

PCLAMP

02

GEWÄHRLEISTUNG
INHALT

06

ROTOCLAMP
DISKCLAMP

24

LINCLAMP

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PCLAMP



PClamp N



PClamp E

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

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PCLAMP

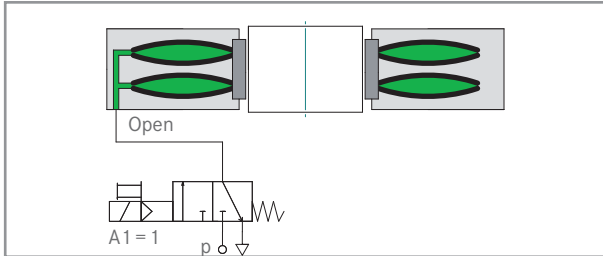
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OPERATING PRINCIPLE OF THE PCLAMP

02

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Funktion PClamp N

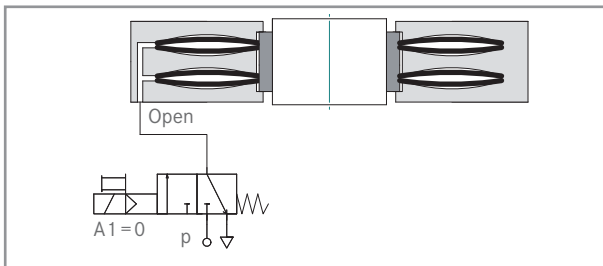


PClamp Standard, opening the spring actuator

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.

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ROTOCLAMP
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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.

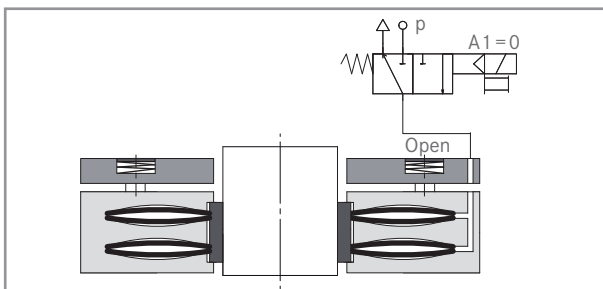
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LINCLAMP

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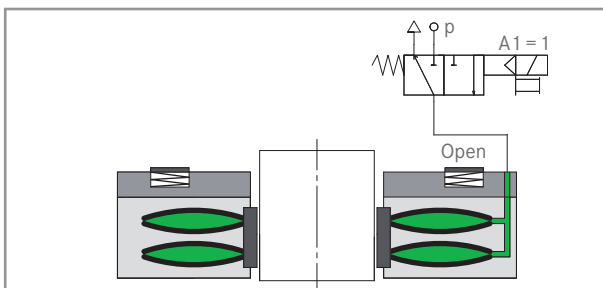
Function of the PClamp X



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.

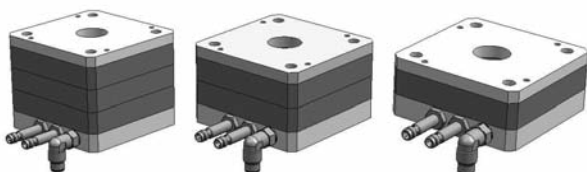


PClamp X, opening the spring actuator

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.

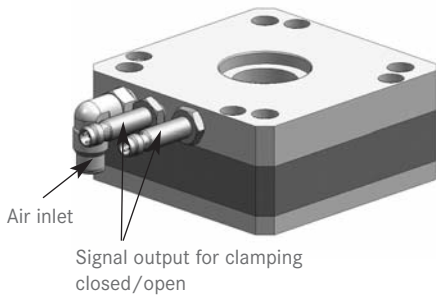
PClamp is suitable for clamping rods with diameters of 12 mm to 40 mm. The flange dimension as well as the outside dimensions are matched to those of standard cylinders ISO 6431. The lengths vary depending on the clamping force required. Additional data for special solutions are available on request.



Compressed air

PRODUCT OVERVIEW

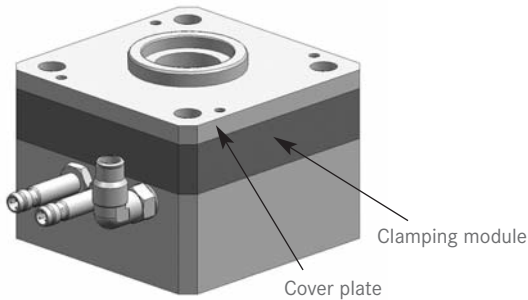
P Clamp N



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.

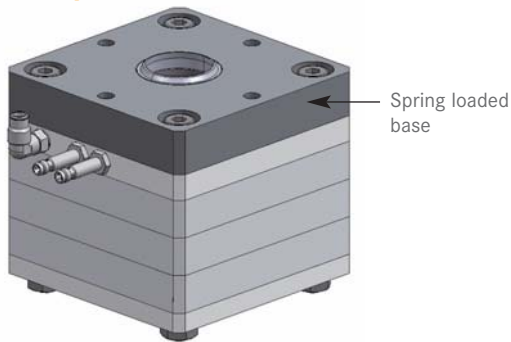
P Clamp ISO



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.

P Clamp 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.

P Clamp E



Compact version for lower clamping forces

P Clamp 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.

GENERAL INFORMATION 02

ROTOCLAMP DiskCLAMP 06

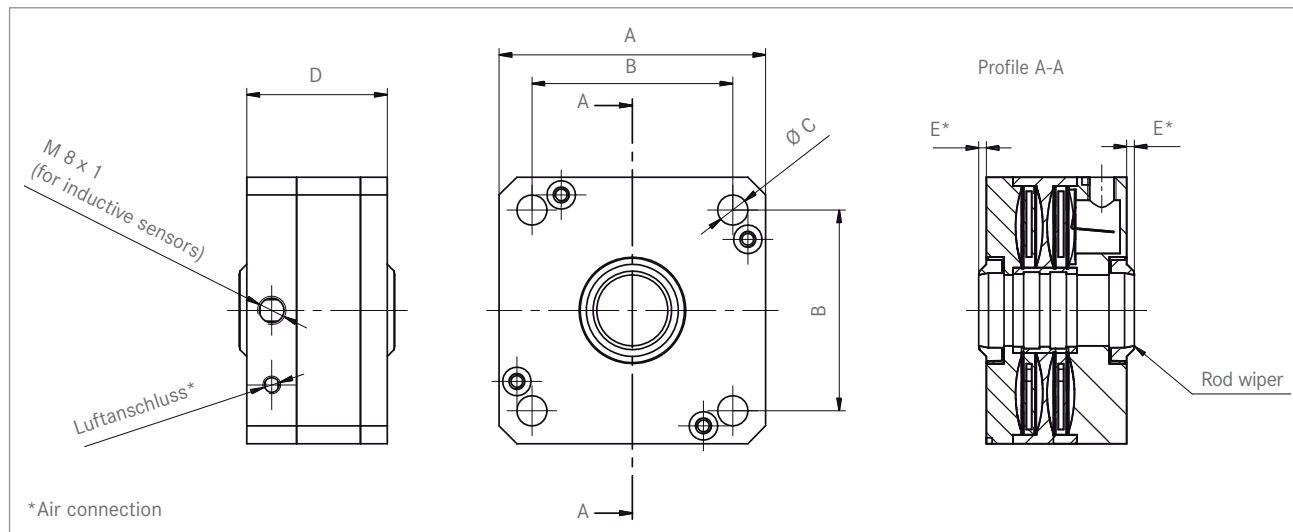
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TECHNICAL DATA

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.

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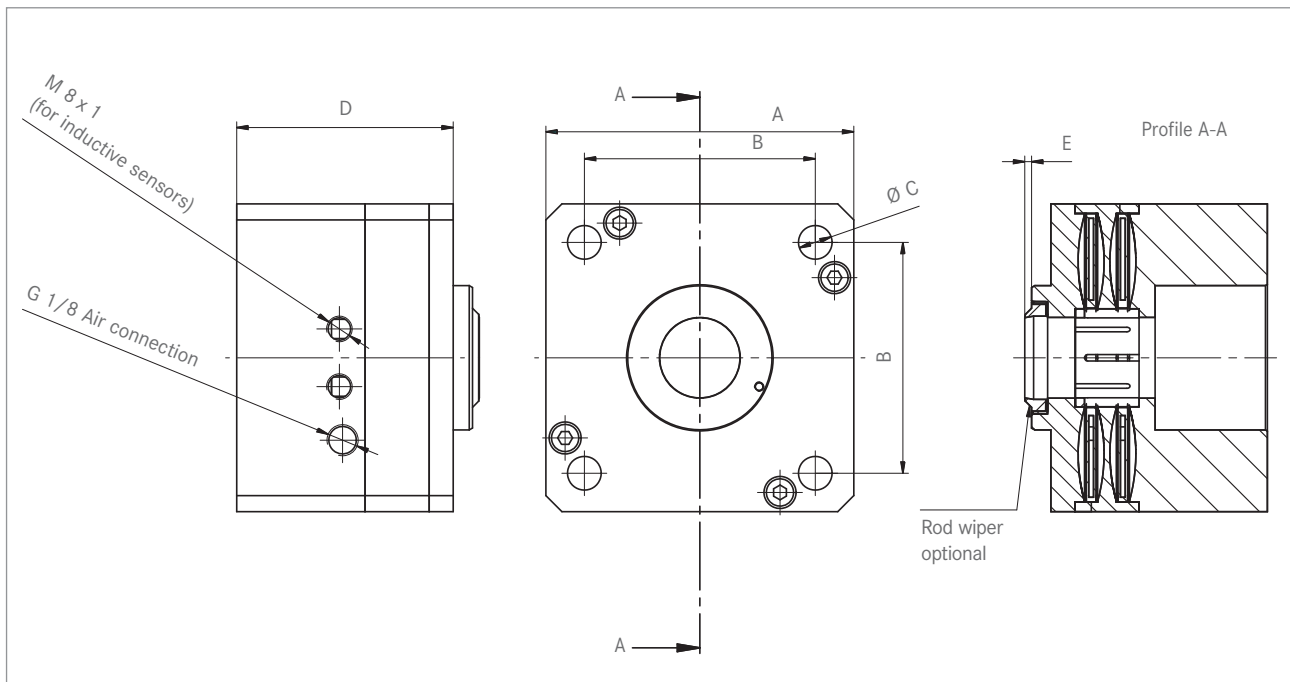
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TECHNICAL DATA

Technical Data of the PClamp ISO

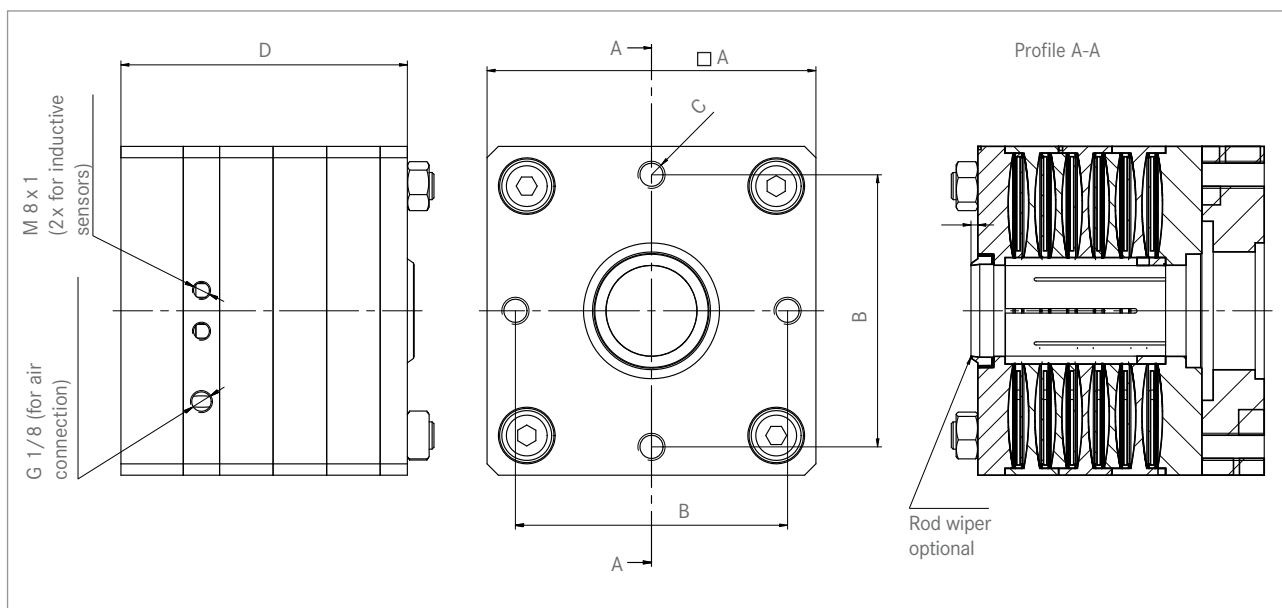
Size	A	B	C	D	E	Air connectio	Holding force Version 4 Bar	Holding force Version 6 Bar	Holding torque Version 4 Bar	Holding torque Version 6 Bar	Standard rod	Mass
Unit	[mm]	[mm]	[mm]	[mm]	[mm]		[N]	[N]	[Nm]	[Nm]	[mm]	[kg]
PC 63-20-1	75	56.5	8.5	69.5	2.1	M5	1400	2000	15	20	20	1
PC 63-20-2	75	56.5	8.5	87.5	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

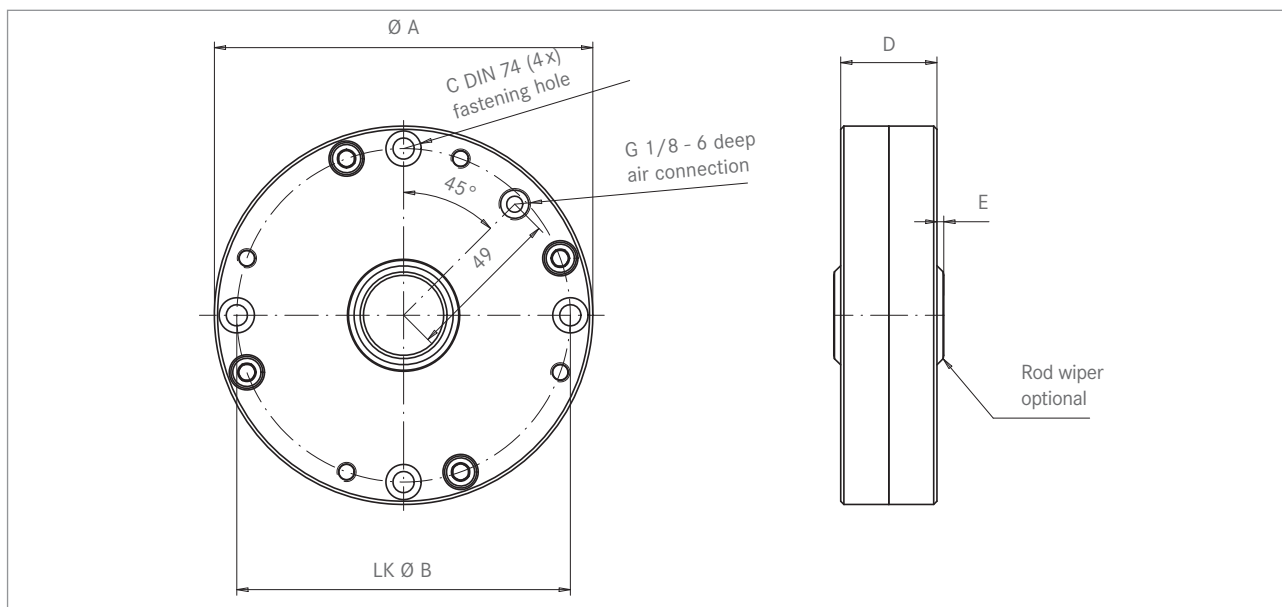
Technical Data of the PClamp X

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



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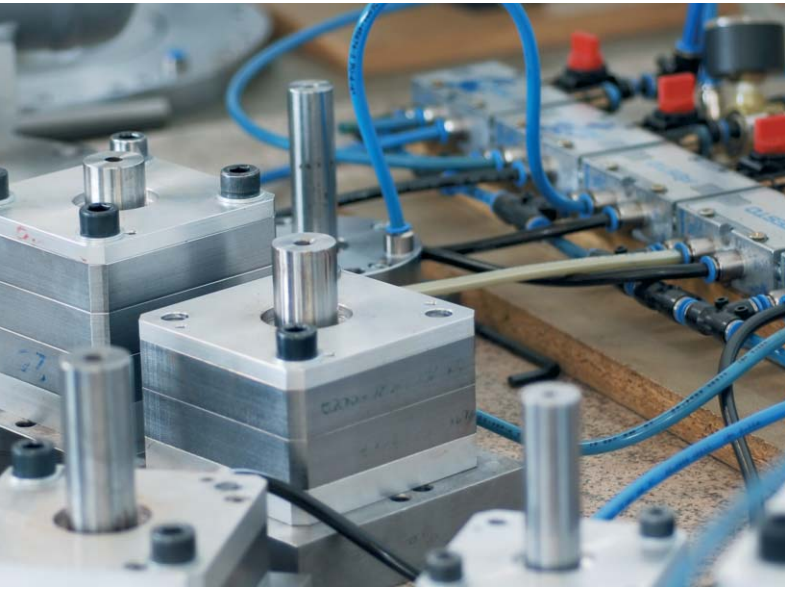
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HEMA CLAMPING SYSTEMS



PC LAMP

