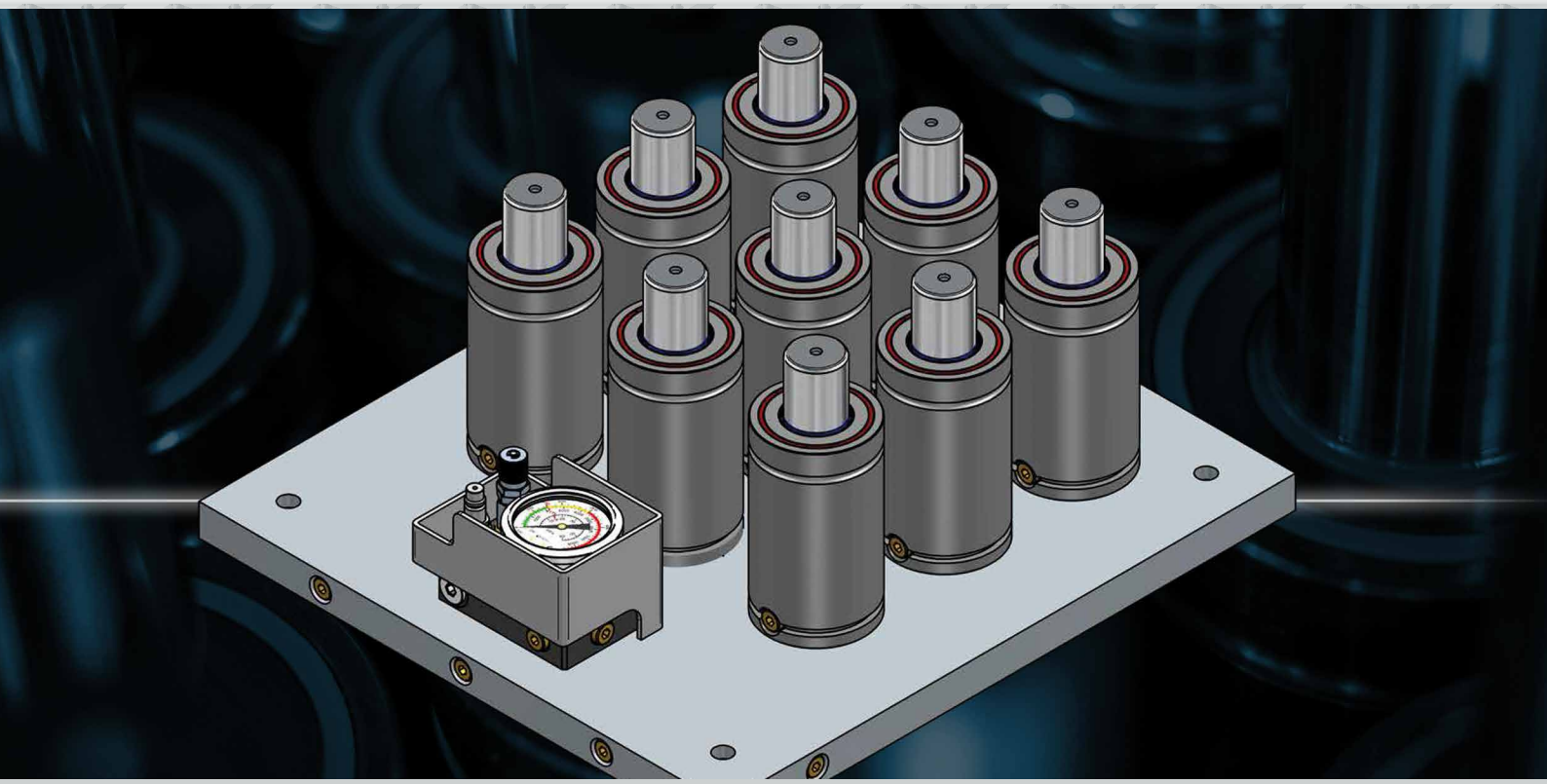
zertifiziert ISO 9001 for you Cert

MSPN GMBH

Märkische Stanz-Partner



[**nitrocyl**Gasdruckfedern]
[**nitrocyl**GasSprings]

Einbaufertige Verbundplatten
nach Kunden-Spezifikationen

Ready to use manifolds
as per customer‘s specifications

Besondere Merkmale:

- Alle Vorteile autonomer Gasdruckfedern in einem Verbundsystem.
- Ventillose Gasdruckfedern werden nach Kundenwunsch mit Hilfe von Schrauben und Runddichtungen auf einer Platte mit niedriger Stärke montiert.
- Die in die Platte gebohrten Verbindungsbohrungen sorgen im gesamten System für gleichmäßigen Druck.
- Befüllung, Entladung und Druckkontrolle erfolgen über eine Kontrollarmatur.

Special features:

- All benefits of self-contained gas springs within a linked system.
- Valveless gas springs are mounted by means of screws and sealing washers on a low thickness plate per customer‘s specifications.
- Connecting holes are drilled within the plate (uniform pressure).
- Filling, draining and monitoring done by using the control panel.

Vorteile:

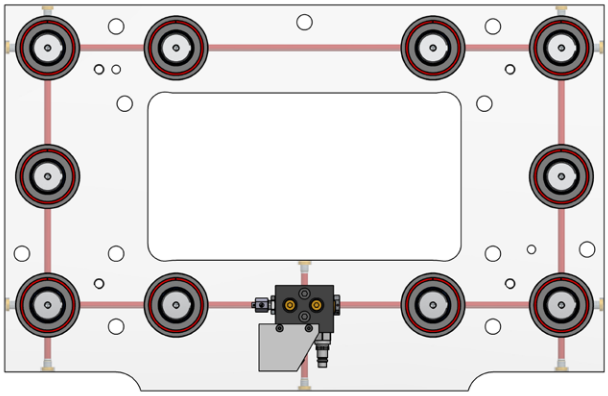
- Entspricht dem Standard VW 39D 22100.
- Kostengünstige Alternative zu Speicherplatten.
- Kompakt: Mehr Kraft auf kleinerem Raum.
- Einfacher: Schlauchfreie Werkzeugkonstruktion.
- Unkomplizierte Installation und Wartung.
- Schnelle Lieferung.
- Reduzierter Druckanstieg.
- Versand erfolgt geprüft und einbaufertig.

Advantages:

- Conforms to VW 39D 22100 standard.
- Cost effective alternative to large manifolds.
- Compact: higher force in less space.
- More simple: hose-free die design.
- Easy installation and maintenance.
- Quick delivery.
- Reduced pressure increase.
- Shipped tested and ready to be installed.

Konstruktionsrichtlinien Verbundplatte Typ -ER

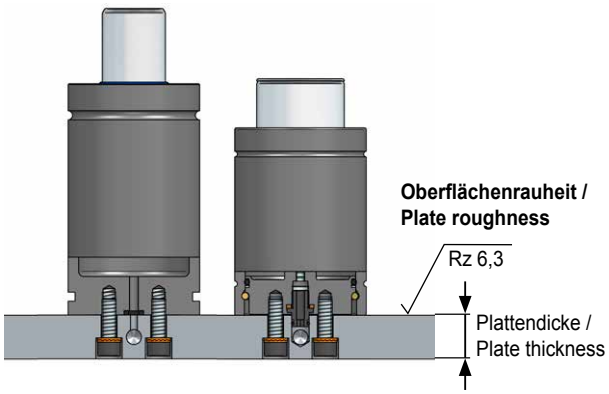
- Vermeiden Sie Sacklöcher bei den Tieflochbohrungen.
- Platzieren Sie die Gasdruckfedern so gleichmäßig wie möglich auf der Platte.
- Nutzen Sie eine bereits bestehende Bohrung zum Anschluss der Kontrollarmatur.
- Achten Sie auf ausreichenden Abstand zwischen Befestigungs- und Tiefloch-bohrungen.



Design guidelines -ER Manifold plate

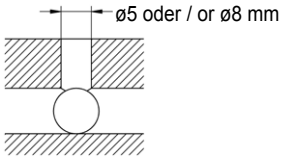
- Avoid blind deep-drilled holes.
- Place the gas springs as balanced as possibe on the plate.
- Use an already existing hole to mount the control panel.
- Avoid interference between cylinder fixing - and deep-drilled holes.

Bohrungshinweise

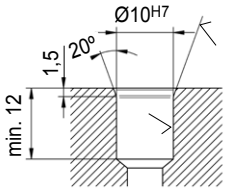


Hole details

Versorgungsbohrungen / Filling- / bleeding-holes



Aufnahmebohrung für Adapter / Adapter hole



Technische Daten Verbundplatten Typ -ER:

Medium:	N2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
$Plattendicke_{min.}$:	25 mm
$Plattenwanddicke_{min.}$:	2,5 mm
GDF-Befestigungen:	Hochwertige Schrauben
Plattenkanten:	gebrannt
Versorgungsbohrungen:	5 mm / 8 mm

Hilfe bei der Bestellung der Verbundplatten Typ -ER erhalten Sie im Bestellformular auf Seite VP.4.

-ER Manifold plate specifications:

Pressure medium:	N2
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
$Plate\ thickness_{min.}$:	25 mm
$Plate\ wall\ thickness_{min.}$:	2,5 mm
Gas springs mounted by:	Metric high grade bolts
Plate edges:	burned out
Plate drilling holes:	5 mm / 8 mm

Please use the order-form on page VP.5 to specify your requests.

Vordruck bitte kopieren, ausfüllen und an MSPN faxen.
+49 2351 6610777

Datum: _____

Anfrage Verbundplattensystem

Firma: _____

Straße/Hausnummer: _____

PLZ/Ort: _____

Ansprechpartner: _____

Telefon: _____ **Telefax:** _____

E-Mail: _____

Vorauss. Bestelldatum: _____ **Vorauss. Lieferdatum:** _____

Wie hoch ist voraussichtlich das jährliche Produktionsvolumen (Anzahl Hübe): _____

Verbundplattensystem untergebracht im ☐ **Werkzeugunterteil** ☐ **Werkzeugoberteil**

Ist die Verbundplatte ☐ **neu oder ein** ☐ **Umbau**

Welcher Gasdruckfedertyp / Hub wird benötigt: _____

Wie hoch ist die benötigte Kraft: _____

Welcher Arbeitshub wird benötigt: _____

Wie dick darf die Verbundplatte - mit welcher Toleranz ? - sein: _____

In welchem Format bekommen wir die Daten: _____

Sind spezielle Kerndaten, Toleranzen oder Prozessanforderungen zu berücksichtigen?

Date: _____

Inquiry **Manifold System**

Company: _____

Street / number: _____

Postal code / city / country: _____

Contact: _____

Phone: _____ **Fax:** _____

Mail: _____

Estimated Order Date: _____ **Estimated Delivery Date:** _____

What is the estimated annual production volume (No. of strokes): _____

Manifold system located in ☐ **Lower Die** ☐ **Upper Die**

Is the application ☐ **new or a** ☐ **retrofit**

What is the cylinder model & stroke: _____

What is the required force: _____

What is the required work stroke: _____

What is the manifold thickness & tolerances: _____

(CAD-) Data available in which format: _____

Are there any special features, tolerances, or processing requests?

Please copy form, fill out and fax to MSPN
+49 2351 6610777

Übersicht Gasdruckfedern Typ -ER

Modell Model	Gewin-de Thread	Boh-rungs-Ø Ø Hole	Dichtung / Adapter Seal / Adapter	max. Dreh-moment max. Torque [Nm]
NC.060.10.ER.01500	M8	8	J-ER-9	38
NC.060.10.ER.03000	M8	8	J-ER-9	38
NC.060.10.ER.05000	M10	8	J-ER-9	75
NC.060.10.ER.07500	M10	8	J-ER-9	75
NC.060.10.ER.10000	M12	8	J-ER-9	128
NC.064.10.ER.01500…2	M8	5	J-ER-6	38
NC.064.10.ER.02400	M8	8	J-ER-9	38
NC.064.10.ER.04200	M8	8	J-ER-9	38
NC.064.10.ER.06600	M10	8	J-ER-9	75
NC.064.10.ER.09600	M10	8	J-ER-9	75
NC.064.10.ER.18500	M12	8	J-ER-9	128
NC.008.00.ER.01500…1	M8	5	J-ER-6	38
NC.008.00.ER.02400	M8	8	J-ER-9	38
NC.008.00.ER.04200	M8	8	J-ER-9	38
NC.008.00.ER.06600	M10	8	J-ER-9	75

Empfohlene Gasdruckfedern zur Verwendung in Verbundplatten Typ -ER, andere Gasdruckfedern auf Anfrage.
Gasdruckfedern Typ -ER werden mit der entsprechenden Dichtung J-ER oder Adapter T-ER geliefert.

Overview -ER GAS SPRINGS

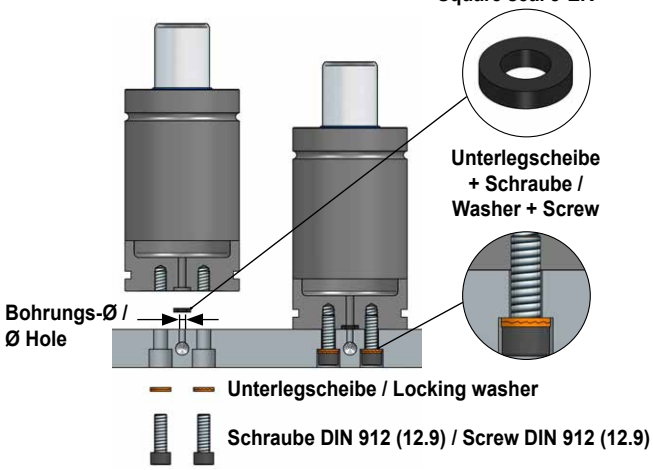
Modell Model	Gewin-de Thread	Boh-rungs-Ø Ø Hole	Dichtung / Adapter Seal / Adapter	max. Dreh-moment max. Torque [Nm]
NC.015.00.ER.01500…1	M8	5	J-ER-6	38
NC.015.00.ER.02400…1	M8	8	J-ER-9	38
NC.015.00.ER.04200…1	M8	8	J-ER-9	38
NC.015.00.ER.06600	M10	8	J-ER-9	75
NC.015.00.ER.09500	M10	8	J-ER-9	75
NC.015.00.ER.11800	M10	8	J-ER-9	75
NC.015.00.ER.20000	M12	8	J-ER-9	128
NC.030.00.ER.01800…1	M6	10	T-ER	15
NC.030.00.ER.03000…1	M8	10	T-ER	38
NC.030.00.ER.04700…1	M8	10	T-ER	38
NC.030.00.ER.07500…1	M8	10	T-ER	38
NC.030.00.ER.11800…1	M10	10	T-ER	75
NC.030.00.ER.18300…1	M10	10	T-ER	75

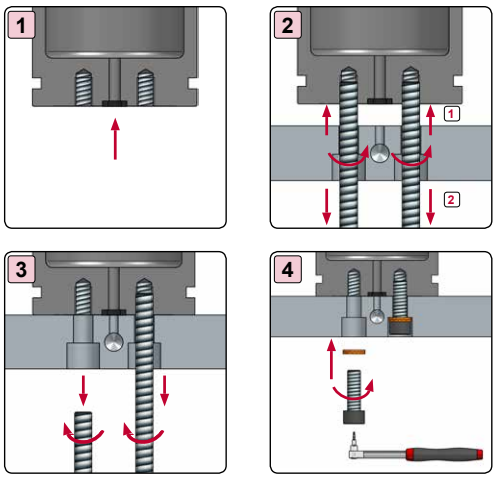
Recommended gas springs to be used in -ER manifold plates, other gas springs upon request.
-ER gas springs are supplied with the corresponding seal J-ER / adapter T-ER.

Abdichtung und Befestigung Gasdruckfedern Typ -ER

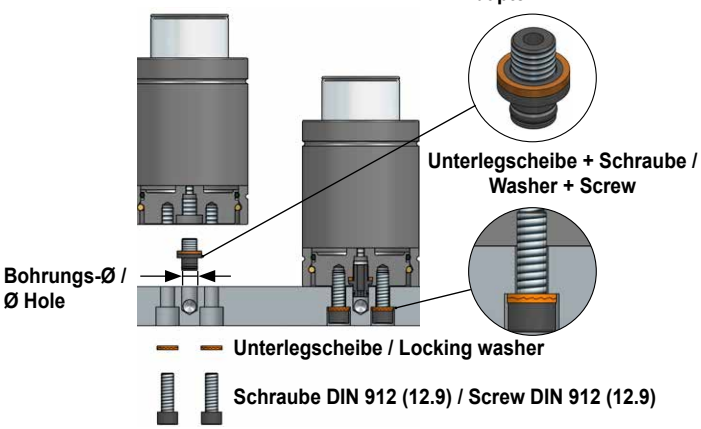
-ER gas springs sealing and mounting

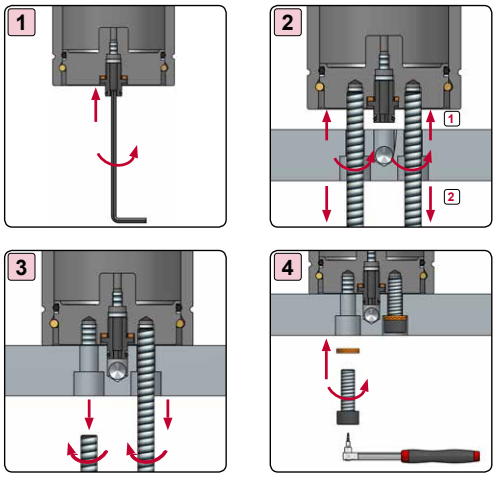
Dichtungstyp / Seal type





Adaptertyp / Adapter type





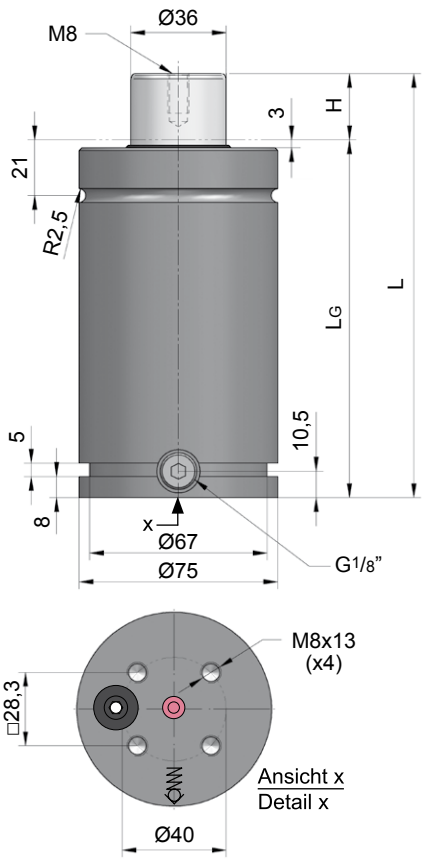
NC.060.10.ER.01500

Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

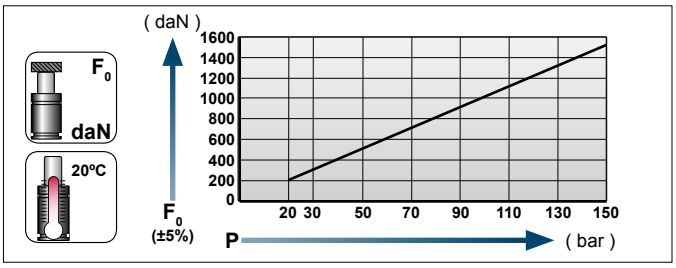
Specifications:

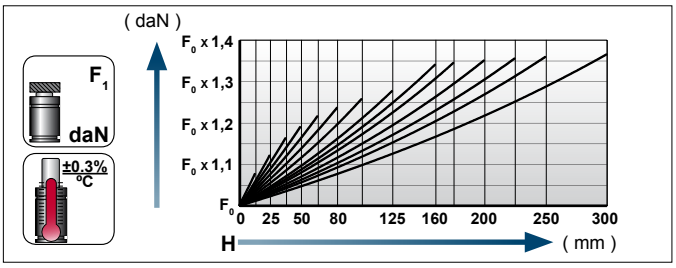
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s

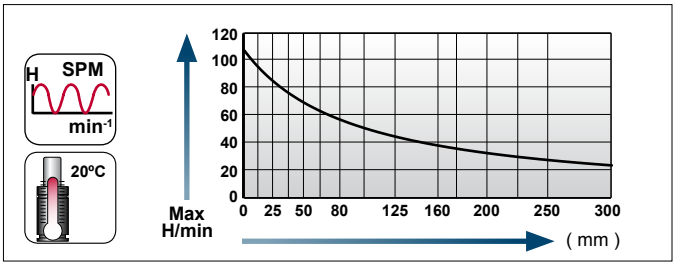


NC.060.10.ER.01500.125

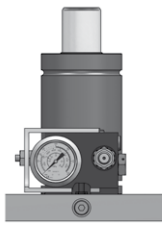
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
012,7	135,4	122,7	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	160	135	1530	
038	186	148	1530	
050	210	160	1530	
063,5	237	173,5	1530	
080	270	190	1530	
100	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	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

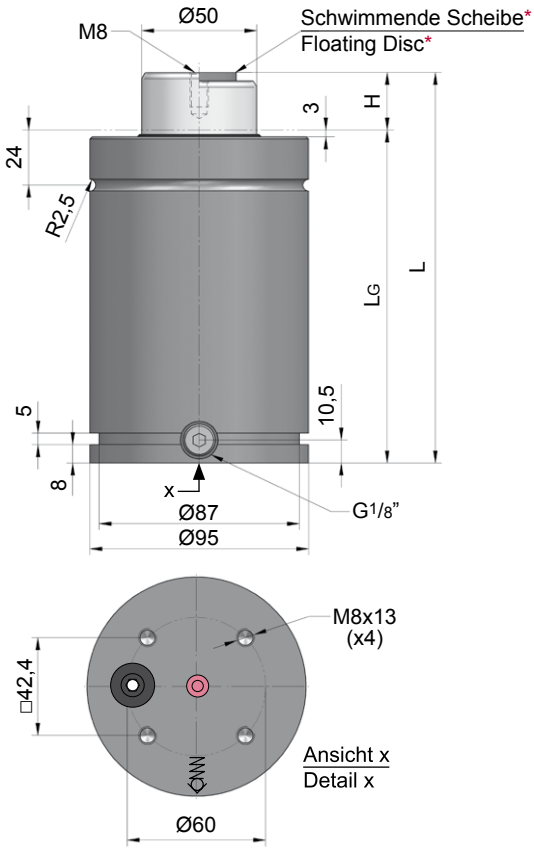
NC.060.10.ER.03000

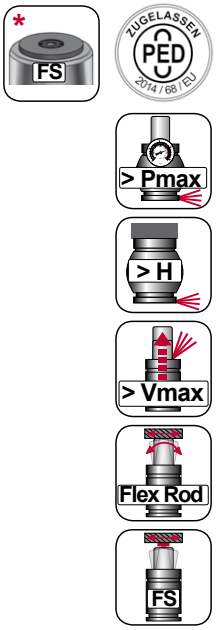
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

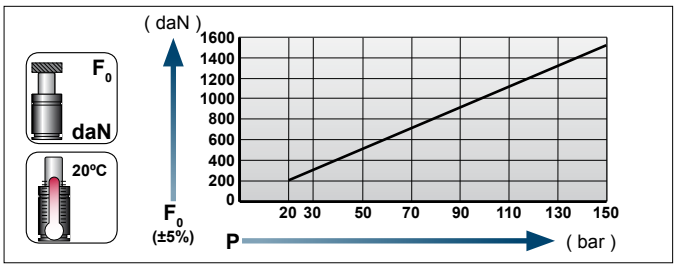
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s

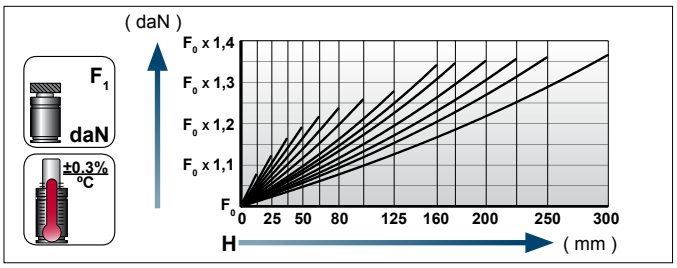


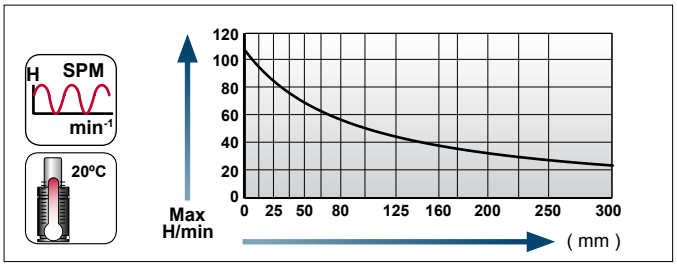


NC.060.10.ER.03000.125

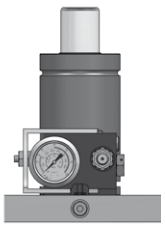
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	170	145	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	196	158	2945	
050	220	170	2945	
063,5	247	183,5	2945	
080	280	200	2945	
100	320	220	2945	
125	370	245	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	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

[21.06.2019]

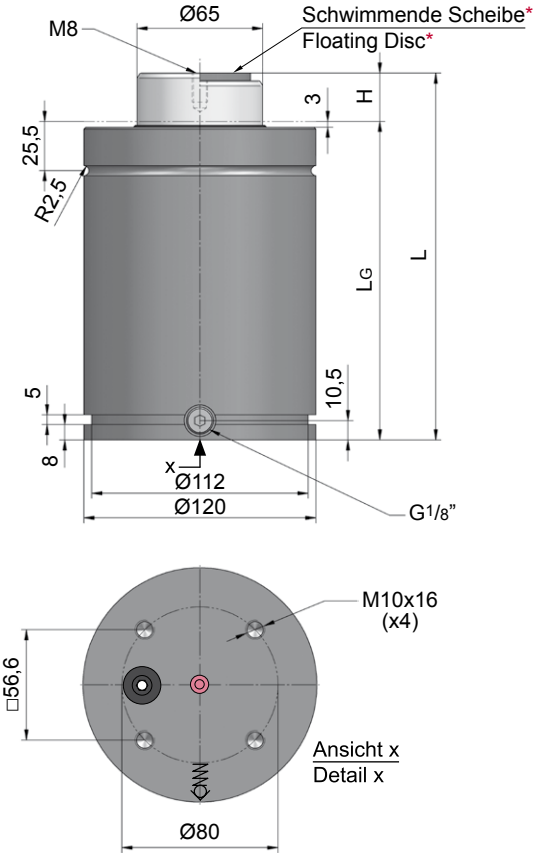
NC.060.10.ER.05000

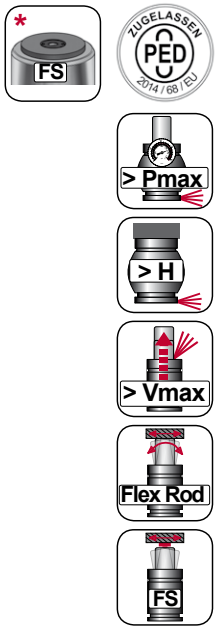
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

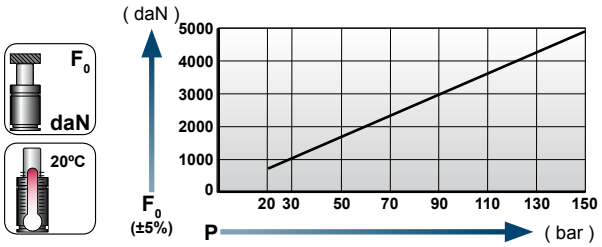
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s

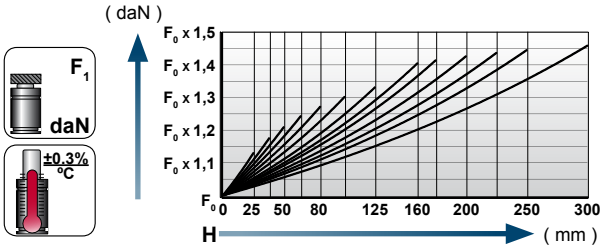


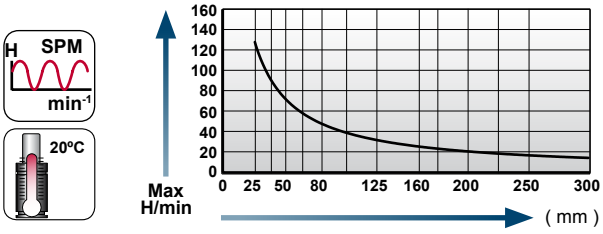


NC.060.10.ER.05000.125

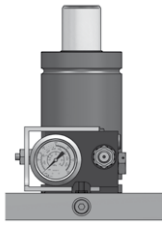
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	190	165	4980	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	216	178	4980	
050	240	190	4980	
063,5	267	203,5	4980	
080	300	220	4980	
100	340	240	4980	
125	390	265	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	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

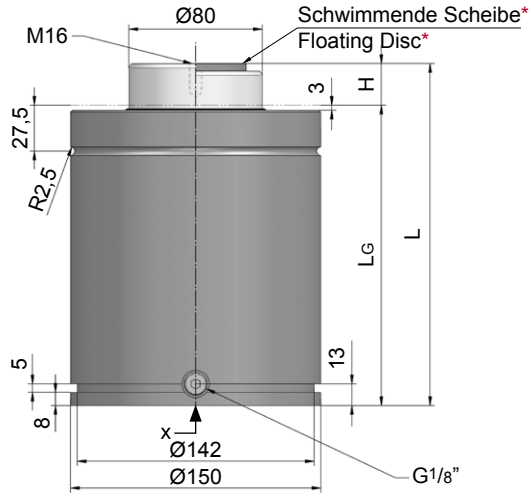
NC.060.10.ER.07500

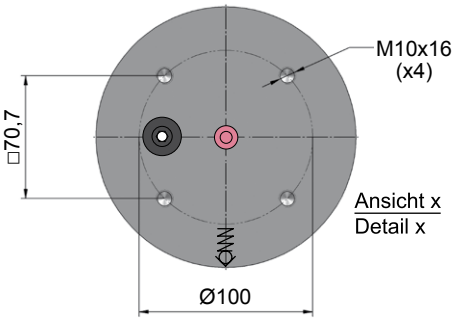
Technische Daten:

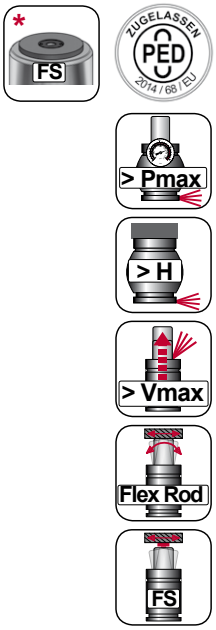
Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s

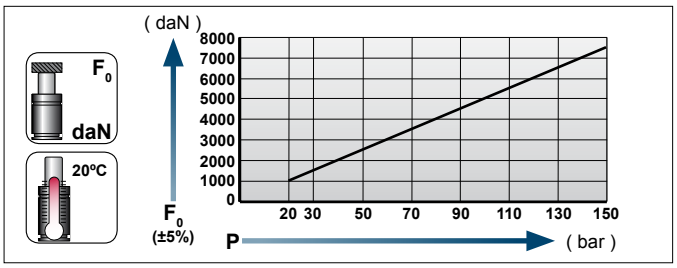


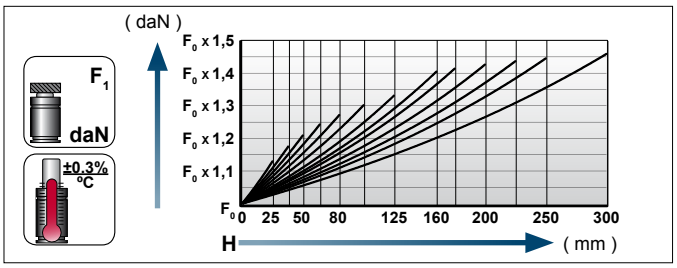


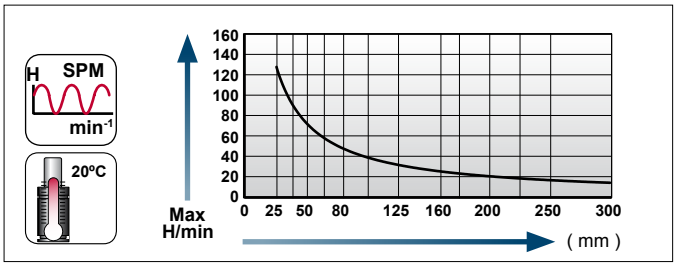


NC.060.10.ER.07500.125

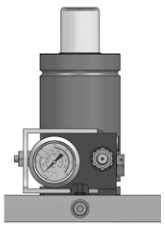
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	205	180	7540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	231	193	7540	
050	255	205	7540	
063,5	282	218,5	7540	
080	315	235	7540	
100	355	255	7540	
125	405	280	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	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

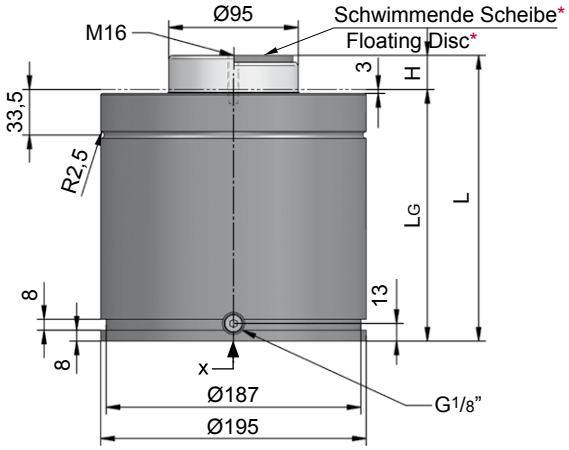
NC.060.10.ER.10000

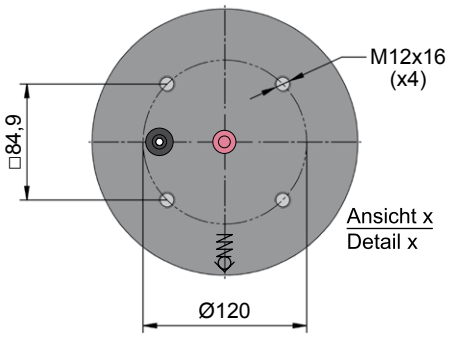
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	2 m/s

Specifications:

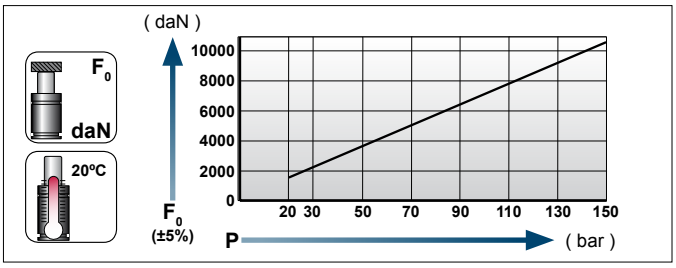
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	2 m/s

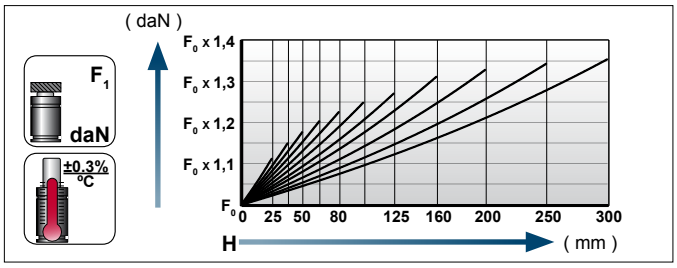


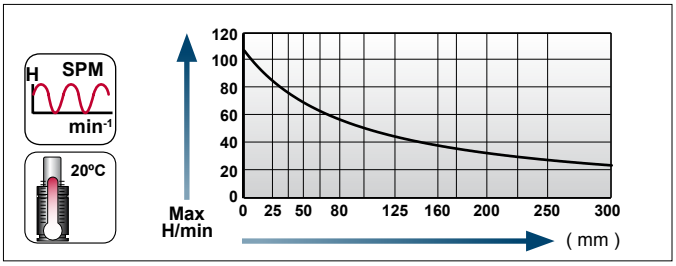


NC.060.10.ER.10000.125

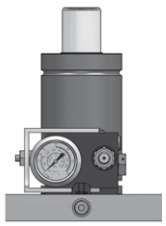
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	210	185	10280	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	236	198	10280	
050	260	210	10280	
063,5	287	223,5	10280	
080	320	240	10280	
100	360	260	10280	
125	410	285	10280	
160*	480	320	10280	
200*	560	360	10280	
250*	660	410	10280	
300*	760	460	10280	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

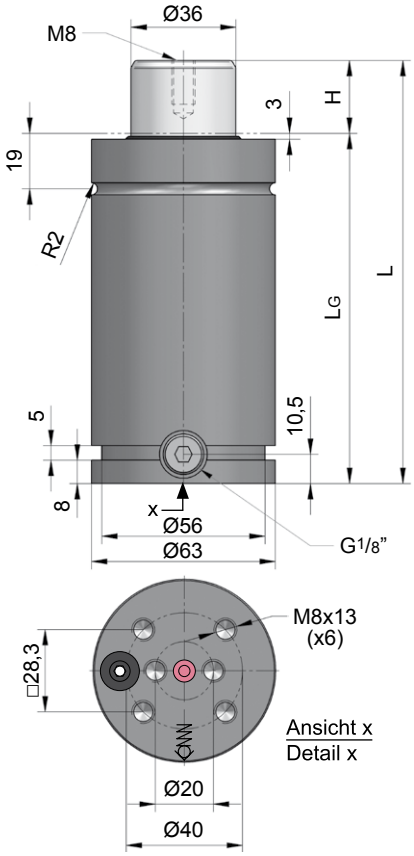
NC.064.10.ER.01500...2

Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

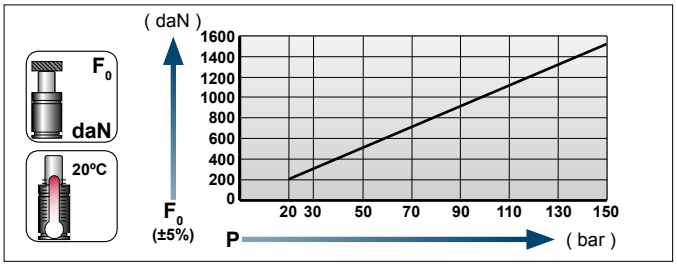
Specifications:

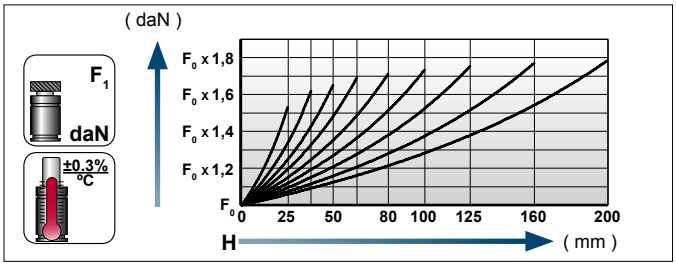
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

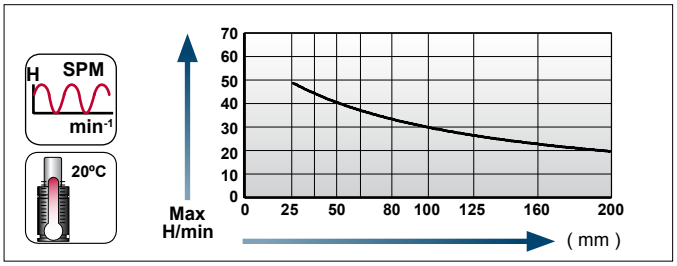


NC.064.10.ER.01500.125.2

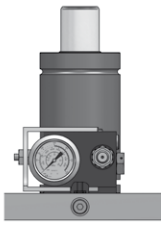
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	145	120	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	171	133	1530	
050	195	145	1530	
063	221	158	1530	
080	255	175	1530	
100	295	195	1530	
125	345	220	1530	
160	415	255	1530	
200	495	295	1530	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

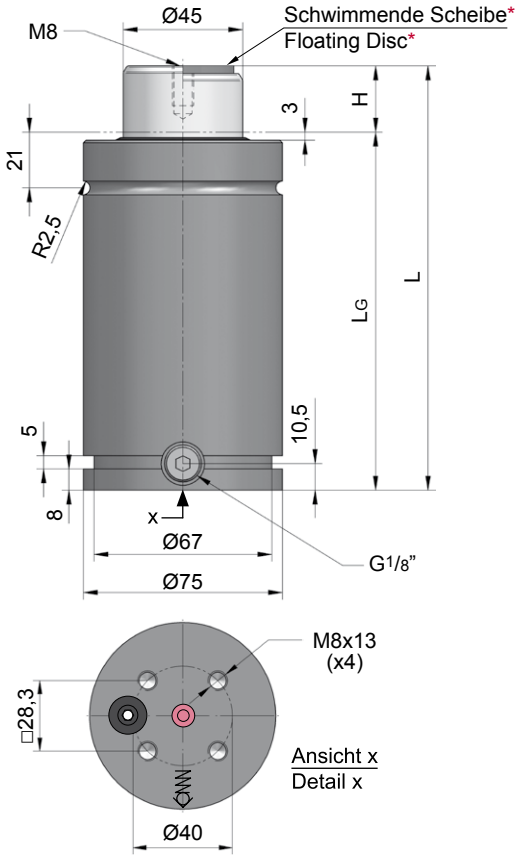
NC.064.10.ER.02400

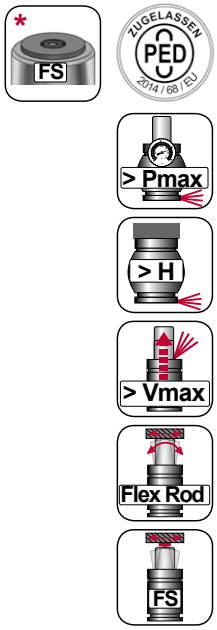
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

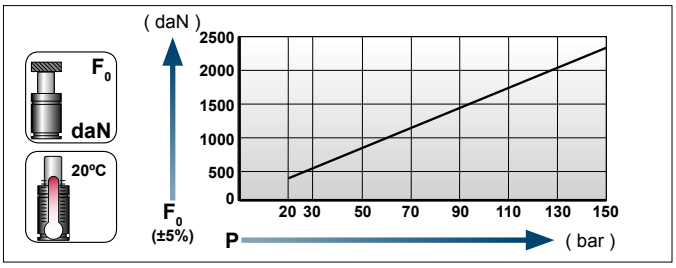
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

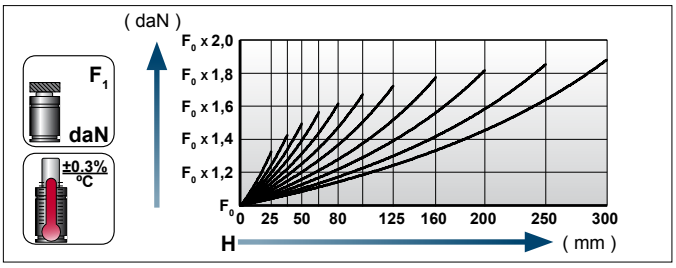


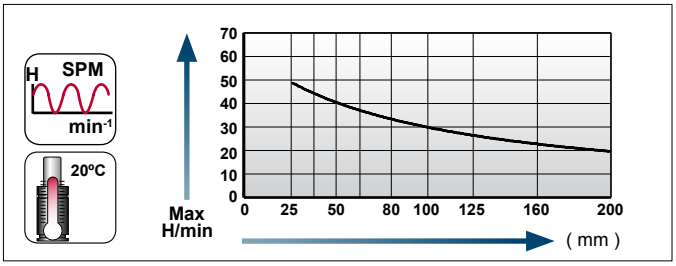


NC.064.10.ER.02400.125

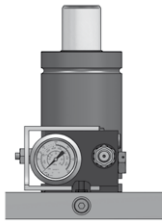
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	160	135	2385	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	186	148	2385	
050	210	160	2385	
063	237	173,5	2385	
080	270	190	2385	
100	310	210	2385	
125	360	235	2385	
160*	430	270	2385	
200*	510	310	2385	
250*	610	360	2385	
300*	710	410	2385	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

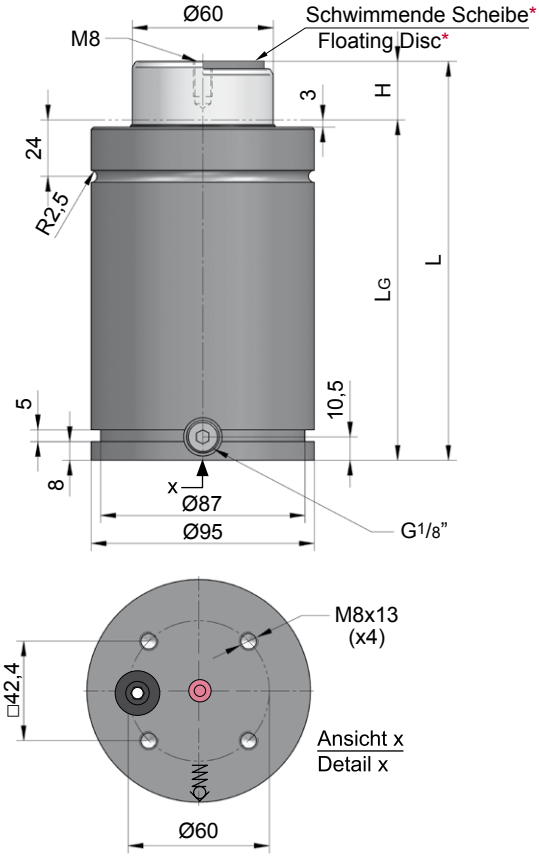
NC.064.10.ER.04200

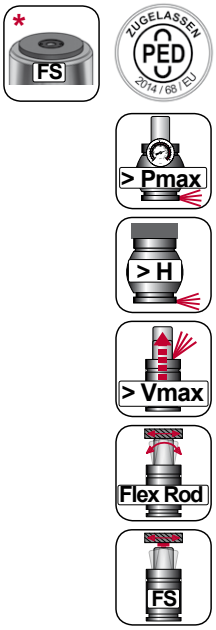
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

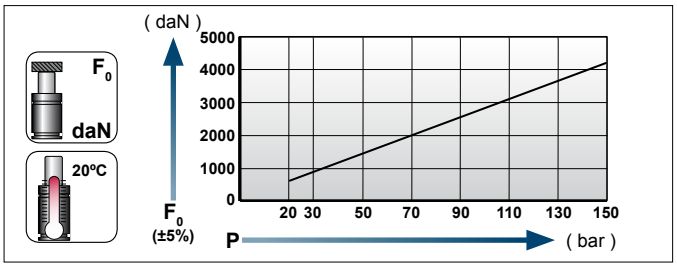
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

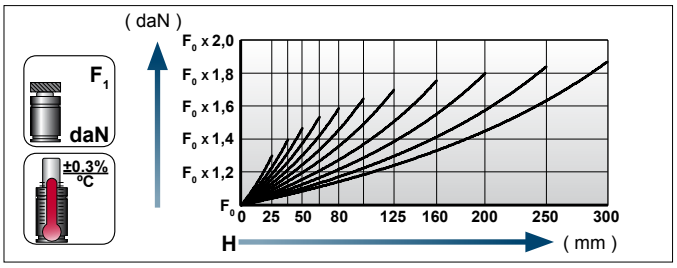


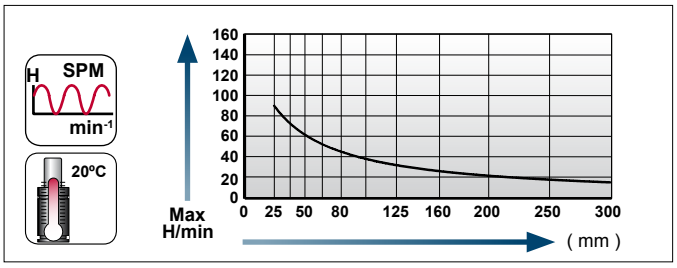


NC.064.10.ER.04200.125

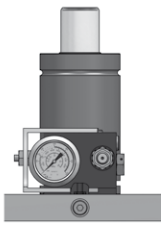
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	170	145	4240	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	196	158	4240	
050	220	170	4240	
063,5	247	183,5	4240	
080	280	200	4240	
100	320	220	4240	
125	370	245	4240	
160*	440	280	4240	
200*	520	320	4240	
250*	620	370	4240	
300*	720	420	4240	





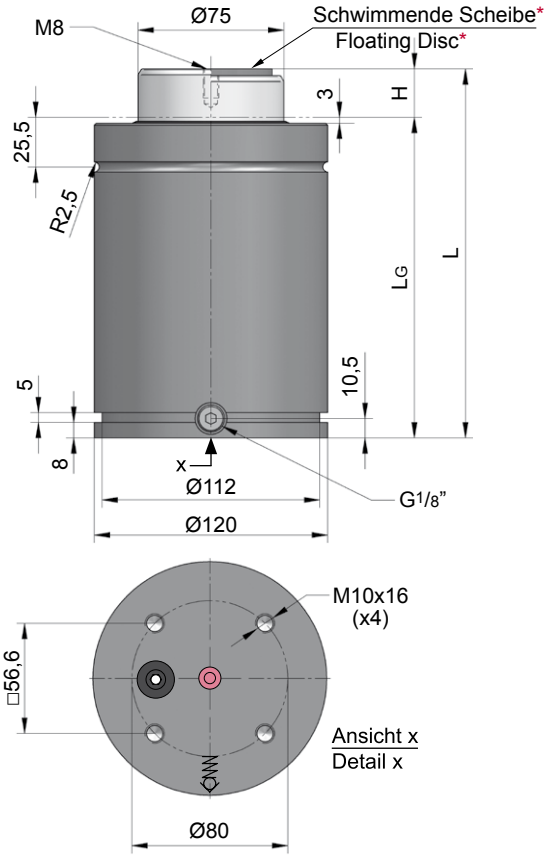


Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.064.10.ER.06600



Technische Daten:

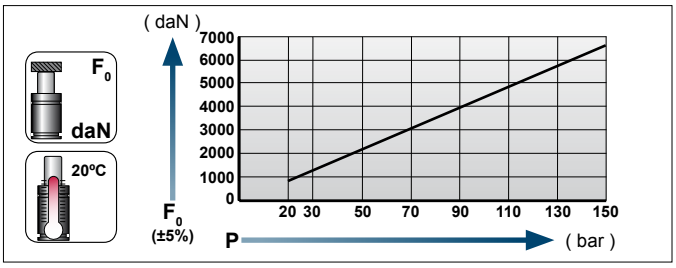
Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

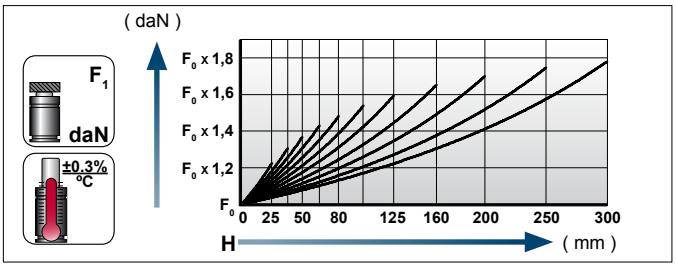
Specifications:

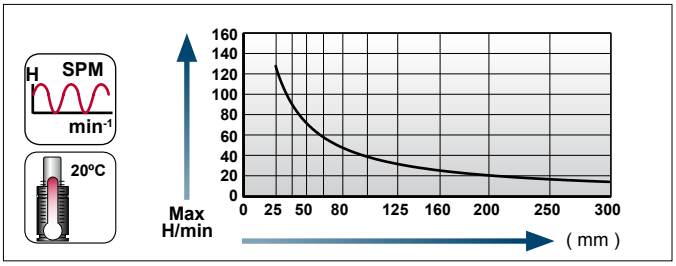
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.064.10.ER.06600.125

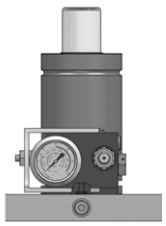
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	190	165	6630	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	216	178	6630	
050	240	190	6630	
063,5	267	203,5	6630	
080	300	220	6630	
100	340	240	6630	
125	390	265	6630	
160*	460	300	6630	
200*	540	340	6630	
250*	640	390	6630	
300*	740	440	6630	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

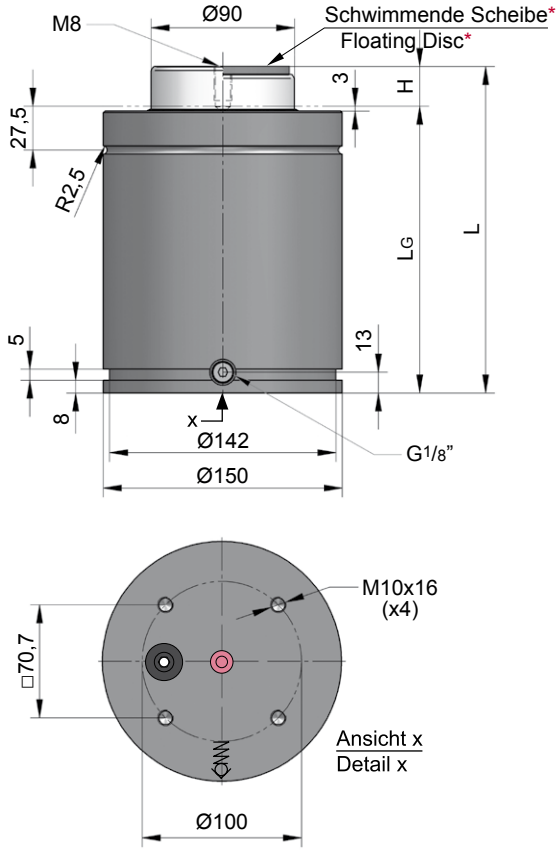
NC.064.10.ER.09600

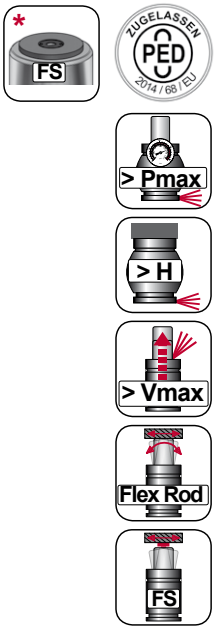
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

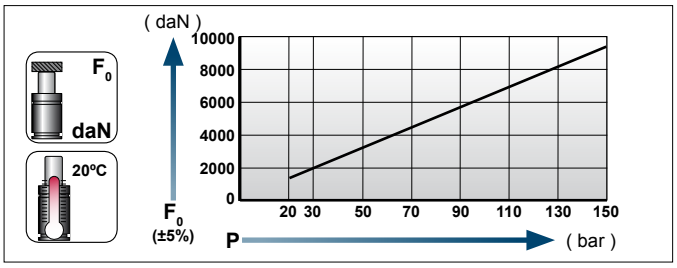
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

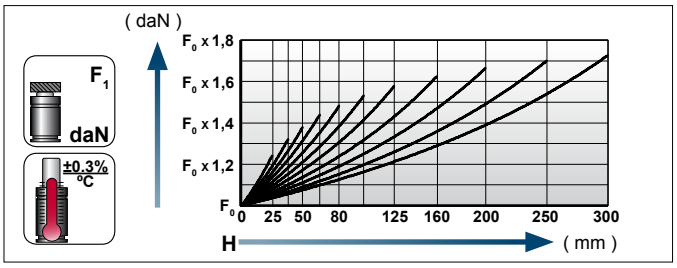


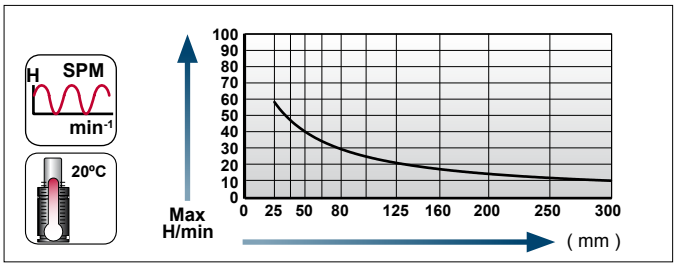


NC.064.10.ER.09600.125

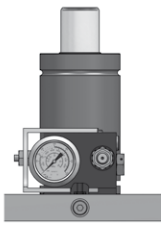
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	205	180	9540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	231	193	9540	
050	255	205	9540	
063,5	282	218,5	9540	
080	315	235	9540	
100	355	255	9540	
125	405	280	9540	
160*	475	315	9540	
200*	555	355	9540	
250*	655	405	9540	
300*	755	455	9540	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

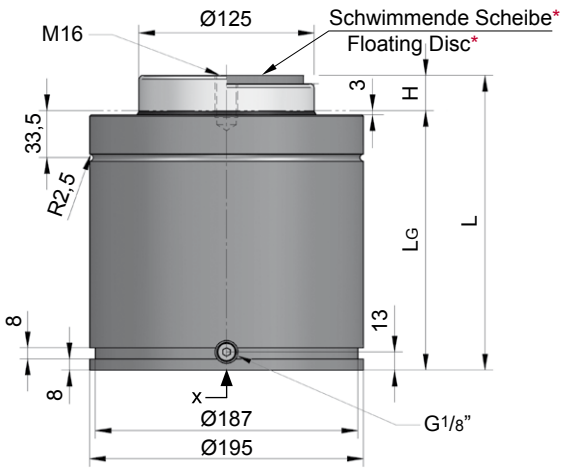
NC.064.10.ER.18500

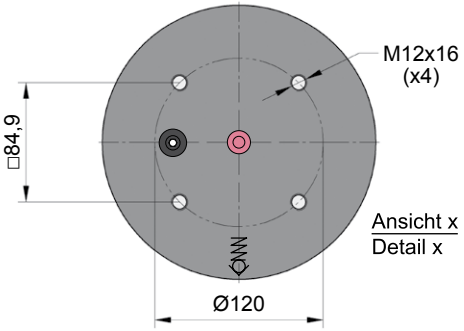
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

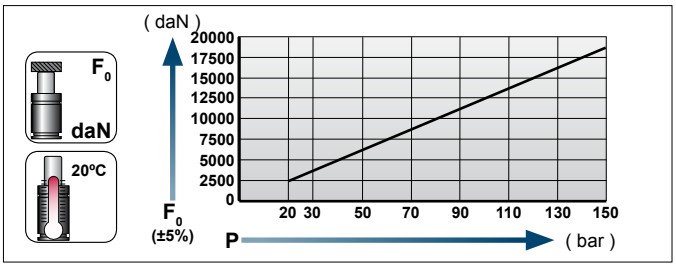
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

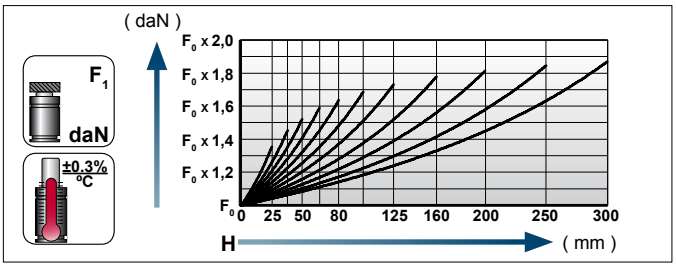


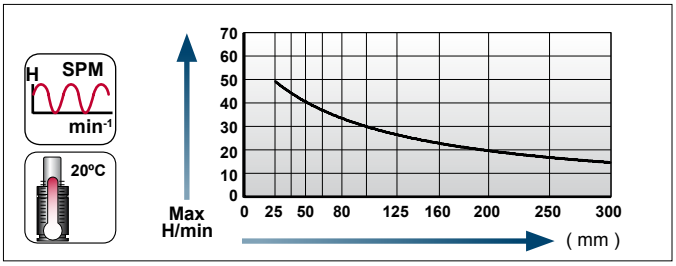


NC.064.10.ER. 18500.125

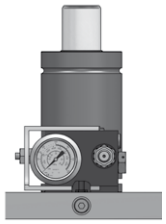
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
025	210	185	18410	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
038	236	198	18410	
050	260	210	18410	
063,5	287	223,5	18410	
080	320	240	18410	
100	360	260	18410	
125	410	285	18410	
160*	480	320	18410	
200*	560	360	18410	
250*	660	410	18410	
300*	760	460	18410	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

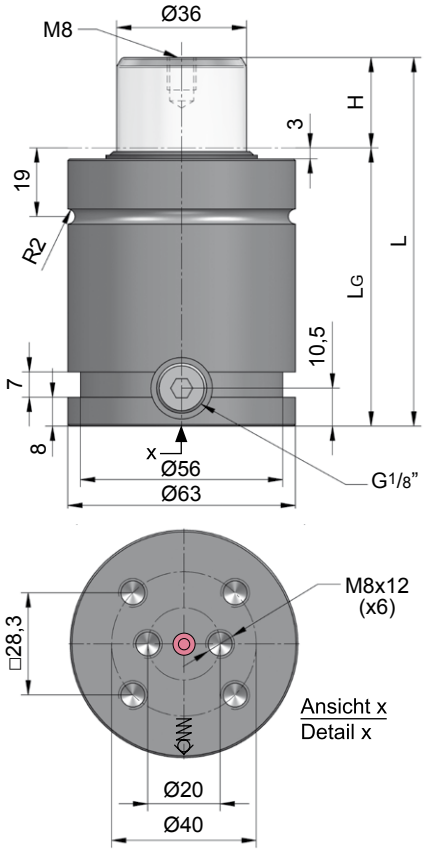
NC.008.00.ER.01500...1

Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

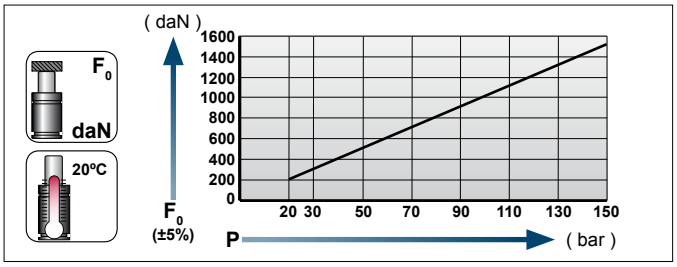
Specifications:

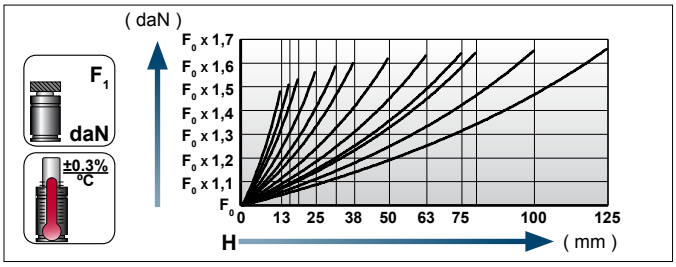
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

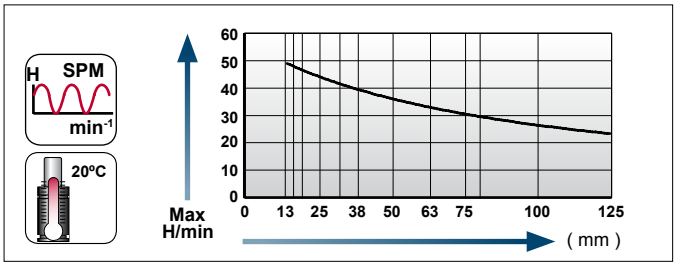


NC.008.00.ER.01500.125.1

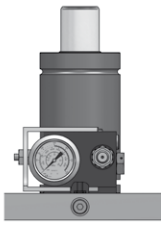
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
013	78	65	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	84	68	1530	
019	90	71	1530	
025	102	77	1530	
032	116	84	1530	
038	128	90	1530	
050	152	102	1530	
063	178	115	1530	
075	202	127	1530	
080	212	132	1530	
100	252	152	1530	
125	302	177	1530	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

[21.06.2019]

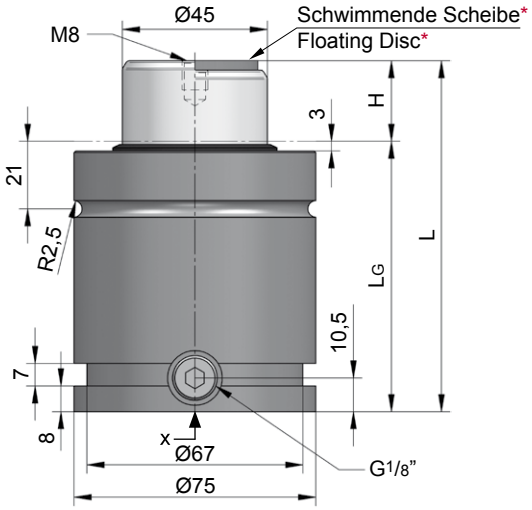
NC.008.00.ER.02400

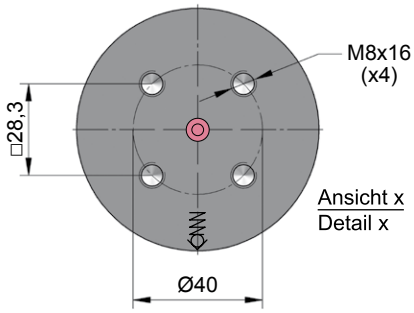
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

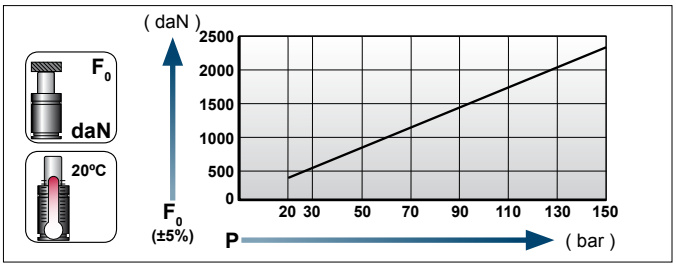
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

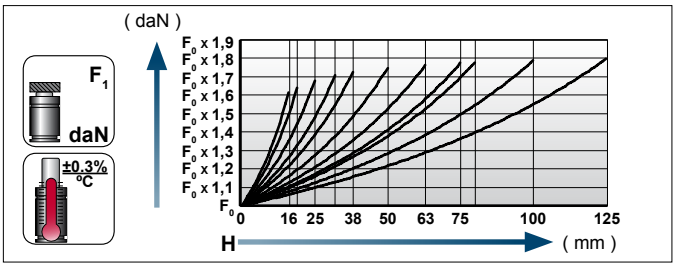


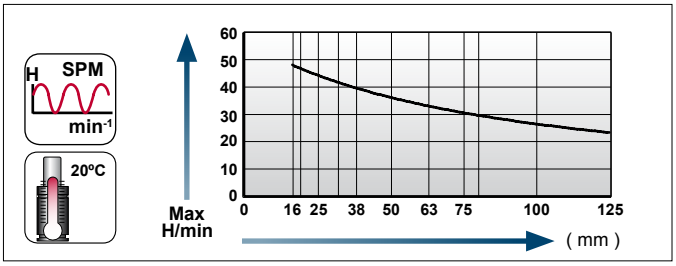


NC.008.00.ER.02400.125

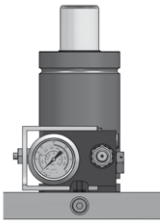
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
016	91	75	2385	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	97	78	2385	
025	109	84	2385	
032	123	91	2385	
038	135	97	2385	
050	159	109	2385	
063*	185	122	2385	
075*	209	134	2385	
080*	219	139	2385	
100*	259	159	2385	
125*	309	184	2385	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.008.00.ER.04200

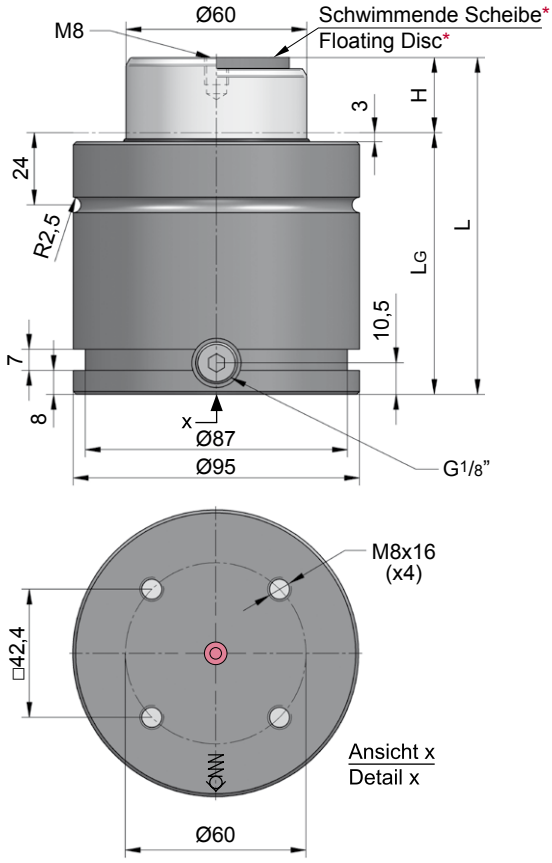
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

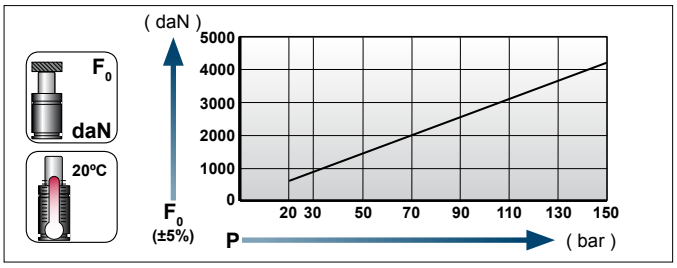
Specifications:

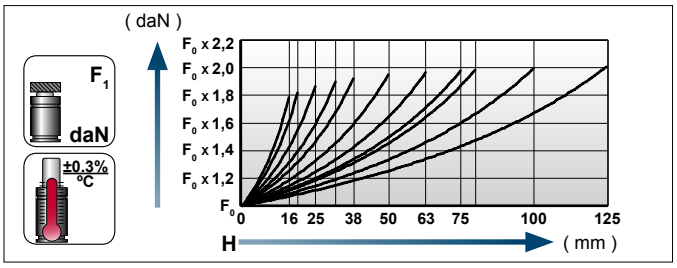
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

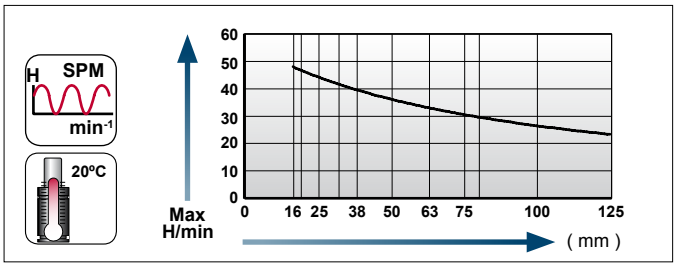
NC.008.00.ER.04200.125



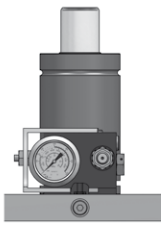
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
016	94	78	4240	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	100	81	4240	
025	112	87	4240	
032	126	94	4240	
038	138	100	4240	
050	162	112	4240	
063*	188	125	4240	
075*	212	137	4240	
080*	222	142	4240	
100*	262	162	4240	
125*	312	187	4240	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

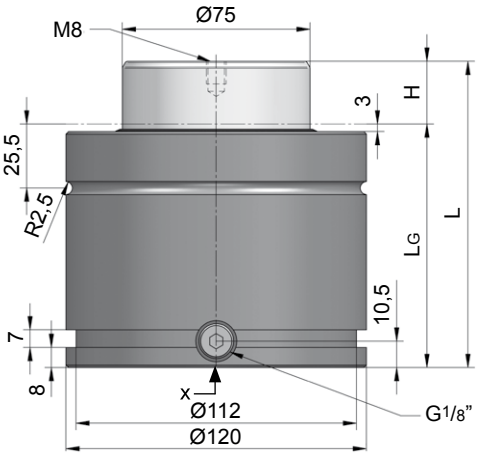
NC.008.00.ER.06600

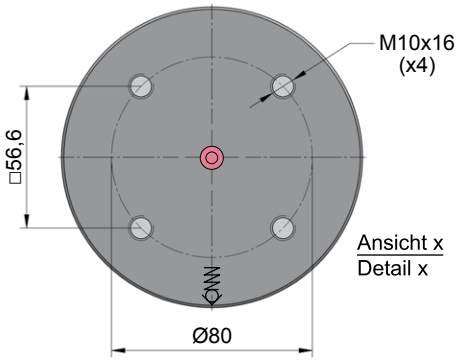
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

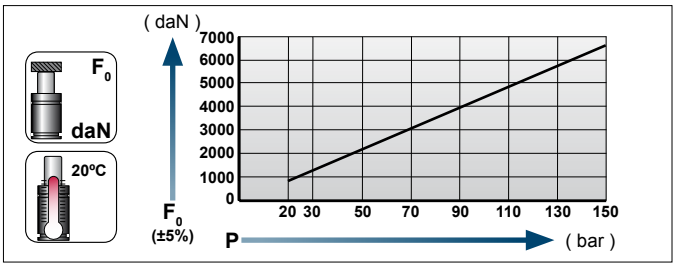
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

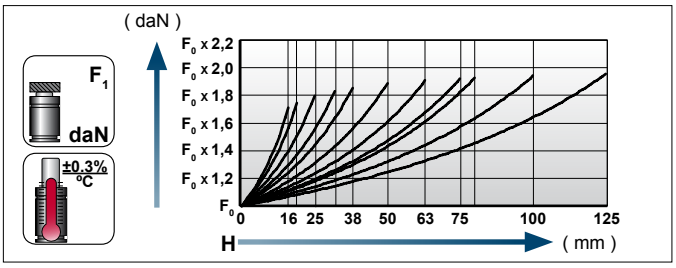


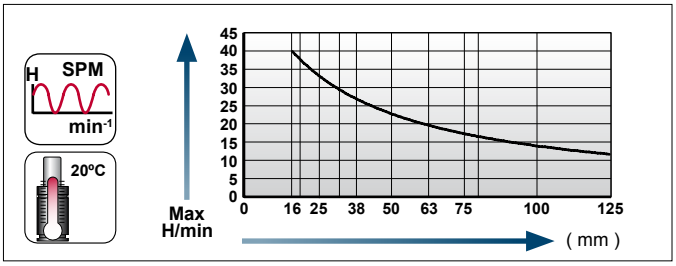


NC.008.00.ER.06600.125

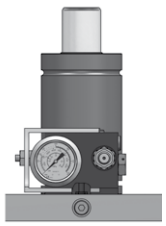
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
016	104	88	6630	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	110	91	6630	
025	122	97	6630	
032	136	104	6630	
038	148	110	6630	
050	172	122	6630	
063	198	135	6630	
075	222	147	6630	
080	232	152	6630	
100	272	172	6630	
125	322	197	6630	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.015.00.ER.01500...1

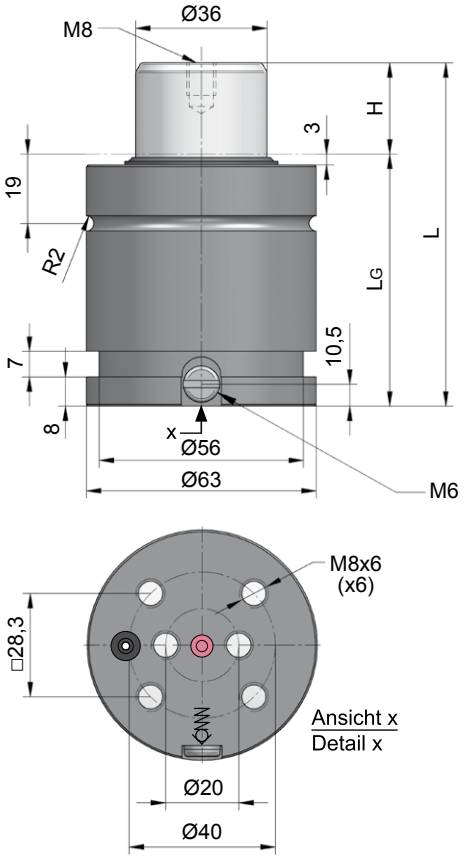
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

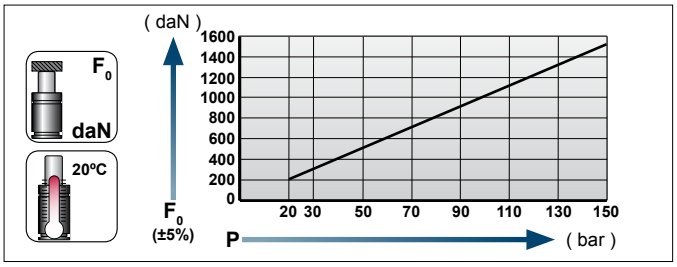
Specifications:

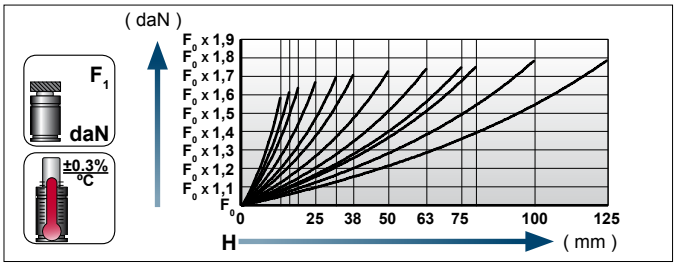
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

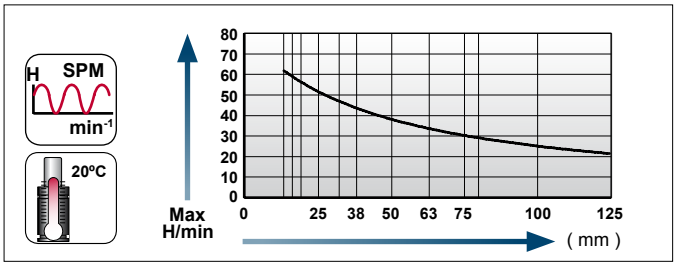
NC.015.00.ER.01500.125.1



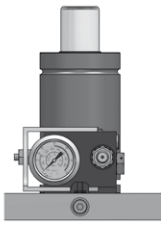
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
013	70	57	1530	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	76	60	1530	
019	82	63	1530	
025	94	69	1530	
032	108	76	1530	
038	120	82	1530	
050	144	94	1530	
063	170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







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

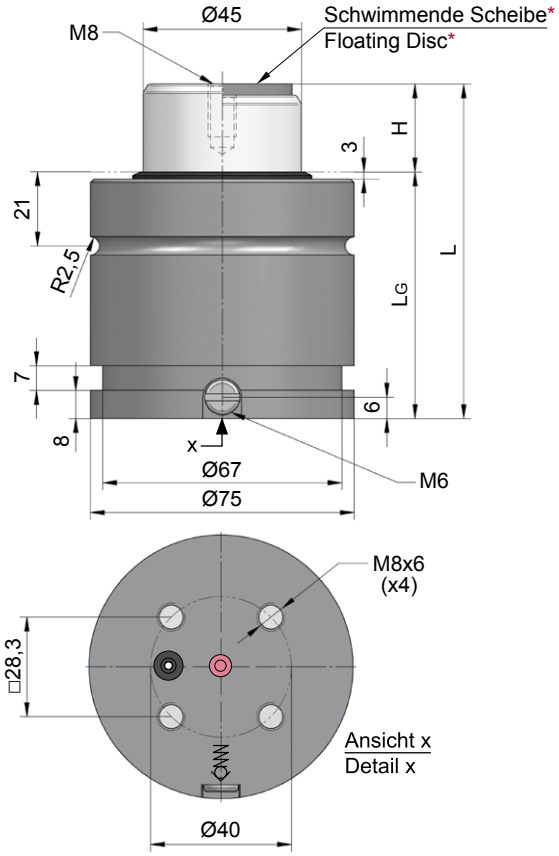
NC.015.00.ER.02400...1

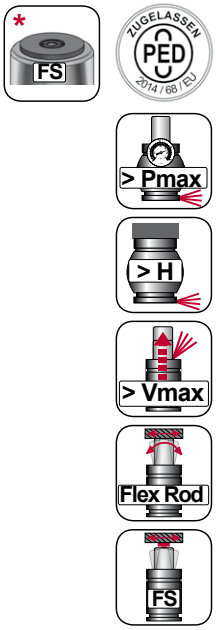
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

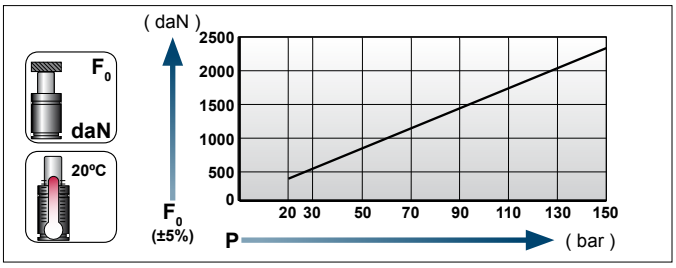
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

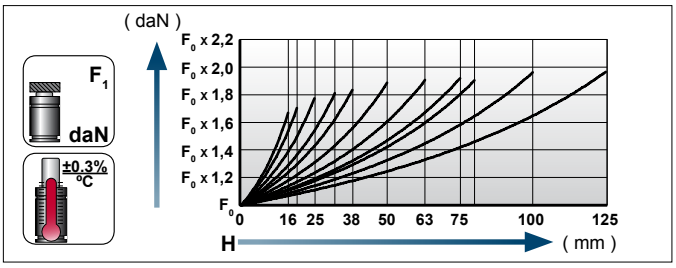


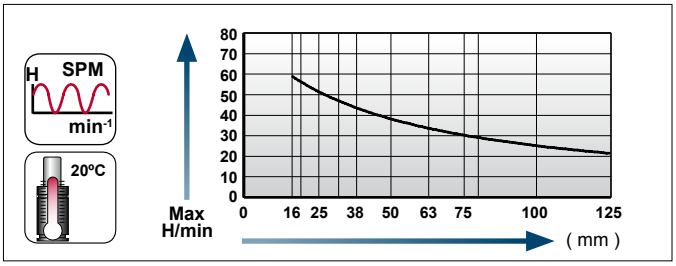


NC.015.00.ER.02400.125.1

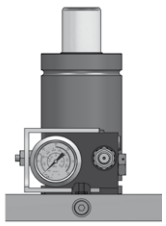
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
016	77	61	2385	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	83	64	2385	
025	95	70	2385	
032	109	77	2385	
038	121	83	2385	
050	145	95	2385	
063*	171	108	2385	
075*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







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.015.00.ER.04200...1

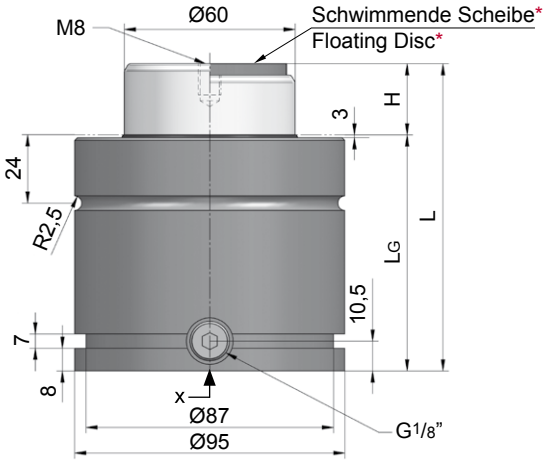
Technische Daten:

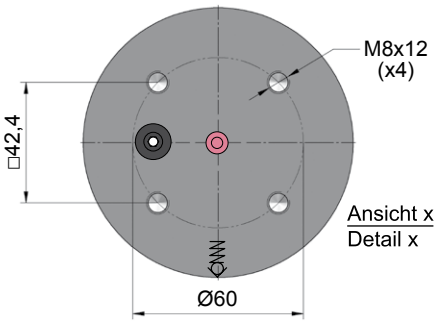
Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

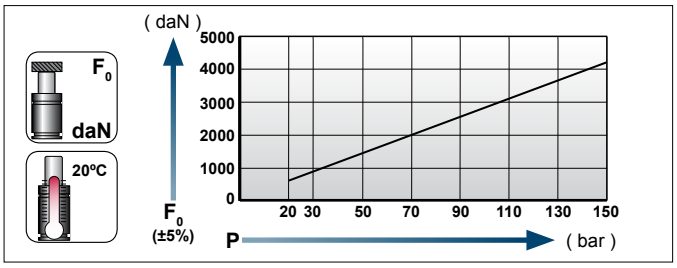
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

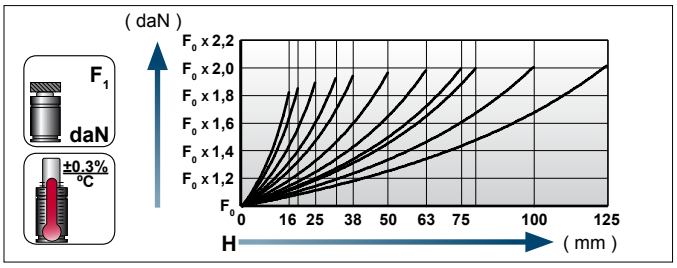
NC.015.00.ER.04200.125.1

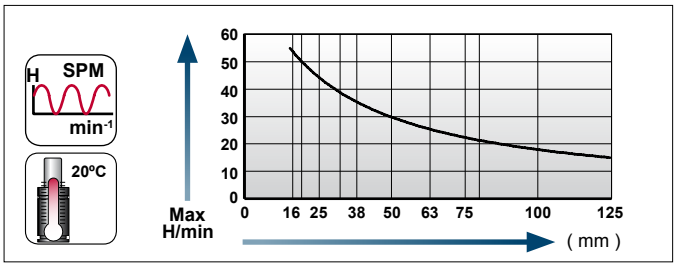




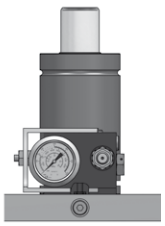
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
016	90	74	4240	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	96	77	4240	
025	108	83	4240	
032	122	90	4240	
038	134	96	4240	
050	158	108	4240	
063*	184	121	4240	
075*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







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

[21.06.2019]

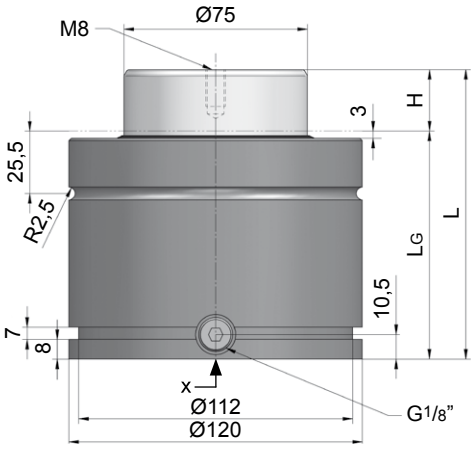
NC.015.00.ER.06600

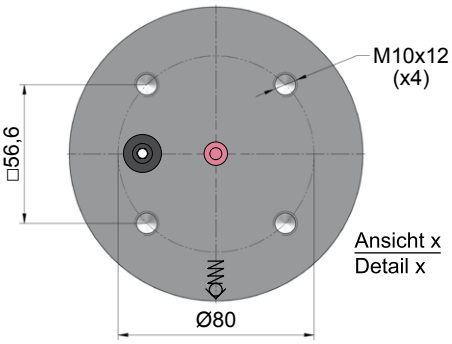
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

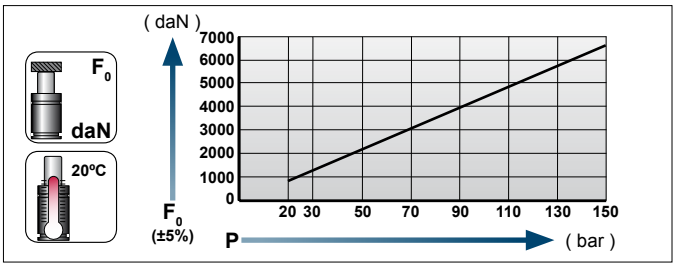
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

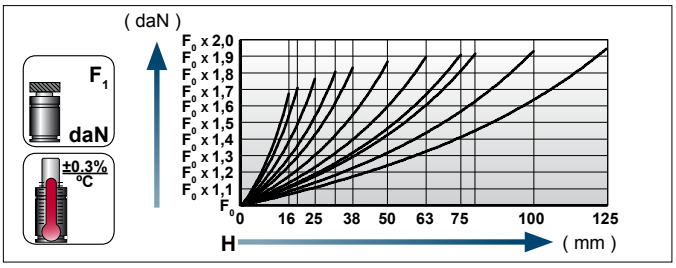


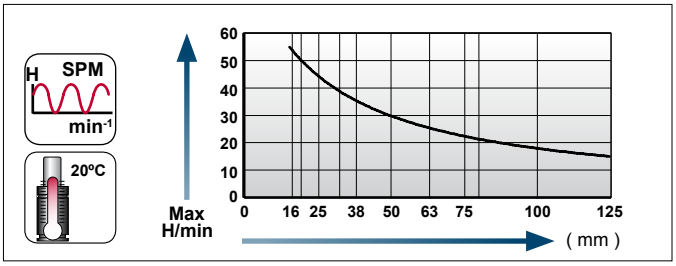


NC.015.00.ER.06600.125

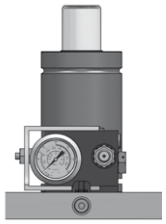
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
016	100	84	6630	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
019	106	87	6630	
025	118	93	6630	
032	132	100	6630	
038	144	106	6630	
050	168	118	6630	
063	194	131	6630	
075	218	143	6630	
080	228	148	6630	
100	268	168	6630	
125	318	193	6630	





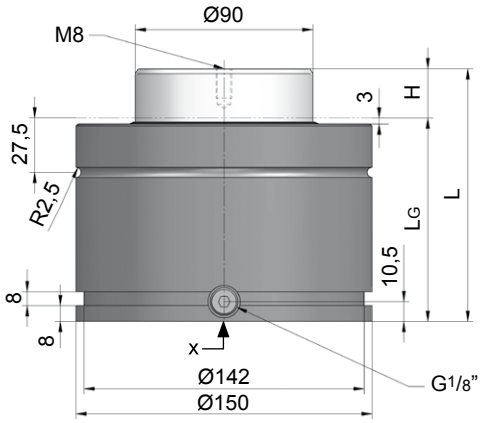


Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.015.00.ER.09500

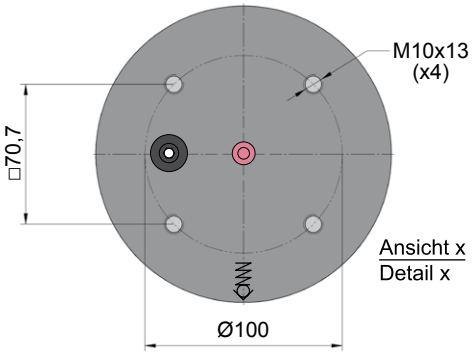


Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

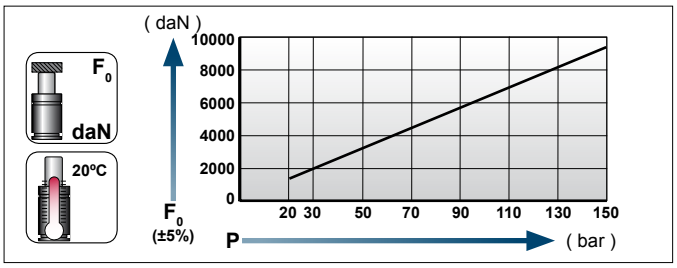
Specifications:

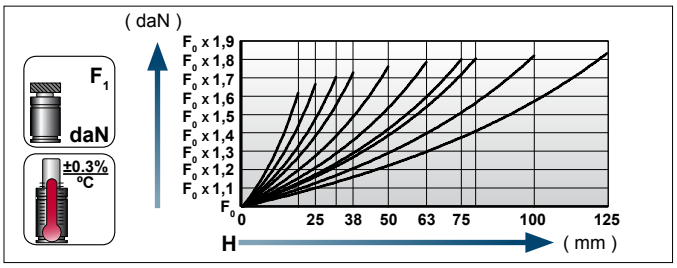
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

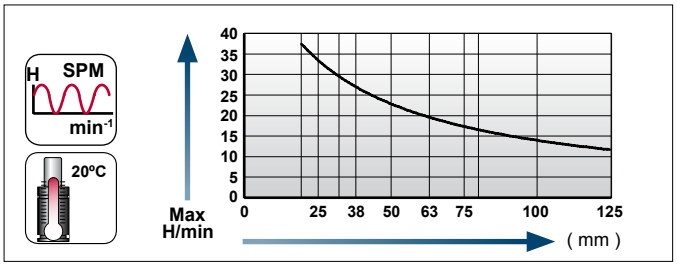


NC.015.00.ER.09500.125

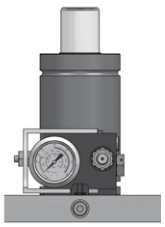
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
019	116	97	9540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	128	103	9540	
032	142	110	9540	
038	164	116	9540	
050	178	128	9540	
063	204	141	9540	
075	228	153	9540	
080	238	158	9540	
100	278	178	9540	
125	328	203	9540	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

[21.06.2019]

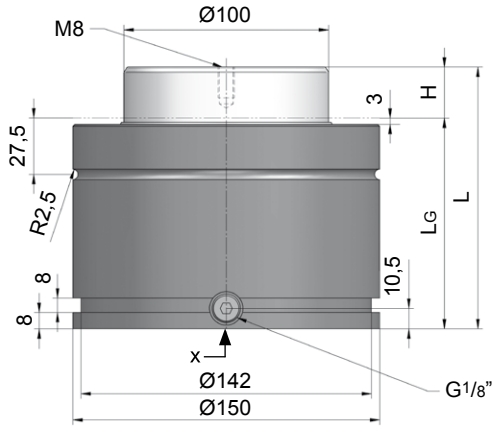
NC.015.00.ER.11800

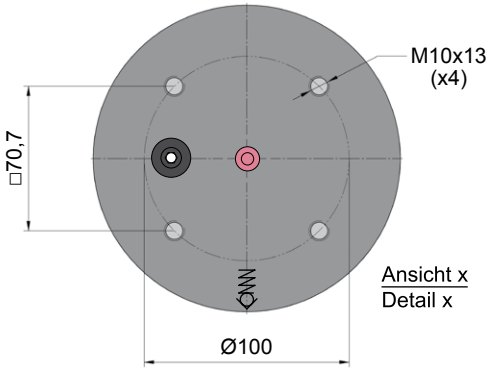
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

Specifications:

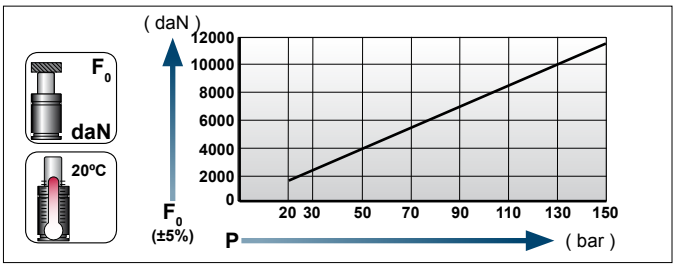
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

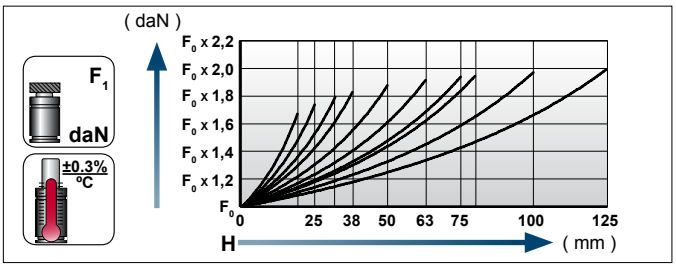


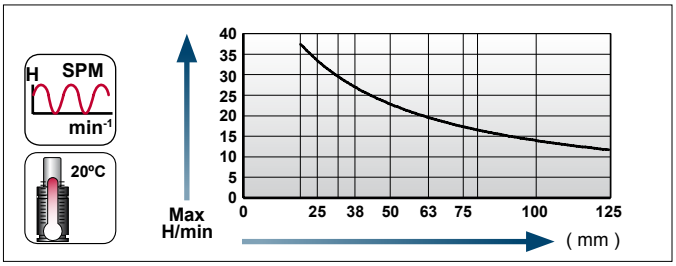


NC.015.00.ER.11800.125

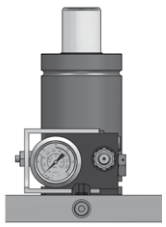
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
019	116	97	11780	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	128	103	11780	
032	142	110	11780	
038	154	116	11780	
050	178	128	11780	
063	204	141	11780	
075	228	153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





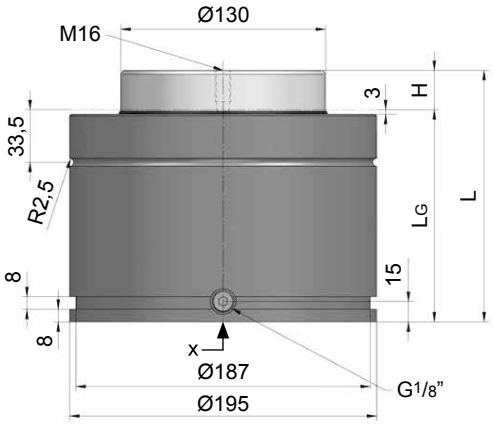


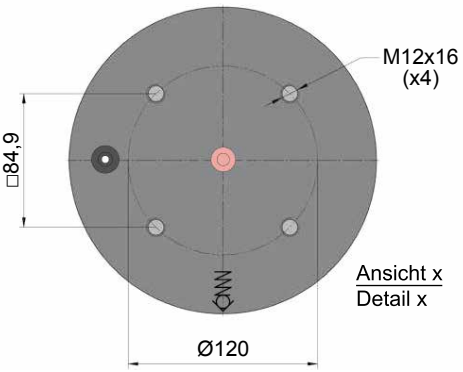
Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.015.00.ER.20000





Technische Daten:

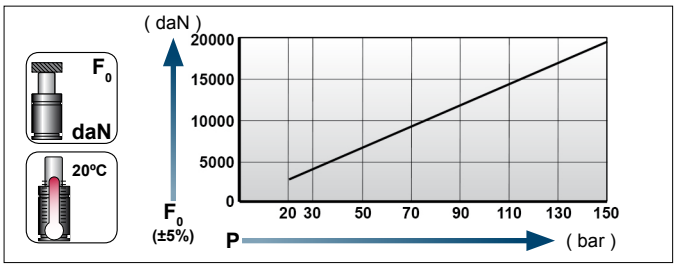
Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	1,6 m/s

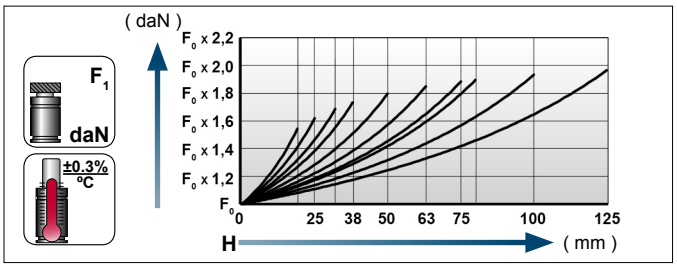
Specifications:

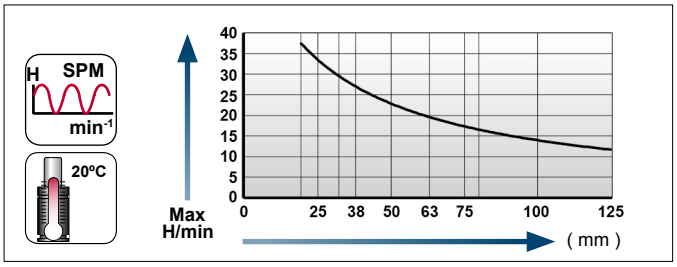
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	1,6 m/s

NC.015.00.ER.20000.125

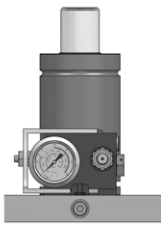
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
019	148	129	19910	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
025	160	135	19910	
032	174	142	19910	
038	186	148	19910	
050	210	160	19910	
063	236	173	19910	
075	260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







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

[03.07.2019]

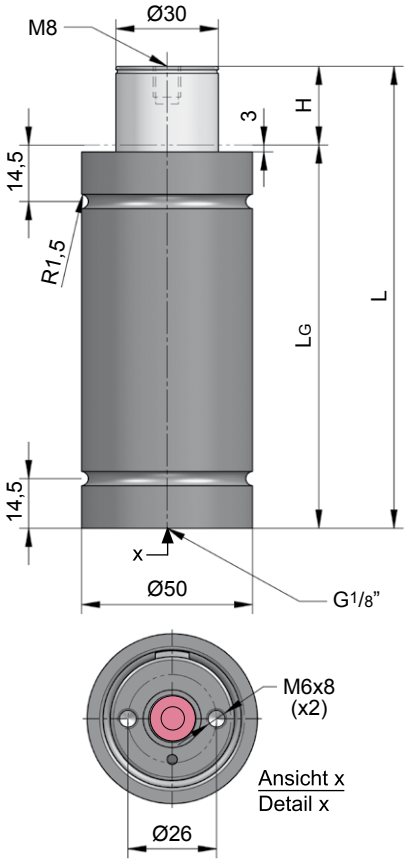
NC.030.00.ER.01800...1

Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

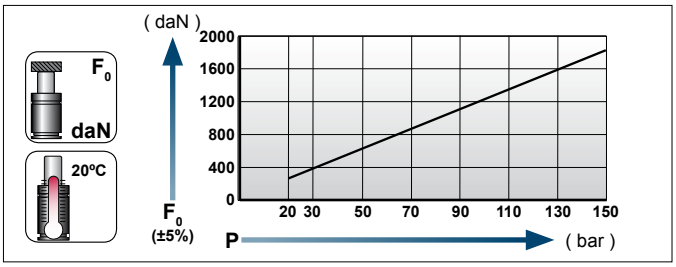
Specifications:

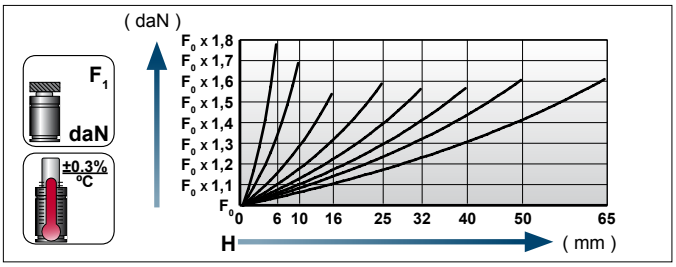
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

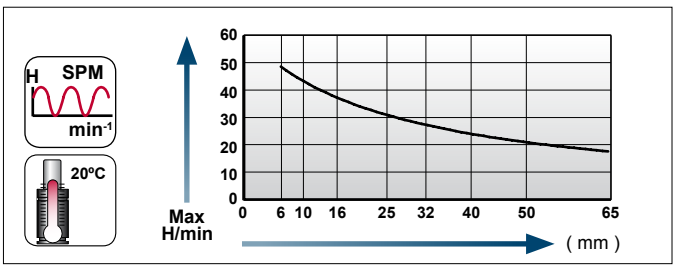


NC.030.00.ER.01800.025.1

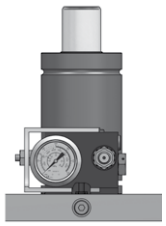
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
006	66	60	1885	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
010	80	70	1885	
016	106	90	1885	
025	135	110	1885	
032	162	130	1885	
040	190	150	1885	
050	220	170	1885	
065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







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

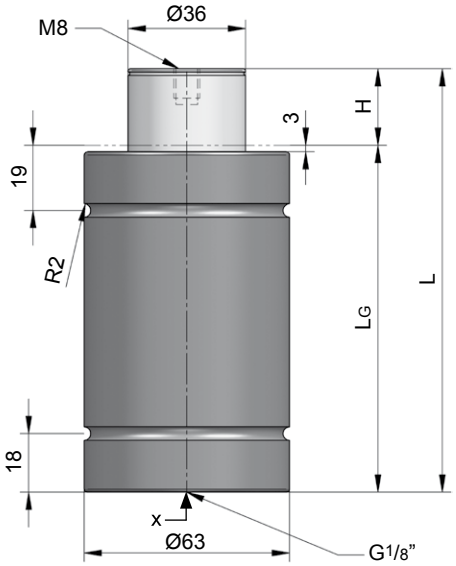
NC.030.00.ER.03000...2

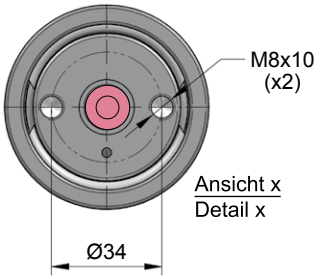
Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

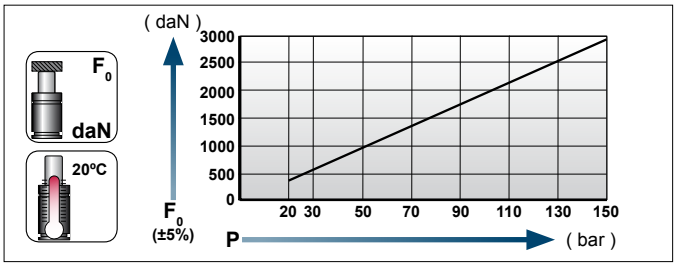
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

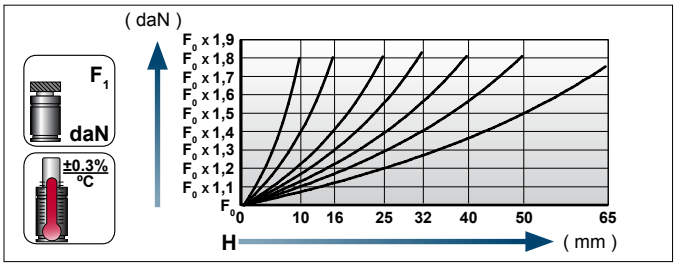


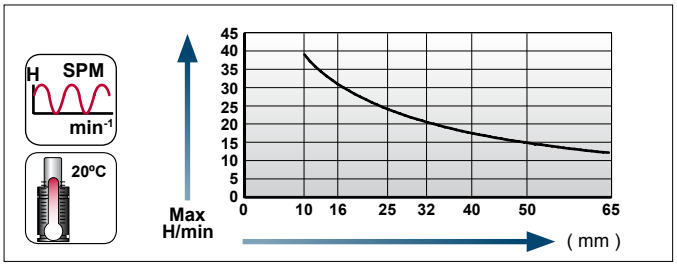


NC.030.00.ER.03000.025.2

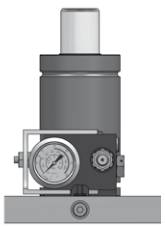
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	85	75	2945	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	103	87	2945	
025	130	105	2945	
032	150	118	2945	
040	175	135	2945	
050	205	155	2945	
065	256	191	2945	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

[03.07.2019]

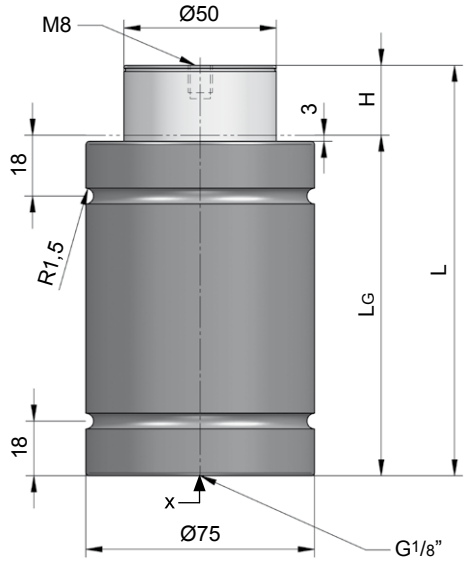
NC.030.00.ER.04700...1

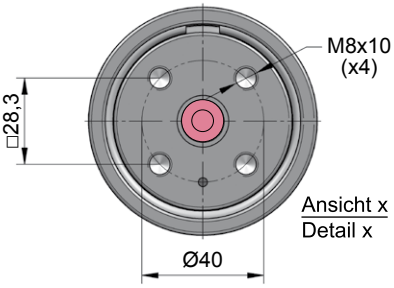
Technische Data:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (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
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

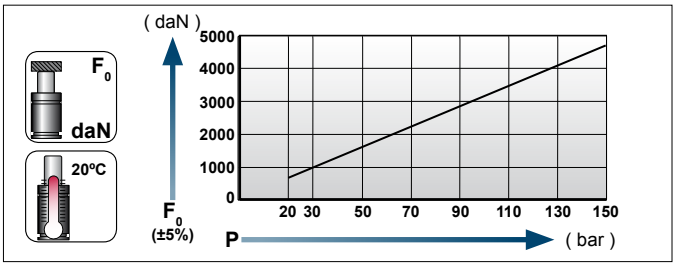


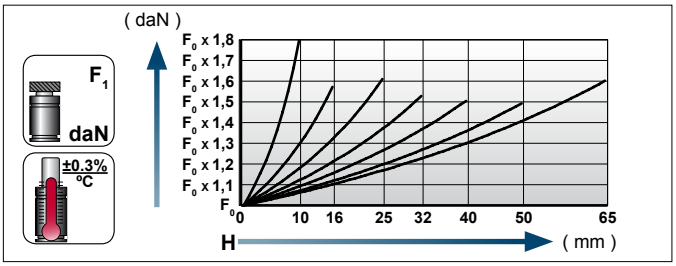


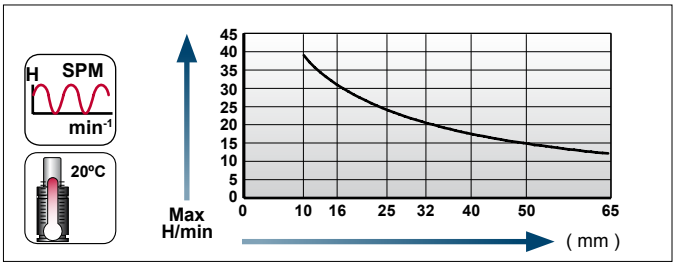
Ansicht x
Detail x

NC.030.00.ER.04700.025.1

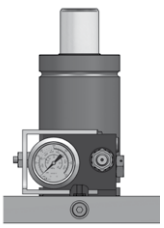
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	80	70	4675	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	106	90	4675	
025	135	110	4675	
032	167	135	4675	
040	200	160	4675	
050	240	190	4675	
065	273	208	4675	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.030.00.ER.07500...1

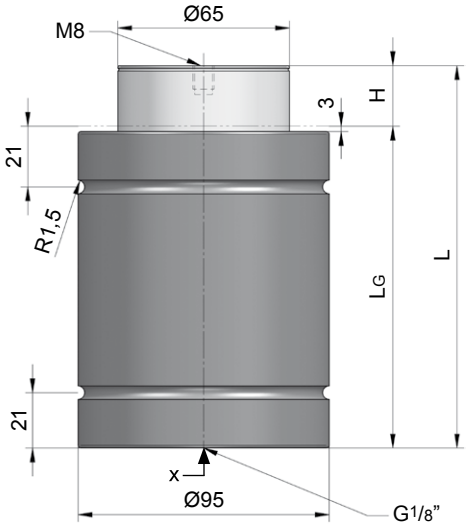
Technische Daten:

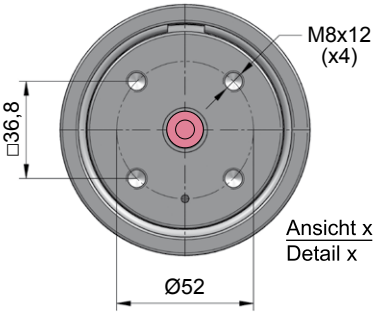
Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

Specifications:

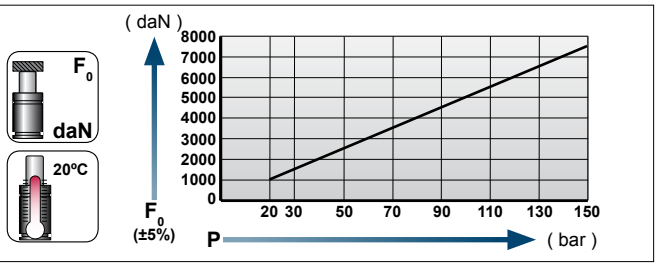
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

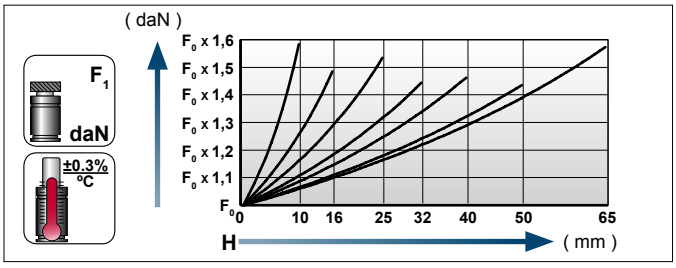
NC.030.00.ER.07500.025.1

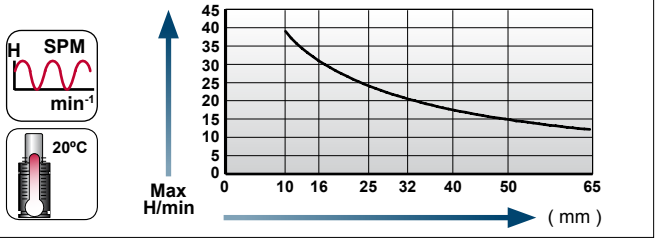




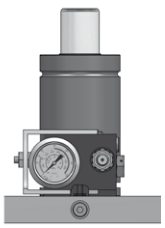
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	90	80	7540	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	116	100	7540	
025	145	120	7540	
032	182	150	7540	
040	210	170	7540	
050	255	205	7540	
065	279	214	7540	







Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

[03.07.2019]

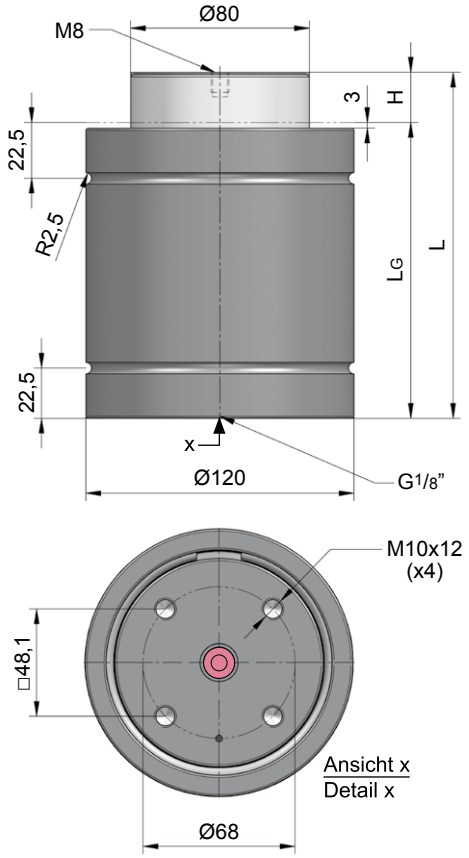
NC.030.00.ER.11800...1

Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

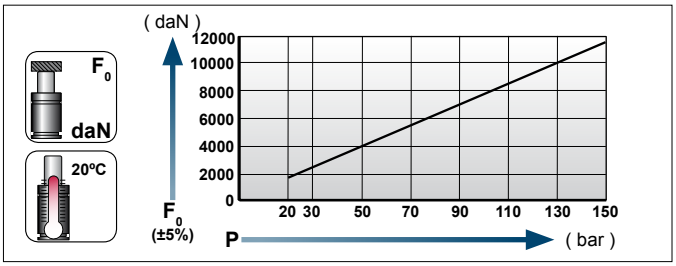
Specifications:

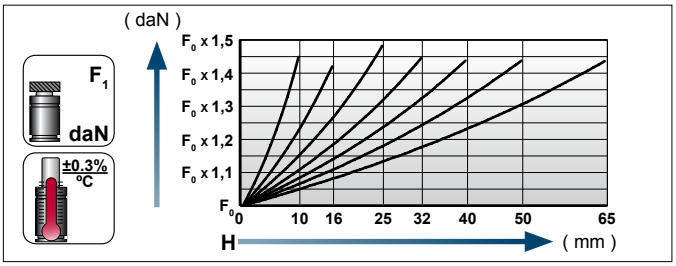
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

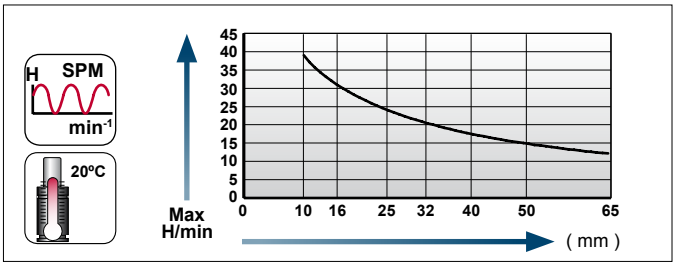


NC.030.00.ER.11800.025.1

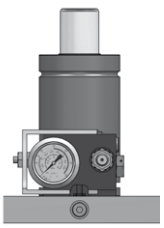
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	100	90	11780	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	126	110	11780	
025	155	130	11780	
032	187	155	11780	
040	220	180	11780	
050	260	210	11780	
065	320	255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





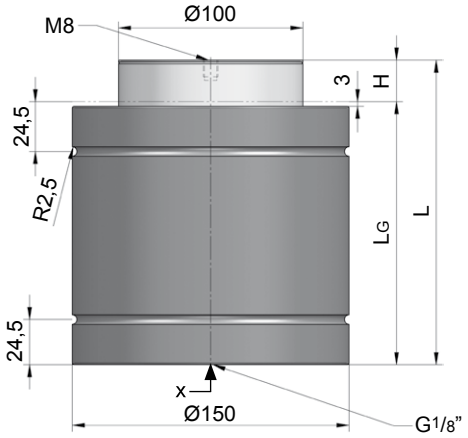


Kontrollarmatur / Control panel



NCCP.600.CPLC.03.1.ER

NC.030.00.ER.18300...1

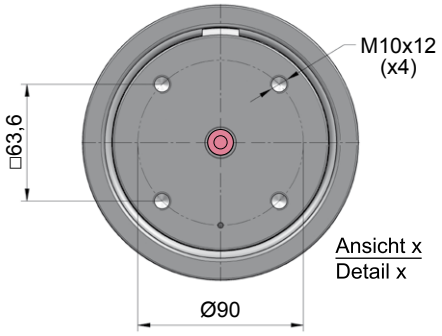


Technische Daten:

Medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Arbeitstemperatur:	0 - 80 °C
Max. Kolbengeschw.:	0,5 m/s

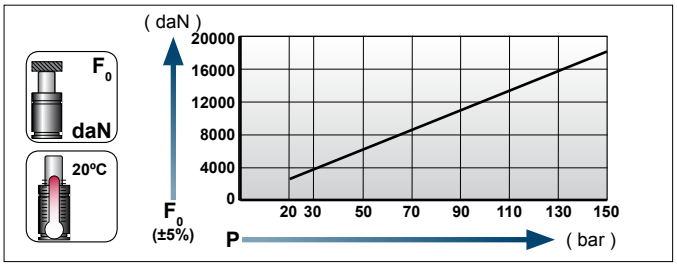
Specifications:

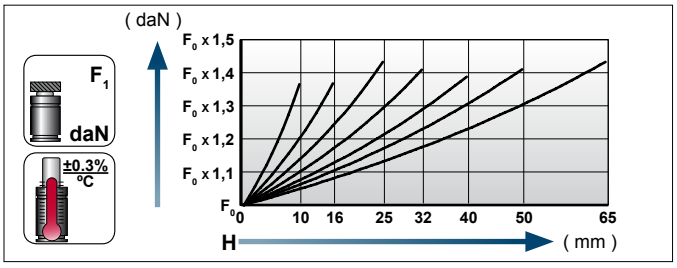
Pressure medium:	N_2
$H_{max.}$:	90%
$P_{max.}$ (20 °C):	150 bar
$P_{min.}$ (20 °C):	20 bar
Operating temperature:	0 - 80 °C
Max. piston rod speed:	0,5 m/s

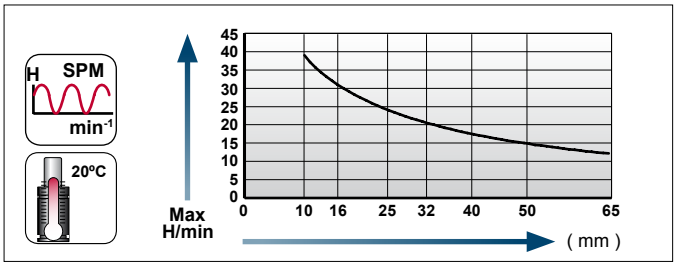


NC.030.00.ER.18300.025.1

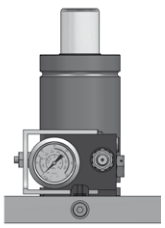
H Hub / Stroke	L ±0,25	LG	Kraft / Force (150 bar) Anfang / Initial [daN]	Ende / Final [daN]
010	110	100	18410	Druckanstiegsfaktor (siehe Diagramm unten) / Pressure rising factor (see diagram below)
016	136	120	18410	
025	165	140	18410	
032	197	165	18410	
040	235	195	18410	
050	270	220	18410	
065	323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







Kontrollarmatur / Control panel

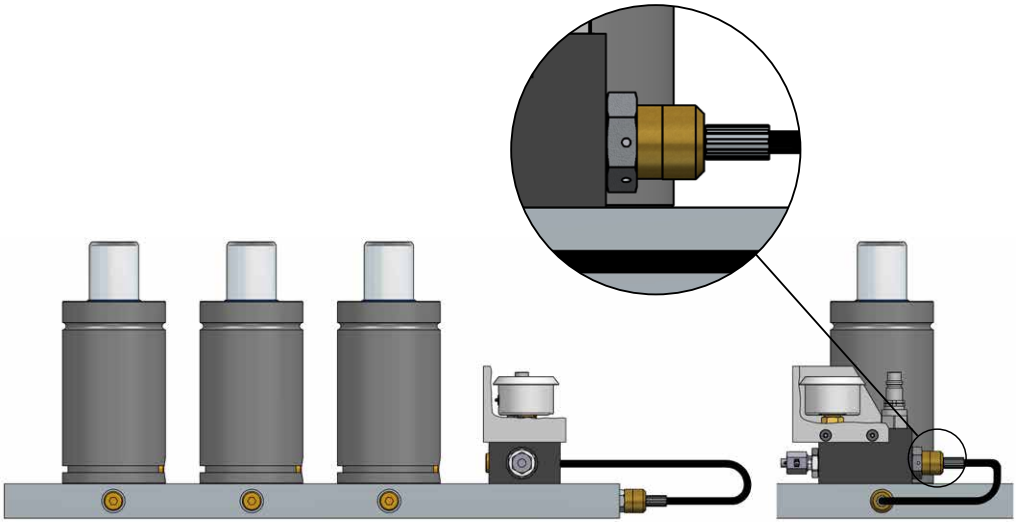


NCCP.600.CPLC.03.1.ER

[03.07.2019]

Kontrollarmaturen mit Standardbefestigung

Control panels standard mount

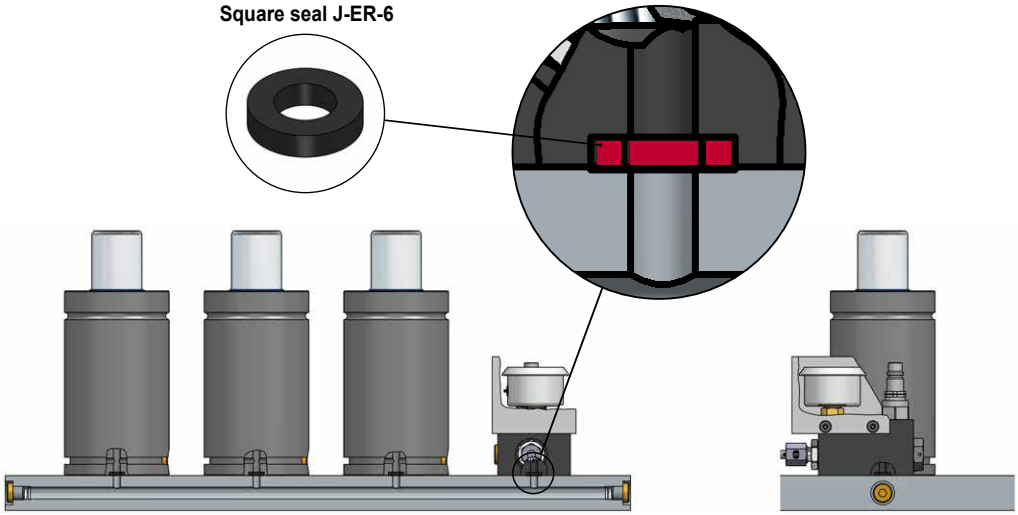


Modell Model
NCCP.600.CPM6.ER.03
NCCP.600.CPGM.ER.05.1
NCCP.600.CPLC.ER.02.1

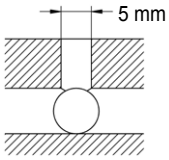
Kontrollarmaturen mit seitlicher Befestigung

Control panels side mount

Dichtring Typ J-ER-6 /
Square seal J-ER-6



Versorgungsbohrung /
Plate hole pattern

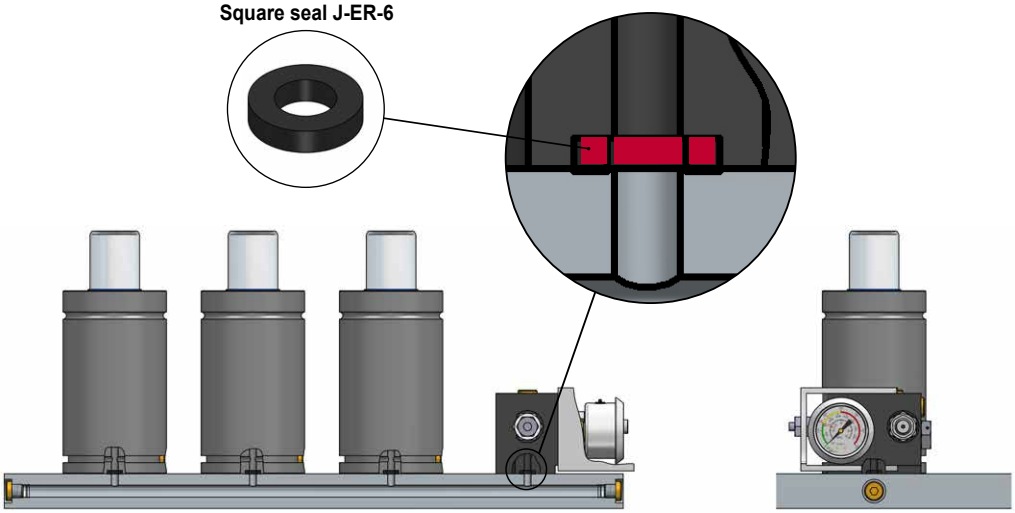


Modell Model
NCCP.600.CPM6.ER-S.03
NCCP.600.CPGM.ER-S.05.1
NCCP.600.CPLC.ER-S.02.1

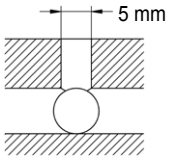
Kontrollarmaturen mit frontaler Befestigung

Control panels front mount

Dichtring Typ J-ER-6 /
Square seal J-ER-6



Versorgungsbohrung /
Filling- / bleeding-holes

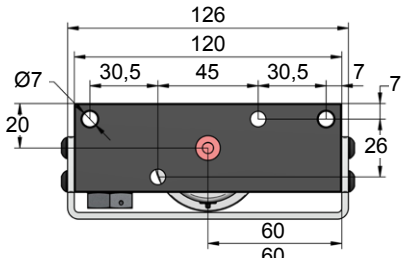


Modell Model
NCCP.600.CPM6.ER-F.03
NCCP.600.CPGM.ER-F.05.1

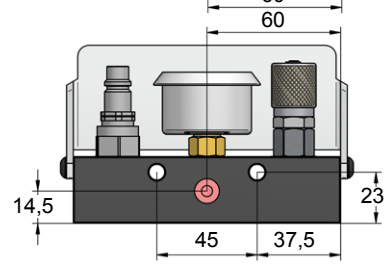
Kontrollarmatur NCCP.600.CPM6.ER.03

Control panel NCCP.600.CPM6.ER.03

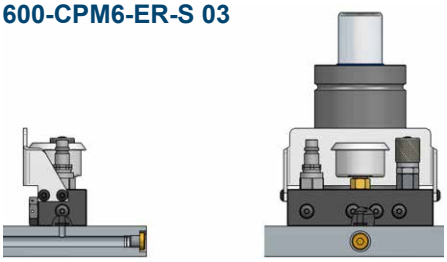
ER-S



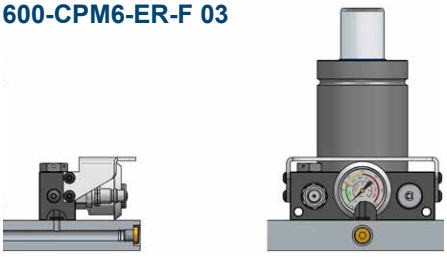
ER-F



600-CPM6-ER-S 03



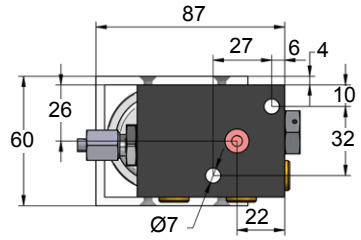
600-CPM6-ER-F 03



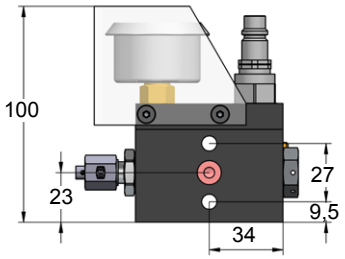
Kontrollarmatur NCCP.600.CPGM.ER.05.1

Control panel NCCP.600.CPGM.ER.05.1

ER-S



ER-F



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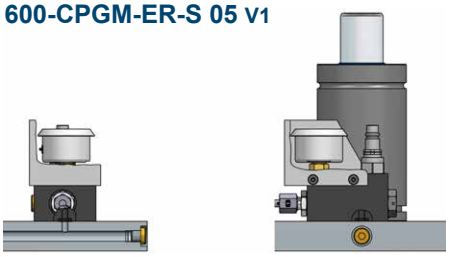

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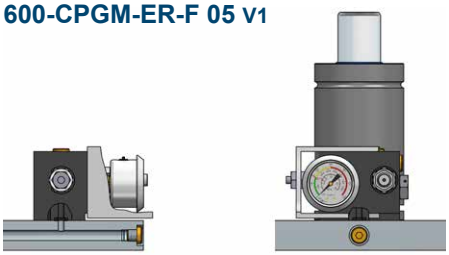
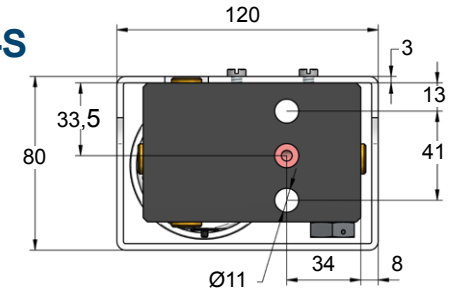
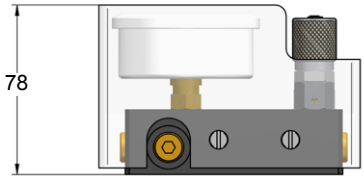


Kontrollarmatur NCCP.600.CPLC.ER.02.1

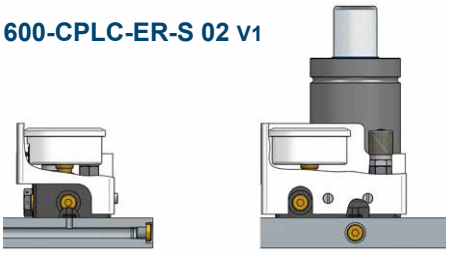
Control panel NCCP.600.CPLC.ER.02.1

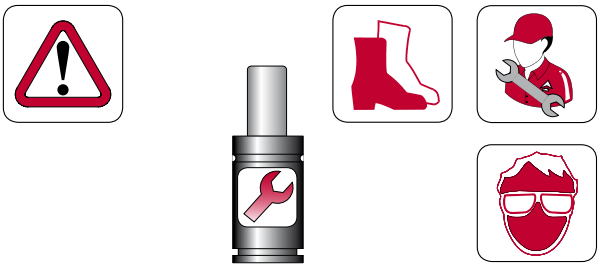
ER-S





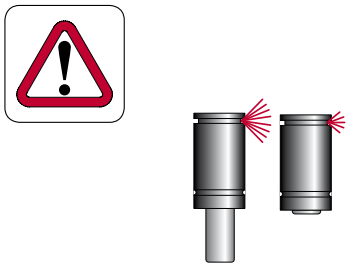
600-CPLC-ER-S 02 V1





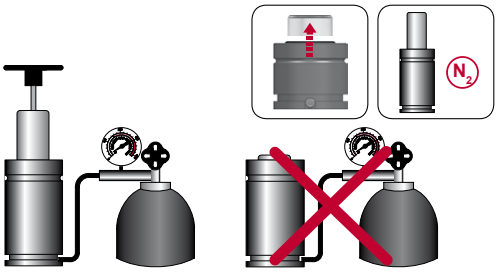
Die Wartung an den Gasdruckfedern darf ausschließlich von geschulten Mitarbeitern durchgeführt werden. Dabei sind angemessene Werkzeuge und Ausrüstungen zu benutzen. Die fachlichen Hinweise, Vorgaben und Anweisungen von Azolgas / NitroCyl müssen unbedingt und jederzeit befolgt werden.

Gas springs maintenance must be carried out only by skilled personnel, with the appropriate training, and always following the operating and service instructions from Azolgas / NitroCyl. Always use the appropriate tools and equipment when handling gas springs.



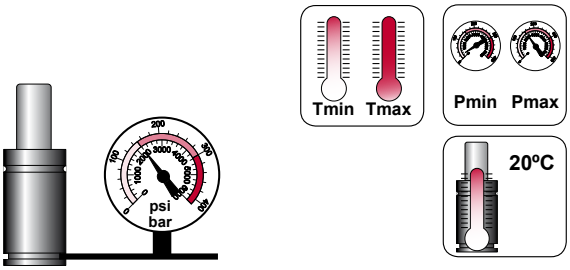
Beim Entladen Ventil nicht auf Personen richten.

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



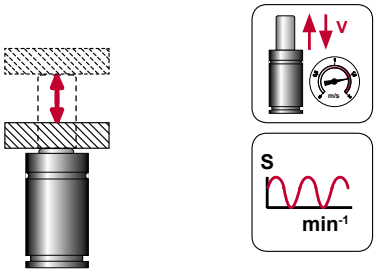
Gasdruckfedern dürfen nur mit Stickstoff befüllt werden, und ausnahmslos nur bei bei vollständig ausgefahrener Kolbenstange.

Charge only with NITROGEN (N2). Never fill a gas spring when the piston rod is not fully extended.



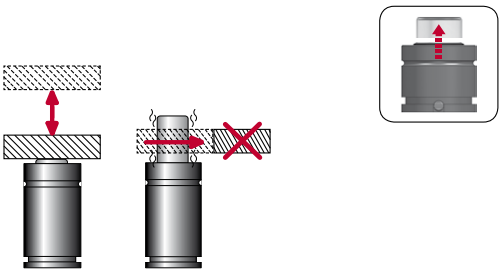
Gasdruckfedern dürfen nur zwischen dem minimal und maximal zulässigen Fülldruck befüllt werden, immer unter Berücksichtigung einer Umgebungstemperatur von 20 ºC. Befolgen Sie die Limitationen hinsichtlich der maximalen Arbeitstemperaturen.

Only charge the gas spring between the minimum and the maximum allowed pressure, at a 20 ºC temperature. Respect the limits of the operating temperature.



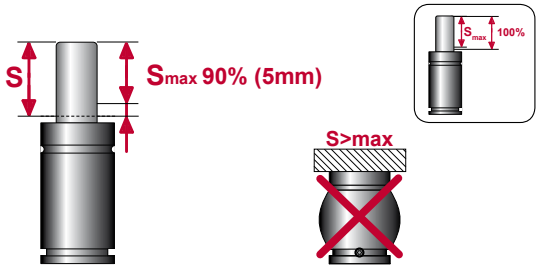
Sowohl die maximal zulässige Kolbengeschwindigkeit, als auch die maximale Hubfrequenz sollten nicht überschritten werden.

Neither the maximum allowed stroke speed, nor the maximum allowed cycles per minute must be exceeded.



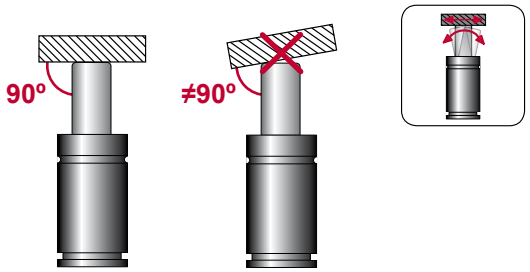
Ein freier Rückhub ist zu verhindern, um die Zerstörung der Gasdruckfeder und gesundheitliche Schäden für Personen zu vermeiden.

Avoid freely release of the piston rod, which would cause damages to the gas spring and could potentially seriously injure and hurt people.



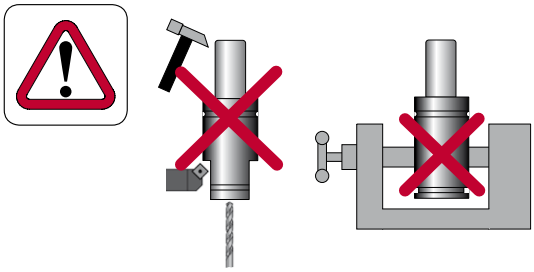
Maximal empfohlener Arbeitshub = 90%. Mindesthubreserve:
bis Hub 50 mm: 10%,
bei Hüben größer als 50 mm: 5 mm.
Überhub > 100% zerstört die Gasdruckfeder und birgt große Risiken für Gesundheit und Leben von Personen!

Maximum recommended stroke = 90%. Minimum stroke reserve:
up to stroke 50 mm: 10%,
stroke >50 mm: 5 mm.
Overstroke >100% would cause damages to the cylinder and be a serious risk to life and health of people!



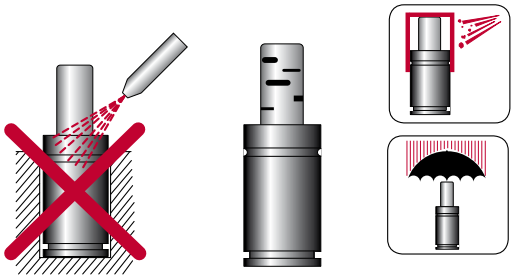
Die Gasdruckfedern sollten stets senkrecht zur Kontaktfläche arbeiten. Seitliche Kräfte erhöhen die Abnutzung der Komponenten und verringern die Standzeiten wesentlich.

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



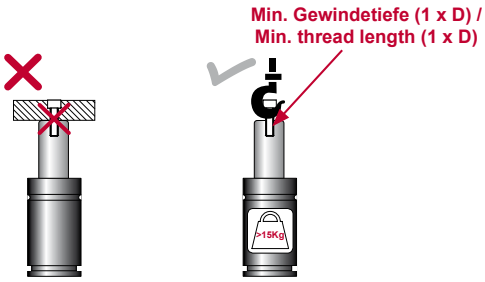
Die Gasdruckfedern immer - insbesondere Gehäuse und Kolbenstangen - vor mechanischen Schlägen oder Beschädigungen schützen. Die Kraft der Gasdruckfedern nicht mit Gegenständen prüfen, die Schaden an der Kolbenstange verursachen könnten.

Avoid whatever impact on the gas spring body or piston rod. For example: Never check the force of the gas springs by using a hammer … do by no means perform any mechanical work to the body, the rod or any other components.



Schützen Sie die Gasdruckfedern vor Kontakt mit festen oder flüssigen Verschmutzungen. Bei Einbau in Vertiefungen sollten Drainage-Kanäle eingebracht werden. Gasdruckfedern mit Beschädigungen auf der Kolbenstangenoberfläche müssen ersetzt werden.

Protect the gas springs from solid or liquid contaminants. If in doubt, provide for draining holes. Gas springs with scratches on the piston rod surface should be replaced.



Das Gewinde in der Kolbenstange hat lediglich eine Wartungs- und/ oder Transportfunktion. Es darf nie zur Befestigung der Gasdruckfeder benutzt werden. (Gasdruckfedern mit einem Gewicht >15 kg sind VDI-konform gekennzeichnet).

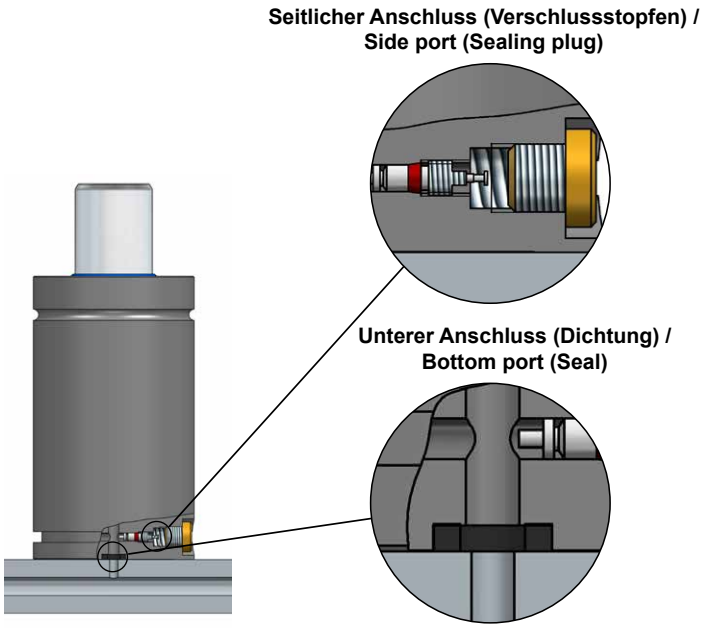
Do not use the rod threaded hole for fixing the gas spring into the tool. This hole is only to be used for maintenance operations or transport. (Gas springs heavier than 15 kg are marked according to VDI).

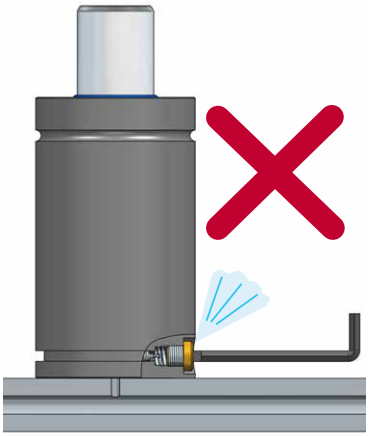
Die Gasdruckfedern von Azolgas/ NitroCyl werden nach der Druckgeräte-Richtlinie PED 2014/68/ EU entwickelt und hergestellt. Der Benutzer hat dafür zu sorgen, dass die nationalen Richtlinien bezüglich Inbetriebnahme, Wartung und wiederholten Prüfungen unbedingt eingehalten werden. Azolgas/NitroCyl empfiehlt, die Gasdruckfedern nach 2 Millionen Hüben zu ersetzen, nach 10 Jahren sollten sie ausgetauscht werden.

Azolgas/NitroCyl gas springs are designed and manufactured according to PED 2014/68/EU. The user of any gas spring(s) is responsible for installation and future inspections to be made to the springs in accordance with the regulations of the country where they are being used. Azolgas/NitroCyl recommend to replace gas springs after 2 million strokes, respectively 10 years.

Warnung vor Gasdruckfedermanipulation

Warning: Gas spring manipulation





Gasdruckfedern Typ ER werden mit zwei N2-Gasanschlüssen geliefert (seitlicher Anschluss / unterer Anschluss). NIEMALS den Verschlussstopfen vom seitlichen Anschluss abmontieren.

Laden und Entladen der Gasdruckfeder Typ ER muss über die Kontrollarmatur ausgeführt werden.

-ER gas springs are supplied with 2 N_2 gas ports (side port / bottom port), NEVER disassemble the sealing plug from the side port.

-ER gas springs charging and discharging operations must be done through the control panel.

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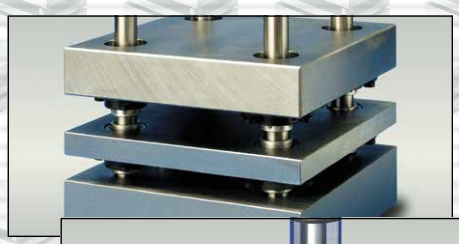
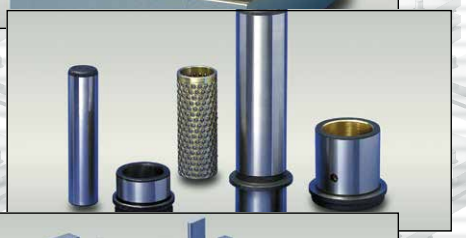
[lieferprogramm] [productrange]



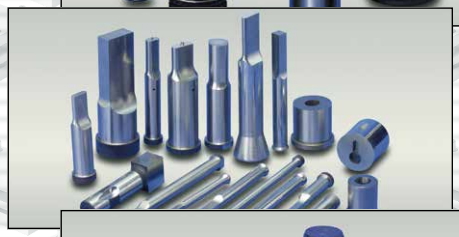
[säulengestelle]
in Standard- und Sonder-Abmessungen ab 125 x 125 mm bis 3.000 x 6.000 mm

[diesets]
in standard and custom sizes between 125 x 125 mm up to 3.000 x 6.000 mm



[führungssysteme]
in den verschiedensten Ausführungen

[guidingsystems]
available in various designs



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