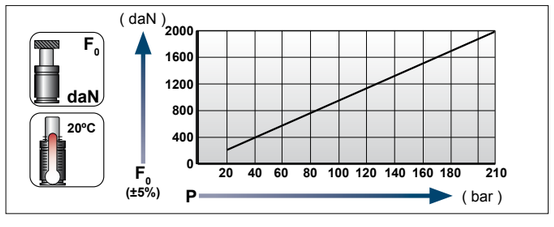
Specifications:

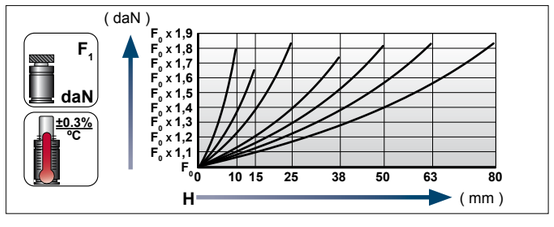
Pressure medium:	N2
$P_{max.}$ (20 °C):	210 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

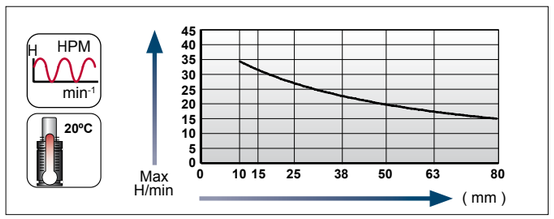
Attention: Maintenance only at manufacturer‘s site!

NC.041.00.02000.050.2

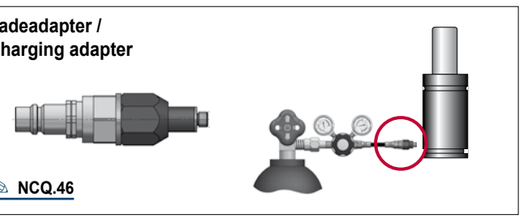
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (200 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	80	70	1925	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	95	80	1925	
025	115	90	1925	
038	150	112	1925	
050	175	125	1925	
063	205	142	1925	
080	245	165	1925	







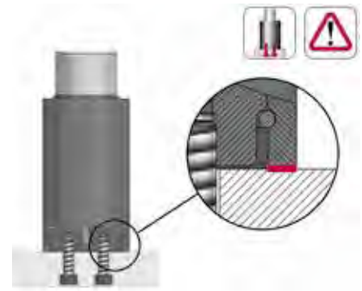
Ladeadapter / Charging adapter



NCQ.46

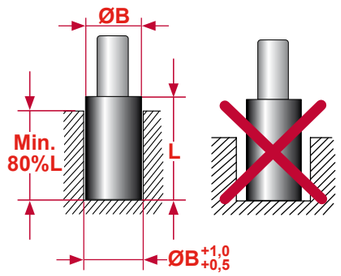
Einbauhinweise für / Mounting instructions for **NC.041.00.02000…2**

Gasdruckfedern vom Typ **NC.041.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



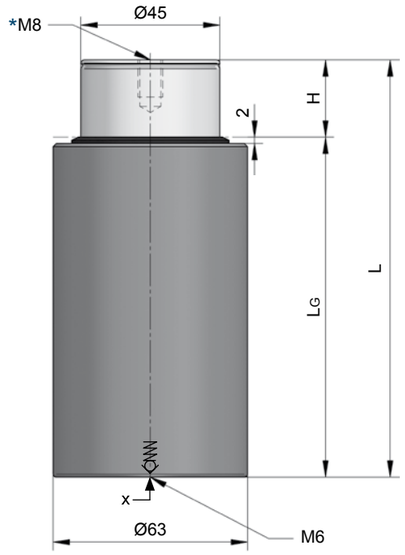
Gas springs of type **NC.041.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

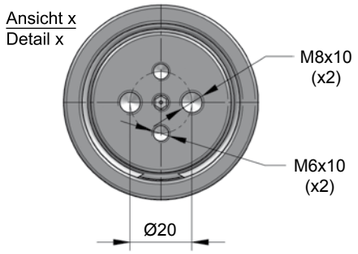
Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.



When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

NC.041.00.03000...1





Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	190 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

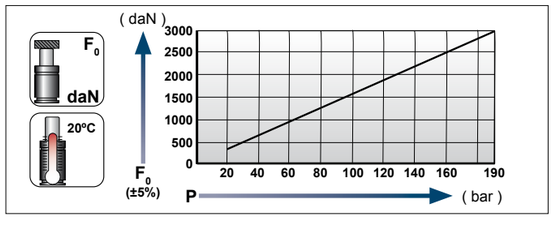
Specifications:

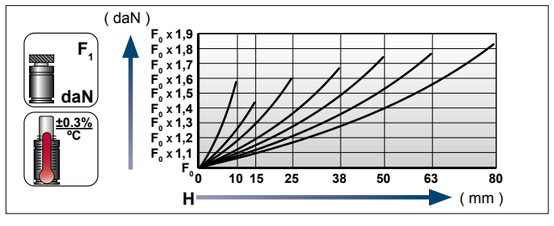
Pressure medium:	N2
$P_{max.}$ (20 °C):	190 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

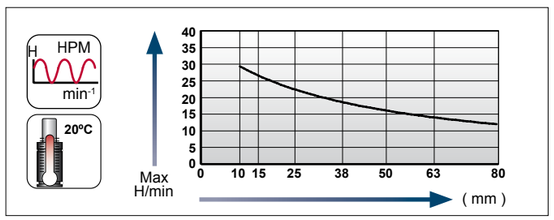
Attention: Maintenance only at manufacturer's site!

NC.041.00.03000.063.1

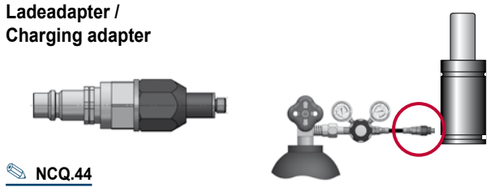
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (180 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	95	85	2860	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	115	100	2860	
025	135	110	2860	
038	165	127	2860	
050	190	140	2860	
063	220	157	2860	
080	255	175	2860	







Ladeadapter / Charging adapter



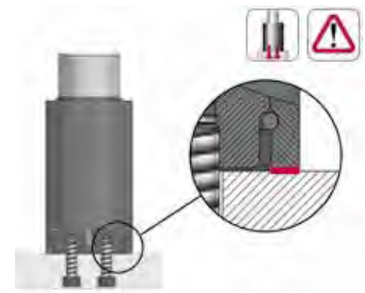
NCQ.44

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

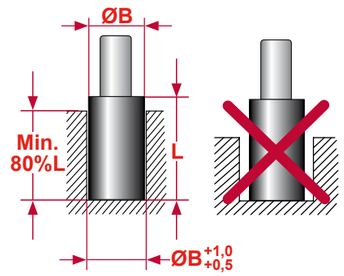
Einbauhinweise für / Mounting instructions for **NC.041.00.03000...1**

Gasdruckfedern vom Typ **NC.041.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.041.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

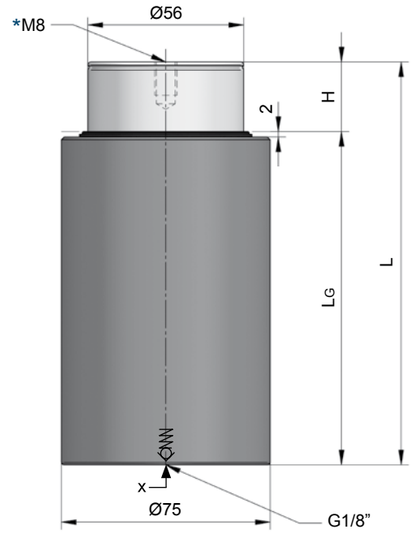
Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.

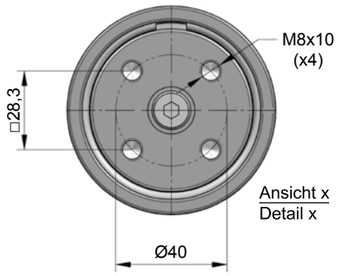


When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

NC.041.00.05000…1





Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	200 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

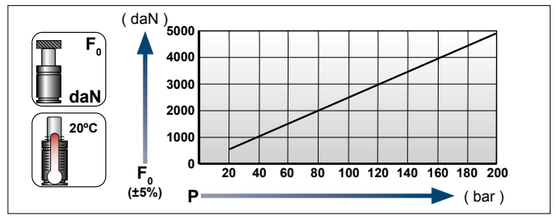
Specifications:

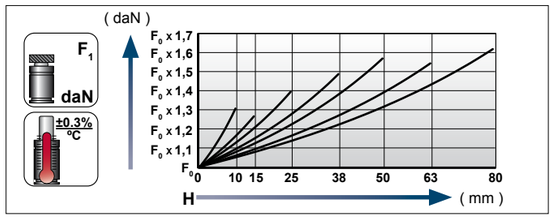
Pressure medium:	N2
$P_{max.}$ (20 °C):	200 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

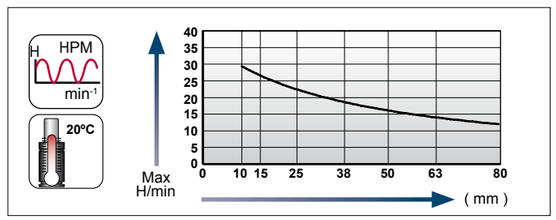
Attention: Maintenance only at manufacturer‘s site!

NC.041.00. 05000.080.1

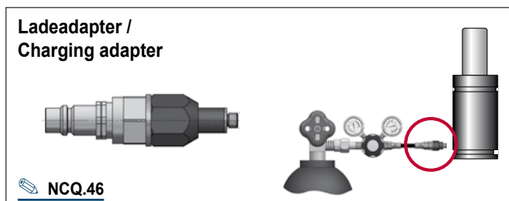
H Hub / Stroke	L ±0,25	LG	Kraft / Force (200 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	100	90	4925	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	125	110	4925	
025	145	120	4925	
038	175	137	4925	
050	200	150	4925	
063	240	177	4925	
080	275	195	4925	







Ladeadapter / Charging adapter



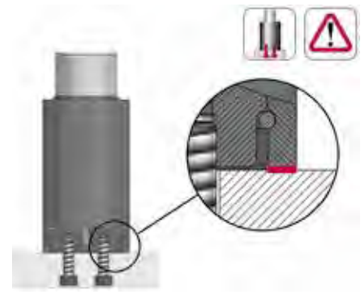
NCQ.46

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

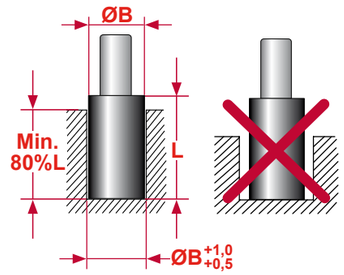
Einbauhinweise für / Mounting instructions for **NC.041.00.05000…1**

Gasdruckfedern vom Typ **NC.041.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.041.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

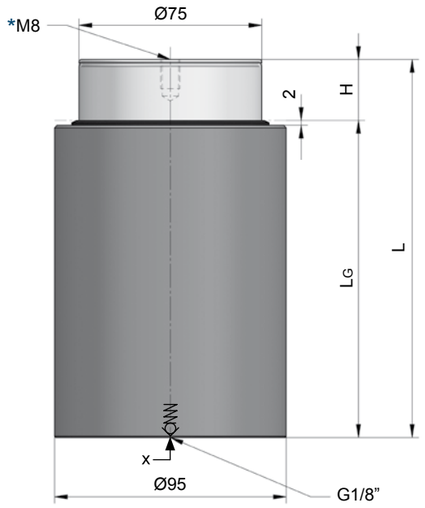
Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.

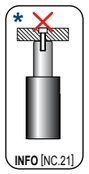


When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

NC.041.00.08000...1





Technische Daten:

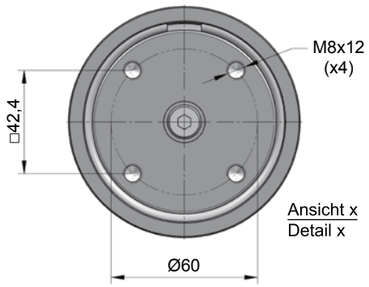
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

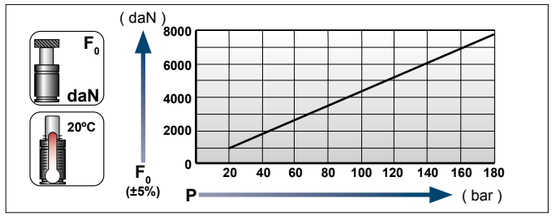
Attention: Maintenance only at manufacturer‘s site!

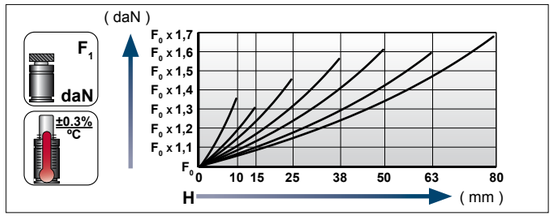


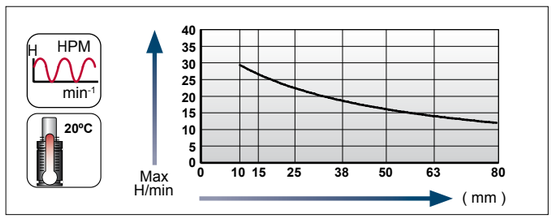
NC.041.00. 08000.010.1

MAIL

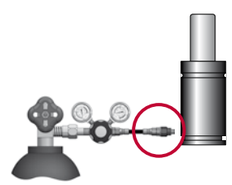
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (180 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	110	100	7950	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	135	120	7950	
025	155	130	7950	
038	185	147	7950	
050	215	165	7950	
063	255	192	7950	
080	290	210	7950	







Ladeadapter / Charging adapter



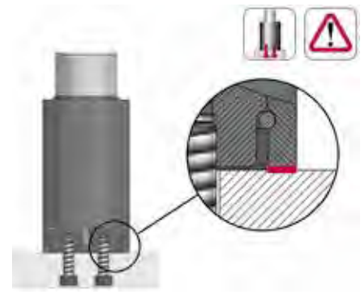
NCQ.46

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

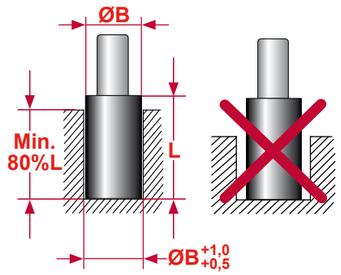
Einbauhinweise für / Mounting instructions for **NC.041.00.08000...1**

Gasdruckfedern vom Typ **NC.041.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.041.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.

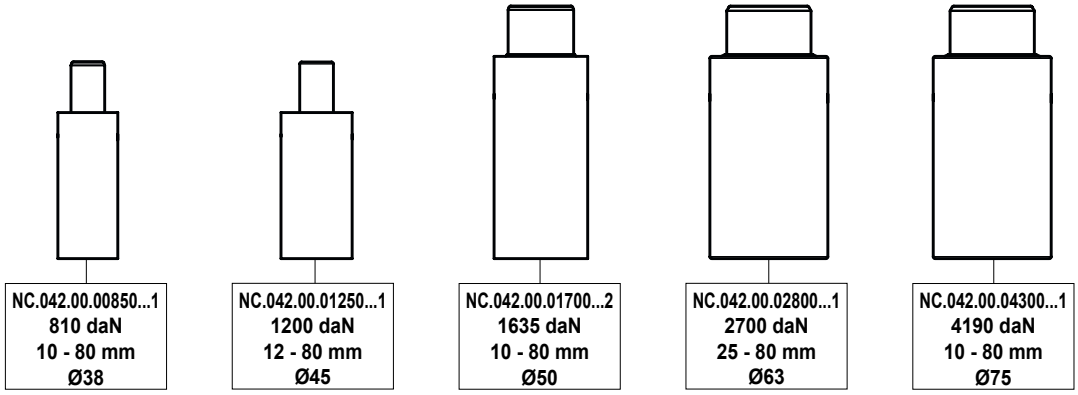


When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

Größenübersicht Serie NC.042.00

Gas spring index NC.042.00 series



NC.042.00.00850...1

Technische Daten:

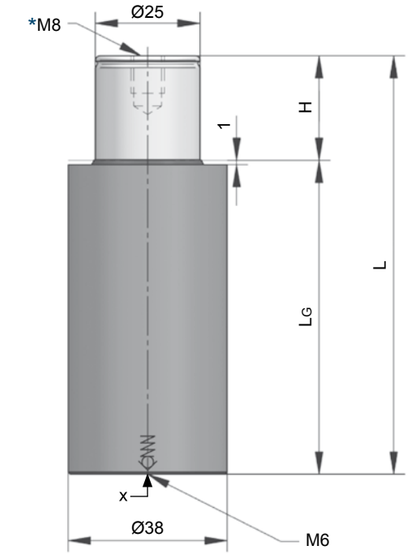
Medium:	N_2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

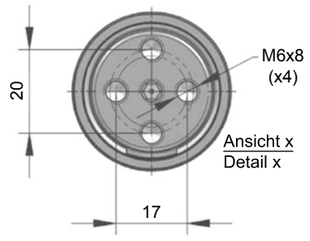
Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!



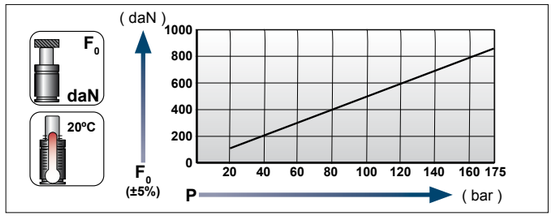


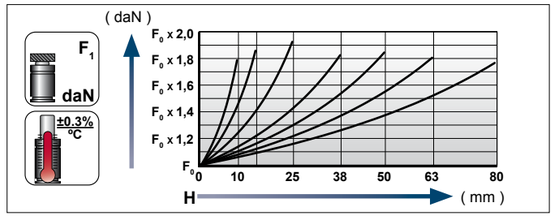
INFO [NC.21]

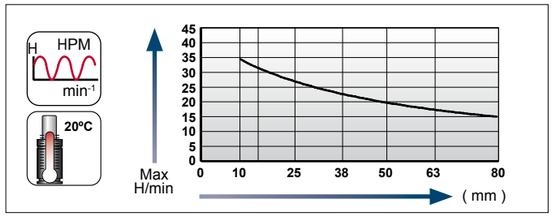
MAIL

NC.042.00.00850.038.1

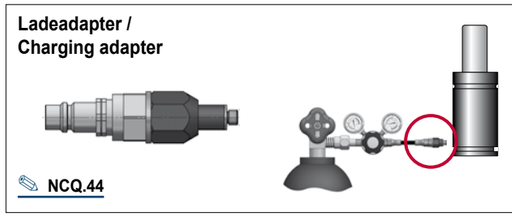
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (165 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	70	60	810	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	80	65	810	
025	100	75	810	
038	130	92	810	
050	155	105	810	
063	185	122	810	
080	225	145	810	







Ladeadapter / Charging adapter



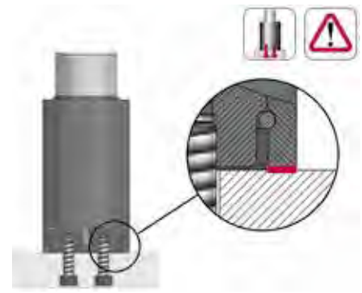
NCQ.44

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

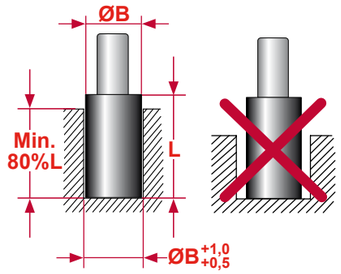
Einbauhinweise für / Mounting instructions for **NC.042.00.00850…1**

Gasdruckfedern vom Typ **NC.042.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.042.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

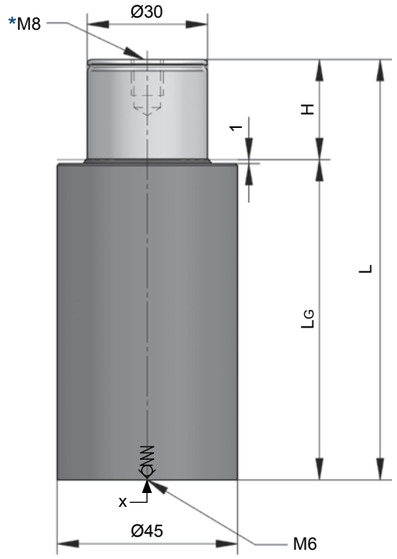
Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.

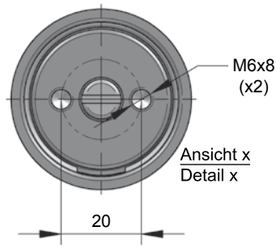


When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

NC.042.00.01250...1





Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

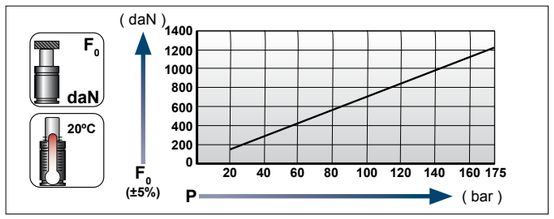
Specifications:

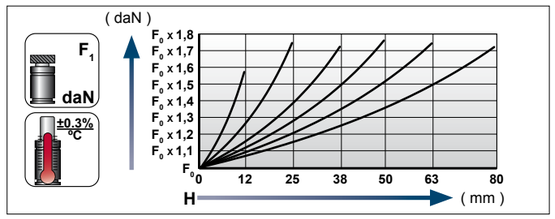
Pressure medium:	N2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

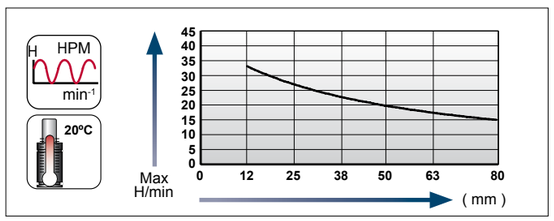
Attention: Maintenance only at manufacturer's site!

NC.042.00.01250.050.1

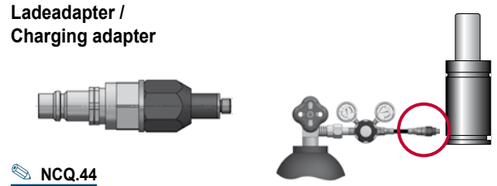
H Hub / Stroke	L ±0,25	LG	Kraft / Force (170 bar) Anfang / Initial [daN]	Ende / Final [daN]
012	79	67	1200	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	105	80	1200	
038	135	97	1200	
050	160	110	1200	
063	190	127	1200	
080	230	150	1200	







Ladeadapter / Charging adapter



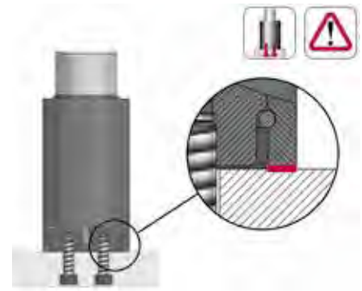
NCQ.44

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

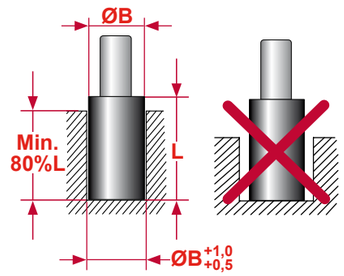
Einbauhinweise für / Mounting instructions for **NC.042.00.01250…1**

Gasdruckfedern vom Typ **NC.042.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.042.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

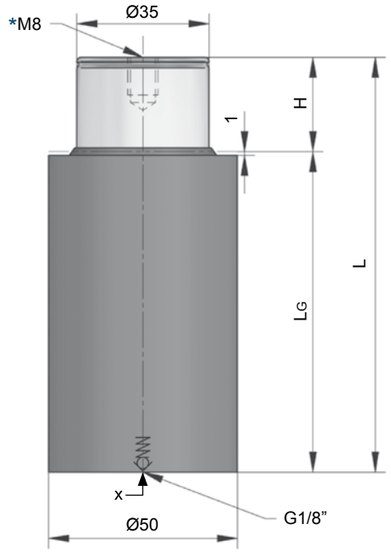
Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.

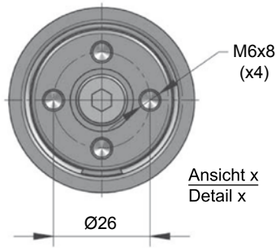


When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

NC.042.00.01700...2





Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

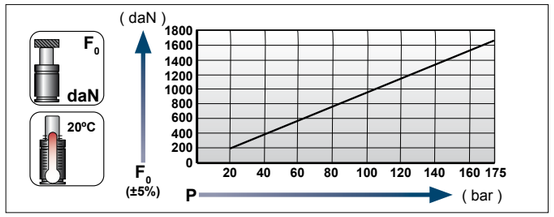
Specifications:

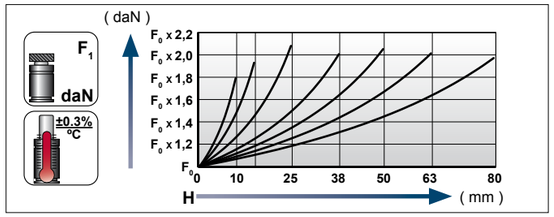
Pressure medium:	N2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

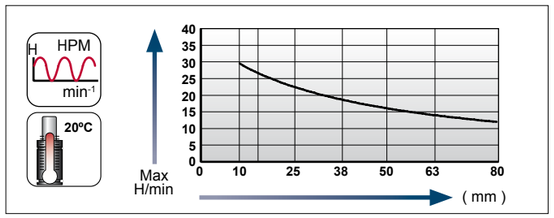
Attention: Maintenance only at manufacturer's site!

NC.042.00. 01700.063.2

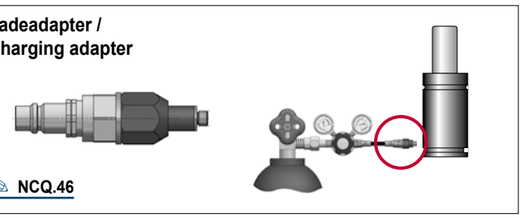
H **Hub / Stroke**	L ±0,25	LG	Kraft / Force (170 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	80	70	1635	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	90	75	1635	
025	110	85	1635	
038	140	102	1635	
050	165	115	1635	
063	195	132	1635	
080	235	155	1635	







Ladeadapter / Charging adapter



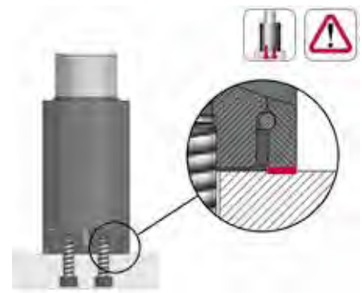
NCQ.46

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

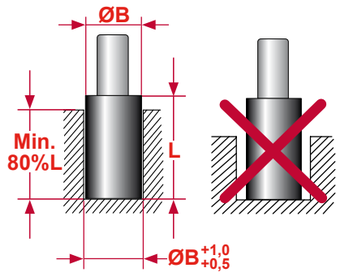
Einbauhinweise für / Mounting instructions for **NC.042.00.01700…2**

Gasdruckfedern vom Typ **NC.042.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.042.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.



When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

NC.042.00.02800...1

Technische Daten:

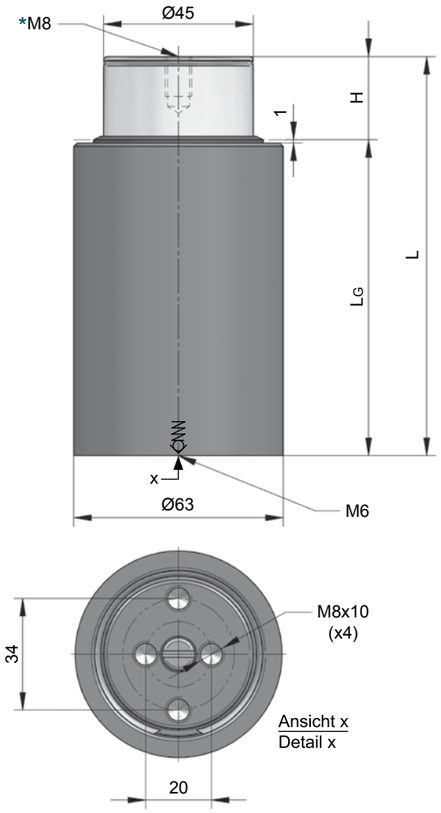
Medium:	N_2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!

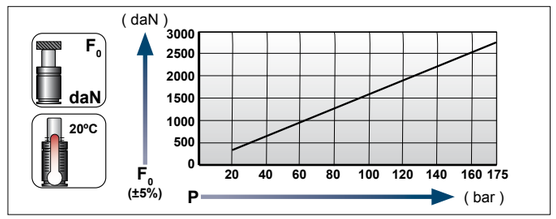


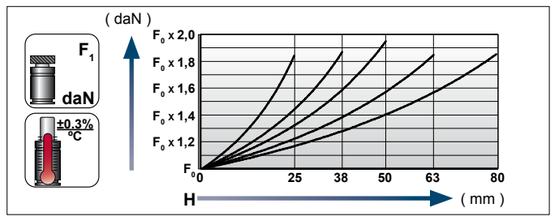
INFO [NC.21]

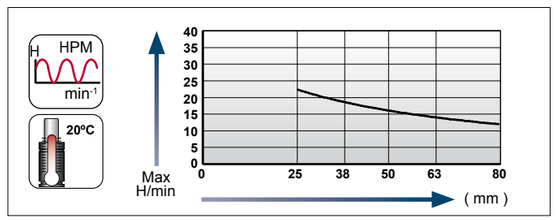
NC.042.00.
02800.063.1

MAIL

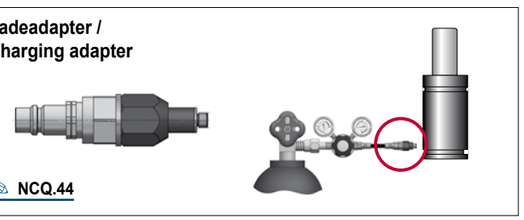
H Hub / Stroke	L ±0,25	LG	Kraft / Force (170 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	120	95	2700	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	150	112	2700	
050	175	125	2700	
063	210	147	2700	
080	250	170	2700	







Ladeadapter / Charging adapter



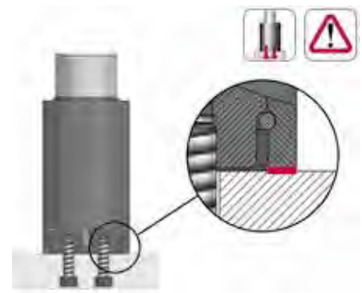
NCQ.44

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

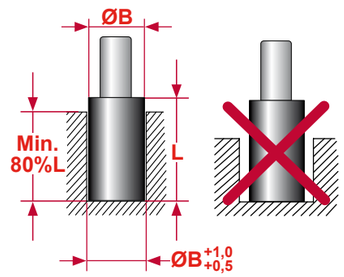
Einbauhinweise für / Mounting instructions for **NC.042.00.02800…1**

Gasdruckfedern vom Typ **NC.042.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.042.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.



When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

[NC]

NC.042.00.04300...1

Technische Daten:

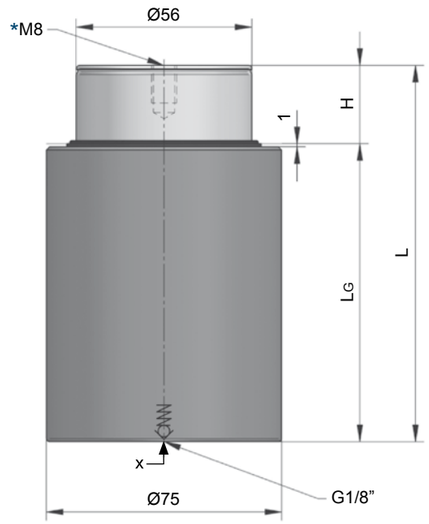
Medium:	N_2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

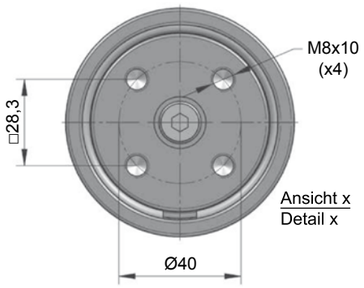
Achtung: Wartungsarbeiten nur durch den Hersteller!

Specifications:

Pressure medium:	N2
$P_{max.}$ (20 °C):	175 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Attention: Maintenance only at manufacturer's site!



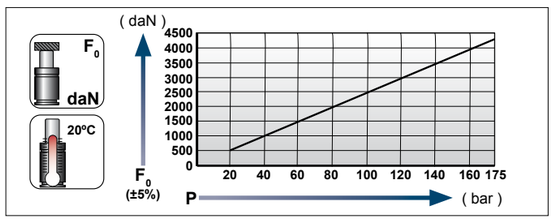


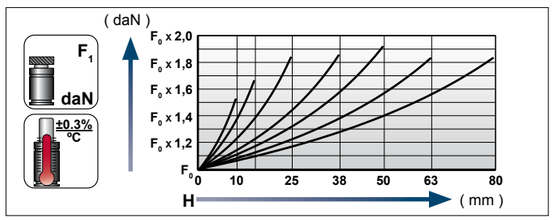
INFO [NC.21]

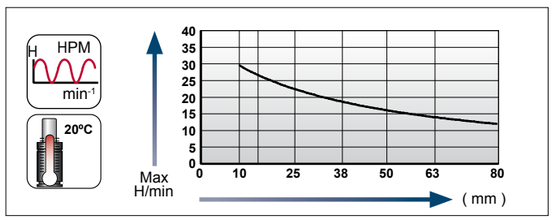
NC.042.00.
04300.063.1

MAIL

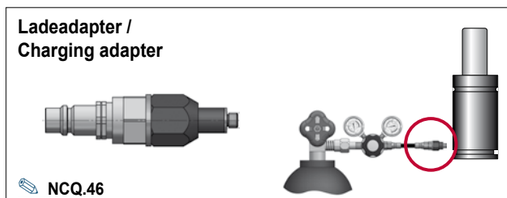
H Hub / Stroke	L ±0,25	LG	Kraft / Force (170 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	90	80	4190	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	100	85	4190	
025	120	95	4190	
038	150	112	4190	
050	175	125	4190	
063	210	147	4190	
080	250	170	4190	







Ladeadapter / Charging adapter



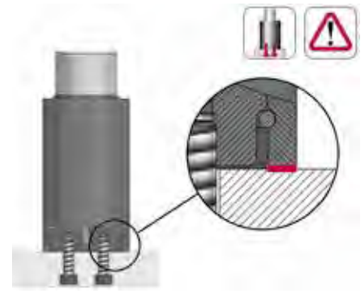
NCQ.46

[25.02.2020]

GDF, mit erhöhter Kraft
GS, with higher force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

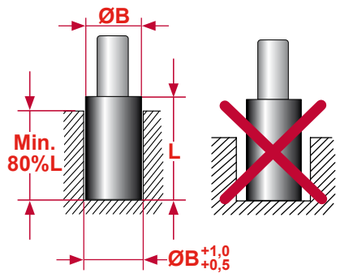
Einbauhinweise für / Mounting instructions for **NC.042.00.04300…1**

Gasdruckfedern vom Typ **NC.042.00**, die mit Schrauben befestigt werden, benötigen eine absolut plane und winklige Anschraubfläche.



Gas springs of type **NC.042.00**, which are fastened with screws, require an absolutely flat and angled screwing surface.

Werden Gasdruckfedern in einer Vertiefung eingebaut, sollte der Bohrungsdurchmesser nur 1 mm grösser als der Federdurchmesser sein. Die Kaverne sollte mindestens 80% von L betragen, und die Stellfläche absolut plan sein.



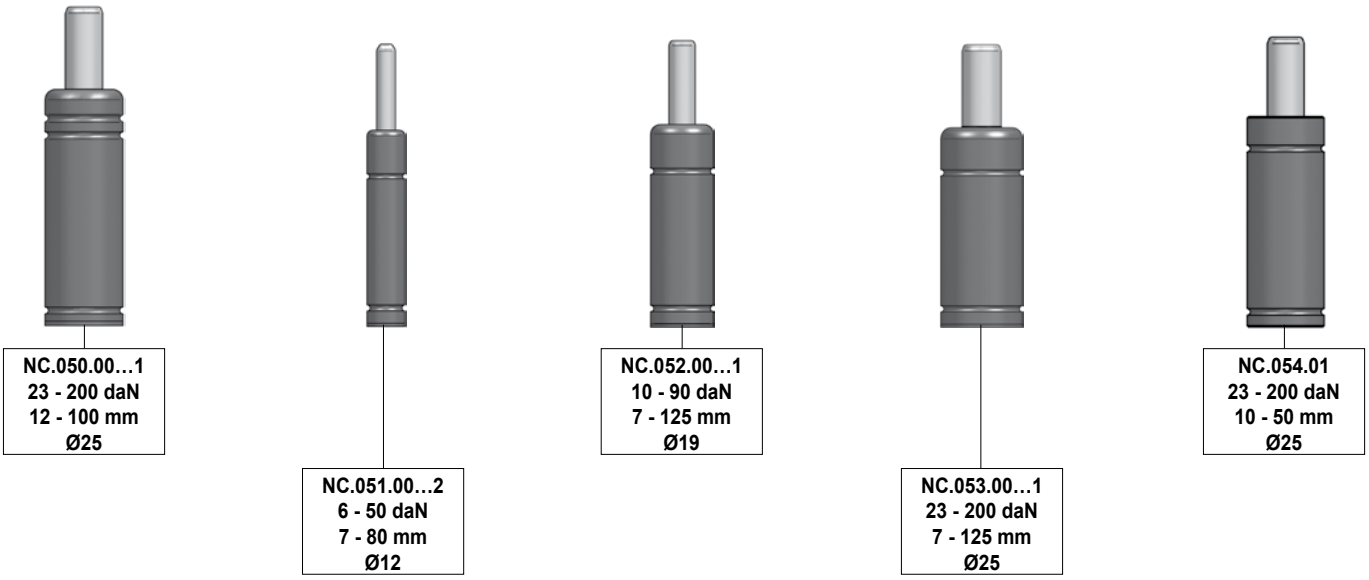
When the gas springs are installed into a bored pocket, the bored pocket diameter should not exceed 1 mm larger than the gas spring body diameter. The bore pocket depth must be minimum 80% of L and a flat surface against the base is always required.

[25.02.2020]

[NC]

Größenübersicht Serie NC.05X.00

Gas spring index NC.05X.00 series



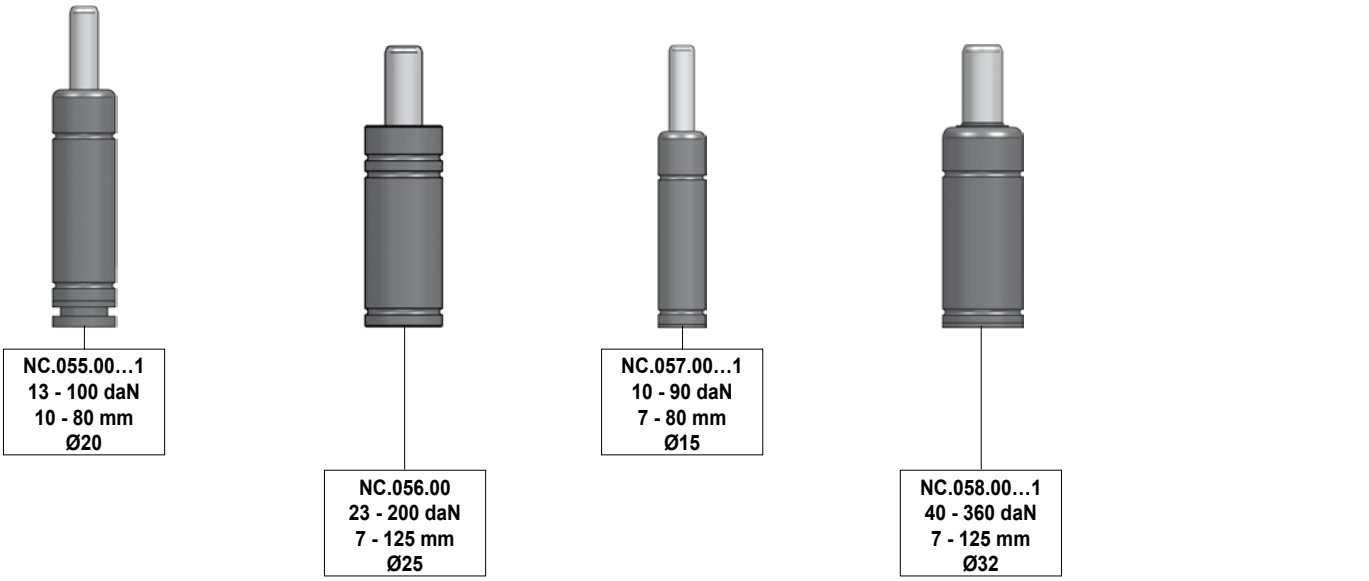
NC.050.00…1
23 - 200 daN
12 - 100 mm
Ø25

NC.051.00…2
6 - 50 daN
7 - 80 mm
Ø12

NC.052.00…1
10 - 90 daN
7 - 125 mm
Ø19

NC.053.00…1
23 - 200 daN
7 - 125 mm
Ø25

NC.054.01
23 - 200 daN
10 - 50 mm
Ø25



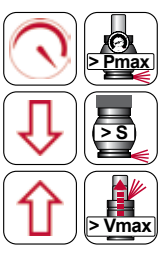
NC.055.00…1
13 - 100 daN
10 - 80 mm
Ø20

NC.056.00
23 - 200 daN
7 - 125 mm
Ø25

NC.057.00…1
10 - 90 daN
7 - 80 mm
Ø15

NC.058.00…1
40 - 360 daN
7 - 125 mm
Ø32

SICHERHEITSSYSTEME



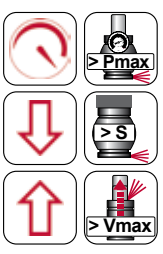
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

NC.050.00…1

Technische Daten:

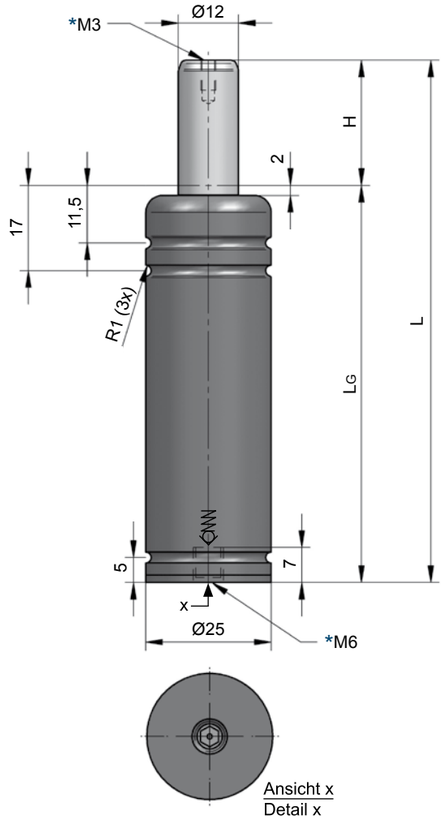
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

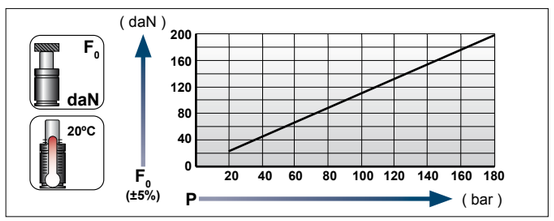


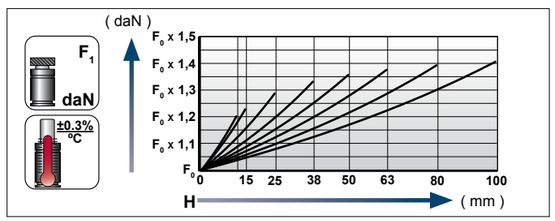


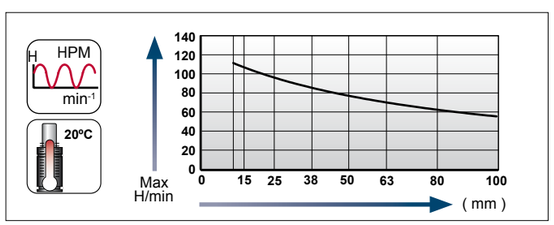
NC.050.00. 00050.015.1

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.050.00.00050.1	Grün / Green	45	50	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.050.00.00100.1	Blau / Blue	90	100	
NC.050.00.00150.1	Rot / Red	135	150	
NC.050.00.00200.1	Gelb / Yellow	180	200	
NC.050.00.00000.1	Schwarz / Black	20 - 180	23 - 200	

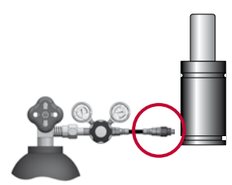
Hub / Stroke	L ±0,25	LG
012	78	66
015	84	69
025	104	79
038	130	92
050	154	104
063	180	117
080	214	134
100	254	154







Ladeadapter / Charging adapter

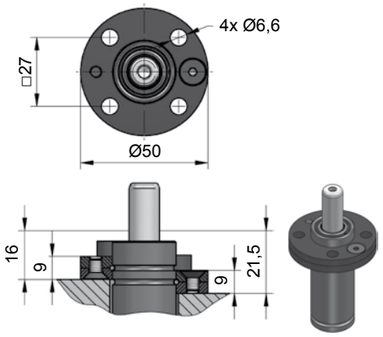


NCQ.44

[07.02.2020]

GDF, kleine Abmessungen
GS, Micro springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.050.00.00050.1, …00100.1, …00150.1, …00200.1, …00000.1**

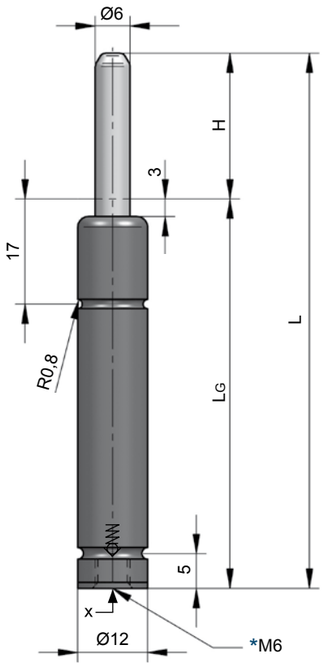


NC.88.00.025.0114

[07.02.2020]

[NC]

NC.051.00…2



Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

Achtung: Das Mittengewinde M6 im Boden der Gasdruckfeder darf nicht zur Befestigung genutzt werden.

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

Important: Do not use the centre-thread M6 in the bottom for fixing the gas spring into the tool.

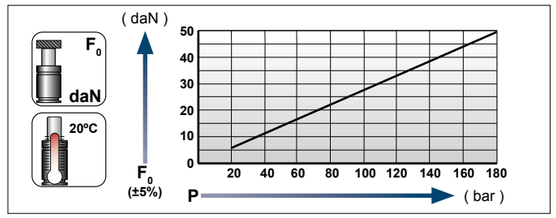


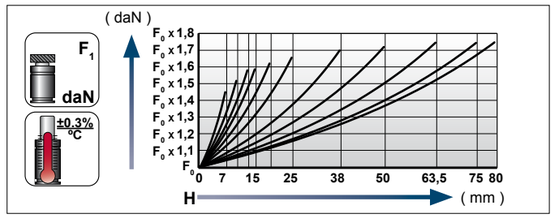
NC.051.00. 00025.025.2

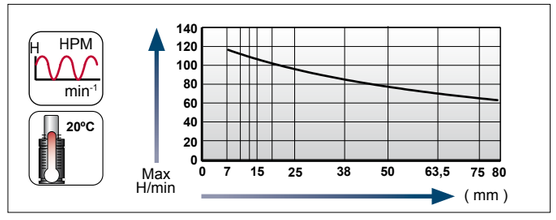

Ansicht x
Detail x

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.051.00.00013.2	Grün / Green	45	13	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.051.00.00025.2	Blau / Blue	90	25	
NC.051.00.00038.2	Rot / Red	135	38	
NC.051.00.00050.2	Gelb / Yellow	180	50	
NC.051.00.00000.2	Schwarz / Black	20 - 180	6 - 50	

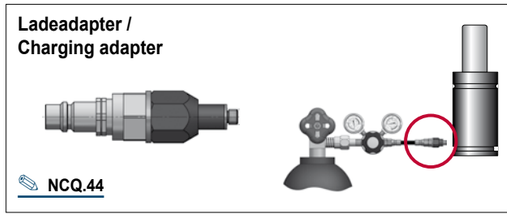
Hub / Stroke	L ±0,25	LG
007	56	49
010	62	52
012,7	67,4	54,7
015	72	57
019	80	61
025	92	67
038	118	80
050	142	92
063,5	172	108,5
075	195	120
080	205	125







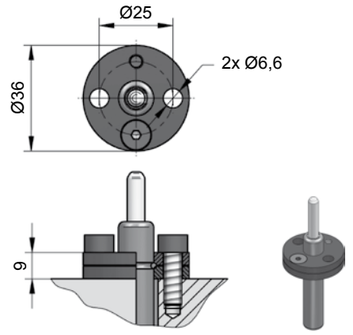
Ladeadapter / Charging adapter



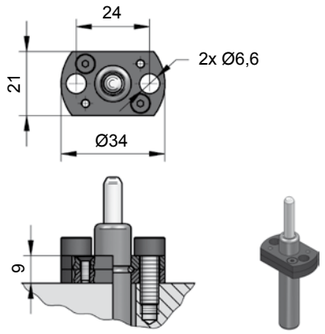
NCQ.44

GDF, kleine Abmessungen
GS, Micro springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.051.00.00013.2, …00025.2, …00038.2, …00050.2, …00000.2**



NC.88.00.012.0114



NC.88.00.012.0159

NC.052.00…1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

Achtung: Das Mittengewinde M6 im Boden der Gasdruckfeder darf nicht zur Befestigung genutzt werden.

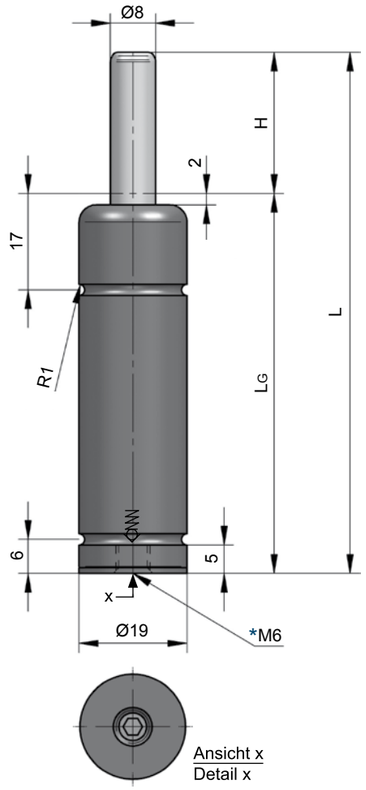
Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

Important: Do not use the centre-thread M6 in the bottom for fixing the gas spring into the tool.

NC.052.00.00030.080.1

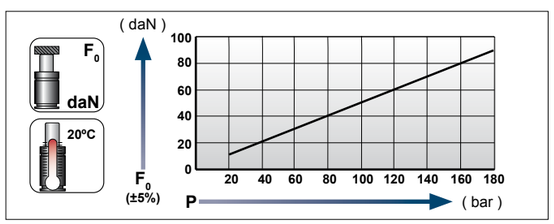


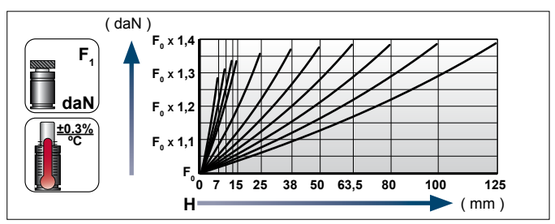
INFO [NC.21]

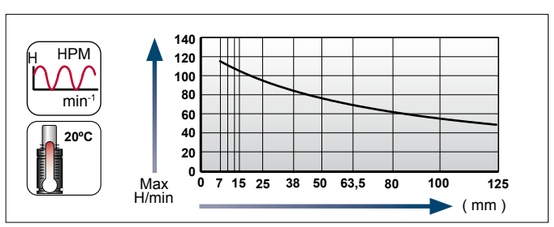
MAIL

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.052.00.00030.1	Grün / Green	60	30	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.052.00.00050.1	Blau / Blue	100	50	
NC.052.00.00070.1	Rot / Red	140	70	
NC.052.00.00090.1	Gelb / Yellow	180	90	
NC.052.00.00000.1	Schwarz / Black	20 - 180	10 - 90	

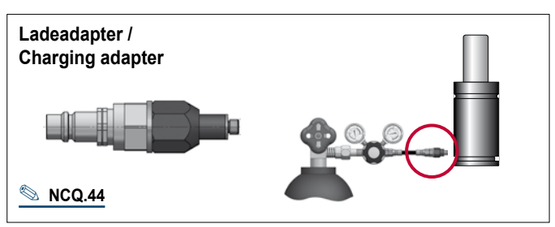
Hub / Stroke	L ±0,25	LG
007	56	49
010	62	52
012,7	67,4	54,7
015	72	57
025	92	67
038	118	80
050	142	92
063,5	172	108,5
080	205	125
100	245	145
125	295	170







Ladeadapter / Charging adapter

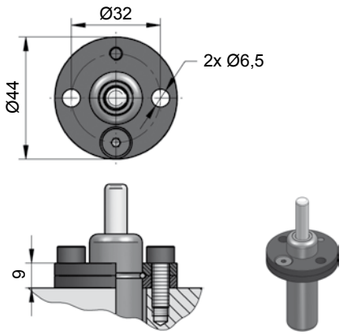


NCQ.44

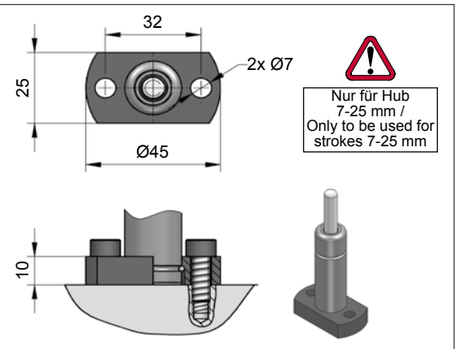
[07.02.2020]

[07.02.2020]

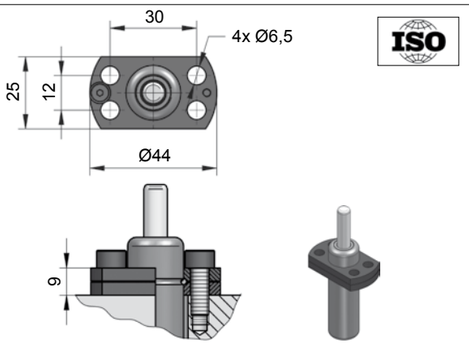
Flansche für / Flanges for **NC.052.00.00030.1, …00050.1, …00070.1, …00090.1, …00000.1**



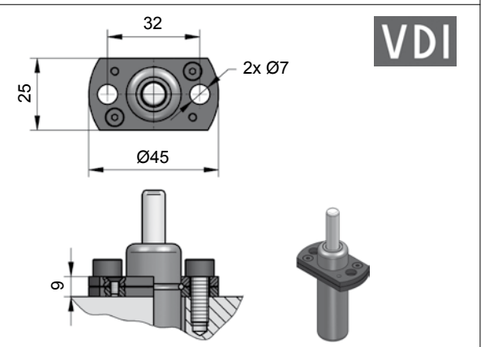
NC.88.00.019.0114



NC.88.00.019.0119



NC.88.00.019.0144



NC.88.00.019.0159

[NC]

[NC]

NC.053.00…1

Technische Daten:

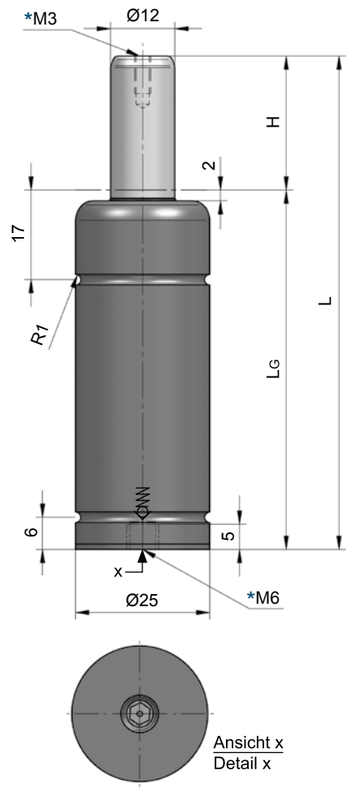
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

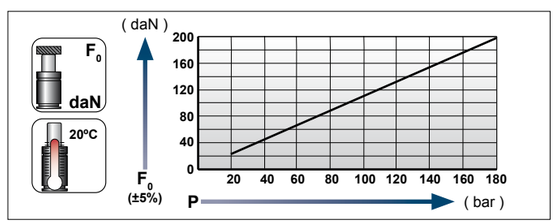


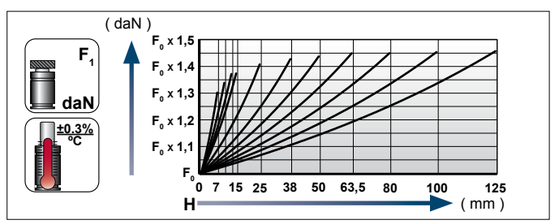


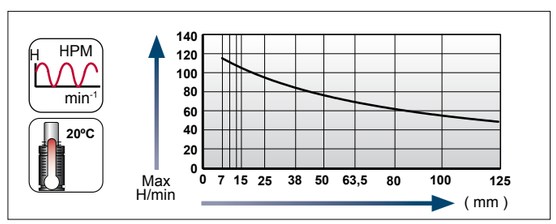
NC.053.00.
00050.007.1

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.053.00.00050.1	Grün / Green	45	50	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.053.00.00100.1	Blau / Blue	90	100	
NC.053.00.00150.1	Rot / Red	135	150	
NC.053.00.00200.1	Gelb / Yellow	180	200	
NC.053.00.00000.1	Schwarz / Black	20 - 180	23 - 200	

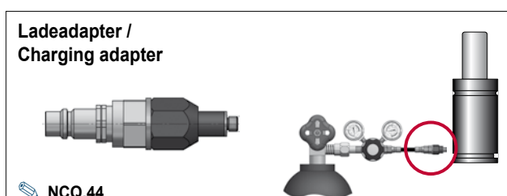
Hub / Stroke	L ±0,25	LG
007	56	49
010	62	52
012,7	67,4	54,7
015	72	57
025	92	67
038	118	80
050	142	92
063,5	172	108,5
080	205	125
100	245	145
125	295	170





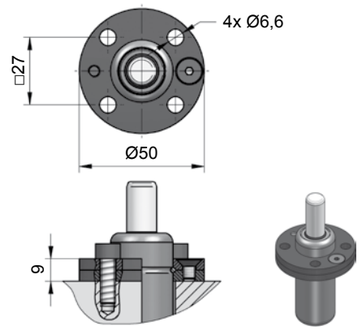


Ladeadapter / Charging adapter

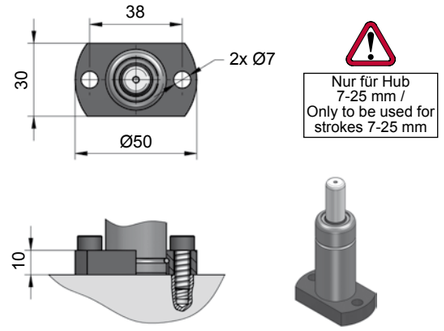


NCQ.44

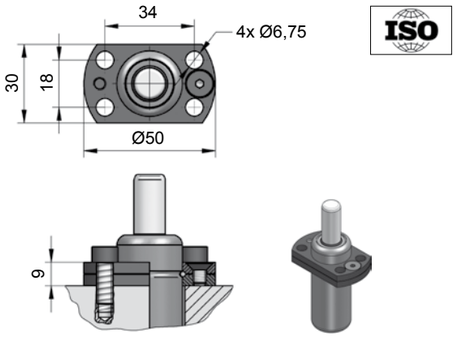
Flansche für / Flanges for **NC.053.00.00050.1, …00100.1, …00150.1, …00200.1, …00000.1**



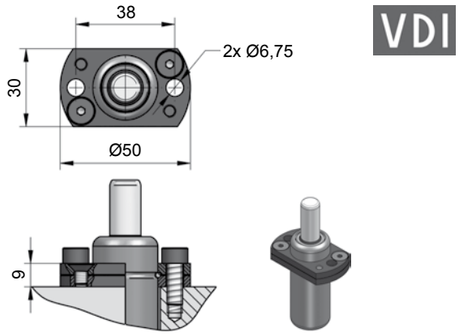
NC.88.00.025.0114



NC.88.00.025.0119



NC.88.00.025.0144



NC.88.00.025.0149

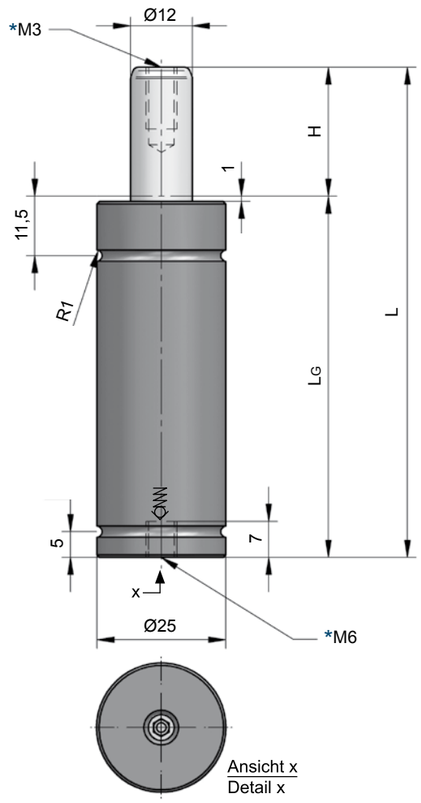
NC.054.01

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

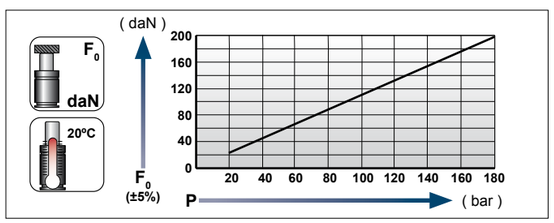


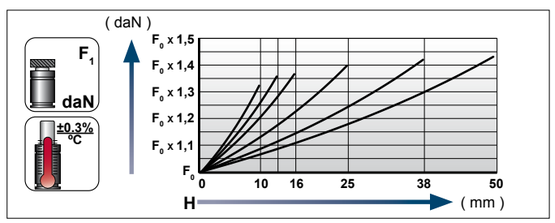


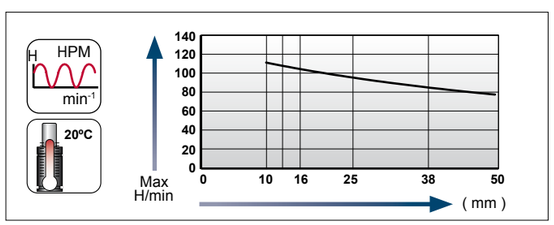
NC.054.01.
00050.016

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.054.01.00050	Grün / Green	45	50	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.054.01.00100	Blau / Blue	90	100	
NC.054.01.00150	Rot / Red	135	150	
NC.054.01.00200	Gelb / Yellow	180	200	
NC.054.01.00000	Schwarz / Black	20 - 180	23 - 200	

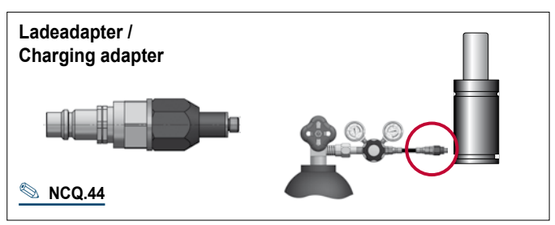
Hub / Stroke	L ±0,25	LG
010	65	55
012,7	70,4	57,7
016	77	61
025	95	70
038	121	83
050	145	95







Ladeadapter / Charging adapter

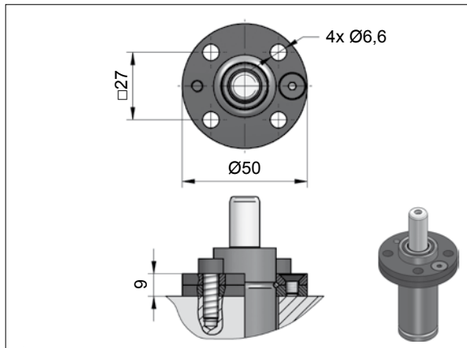


NCQ.44

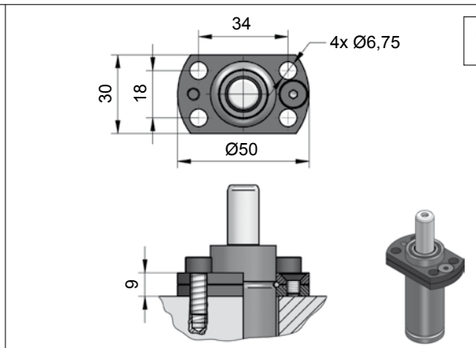
[07.02.2020]

GDF, kleine Abmessungen
GS, Micro springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

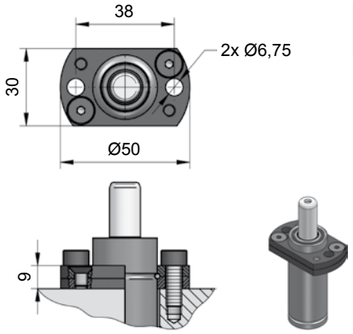
Flansche für / Flanges for **NC.054.01.00050, ...00100, ...00150, ...00200, ...00000**



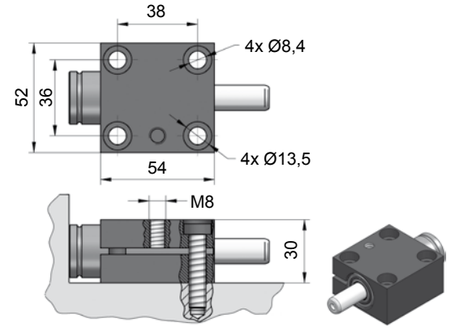
NC.88.00.025.0114



NC.88.00.025.0144



NC.88.00.025.0149



NC.88.00.025.0402

[07.02.2020]

[NC]

NC.055.00…1

Technische Daten:

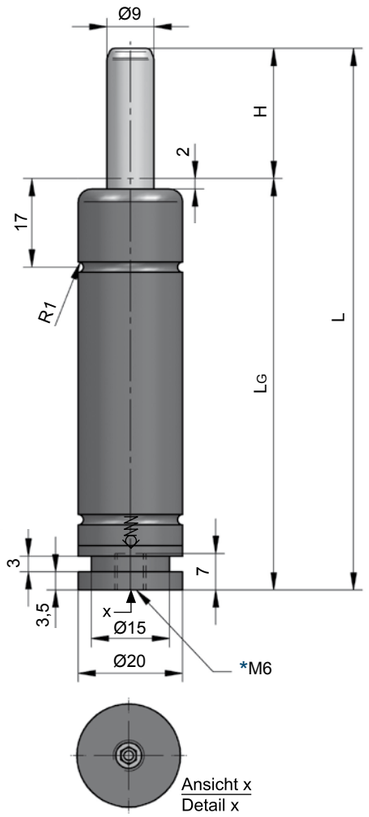
Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

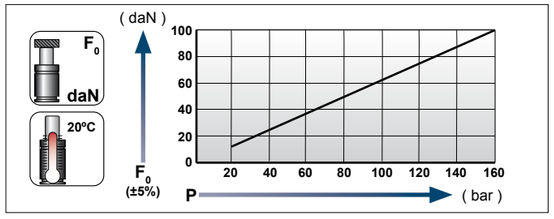


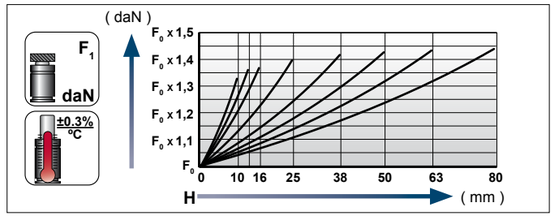


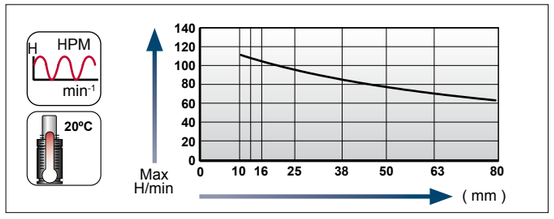
NC.055.00.00025.050.1

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.055.00.00025.1	Grün / Green	40	25	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.055.00.00050.1	Blau / Blue	80	50	
NC.055.00.00075.1	Rot / Red	120	75	
NC.055.00.00100.1	Gelb / Yellow	160	100	
NC.055.00.00000.1	Schwarz / Black	20 - 160	13 - 100	

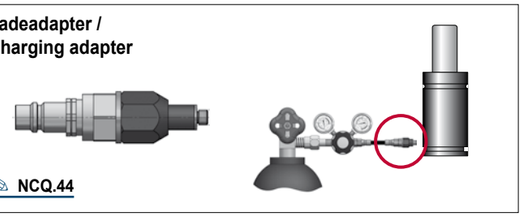
Hub / Stroke	L ±0,25	LG
010	74	64
012,7	79,4	66,7
016	86	70
025	104	79
038	130	92
050	154	104
063	180	117
080	214	134







Ladeadapter / Charging adapter

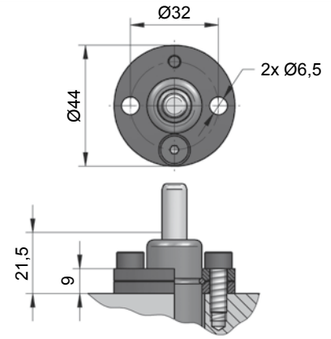


NCQ.44

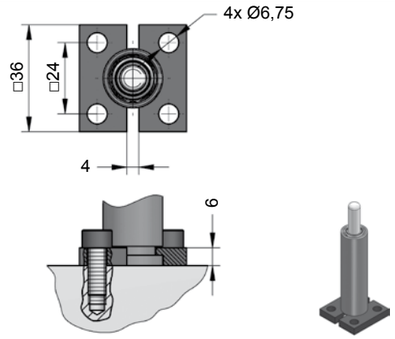
[07.02.2020]

GDF, kleine Abmessungen
GS, Micro springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.055.00.00025.1, …00050.1, …00075.1, …00100.1, 00000.1**



NC.88.00.020.0114



NC.88.00.020.0315

[07.02.2020]

[NC]

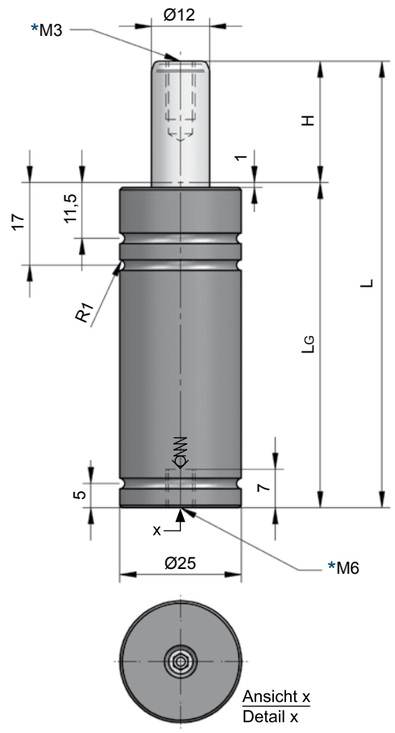
NC.056.00

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

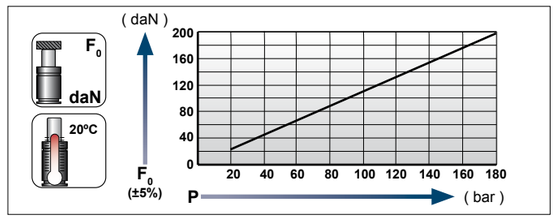


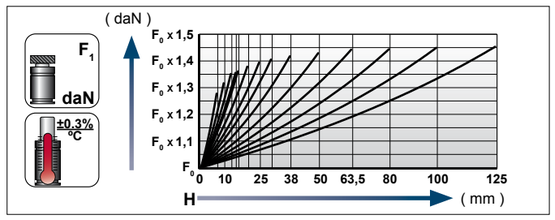
INFO [NC.21]

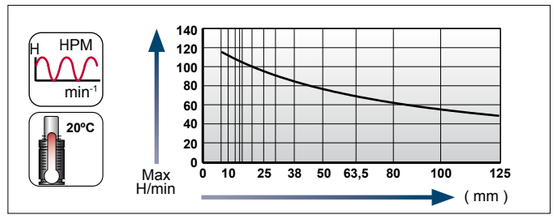
NC.056.00.00150.016

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.056.00.00050	Grün / Green	45	50	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.056.00.00100	Blau / Blue	90	100	
NC.056.00.00150	Rot / Red	135	150	
NC.056.00.00200	Gelb / Yellow	180	200	
NC.056.00.00000	Schwarz / Black	20 - 180	23 - 200	

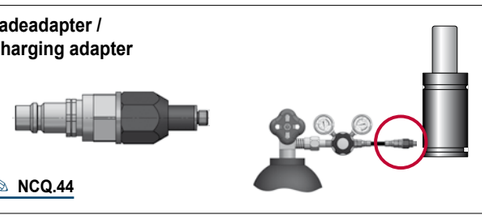
Hub / Stroke	L ±0,5	LG
007	56	49
010	62	52
012,7	67,4	54,7
015	72	57
016	74	58
020	82	62
025	92	67
030	102	72
038	118	80
050	142	92
063,5	172	108,5
080	205	125
100	245	145
125	295	170







Ladeadapter / Charging adapter

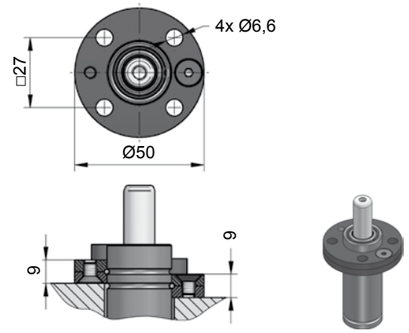


NCQ.44

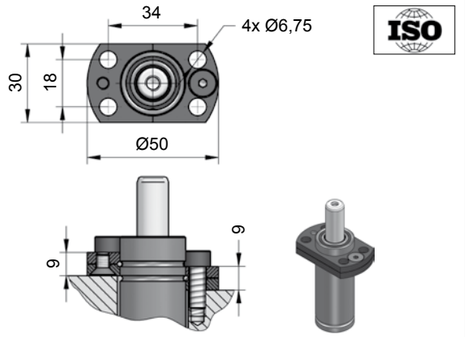
[07.02.2020]

GDF, kleine Abmessungen
GS, Micro springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

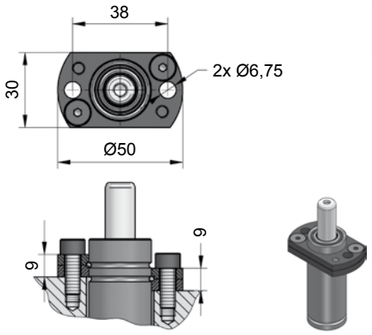
Flansche für / Flanges for **NC.056.00.00050, ...00100, ...00150, ...00200, ...00000**



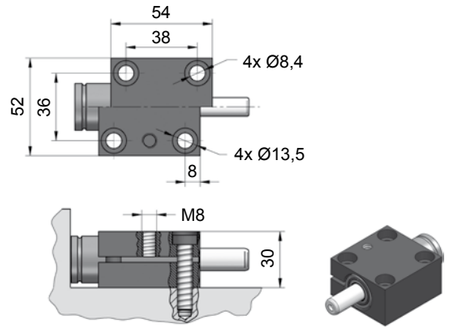
NC.88.00.025.0114



NC.88.00.025.0144



NC.88.00.025.0149



NC.88.00.025.0402

[NC]

NC.057.00…1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Einwegfeder ist nicht reparierbar!

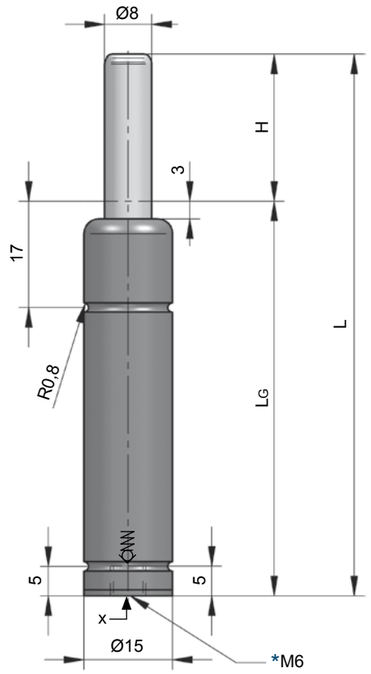
Achtung: Das Mittengewinde M6 im Boden der Gasdruckfeder darf nicht zur Befestigung genutzt werden.

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

Important: Do not use the centre-thread M6 in the bottom for fixing the gas spring into the tool.



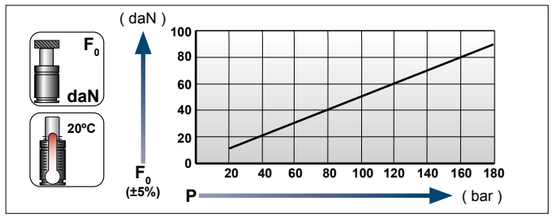


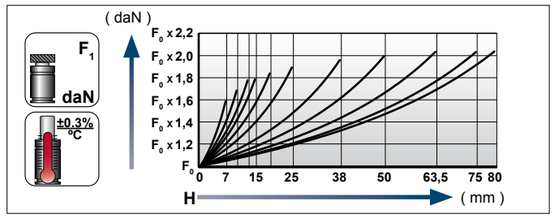
NC.057.00.00090.015.1

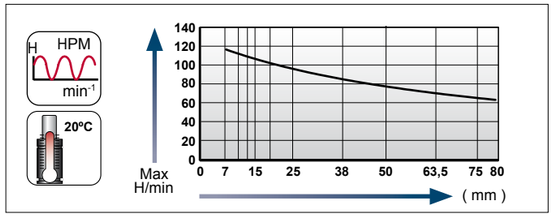


Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.057.00.00018.1	Grün / Green	35	18	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.057.00.00035.1	Blau / Blue	70	35	
NC.057.00.00050.1	Rot / Red	100	50	
NC.057.00.00070.1	Gelb / Yellow	140	70	
NC.057.00.00000.1	Schwarz / Black	20 - 180	10 - 90	

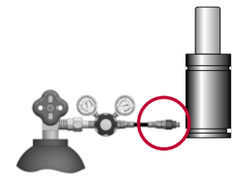
Hub / Stroke	L ±0,5	LG
007	56	49
010	62	52
012,7	67,4	54,7
015	72	57
019	80	61
025	92	67
038	118	80
050	142	92
063,5	172	108,5
075	195	120
080	205	125







Ladeadapter / Charging adapter

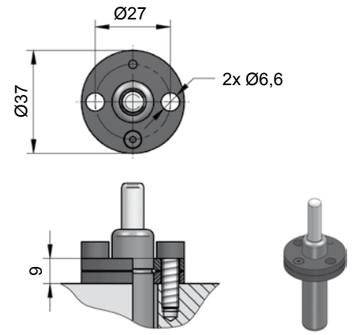


NCQ.44

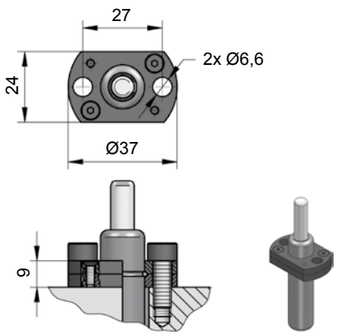
[NC.05X.16]

[07.02.2020]

Flansche für / Flanges for **NC.057.00.00018.1, …00035.1, …00050.1, …00070.1, …00000.1**



NC.88.00.015.0114



NC.88.00.015.0149

[NC.05X.17]

[07.02.2020]

NC.058.00…1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

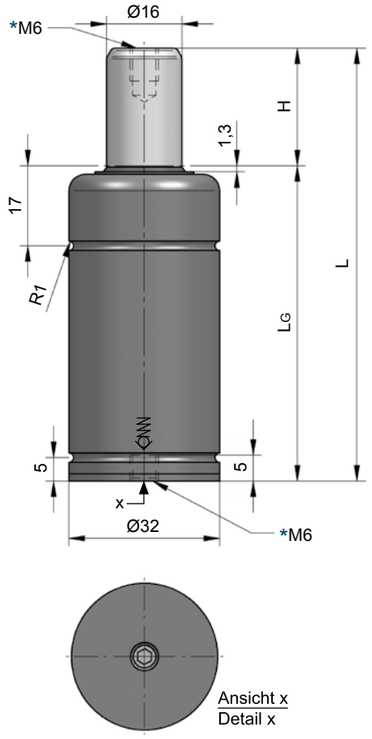
Einwegfeder ist nicht reparierbar!

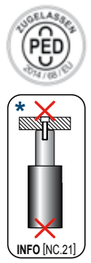
Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

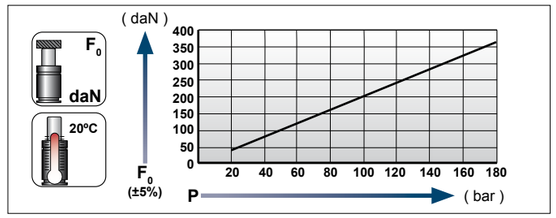
NC.058.00.00160.038.1

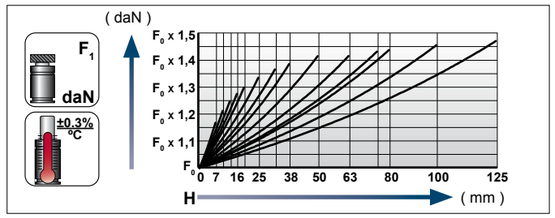


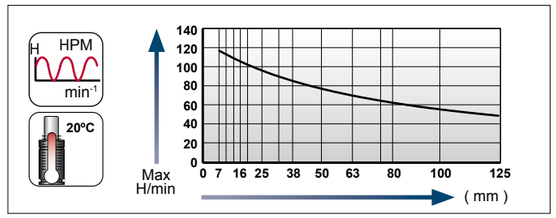


Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.058.00.00080.1	Grün / Green	40	80	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.058.00.00160.1	Blau / Blue	80	160	
NC.058.00.00240.1	Rot / Red	120	240	
NC.058.00.00310.1	Gelb / Yellow	155	310	
NC.058.00.00000.1	Schwarz / Black	20 - 180	40 - 360	

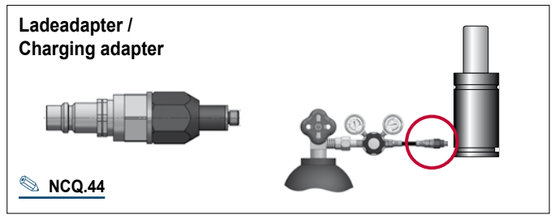
Hub / Stroke	L ±0,5	LG
007	56	49
010	62	52
013	68	55
016	74	58
019	80	61
025	92	67
032	106	74
038	118	80
050	142	92
063	171	108
075	195	120
080	205	125
100	245	145
125	295	170







Ladeadapter / Charging adapter

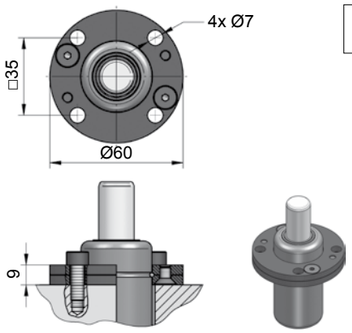


NCQ.44

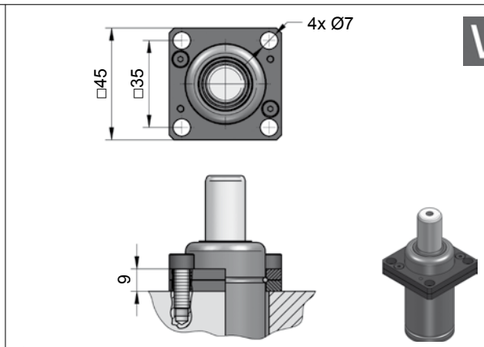
[07.02.2020]

GDF, kleine Abmessungen
GS, Micro springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

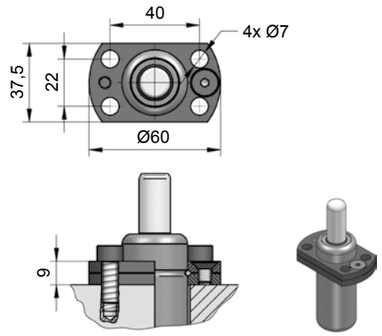
Flansche für / Flanges for **NC.058.00.00080.1, …00160.1, …00240.1, …00310.1, …00000.1**



NC.88.00.032.0114



NC.88.00.032.0134

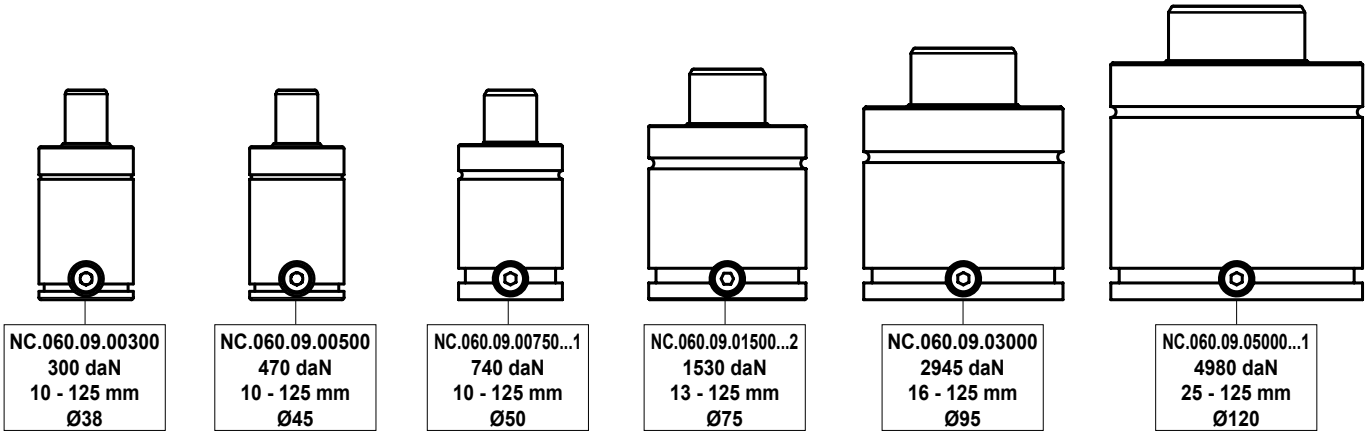


NC.88.00.032.0144

[NC]

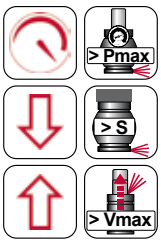
Größenübersicht Serie NC.060.09

Gas spring index 060.09 series



NC.060.09.00300	NC.060.09.00500	NC.060.09.00750...1	NC.060.09.01500...2	NC.060.09.03000	NC.060.09.05000...1
300 daN	470 daN	740 daN	1530 daN	2945 daN	4980 daN
10 - 125 mm	10 - 125 mm	10 - 125 mm	13 - 125 mm	16 - 125 mm	25 - 125 mm
Ø38	Ø45	Ø50	Ø75	Ø95	Ø120

SICHERHEITSSYSTEME



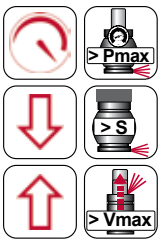
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

[NC]

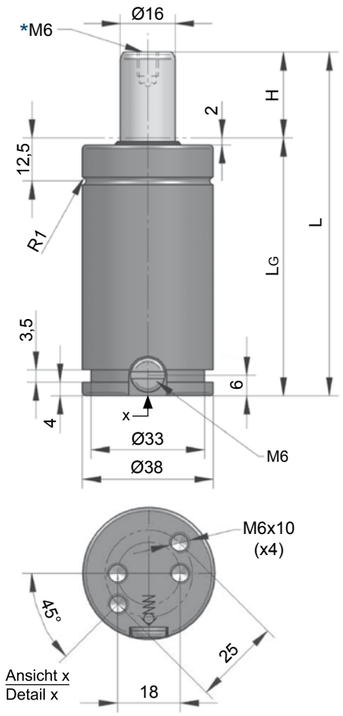
NC.060.09.00300

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

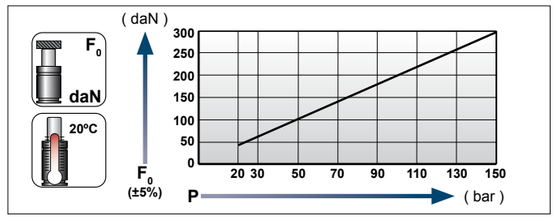
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

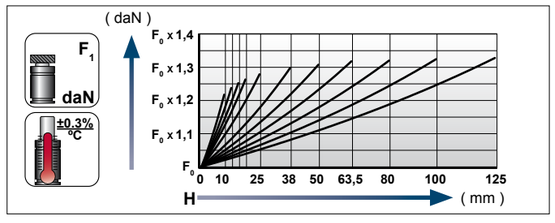


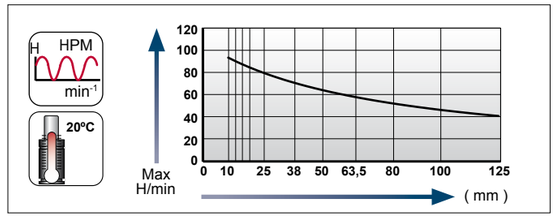
INFO [NC.21]

NC.060.09.00300.010

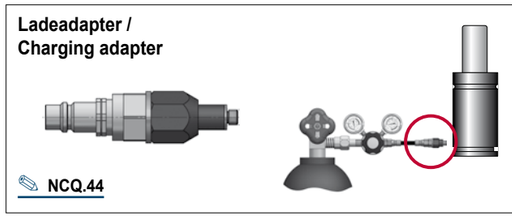
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	70	60	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	76	63	300	
016	82	66	300	
019	88	69	300	
025	100	75	300	
038	126	88	300	
050	150	100	300	
063,5	177	113,5	300	
080	210	130	300	
100	250	150	300	
125	300	175	300	







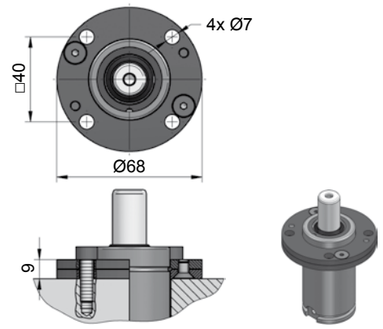
Ladeadapter / Charging adapter



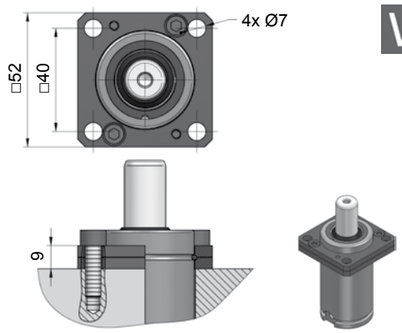
NCQ.44

GDF, Standard, kompakt
GS, Standard, compact height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

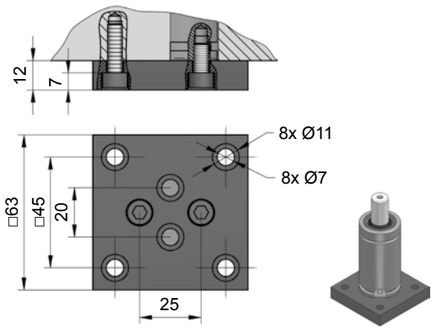
Flansche für / Flanges for **NC.060.09.00300**



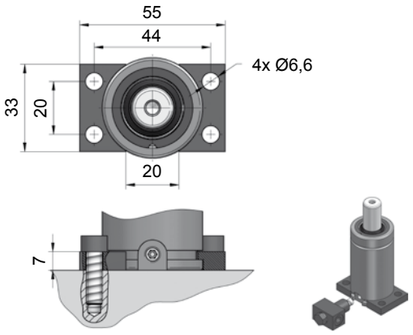
NC.88.00.038.0114



NC.88.00.038.0134

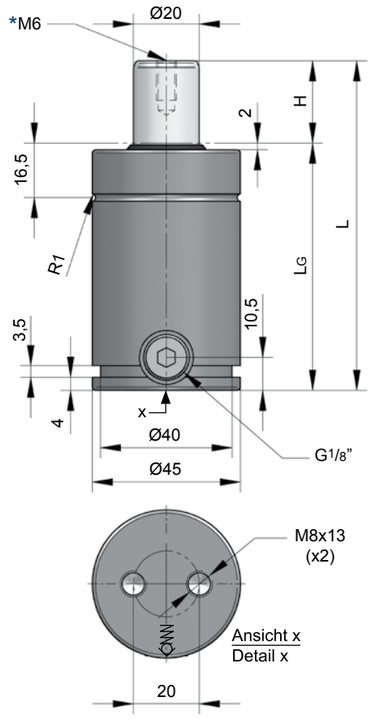


NC.88.00.038.0276



NC.88.00.038.0305

NC.060.09.00500



Technische Daten:

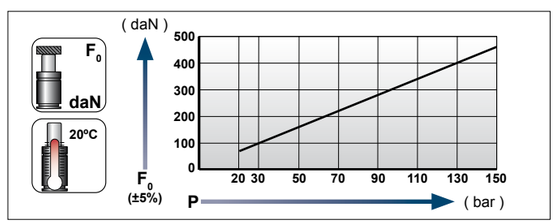
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

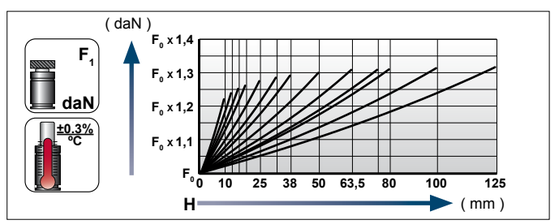
Specifications:

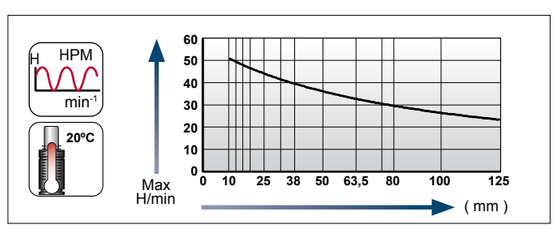
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.09.00500.013

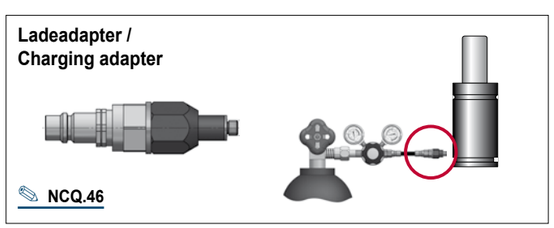
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	70	60	470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	76	63	470	
016	82	66	470	
019	88	69	470	
025	100	75	470	
032	114	82	470	
038	126	88	470	
050	150	100	470	
063,5	177	113,5	470	
075	200	125	470	
080	210	130	470	
100	250	150	470	
125	300	175	470	







Ladeadapter / Charging adapter

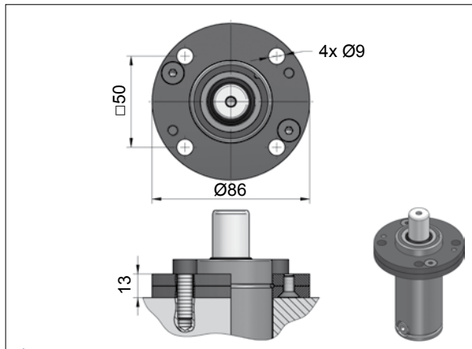


NCQ.46

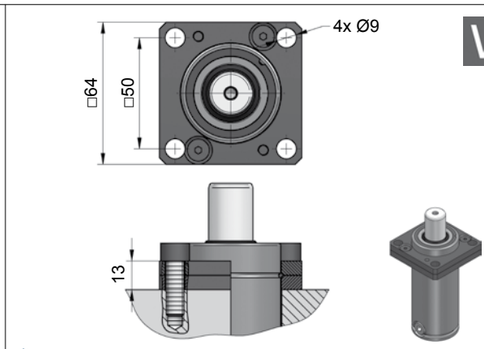
[25.02.2020]

GDF, Standard, kompakt
GS, Standard, compact height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

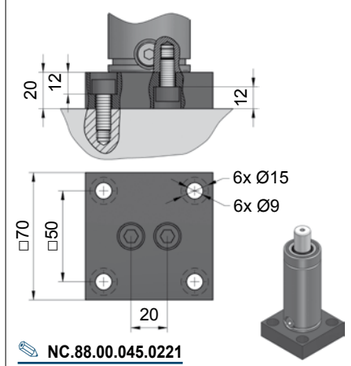
Flansche für / Flanges for **NC.060.09.00500**



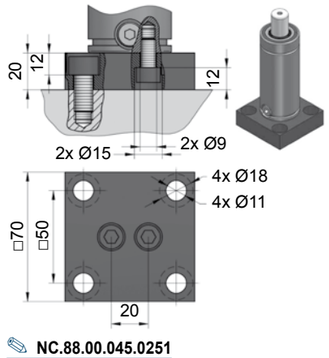
NC.88.00.045.0114



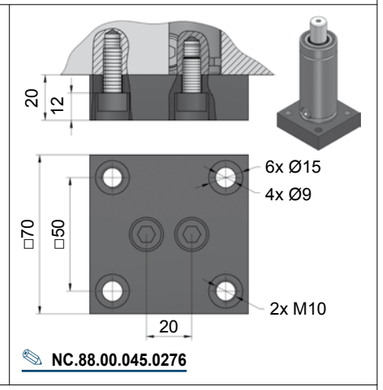
NC.88.00.045.0134



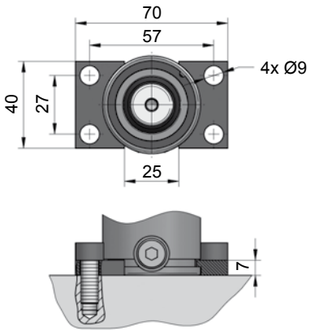
NC.88.00.045.0221



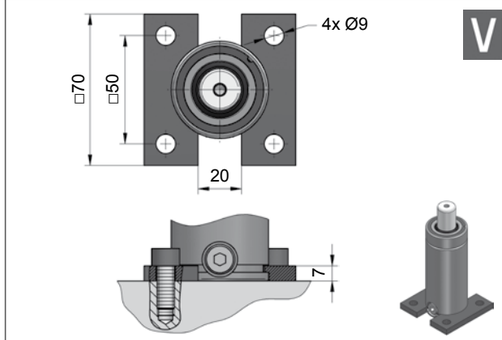
NC.88.00.045.0251



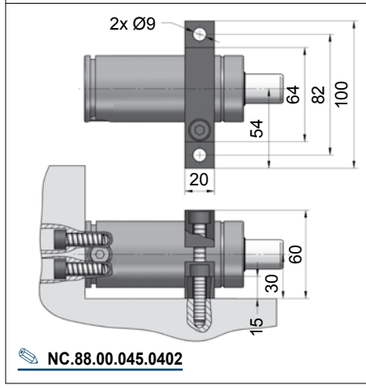
NC.88.00.045.0276



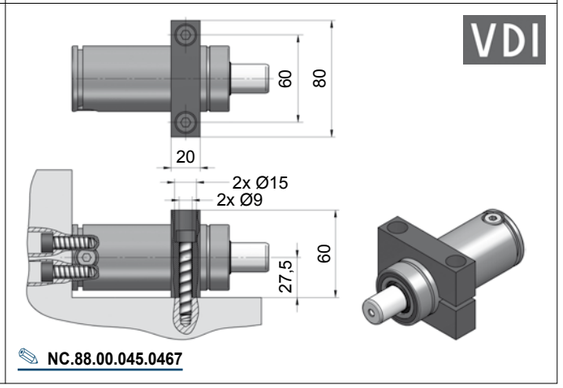
NC.88.00.045.0305



NC.88.00.045.0320



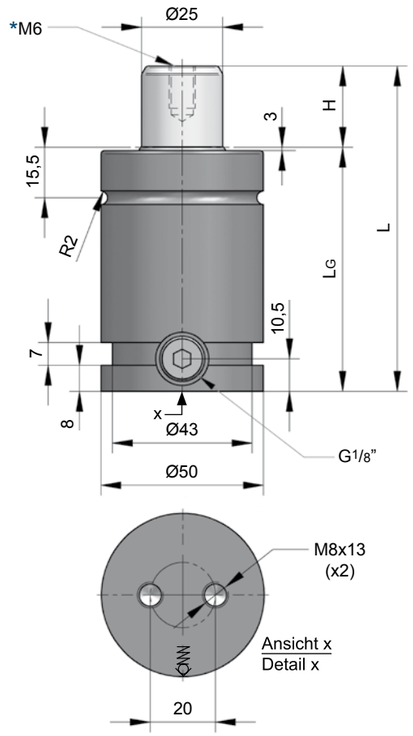
NC.88.00.045.0402



NC.88.00.045.0467

[25.02.2020]

NC.060.09.00750...1



Technische Daten:

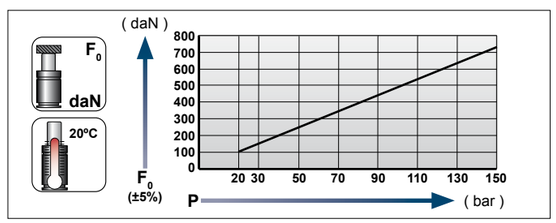
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

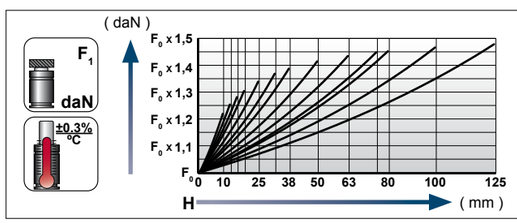
Specifications:

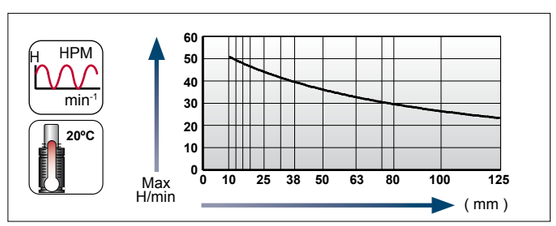
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.09.00750.016.1

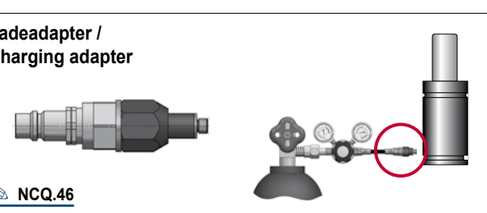
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	70	60	740	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	76	63	740	
016	82	66	740	
019	88	69	740	
025	100	75	740	
032	114	82	740	
038	126	88	740	
050	150	100	740	
063	176	113	740	
075	200	125	740	
080	210	130	740	
100	250	150	740	
125	300	175	740	







Ladeadapter / Charging adapter



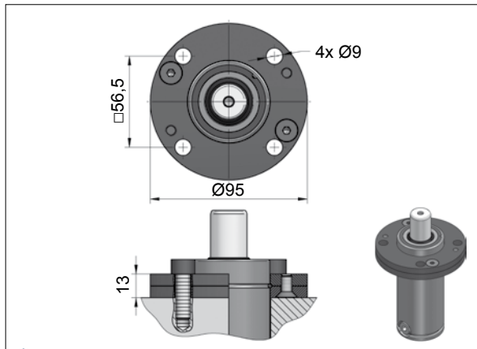
NCQ.46

[NC.060.6]

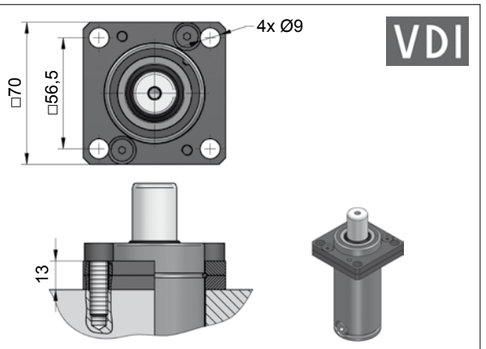
[25.02.2020]

GDF, Standard, kompakt
GS, Standard, compact height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

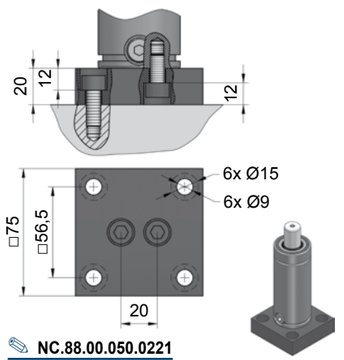
Flansche für / Flanges for **NC.060.09.00750…1**



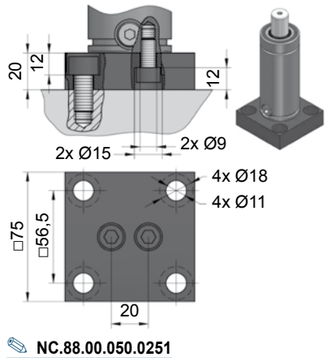
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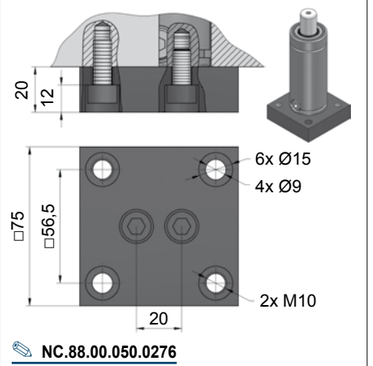
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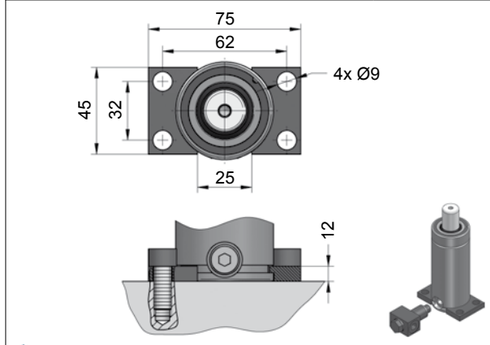
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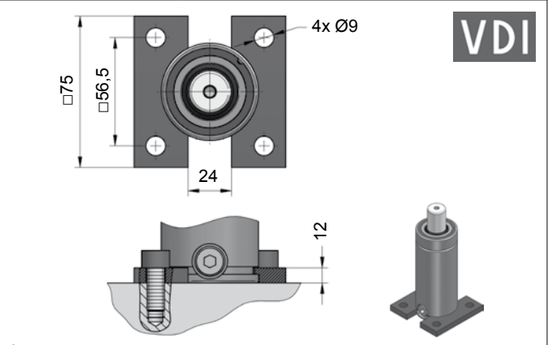
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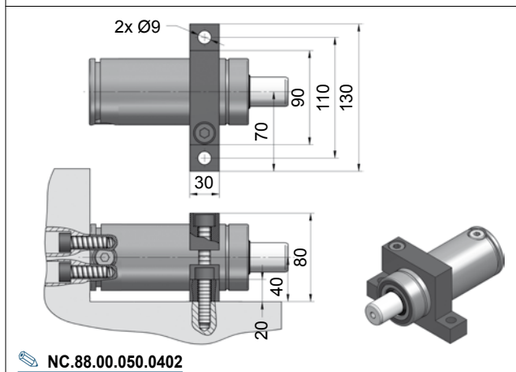
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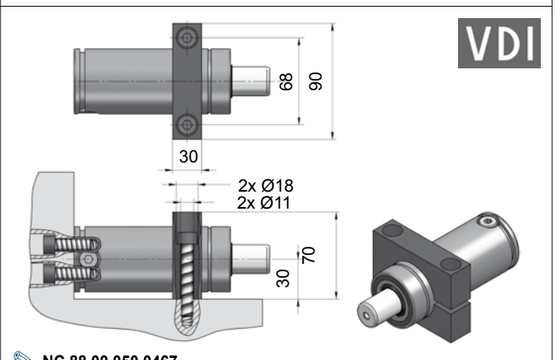
NC.88.00.050.0305



NC.88.00.050.0320



NC.88.00.050.0402

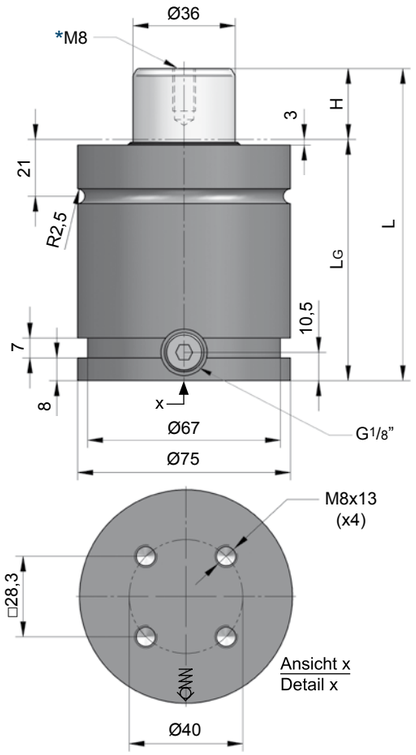


NC.88.00.050.0467

[NC.060.7]

[25.02.2020]

NC.060.09.01500...2



Technische Daten:

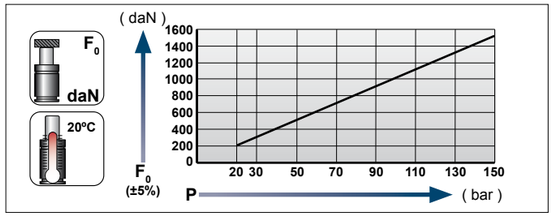
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

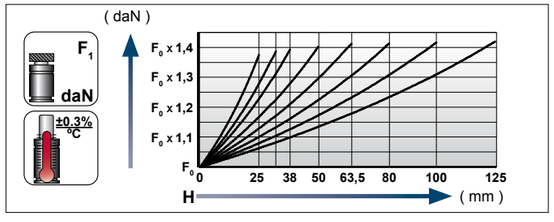
Specifications:

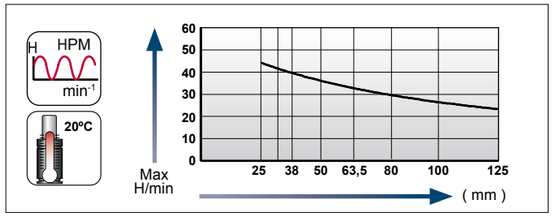
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.09.01500.038.2

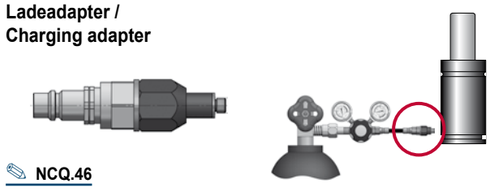
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	110	85	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
032	124	92	1530	
038	136	98	1530	
050	160	110	1530	
063,5	187	123,5	1530	
080	220	140	1530	
100	260	160	1530	
125	310	185	1530	







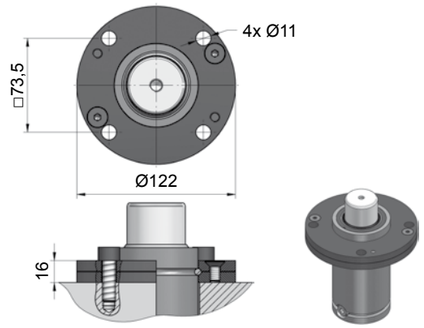
Ladeadapter / Charging adapter



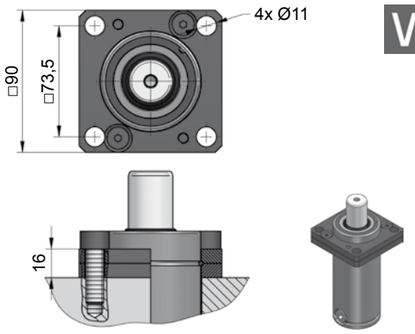
NCQ.46

GDF, Standard, kompakt
GS, Standard, compact height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

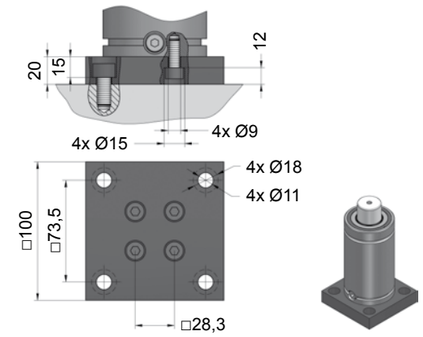
Flansche für / Flanges for **NC.060.09.01500…2**



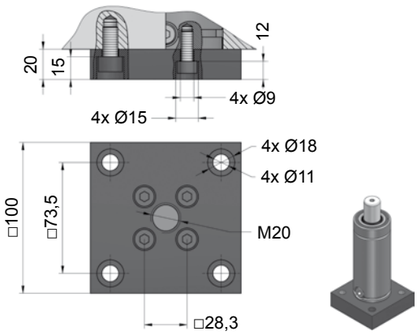
NC.88.00.075.0114



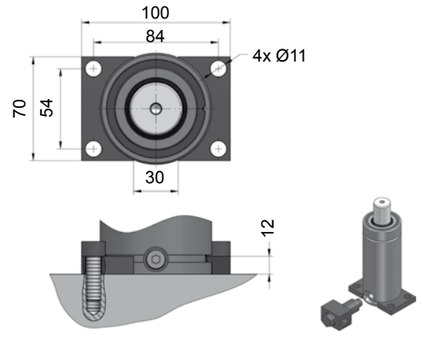
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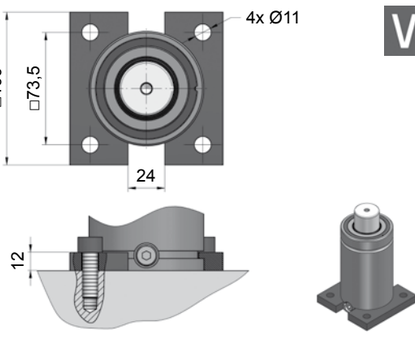
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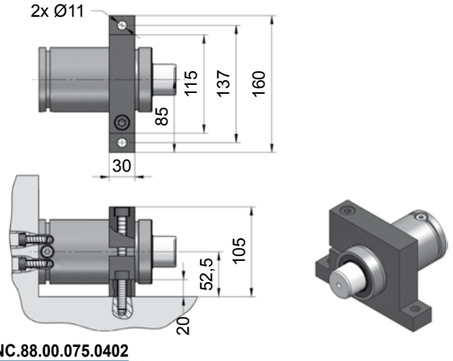
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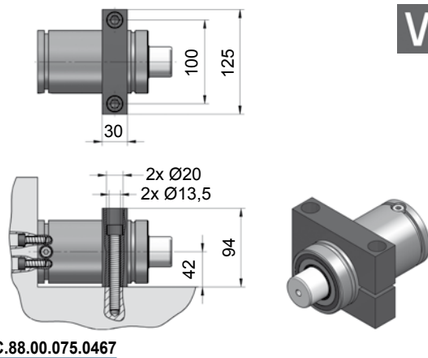
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NC.88.00.075.0320

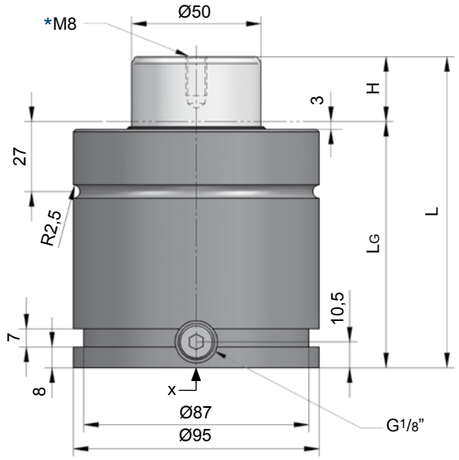


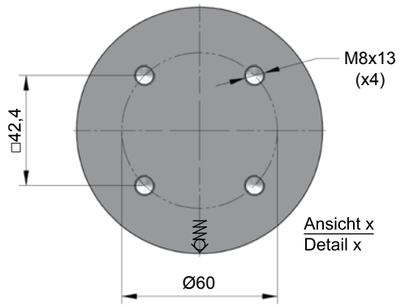
NC.88.00.075.0402



NC.88.00.075.0467

NC.060.09.03000





Technische Daten:

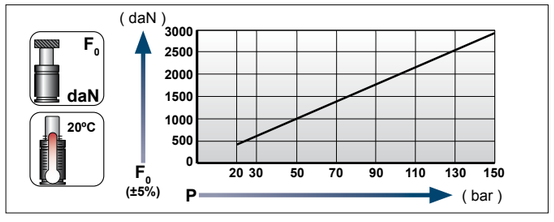
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

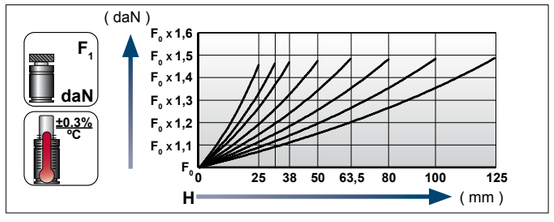
Specifications:

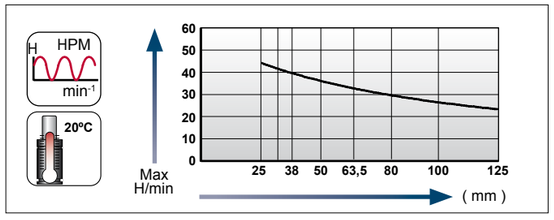
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.09.03000.050

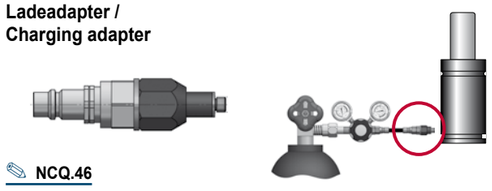
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	120	95	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
032	134	102	2945	
038	146	108	2945	
050	170	120	2945	
063,5	197	133,5	2945	
080	230	150	2945	
100	270	170	2945	
125	320	195	2945	







Ladeadapter / Charging adapter



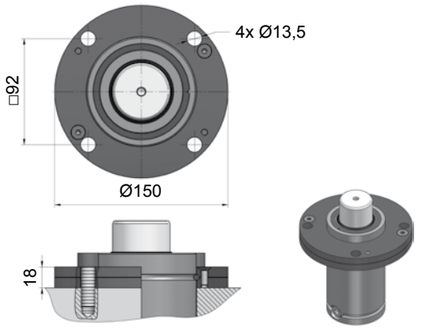
NCQ.46

[25.02.2020]

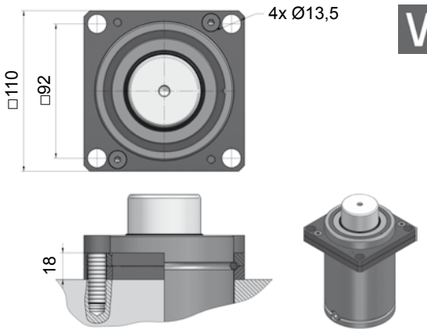
[25.02.2020]

GDF, Standard, kompakt
GS, Standard, compact height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

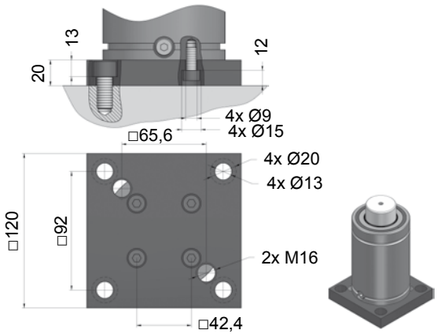
Flansche für / Flanges for **NC.060.09.03000**



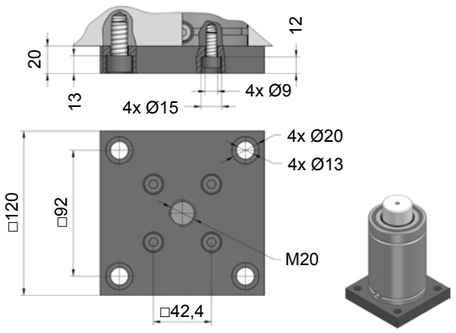
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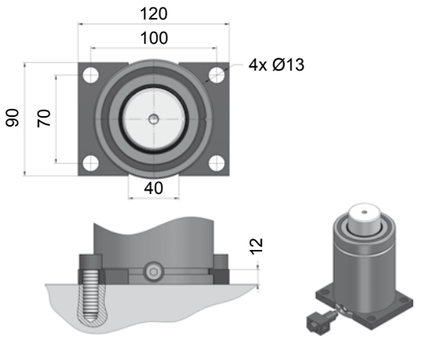
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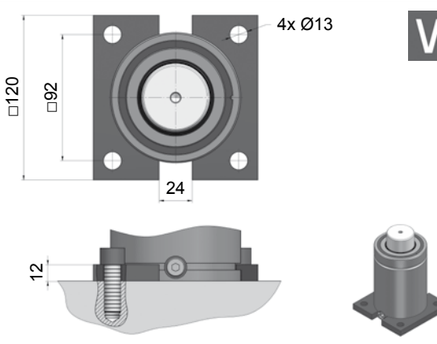
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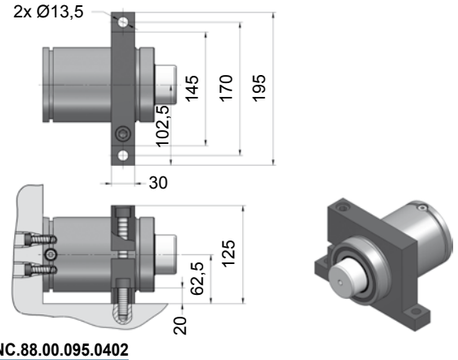
NC.88.00.095.0276



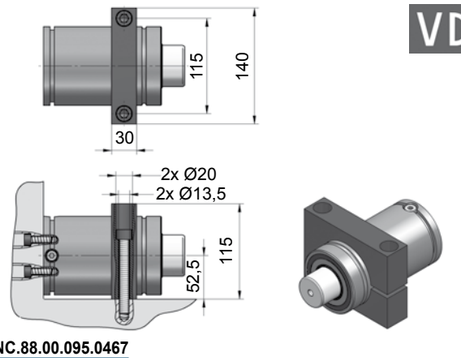
NC.88.00.095.0305



NC.88.00.095.0320



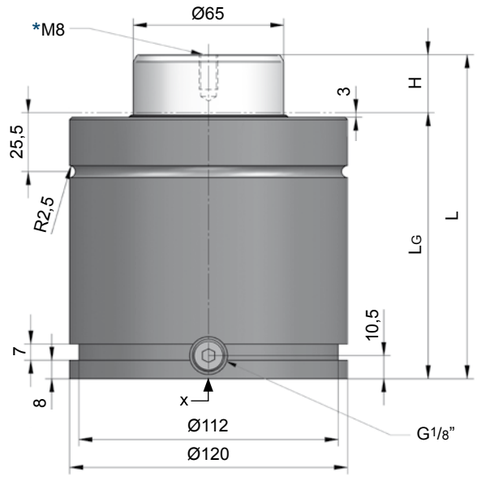
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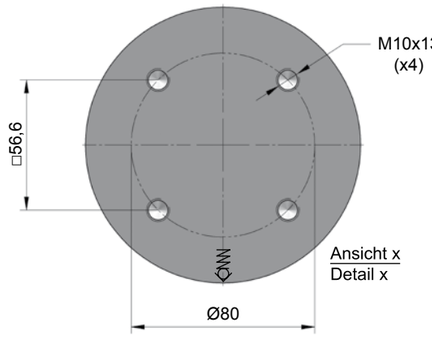


NC.88.00.095.0467

[NC]

NC.060.09.05000...1





Technische Daten:

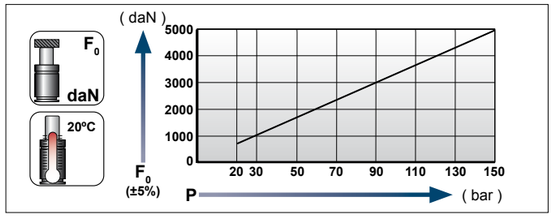
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

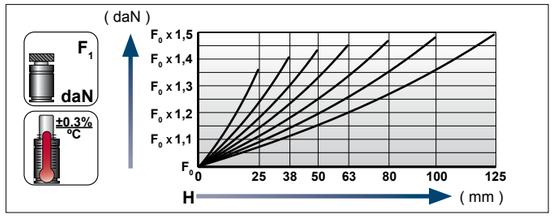
Specifications:

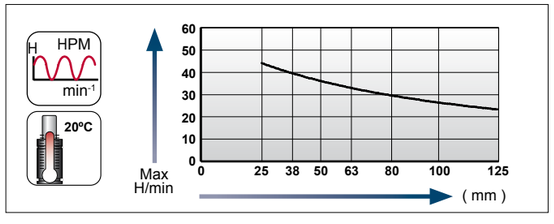
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.09.
05000.080.1

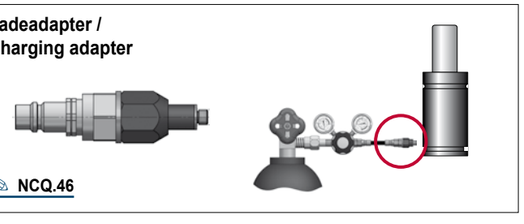
H Hub / Stroke	L ±0,5	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	140	115	4980	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	166	128	4980	
050	190	140	4980	
063	216	153	4980	
080	250	170	4980	
100	290	190	4980	
125	340	215	4980	







**Ladeadapter /
Charging adapter**



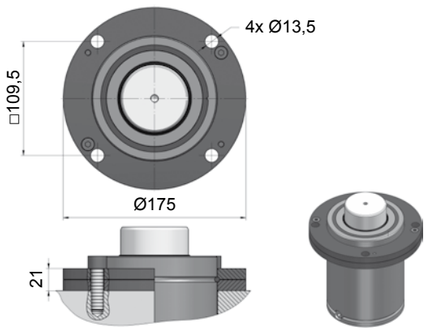
NCQ.46

[25.02.2020]

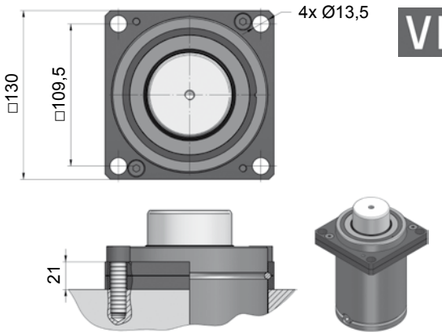
[25.02.2020]

GDF, Standard, kompakt
GS, Standard, compact height
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

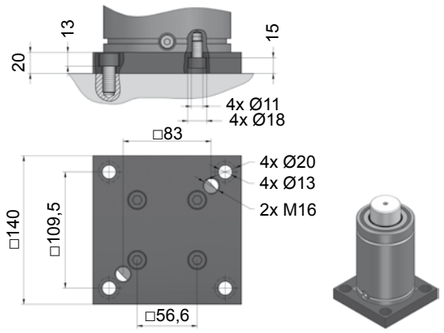
Flansche für / Flanges for **NC.060.09.05000**



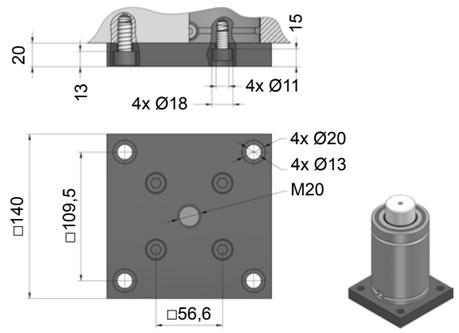
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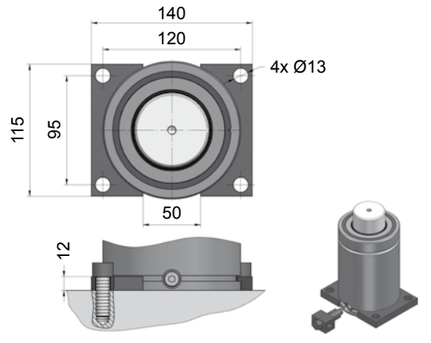
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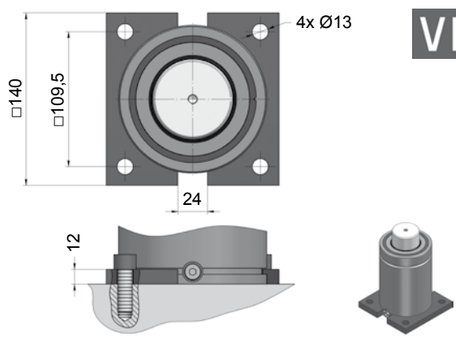
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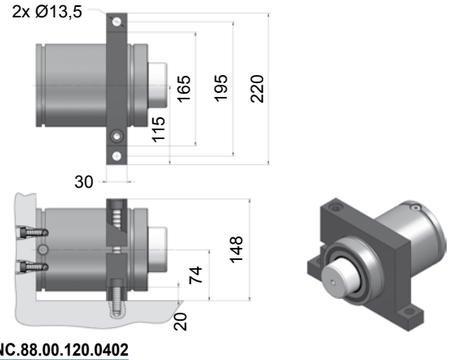
NC.88.00.120.0276



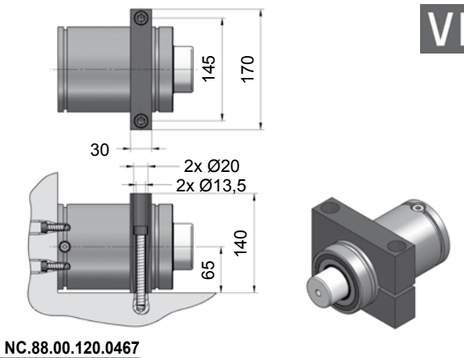
NC.88.00.120.0305



NC.88.00.120.0320



NC.88.00.120.0402



NC.88.00.120.0467

Technische Information Serie NC.060.10

Die Gasdruckfedern der Serie **NC.060.10** sind bei allen Hüben mit FlexRod ausgestattet und sind zusätzlich zur Standard- auch in der Version-B-Ausführungen erhältlich.

Version **B** = Doppelanschluss

Die Standard-Bestellnummer muss um den Versionsbuchstaben ergänzt werden.

Technical information NC.060.10 series

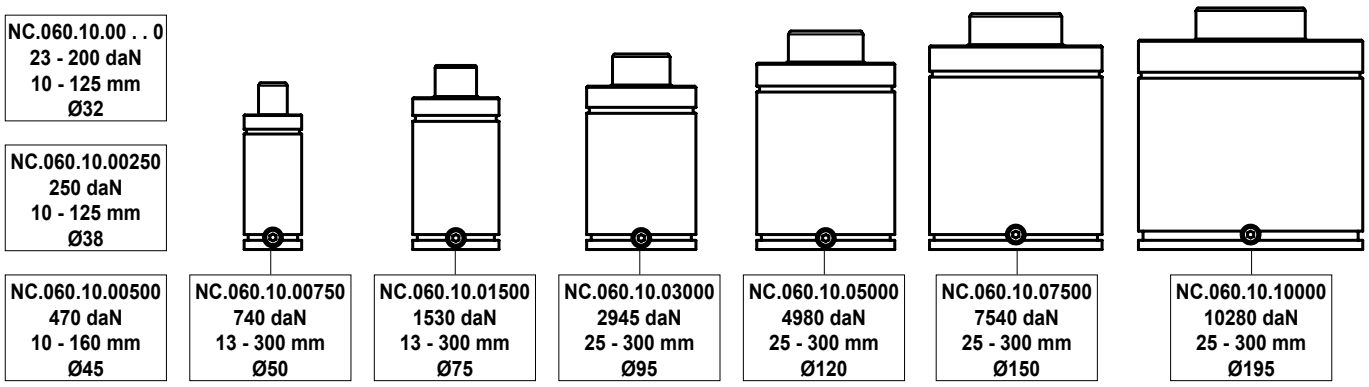
All gas springs of this family come with the built-in „Flexrod“ feature. They are not only available as standards, but with Version B as well.

Version **B** = with double connecting ports

Please add the corresponding letter to the order number.

Größenübersicht Serie NC.060.10

Gas spring index 060.10 series



Die Gasdruckfedern der Serie **NC.060.10** sind grundsätzlich mit einem Spezial-Dichtungs-System ausgestattet, welches eine maximalen Kolbengeschwindigkeit von 2 m/s ermöglicht.

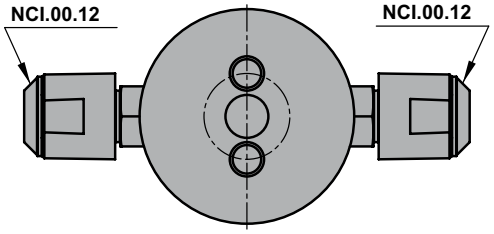


The **NC.060.10**-gas springs are all equipped with special seals, enabling them to operate with a maximum rod-speed of 2 m/s.

Serie NC.060.10
Version B

Die Gasdruckfedern der Serie **NC.060.10** besitzen in der Version B zwei Anschlüsse G1/8“. Ausgestattet mit zwei Anschlussstücken wird die Verschlauchung im System erheblich vereinfacht. Die Gasdruckfedern können aber auch mit anderen Anschlussstücken (siehe Zubehör) versehen werden.

Vorschlag / Proposal



NC.060.10 series
Version B

The **NC.060.10**-gas springs of this version are designed with two (!) G1/8“ - connection threads.
Using two adapters simplifies the connection of the springs with hoses significantly.
Other adapters may be used as well.

SICHERHEITSSYSTEME

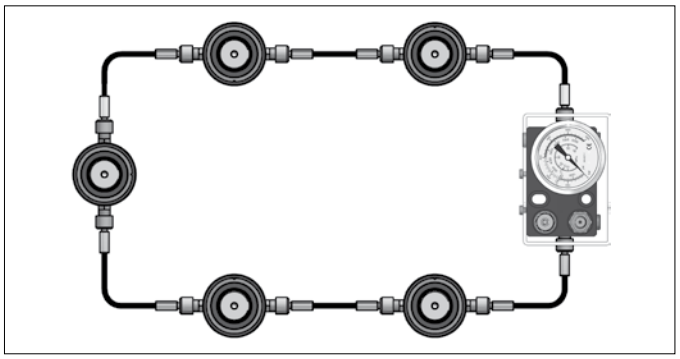


Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.



NC.060.10

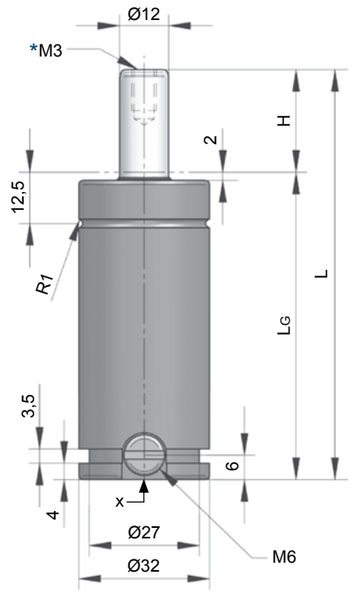
Technische Daten:

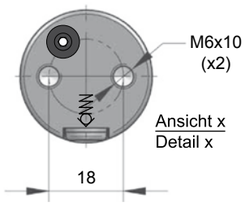
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

INFO [NC.060 .15]

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s





PED

VDI 3003

> Pmax

> S

> Vmax

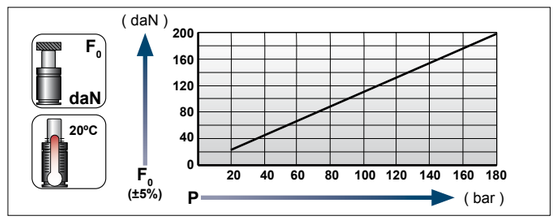
INFO [NC.21]

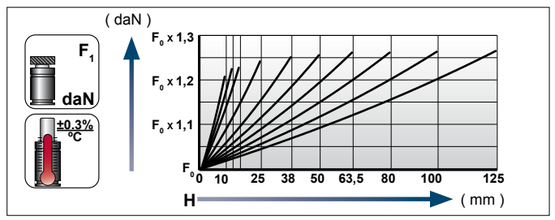
NC.060.10. 00150.038

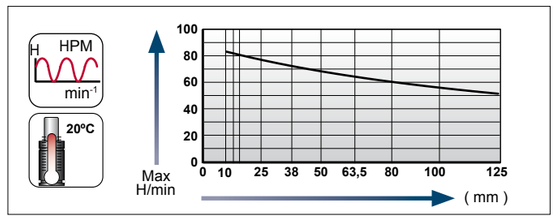
MAIL

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.060.00.00050	Grün / Green	45	50	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.060.00.00100	Blau / Blue	90	100	
NC.060.00.00150	Rot / Red	135	150	
NC.060.00.00200	Gelb / Yellow	180	200	
NC.060.00.00XXX	Schwarz / Black	20 - 180	23 - 200	

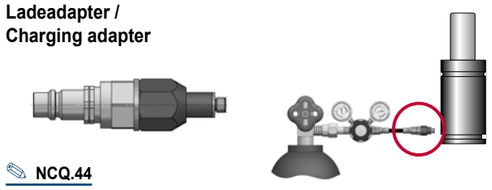
Hub / Stroke	L ±0,25	LG
010	70	60
012,7	75,4	62,7
016	82	66
025	100	75
038	126	88
050	150	100
063,5	177	113,5
080	210	130
100	250	150
125	300	175







Ladeadapter / Charging adapter

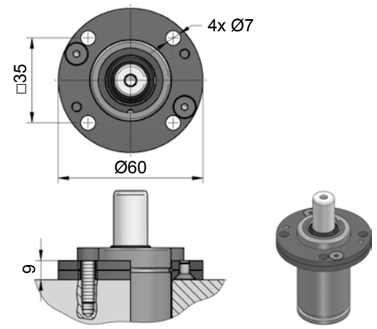


NCQ.44

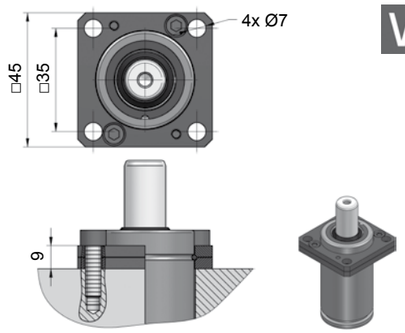
[NC.060.16]

[25.02.2020]

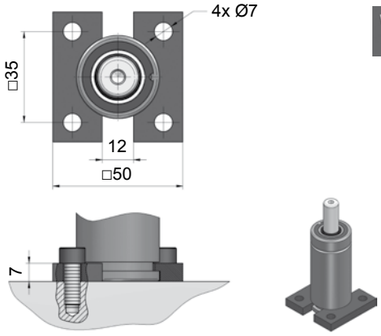
Flansche für / Flanges for **NC.060.10.00050, ...00100, ...00150, ...00200**



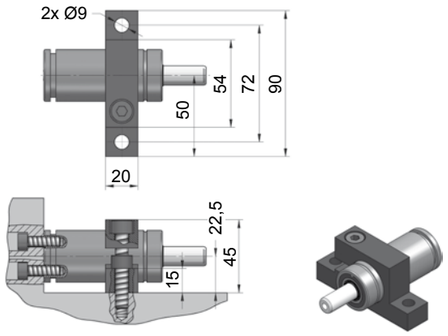
NC.88.00.032.0114



NC.88.00.032.0134



NC.88.00.032.0320



NC.88.00.032.0402

[NC.060.17]

[25.02.2020]

[NC]

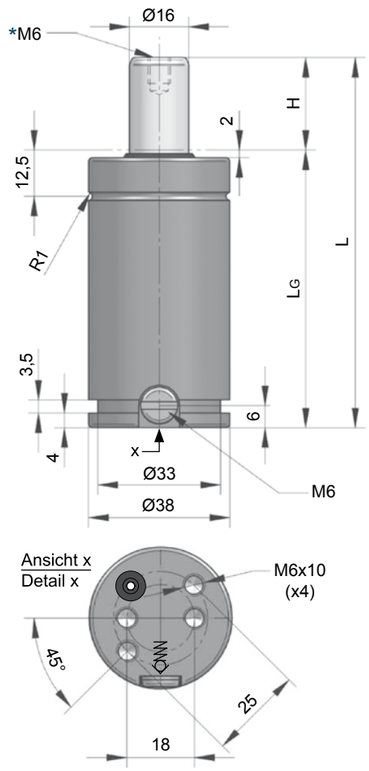
NC.060.10.00250

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

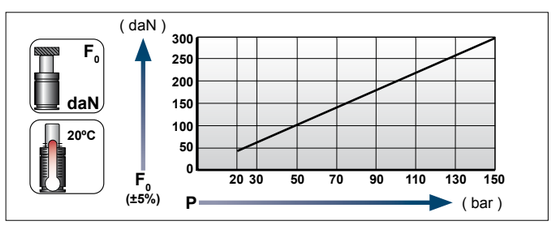


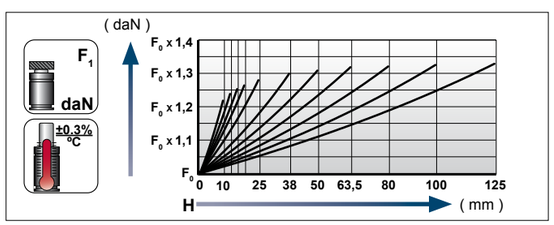
INFO [NC.060.15]

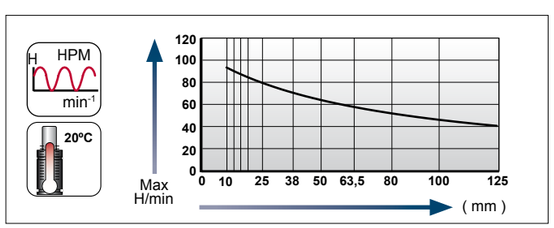
INFO [NC.21]

NC.060.10.00250.025

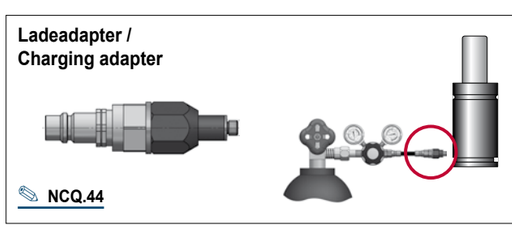
H Hub / Stroke	L ±0,25	LG	Kraft / Force (125 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	70	60	250	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	76	63	250	
016	82	66	250	
019	88	69	250	
025	100	75	250	
038	126	88	250	
050	150	100	250	
063,5	177	113,5	250	
080	210	130	250	
100	250	150	250	
125	300	175	250	







Ladeadapter / Charging adapter

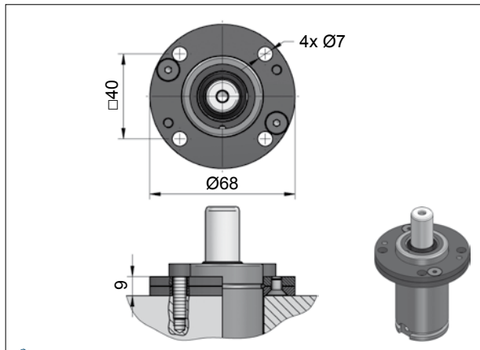


NCQ.44

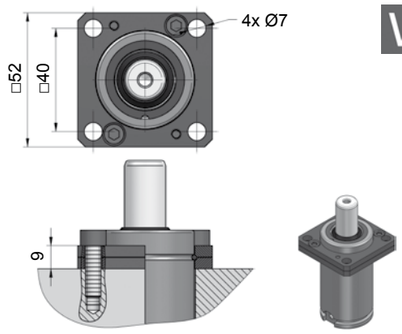
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

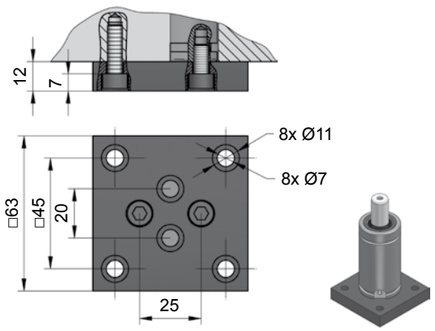
Flansche für / Flanges for **NC.060.10.00250**



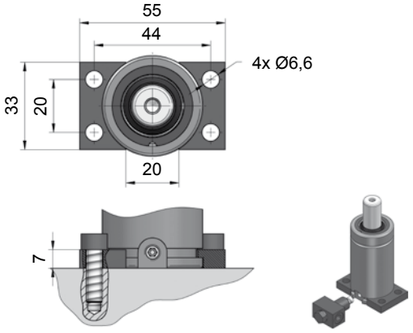
NC.88.00.038.0114



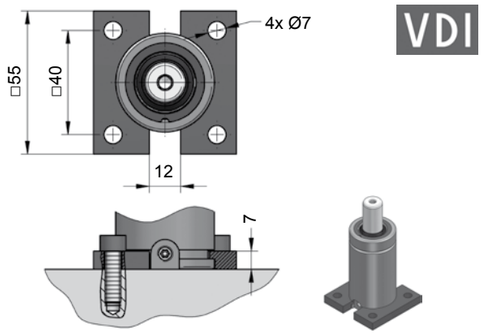
NC.88.00.038.0134



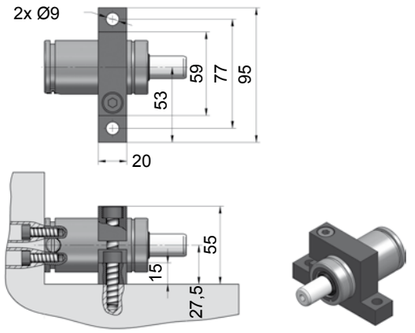
NC.88.00.038.0276



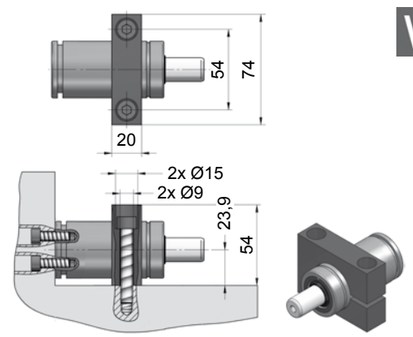
NC.88.00.038.0305



NC.88.00.038.0320



NC.88.00.038.0402



NC.88.00.038.0467

[25.02.2020]

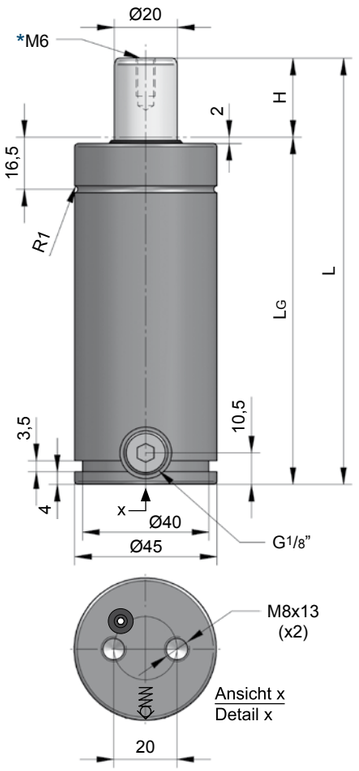
NC.060.10.00500

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

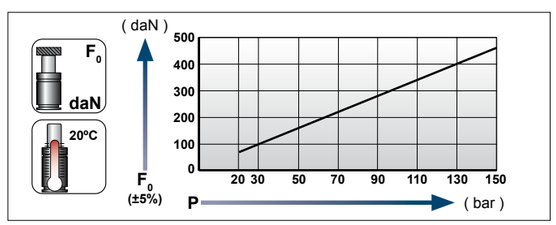
Specifications:

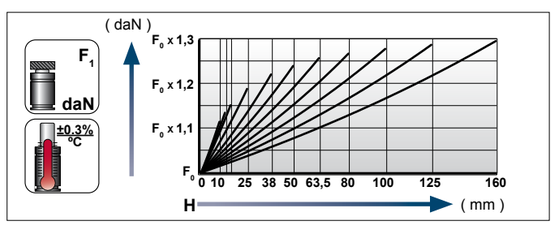
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

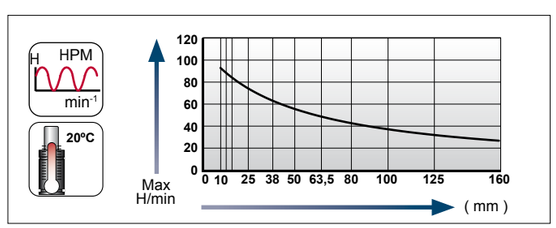


NC.060.10.00500.025

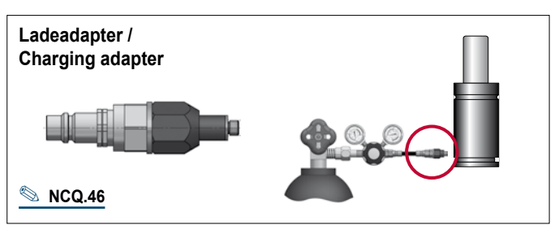
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	105	95	470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	111	98	470	
016	117	101	470	
025	135	110	470	
038	161	123	470	
050	185	135	470	
063,5	212	148,5	470	
080	245	165	470	
100	285	185	470	
125	335	210	470	
160	405	245	470	







Ladeadapter / Charging adapter

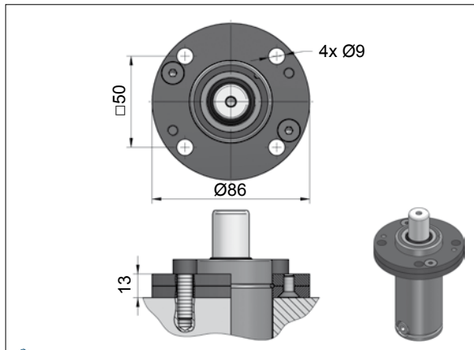


NCQ.46

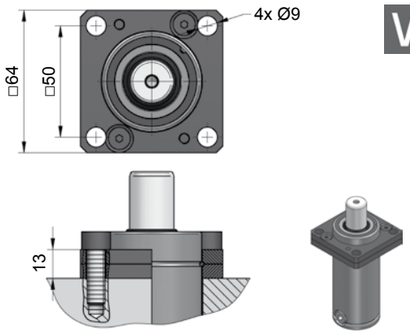
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

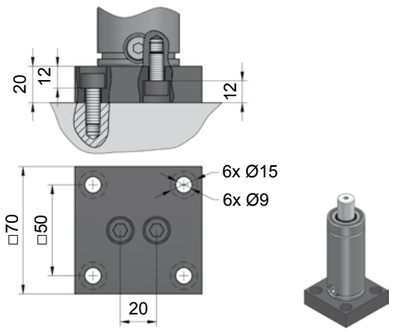
Flansche für / Flanges for **NC.060.10.00500**



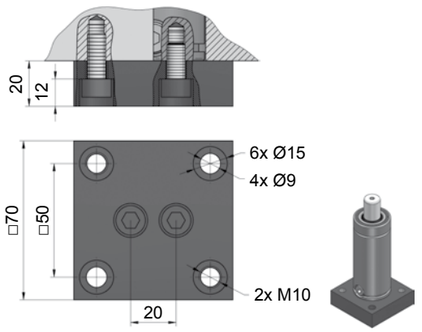
NC.88.00.045.0114



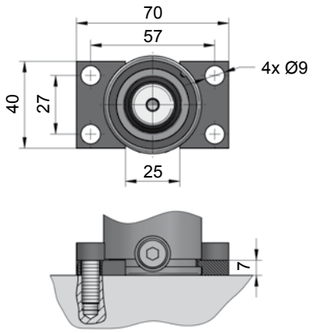
NC.88.00.045.0134



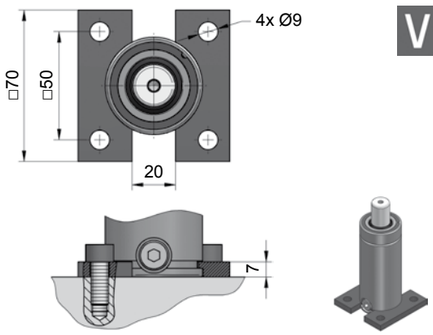
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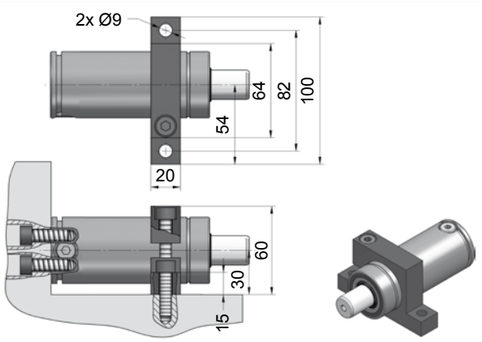
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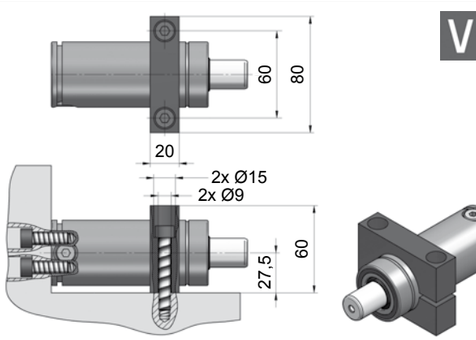
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NC.88.00.045.0320



NC.88.00.045.0402



NC.88.00.045.0467

[25.02.2020]

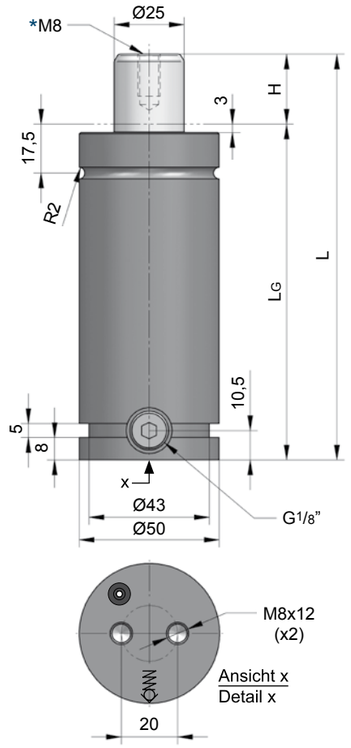
NC.060.10.00750

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s



INFO [NC.21]

ZUGELASSEN PED 2014/68/EU

VDI 3003

> Pmax

> S

> Vmax

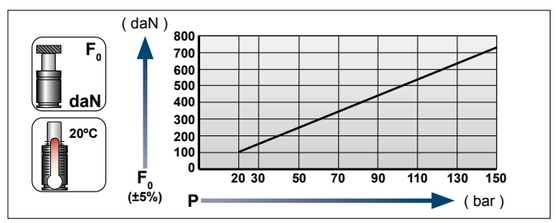
Flex Rod

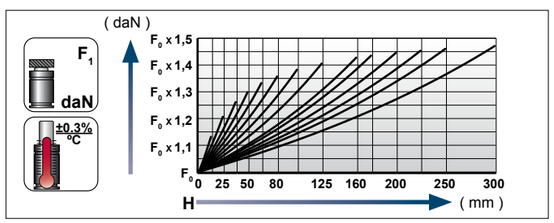
INFO [NC.060.15]

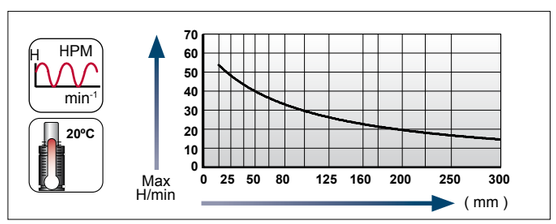
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NC.060.10.□.00750.100

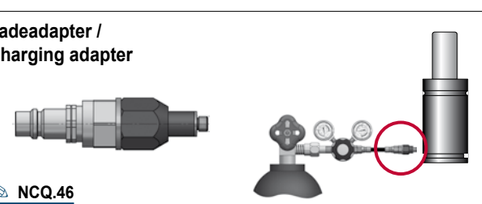
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
013	121	108	740	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	145	120	740	
038	171	133	740	
050	195	145	740	
063,5	222	158,5	740	
080	255	175	740	
100	295	195	740	
125	345	220	740	
160	415	255	740	
175	445	270	740	
200	495	295	740	
225	545	320	740	
250	595	345	740	
300	695	395	740	







Ladeadapter / Charging adapter

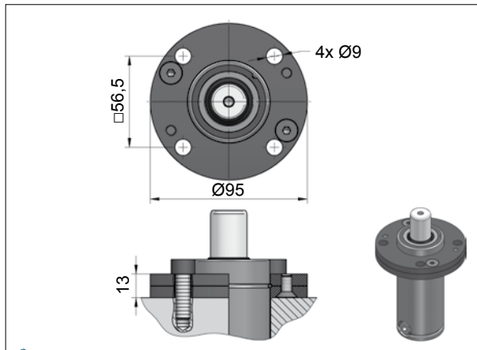


NCQ.46

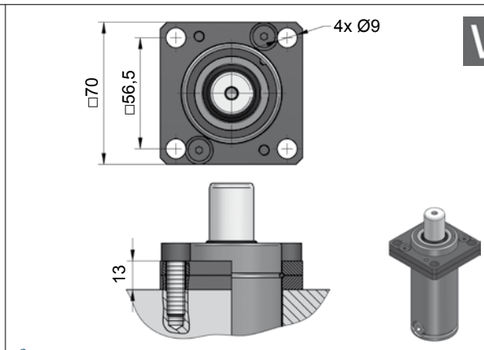
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

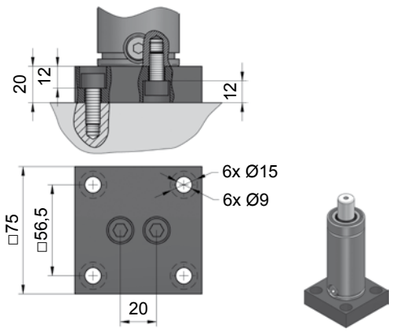
Flansche für / Flanges for **NC.060.10.00750**



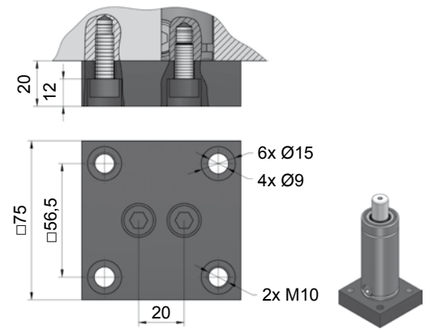
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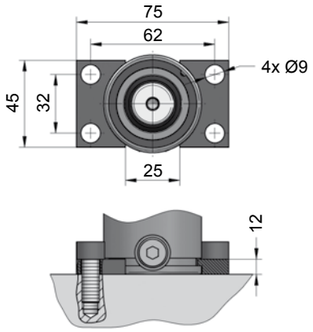
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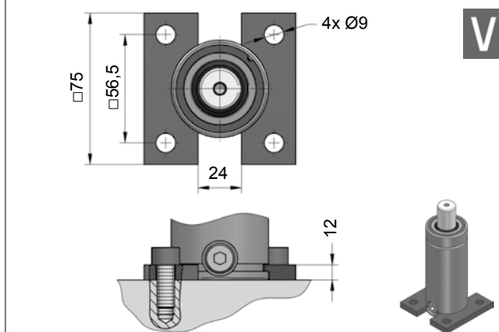
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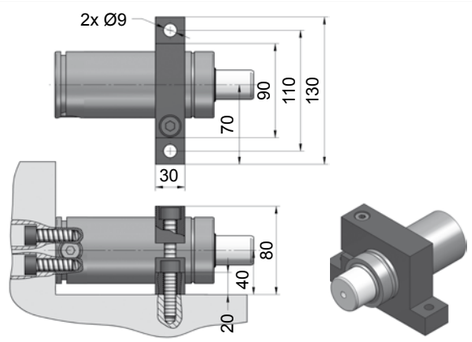
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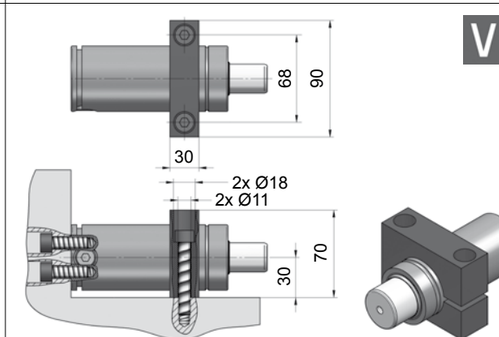
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NC.88.00.050.0320



NC.88.00.050.0402



NC.88.00.050.0467

[25.02.2020]

[NC]

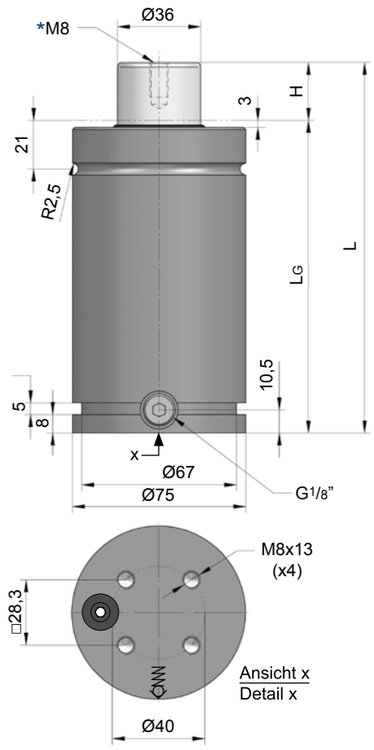
NC.060.10.01500

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s



INFO [NC.21]

ZUGELASSEN PED 2014/68/EU

VDI 3003

> Pmax

> S

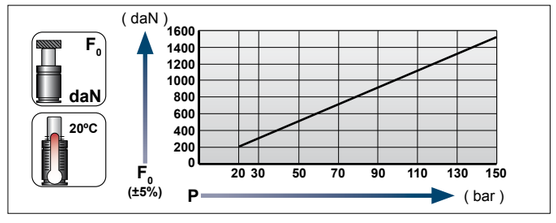
> Vmax

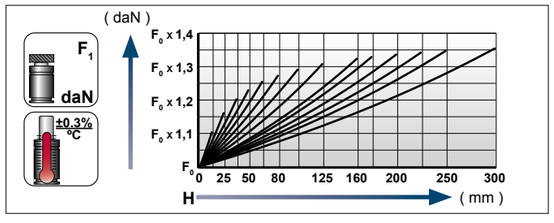
Flex Rod

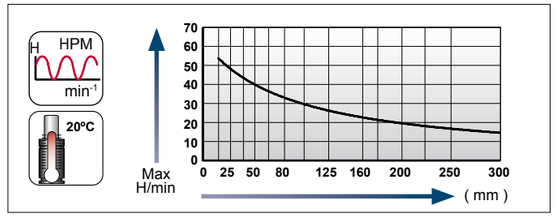
MAIL

NC.060.10.□.
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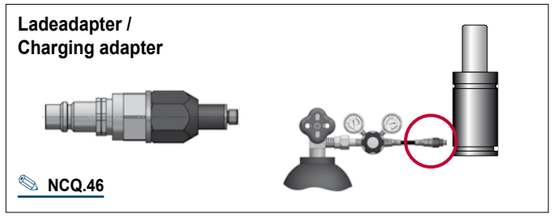
H Hub / Stroke	L ±0,25	Lg	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	136	123	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	160	135	1530	
038	186	148	1530	
050	210	160	1530	
063,5	237	173,5	1530	
080	270	190	1530	
100	310	210	1530	
125	360	235	1530	
160	430	270	1530	
175	460	285	1530	
200	510	310	1530	
225	560	335	1530	
250	610	360	1530	
300	710	410	1530	







Ladeadapter / Charging adapter

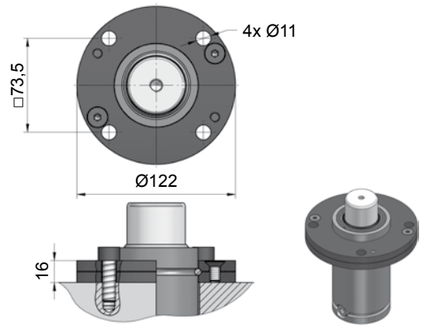


NCQ.46

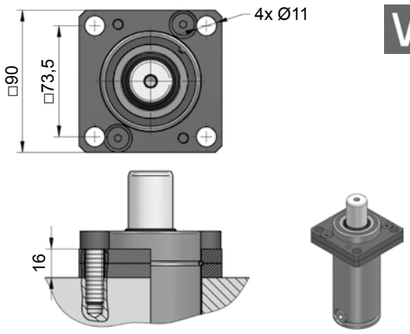
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

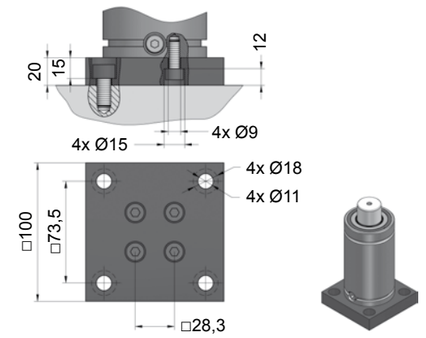
Flansche für / Flanges for **NC.060.10.01500**



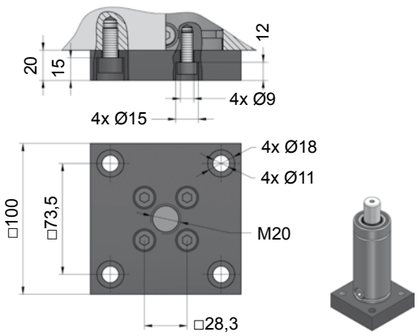
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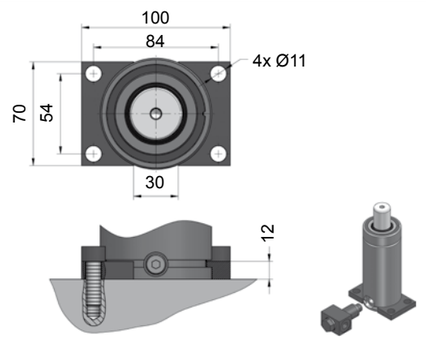
NC.88.00.075.0134



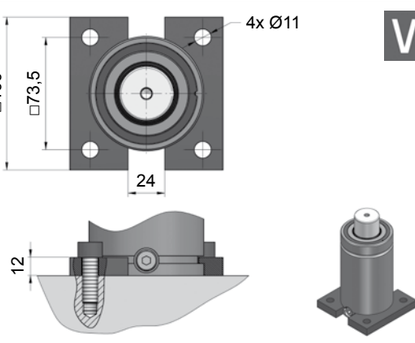
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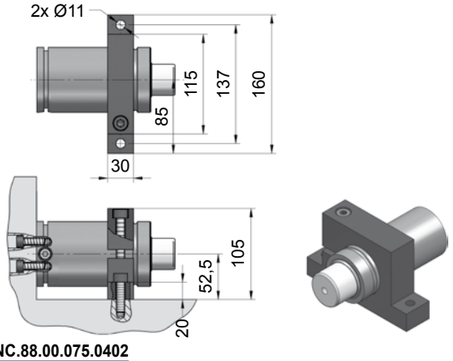
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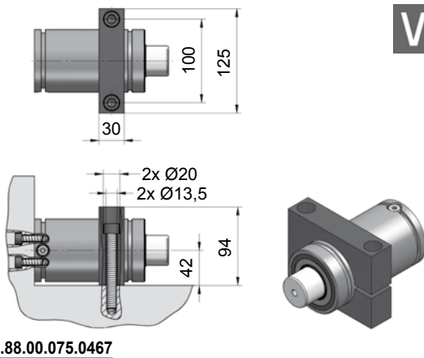
NC.88.00.075.0305



NC.88.00.075.0320



NC.88.00.075.0402



NC.88.00.075.0467

[25.02.2020]

[NC]

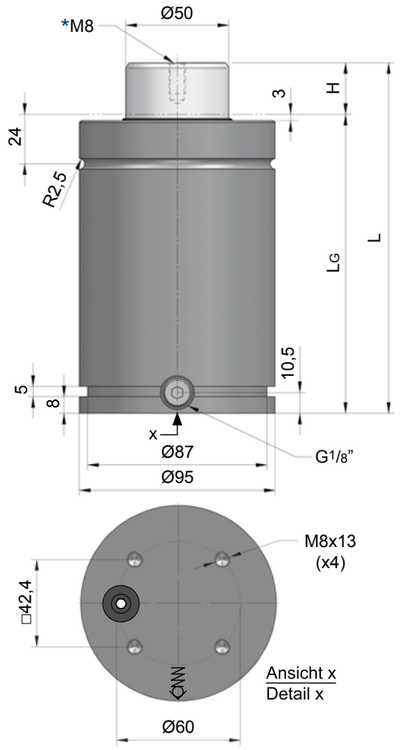
NC.060.10.03000

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s



INFO [NC.21]

VDI 3003

> Pmax

> S

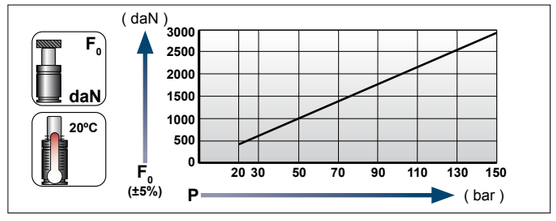
> Vmax

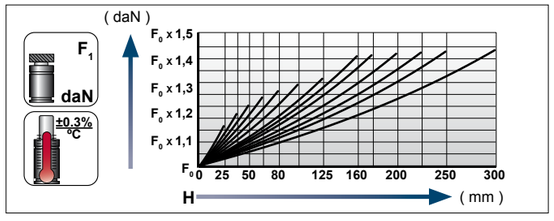
Flex Rod

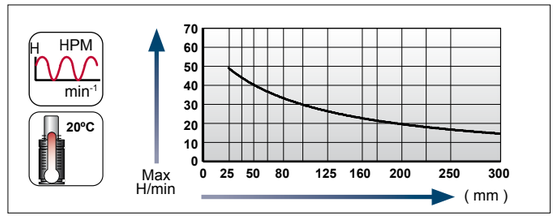
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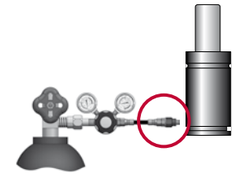
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	170	145	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	196	158	2945	
050	220	170	2945	
063,5	247	183,5	2945	
080	280	200	2945	
100	320	220	2945	
125	370	245	2945	
160	440	280	2945	
175	470	295	2945	
200	520	320	2945	
225	570	345	2945	
250	620	370	2945	
300	720	420	2945	







Ladeadapter / Charging adapter



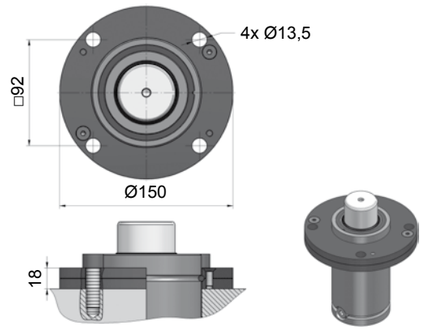
NCQ.46

[25.02.2020]

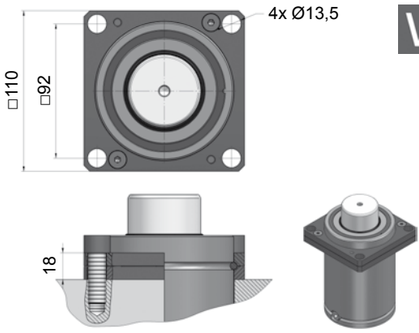
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

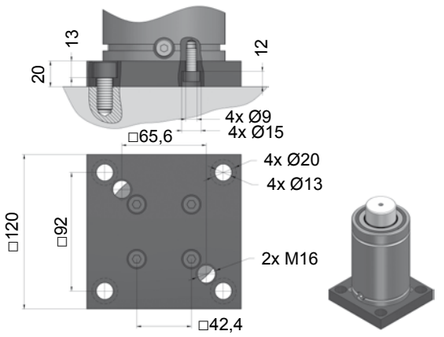
Flansche für / Flanges for **NC.060.10.03000**



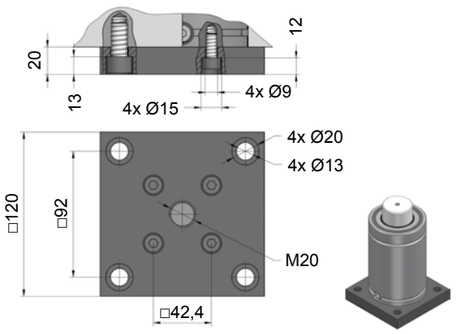
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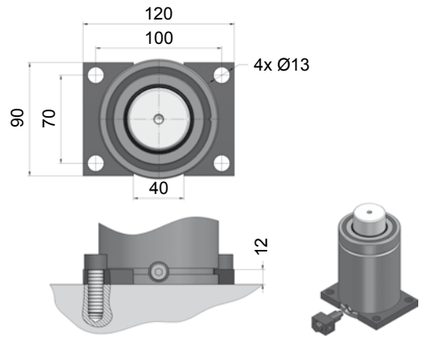
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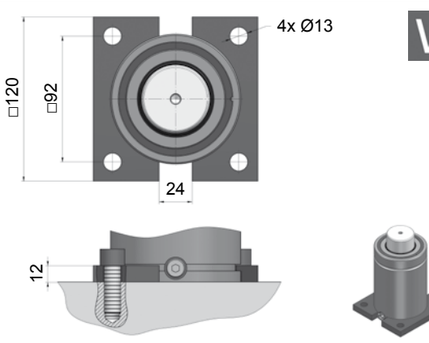
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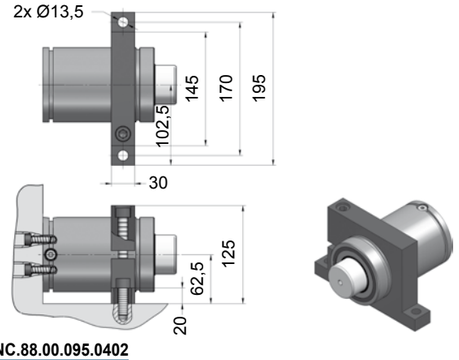
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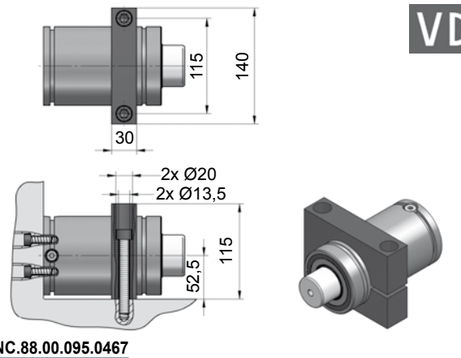
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NC.88.00.095.0320



NC.88.00.095.0402



NC.88.00.095.0467

[NC]

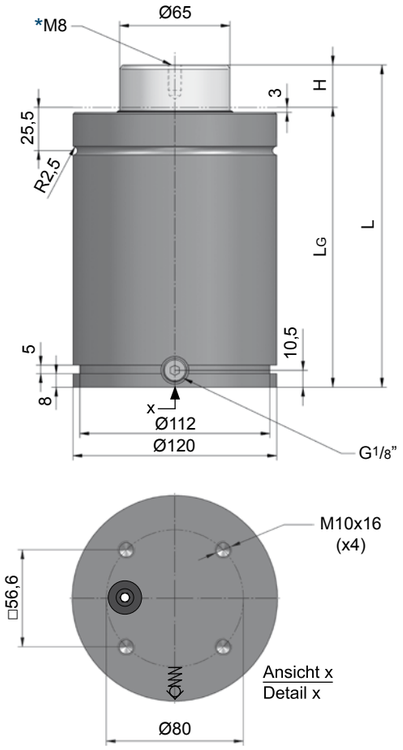
NC.060.10.05000

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s



INFO [NC.21]

ZUGELASSEN PED 2014/68/EU

VDI 3003

> Pmax

> S

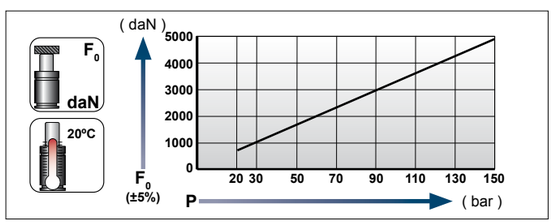
> Vmax

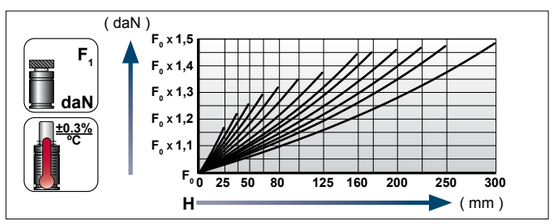
Flex Rod

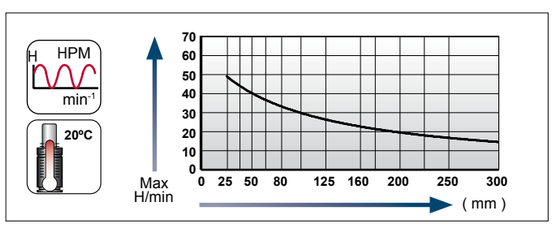
MAIL

NC.060.10.□.
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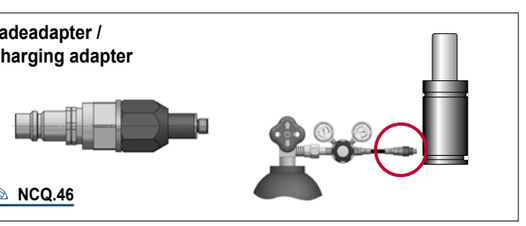
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	190	165	4980	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	216	178	4980	
050	240	190	4980	
063,5	267	203,5	4980	
080	300	220	4980	
100	340	240	4980	
125	390	265	4980	
160	460	300	4980	
175	490	315	4980	
200	540	340	4980	
225	590	365	4980	
250	640	390	4980	
300	740	440	4980	







Ladeadapter / Charging adapter



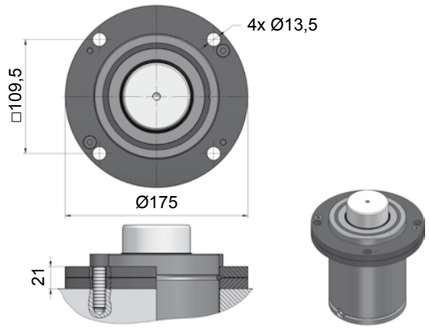
NCQ.46

[25.02.2020]

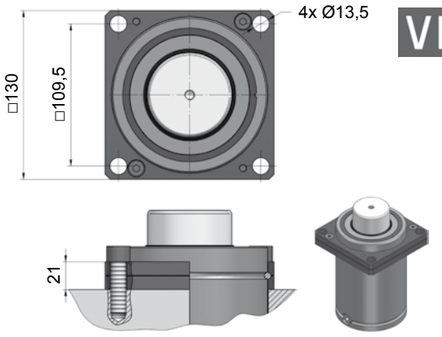
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

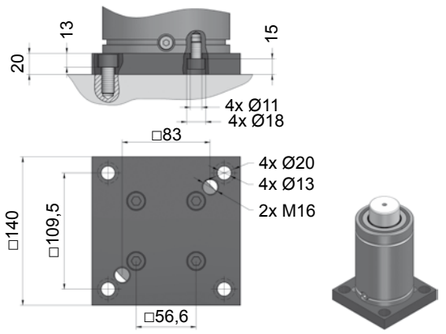
Flansche für / Flanges for **NC.060.10.05000**



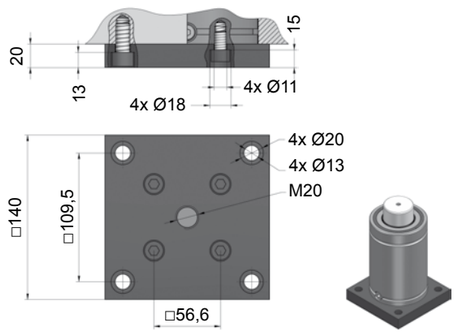
NC.88.00.120.0114



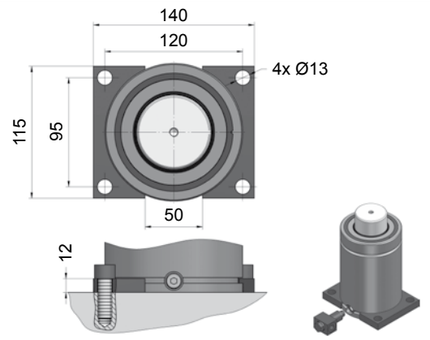
NC.88.00.120.0134



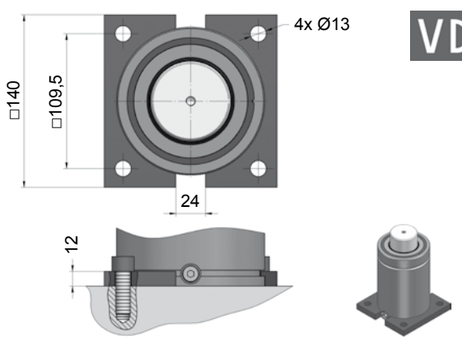
NC.88.00.120.0221



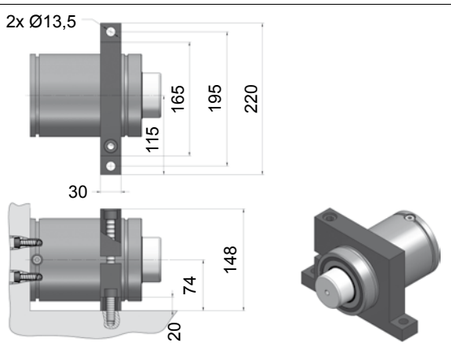
NC.88.00.120.0276



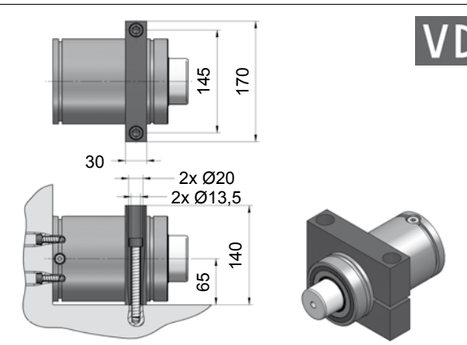
NC.88.00.120.0305



NC.88.00.120.0320



NC.88.00.120.0402



NC.88.00.120.0467

[NC]

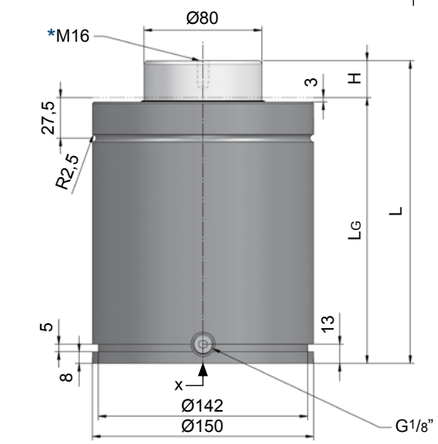
NC.060.10.07500

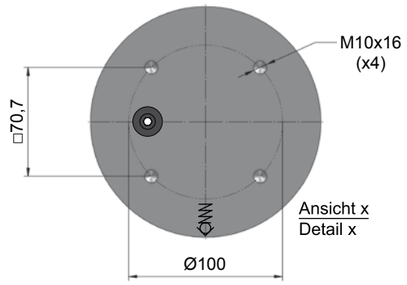
Technische Daten:

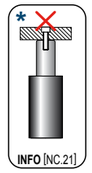
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s







VDI 3003

> Pmax

> S

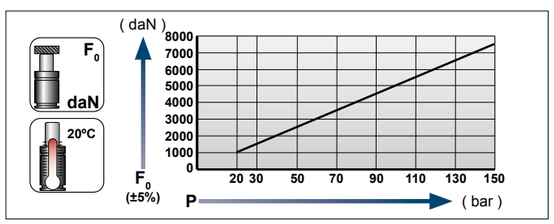
> Vmax

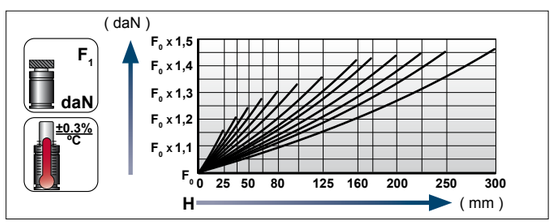
Flex Rod

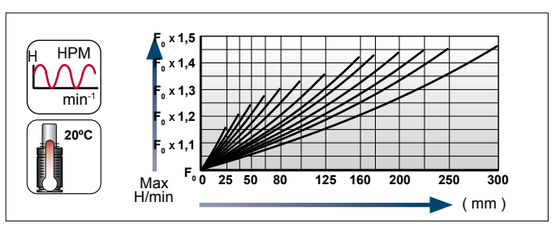
MAIL

NC.060.10.□.
07500.160

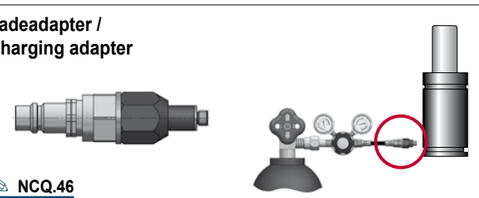
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	205	180	7540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	231	193	7540	
050	255	205	7540	
063,5	282	218,5	7540	
080	315	235	7540	
100	355	255	7540	
125	405	280	7540	
160	475	315	7540	
175	505	330	7540	
200	555	355	7540	
225	605	380	7540	
250	655	405	7540	
300	755	455	7540	







Ladeadapter / Charging adapter



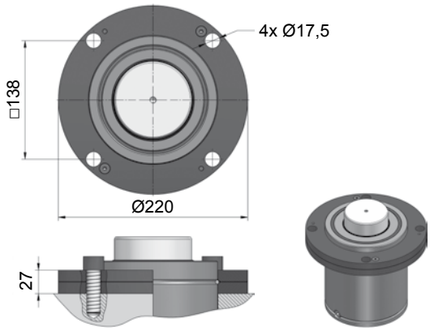
NCQ.46

[25.02.2020]

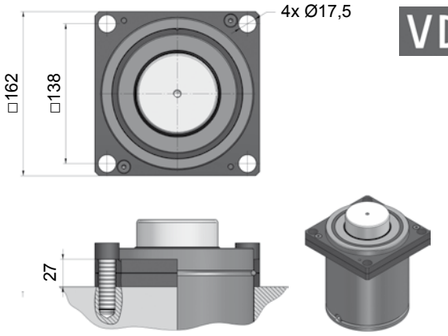
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

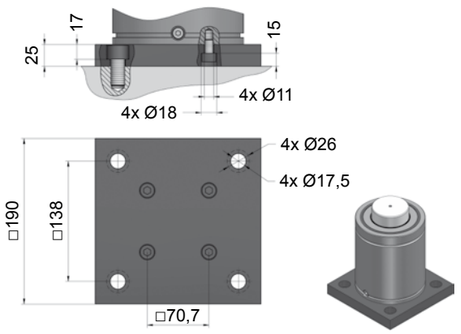
Flansche für / Flanges for **NC.060.10.07500**



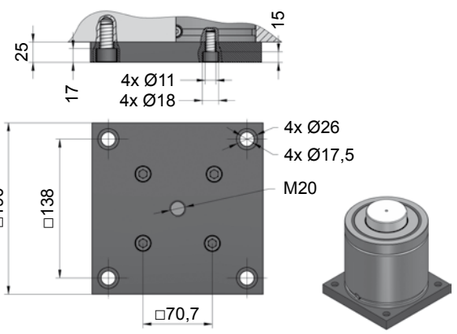
NC.88.00.150.0114



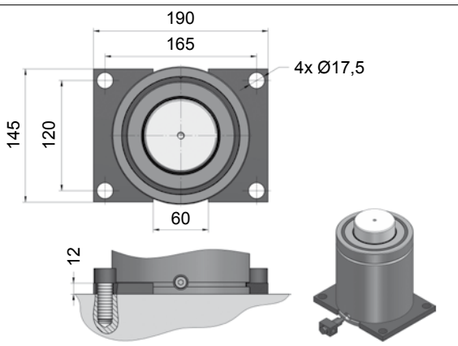
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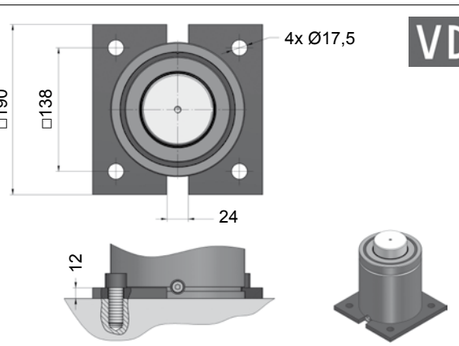
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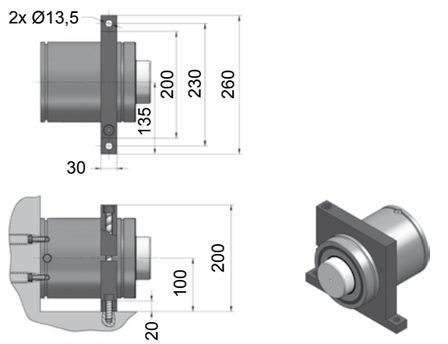
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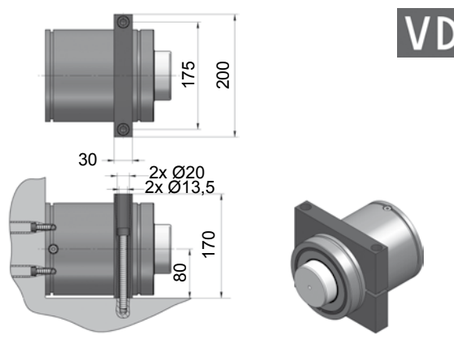
NC.88.00.150.0305



NC.88.00.150.0320



NC.88.00.150.0402



NC.88.00.150.0467

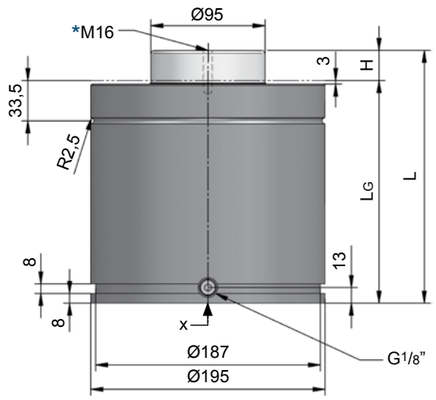
NC.060.10.10000

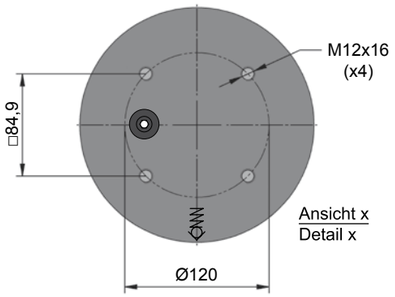
Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s





INFO [NC.21]

ZUGELASSEN PED 2014/68/EU

VDI 3003

> Pmax

> S

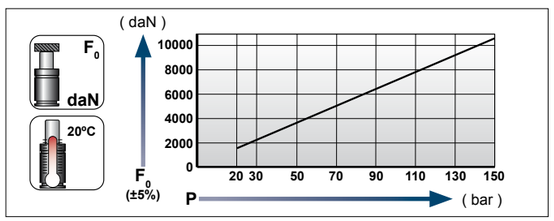
> Vmax

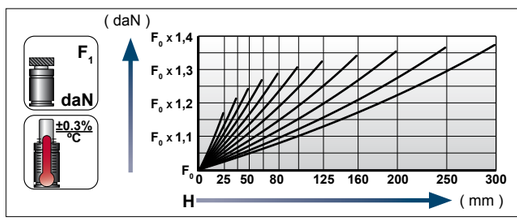
Flex Rod

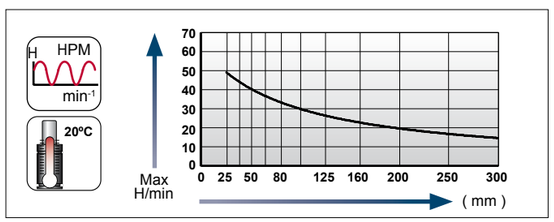
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NC.060.10.□.
10000.200

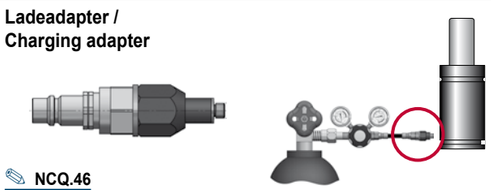
H Hub / Stroke	L ±0,25	LG	Kraft / Force (145 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	210	185	10280	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	236	198	10280	
050	260	210	10280	
063,5	287	223,5	10280	
080	320	240	10280	
100	360	260	10280	
125	410	285	10280	
160	480	320	10280	
200	560	360	10280	
250	660	410	10280	
300	760	460	10280	







Ladeadapter / Charging adapter



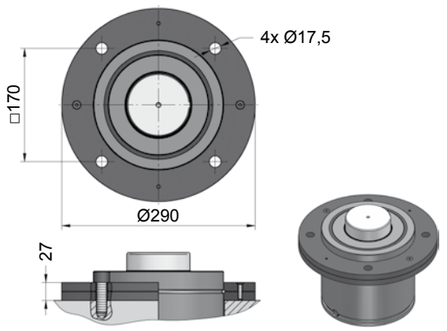
NCQ.46

[25.02.2020]

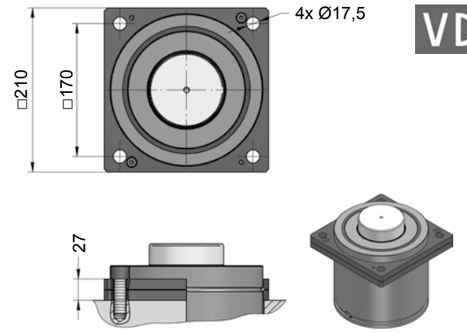
[25.02.2020]

GDF, Standard nach VDI 3003
GS, Standard acc. to VDI 3003
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

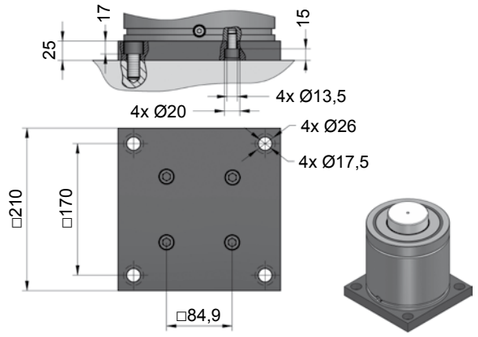
Flansche für / Flanges for **NC.060.10.10000**



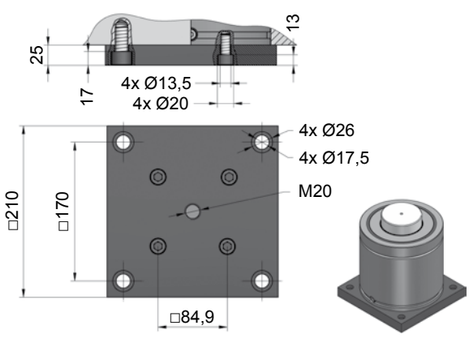
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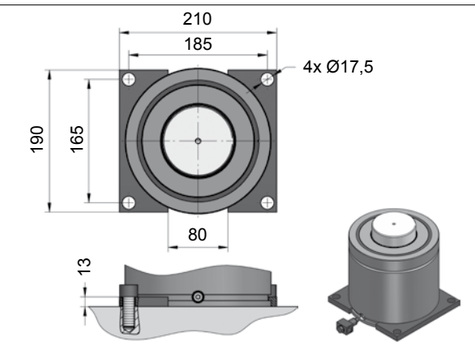
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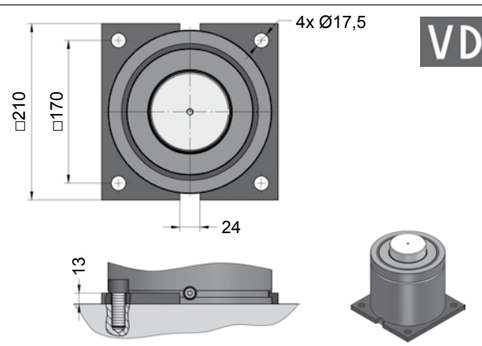
NC.88.00.195.0221



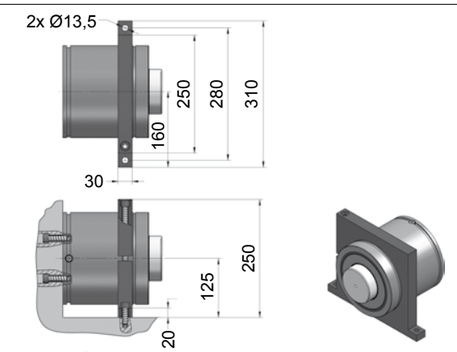
NC.88.00.195.0276



NC.88.00.195.0305



NC.88.00.195.0320

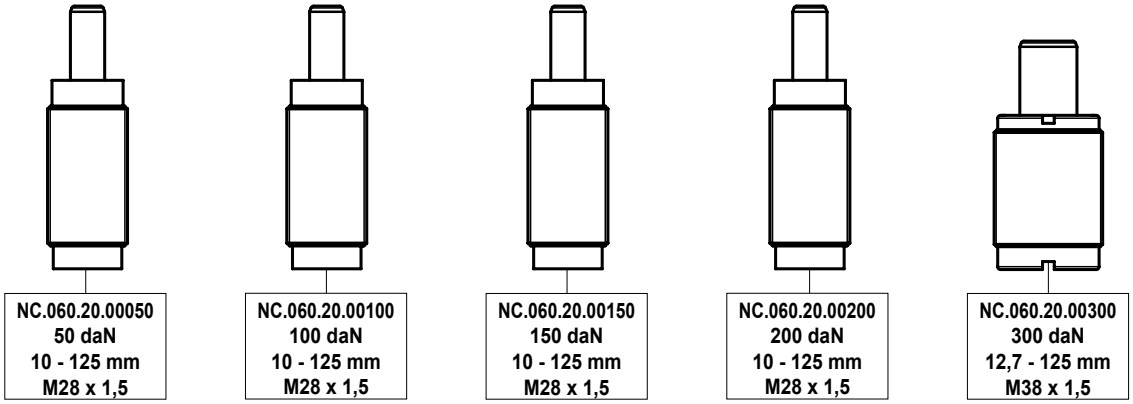


NC.88.00.195.0402

[NC]

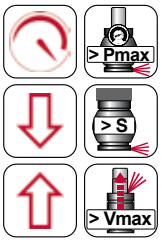
Größenübersicht Serie NC.060.20

Gas spring index 060.20 series



NC.060.20.00050	NC.060.20.00100	NC.060.20.00150	NC.060.20.00200	NC.060.20.00300
50 daN	100 daN	150 daN	200 daN	300 daN
10 - 125 mm	10 - 125 mm	10 - 125 mm	10 - 125 mm	12,7 - 125 mm
M28 x 1,5	M28 x 1,5	M28 x 1,5	M28 x 1,5	M38 x 1,5

SICHERHEITSSYSTEME



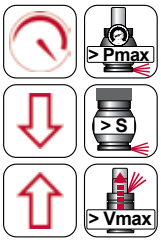
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

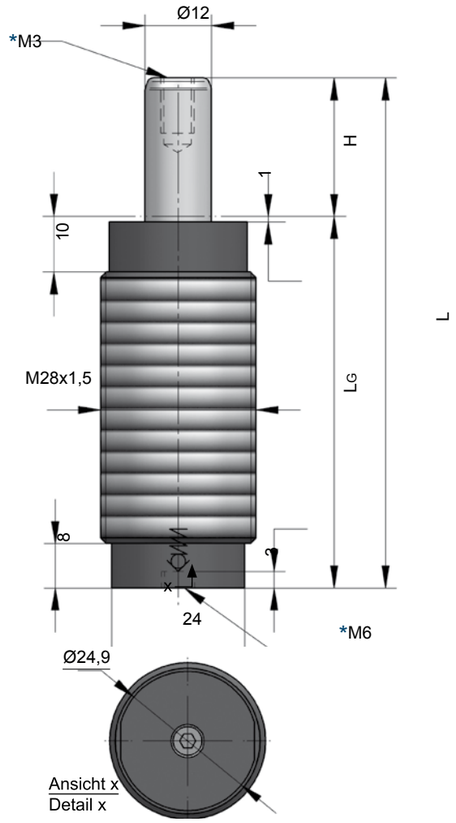
NC.060.20

Technische Daten:

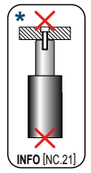
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s



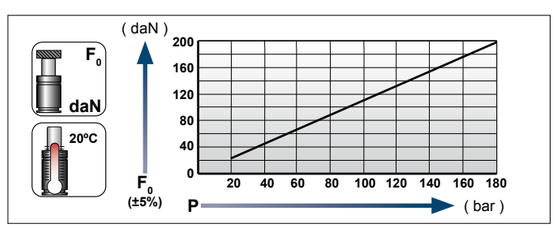


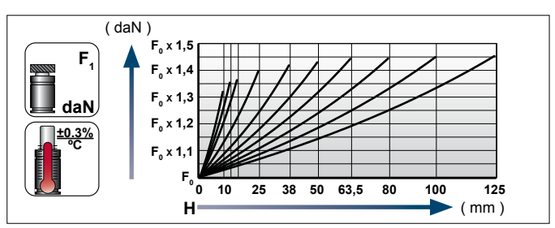


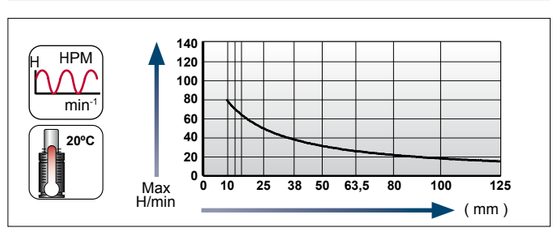
NC.060.20.00200.016

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.060.20.00050	Grün / Green	45	50	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.060.20.00100	Blau / Blue	90	100	
NC.060.20.00150	Rot / Red	135	150	
NC.060.20.00200	Gelb / Yellow	180	200	

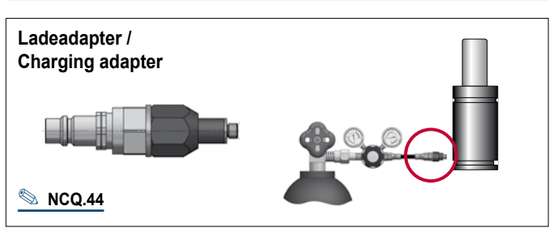
Hub / Stroke	L ±0,25	LG
010	62	52
012,7	67,4	54,7
016	74	58
025	92	67
038	118	80
050	142	92
063,5	169	105,5
080	202	122
100	242	142
125	292	167







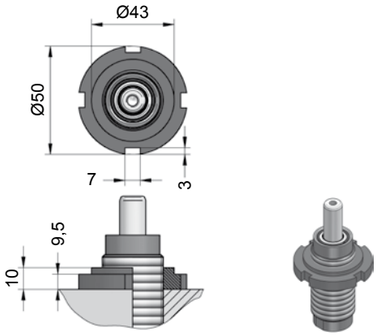
Ladeadapter / Charging adapter



NCQ.44

[14.02.2020]

Flansche für / Flanges for **NC.060.20.00050, ...00100, ...00150, ...00200**



NC.88.00.028.0558

[14.02.2020]

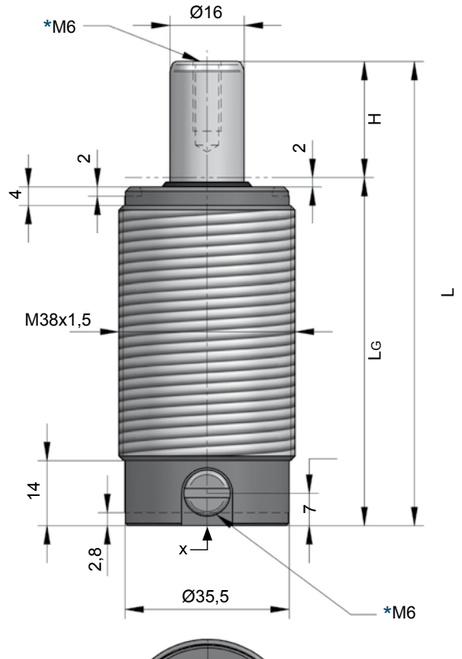
NC.060.20.00300

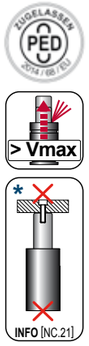
Technische Daten:

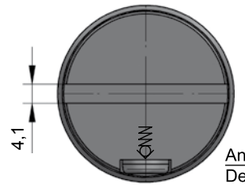
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s



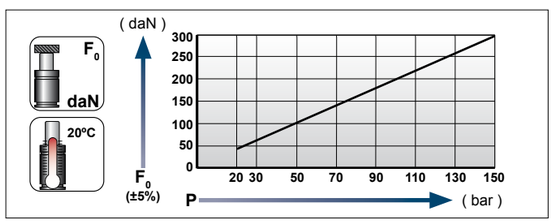


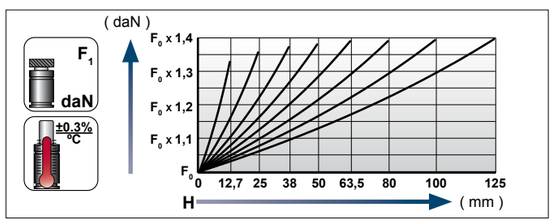


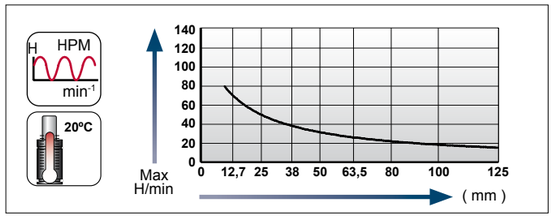
NC.060.20.00300.025

MAIL

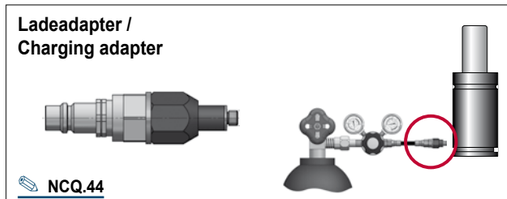
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
012,7	75,4	62,7	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	100	75	300	
038	126	88	300	
050	150	100	300	
063,5	177	113,5	300	
080	210	130	300	
100	250	150	300	
125	300	175	300	







Ladeadapter / Charging adapter

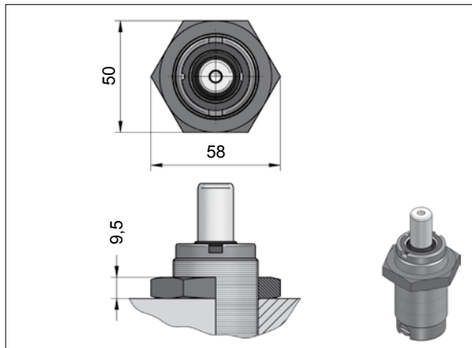


NCQ.44

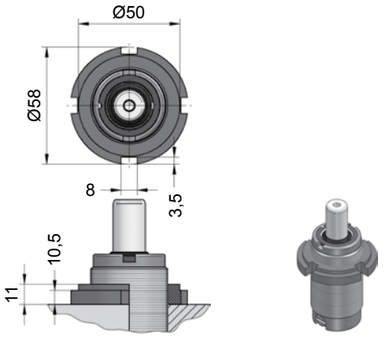
[14.02.2020]

GDF, mit Körpergewinde
GS, threaded springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

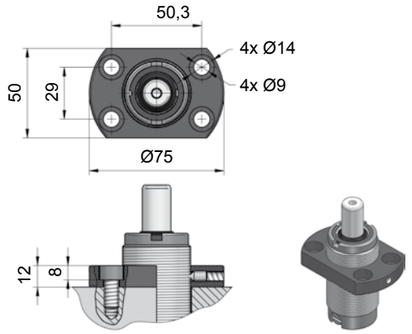
Flansche für / Flanges for **NC.060.20.00300**



NC.88.00.038.0523



NC.88.00.038.0558



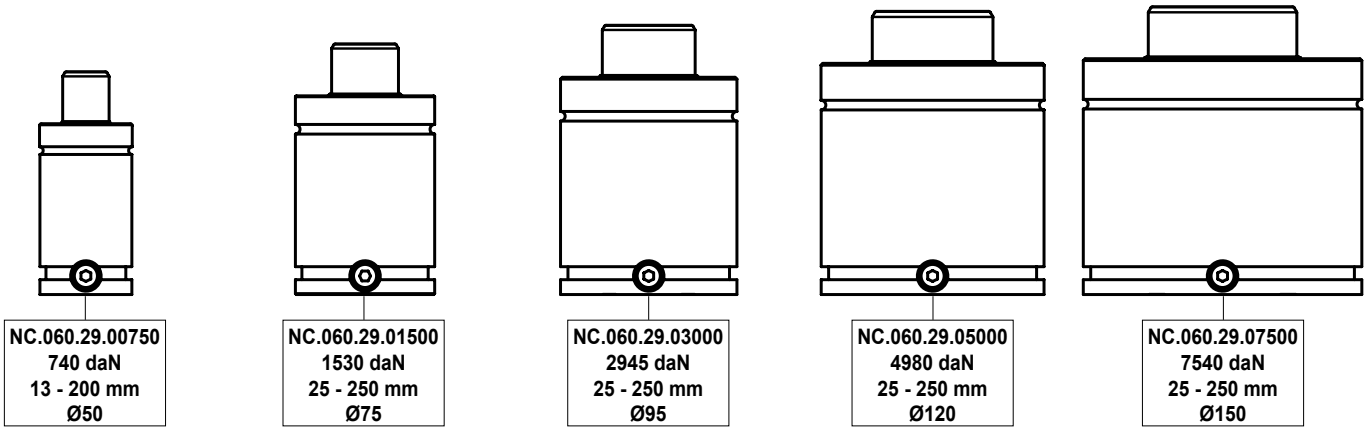
NC.88.00.038.0568

[14.02.2020]

[NC]

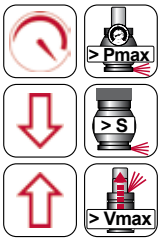
Größenübersicht Serie NC.060.29

Gas spring index 060.29 series



NC.060.29.00750	NC.060.29.01500	NC.060.29.03000	NC.060.29.05000	NC.060.29.07500
740 daN	1530 daN	2945 daN	4980 daN	7540 daN
13 - 200 mm	25 - 250 mm	25 - 250 mm	25 - 250 mm	25 - 250 mm
Ø50	Ø75	Ø95	Ø120	Ø150

SICHERHEITSSYSTEME



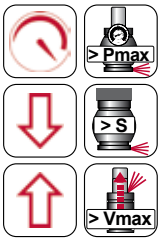
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

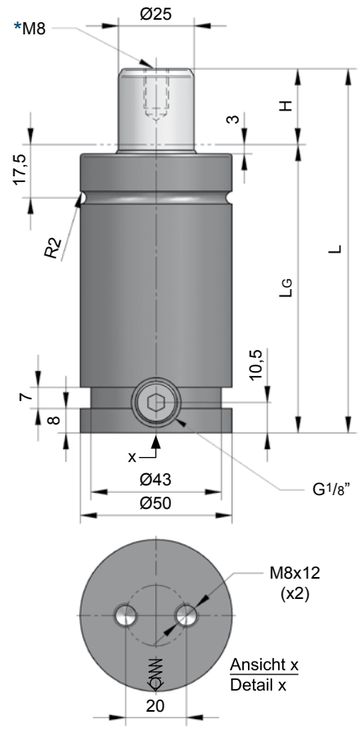
NC.060.29.00750

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

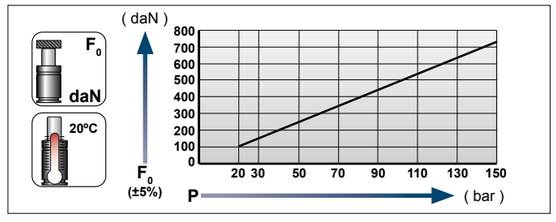
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

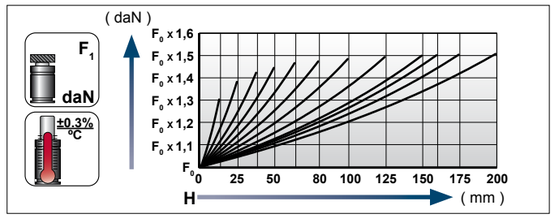


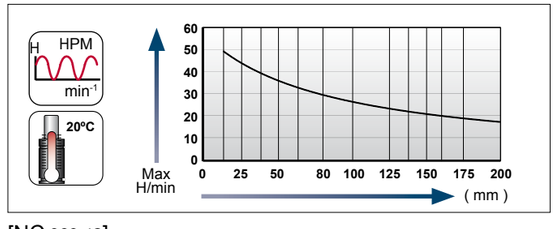


NC.060.29.
00750.025

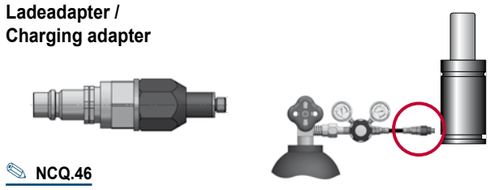
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	96	83	740	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	120	95	740	
038	146	108	740	
050	170	120	740	
063,5	197	133,5	740	
080	230	150	740	
100	270	170	740	
125	320	195	740	
137,5	345	207,5	740	
150	370	220	740	
160	390	230	740	
175	420	245	740	
200	470	270	740	







Ladeadapter / Charging adapter



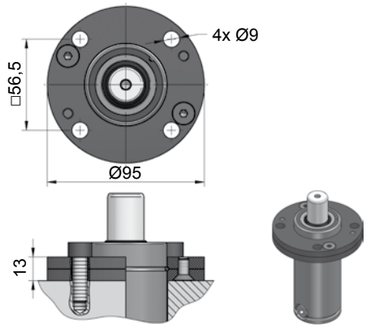
NCQ.46

[19.02.2020]

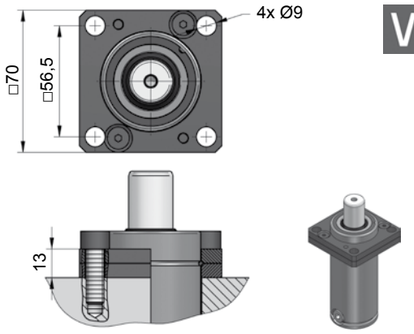
[19.02.2020]

GDF, Standard, mittlere Größe
GS, Standard, medium size
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

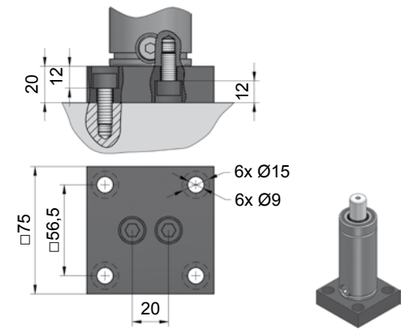
Flansche für / Flanges for **NC.060.29.00750**



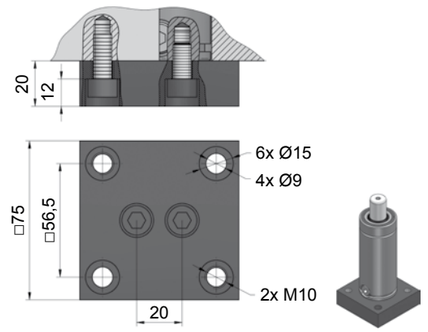
NC.88.00.050.0114



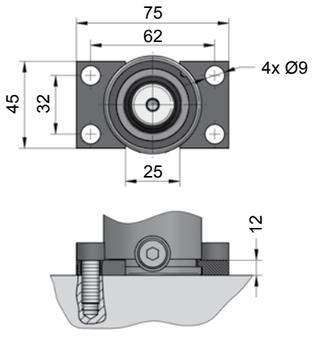
NC.88.00.050.0134



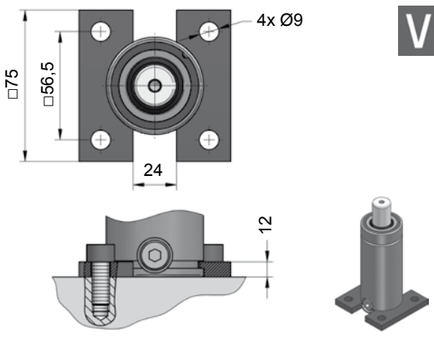
NC.88.00.050.0221



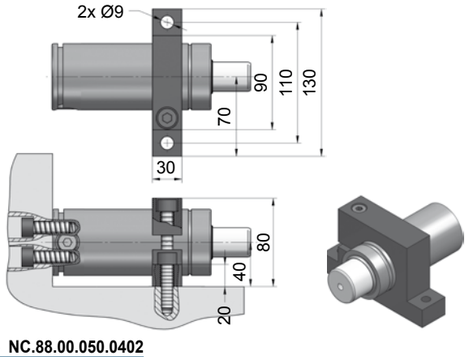
NC.88.00.050.0276



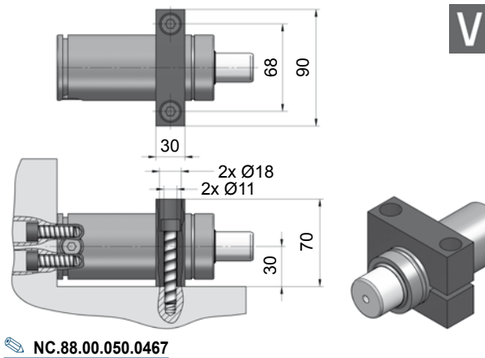
NC.88.00.050.0305



NC.88.00.050.0320

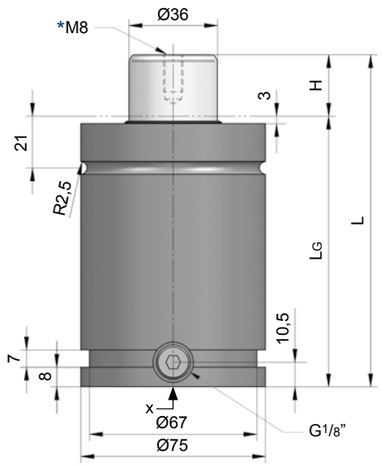


NC.88.00.050.0402



NC.88.00.050.0467

NC.060.29.01500



Technische Daten:

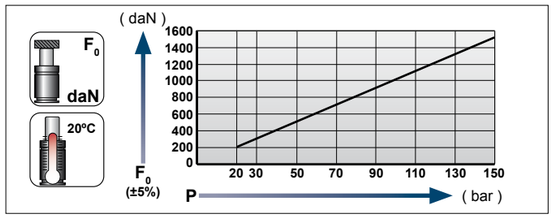
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

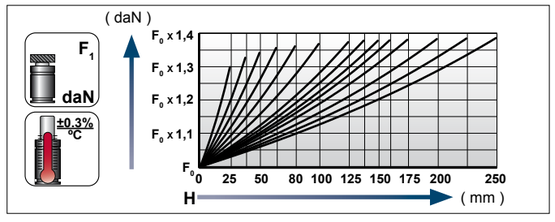
Specifications:

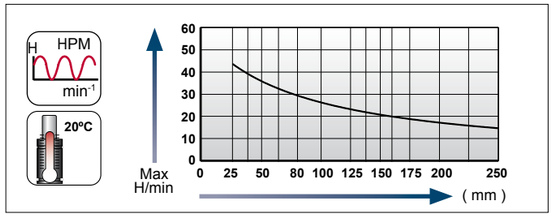
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.29.
01500.025

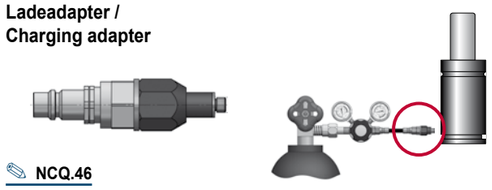
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	135	110	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	161	123	1530	
050	185	135	1530	
063,5	212	148,5	1530	
080	245	165	1530	
100	285	185	1530	
125	335	210	1530	
137,5	360	222,5	1530	
150	385	235	1530	
160	405	245	1530	
175	435	260	1530	
200	485	285	1530	
225	535	310	1530	
250	585	335	1530	







Ladeadapter / Charging adapter



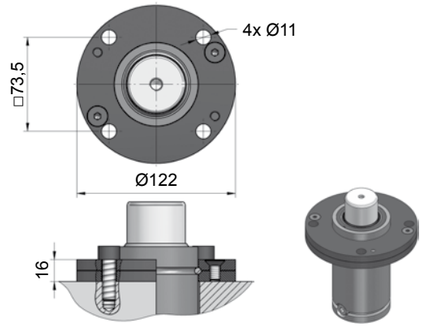
NCQ.46

[19.02.2020]

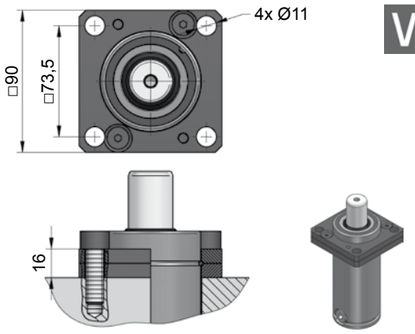
[19.02.2020]

GDF, Standard, mittlere Größe
GS, Standard, medium size
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

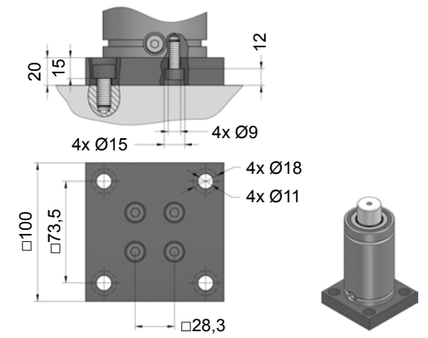
Flansche für / Flanges for **NC.060.29.01500**



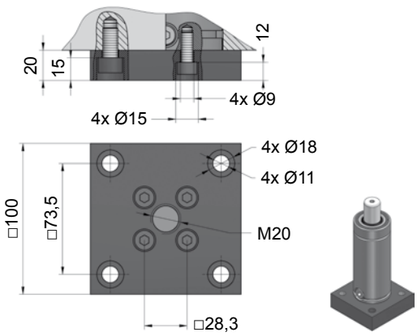
NC.88.00.075.0114



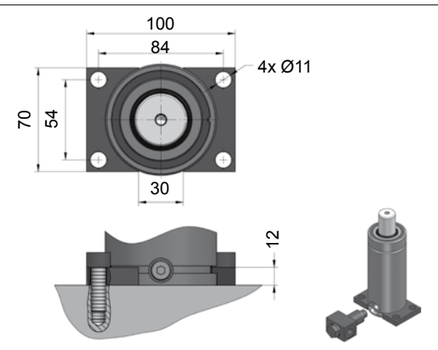
NC.88.00.075.0134



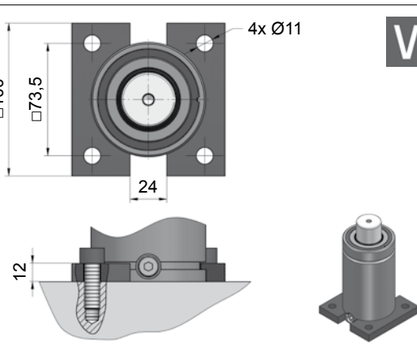
NC.88.00.075.0221



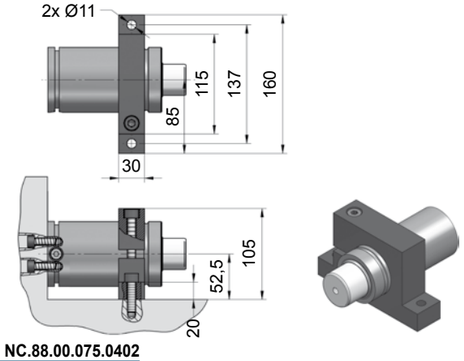
NC.88.00.075.0276



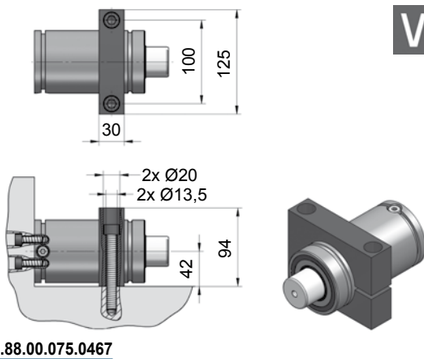
NC.88.00.075.0305



NC.88.00.075.0320

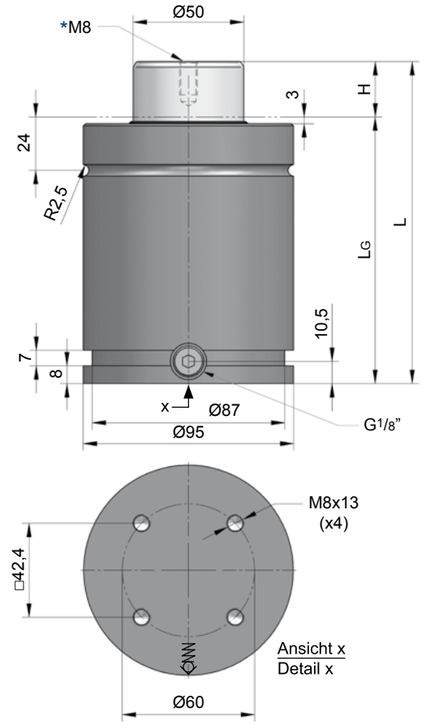


NC.88.00.075.0402



NC.88.00.075.0467

NC.060.29.03000



Technische Daten:

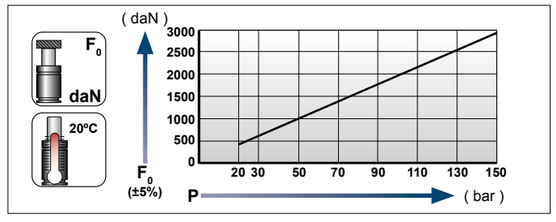
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

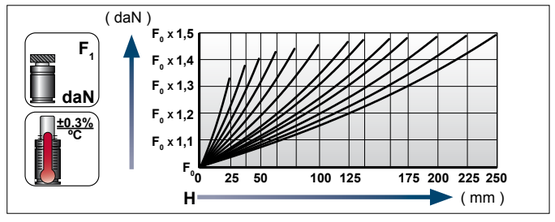
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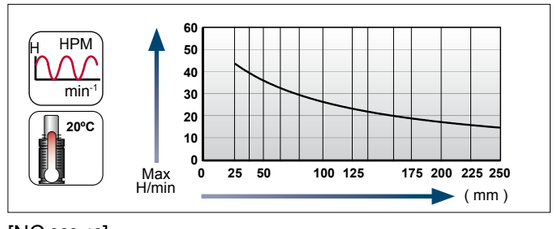
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.29.03000.050

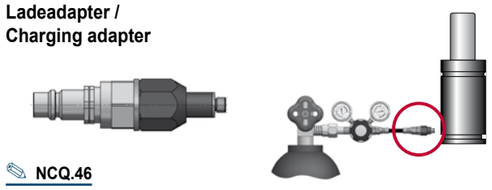
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	145	120	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	171	133	2945	
050	195	145	2945	
063,5	222	158,5	2945	
080	255	175	2945	
100	295	195	2945	
125	345	220	2945	
137,5	370	232,5	2945	
160	415	255	2945	
175	445	270	2945	
200	495	295	2945	
225	545	320	2945	
250	595	345	2945	







Ladeadapter / Charging adapter



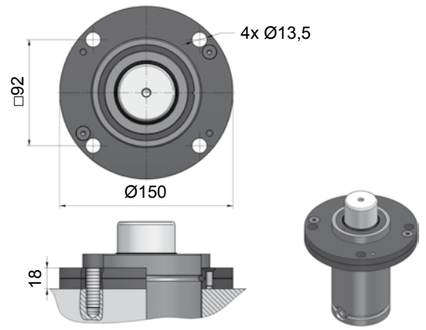
NCQ.46

[19.02.2020]

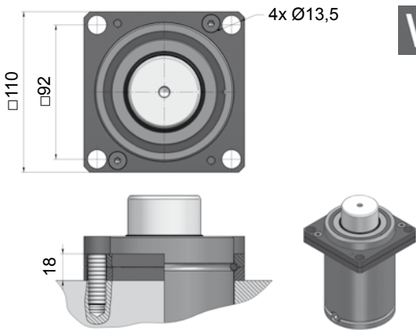
[19.02.2020]

GDF, Standard, mittlere Größe
GS, Standard, medium size
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

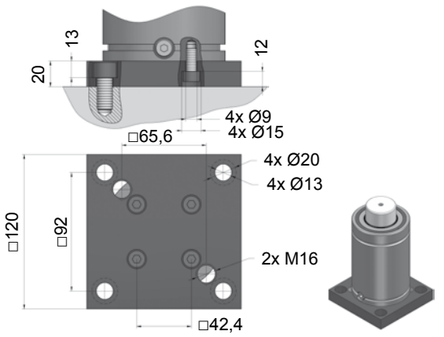
Flansche für / Flanges for **NC.060.29.03000**



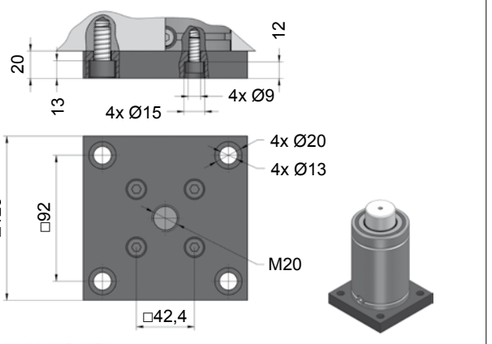
NC.88.00.095.0114



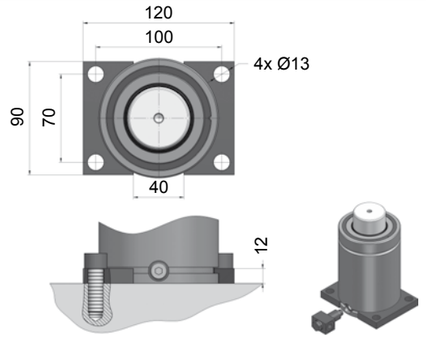
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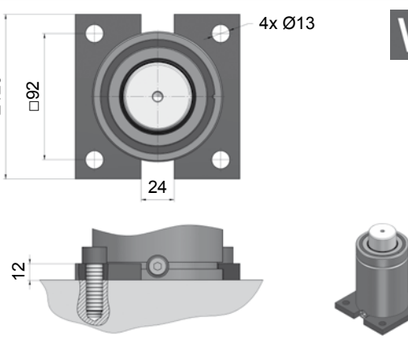
NC.88.00.095.0221



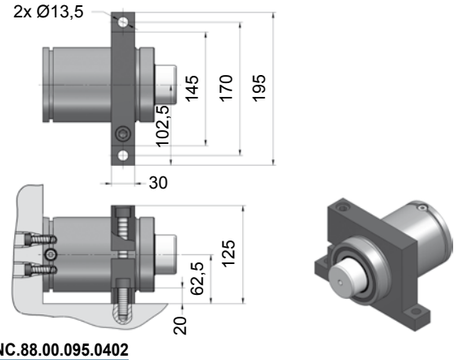
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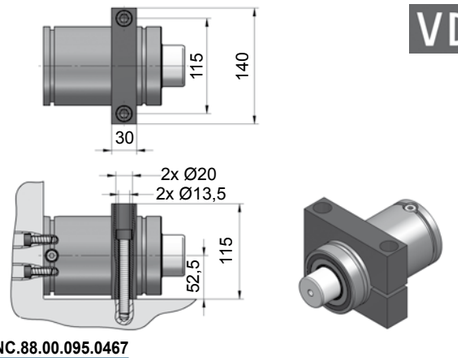
NC.88.00.095.0305



NC.88.00.095.0320

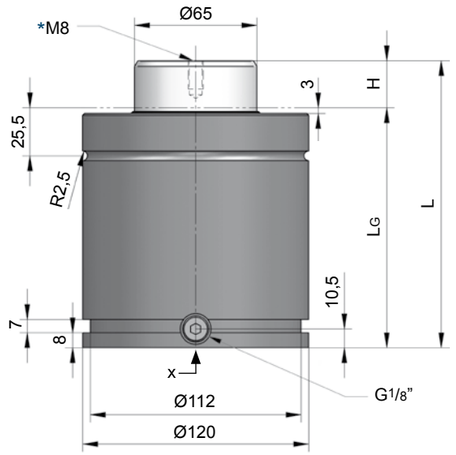


NC.88.00.095.0402



NC.88.00.095.0467

NC.060.29.05000



Technische Daten:

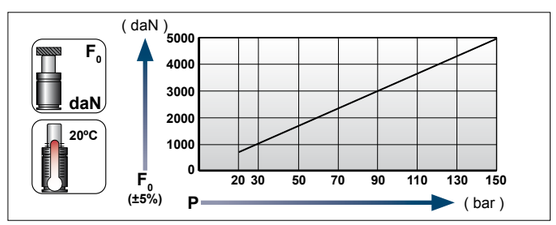
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

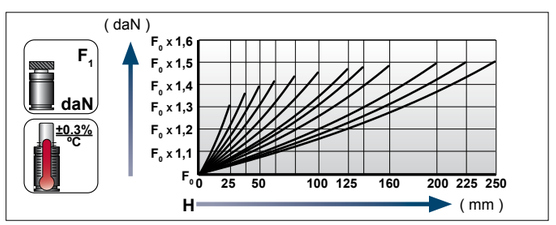
Specifications:

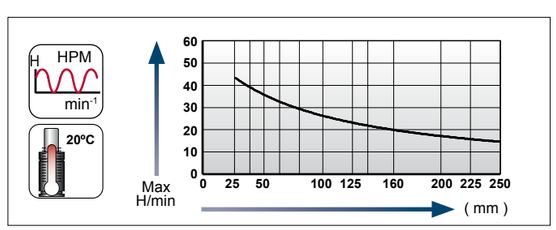
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.060.29.
05000.025

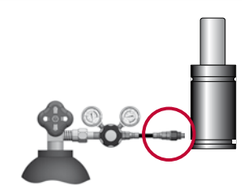
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	152,5	127,5	4980	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	178,5	140,5	4980	
050	202,5	152,5	4980	
063	228,5	165,5	4980	
080	262,5	182,5	4980	
100	302,5	202,5	4980	
125	352,5	227,5	4980	
137,5	377,5	240	4980	
160	422,5	262,5	4980	
200	502,5	302,5	4980	
225	552,5	327,5	4980	
250	602,5	352,5	4980	







Ladeadapter / Charging adapter

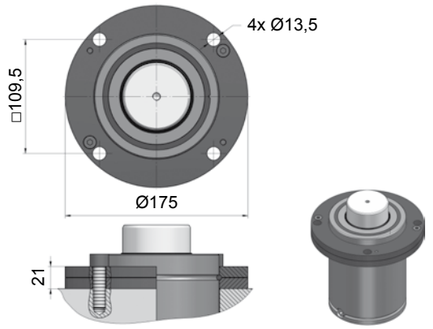


NCQ.46

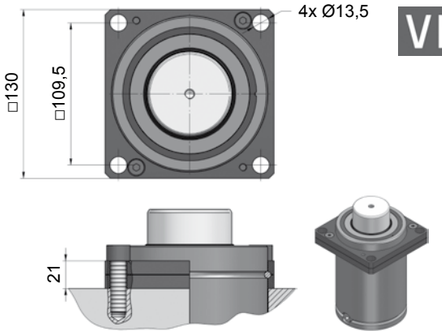
[19.02.2020]

GDF, Standard, mittlere Größe
GS, Standard, medium size
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

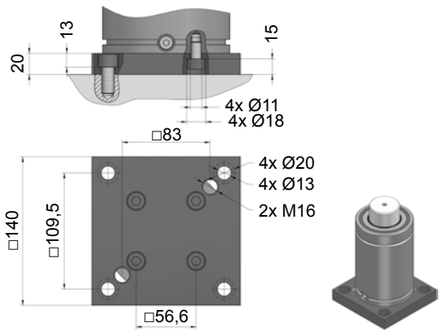
Flansche für / Flanges for **NC.060.29.05000**



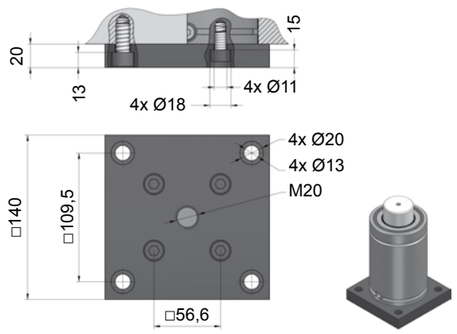
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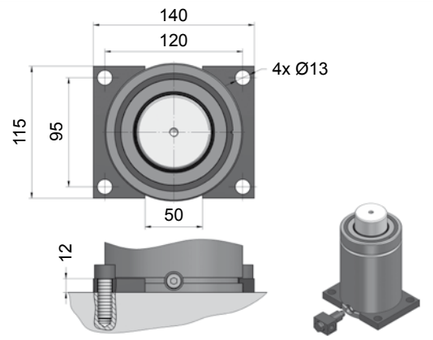
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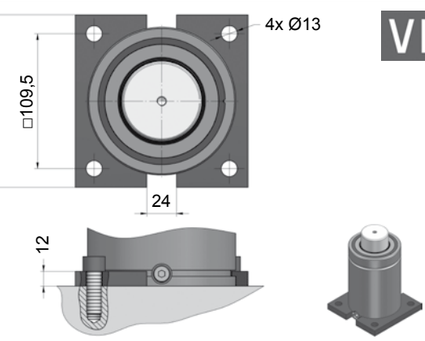
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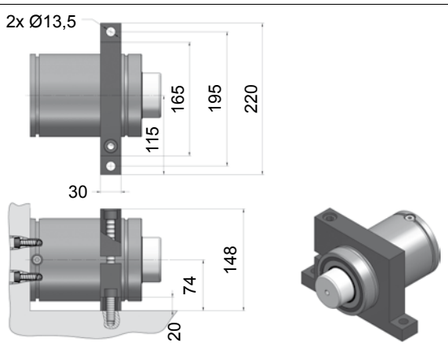
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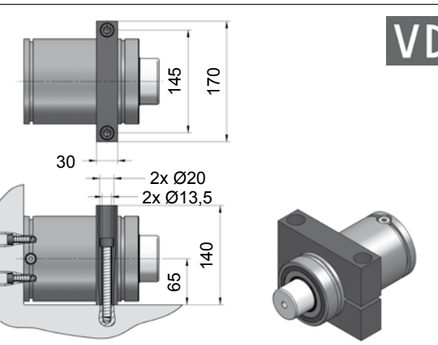
NC.88.00.120.0305



NC.88.00.120.0320



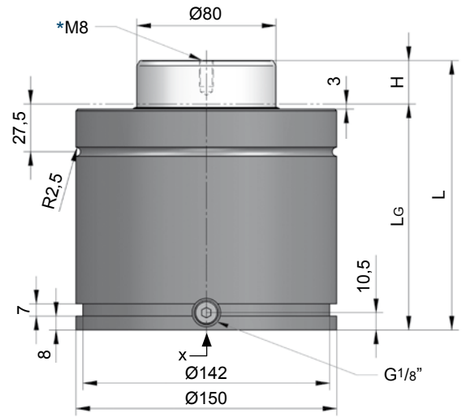
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NC.88.00.120.0467

[19.02.2020]

NC.060.29.07500

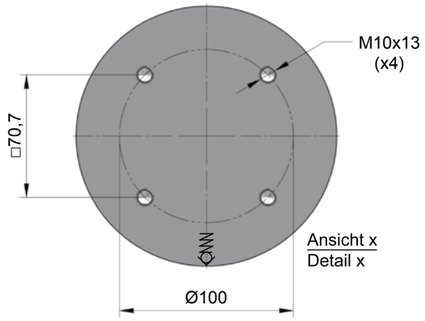


Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

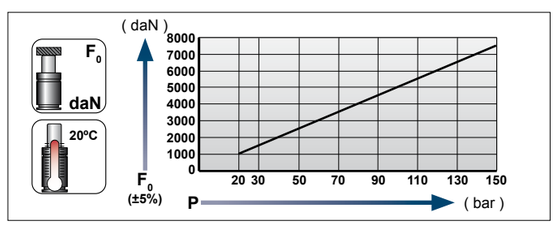
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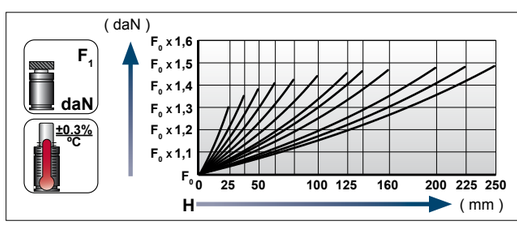
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

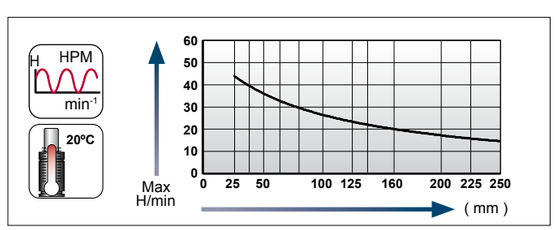


NC.060.29.07500.125

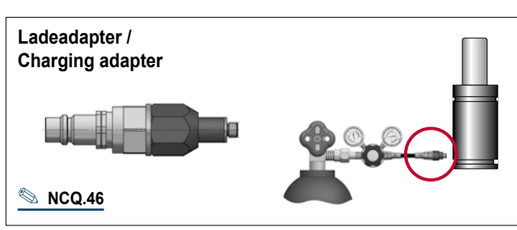
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	155	130	7540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	181	143	7540	
050	205	155	7540	
063,5	232	168,5	7540	
080	265	185	7540	
100	305	205	7540	
125	355	230	7540	
137,5	380	242,5	7540	
160	425	265	7540	
200	505	305	7540	
225	555	330	7540	
250	605	355	7540	







Ladeadapter / Charging adapter

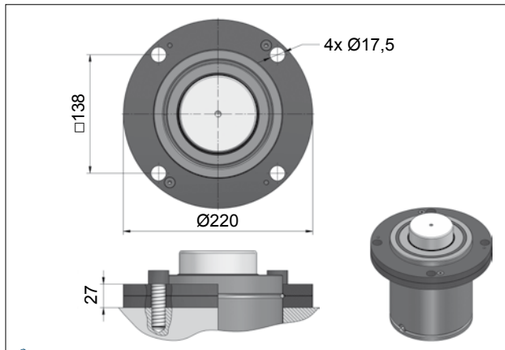


NCQ.46

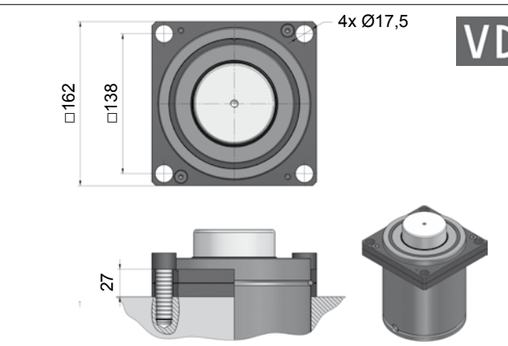
[19.02.2020]

GDF, Standard, mittlere Größe
GS, Standard, medium size
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

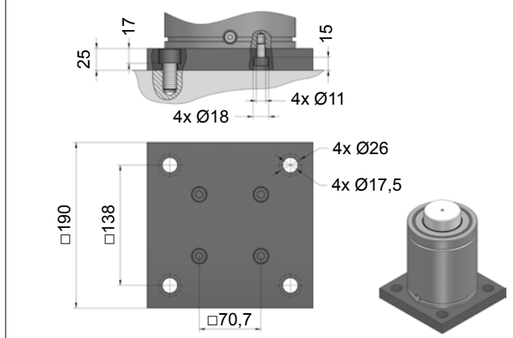
Flansche für / Flanges for **NC.060.29.07500**



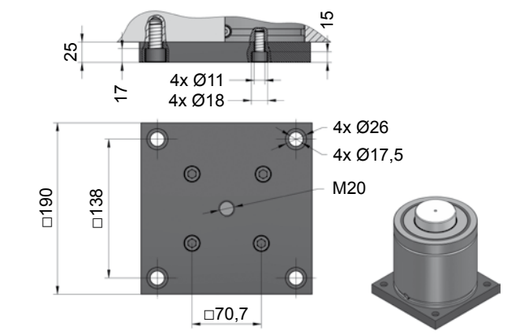
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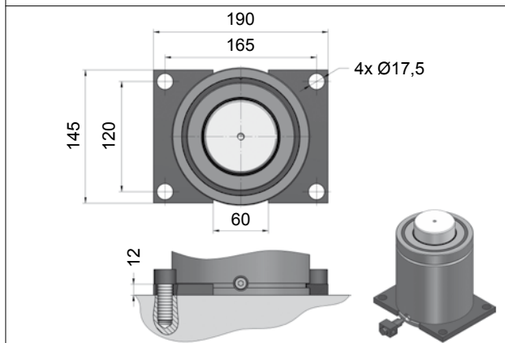
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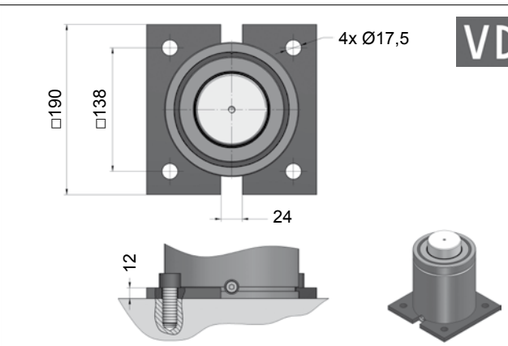
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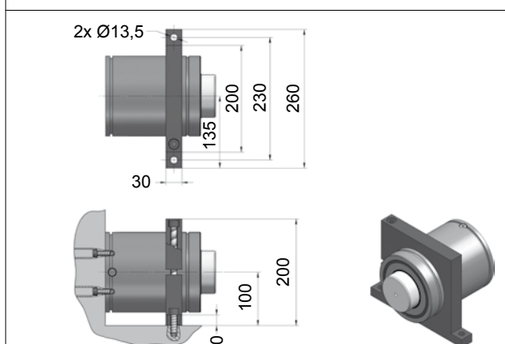
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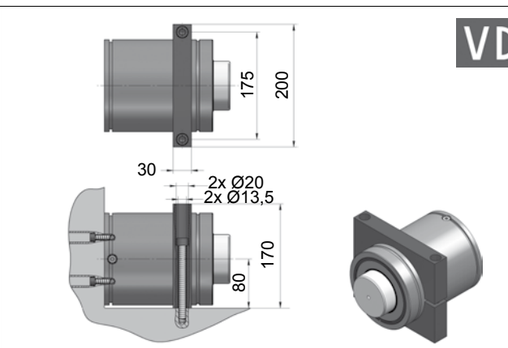
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NC.88.00.150.0320



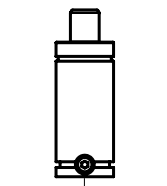
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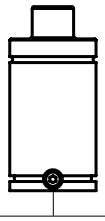
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[19.02.2020]

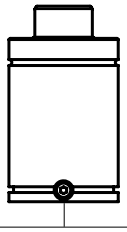
Größenübersicht Serie NC.061.10



NC.061.10.00300...1
300 daN
25 - 100 mm
Ø45

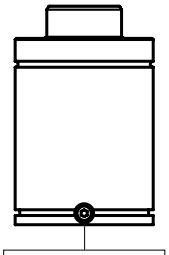


NC.061.10.00750
760 daN
25 - 125 mm
Ø75

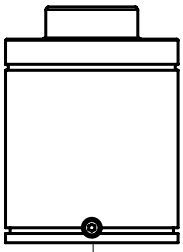


NC.061.10.01500
1470 daN
25 - 125 mm
Ø95

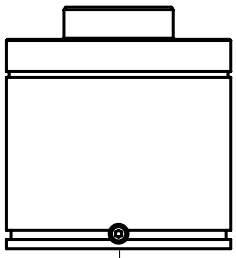
Gas spring index 061.10 series



NC.061.10.03000
2985 daN
25 - 125 mm
Ø120



NC.061.10.05000
5025 daN
25 - 125 mm
Ø150



NC.061.10.07500
7440 daN
25- 125 mm
Ø195

Technische Informationen Serie NC.061.10

Die Gasdruckfedern **NC.061.10** wurden für einen verzögerten Rückhub konstruiert. Dabei fährt die Kolbenstange langsamer zurück als das Werkzeugoberteil.

Ablauf: Die Gasdruckfedern **NC.061.10** werden wie herkömmliche Federn unter Last zusammengefahren, wobei die Kolbenstange beim Rückhub auf den ersten ca. 5 mm „normal“, dann verzögert zurückfährt. Um die Gasdruckfedern den jeweiligen, spezifischen Kundenanforderungen entsprechend konzipieren zu können, nutzen Sie bitte das Anforderunsformular auf Seite **NC.061.14**.

Anwendungsfälle: Überall, wo ein gleichzeitiger Rückhub von Pressenoberteil und Gasdruckfeder(n) **NC.061.10** möglicherweise zur Blechteil-Beschädigung führen könnte.

Vorteile im Vergleich zu anderen Verzögerungssystemen:
- Autonome Zylinder ohne Verschlauchung, u.ä.
- Einfacher Einbau.
- Gesteigerte Produktivität.
- Kosteneinsparung, da keine komplexen Systeme (Peripherie).

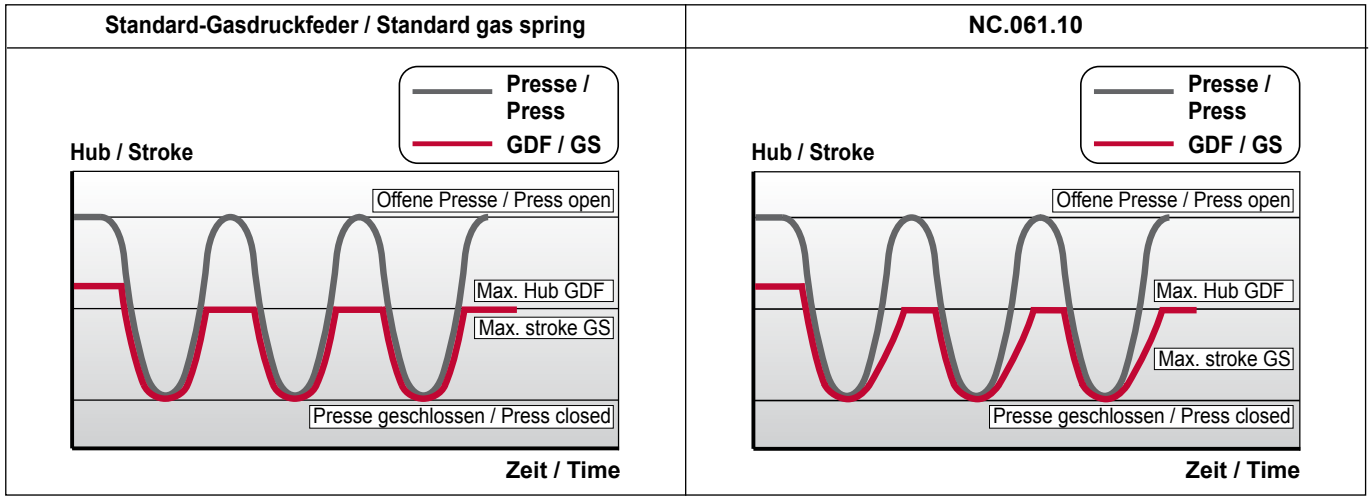
Technical information 061.10 series

NC.061.10 gas springs are designed to achieve a delayed effect. The piston-rod-return is slower than the return of the upper half of the die.

Performance: Gas springs of the **NC.061.10**-family are compressed like regular ones, but their rod-return tuwards the extended 0-position happens delayed, meaning: the rod-return is slower (but the first 5 mm), than usually.
In order to design the custom-specific internal layout of these delayed gas springs, please use the request form on page **NC.061.15**.

Applications: NC.061.10 gas springs satisfy customer needs in applications, that require a slow(er) return of the gas spring piston rods in order to avoid damage of the final sheet-metal products.

Advantages: NC.061.10 gas springs represent a very interesting alternative in comparison to other complex time-delayed systems:
- Self contained gas springs with higher reliability.
- Easy implementation.
- Increases productivity.
- Cost savings to alternatives.



SICHERHEITSSYSTEME



Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



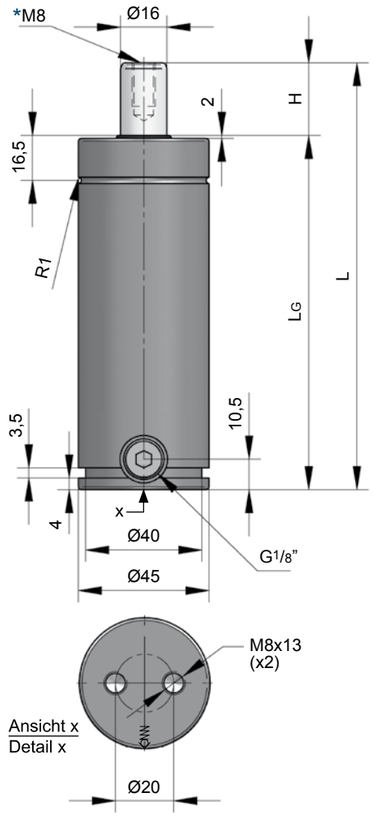
Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

NC.061.10.00300...1



Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Gasdruckfedern mit verzögertem Rückhub. Die Verzögerungszeit ist abhängig vom benötigten Arbeitshub. Die Berechnung der maximalen Verzögerungszeit (**K**) erfolgt nach der Formel:
K = 0,015 x Arbeitshub in (mm)
Verzögerungszeit bei Bestellung bitte angeben.

Erforderliche Angaben siehe Seite **NC.061.14**!

Specifications:

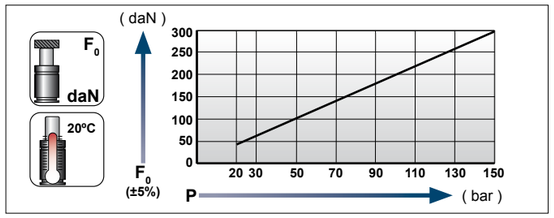
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

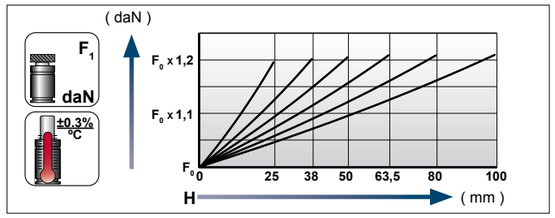
Gas springs with delayed return stroke, depending in part on the working stroke.
The maximum time for the return-stroke (**K**) is calculated by:
K = 0,015 x working stroke (mm)
When ordering please specify the real working stroke and the desired time of delay.

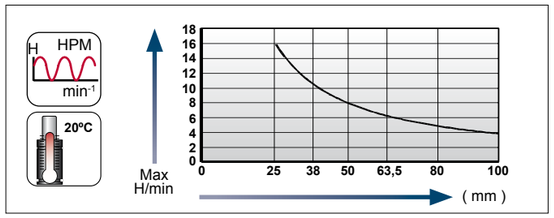
Required data see page **NC.061.15**!

NC.061.10.00300.050.1

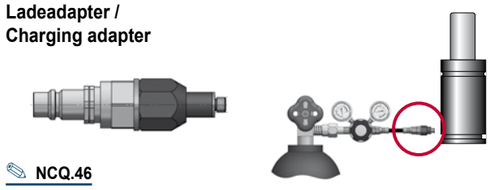
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	135	110	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	161	123	300	
050	185	135	300	
063,5	212	148,5	300	
080	245	165	300	
100	285	185	300	







Ladeadapter / Charging adapter

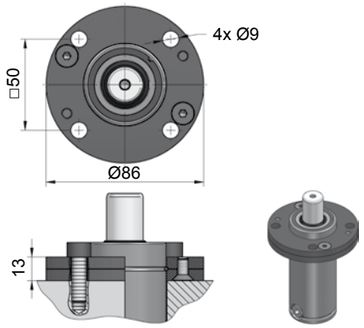


NCQ.46

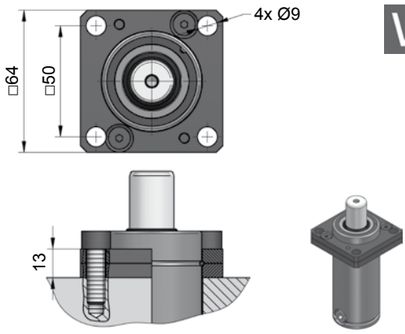
[27.02.2020]

[27.02.2020]

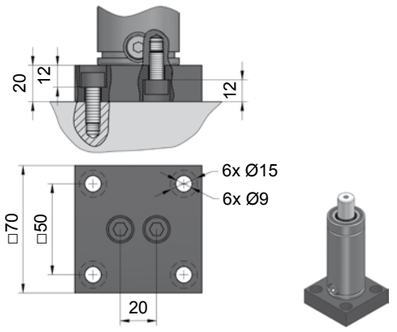
Flansche für / Flanges for **NC.061.10.00300...1**



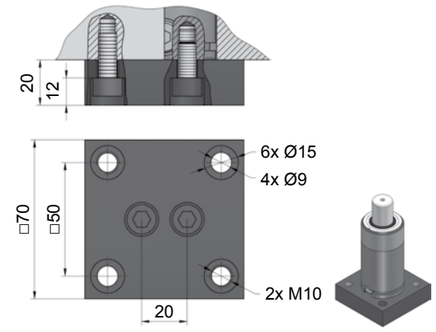
NC.88.00.045.0114



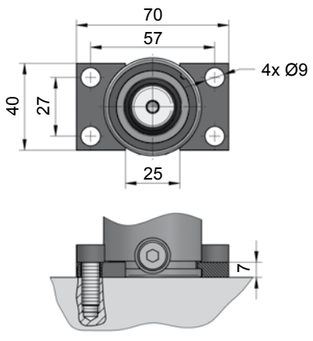
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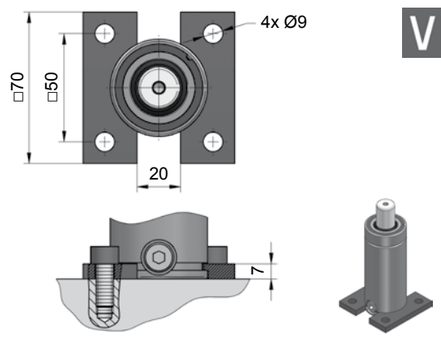
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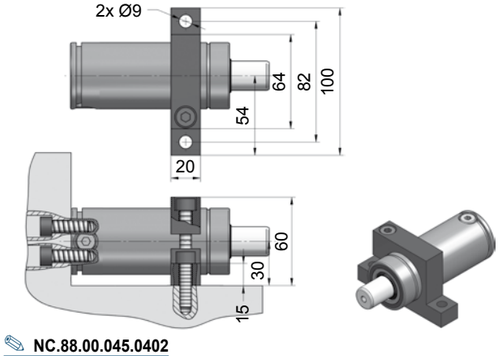
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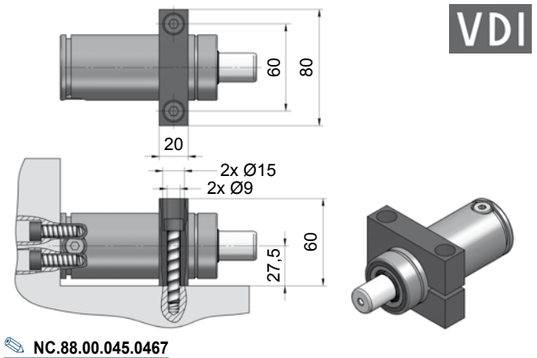
NC.88.00.045.0305



NC.88.00.045.0320



NC.88.00.045.0402



NC.88.00.045.0467

NC.061.10.00750

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	75 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Gasdruckfedern mit verzögertem Rückhub. Die Verzögerungszeit ist abhängig vom benötigten Arbeitshub. Die Berechnung der maximalen Verzögerungszeit (**K**) erfolgt nach der Formel:
K = 0,062 x Arbeitshub in (mm)
Verzögerungszeit bei Bestellung bitte angeben.

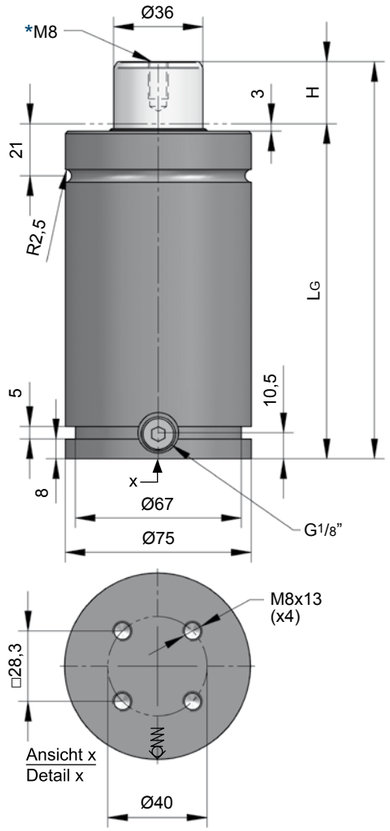
Erforderliche Angaben siehe Seite **NC.061.14**!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	75 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Gas springs with delayed return stroke, depending in part on the working stroke.
The maximum time for the return-stroke (**K**) is calculated by:
K = 0,062 x working stroke (mm)
When ordering please specify the real working stroke and the desired time of delay.

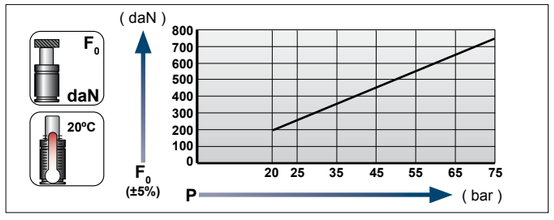
Required data see page **NC.061.15**!

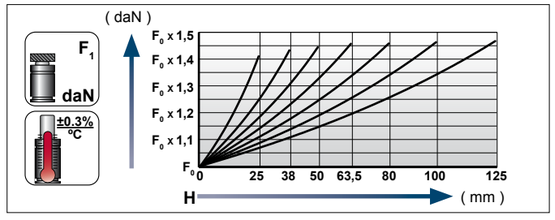


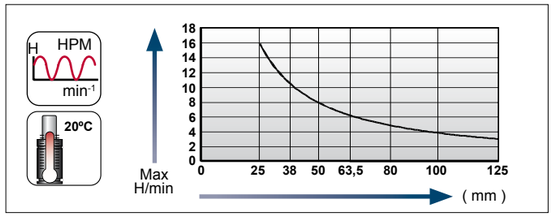
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NC.061.10.00750.050

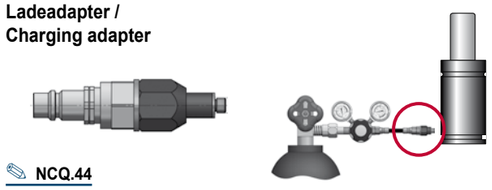
H Hub / Stroke	L ±0,25	LG	Kraft / Force (75 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	160	135	760	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	186	148	760	
050	210	160	760	
063,5	237	173,5	760	
080	270	190	760	
100	310	210	760	
125	360	235	760	







Ladeadapter / Charging adapter



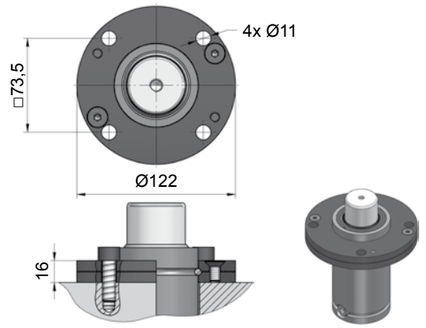
NCQ.44

[27.02.2020]

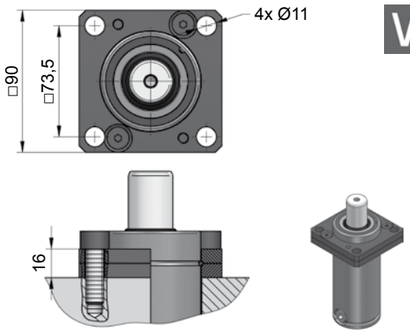
[27.02.2020]

GDF, Verzögerungszylinder
GS, Delayed gas springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

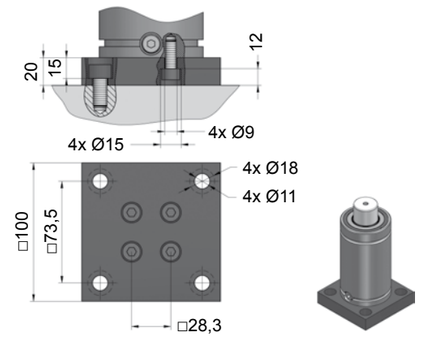
Flansche für / Flanges for **NC.061.10.00750**



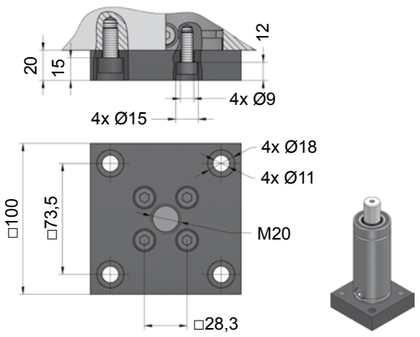
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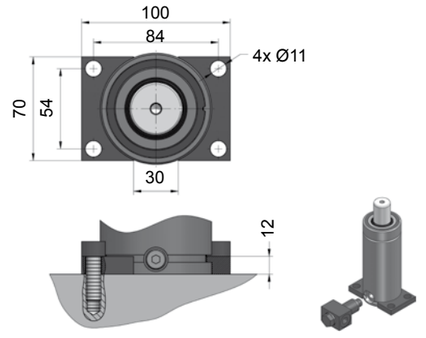
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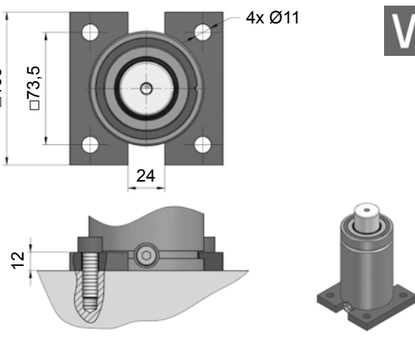
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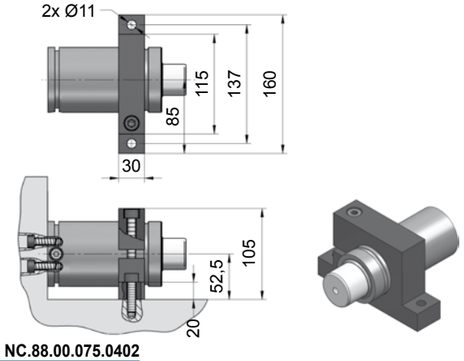
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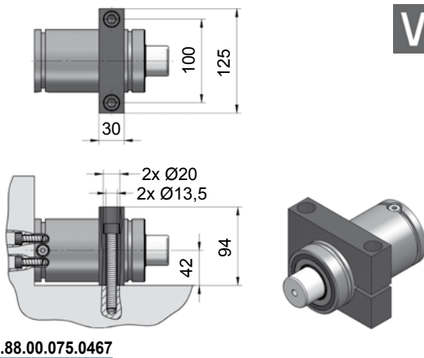
NC.88.00.075.0305



NC.88.00.075.0320



NC.88.00.075.0402



NC.88.00.075.0467

NC.061.10.01500

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	75 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Gasdruckfedern mit verzögertem Rückhub. Die Verzögerungszeit ist abhängig vom benötigten Arbeitshub. Die Berechnung der maximalen Verzögerungszeit (**K**) erfolgt nach der Formel:
K = 0,09 x Arbeitshub in (mm)
Verzögerungszeit bei Bestellung bitte angeben.

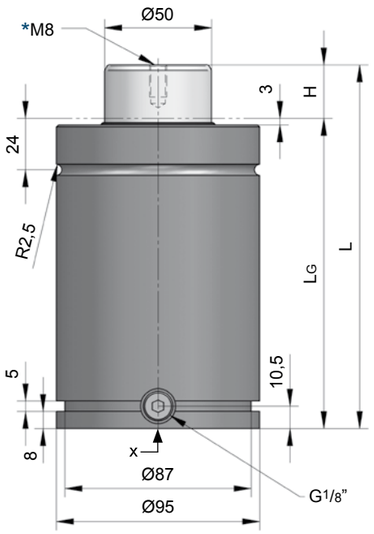
Erforderliche Angaben siehe Seite **NC.061.14**!

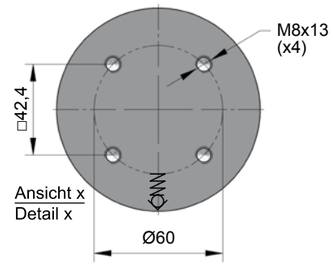
Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	75 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Gas springs with delayed return stroke, depending in part on the working stroke.
The maximum time for the return-stroke (**K**) is calculated by:
K = 0,09 x working stroke (mm)
When ordering please specify the real working stroke and the desired time of delay.

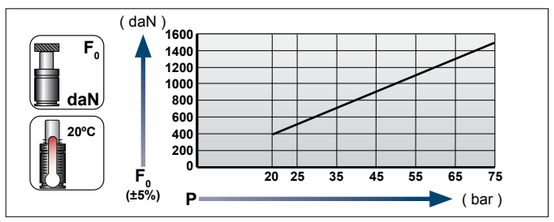
Required data see page **NC.061.15**!

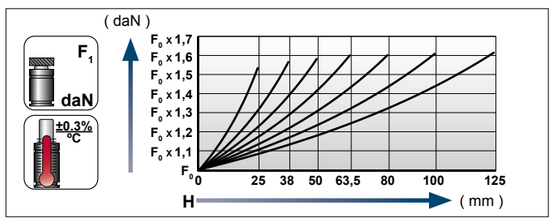


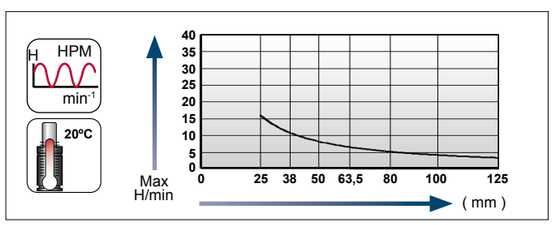


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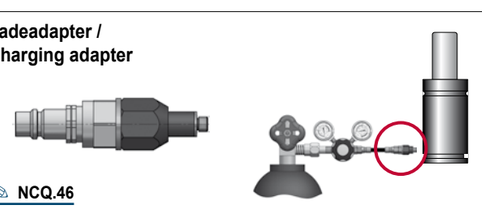
H Hub / Stroke	L ±0,25	LG	Kraft / Force (75 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	170	145	1470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	196	158	1470	
050	220	170	1470	
063,5	247	183,5	1470	
080	280	200	1470	
100	320	220	1470	
125	370	245	1470	







Ladeadapter / Charging adapter



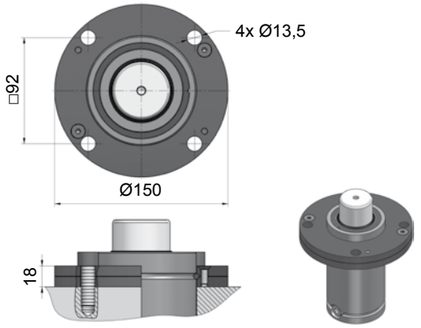
NCQ.46

[27.02.2020]

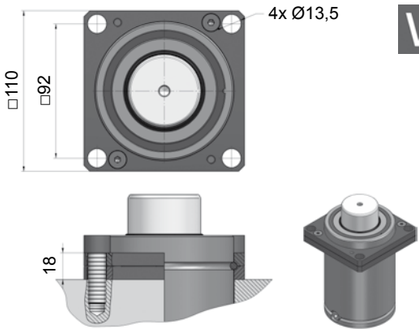
[27.02.2020]

GDF, Verzögerungszylinder
GS, Delayed gas springs
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

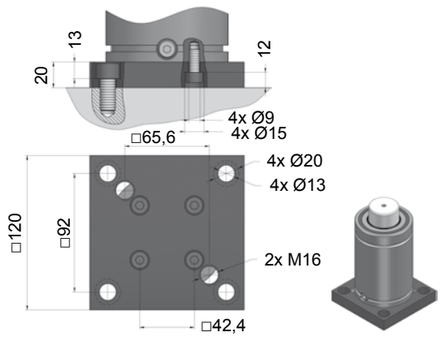
Flansche für / Flanges for **NC.061.10.01500**



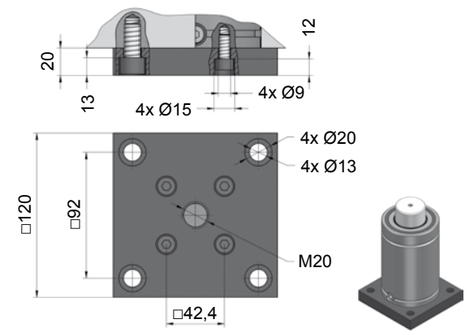
NC.88.00.095.0114



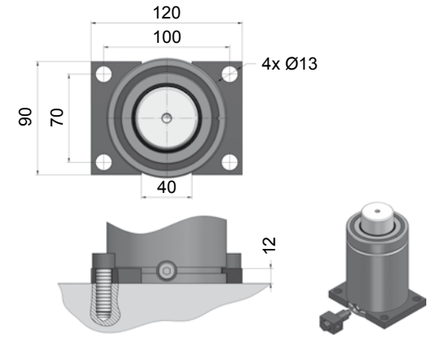
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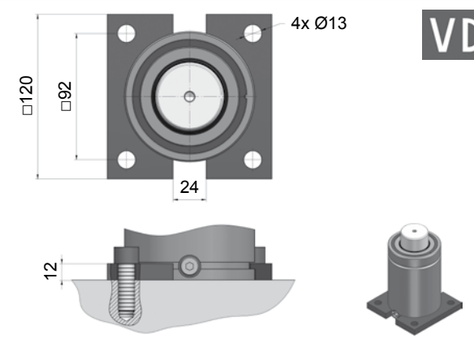
NC.88.00.095.0221



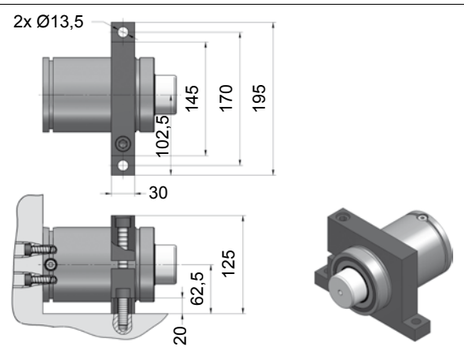
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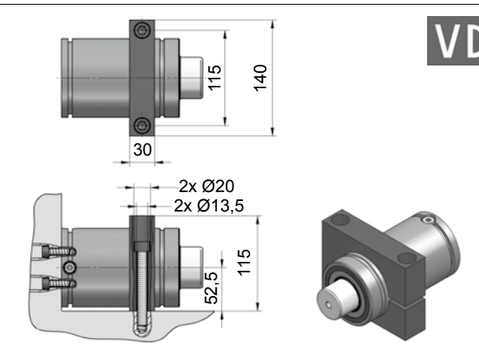
NC.88.00.095.0305



NC.88.00.095.0320



NC.88.00.095.0402



NC.88.00.095.0467

[NC]

NC.061.10.03000

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	90 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Gasdruckfedern mit verzögertem Rückhub. Die Verzögerungszeit ist abhängig vom benötigten Arbeitshub. Die Berechnung der maximalen Verzögerungszeit (**K**) erfolgt nach der Formel:
K = 0,131 x Arbeitshub in (mm)
Verzögerungszeit bei Bestellung bitte angeben.

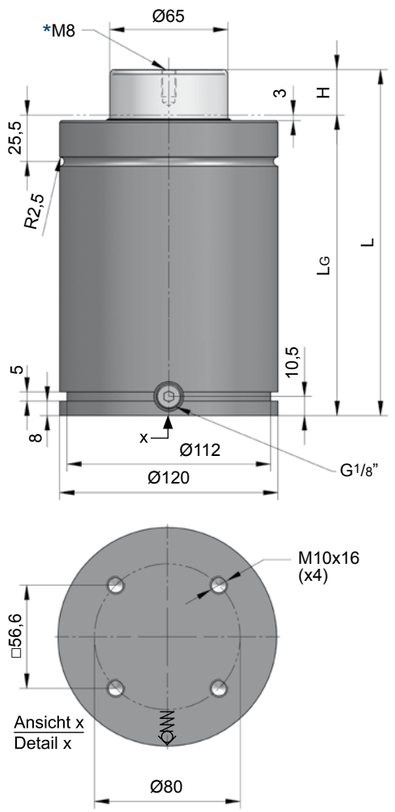
Erforderliche Angaben siehe Seite **NC.061.14**!

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	90 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Gas springs with delayed return stroke, depending in part on the working stroke.
The maximum time for the return-stroke (**K**) is calculated by:
K = 0,131 x working stroke (mm)
When ordering please specify the real working stroke and the desired time of delay.

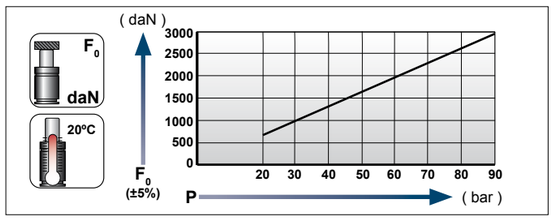
Required data see page **NC.061.15**!

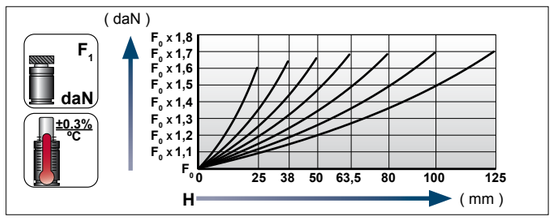


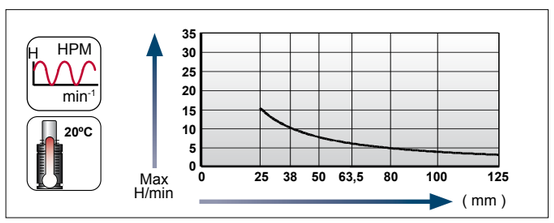
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NC.061.10.03000.080

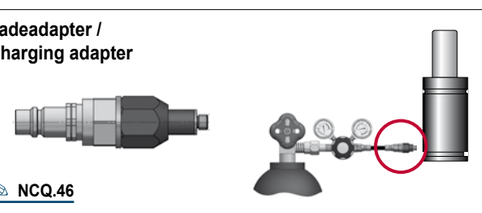
H Hub / Stroke	L ±0,25	LG	Kraft / Force (90 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	190	165	2985	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	216	178	2985	
050	240	190	2985	
063,5	267	203,5	2985	
080	300	220	2985	
100	340	240	2985	
125	390	265	2985	







Ladeadapter / Charging adapter

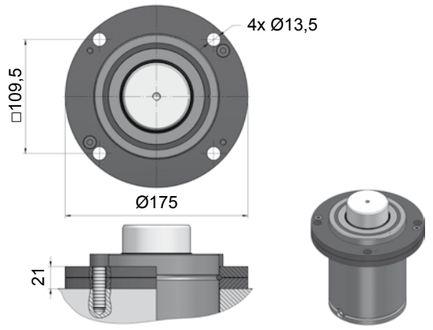


NCQ.46

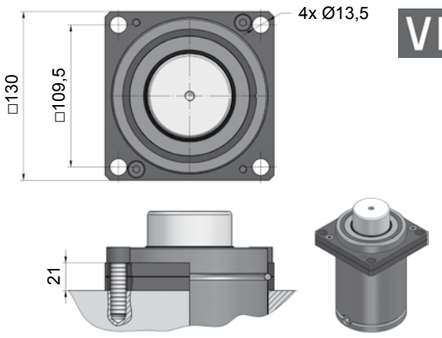
[27.02.2020]

[27.02.2020]

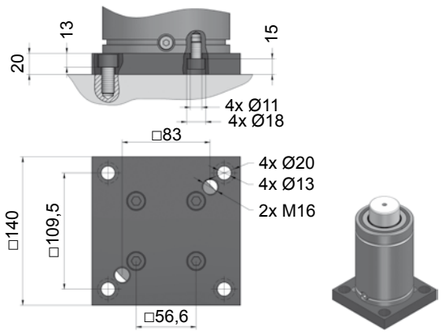
Flansche für / Flanges for **NC.061.10.03000**



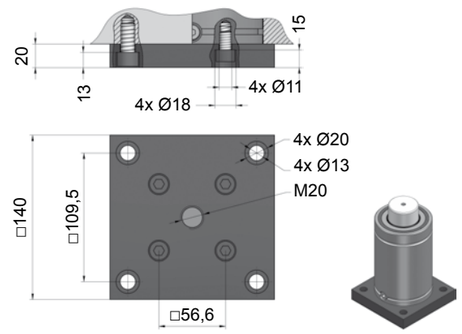
NC.88.00.120.0114



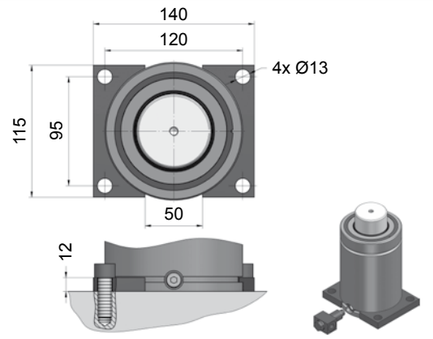
NC.88.00.120.0134



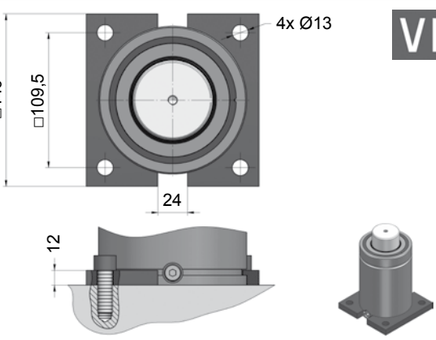
NC.88.00.120.0221



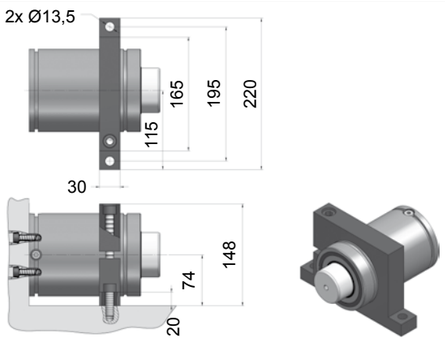
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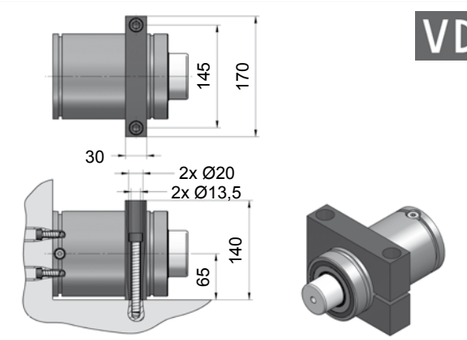
NC.88.00.120.0305



NC.88.00.120.0320



NC.88.00.120.0402



NC.88.00.120.0467

NC.061.10.05000

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	100 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Gasdruckfedern mit verzögertem Rückhub. Die Verzögerungszeit ist abhängig vom benötigten Arbeitshub. Die Berechnung der maximalen Verzögerungszeit (**K**) erfolgt nach der Formel:
K = 0,214 x Arbeitshub in (mm)
Verzögerungszeit bei Bestellung bitte angeben.

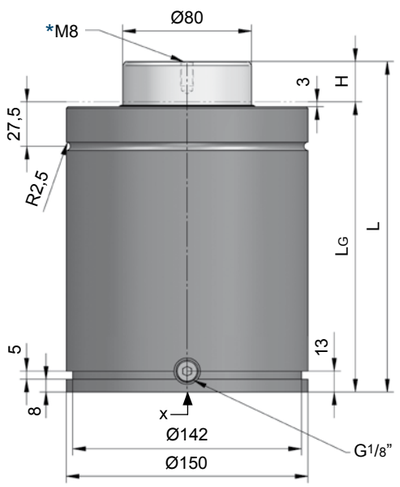
Erforderliche Angaben siehe Seite **NC.061.14**!

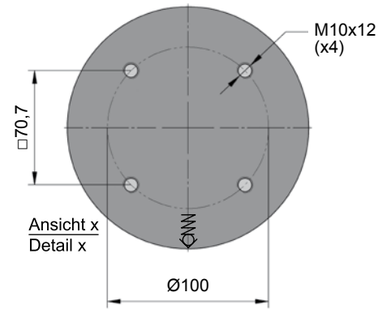
Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	100 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Gas springs with delayed return stroke, depending in part on the working stroke.
The maximum time for the return-stroke (**K**) is calculated by:
K = 0,214 x working stroke (mm)
When ordering please specify the real working stroke and the desired time of delay.

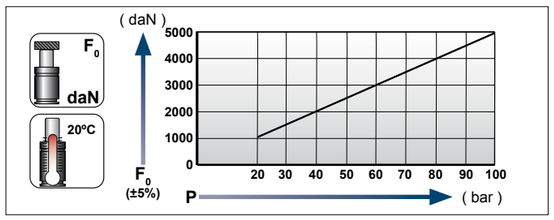
Required data see page **NC.061.15**!

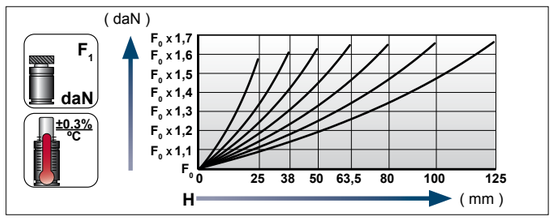


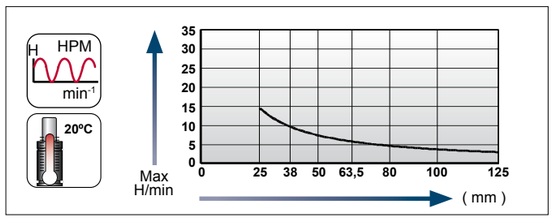


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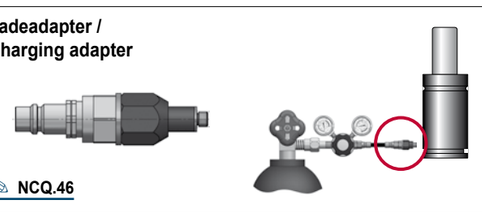
H Hub / Stroke	L ±0,25	LG	Kraft / Force (100 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	205	180	5025	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	231	193	5025	
050	255	205	5025	
063,5	282	218,5	5025	
080	315	235	5025	
100	355	255	5025	
125	405	280	5025	







Ladeadapter / Charging adapter

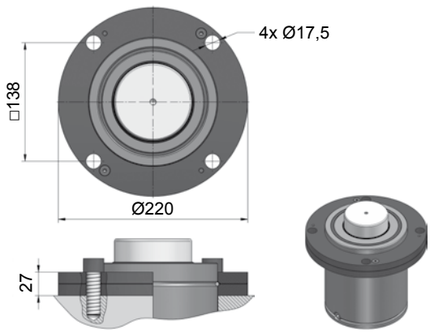


NCQ.46

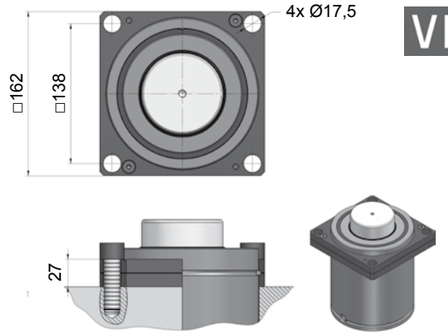
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[27.02.2020]

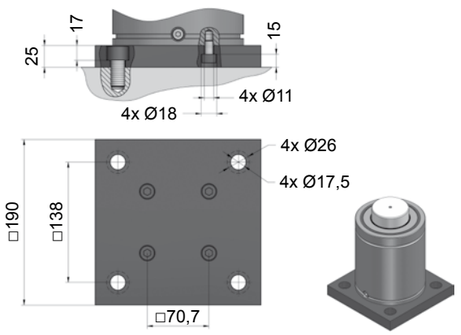
Flansche für / Flanges for **NC.061.10.05000**



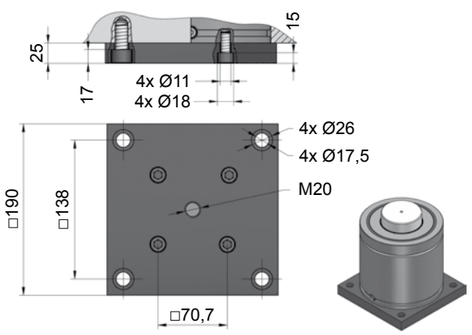
NC.88.00.150.0114



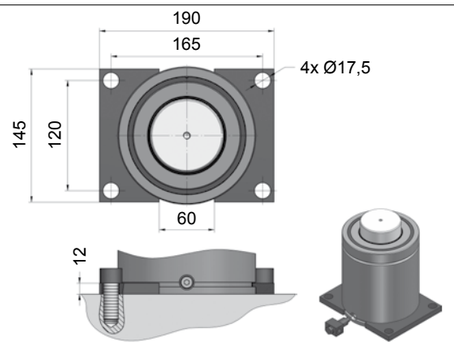
NC.88.00.150.0134



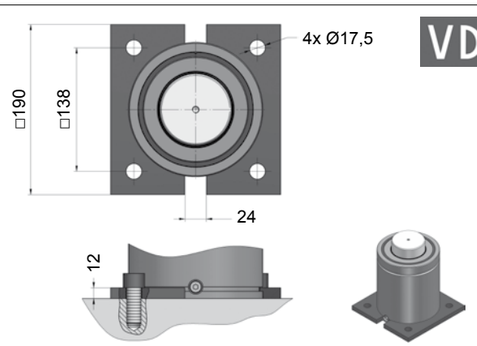
NC.88.00.150.0221



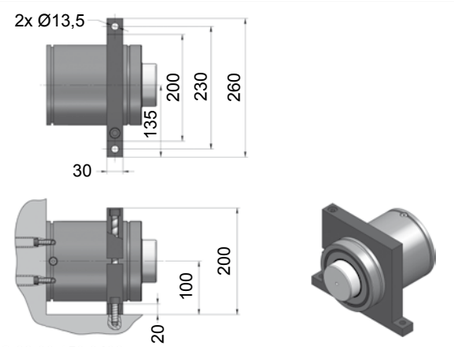
NC.88.00.150.0276



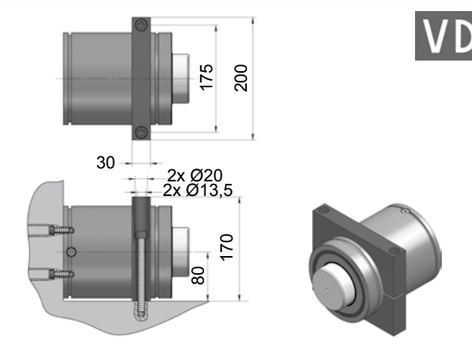
NC.88.00.150.0305



NC.88.00.150.0320



NC.88.00.150.0402



NC.88.00.150.0467

NC.061.10.07500

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	105 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Gasdruckfedern mit verzögertem Rückhub. Die Verzögerungszeit ist abhängig vom benötigten Arbeitshub. Die Berechnung der maximalen Verzögerungszeit (**K**) erfolgt nach der Formel:
K = 0,289 x Arbeitshub in (mm)
Verzögerungszeit bei Bestellung bitte angeben.

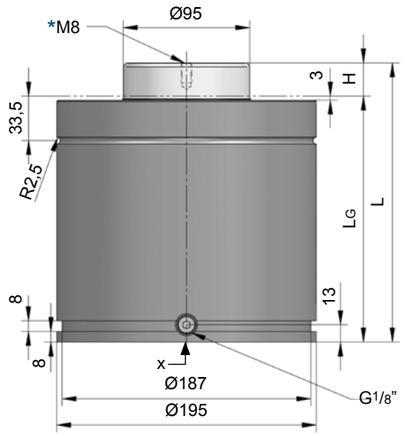
Erforderliche Angaben siehe Seite **NC.061.14**!

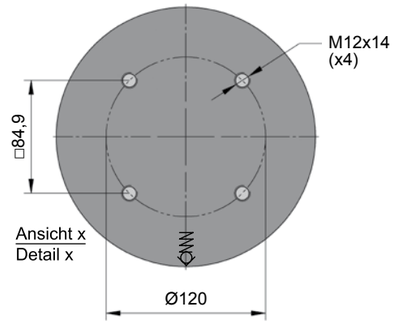
Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	105 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

Gas springs with delayed return stroke, depending in part on the working stroke.
The maximum time for the return-stroke (**K**) is calculated by:
K = 0,289 x working stroke (mm)
When ordering please specify the real working stroke and the desired time of delay.

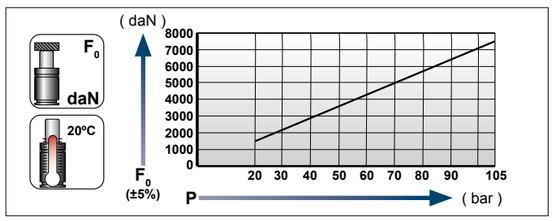
Required data see page **NC.061.15**!

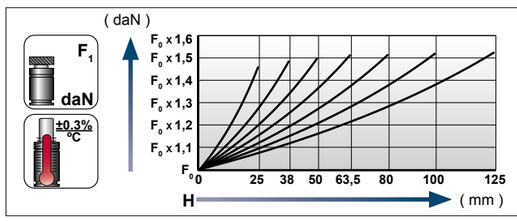


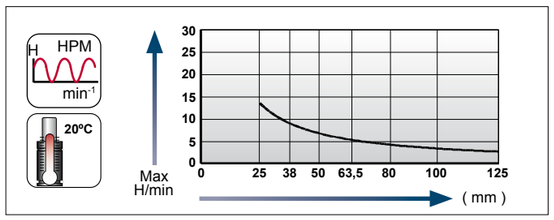


NC.061.10.07500.125

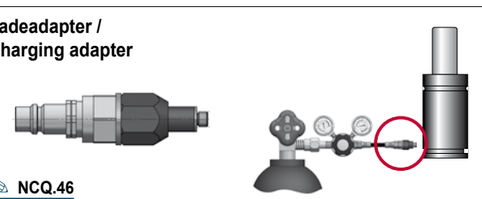
H Hub / Stroke	L ±0,25	LG	Kraft / Force (105 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	210	185	7440	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	236	198	7440	
050	260	210	7440	
063,5	287	223,5	7440	
080	320	240	7440	
100	360	260	7440	
125	410	285	7440	







Ladeadapter / Charging adapter

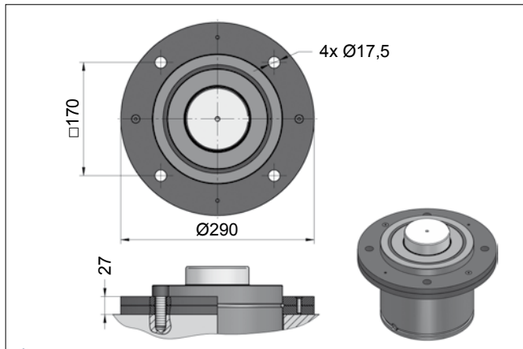


NCQ.46

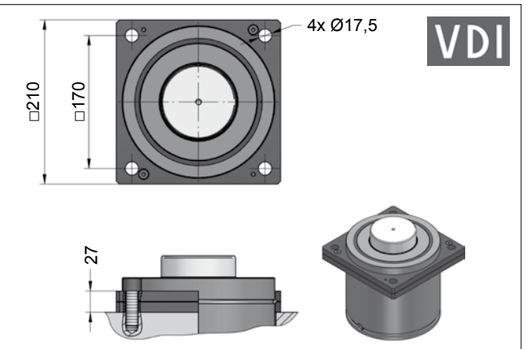
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[27.02.2020]

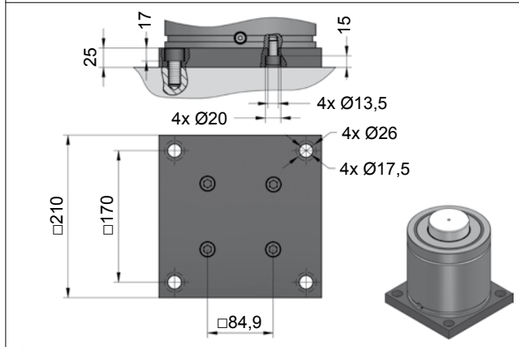
Flansche für / Flanges for **NC.061.10.07500**



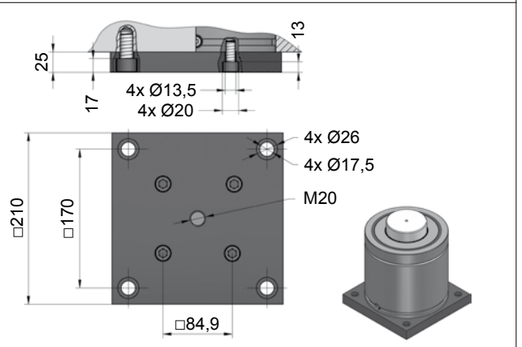
NC.88.00.195.0114



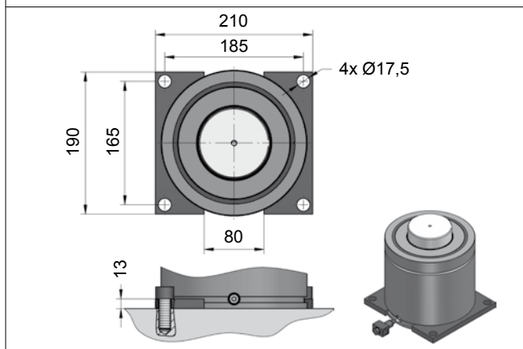
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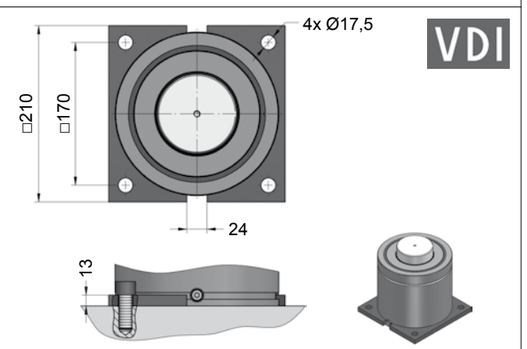
NC.88.00.195.0221



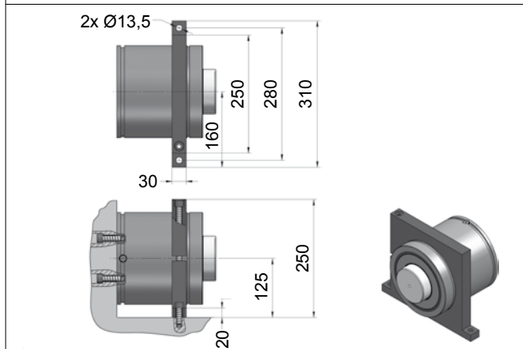
NC.88.00.195.0276



NC.88.00.195.0305



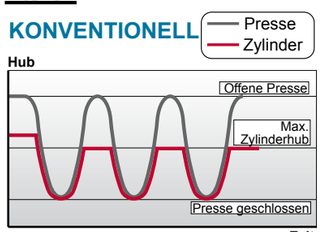
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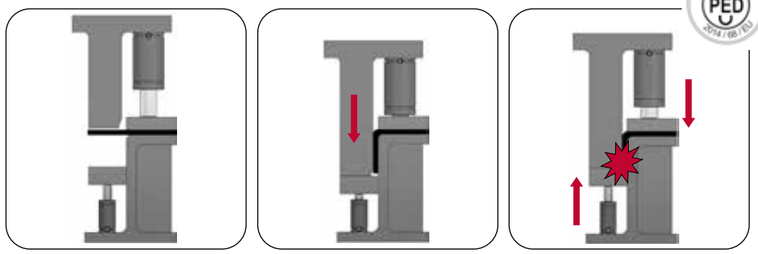


NC.88.00.195.0402

ZIEL

KONVENTIONELL

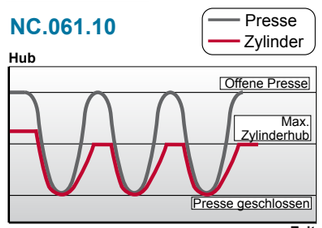


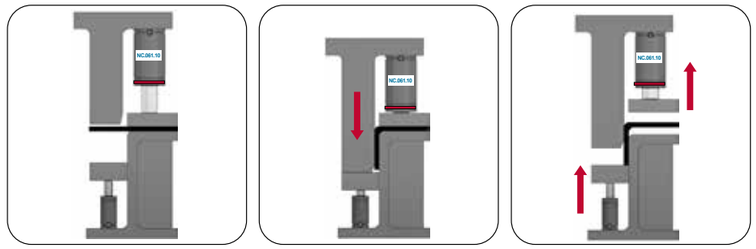


Einige Arbeitsvorgänge beinhalten, dass die Kolbenstange zu arbeiten beginnt, wenn der Niederhalter das Bauteil unten hält. Der Einsatz herkömmlicher Gasdruckfedern in diesen Situationen führt zu Verformungen im Bauteil.

LÖSUNG

NC.061.10





Wenn sich die **NC.061.10** Verzögerungszylinder in ihre Ausgangsposition zurückbewegen, arbeiten diese auf den ersten Millimetern wie eine konventionelle Feder und verlangsamen darauffolgend. Dies ermöglicht, das Bauteil ohne Verformungen zu entnehmen.

ERFORDERLICHE ANGABEN



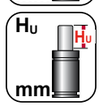
- Soll die Kolbenstange im Zylinder zurückgehalten werden? **(ja / nein)**



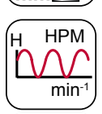
- Gewünschte Kraft **(daN)**.....



- Nennhub **(mm)**.....



- Nutzhub **(mm)**.....



- Zu leistende Hübe pro Minute.....



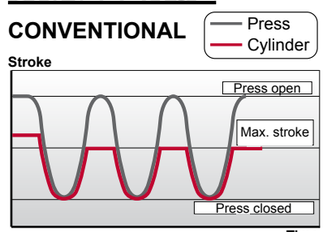
- Gewünschte Verzögerungszeit **(Bsp.: 1 Sekunde)**.....

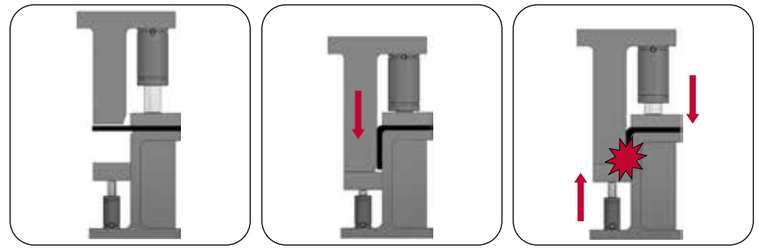
- Presswerk.....

ABSCHICKEN

CHALLENGE

CONVENTIONAL

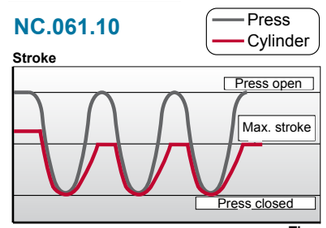


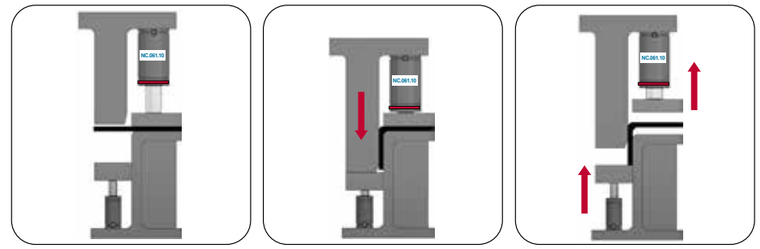


Some operations involve the ejector starting to work when the hold-down device holds down. The use of conventional gas pressure springs in these situations leads to deformations in the component.

SOLUTION

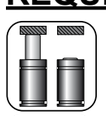
NC.061.10





When the NC.061.10 deceleration cylinders move back to their starting position, they work like a conventional spring for the first millimeters and then slow down. This enables the component to be removed without deformation.

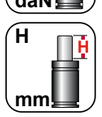
REQUIRED DATA



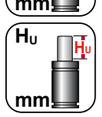
- Do piston rod have to keep locked down? **(yes / no)**.....



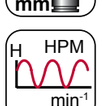
- Desired force **(daN)**.....



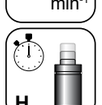
- Total stroke **(mm)**.....



- Stroke used **(mm)**.....



- Number of cycles per minute.....



- Desired slowed return **(eg. 1 second)**.....

- Presswerk.....

SEND OFF

Technische Information Serie NC.064.10

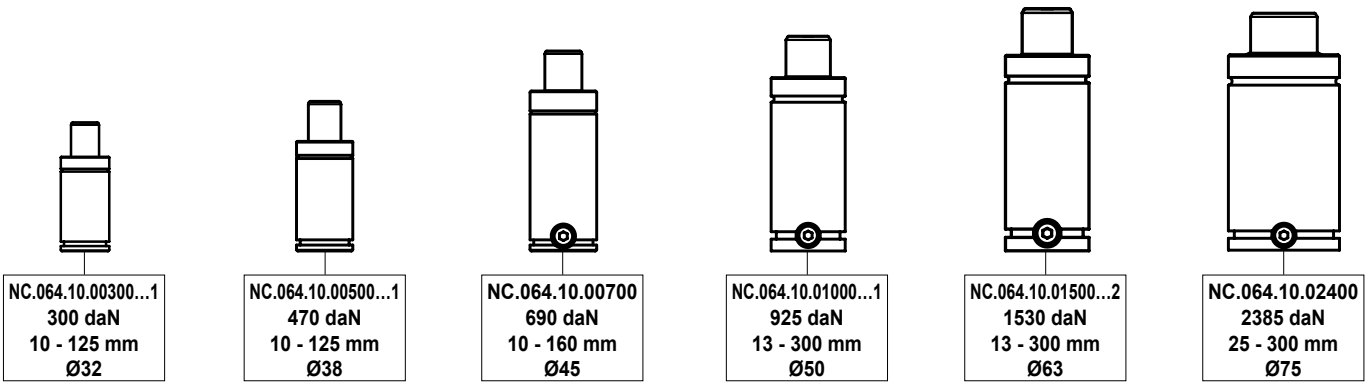
Bei der Serie **NC.064.10** handelt es sich um kompakte Gasdruckfedern, die nach VDI 3003 gefertigt werden. Sie sind von der Körpergröße her baugleich mit der Serie **NC.060.10**, werden aber mit Kolbenstangen ausgestattet, die einen größeren Durchmesser aufweisen.
Dadurch wird erreicht, dass sie bei gleichen Abmessungen über höhere Kräfte verfügen.
Letztendlich können auf diese Weise im Werkzeugbau Gasdruckfedern eingespart werden, was zu erheblicher Kostenersparnis führt.
Die Serie **NC.064.10** verfügt über acht Größen von 300 daN bis 18500 daN Anfangskraft. Bei einer maximalen Arbeitstemperatur von 80 °C und einer maximalen Kolbengeschwindigkeit von 1,6 m/s sind diese Zylinder universell einsetzbar.

Technical information NC.064.10 series

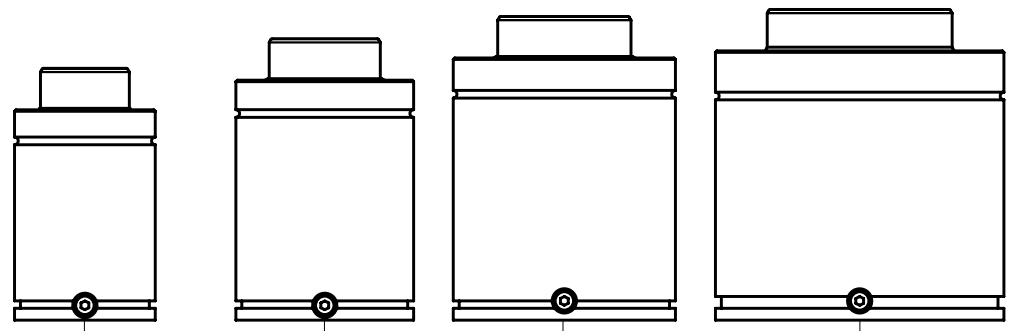
NC.064.10 are compact gas springs according to VDI 3003.
Body size is identical to **NC.060.10**, but the rod diameters are larger. This results in higher forces, even if the required space is the same.
By using these springs their quantity can be reduced, bottom line are cost savings.
The **NC.064.10**-series is available in 8 sizes between 300 daN and 18500 daN initial nominal force.
At a maximum working temperature of 80 degrees C and max. rod speed of 1,6 m/s they are universally useable.

Größenübersicht Serie NC.064.10

Gas spring index 064.10 series

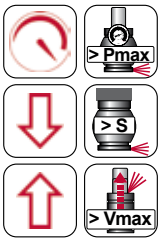


NC.064.10.00300...1	NC.064.10.00500...1	NC.064.10.00700	NC.064.10.01000...1	NC.064.10.01500...2	NC.064.10.02400
300 daN	470 daN	690 daN	925 daN	1530 daN	2385 daN
10 - 125 mm	10 - 125 mm	10 - 160 mm	13 - 300 mm	13 - 300 mm	25 - 300 mm
Ø32	Ø38	Ø45	Ø50	Ø63	Ø75



NC.064.10.04200	NC.064.10.06600	NC.064.10.09600	NC.064.10.18500
4240 daN	6630 daN	9540 daN	18410 daN
25 - 300 mm	25 - 300 mm	25 - 300 mm	25 - 300 mm
Ø95	Ø120	Ø150	Ø195

SICHERHEITSSYSTEME



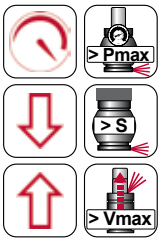
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



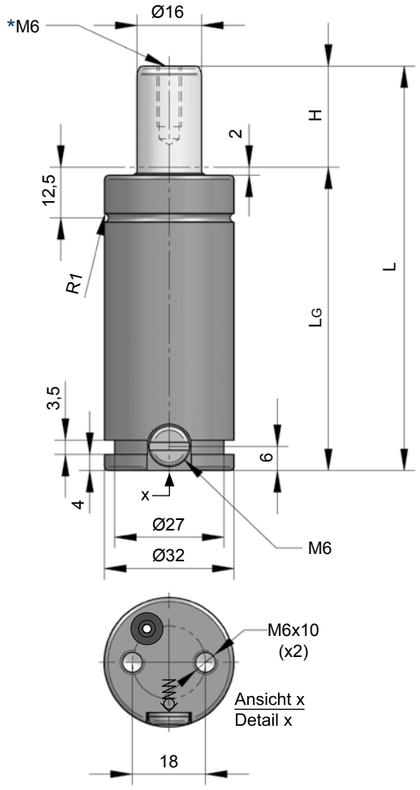
Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

NC.064.10.00300...1



Technische Daten:

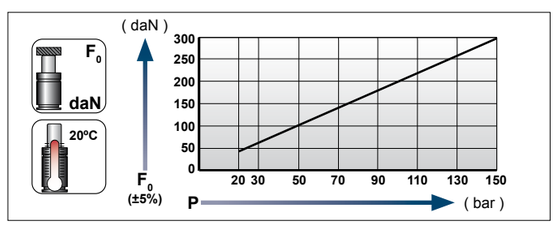
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

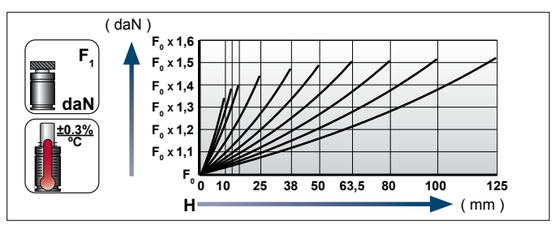
Specifications:

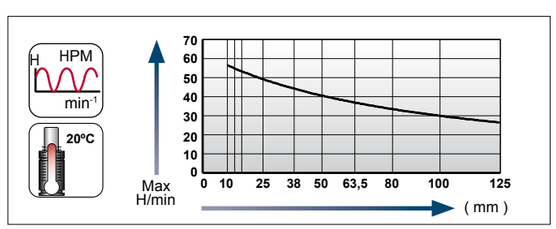
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.064.10.
00300.010.1

H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	70	60	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
012,7	75,4	62,7	300	
016	82	66	300	
025	100	75	300	
038	126	88	300	
050	150	100	300	
063,5	177	113,5	300	
080	210	130	300	
100	250	150	300	
125	300	175	300	







Ladeadapter / Charging adapter



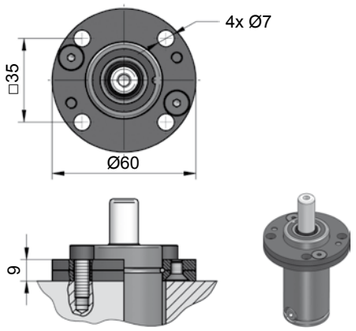
NCQ.44

[NC.064.2]

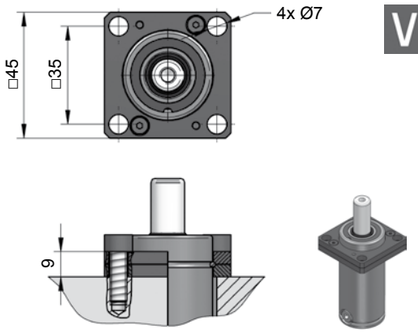
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

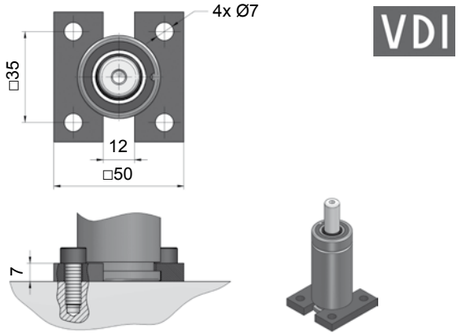
Flansche für / Flanges for **NC.064.10.00300…1**



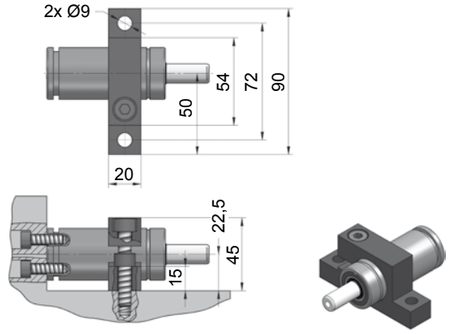
NC.88.00.032.0114



NC.88.00.032.0134



NC.88.00.032.0320



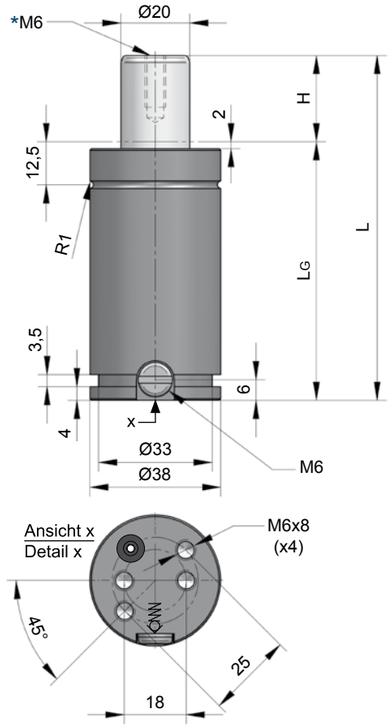
NC.88.00.032.0402

[NC.064.3]

[02.03.2020]

[NC]

NC.064.10.00500...1



Technische Daten:

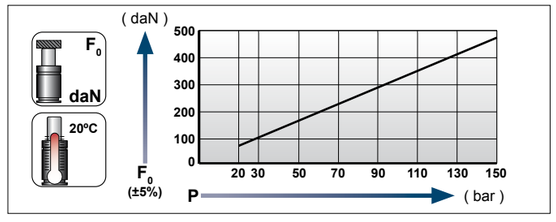
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

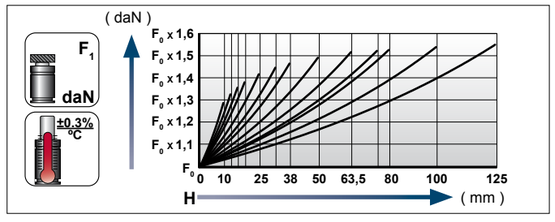
Specifications:

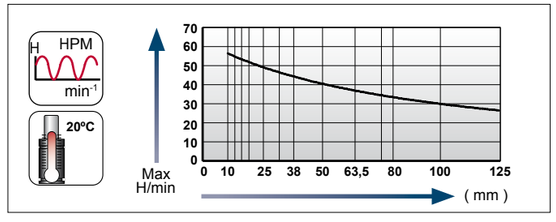
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.064.10.
00500.010.1

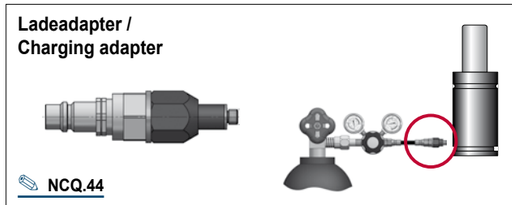
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	70	60	470	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	76	63	470	
016	82	66	470	
019	88	69	470	
025	100	75	470	
032	114	82	470	
038	126	88	470	
050	150	100	470	
063,5	177	113,5	470	
075	200	125	470	
080	210	130	470	
100	250	150	470	
125	300	175	470	







Ladeadapter /
Charging adapter

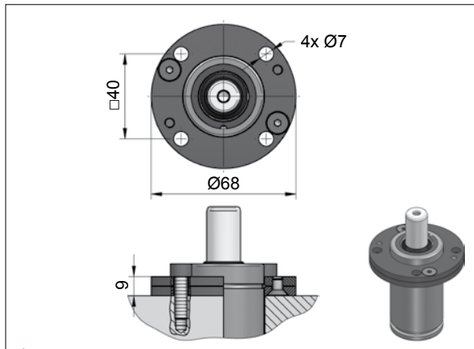


NCQ.44

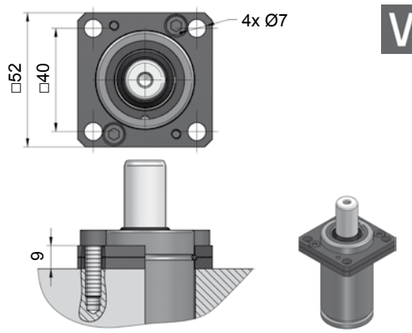
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

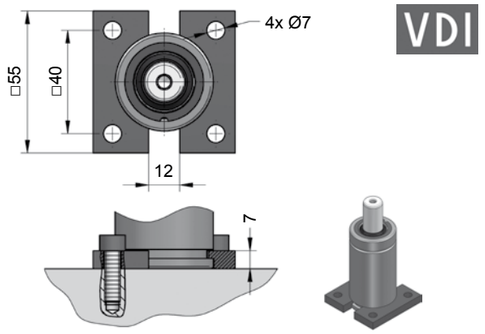
Flansche für / Flanges for **NC.064.10.00500…1**



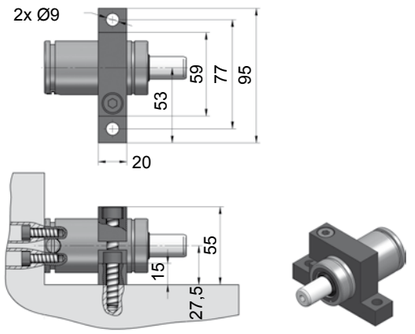
NC.88.00.038.0114



NC.88.00.038.0134



NC.88.00.038.0320



NC.88.00.038.0402

[02.03.2020]

[NC]

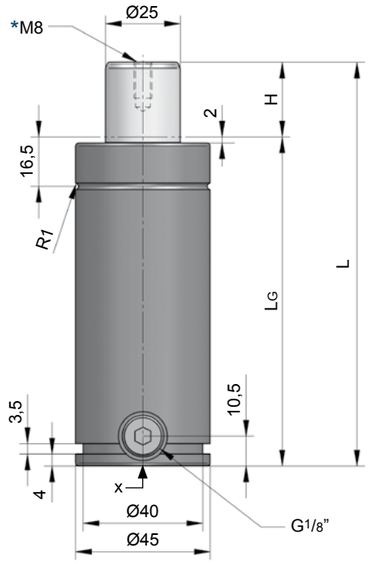
NC.064.10.00700

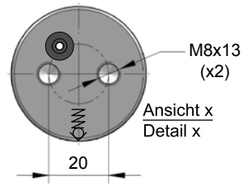
Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

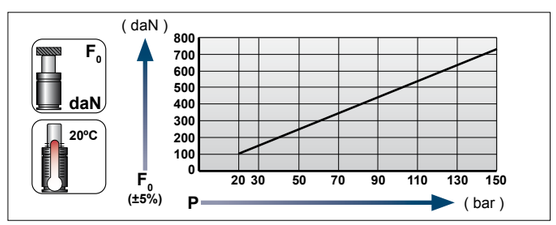


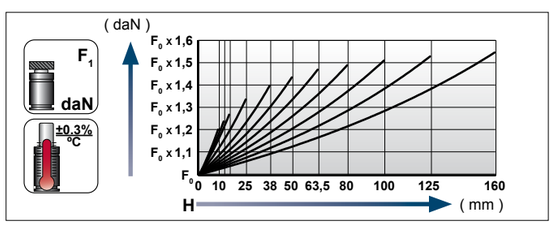


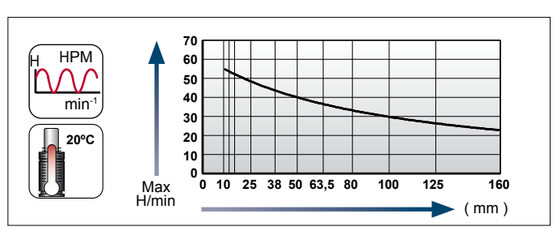
INFO [NC.21]

NC.064.10.00700.016

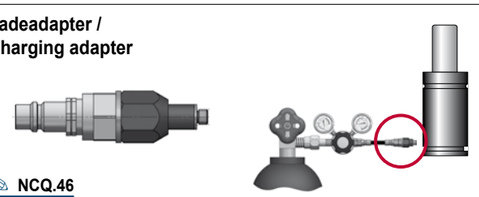
H Hub / Stroke	L ±0,25	LG	Kraft / Force (140 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	105	95	690	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
013	111	98	690	
016	117	101	690	
025	135	110	690	
038	161	123	690	
050	185	135	690	
063,5	212	148,5	690	
080	245	165	690	
100	285	185	690	
125	335	210	690	
160	405	245	690	







Ladeadapter / Charging adapter



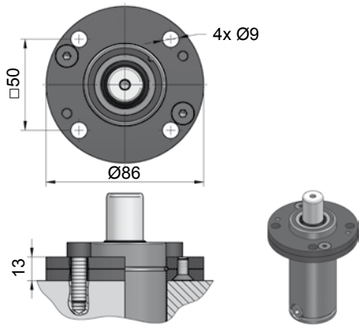
NCQ.46

[02.03.2020]

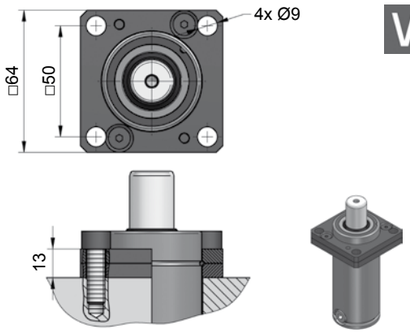
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

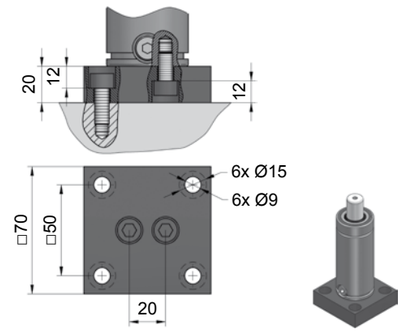
Flansche für / Flanges for **NC.064.10.00700**



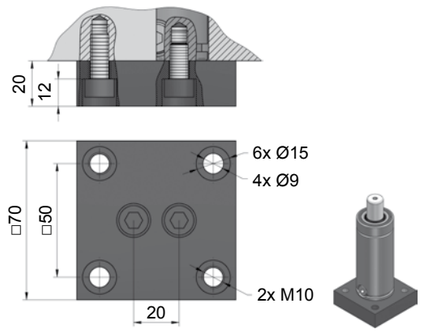
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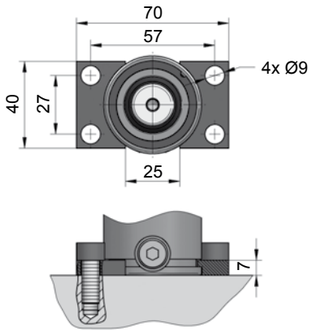
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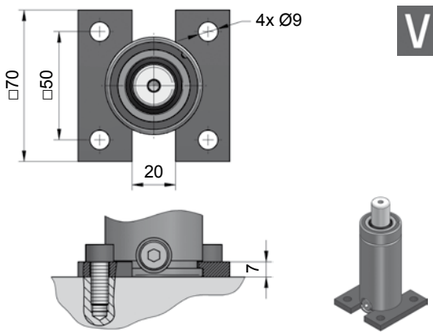
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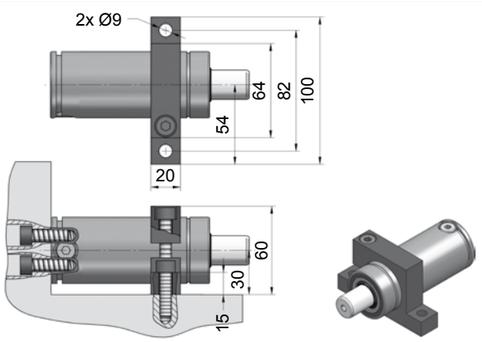
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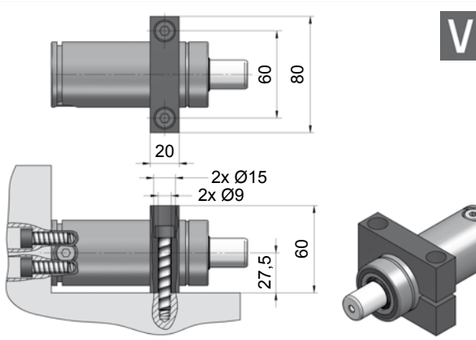
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NC.88.00.045.0320

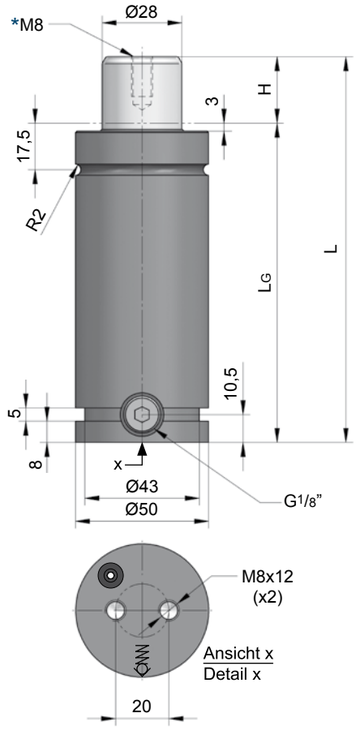


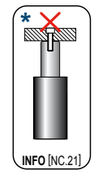
NC.88.00.045.0402



NC.88.00.045.0467

NC.064.10.01000...1





ZUGELASSEN PED 2014/68/EU

VDI 3003

> Pmax

> S

> Vmax

Flex Rod

MAIL

Technische Daten:

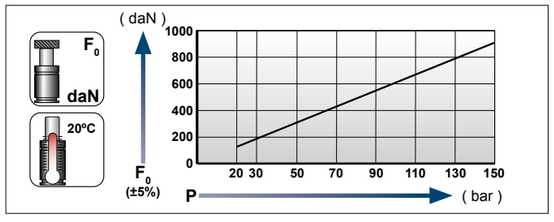
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

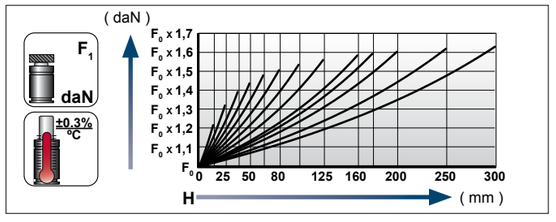
Specifications:

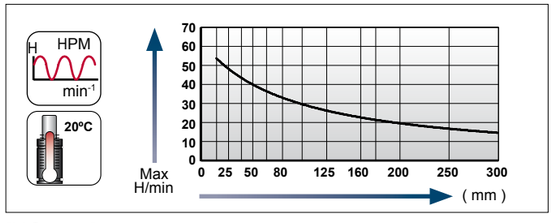
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.064.10.01000.038.1

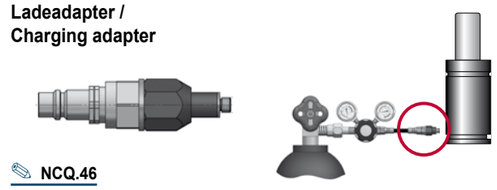
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
013	121	108	925	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	145	120	925	
038	171	133	925	
050	195	145	925	
063,5	222	158,5	925	
080	255	175	925	
100	295	195	925	
125	345	220	925	
160	415	255	925	
175	445	270	925	
200	495	295	925	
250	595	345	925	
300	695	395	925	







Ladeadapter / Charging adapter



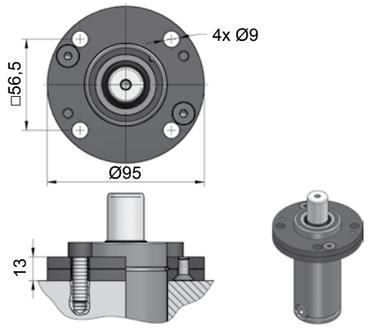
NCQ.46

[02.03.2020]

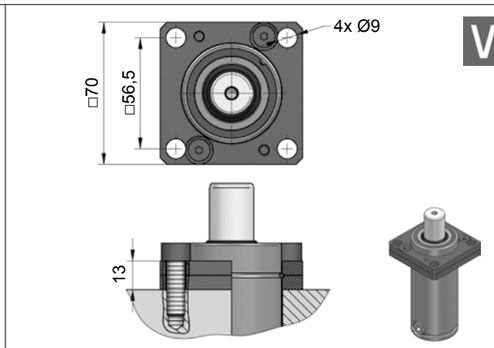
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

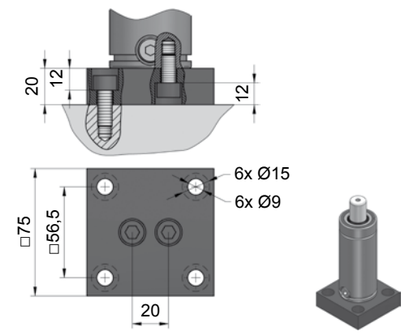
Flansche für / Flanges for **NC.064.10.01000...1**



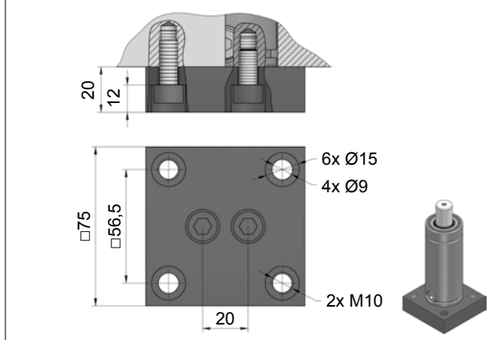
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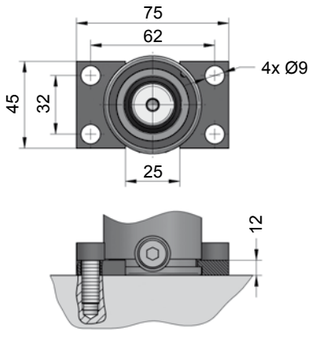
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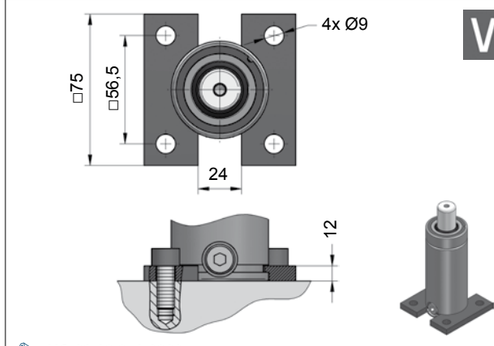
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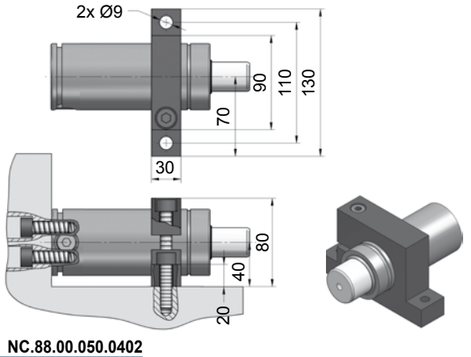
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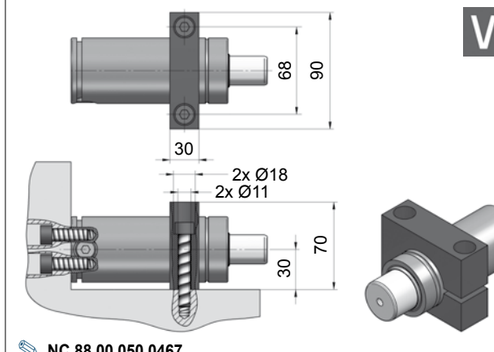
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NC.88.00.050.0320



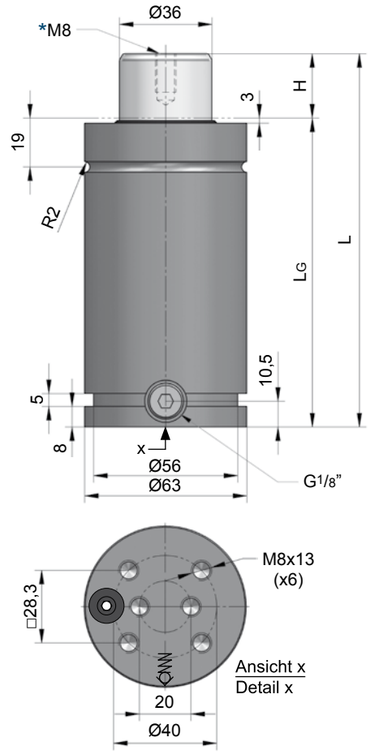
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NC.88.00.050.0467

[NC]

NC.064.10.01500...2



Technische Daten:

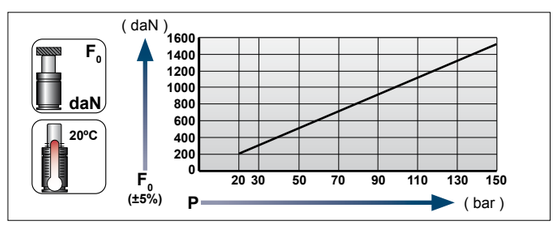
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

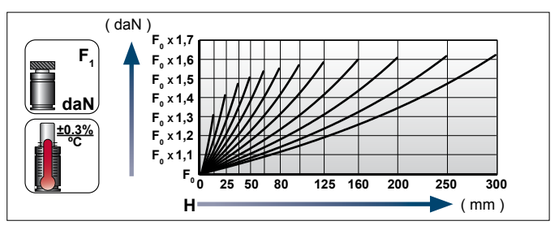
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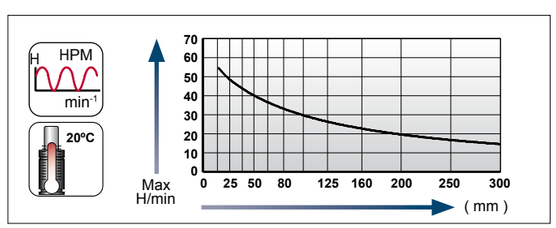
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.064.10.
01500.038.2

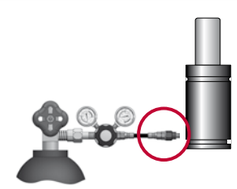
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
013	121	108	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	145	120	1530	
038	171	133	1530	
050	195	145	1530	
063,5	222	158,5	1530	
080	255	175	1530	
100	295	195	1530	
125	345	220	1530	
160	415	255	1530	
200	495	295	1530	
250	595	345	1530	
300	695	395	1530	







Ladeadapter /
Charging adapter

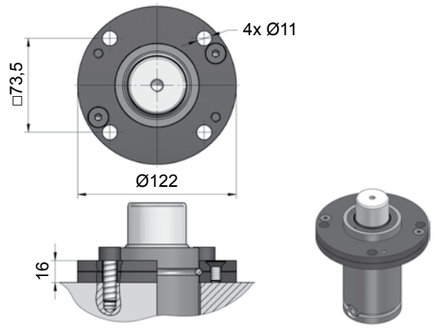


NCQ.46

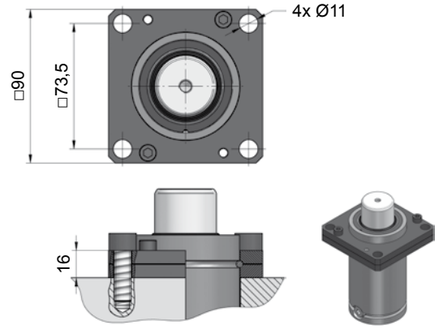
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

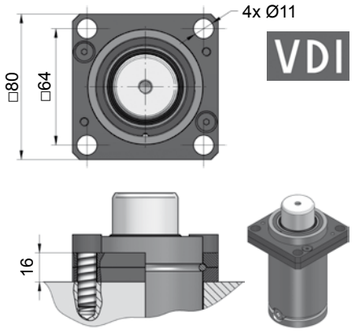
Flansche für / Flanges for **NC.064.10.01500…2**



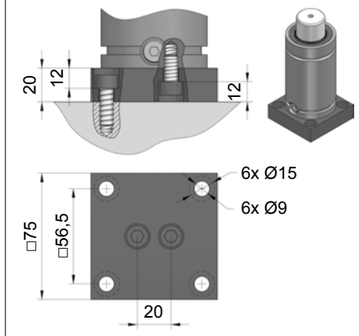
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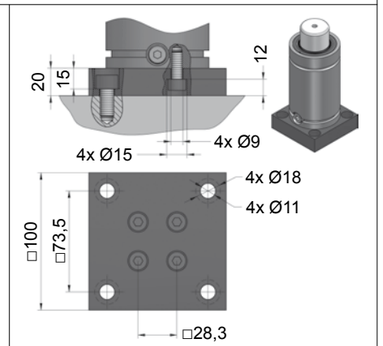
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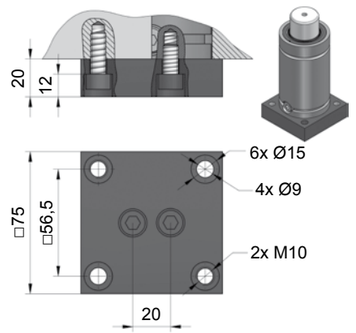
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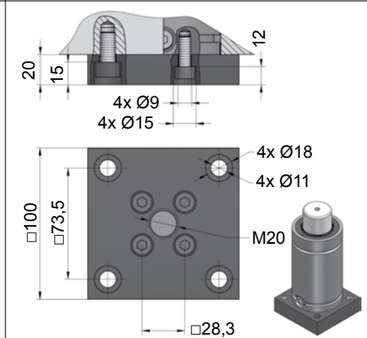
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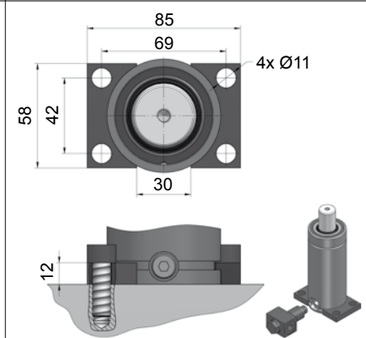
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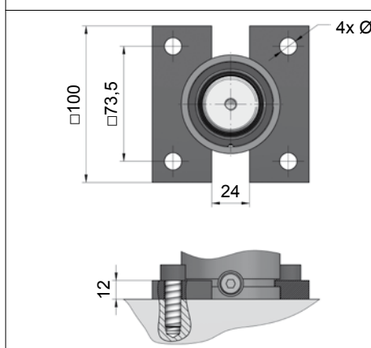
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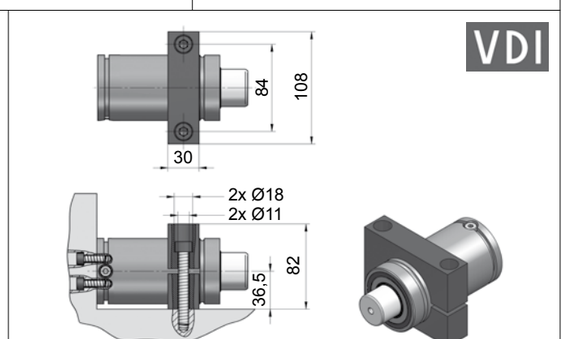
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NC.88.00.063.0305



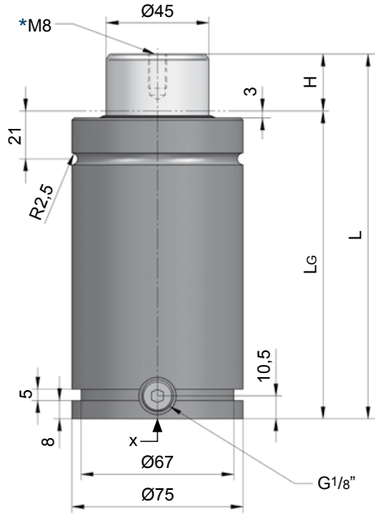
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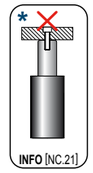


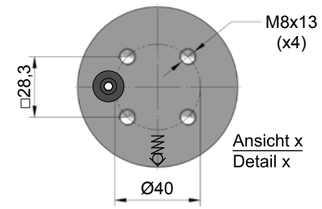
NC.88.00.063.0467

[02.03.2020]

NC.064.10.02400







Technische Daten:

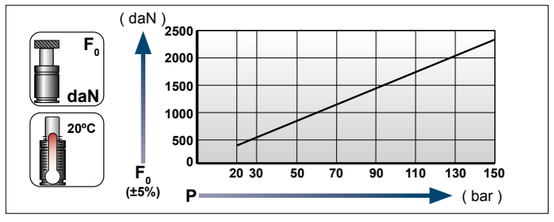
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

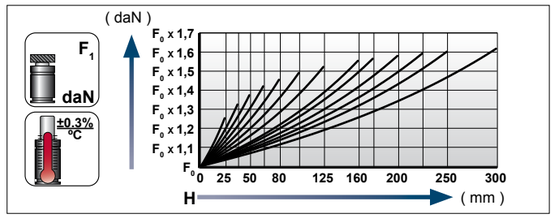
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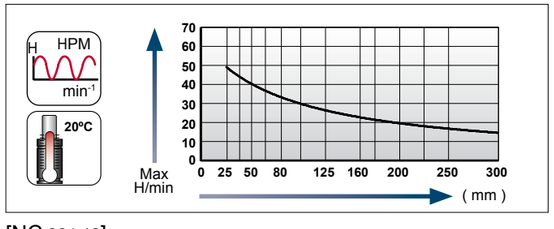
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.064.10.02400.050

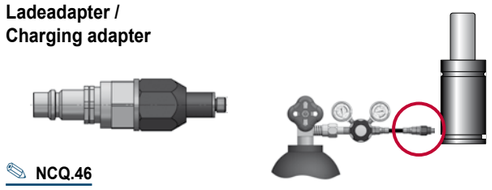
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	160	135	2385	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	186	148	2385	
050	210	160	2385	
063,5	237	173,5	2385	
080	270	190	2385	
100	310	210	2385	
125	360	235	2385	
160	430	270	2385	
175	460	285	2385	
200	510	310	2385	
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300	710	410	2385	







Ladeadapter / Charging adapter



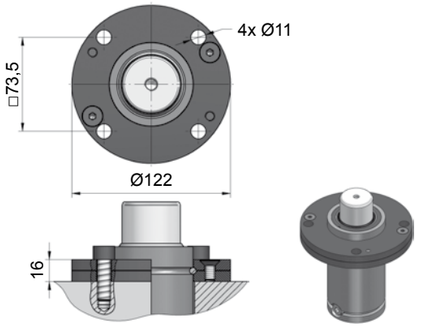
NCQ.46

[02.03.2020]

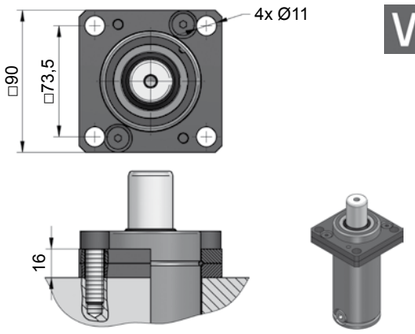
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

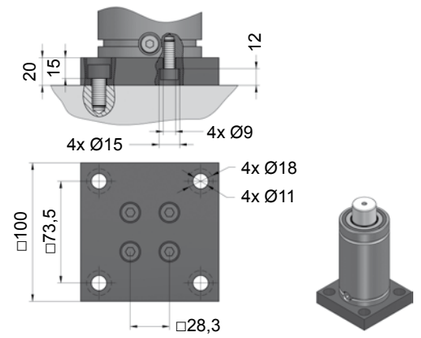
Flansche für / Flanges for **NC.064.10.02400**



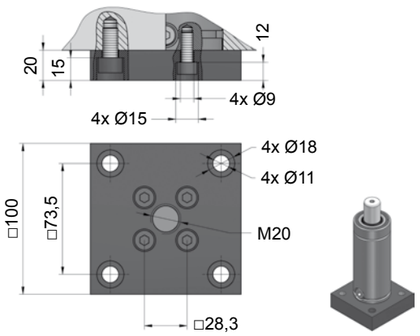
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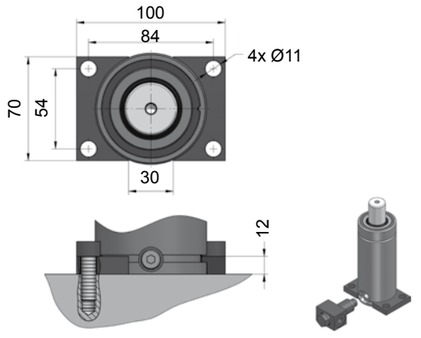
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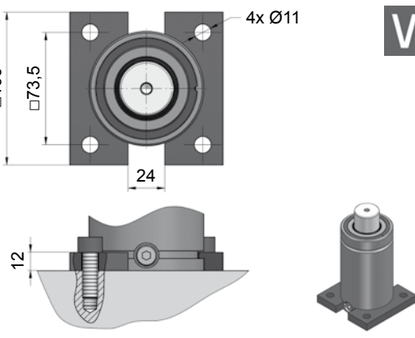
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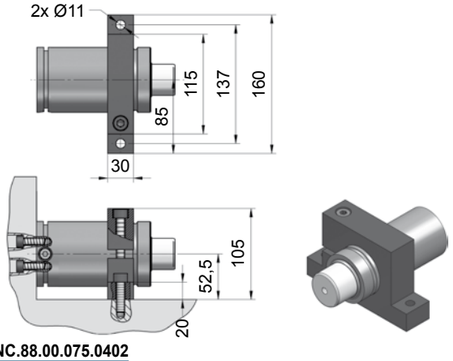
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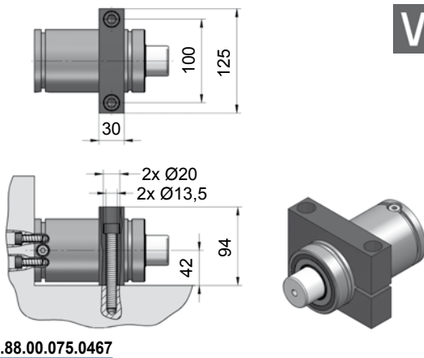
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NC.88.00.075.0320



NC.88.00.075.0402



NC.88.00.075.0467

[NC]

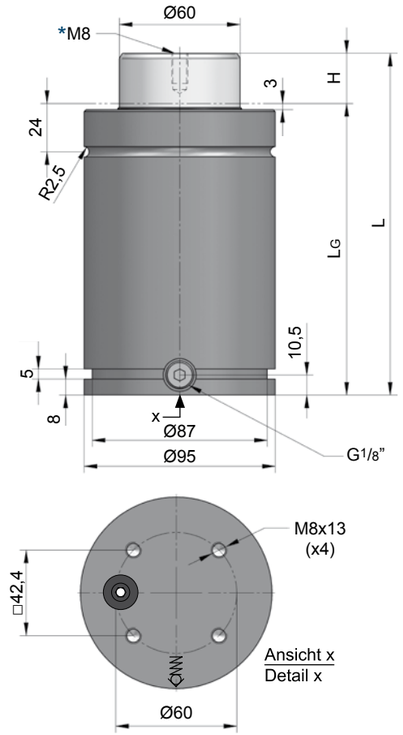
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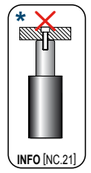
Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

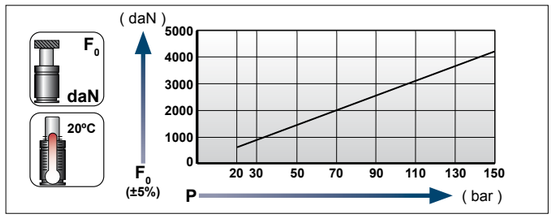


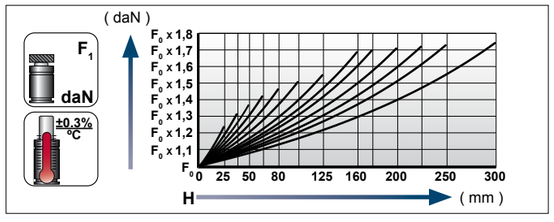


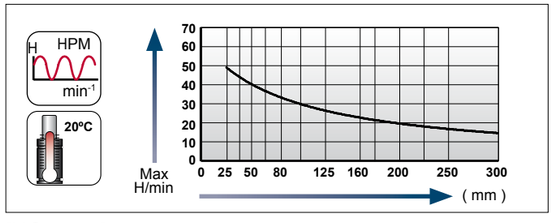
ZUGELASSEN PED 2014/68/EU
VDI 3003
> Pmax
> S
> Vmax
Flex Rod
MAIL

NC.064.10. 04200.063,5

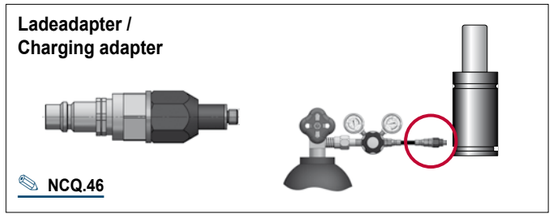
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	170	145	4240	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	196	158	4240	
050	220	170	4240	
063,5	247	183,5	4240	
080	280	200	4240	
100	320	220	4240	
125	370	245	4240	
160	440	280	4240	
175	470	295	4240	
200	520	320	4240	
225	570	345	4240	
250	620	370	4240	
300	720	420	4240	







Ladeadapter / Charging adapter



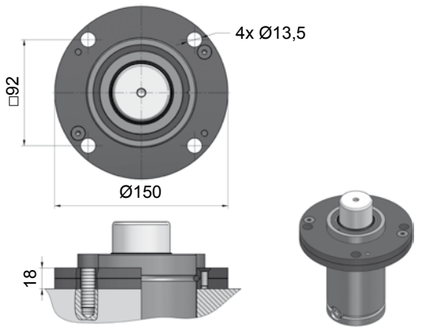
NCQ.46

[02.03.2020]

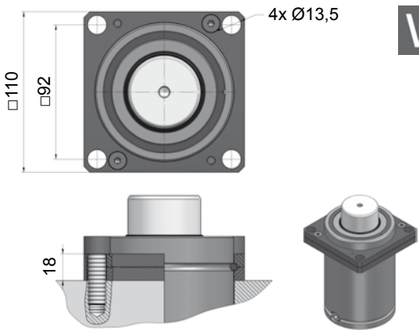
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

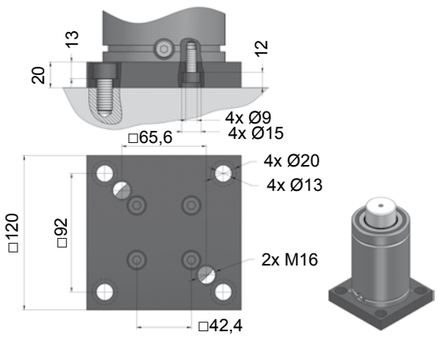
Flansche für / Flanges for **NC.064.10.04200**



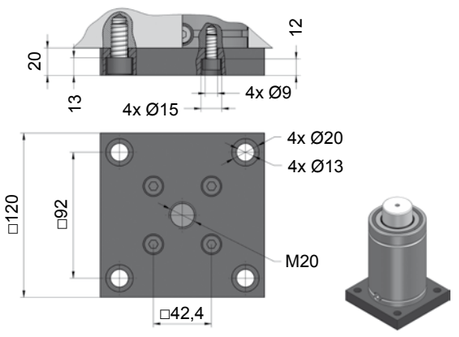
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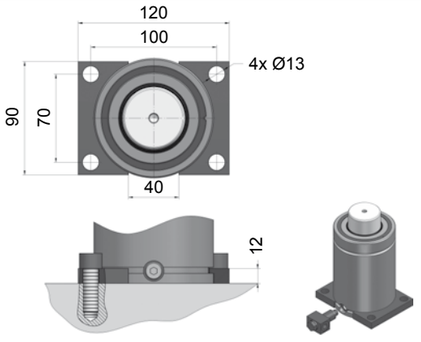
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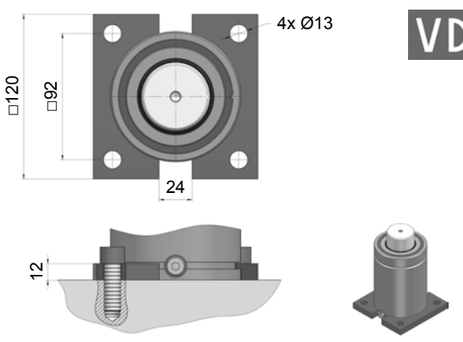
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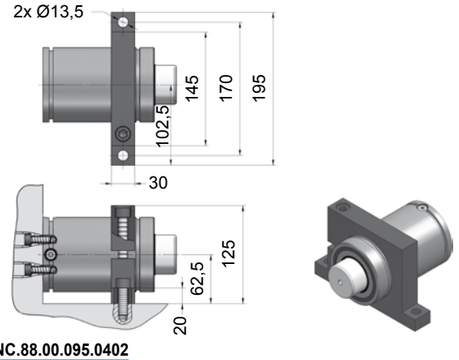
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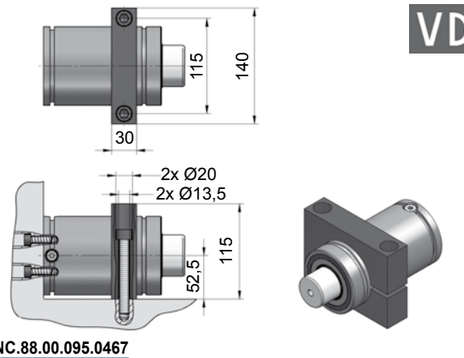
NC.88.00.095.0305



NC.88.00.095.0320



NC.88.00.095.0402



NC.88.00.095.0467

[NC]

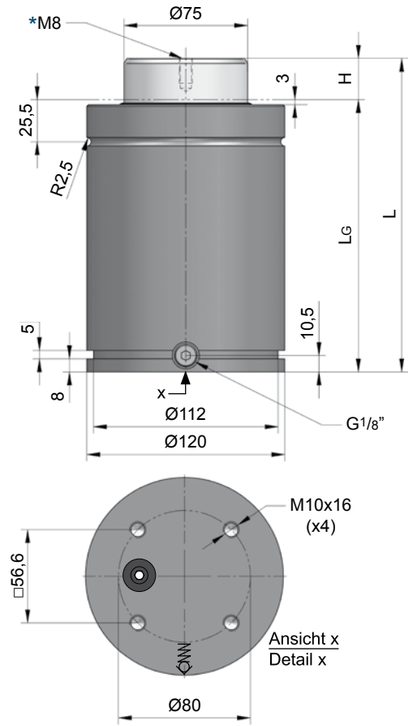
NC.064.10.06600

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s



INFO [NC.21]

VDI 3003

> Pmax

> S

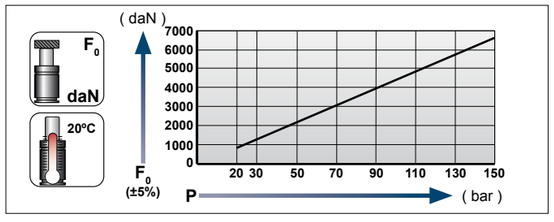
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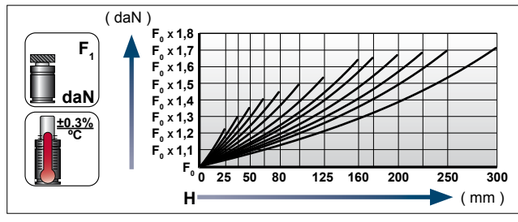
Flex Rod

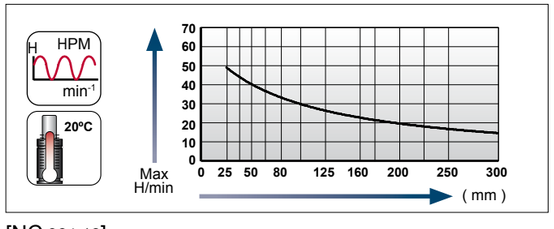
MAIL

NC.064.10.06600.200

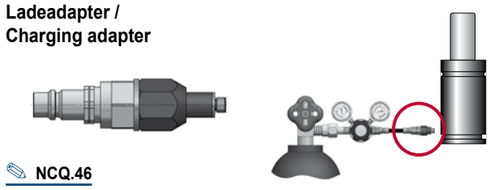
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	190	165	6630	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	216	178	6630	
050	240	190	6630	
063,5	267	203,5	6630	
080	300	220	6630	
100	340	240	6630	
125	390	265	6630	
160	460	300	6630	
175	490	315	6630	
200	540	340	6630	
225	590	365	6630	
250	640	390	6630	
300	740	440	6630	







Ladeadapter / Charging adapter



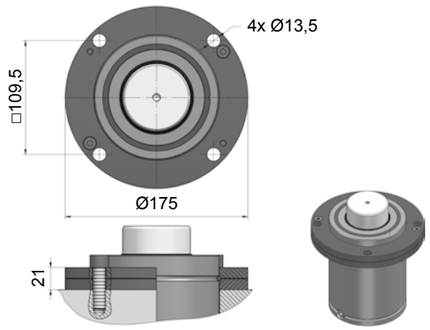
NCQ.46

[02.03.2020]

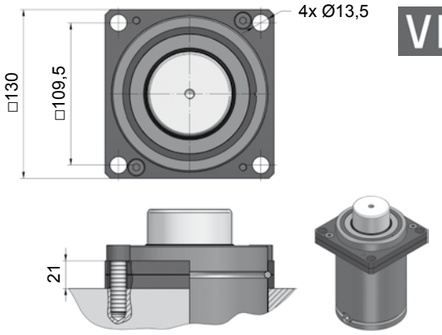
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

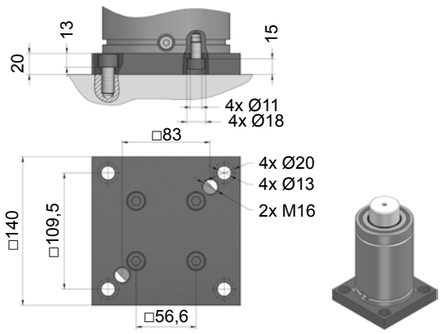
Flansche für / Flanges for **NC.064.10.06600**



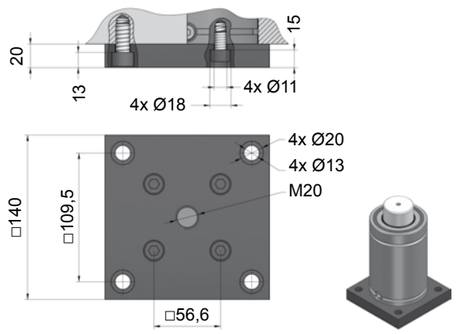
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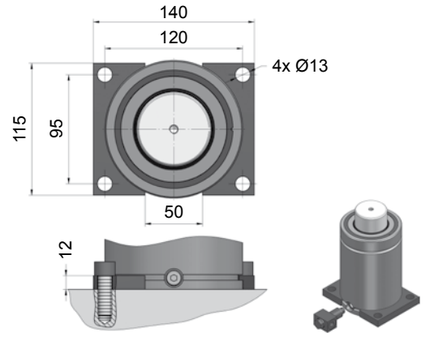
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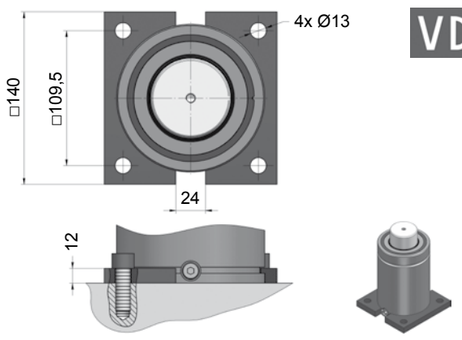
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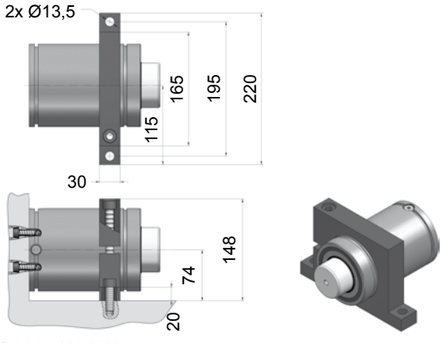
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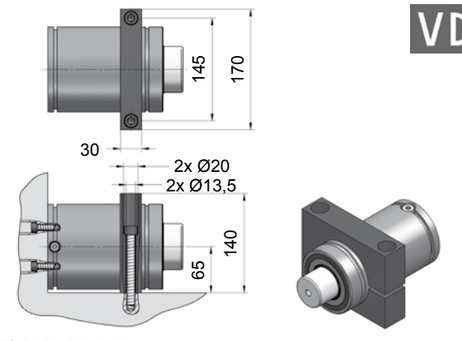
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NC.88.00.120.0320

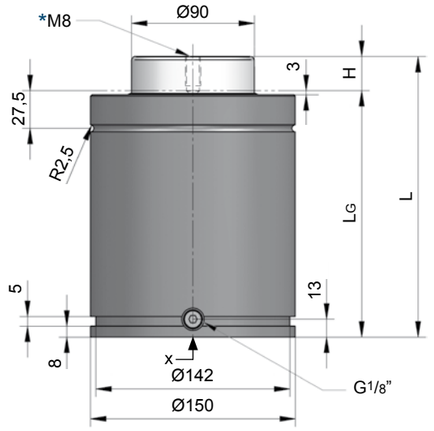


NC.88.00.120.0402



NC.88.00.120.0467

NC.064.10.09600



Technische Daten:

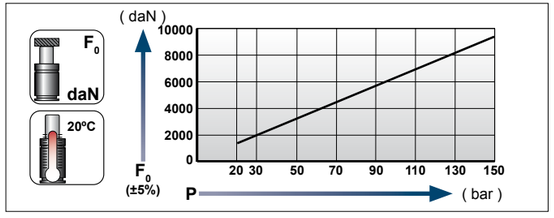
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

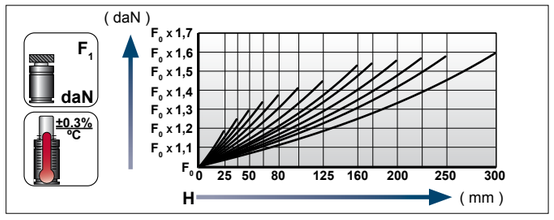
Specifications:

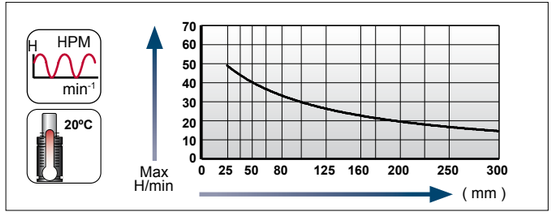
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.064.10.09600.125

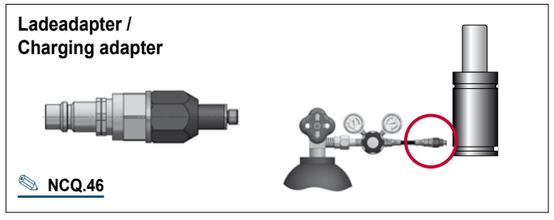
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
025	205	180	9540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	231	193	9540	
050	255	205	9540	
063,5	282	218,5	9540	
080	315	235	9540	
100	355	255	9540	
125	405	280	9540	
160	475	315	9540	
175	505	330	9540	
200	555	355	9540	
225	605	380	9540	
250	655	405	9540	
300	755	455	9540	







Ladeadapter / Charging adapter



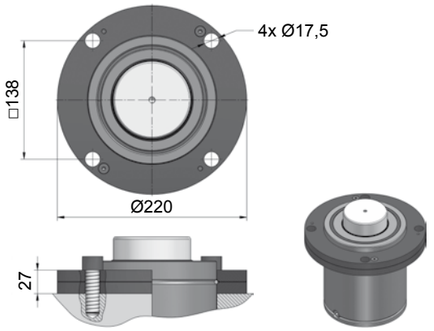
NCQ.46

[02.03.2020]

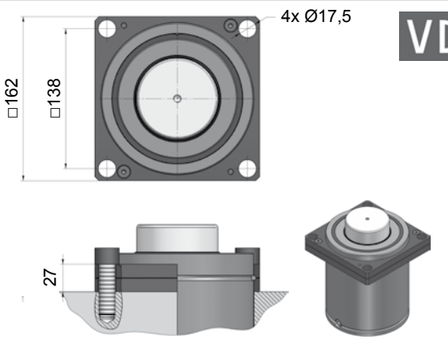
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

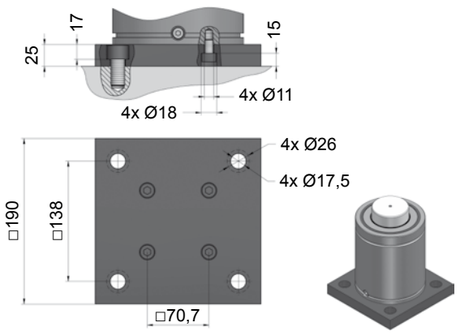
Flansche für / Flanges for **NC.064.10.09600**



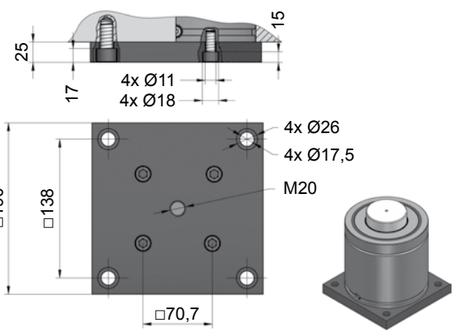
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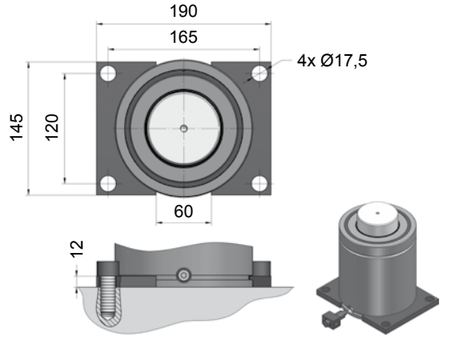
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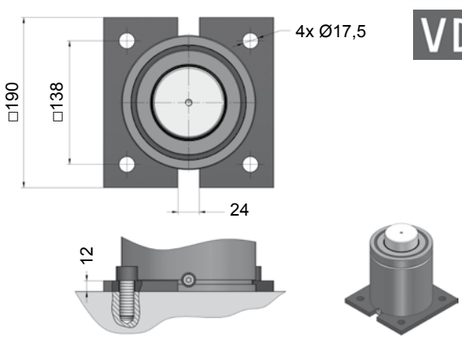
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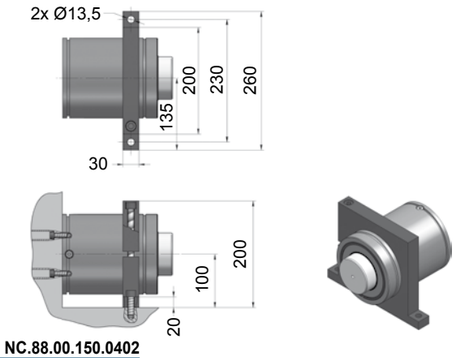
NC.88.00.150.0276



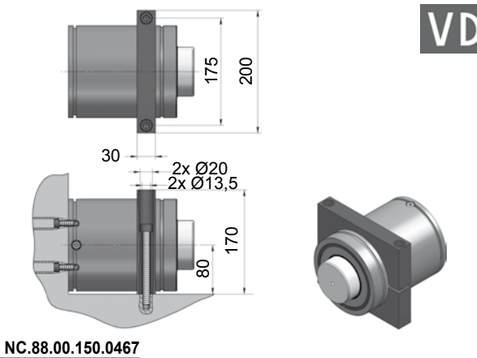
NC.88.00.150.0305



NC.88.00.150.0320

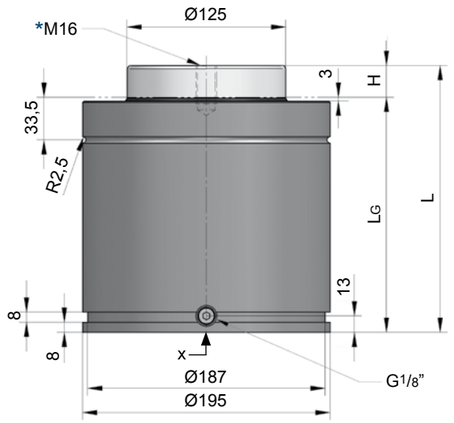


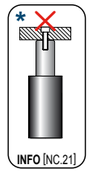
NC.88.00.150.0402



NC.88.00.150.0467

NC.064.10.18500





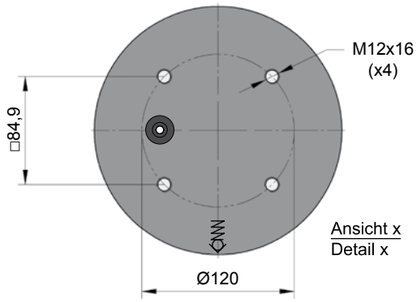


Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

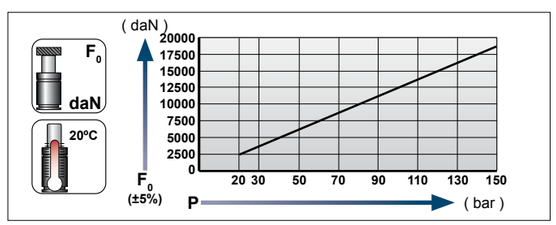
Specifications:

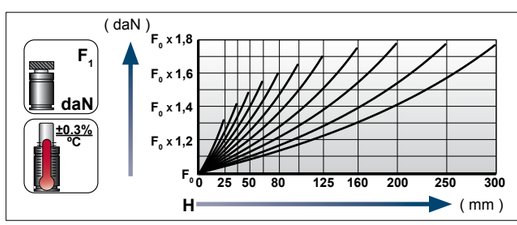
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

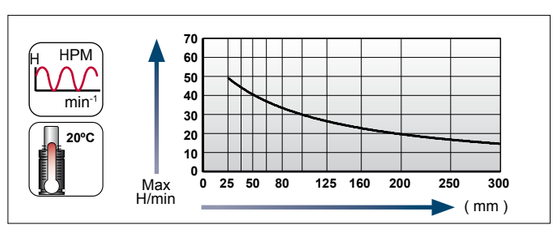


NC.064.10.18500.160

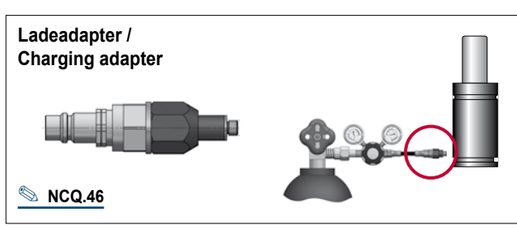
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	210	185	18410	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	236	198	18410	
050	260	210	18410	
063,5	287	223,5	18410	
080	320	240	18410	
100	360	260	18410	
125	410	285	18410	
160	480	320	18410	
200	560	360	18410	
250	660	410	18410	
300	760	460	18410	







Ladeadapter / Charging adapter



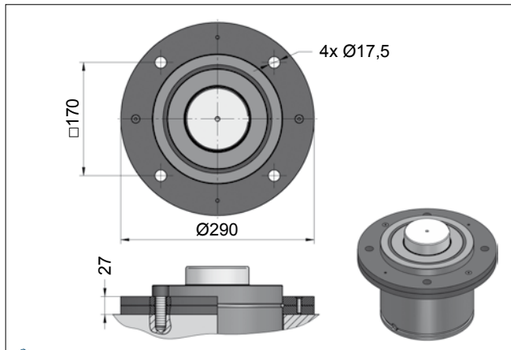
NCQ.46

[02.03.2020]

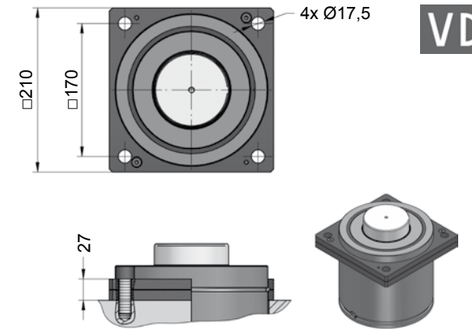
[02.03.2020]

GDF, kompakt, erhöhte Kraft
GS, compact, height force
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

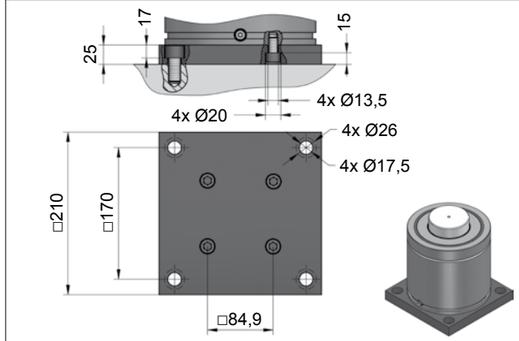
Flansche für / Flanges for **NC.064.10.18500**



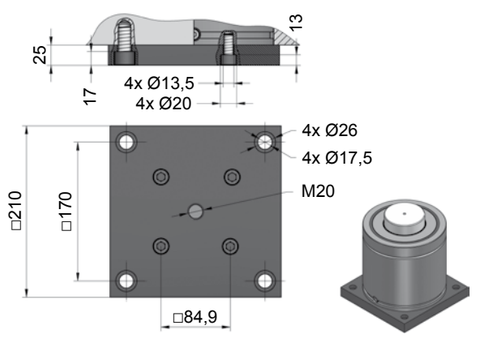
NC.88.00.195.0114



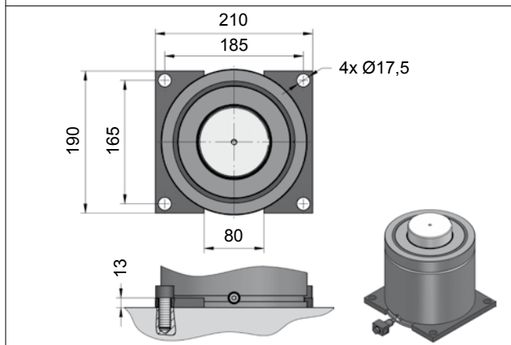
NC.88.00.195.0134



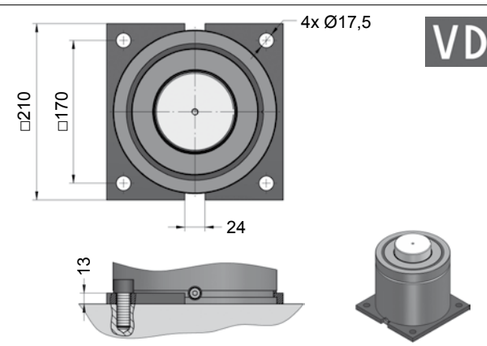
NC.88.00.195.0221



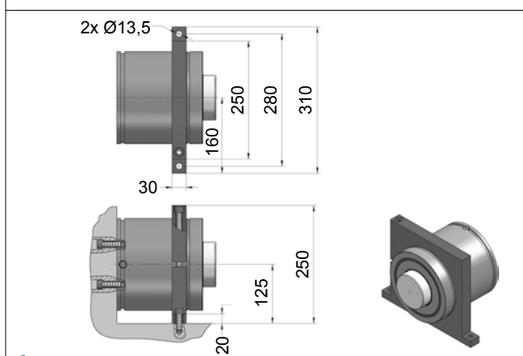
NC.88.00.195.0276



NC.88.00.195.0305



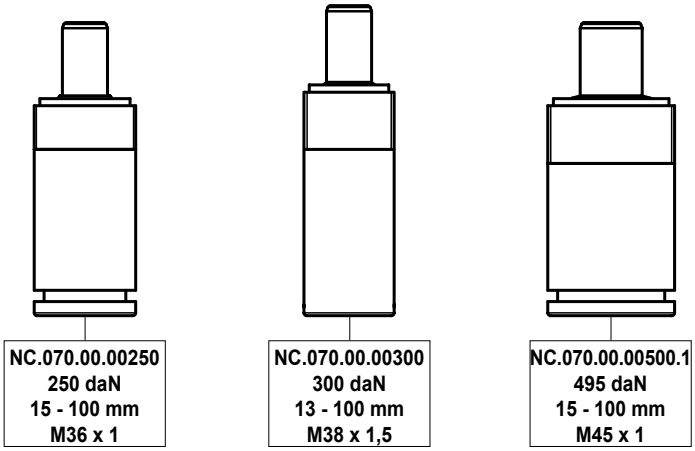
NC.88.00.195.0320



NC.88.00.195.0402

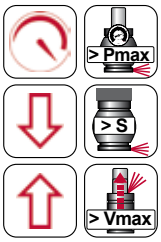
Größenübersicht Serie NC.070.00

Gas spring index 070.00 series



NC.070.00.00250	NC.070.00.00300	NC.070.00.00500.1
250 daN	300 daN	495 daN
15 - 100 mm	13 - 100 mm	15 - 100 mm
M36 x 1	M38 x 1,5	M45 x 1

SICHERHEITSSYSTEME



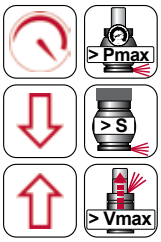
Überdruck

Überhub

Freier Rückhub

Information über die Sicherheitssysteme (Überdruck, Überhub, Freier Rückhub) erhalten Sie im Vorspann auf der Seite NC.24.

SAFETY SYSTEMS



Over-Pressure

Over-Stroke

Over-Speed

Information about the safety systems (over-pressure, over-stroke, over-speed) can be found in the introductory part on page NC.24.

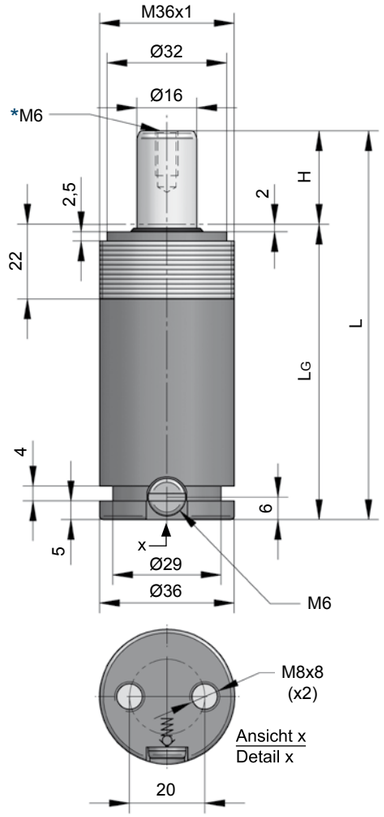
NC.070.00.00250

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

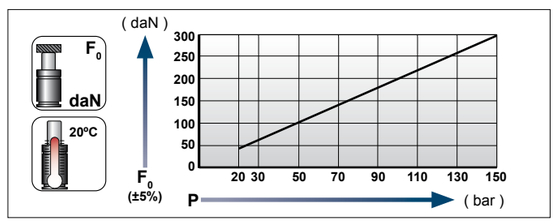
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

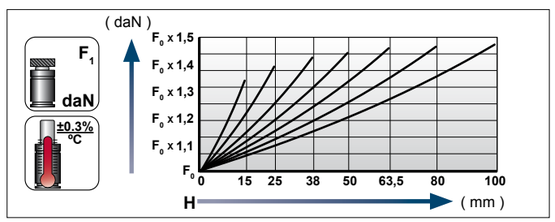


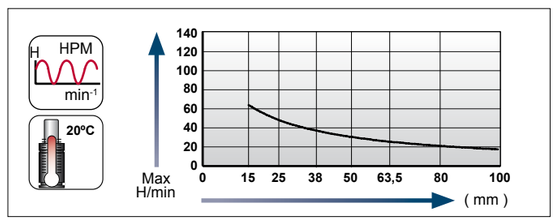
INFO [NC.21]

NC.070.00.00250.015

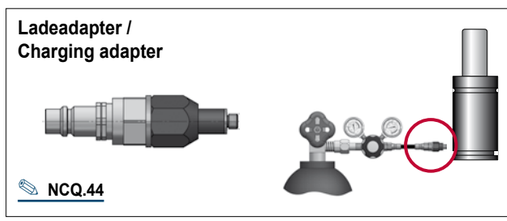
H Hub / Stroke	L ±0,25	LG	Kraft / Force (125 bar) Anfang / Initial [daN]	Ende / Final [daN]
015	84	69	250	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	104	79	250	
038	130	92	250	
050	154	104	250	
063,5	181	117,5	250	
080	214	134	250	
100	254	154	250	







Ladeadapter / Charging adapter

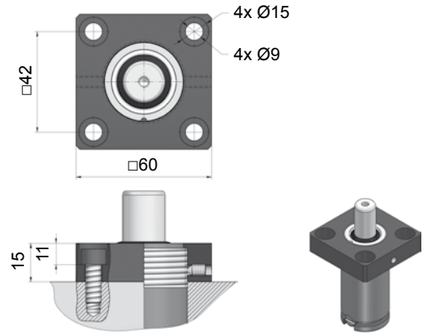


NCQ.44

[03.03.2020]

[03.03.2020]

Flansche für / Flanges for **NC.070.00.00250**



NC.88.00.036.0503

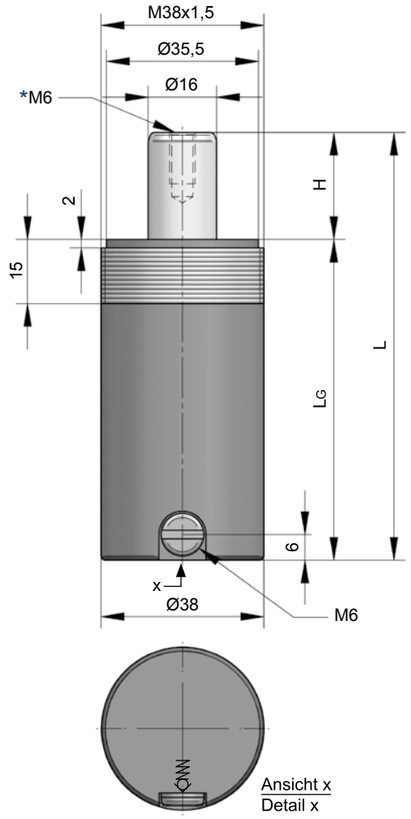
NC.070.00.00300

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s



ZUGELASSEN PED 2014/68/EU

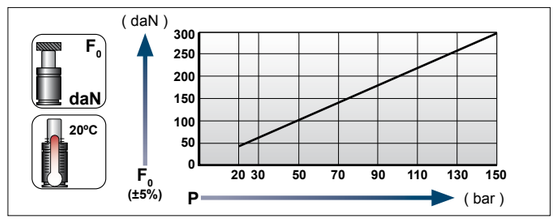
> Vmax

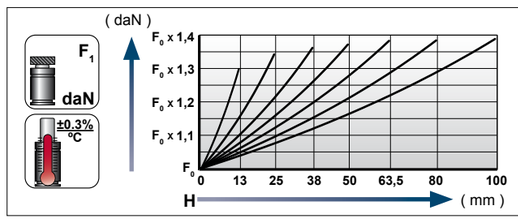
* INFO [NC.21]

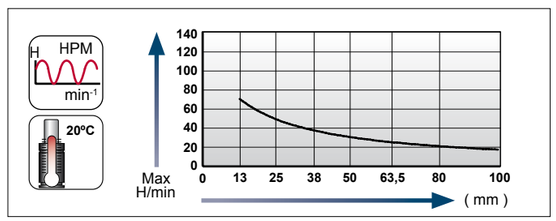
NC.070.00.00300.038

MAIL

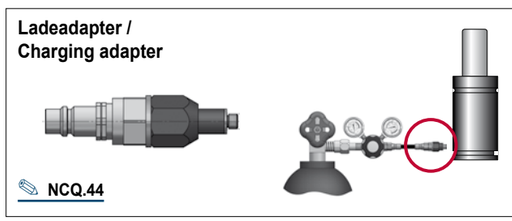
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
013	76	63	300	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	100	75	300	
038	126	88	300	
050	150	100	300	
063,5	177	113,5	300	
080	210	130	300	
100	250	150	300	







Ladeadapter / Charging adapter

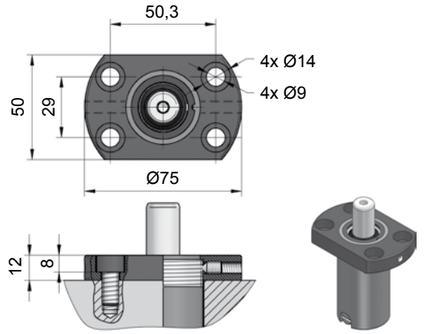


NCQ.44

[03.03.2020]

[03.03.2020]

Flansche für / Flanges for **NC.070.00.00300**



NC.88.00.038.0508

[NC]

[NC]

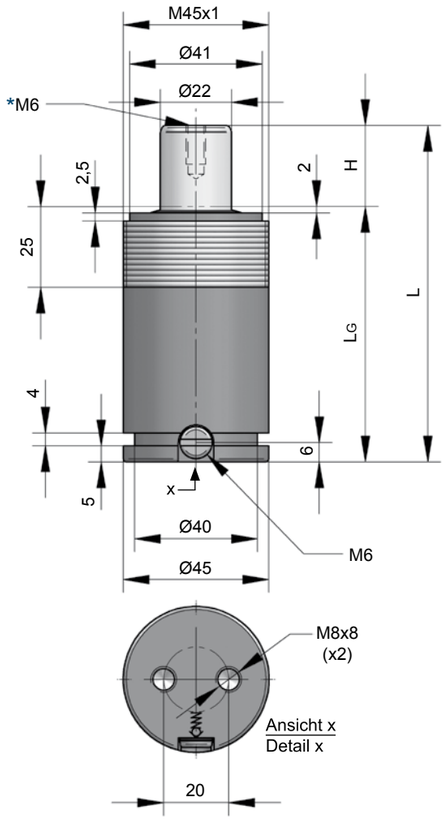
NC.070.00.00500…1

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

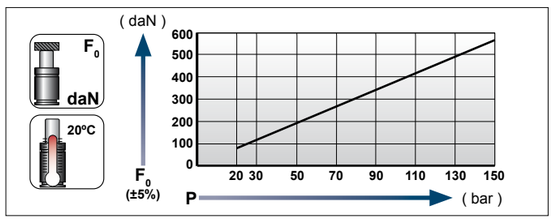
Pressure medium:	N2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

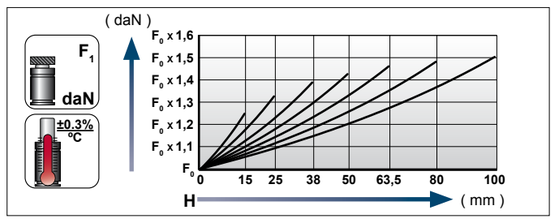


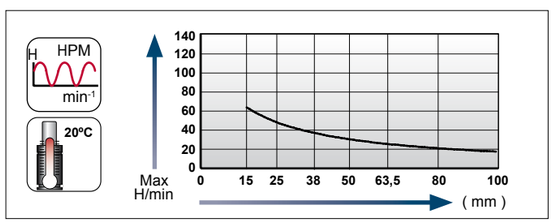
INFO [NC.21]

NC.070.00.00500.050.1

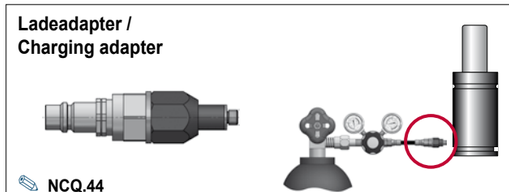
H Hub / Stroke	L ±0,25	LG	Kraft / Force (130 bar) Anfang / Initial [daN]	Ende / Final [daN]
015	84	69	495	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	104	79	495	
038	130	92	495	
050	154	104	495	
063,5	181	117,5	495	
080	214	134	495	
100	254	154	495	







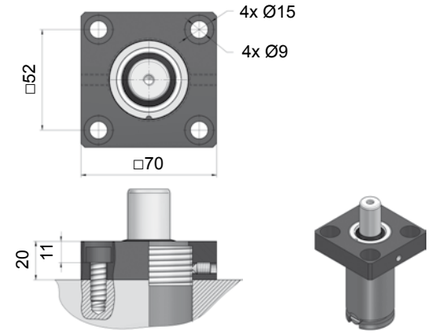
Ladeadapter / Charging adapter



NCQ.44

[03.03.2020]

Flansche für / Flanges for **NC.070.00.00500…1**

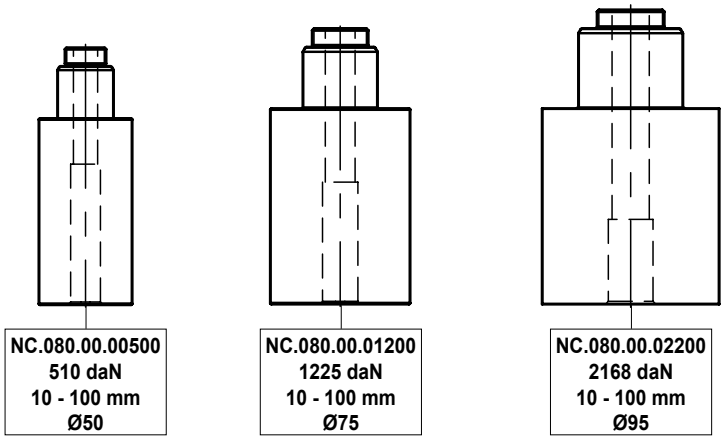


NC.88.00.045.0503

[03.03.2020]

Größenübersicht Serie NC.080.00

Gas spring index 080.00 series



NC.080.00.00500	NC.080.00.01200	NC.080.00.02200
510 daN	1225 daN	2168 daN
10 - 100 mm	10 - 100 mm	10 - 100 mm
Ø50	Ø75	Ø95

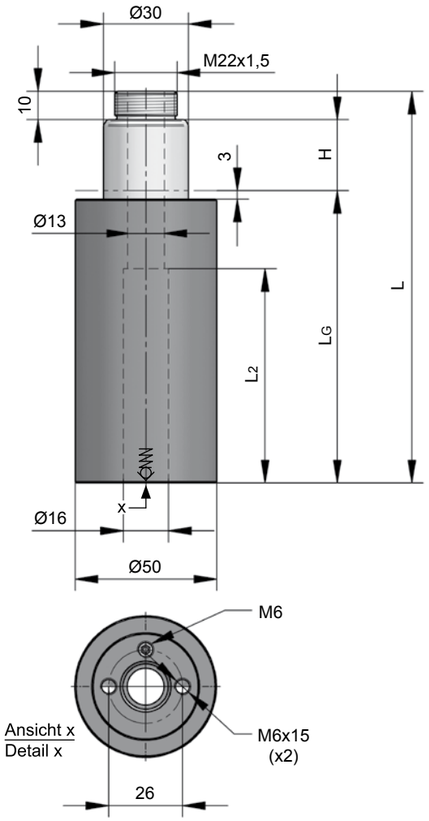
NC.080.00.00500

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

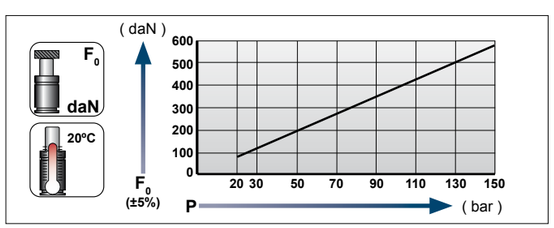
Specifications:

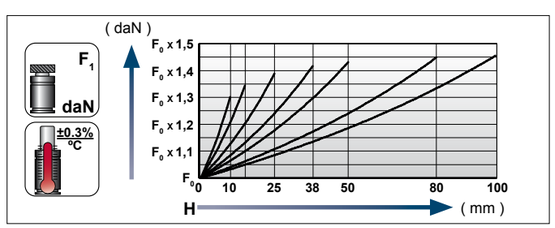
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

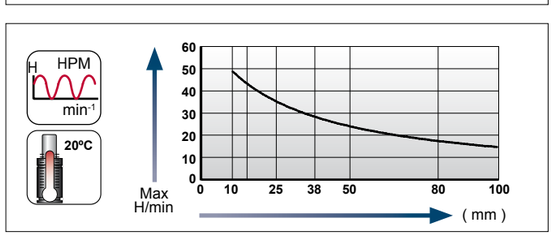


NC.080.00.00500.100

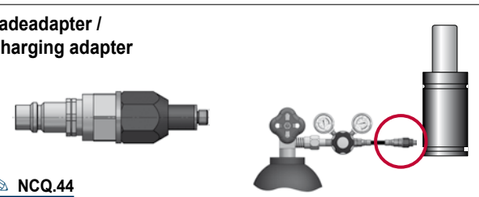
H Hub / Stroke	L ±0,25	LG	L2 ±0,1	Kraft / Force (130 bar) Anfang / Initial [daN]	Kraft / Force (130 bar) Ende / Final [daN]
010	108	88	45,5	510	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	118	93	55,5	510	
025	138	103	75,5	510	
038	164	116	85,5	510	
050	188	128	97,5	510	
080	248	158	127,5	510	
100	288	178	147,5	510	







Ladeadapter / Charging adapter

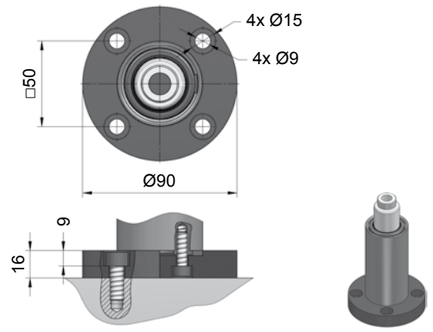


NCQ.44

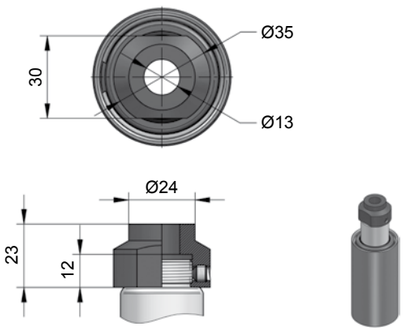
[03.03.2020]

GDF, Standard mit Durchgangsbohrung
GS, Hollowsprings
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.080.00.00500**



NC.88.00.050.0231

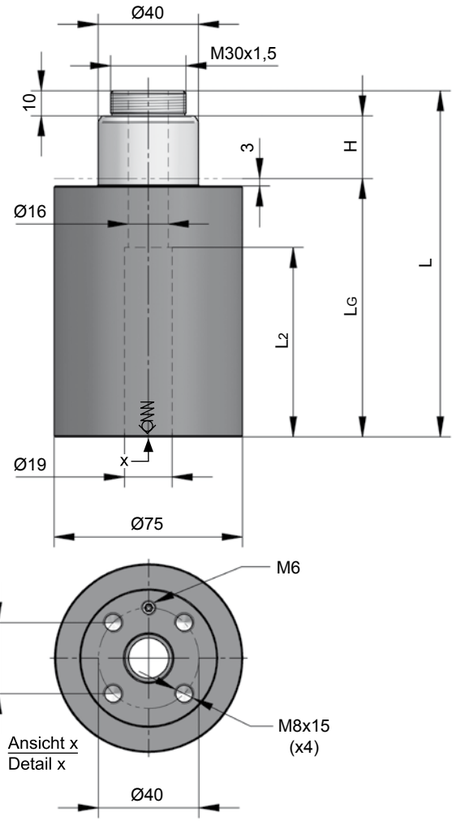


NC.88.00.050.0533

[03.03.2020]

[NC]

NC.080.00.01200



Technische Daten:

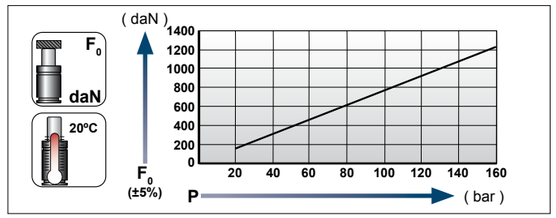
Medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

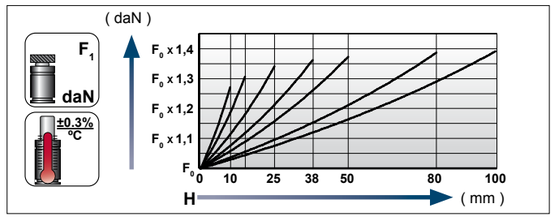
Specifications:

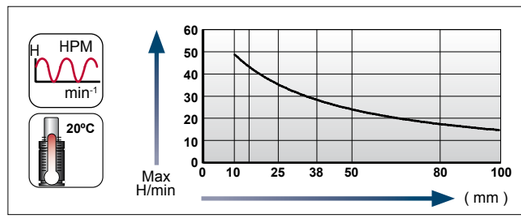
Pressure medium:	N_2
$P_{max.}$ (20 °C):	160 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

NC.080.00.01200.100

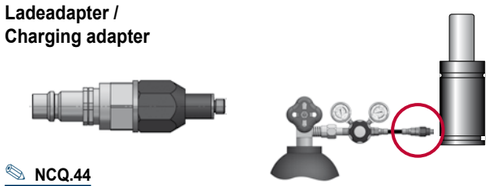
H Hub / Stroke	L ±0,25	LG	L2 ±0,1	Kraft / Force (160 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	108	88	45,5	1225	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	118	93	55,5	1225	
025	138	103	75,5	1225	
038	164	116	85,5	1225	
050	188	128	97,5	1225	
080	248	158	127,5	1225	
100	288	178	147,5	1225	







Ladeadapter / Charging adapter

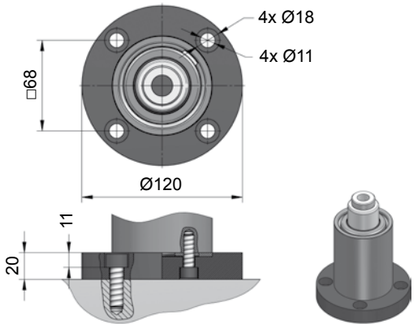


NCQ.44

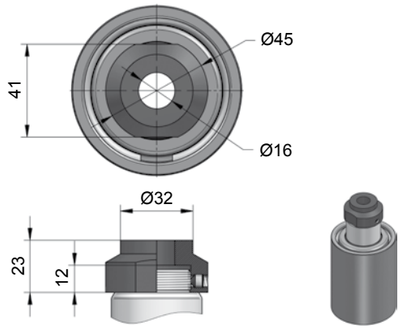
[03.03.2020]

GDF, Standard mit Durchgangsbohrung
GS, Hollowsprings
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.080.00.01200**



NC.88.00.075.0231

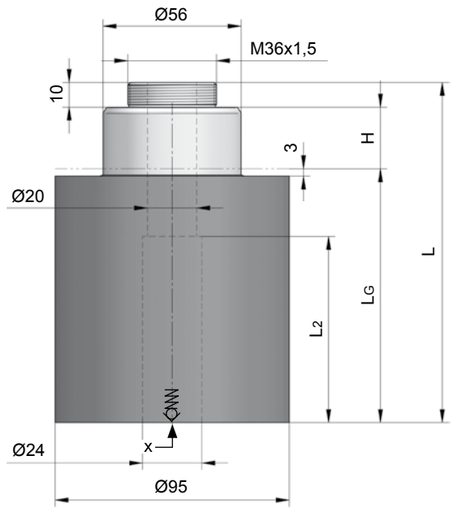


NC.88.00.075.0533

[03.03.2020]

[NC]

NC.080.00.02200



Technische Daten:

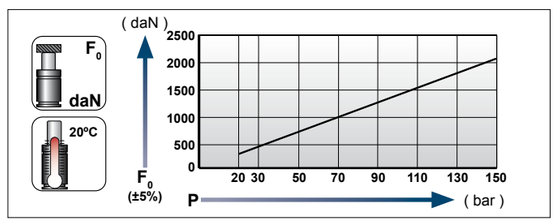
Medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

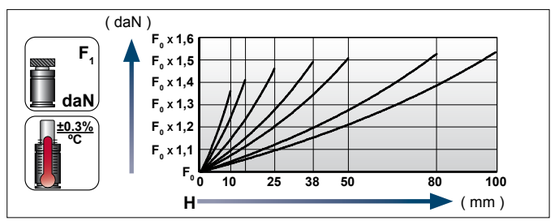
Specifications:

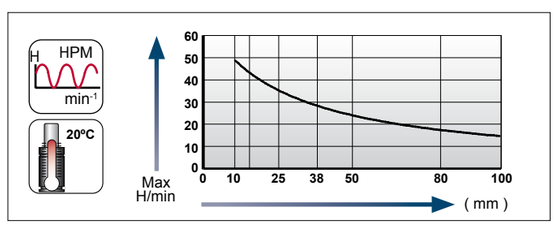
Pressure medium:	N_2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

NC.080.00.02200.025

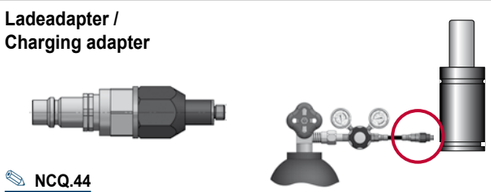
H Hub / Stroke	L ±0,25	LG	L2 ±0,1	Kraft / Force (150 bar) Anfang / Initial [daN]	 Ende / Final [daN]
010	108	88	45,5	2168	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
015	118	93	55,5	2168	
025	138	103	75,5	2168	
038	164	116	85,5	2168	
050	188	128	97,5	2168	
080	248	158	127,5	2168	
100	288	178	147,5	2168	







Ladeadapter / Charging adapter

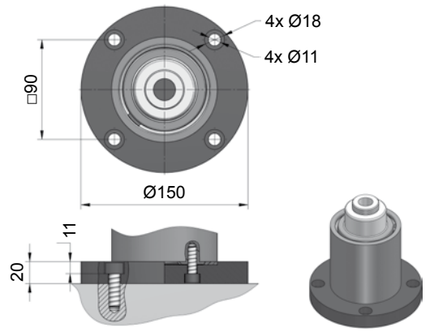


NCQ.44

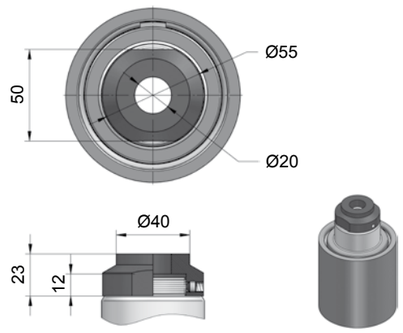
[03.03.2020]

GDF, Standard mit Durchgangsbohrung
GS, Hollowsprings
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Flansche für / Flanges for **NC.080.00.02200**



NC.88.00.095.0231



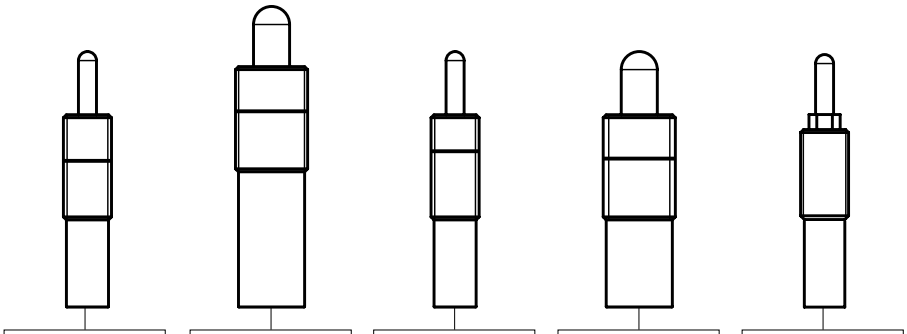
NC.88.00.095.0533

[03.03.2020]

[NC]

Größenübersicht Serie NC.09X

Gas spring index 09X series



NC.091.16	NC.091.24	NC.091.16.C	NC.091.24.C	NC.094.16.15
6 - 50 daN	23 - 200 daN	6 - 50 daN	23 - 200 daN	9 - 35 N
10 - 100 mm	10 - 100 mm	10 - 125 mm	10 - 125 mm	20 - 50 mm
M16x1,5	M24x1,5	M16x1,5	M24x1,5	M16x1,5

NC.091.16

Innensechskant

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

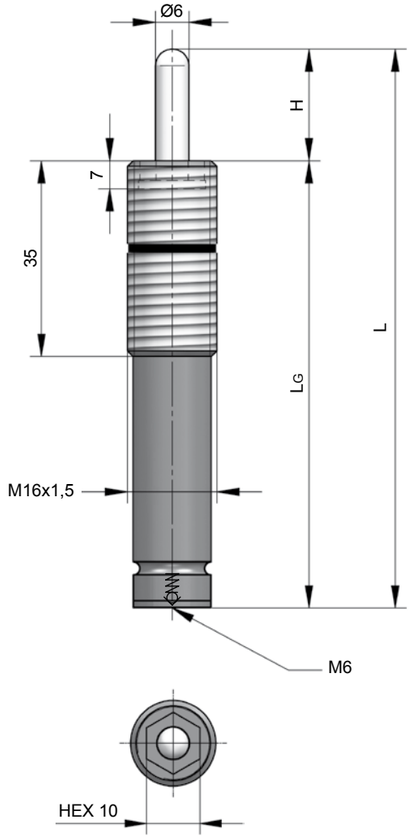
Einwegfeder ist nicht reparierbar!

Hexagon socket

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!



ZUGELASSEN PED 2014/68/EU

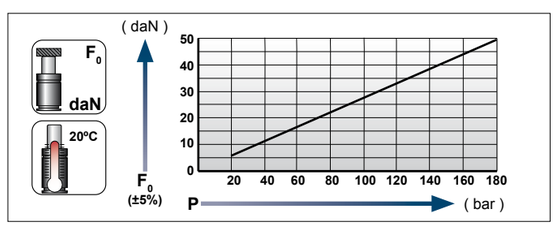
VDI 3004

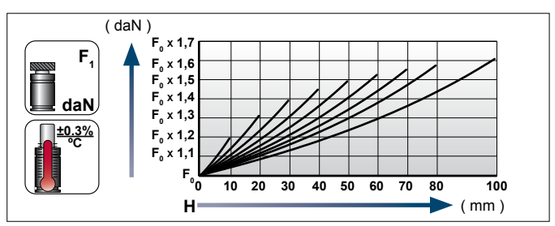
NC.091.16.
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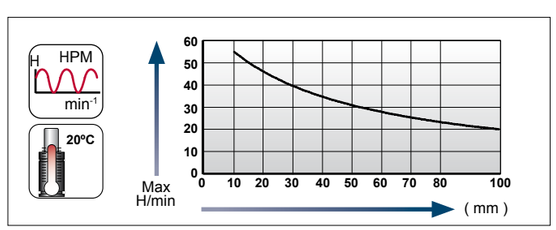
MAIL

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.091.16.00006	Grün / Green	20	6	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.091.16.00011	Blau / Blue	40	11	
NC.091.16.00021	Rot / Red	75	21	
NC.091.16.00042	Gelb / Yellow	150	42	
NC.091.16.000XX	Schwarz / Black	20 - 180	6 - 50	

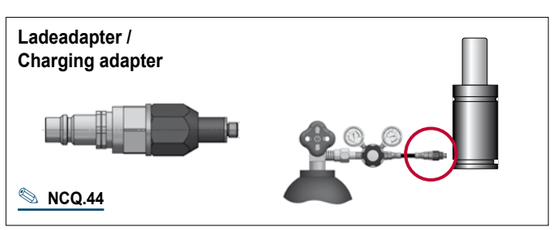
Hub / Stroke	L ±0,25	LG
010	**080**	70
020	**100**	80
030	**120**	90
040	**140**	100
050	**160**	110
060	**180**	120
070	**200**	130
080	**220**	140
100	**260**	160







Ladeadapter /
Charging adapter

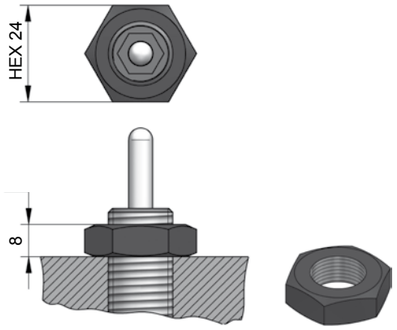


NCQ.44

[16.03.2020]

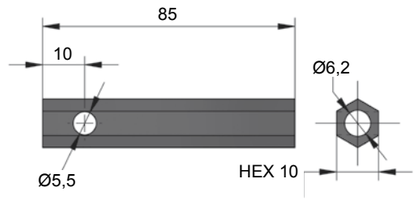
GDF, Abdrückstifte nach VDI 3004
GS, Plungers acc. to VDI 3004
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Kontermutter für / Locknut for **NC.091.16**



NC.88.00.016.0523

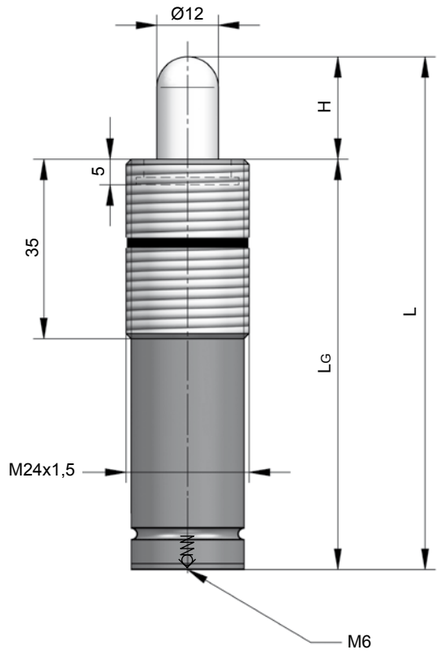
Montageschlüssel / Key



NCTU.LPT.10

[16.03.2020]

NC.091.24



ZUGELASSEN PED 2014/68/EU

VDI 3004

Innensechskant

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

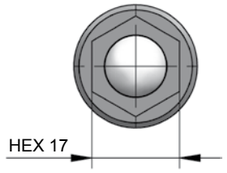
Einwegfeder ist nicht reparierbar!

Hexagon socket

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!

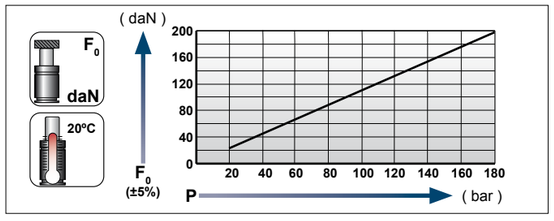


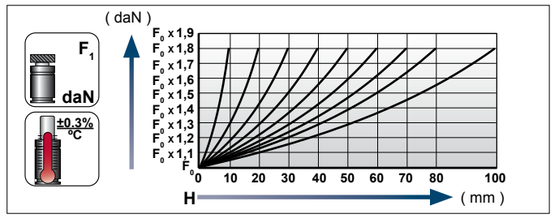
NC.091.24.
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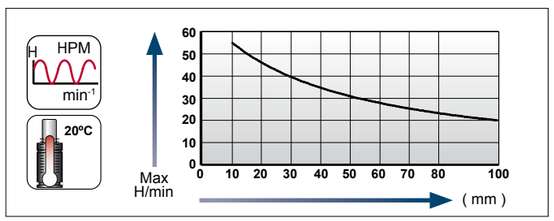
MAIL

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.091.24.00023	Grün / Green	20	23	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.091.24.00045	Blau / Blue	40	45	
NC.091.24.00085	Rot / Red	75	85	
NC.091.24.00170	Gelb / Yellow	150	170	
NC.091.24.00XXX	Schwarz / Black	20 - 180	23 - 200	

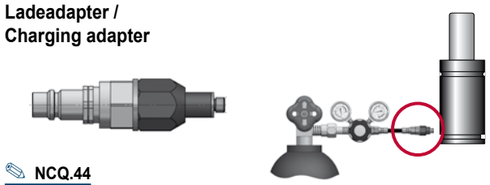
Hub / Stroke	L ±0,25	LG
010	**080**	70
020	**100**	80
030	**120**	90
040	**140**	100
050	**160**	110
060	**180**	120
070	**200**	130
080	**220**	140
100	**260**	160







Ladeadapter /
Charging adapter

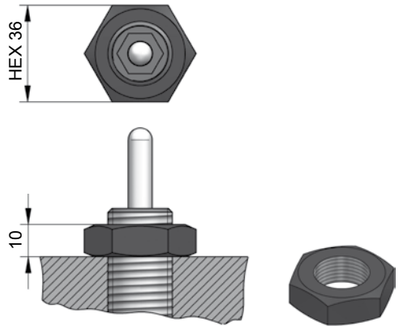


NCQ.44

[16.03.2020]

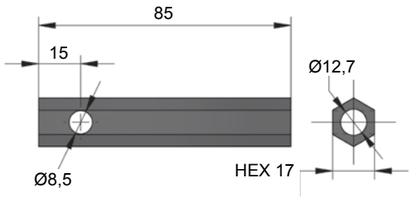
GDF, Abdrückstifte nach VDI 3004
GS, Plungers acc. to VDI 3004
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Kontermutter für / Locknut for **NC.091.24**



NC.88.00.016.0523

Montageschlüssel / Key



NCTU.LPT.17

[16.03.2020]

[NC]

NC.091.16.C

Innensechskant

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

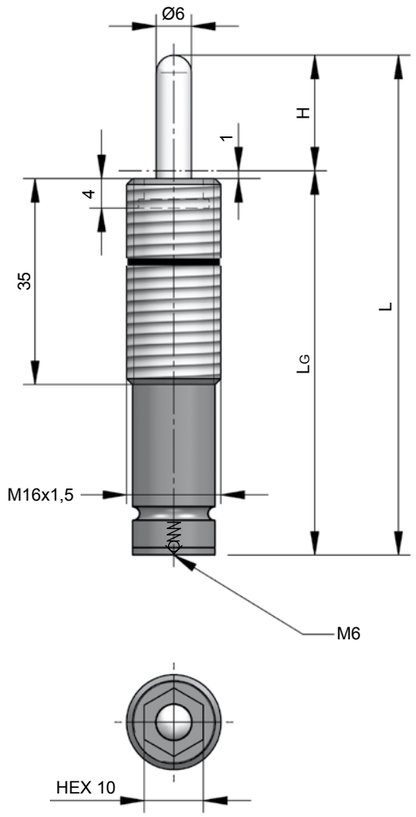
Einwegfeder ist nicht reparierbar!

Hexagon socket

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

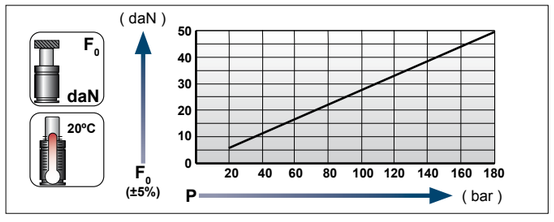
One-way spring is irreparable!

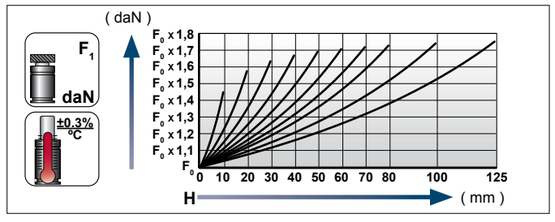


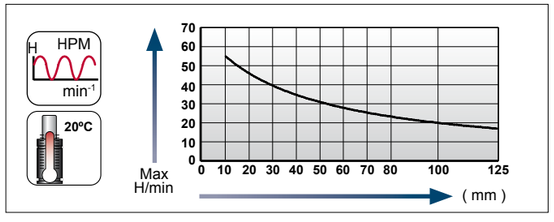
NC.091.16.C.
00011.105.030

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.091.16.C.00006	Grün / Green	20	6	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.091.16.C.00011	Blau / Blue	40	11	
NC.091.16.C.00021	Rot / Red	75	21	
NC.091.16.C.00042	Gelb / Yellow	150	42	
NC.091.16.C.000XX	Schwarz / Black	20 - 180	6 - 50	

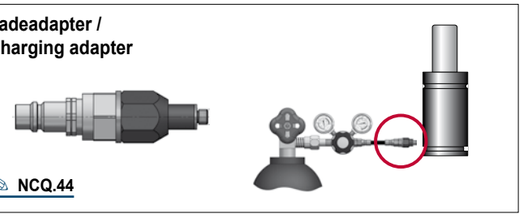
Hub / Stroke	L ±0,25	LG
010	**065**	55
020	**085**	65
030	**105**	75
040	**125**	85
050	**145**	95
060	**165**	105
070	**185**	115
080	**205**	125
100	**245**	145
125	**295**	170







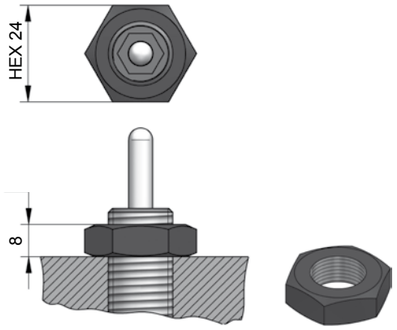
Ladeadapter /
Charging adapter



NCQ.44

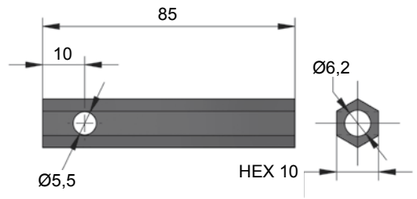
GDF, Abdrückstifte, System F, nach VDI 3004
GS, Plungers. F series, acc. to VDI 3004
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Kontermutter für / Locknut for **NC.091.16.C**



NC.88.00.016.0523

Montageschlüssel / Key



NCTU.LPT.10

[16.03.2020]
[16.03.2020]

NC.091.24.C

Innensechskant

Technische Daten:

Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

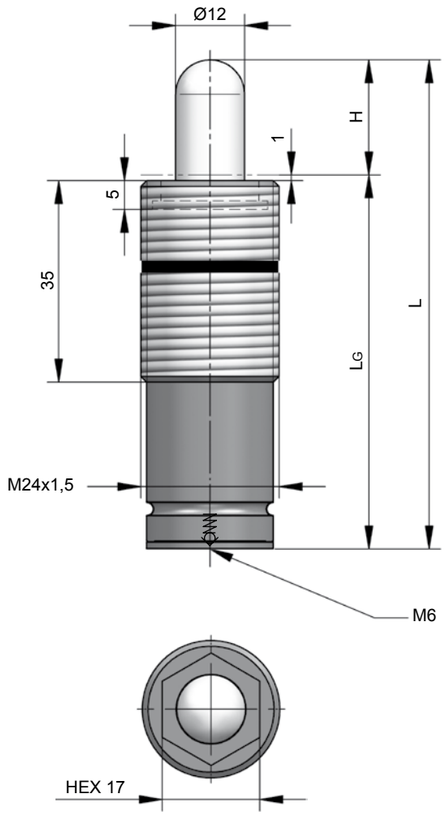
Einwegfeder ist nicht reparierbar!

Hexagon socket

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

One-way spring is irreparable!



ZUGELASSEN PED 2014/68/EU

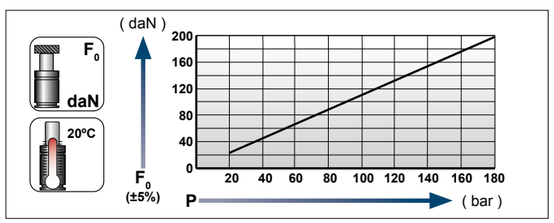
VDI 3004

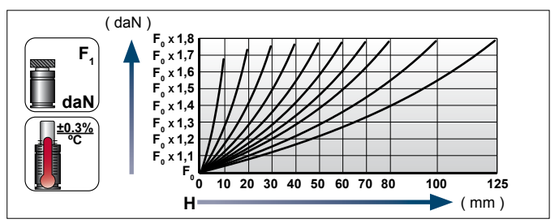
NC.091.24.C.
00045.145.050

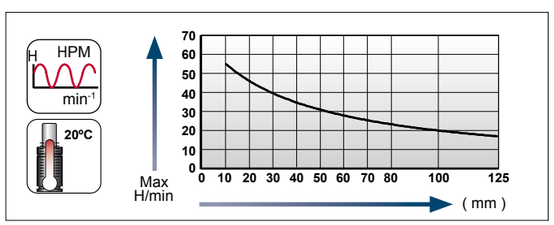
MAIL

Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Kraft / Force Ende / Final [daN]
NC.091.24.C.00023	Grün / Green	20	23	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
NC.091.24.C.00045	Blau / Blue	40	45	
NC.091.24.C.00085	Rot / Red	75	85	
NC.091.24.C.00170	Gelb / Yellow	150	170	
NC.091.24.C.00XXX	Schwarz / Black	20 - 180	23 - 200	

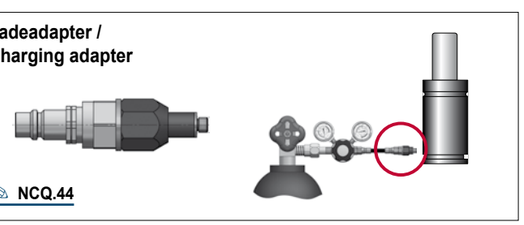
Hub / Stroke	L ±0,25	LG
010	**065**	55
020	**085**	65
030	**105**	75
040	**125**	85
050	**145**	95
060	**165**	105
070	**185**	115
080	**205**	125
100	**245**	145
125	**295**	170







Ladeadapter /
Charging adapter



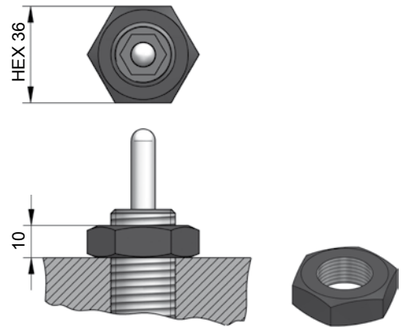
NCQ.44

[16.03.2020]

[16.03.2020]

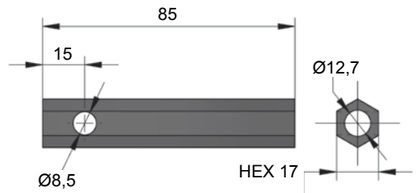
GDF, Abdrückstifte, System F, nach VDI 3004
GS, Plungers, F series, acc. to VDI 3004
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Kontermutter für / Locknut for **NC.091.24.C**



NC.88.00.016.0523

Montageschlüssel / Key



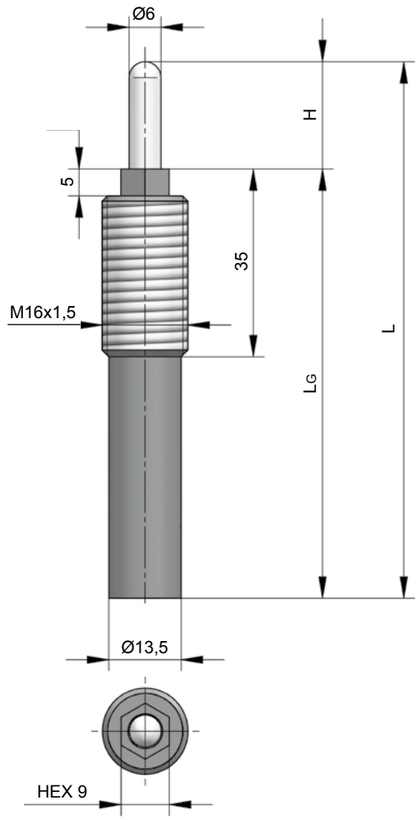
NCTU.LPT.17

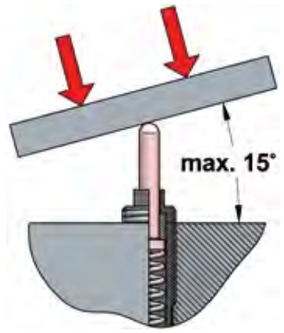
[NC]

NC.094.16.15

Abdrückstift mit Stahlfeder
für den Einsatz bis max. 15°

Plungers with steel spring
for use up to max. 15°





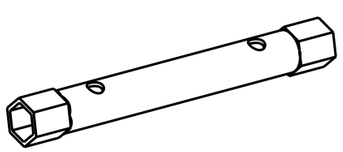
NC.094.16.15.
100.020

H Hub / Stroke	L ±0,25	LG	Kraft / Force min. [N]	 max. [N]
020	**100**	80	35	89
030	**120**	90	2	27
050	**200**	150	9	34

NCTU.LPV.8-9

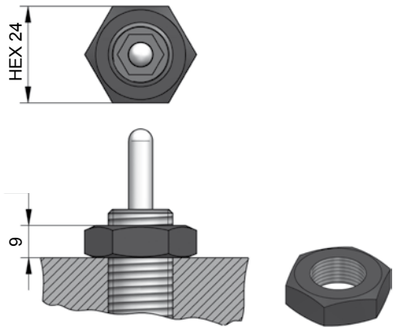
Montageschlüssel **Key**

NCTU.LPV.8-9



[16.03.2020]

Kontermutter für / Locknut for **NC.094.16.15**



NC.88.00.016.0523

NCF.1

Teileheber mit Gasdruckfedern (NC.054.01 oder NC.056) für vertikalen Einbau

Technische Daten:

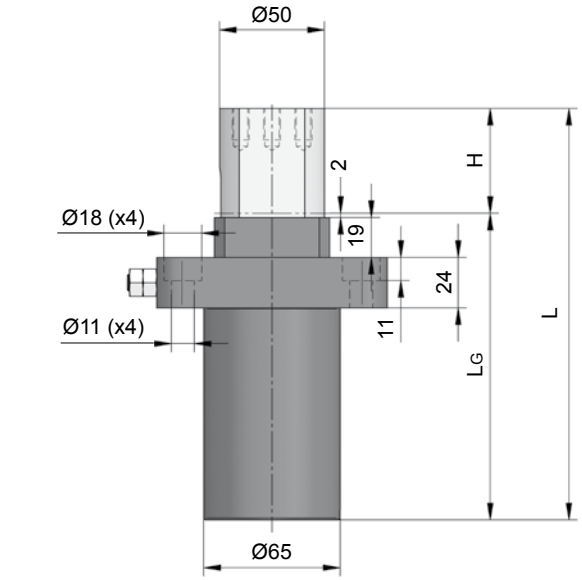
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

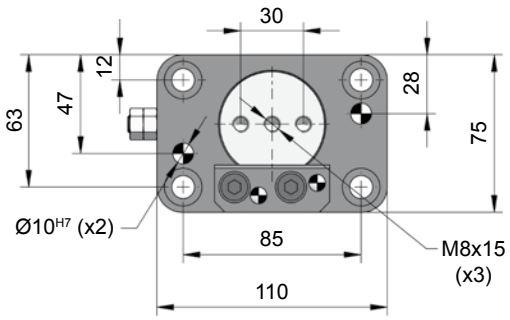
Lifter with gas springs (NC.054.01 or NC.056) for vertical mounting

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NCF.1.00050.050





CAD MAIL

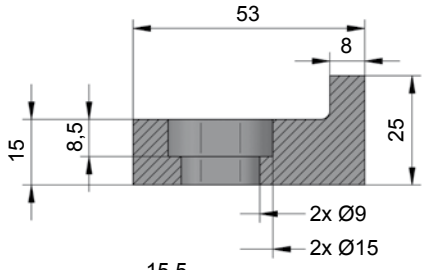
Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Ende / Final [daN] bei Hub / at stroke		
				050	080	100
NCF.1.00050	Grün / Green	45	50	75	84	93
NCF.1.00100	Blau / Blue	90	100	155	167	178
NCF.1.00150	Rot / Red	135	150	230	241	252
NCF.1.00200	Gelb / Yellow	180	200	305	318	327

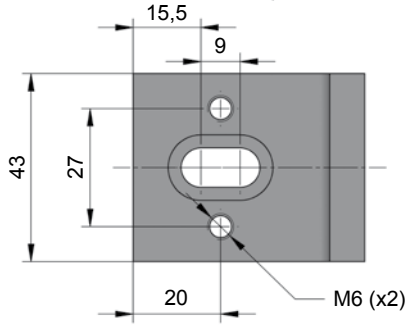
Hub / Stroke	L ±0,25	LG
050	196	146
080	256	176
100	296	196

NC.UEX

Hebeplatte **Liftingplate**

NC.UEX





CAD MAIL

[NC]

NCF.3

Teileheber mit Gasdruckfeder (NC.054.01 oder NC.056) für vertikalen und horizontalen Einbau

Technische Daten:

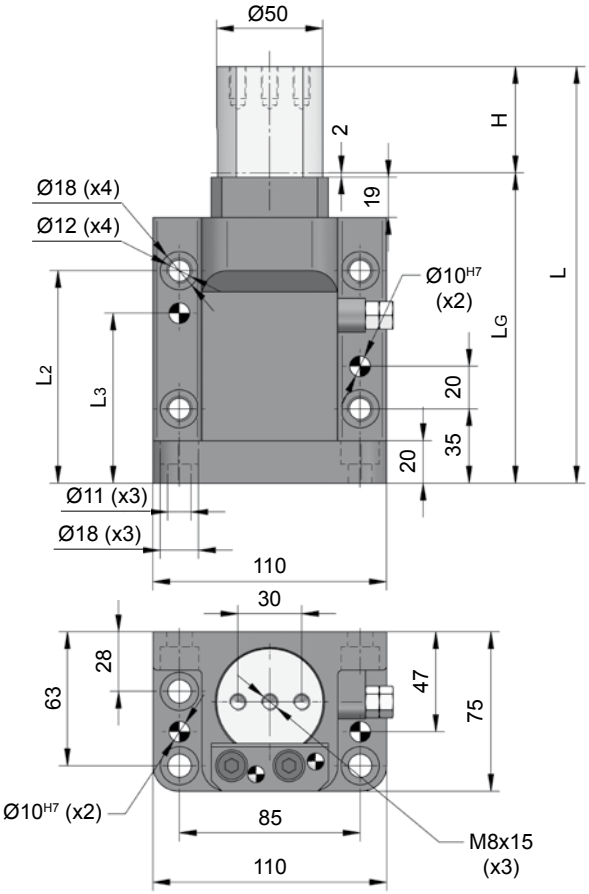
Medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Lifter with gas springs (NC.054.01 or NC.056) for vertical and horizontal mounting

Specifications:

Pressure medium:	N_2
$P_{max.}$ (20 °C):	180 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NCF.3.00100.080



CAD MAIL

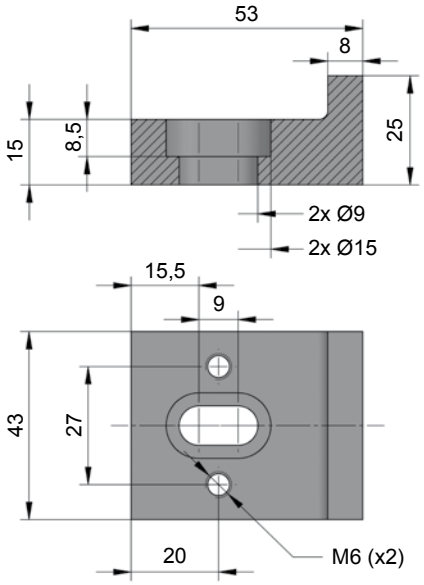
Typ / Type	Farbe / Color	Fülldruck Loading pressure [bar]	Kraft / Force Anfang / Initial [daN]	Ende / Final [daN] bei Hub / at stroke 050	080	100
NCF.3.00050	Grün / Green	45	50	75	84	93
NCF.3.00100	Blau / Blue	90	100	155	167	178
NCF.3.00150	Rot / Red	135	150	230	241	252
NCF.3.00200	Gelb / Yellow	180	200	305	318	327

Hub / Stroke	L ±0,25	LG	L2	L3
050	196	146	100	80
080	256	176	130	110
100	296	196	150	130

NC.UEX

Hebeplatte | **Liftingplate**

NC.UEX



CAD MAIL

NCP.SPVD

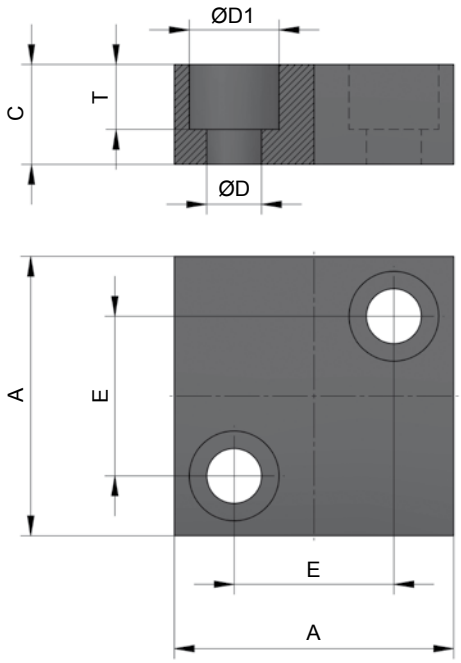
Druckplatten, VDI 3003

Mat.: F 125 / gehärtet

Thrust plates, VDI 3003

Mat.: F 125 / hardened

NCP.SPVD.002



Typ Type	max. Kolbenstangen-Ø max. piston rod-Ø	A	E	C	D	D1	T
NCP.SPVD.001	15	40	24	15	7	11	7
NCP.SPVD.002	50	70	50	15	9	15	9
NCP.SPVD.003	80	90	70	15	9	15	9

NCP.SPFI
NCP.SPPS

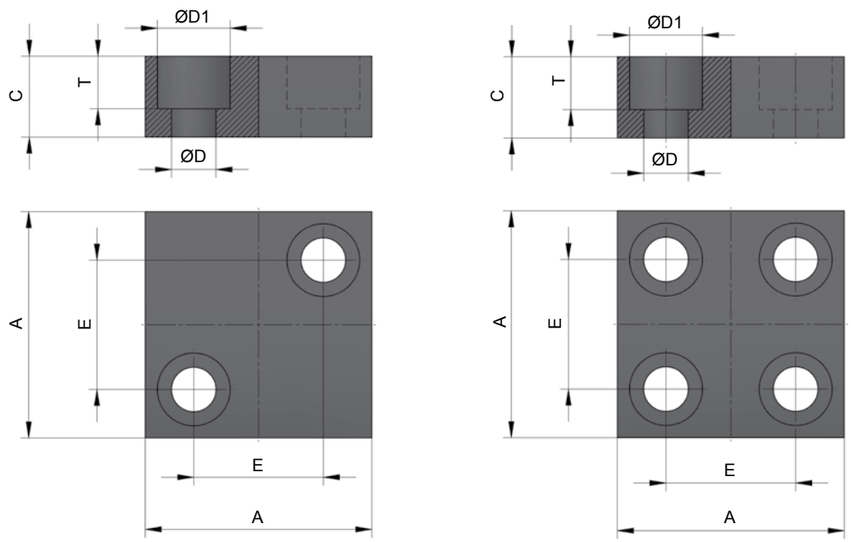
Druckplatten

Mat.: F 125 / gehärtet

Thrust plates

Mat.: F 125 / hardened

NCP.SPPS.003



NCP SPFI

NCP SPPS

CAD MAIL

Typ Type	max. Kolbenstangen-Ø max. piston rod-Ø	A	E	C	D	D1	T
NCP.SPFI.001	15	40	21	15	9	15	10
NCP.SPFI.002	25	56	32	20	11	18	13
NCP.SPFI.003	50	71	48	20	11	18	13
NCP.SPFI.004	65	90	67	20	11	18	13
NCP.SPFI.005	95	140	110	20	11	18	13

Typ Type	max. Kolbenstangen-Ø max. piston rod-Ø	A	E	C	D	D1	T
NCP.SPPS.001	15	40	21	15	9	15	10
NCP.SPPS.002	25	56	32	20	11	18	13
NCP.SPPS.003	65	90	67	20	11	18	13
NCP.SPPS.004	95	140	110	20	11	18	13
NCP.SPPS.005	130	155	125	20	11	18	13

[18.05.2020]

[18.05.2020]

GDF, Zubehör
GS, Accessories
AUTONOME GASDRUCKFEDERN / STAND ALONE GAS SPRINGS

Das Verbinden der Gasdruckfedern (GDF) mit Schläuchen zu einem oder mehreren Federsystemen bietet dem Anwender den Vorteil, dass der benötigte Stickstoffdruck im System über außerhalb am Werkzeug oder an der Maschine angebrachte Kontrollarmaturen überwacht werden kann. Im Bedarfsfall kann der Systemdruck durch Befüllen oder Ablassen den Bedürfnissen des Anwenders angepasst werden.

Hinweis: Bei GDF, die im Verbund eingesetzt werden, ist darauf zu achten, dass die Ventile aus den Gasdruckfedern entfernt werden müssen.

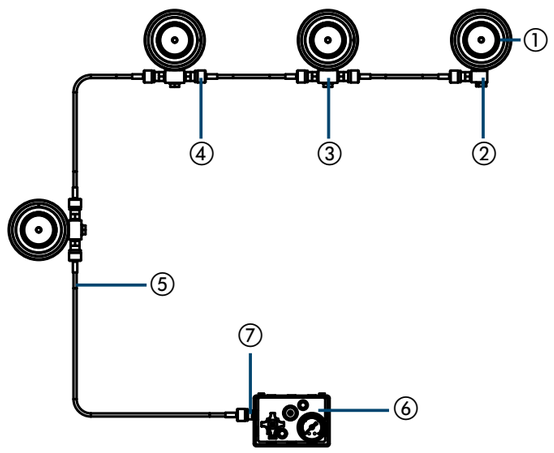
Für die Verschlauchung der GDF-Systeme stehen zwei unterschiedliche Varianten zur Verfügung:
1. Konus-System 24°
   (Seite NC.130.23 - 24)
2. Messschlauch-System

The hosing of gas springs gives the operator the advantage and the possibility to easily monitor the pressure by externally - to the die or the press - mounted control units.
By simply loading or discharging nitrogen the pressure can be changed to meet the requirements.

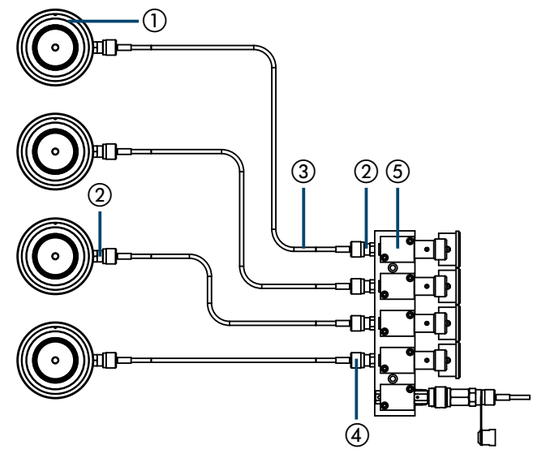
Attention: At hosed gas springs the valves have to be taken out first!

For hosing gas springs, we offer two different systems:
1. System 24° tapered
   (please see pages NC.130.23-24)
2. „Measuring hoses“-system

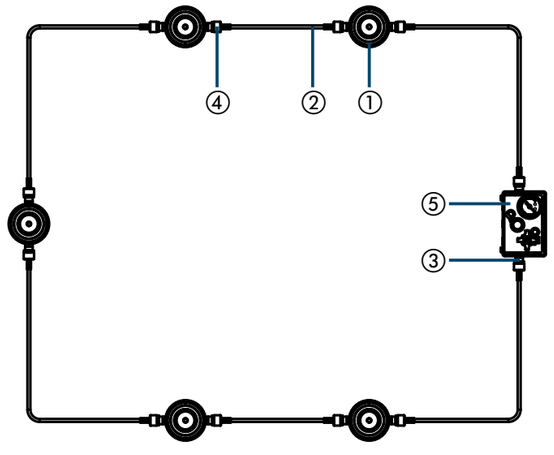
Vorschläge / Proposals:



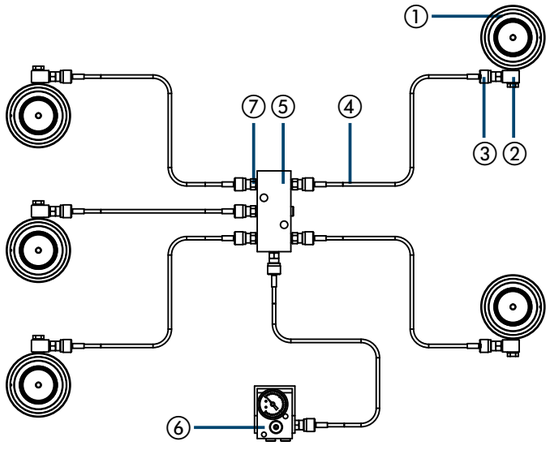
① NC.060.10.01500.050
② HS NF 2001-4-G1/8“
③ HS NF 3001-4-G1/8“
④ HS NHP 2
⑤ HS NH 220
⑥ NCCP.600.CPLC.01.1
⑦ HS NF 1001-4-G1/8“



① NC.060.10.01500.050
② HS NF 1001-4-G1/8“
③ HS NH 220
④ HS NHP 2
⑤ NCCP.400.CPFG.4.01



① NC.060.10.01500.050
② HS NH 220
③ HS NF 1001-4-G1/8“
④ HS NHP 5
⑤ NCCP.600.CPLC.01.1

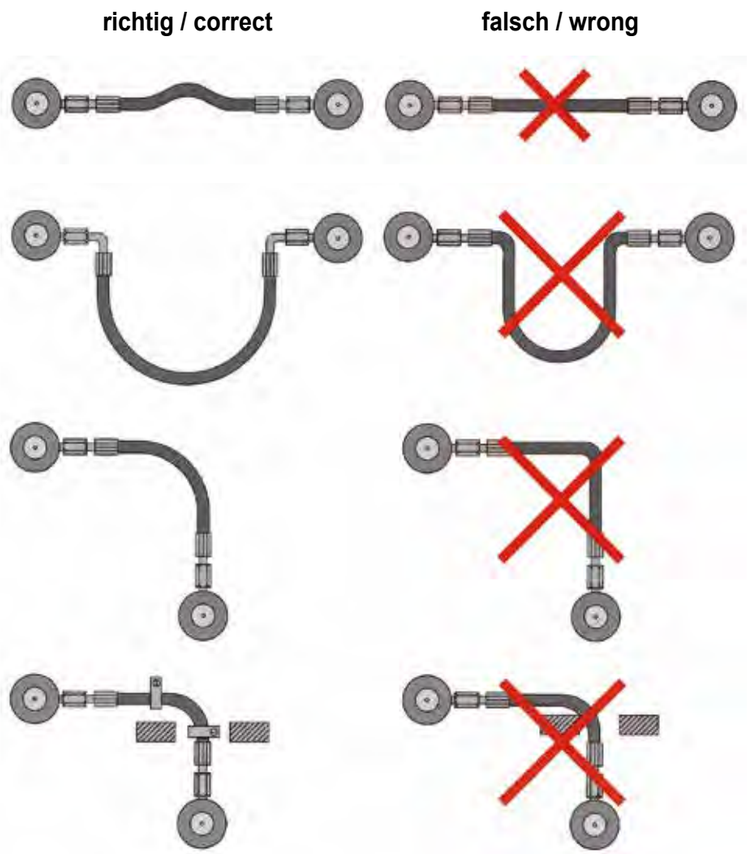


① NC.060.10.01500.050
② HS NF 2001-4-G1/8“
③ HS NHP 5
④ HS NH 220
⑤ NCCC.1.4
⑥ NCCP.600.CPLC.01.1
⑦ HS NF 1001-4-G1/8“

[NC]

Die Installation der Schlauchleitungen und die Umgebung in der sie benutzt werden beeinflussen die Lebensdauer einer Schlauchleitung. Die Länge der Schläuche muss so bestimmt werden, dass die Komponenten ohne Spannung verbunden werden können.
Ein wichtiger Faktor für die Lebensdauer des Schlauches ist die Berücksichtigung des Mindestbiegeradius (Biegeradius siehe Schlauchtabelle). Um Beschädigungen zu vermeiden, sollten die Schläuche zwischen den zu verbindenden Elementen auch mit Schlauchschellen befestigt werden. **Achtung:** Schläuche bei der Montage nicht verdrehen.

The proper hosing and mounting of hosed systems as well as the (clean) environment and surrounding they are being run in, do affect their lifetime significantly.
By calculating the hose lengths, please make sure, the hoses are long enough, that no component has to work under tension.
Another important factor is the minimal bending radius (please see hose-table).
To avoid damaging, please fix hoses with hose clips between gas springs. Do not twist hoses!



[18.05.2020]

NCCP.600.CPLC.01.1
NCCP.600.CPLC.02.1
NCCP.600.CPLC.03.1

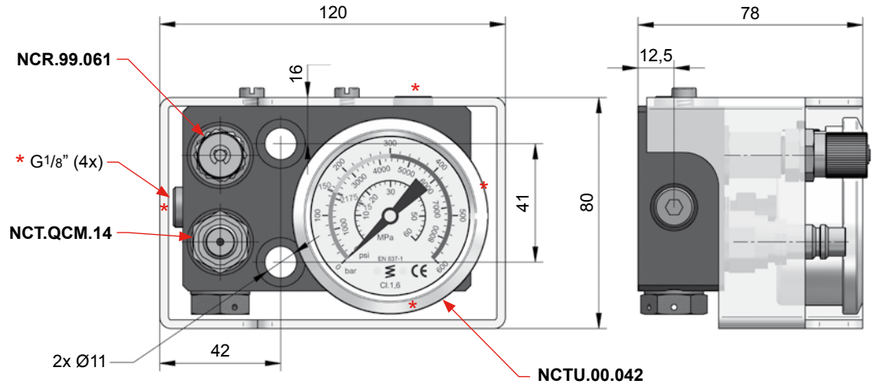
Kontrollarmaturen

NCCP.600.CPLC.01.1 =
ohne Berstscheibe
NCCP.600.CPLC.02.1 =
mit Berstscheibe
NCR.99.140.1 (517 bar)
NCCP.600.CPLC.03.1 =
mit Berstscheibe
NCR.99.139.1 (360 bar)

Control-panels

NCCP.600.CPLC.01.1 =
without rupture disc
NCCP.600.CPLC.02.1 =
with rupture disc
NCR.99.140.1 (517 bar)
NCCP.600.CPLC.03.1 =
with rupture disc
NCR.99.139.1 (360 bar)

NCCP.600. CPLC.01.1



MAIL

NCCP.600.CPGM.03.1
NCCP.600.CPGM.04.1

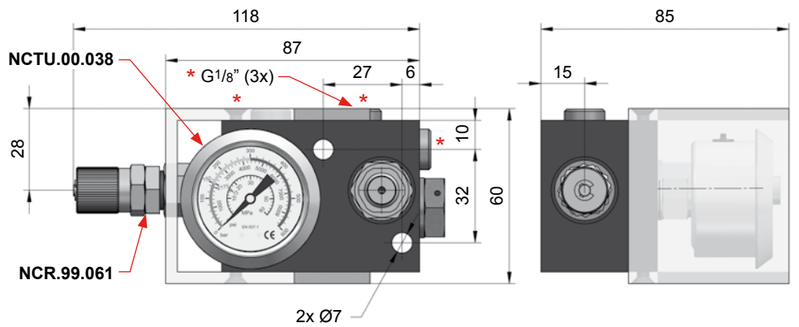
Kontrollarmaturen

NCCP.600.CPGM.03.1 =
ohne Berstscheibe
NCCP.600.CPGM.04.1 =
mit Berstscheibe
NCR.99.139.1 (360 bar)

Control-panels

NCCP.600.CPGM.03.1 =
without rupture disc
NCCP.600.CPGM.04.1 =
with rupture disc
NCR.99.139.1 (360 bar)

NCCP.600. CPGM.03.1



MAIL

[NC]

NCCP.400.CPFG...01

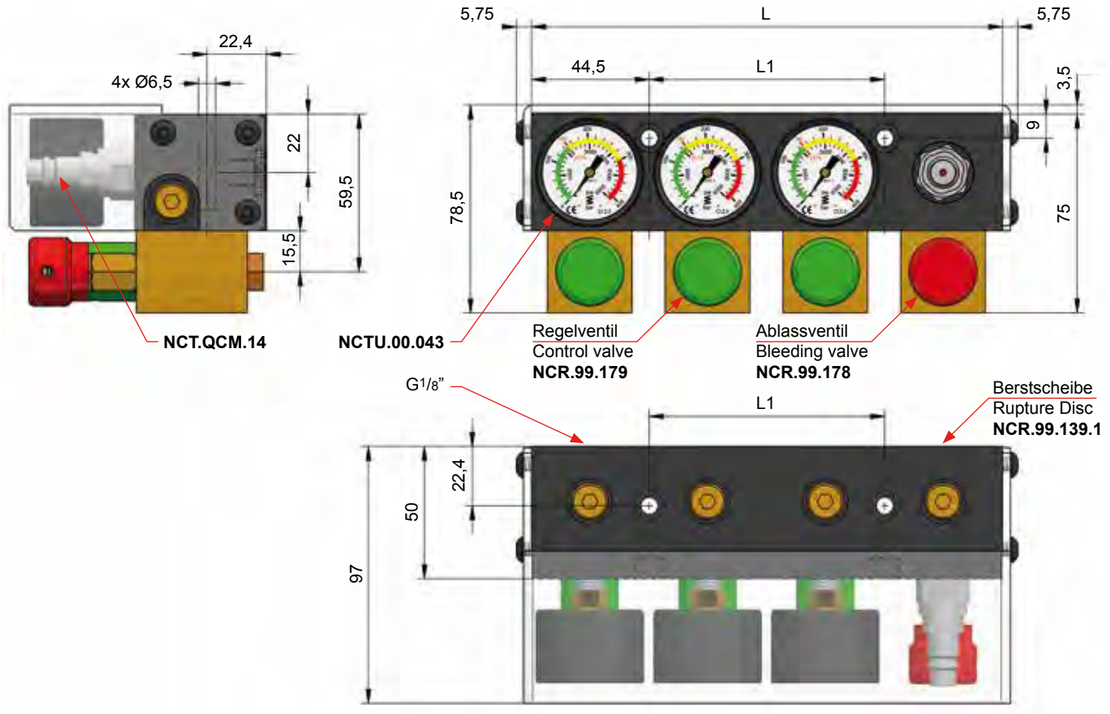
Multi-Kontrollarmaturen

Hinweis:
Die Multi-Kontrollarmatur kommt zum Einsatz, wenn GDF oder GDF-Gruppen mit unterschiedlichen Fülldrücken benötigt werden.
Über das Einlassventil/Stecknippel können die Federn/Gruppen mit Stickstoff befüllt werden.

Multi-control-units

Note:
In case gas springs or - groups need to show different pressures, this multi-control-unit is used.
The springs and systems are charged through the filling valves.

NCCP.400.CPFG.2.01



Typ Type	L	L1	Anschlüsse Connections
NCCP.400.CPFG.2.01	133,5	44,5	2
NCCP.400.CPFG.3.01	178	89	3
NCCP.400.CPFG.4.01	222,5	133,5	4
NCCP.400.CPFG.5.01	267	178	5
NCCP.400.CPFG.6.01	311,5	222,5	6
NCCP.400.CPFG.8.01	400,5	311,5	8
NCCP.400.CPFG.10.01	489,5	400,5	10

HS Z 20

Information:
Wird der Druckwächter direkt in eine Kontrollarmatur eingeschraubt benötigten Sie den Adapter **NCQ.11**.

Druckwächter werden im Druckbereich von 40 - 240 bar zur Überwachung des Systemdrucks eingesetzt. Bei Druckabfall wird bei Elektroanschluss die Maschine gestoppt. Bei Stickstoffverlust kann auch über optische oder akustische Signale gewarnt werden.

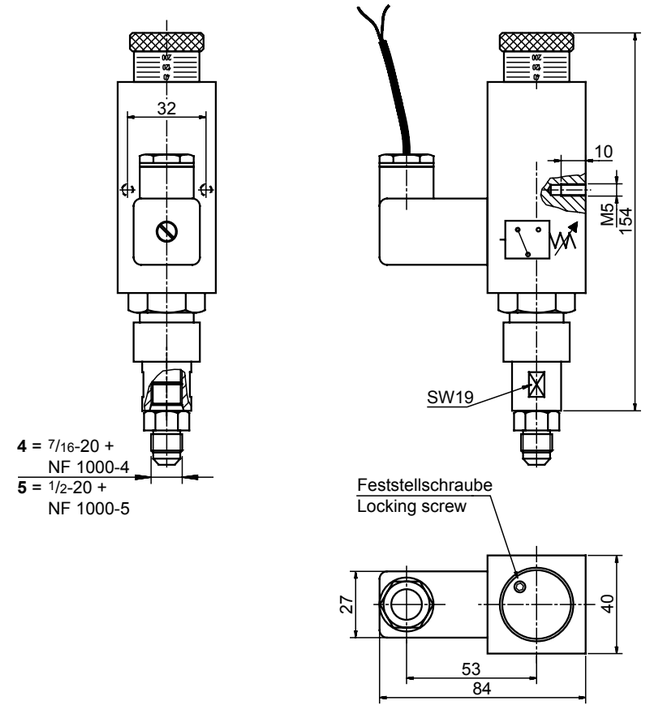
Bei der Bestellnummer ergänzen:
4 = Anschluss 7/16 - 20 + NF 1000-4
5 = Anschluss 1/2 - 20 + NF 1000-5

Information:
In case the pressure monitor is used in connection with a control panel, the Adapter **HS Z20-5-NCQ.11** is needed.

These units are being used to monitor the system-pressure (between 40 and 240 bars). In cases of a pressure decrease optical / accustical warnings can be initiated or the press can even be stopped.

HS Z 20 - 4

When ordering, please specify:
4 = Connection-thread 7/16 - 20 + NF 1000-4
5 = Connection-thread 1/2 - 20 + NF 1000-5



NCCC.1.2

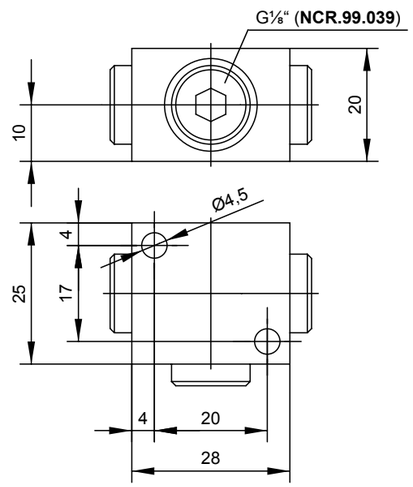
Verteilerblocks

Achtung:
Benötigte Anschlussstücke siehe Seite NC.130.23.

Distribution blocks

Attention:
For fitting connectors please see page NC.130.23.

NCCC.1.2



CAD MAIL

NCCC.1.4

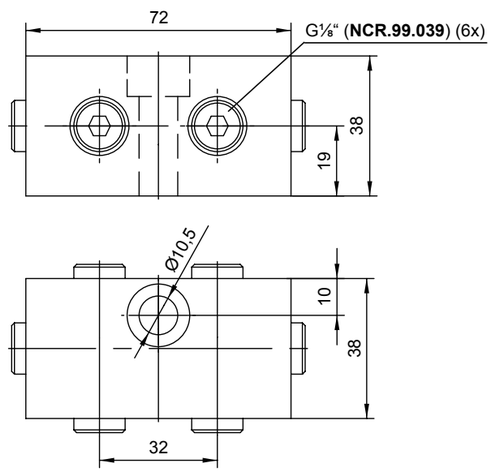
Verteilerblocks

Achtung:
Benötigte Anschlussstücke siehe Seite NC.130.23.

Distribution blocks

Attention:
For fitting connectors please see page NC.130.23.

NCCC.1.4



CAD MAIL

[18.05.2020]

[18.05.2020]

NCCC.6.6

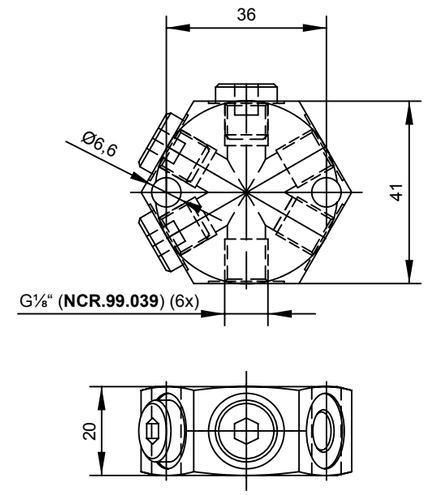
Verteilerblocks

Achtung:
Benötigte Anschlussstücke siehe Seite NC.130.23.

Distribution blocks

Attention:
For fitting connectors please see page NC.130.23.

NCCC.6.6



CAD MAIL

NCCC.1.7

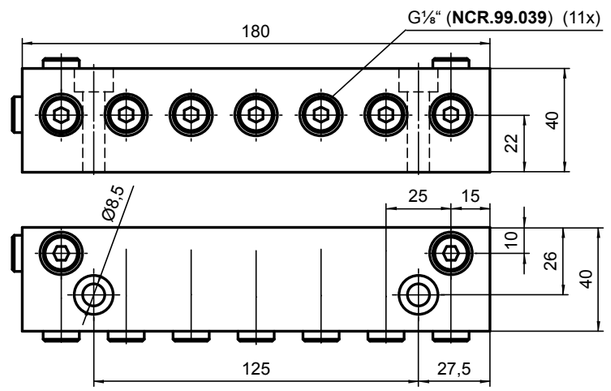
Verteilerleisten

Achtung:
Benötigte Anschlussstücke siehe Seite NC.130.23.

Distribution blocks

Attention:
For fitting connectors please see page NC.130.23.

NCCC.1.7



MAIL

[NC]

NCCC.1.10.01

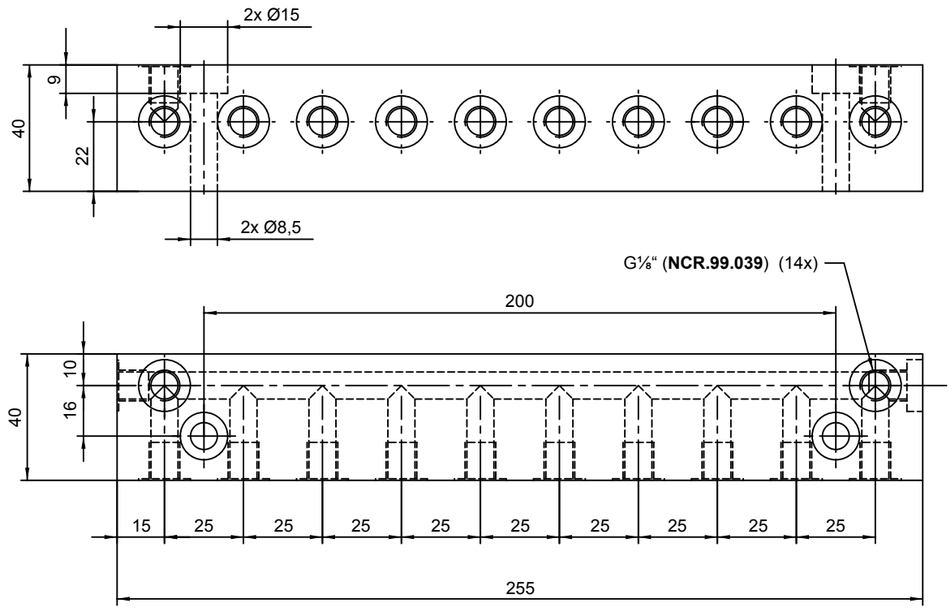
Verteilerleisten

Achtung:
Benötigte Anschlussstücke siehe Seite NC.130.23.

Distribution blocks

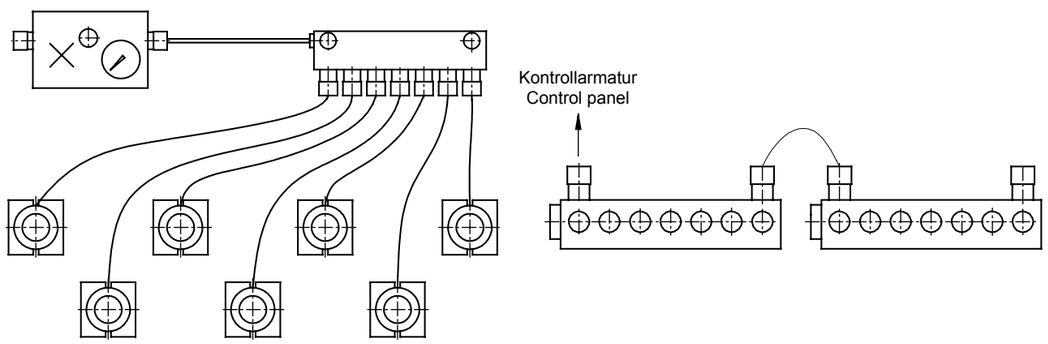
Attention:
For fitting connectors please see page NC.130.23.

NCCC.1.10.01



CAD MAIL

Beispiel / Example



NCQ

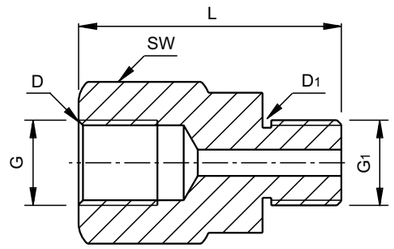
Ladeadapter

Dichtung Typ P: flach
Dichtung Typ T: O-Ring

Charging adapters

Seal Type P: flat
Seal Type T: O-ring

NCQ.11



MAIL

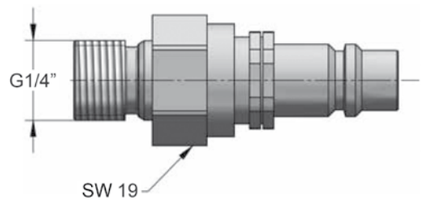
Typ Type	D	G	G1	D1	SW	L
11	T	1/2“-20	G1/8“	P	16	30
19	T	7/16“-20	M6-lang / long	T-T	19	34
20	P	G1/8“	G1/8“	P	16	25
26	P	G1/8“	G1/8“	P	17	20
32	P	G1/8“	M6-lang / long	P	13	28
34	P	1/2“-20	M6-lang / long	T-T	19	34
35	P	1/2“-20	G1/8“	P	19	30

NCT.QCM.14

Stecknippel

Male quick release couplings

NCT.QCM.14



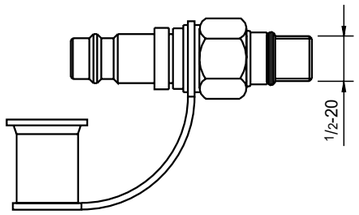
MAIL

HS 11-700-8555

Stecknippel (HS NDZ-22)

Male quick release couplings (HS NDZ-22)

HS 11-700-8555



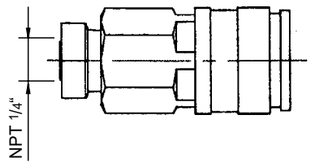
MAIL

HS 11-770-2700

Steckkupplungen (HS NDZ-21A)

Female quick release couplings (HS NDZ-21A)

HS 11-770-2700



MAIL

[18.05.2020]

Speichertanks können den Druckanstiegs-Faktor signifikant reduzieren und damit unter anderem auch die Wärmeentwicklung, was zusätzlich zu längeren Standzeiten der Gasdruckfedern führt.

Aufgrund der von Fall zu Fall stark voneinander abweichenden Anforderungen sind diese Tanks in unterschiedlichsten Ausführungen und Größen erhältlich. Bei der entsprechenden Auswahl und Spezifikation helfen wir gerne.

Bitte nennen Sie uns in diesem Fall
- die gewünschte Kraft
- die benötigte Hublänge
- die ungefähre Anzahl und maximale Größe der Gasdruckfedern
- den angestrebten Druckanstieg (empfohlen zwischen 5 % und 20 %)

Sollten Sie sich bereits für ein Gasdruckfeder-Modell bzw. eine Abmessung entschieden haben, teilen Sie uns auch dies gerne mit.

Compression tanks can significantly reduce the pressure rise factor and thereby the temperature increase, which additionally results in longer service lives of the gas springs.

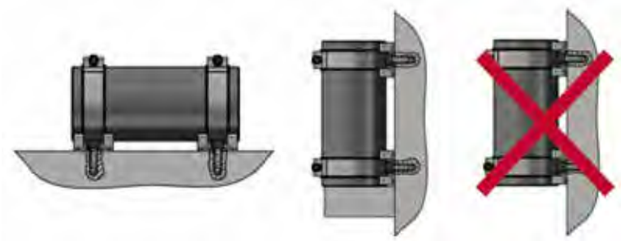
Due to the widely spread requirements in regards to volumes, sizes etc., these tanks are available in different designs, forms and shapes.
We will gladly help you with the appropriate selection and specification.

In that case, please specify
- the desired force
- the required stroke length
- the approximate number and maximum size of the gas springs, and
- the target pressure rise factor (recommended between 5% and 20%)

If you have already decided on a gas spring model or dimension, please let us know as well.

Speichertanks und Ausführungen auf Anfrage!

Compression tanks and designs on demand!



MAIL

[18.05.2020]

NC Hinweisschild

NC Hinweisschild / D

Märkische Stanz-Partner Normalien GmbH
Jüngerstraße 17 • D-58515 Lüdenscheid
Tel. +49 (0) 23 51 / 6 61 07-0 • Fax +49 (0) 23 51 / 6 61 07-77

ACHTUNG

Werkzeug/Presse ist mit Gasdruckfedern bestückt.

Fülldruck max. 150 bar - 180 bar - 200 bar

Achtung:
Arbeiten am System nur im drucklosen Zustand.
Bitte Wartungsanleitung lesen.

Druck max. ..... bar Arbeitsdruck ..... bar

Märkische Stanz-Partner Normalien GmbH
Jüngerstraße 17 • D-58515 Lüdenscheid
Tel. +49 (0) 23 51 / 6 61 07-0 • Fax +49 (0) 23 51 / 6 61 07-77

Attention

This die / this press utilizes nitrogen gas springs with high pressure (150 bar - 180 bar - 200 bar) and the resulting very high forces.

Repair and maintenance must only take place after the unit(s) have been unloaded and unpressured!

Pressure max. ..... bar Working pressure ..... bar

HS NCA 3000

Abfüllarmaturen

Charging assemblies

HS NCA 3000

HS NCCS

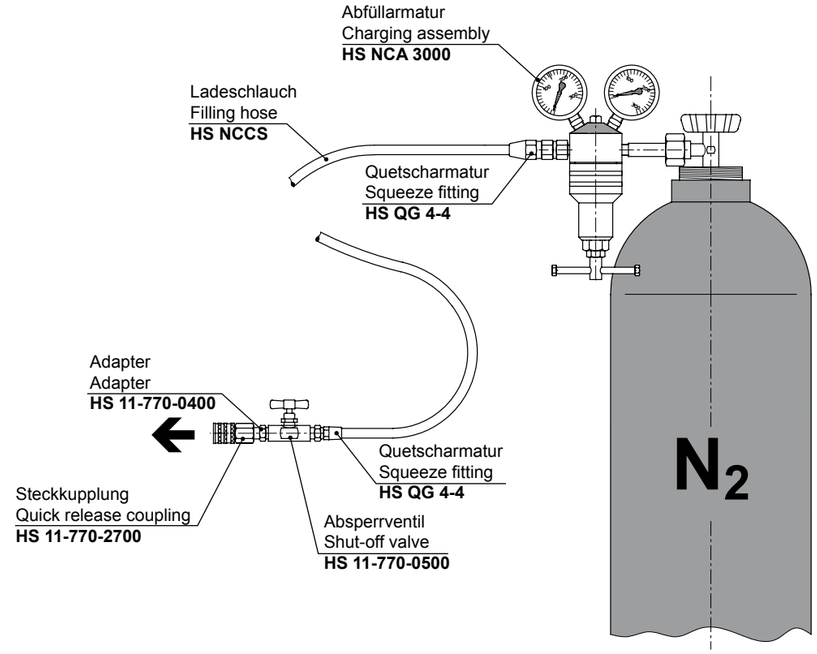
Ladeschläuche

Standardlänge: 3000 mm

Filling hoses

Standard length: 3000 mm

HS NCCS



NCCA.1.1

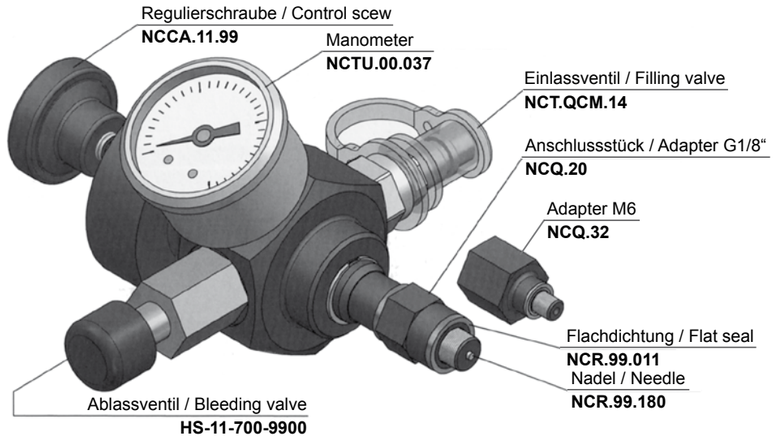
Kontroll- und Ladearmatur zur Druckkontrolle von Stickstoff-Zylindern.
Über das Einlassventil der Armatur kann der Druck erhöht werden.
Über das Ablassventil kann der Druck reduziert oder der Zylinder in einen drucklosen Zustand versetzt werden.

Lieferumfang:
1 x Kontroll-Ladearmatur **NCCA.1.1**
1 x Adapter **NCQ.32** M6
1 x Adapter **NCQ.20** G1/8

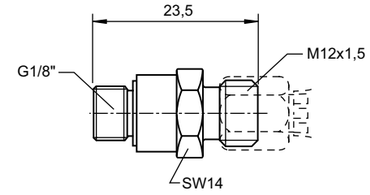
Pressure control unit for pressure monitoring of gas springs.
The filling valve is used to charging the spring and increasing its pressure, while the bleeding valve reduces the load, possibly even down to 1 bar only.

Included are
1 x pressure control unit **NCAA.1.1**
1 x adapter **NCQ.32** M6
1 x adapter **NCQ.20** G1/8

NCCA.1.1

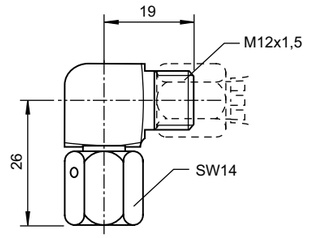


Anschlussstücke, gerade / Straight Fittings



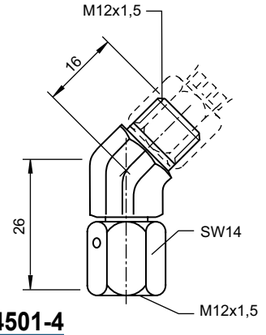
HS NF 1001-4-G1/8

Winkelstücke 90° / Threaded joints, 90°



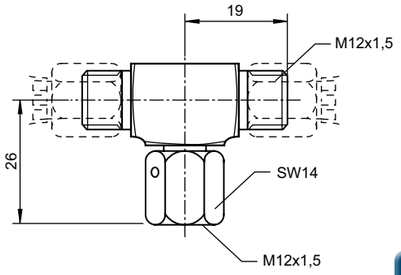
HS NF 2001-4

Winkelstücke 45° / Threaded joints, 45°



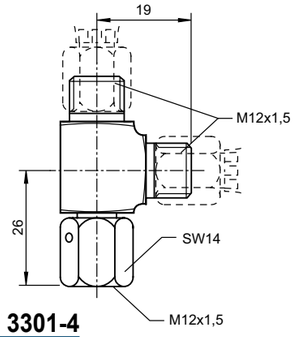
HS NF 4501-4

T-Anschlussstücke / T-Connectors



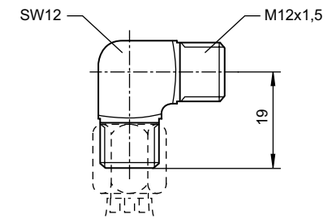
HS NF 3001-4

L-Anschlussstücke / L-Connectors



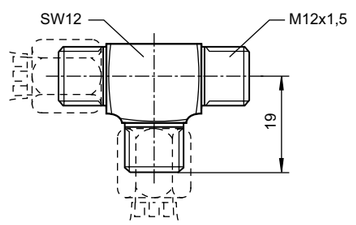
HS NF 3301-4

Winkelstücke 90° / Threaded joints, 90°



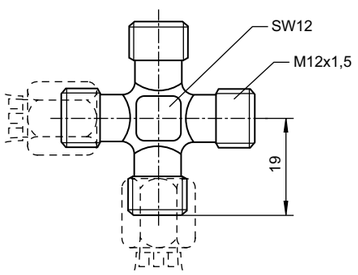
HS NF 2501-4

T-Anschlussstücke / T-Connectors



HS NF 3501-4

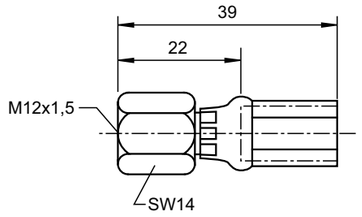
Anschlussstücke, Kreuz / Adapters cross



HS NF 5501-4

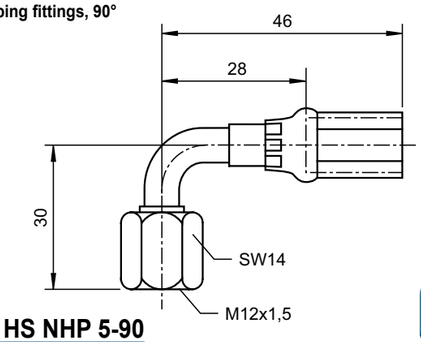
Hochdruckschläuche komplett mit Pressarmaturen nach Kundenangaben (HS NH 220) /
High pressure hoses, complete with pressed-on adapters as per customers' specifications (HS NH 220)

Pressarmaturen, gerade /
Crimping fittings, straight



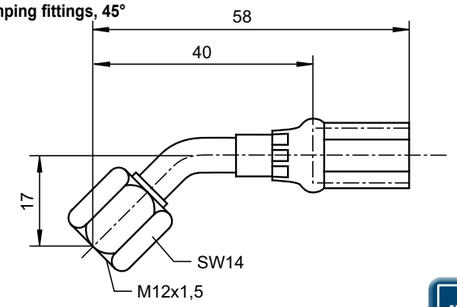
HS NHP 5

Pressarmaturen 90° /
Crimping fittings, 90°



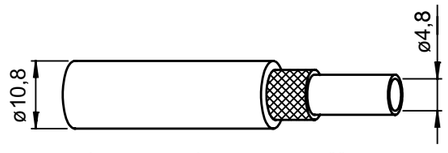
HS NHP 5-90

Pressarmaturen 45° /
Crimping fittings, 45°



HS NHP 5-45

Hochdruckschläuche (Pressschläuche) /
High pressure hoses, flexible



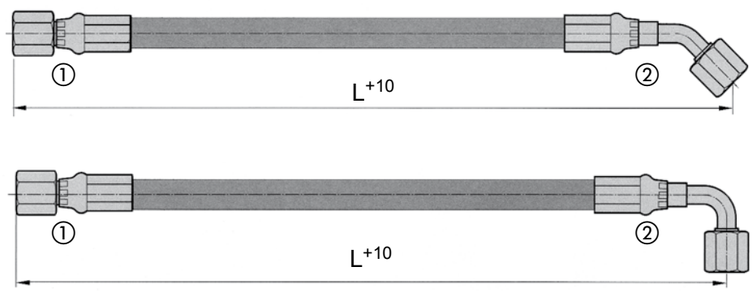
Biegeradius / Bending radius = 38 mm

HS NH 220

Bitte bei Bestellung angeben:

L = Gesamtlänge [mm]
L_{min} = 200 mm
① = Typ Armatur 1
② = Typ Armatur 2
α = Lage der Anschlüsse bei abgewinkelten Armaturen

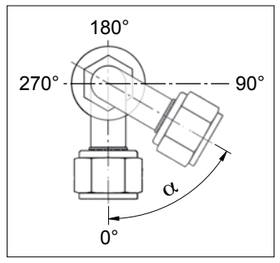
Hinweis:
Bei der Festlegung der Gesamtlänge müssen die Verlegehinweise von Seite NC.130.4 beachtet werden!



Please specify when ordering:

L = Total length [mm]
L_{min} = 200 mm
① = Type fitting 1
② = Type fitting 2
α = When using angled fittings: degrees of angle

In order to calculate the exact hose-lengths, please follow the instructions on page NC.130.4.

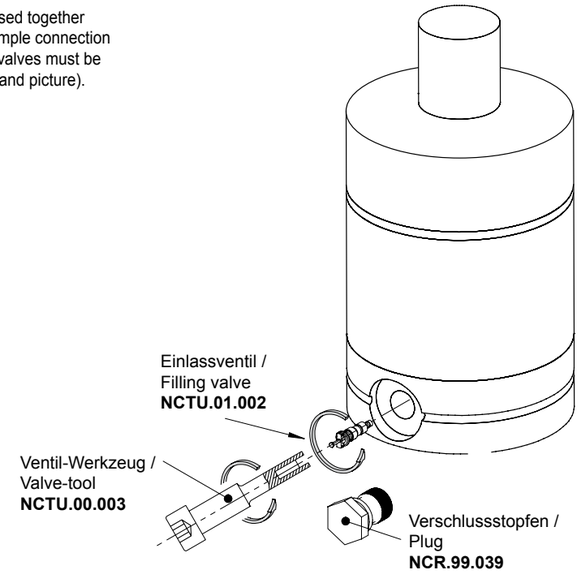


HS NH 220 / 380 / HS NHP 5-45 / HS NHP 5-90 / 60°

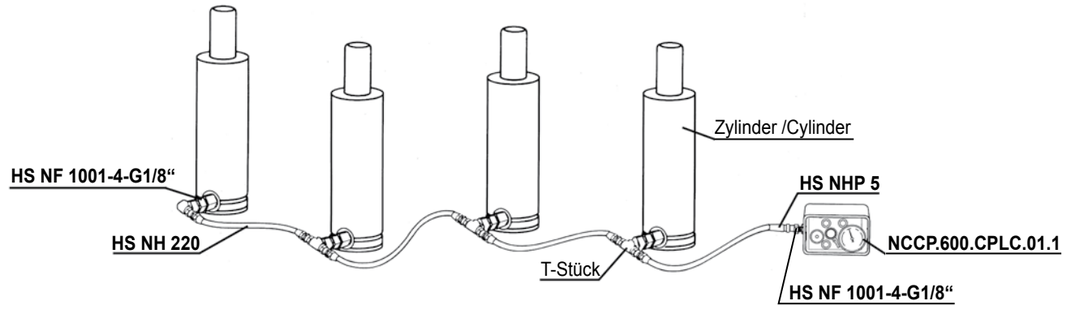
[18.05.2020]

Hinweis:
Bei NitroCyl-Gasdruckfedern, die im Verbund eingesetzt werden (siehe Anschlussschema), ist darauf zu achten, dass die Ventile aus den Gasdruckfedern entfernt werden müssen (siehe rechts).

Attention:
If gas-springs are hosed together (like shown in the sample connection diagram below), the valves must be removed (see right hand picture).



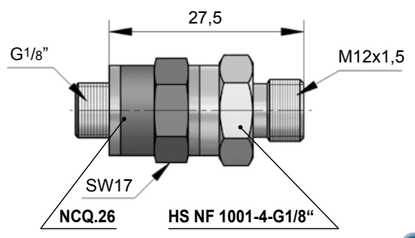
Anschlussschema / Connection diagram



[18.05.2020]

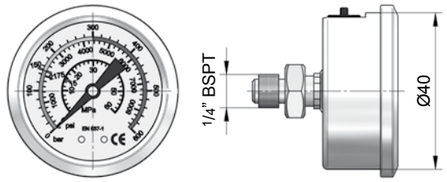
[NC]

Anschlussstücke HS NF 1001-4-G1/8“ mit Adapter NCQ.26 /
Straight fittings HS NF 1001-4-G1/8“ with adapter NCQ.26



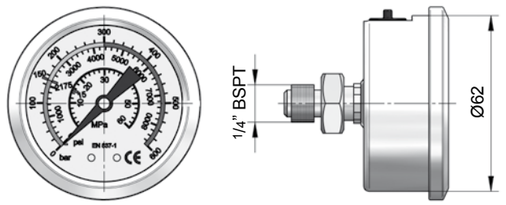
HS NF 1003-4-G1/8“

Kontrollarmaturen 600 bar / Control panels 600 bar



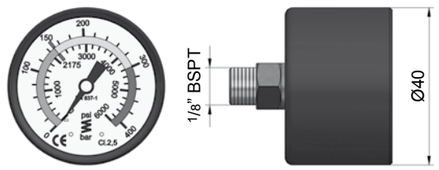
NCTU.00.038

Kontrollarmaturen 600 bar / Control panels 600 bar



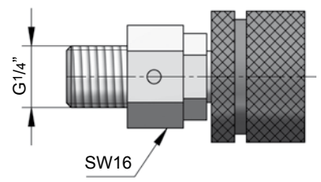
NCTU.00.042

Kontrollarmaturen 400 bar / Control panels 400 bar



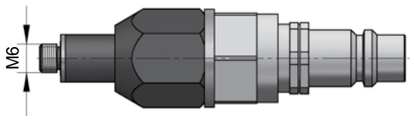
NCTU.00.043

Ablassventile / Bleeding valves



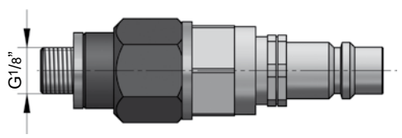
NCR.99.061

Ladeadapter / Charging adapters



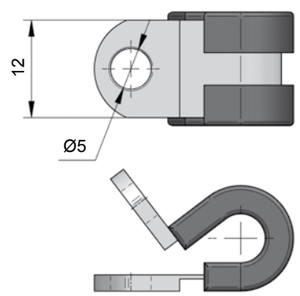
NCQ.44

Ladeadapter / Charging adapters



NCQ.46

Schlauchschellen / Hose clamps



NCR.99.176

[18.05.2020]

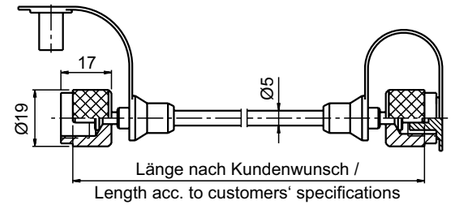
[18.05.2020]

Schlauchlängen nach Kundenwunsch! /
Hose length acc. to customer‘s specifications

Standardlängen / Standard lengths [mm]:

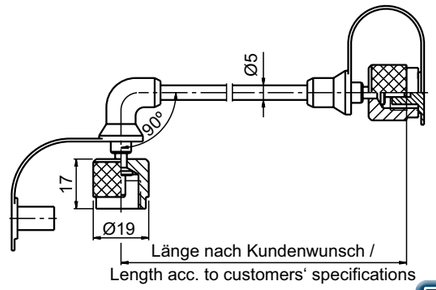
200	**700**	**2000**
300	**800**	**2500**
400	**900**	**3000**
500	**1000**	
600	**1500**	

Schläuche / Hoses NCX.12



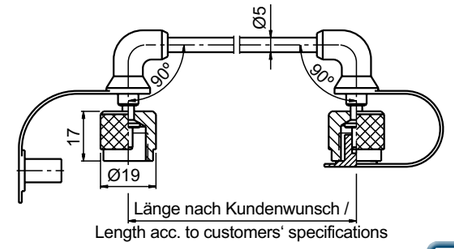
NCX.12.00200

Schläuche / Hoses NCX.13



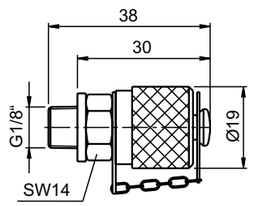
NCX.13.00300

Schläuche / Hoses NCX.15



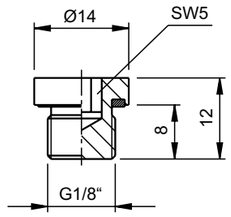
NCX.15.00400

Anschlussstücke mit Ventil und Schutzkappe NCI.00.12 /
Adapters with valve and cover NCI.00.12



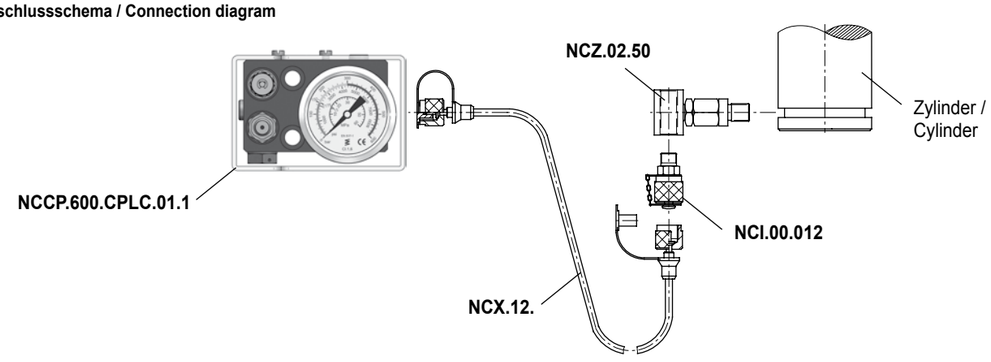
NCI.00.012

Verschlussstopfen / Plugs – NCR.99.039



NCR.99.039

Anschlussschema / Connection diagram



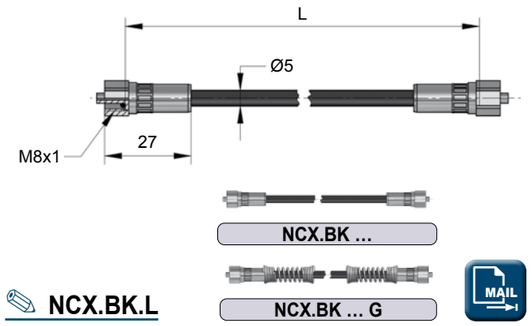
[NC]

Schlauchlängen nach Kundenwunsch! /
Hose length acc. to customer's specifications

Standardlängen / Standard lengths [mm]:

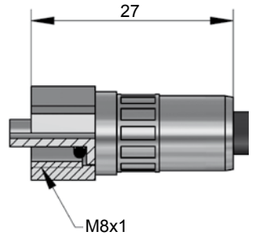
200	800	2000
300	1000	2500
400	1200	3000
500	1250	
630	1500	

Schläuche (inkl. Pressarmaturen NCT.BKRT) /
Hoses (incl. Crimping fittings NCT.BKRT)



NCX.BK.L

Pressarmaturen / Crimping fittings



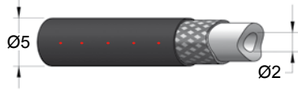
NCT.BKRT

Hochdruckschläuche / High pressure hoses

Pmax 400 bar

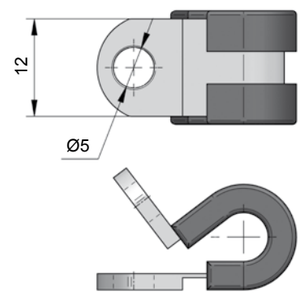
Tmax 100 °C

Rmin 20 mm



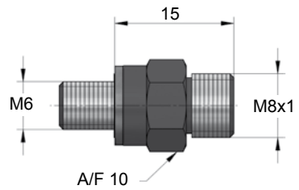
NCX.20.00.010.L

Schlauchschellen / Hose clamps



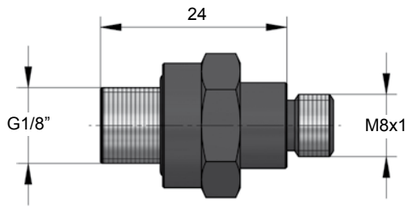
NCR.99.102

Anschlussstücke / Adapters



NCI.BK.KRM6

Anschlussstücke / Adapters

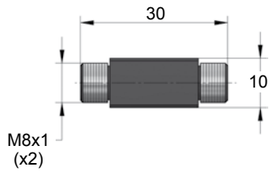


NCI.BK.KRM8

[18.05.2020]

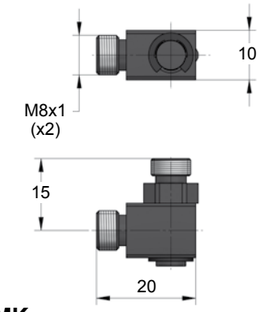
[18.05.2020]

Anschlussstücke / Adapters



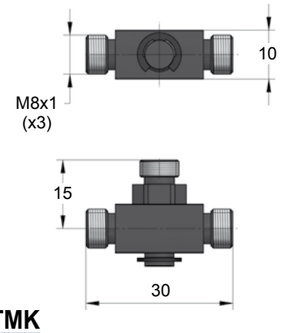
NCI.BK.KRMK

Anschlussstücke / Adapters



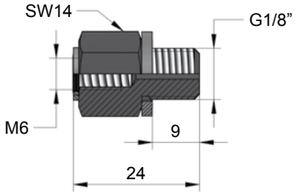
NCI.BK.KCMK

Anschlussstücke / Adapters



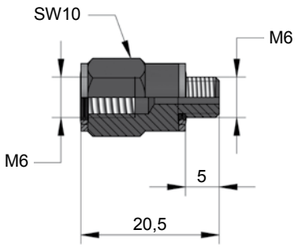
NCI.BK.KTMK

Anschlussstücke / Adapters



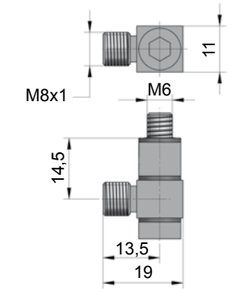
NCQ.37

Anschlussstücke / Adapters



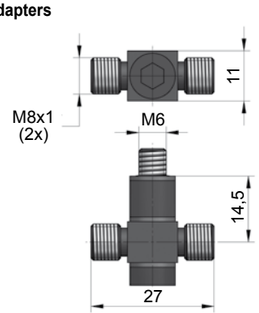
NCQ.33

Anschlussstücke / Adapters



NCI.BK.90BK.1

Anschlussstücke / Adapters

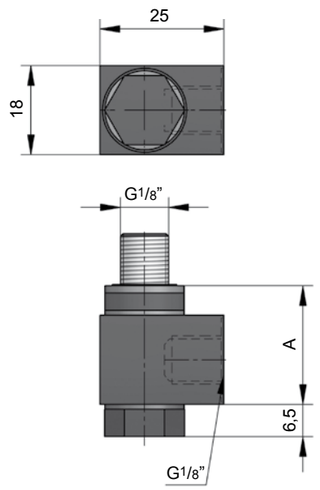


NCI.BK.TEBK.1

NCZ.01

Anschlussstücke, 1-fach | One way adapters

NCZ.01.48



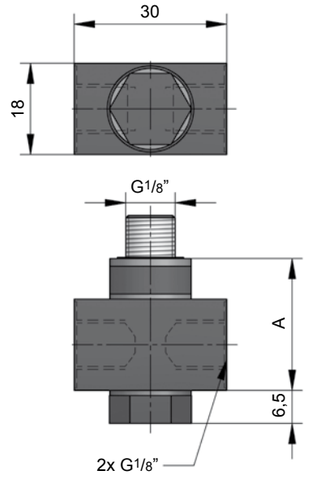
CAD MAIL

Typ / Type	A
NCZ.01.24	24
NCZ.01.38	38
NCZ.01.48	48

NCZ.02

Anschlussstücke, 2-fach | Two way adapters

NCZ.02.40



CAD MAIL

Typ / Type	A
NCZ.02.26	26
NCZ.02.40	40
NCZ.02.50	50

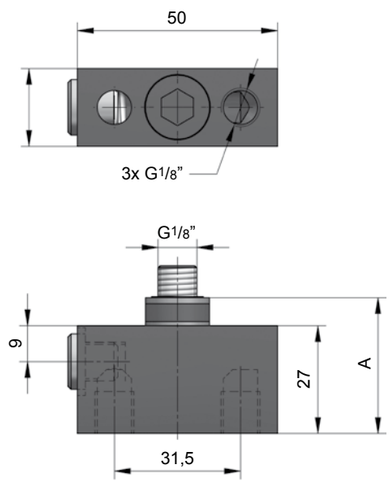
[18.05.2020]

[18.05.2020]

NCZ.03

Anschlussstücke, 3-fach | Three way adapters

NCZ.03.55



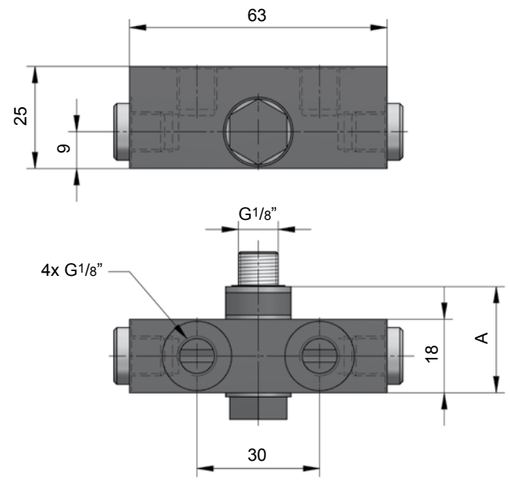
CAD MAIL

Typ / Type	A
NCZ.03.34	34
NCZ.03.48	48
NCZ.03.55	55

NCZ.04

Anschlussstücke, 4-fach | Four way adapters

NCZ.04.26



CAD MAIL

Typ / Type	A
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NCZ.04.40	40
NCZ.04.50	50

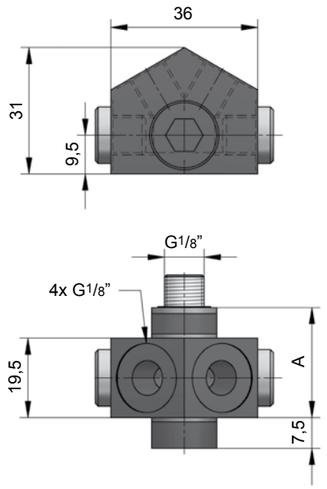
[NC]

NCZ.05

Anschlussstücke, 5-fach

Five way Adapters

NCZ.05.41



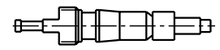
CAD MAIL

Typ / Type	A
NCZ.05.27	27
NCZ.05.41	41
NCZ.05.48	48

[18.05.2020]

[18.05.2020]

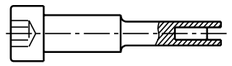
Ventile / Valves



Anzugskraft / Torque: 0,8 Nm

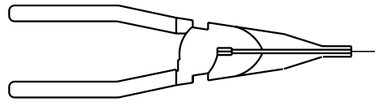
NCTU.01.002 MAIL

Ventil-Werkzeuge / Valve-tools



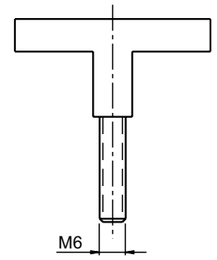
NCTU.00.003 MAIL

Ventil-Zangen / Valve-pliers



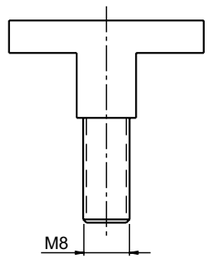
NCTU.00.001 MAIL

Montage-Werkzeuge (Kolbenstange) / Assembly tools (Piston rod)



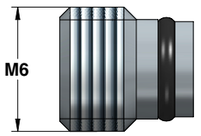
NCTU.00.006 MAIL

Montage-Werkzeuge (Kolbenstange) / Assembly tools (Piston rod)



NCTU.00.008 MAIL

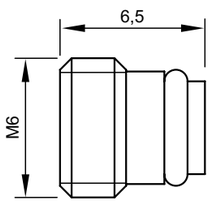
Ventile / Valves



wird für kleine Abmessungen benötigt / needed for small dimensions

NCR.99.147 MAIL

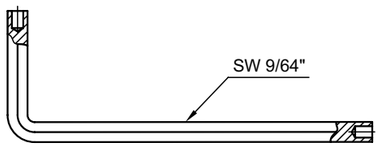
Ventile / Valves



Anzugskraft / Torque: 0,5 Nm

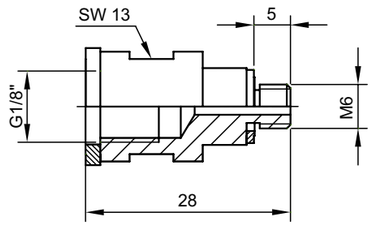
NCR.99.082 MAIL

Sechskantschlüssel / Hexagon socket head wrenches



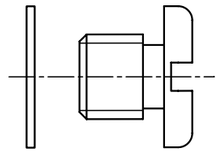
NCTU.00.030 MAIL

Ladeadapter / Filling adapters



NCQ.32

Stopfen / Plugs



NCR.99.008

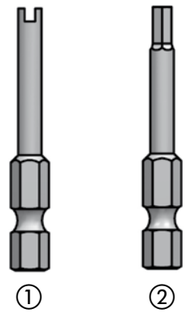
Entlüftungswerkzeug / Bleeding tools



NCTU.00.550

Drehmomentschlüssel / Torque wrenches





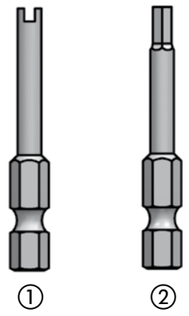
Lieferumfang:
1 x Drehmomentschlüssel **NCTU.00.009**
1 x Bit **NCTU.00.047** (①)
für Ventil NCTU.01.002
1 x Bit **NCTU.99.151** (②)
für Ventil NCR.99.022

Included are:
1 x Torque wrench **NCTU.00.009**
1 x Bit **NCTU.00.047** (①)
for valve NCTU.01.002
1 x Bit **NCTU.99.151** (②)
for valve NCR.99.022

NCTU.00.009

Bithalter / Bit holder





Lieferumfang:
1 x Bithalter **NCTU.00.041**
1 x Bit **NCTU.00.047** (①)
für Ventil NCTU.01.002
1 x Bit **NCTU.99.151** (②)
für Ventil NCR.99.022

Included are:
1 x Bit holder **NCTU.00.041**
1 x Bit **NCTU.00.047** (①)
for valve NCTU.01.002
1 x Bit **NCTU.99.151** (②)
for valve NCR.99.022

NCTU.00.041

[18.05.2020]

[18.05.2020]

NCTU.200

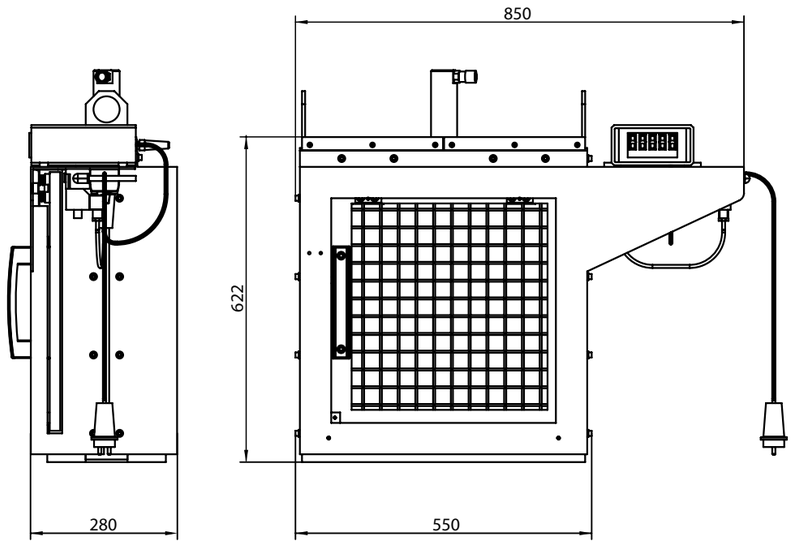
**Kraftmessgerät mit digitaler Anzeige für Gasdruckfedern
Tischgerät mit Sicherungskäfig**

Ausführung:
P = Pneumatik (Luftanschluss)
M = manuell (hydraulische Handpumpe, 150 mm Weg)

**Gas-Spring - Dynamometer with digital display.
Table-mounted version with protective metal-housing**

Options:
P = Pneumatic (compressed air required)
M = Manual style, hydraulic hand pump with a 150 mm stroke-length

NCTU.200.05000.P



Das Modell NCTU.200 muss vor Inbetriebnahme auf einer stabilen Fläche befestigt werden.

**ACHTUNG:
Kraftmessgeräte dürfen nur bei geschlossenem Sicherungskäfig in Betrieb genommen werden.**

Before bringing into service, the NTCU.200 - unit must be mounted to a strong, flat surface.

**IMPORTANT:
The Dynamometer must only be used with the protective metal-housing completely shut!**

Typ / Type	Messbereich / Range [daN]
NCTU.200.05000.P	0 - 5000
NCTU.200.05000.M	0 - 5000

NCTU.300

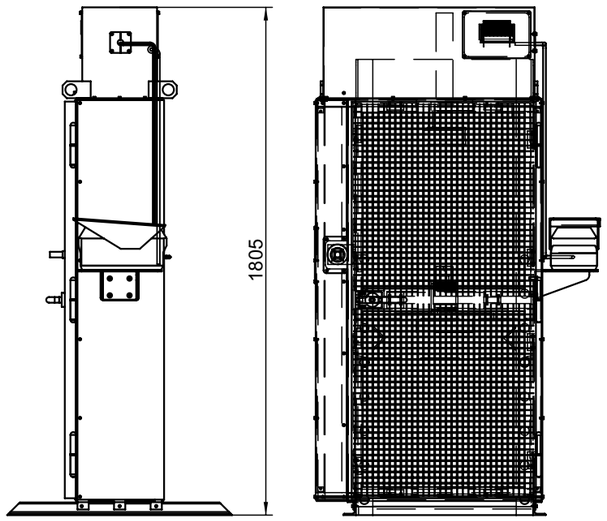
Kraftmessgerät mit digitaler Anzeige für Gasdruckfedern
Standgerät mit Sicherungskäfig

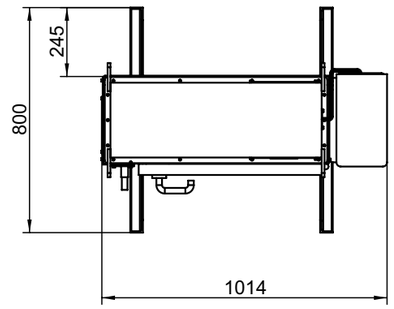
Ausführung:
P = Pneumatik (Luftanschluss)
Auf Wunsch auch manuelle Ausführung.

Gas-Spring - Dynamometer with digital display.
Floor-mounted version with protective metal-housing

Options:
P = Pneumatic
Manual style upon request

NCTU.300.07500.P





Das Modell NCTU.300 wenn möglich am Boden befestigen.

ACHTUNG:
Kraftmessgeräte dürfen nur bei geschlossenem Sicherungskäfig in Betrieb genommen werden.

Before bringing into service, the NTCU.300 - unit should be mounted to the floor, if possible.

IMPORTANT:
The Dynamometer must only be used with the protective metal-housing completely shut !

MAIL

Typ / Type	Messbereich / Range [daN]
NCTU.300.10000.P	0 - 10000

[18.05.2020]

NCTU.00.016

Die Druckeinheit **NCTU.00.016** wurde entwickelt um die Stickstoffflasche, welche zum Befüllen von Gasdruckfedern, Tanks und Tankerplatten benötigt wird, bis auf ein Minimum von ca. 20 bar entleeren zu können.

Bitte fordern Sie technische Unterlagen an!

At a point, where the pressure in the nitrogene bottle reaches values under desired levels (f.e. 120 bars), this accumulator pulls the nitrogene out of the bottle (down to a rest of around 20 bars) and compresses it to the needed higher pressure needed (f.e. 150 bars).

Please contact us for further information!

NCTU.00.016



MAIL

[18.05.2020]

[NC]

NCTU.00.099

NCTU.00.099

Werkzeugsatz bestehend aus:

NCCA.1.1	Kontroll-/Ladearmatur 7
NCTU.00.550	Ventil-Werkzeug R1/8“ / M6 6
NCTU.00.041	Bithalter 3
NCTU.00.047	Bit für Ventil **NCTU.01.002** 4
NCTU.99.151	Bit für Ventil **NCR.99.082** 5
NCTU.00.DALL3	Sechskantschlüssel 3 1
NCTU.00.DALL5	Sechskantschlüssel 5 2
NCTU.00.LRP1	Sicherheitsring-Werkzeug 15
NCTU.00.039	Kolbenstangen-Zieher M16 13
NCTU.00.040	Kolbenstangen-Zieher M3 10
NCTU.00.006	Kolbenstangen-Zieher M6 11
NCTU.00.008	Kolbenstangen-Zieher M8 12
NCR.99.034	Aluminium-Koffer
NCTU.00.001	Ventil-Zange 14
NCTU.00.116	Montagehülse Ø12-16 16
NCTU.00.122	Montagehülse Ø20-22 17
NCTU.00.125	Montagehülse Ø25 18
NCTU.00.128	Montagehülse Ø28 19
NCTU.00.136	Montagehülse Ø36 20
NCTU.00.145	Montagehülse Ø45 21
NCTU.00.150	Montagehülse Ø50 22
NCTU.00.160	Montagehülse Ø60 23

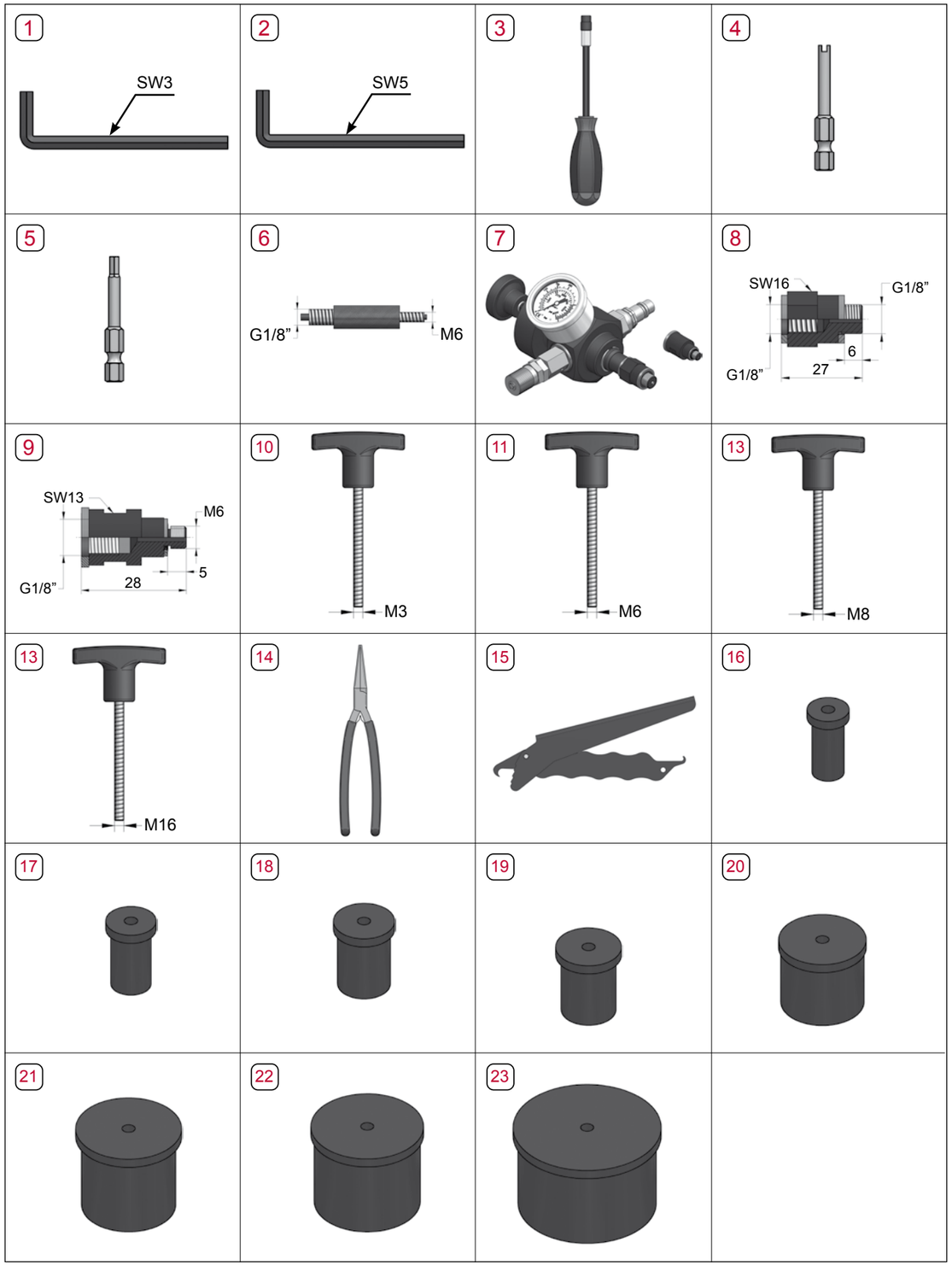
Toolkit consisting of:

NCCA.1.1	Pressure controller unit 7
NCTU.00.550	Valve-tool R1/8“ / M6 6
NCTU.00.041	Bit holder 3
NCTU.00.047	Bit for valve **NCTU.01.002** 4
NCTU.99.151	Bit for valve **NCR.99.082** 5
NCTU.00.DALL3	Hexagon socket head wrench 3 1
NCTU.00.DALL5	Hexagon socket head wrench 5 2
NCTU.00.LRP1	Locking ring tool 15
NCTU.00.039	Piston rod puller M16 13
NCTU.00.040	Piston rod puller M3 10
NCTU.00.006	Piston rod puller M6 11
NCTU.00.008	Piston rod puller M8 12
NCR.99.034	Aluminum suitcase
NCTU.00.001	Valve-pliers 14
NCTU.00.116	Assembly sleeve Ø12-16 16
NCTU.00.122	Assembly sleeve Ø20-22 17
NCTU.00.125	Assembly sleeve Ø25 18
NCTU.00.128	Assembly sleeve Ø28 19
NCTU.00.136	Assembly sleeve Ø36 20
NCTU.00.145	Assembly sleeve Ø45 21
NCTU.00.150	Assembly sleeve Ø50 22
NCTU.00.160	Assembly sleeve Ø60 23



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[18.05.2020]



HS KarryKrimp 1

Zum Verpressen von Hydraulikschläuchen mit ein oder zwei Stahldraht- oder Textilgeflechteinlagen im Größenbereich von 4 bis 20 (ID).

Zum Lieferumfang gehören die Presse mit Handpumpe, Schlauchleitung und zwei Pressringe.
Pressbacken müssen unter Angabe der Quetscharmaturtype gesondert bestellt werden.

Technische Daten
Maße (HxBxT): 686 x 380 x 305 mm
Gesamtgewicht: 23 kg

Bitte fordern Sie technische Unterlagen an!

Schlauchpresse mit Pneumatikantrieb auf Anfrage.

For crimping hydraulic 1- and 2-wire braid hoses in sizes from 4 to 20 mm ID.

Complete with hand pump, hose assembly and 2 die rings.
Dies (sizing based on the fittings to be crimped) need to be ordered separately.

Technical data:
Outside measurements (HxBxT):
686 x 380 x 305 mm
Weight: 23 kg

Please ask for further technical information.

Pneumatically operated press upon request.

HS KarryKrimp 1



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