

ADVANTAGES

1

Pneumatic clamping with high forces

2

**Optimum safety clamping –
pneumatic failure locks the system**

3

**The performance of hydraulic clamps
will be achieved and exceeded**

4

**Low system costs in
comparison to hydraulics**

5

Simple installation

6

Compact design

7

**Wide range for many shaft
sizes can be delivered**

GENERAL
INFORMATION

02

ROTOCLAMP
DISKCLAMP

06

LINCLAMP

24

PCLAMP

41

OPERATING PRINCIPLE OF THE PCLAMP

02

GEWÄHRLEISTUNG
INHALT

06

ROTOCLAMP
DISKCLAMP

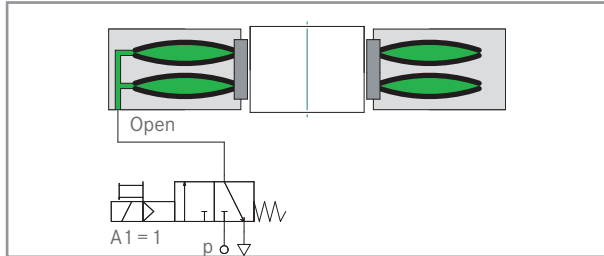
24

LINCLAMP

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PCLAMP

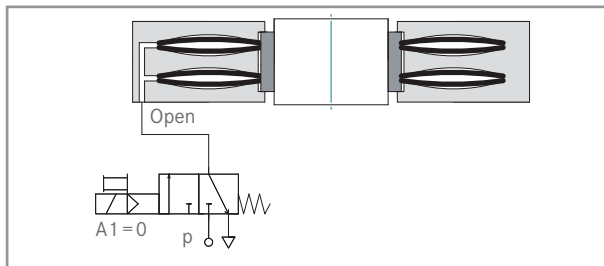
Funktion PClamp N



PClamp Standard, opening the spring actuator

PClamp N released

Pressure is applied to the air chambers between the spring steel sheets. The spring steel sheets bend outwards, reducing their radial width. The clamping collet can therefore expand, releasing the rod.

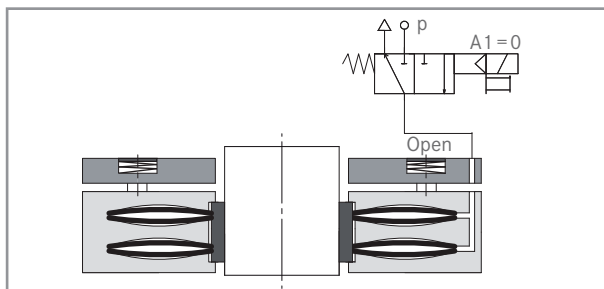


PClamp Standard, clamping with spring actuator

PClamp N clamped

The air chambers between the spring steel sheets are vented, the elastic spring steel sheets return to their original position, thereby clamping the collet against the rod. In this condition, the PClamp N is able to hold both rotary motion as well axial forces.

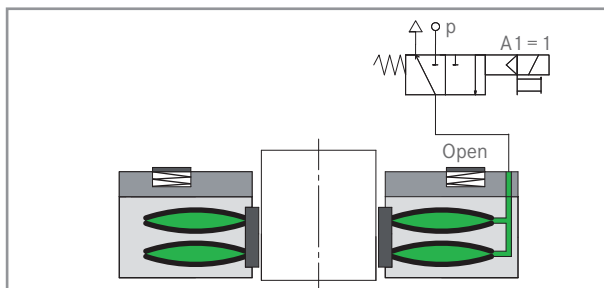
Function of the PClamp X



PClamp X, clamping with spring actuator

PClamp X clamped

PClamp X offers an additional safety feature: In case of emergency clamping, an air escape channel opens, and the PClamp X cannot be released in this state.

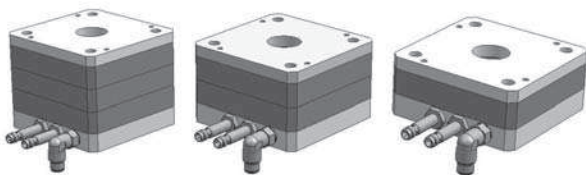


PClamp X, opening the spring actuator

PClamp X released

The clamping can only be unlocked after lifting the load.

Increasing power



The building block system – more power by stacking up to four PClamp modules

Intelligent modular concept PClamp stacking

The easiest method of increasing the clamping force by stacking several clamping units. The clamping forces can be increased by arranging up to three clamping units between the base plate and the surface plate.

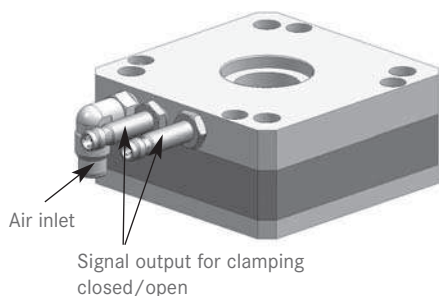
PClamp is suitable for clamping rods with diameters of 12 mm to 40 mm. The flange dimension as well as the outside dimensions are matched to those of standard cylinders ISO 6431. The lengths vary depending on the clamping force required. Additional data for special solutions are available on request.



Compressed air

PRODUCT OVERVIEW

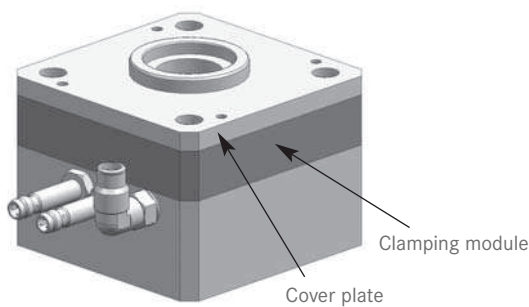
PClamp N



Standard version

Comprising the standard cover plate, one to four clamping units and base plate with connections for initiators as well as air inlet. Suitable for linear and rotary loads.

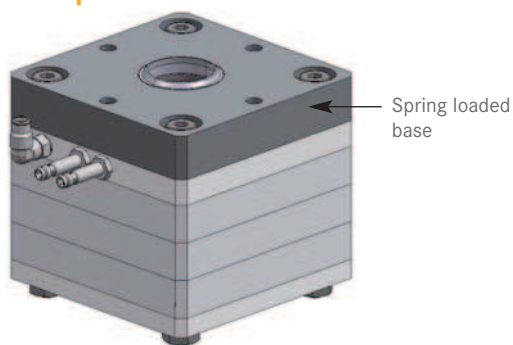
PClamp ISO



Version for ISO pneumatic cylinder

Cover plate and base plate are matched to the flange dimension of the ISO cylinder. Due to the integrated attachments in the housing, the ISO version is ideal for use with standard cylinders. The clamping unit is identical to versions N and X.

PClamp X



Version with additional safety mechanism for highest safety standards for vertical axes

Models with improved safety for vertical axes. After clamping the piston rod, the clamping mechanism can only be released when the axis is moved upwards. The clamping unit is identical to the versions N and ISO.

PClamp E



Compact version for lower clamping forces

PClamp E has a lower overall height - ideal for applications with limited installation space or operating ranges in which lower holding forces are required. Sensors can not be used. The clamping unit has a different outward appearance than Version N, X and ISO, although the active principle is identical.

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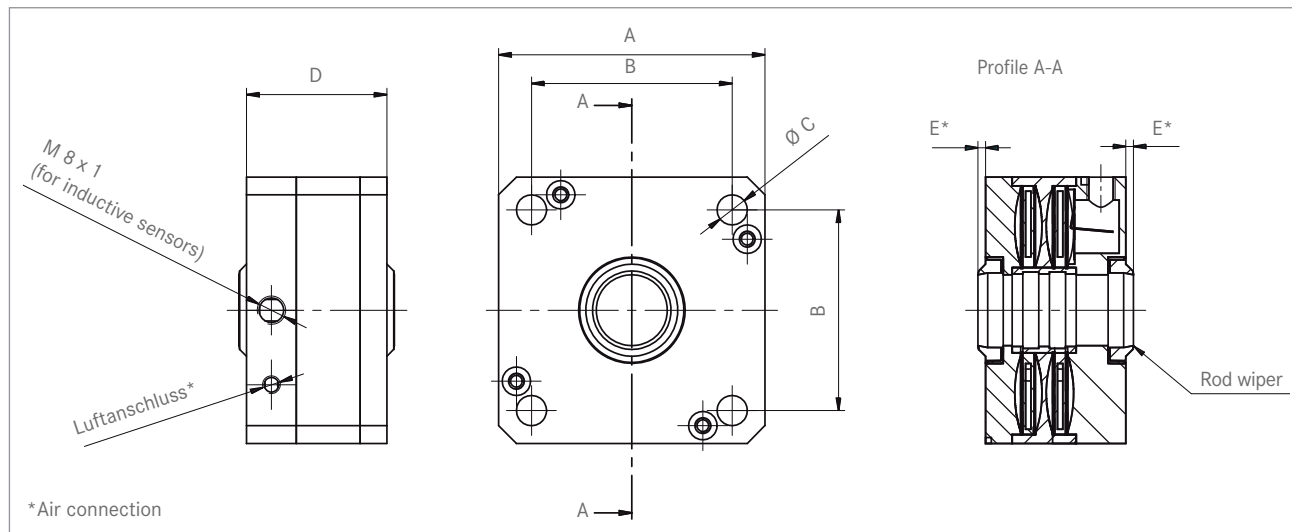
PCLAMP

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TECHNICAL DATA

Technical Data of the PClamp N

Size	A	B	C	D	E	Air connection	Holding force Version 4 Bar	Holding force Version 6 Bar	Holding torque Version 4 Bar	Holding torque Version 6 Bar	Standard rod	Mass
Unit	[mm]	[mm]	[mm]	[mm]	[mm]		[N]	[N]	[Nm]	[Nm]	[mm]	[kg]
PC 63-20-1	75	56.5	8.5	41.5	2.1	M5	1400	2000	15	20	20	0.7
PC 63-20-2	75	56.5	8.5	59.5	2.1	M5	2520	3600	25	35	20	1.13
PC 63-20-3	75	56.5	8.5	77.5	2.1	M5	3780	5400	35	50	20	1.56
PC 80-25-1	96	72	10.5	43.5	2.14	G 1/8	2100	3000	25	35	25	1.3
PC 80-25-2	96	72	10.5	63.5	2.14	G 1/8	3780	5400	40	60	25	2.2
PC 80-25-3	96	72	10.5	83.5	2.14	G 1/8	5670	8100	65	95	25	3.1
PC 125-40-1	145	110	13	51.6	3	G 1/8	7000	10000	140	200	40	3.65
PC 125-40-2	145	110	13	75.2	3	G 1/8	12600	18000	250	360	40	5.85
PC 125-40-3	145	110	13	98.8	3	G 1/8	18900	27000	375	540	40	8.05
PC 125-40-4	145	110	13	122.4	3	G 1/8	25200	36000	500	720	40	10.25



Example of tabulation

- PC 63-20-1: PClamp suitable for ISO cylinders, size 63, rod diameter 20 mm, one clamping module.
- Sizes A, B, C, D and E are geometric data (refer to the drawing).
- Air connection M5: Connecting thread for hose connector.
- Holding force Version 4 Bar: 1400N/holding force Version 6 Bar: 2000N. The versions for various pressure ranges achieve different holding forces.
- Holding torque Version 4 Bar: 15 Nm/holding torque version 6 Bar: 20Nm. Like before, there are different holding torques at different pressures.
- Standard rod diameter starting from the standard value, you can get versions with reduced diameter. Available diameter and corresponding holding forces on request.

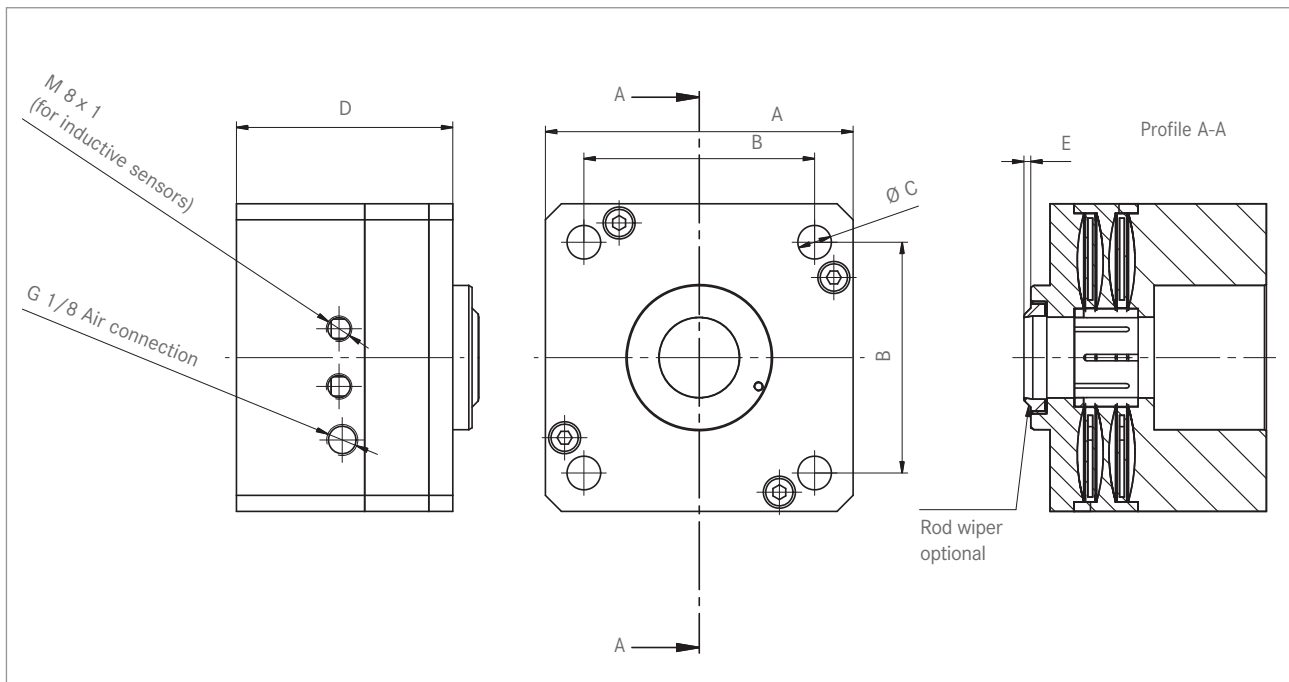
Safety note for construction

The holding forces specified can be achieved under optimal conditions; we recommend a safety factor of >10%. Please consider that the surface, material, and cleanliness of the rod as well as wear and the use of wipers leads to changed holding forces. For new or safety applications, check the clamp by testing it in its environment and measure the actual values. Plan regular functional checks and functional monitoring. Please indicate these intervals as safety instructions for the end user. The axis/shaft must be designed at least with an h9 fit. Expect reduced holding forces if using the entire range of tolerances. To achieve optimum holding force, machine the fit as closely as possible to the nominal size.

TECHNICAL DATA

Technical Data of the PClamp ISO

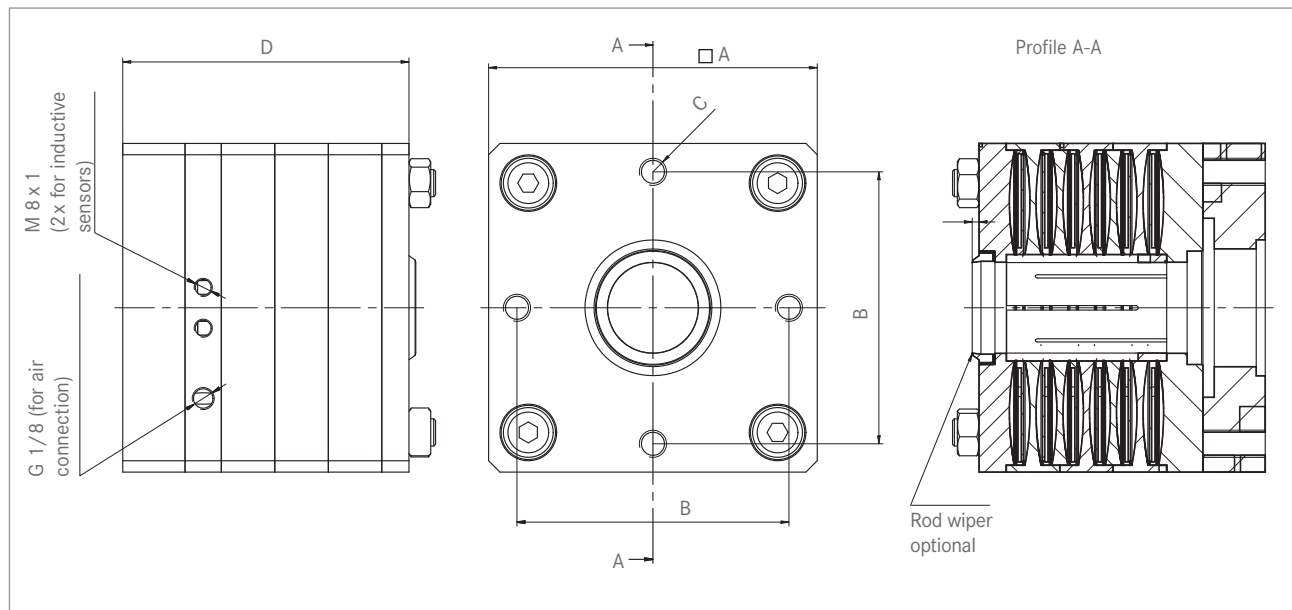
Size	A	B	C	D	E	Air connectio	Holding force Version 4 Bar	Holding force Version 6 Bar	Holding torque Version 4 Bar	Holding torque Version 6 Bar	Standard rod	Mass
Unit	[mm]	[mm]	[mm]	[mm]	[mm]		[N]	[N]	[Nm]	[Nm]	[mm]	[kg]
PC 63-20-1	75	56.5	8.5	69.5	2.1	M5	1400	2000	15	20	20	1
PC 63-20-2	75	56.5	8.5	87.5	2.1	M5	2520	3600	25	35	20	1.43
PC 63-20-3	75	56.5	8.5	105.5	2.1	M5	3780	5400	35	50	20	1.86
PC 80-25-1	96	72	10.5	67.5	2.14	G 1/8	2100	3000	25	35	25	1.8
PC 80-25-2	96	72	10.5	87.5	2.14	G 1/8	3780	5400	40	60	25	2.7
PC 80-25-3	96	72	10.5	107.5	2.14	G 1/8	5670	8100	65	95	25	5.6
PC 125-40-1	145	110	13	95,6	3	G 1/8	7000	10000	140	200	40	5.65
PC 125-40-2	145	110	13	119,2	3	G 1/8	12600	18000	250	360	40	7.85
PC 125-40-3	145	110	13	142,8	3	G 1/8	18900	27000	375	540	40	10.05
PC 125-40-4	145	110	13	166,4	3	G 1/8	25200	36000	500	720	40	12.25



TECHNICAL DATA

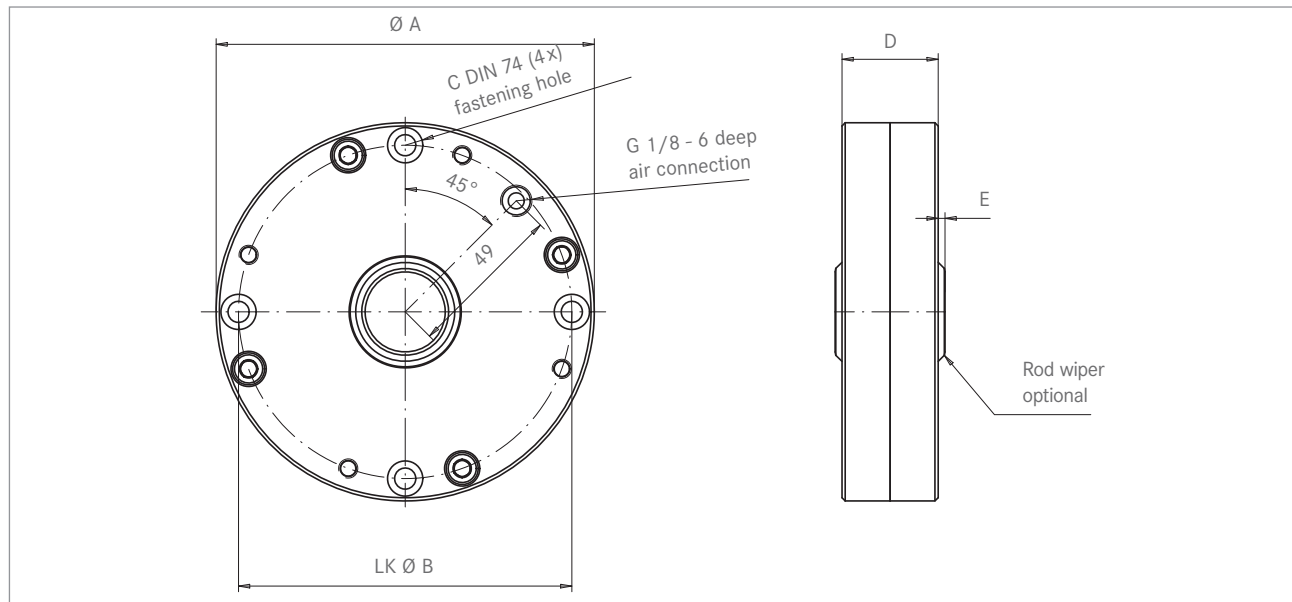
Technical Data of the PClamp X

Größe	A	B	C	D	E	Air connection	Holding force Version 4 Bar	Holding force Version 6 Bar	Standard rod	Mass
Einheit	[mm]	[mm]		[mm]	[mm]		[N]	[N]	[mm]	[kg]
PC 125-40-1	145	120	M12	90.8	3	G 1/8	7000	10000	40	5.3
PC 125-40-2	145	120	M12	114.4	3	G 1/8	12600	18000	40	7.55
PC 125-40-3	145	120	M12	138	3	G 1/8	18900	27000	40	9.8



Technical Data of the PClamp E

Size	A	B	C	D	E	Air connection	Holding force Version 4 Bar	Holding force Version 6 Bar	Holding torque Version 4 Bar	Holding torque Version 6 Bar	Standard rod	Mass
Unit	[mm]	[mm]		[mm]	[mm]		[N]	[N]	[Nm]	[Nm]	[mm]	[kg]
PC 63-20 E	92	80	M5	28	2.1	G 1/8	700	1000	7	10	20	1.15
PC 80-25 E	118	104	M6	30	2.14	G 1/8	1050	1500	12	17	25	2.1
PC 125-40 E	168	152	M6	34	3	G 1/8	3500	5000	70	100	40	4.9



02

GEWÄHRLEISTUNG
INHALT

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ROTOCLAMP
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PCCLAMP

REQUEST FORM

Please send by fax to +49 6182 773-35

Company name: _____

Address: _____ Country/Zip/Location: _____

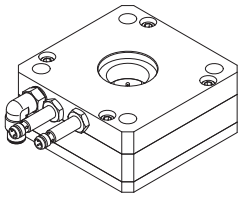
Contact: _____ Area/Department: _____

Telephone: _____ DID: _____ Fax: _____ Direct: _____

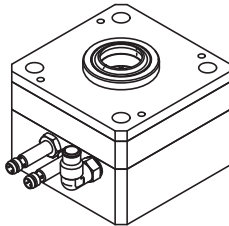
E-Mail: _____ Internet: _____

P Clamp systems are suited to for various applications. The following criteria decide on the configuration of the system. Please enter the information as completely and detailed as possible.

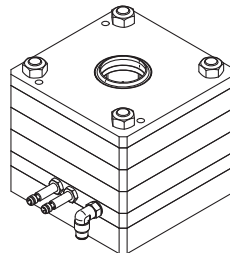
Model (please check):



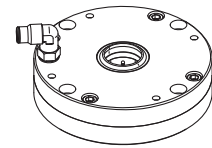
PClamp N



PClamp ISO



PClamp X



PClamp E

Type designation according to the table: _____ Surface operating conditions:

Required holding force: _____ N dry oiled greased

Required holding torque: _____ Nm Exact designation of the oil/grease: _____

System can only open with air: _____ mm

4 Bar compressed air Required quantity: _____

6 Bar compressed air Date of delivery: _____

Horizontal operation Please call back

Vertical operation Please visit

Vertical operation (with free fall)

Use as: _____ Other: _____

brake system _____

clamping system _____

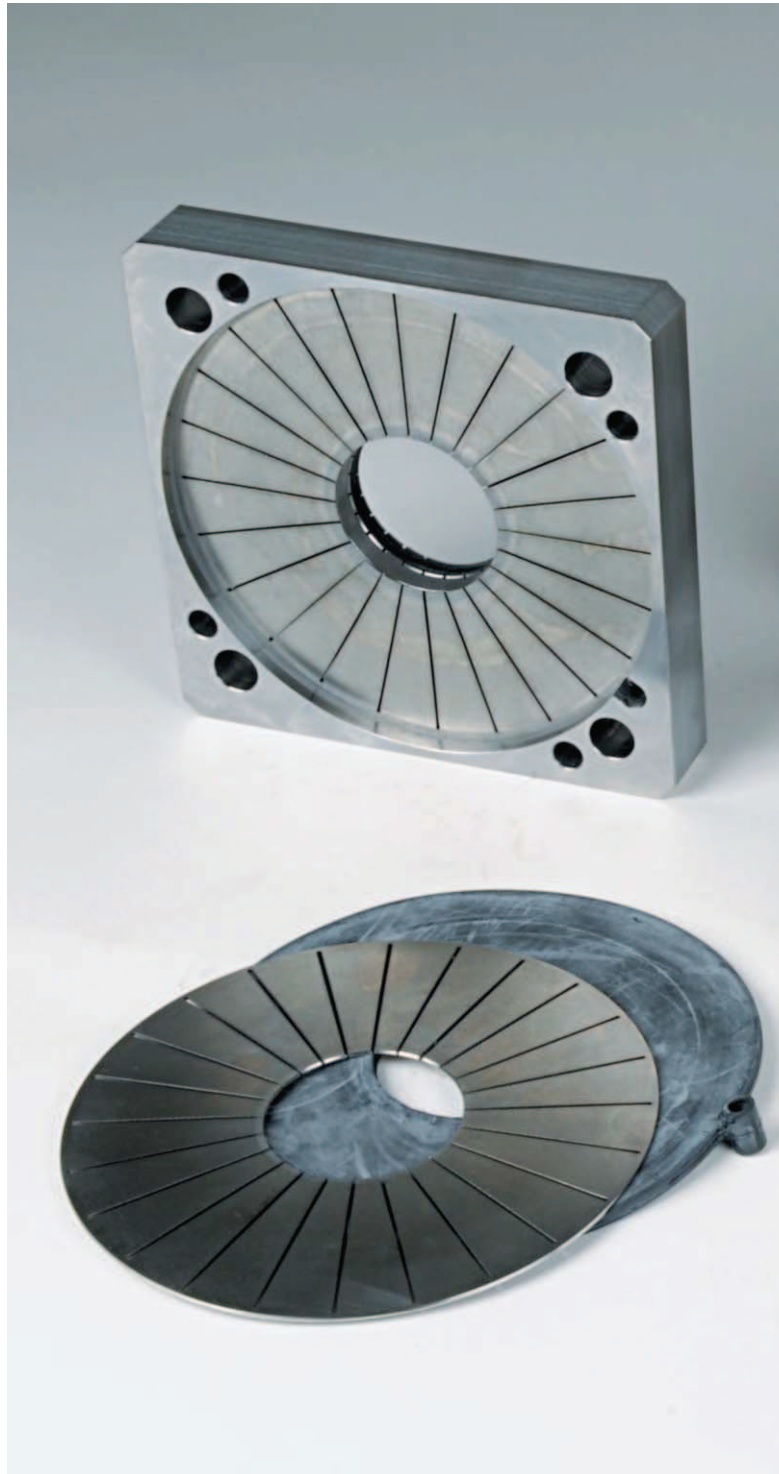
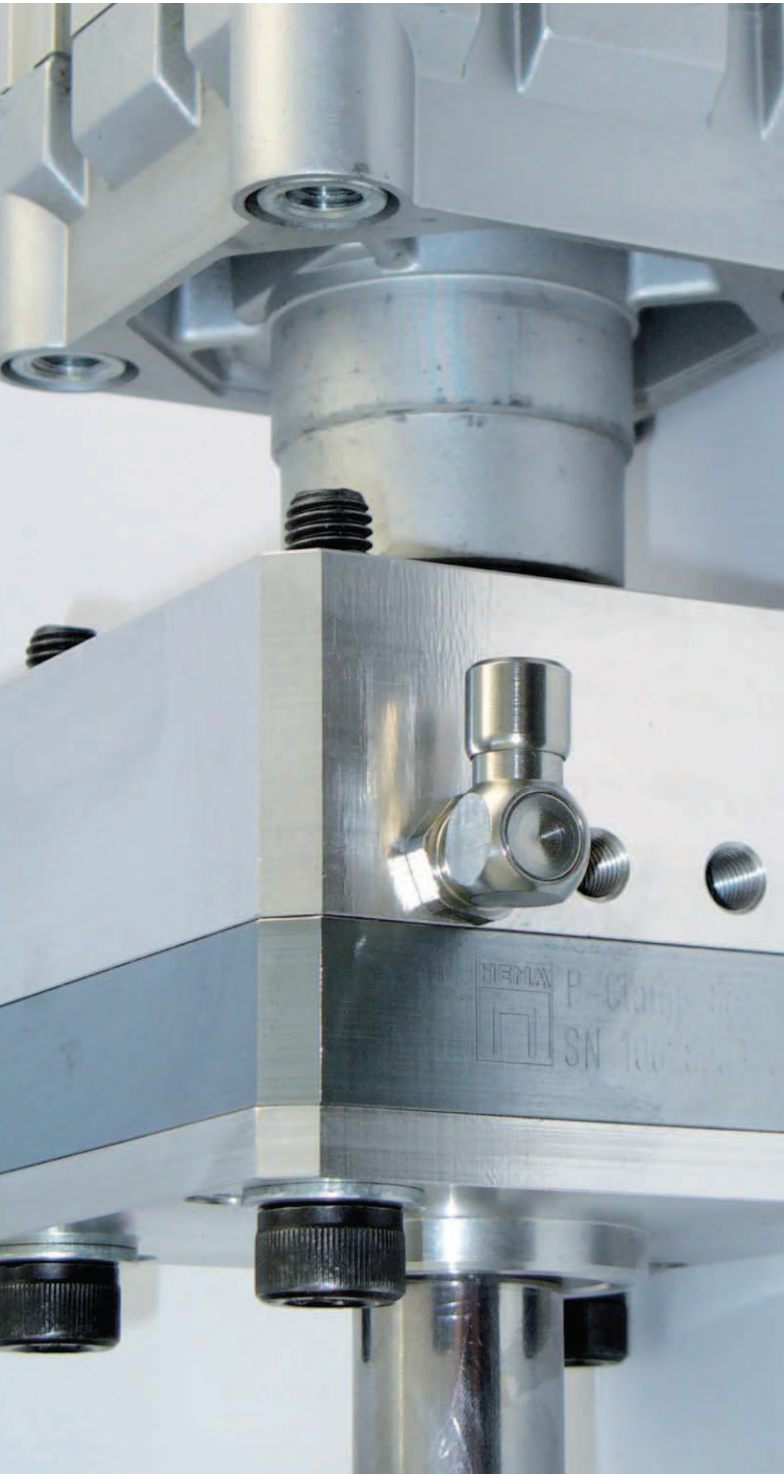
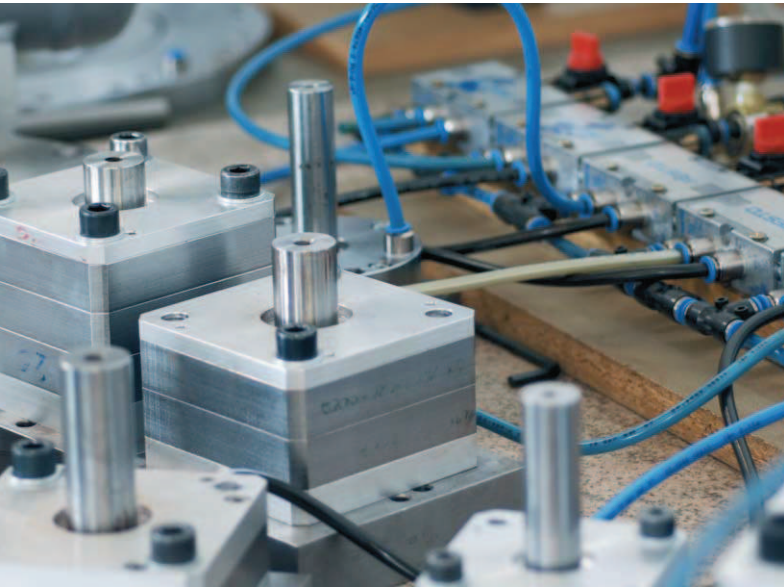
translatory _____

rotary _____

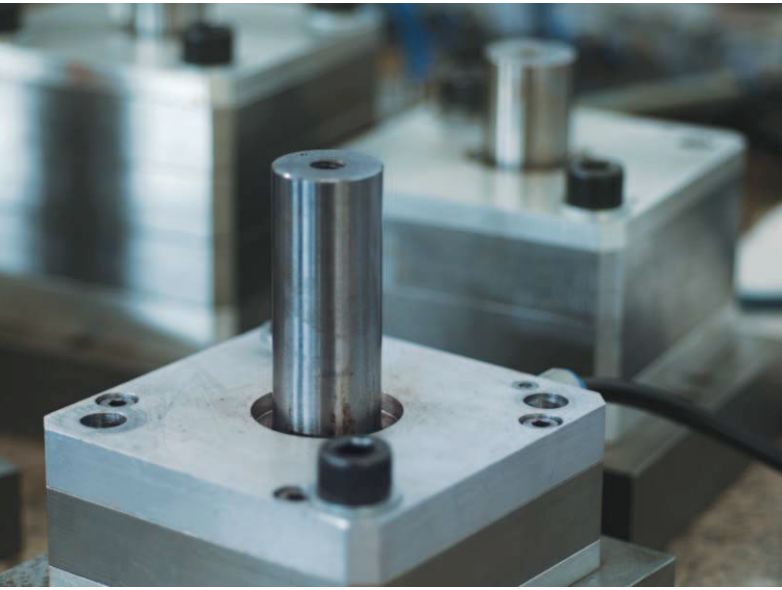
Clamping cycles: _____ for each _____

You can also download this form at:
www.hema-schutz.de

HEMA CLAMPING SYSTEMS



PC LAMP



HEMA CLAMPING SYSTEMS



Quality at HEMA

All clamping systems are subject to the most stringent quality requirements according to the HEMA ISO 9001 System. A 100% check of components at all stages of production ensures absolute quality.

The most modern 3D measuring machines and our own, specially developed testing machines ensure high quality on delivery and continuous performance data.

A batch number system allows for unique identification of all performance data for the clamping system delivered in each case. Detailed operating instructions supplement the high-performance systems.



ROTHKONSOL_R_02105214_0TE	
Restweg	T, F, S
0.000	T FRAESER_28_KLEIN Ø 19.288
38.280	F 0.028 8.878 mm/20
0.000	S 1399. 1488



QUALITÄT VON HEMA

