

HAND Grips



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Hand grips

1 - CYLINDERS

Features and certifications

Series of pneumatic hand grips available in bores from Ø 6 to 100, double acting, magnetic. Different type and configurations available. Supplied as standard in compliance with Reach and RoHS directives.



Type PAB Ø 10 ÷ 32

from page 1.60.20



Angular hand grips available in bores from Ø 10 to 32, double acting (on request also single acting), magnetic, with grooves allowing the mounting of magnetic reed switches directly.



Type PAC Ø 12 ÷ 32

from page 1.60.30



180° angular hand grips available in bores from Ø 12 to 32, double acting, magnetic, with grooves allowing the mounting of magnetic reed switches directly.



Type PPB Ø 10 ÷ 32

from page 1.60.40



Parallel hand grips available in bores from Ø 10 to 32, double acting, magnetic, with grooves allowing the mounting of magnetic reed switches directly.



Type PPC Ø 6 ÷ 40

from page 1.60.50



Guided parallel hand grips available in bores from Ø 6 to 40, double acting (on request also single acting), magnetic, with grooves allowing the mounting of magnetic reed switches directly.



Type PPD Ø 10 ÷ 40

from page 1.60.60



Parallel hand grips with long stroke available in bores from Ø 10 to 40, double acting, magnetic, with grooves allowing the mounting of magnetic reed switches directly.



Type PPE Ø 16 ÷ 100

from page 1.60.70



Hand grips with 3 fingers available in bores from Ø 16 to 100, double acting, magnetic, with grooves allowing the mounting of magnetic reed switches directly.



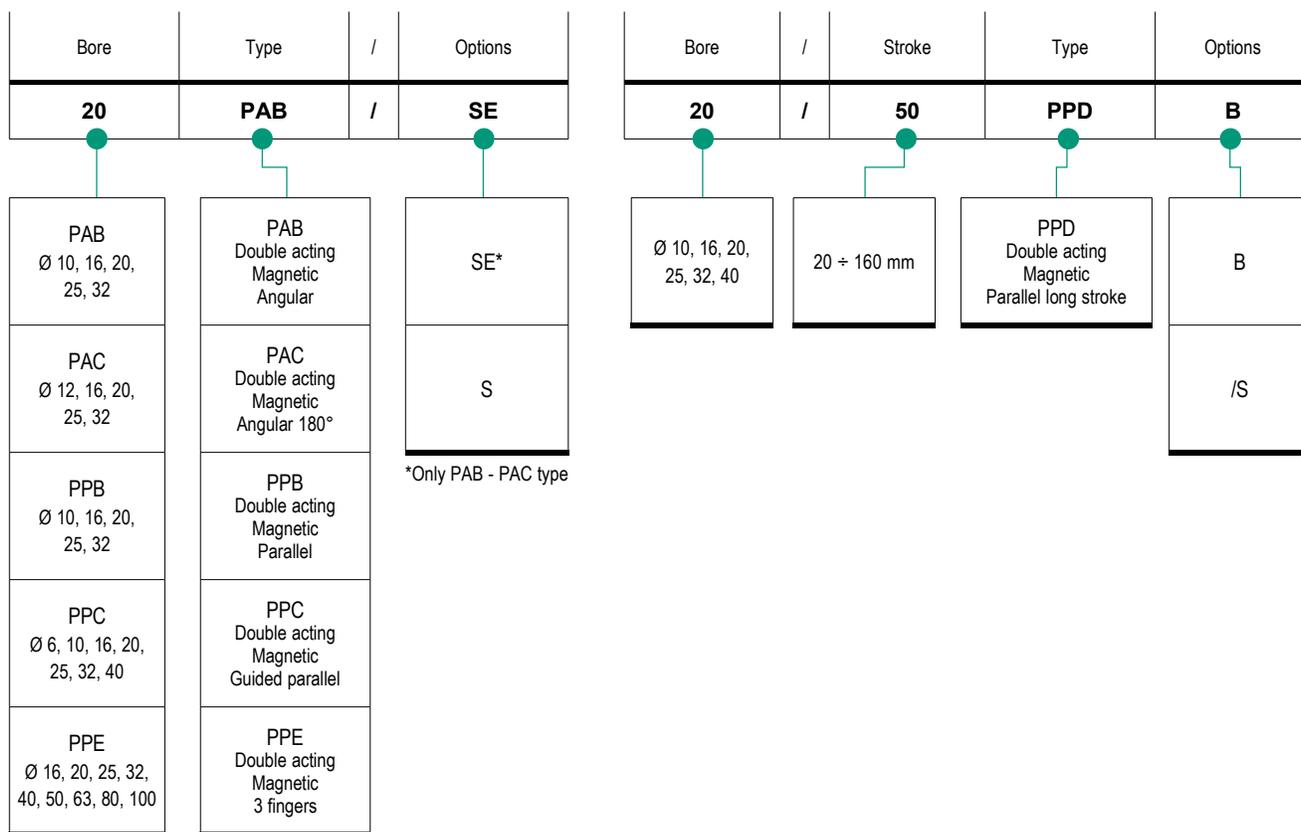
Hand grips

1 - CYLINDERS

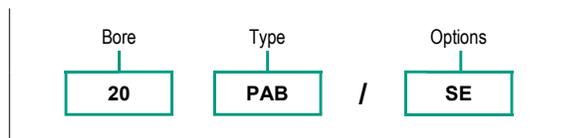
Options		
Description	Symbol	Suffix
Single acting version normally open (only for type PAB and PPC)		/SE
Side lever mounting (only for type PPD)		B
Special versions on request		/S

For code key see the table below.

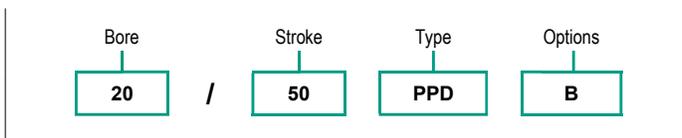
Code key



How to order



How to order



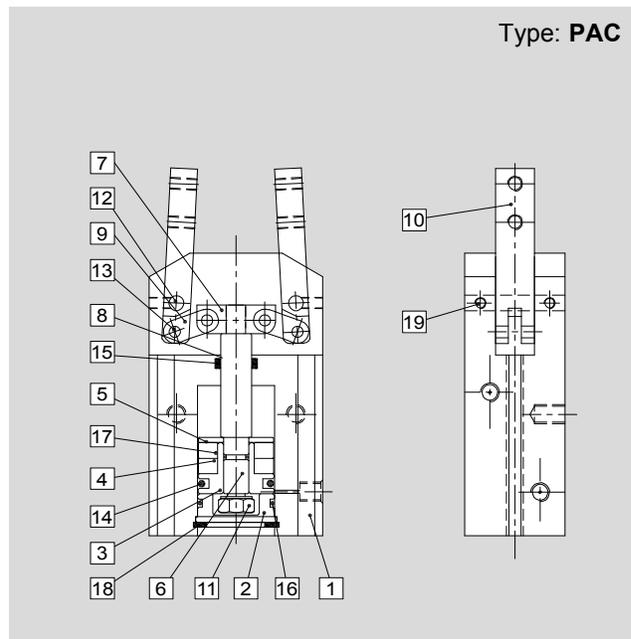
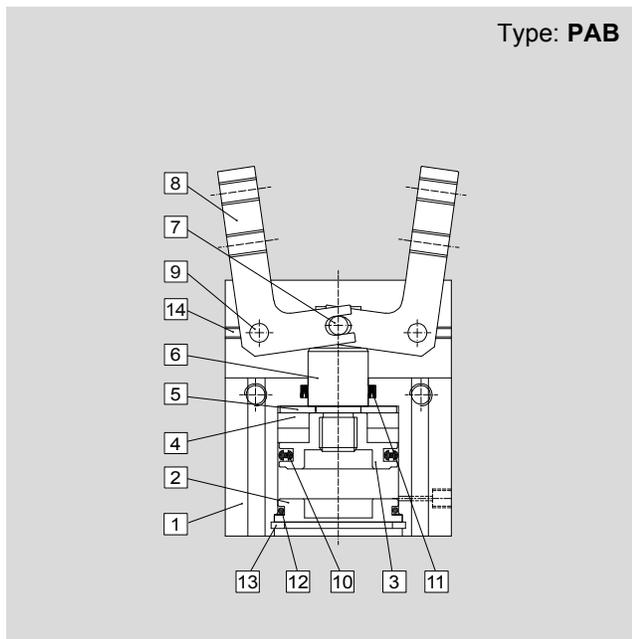
Notes

For further information on options see table above.

Hand grips

1 - CYLINDERS

Standard materials



Position	Description	Materials
1	Body	Aluminium
2	End cover	Brass
3	Piston	Brass
4	Magnet	Plastic magnet
5	Spacer	Brass
6	Piston rod	Stainless Steel
7	Piston rod pin	Steel
8	Fingers	Steel alloy
9	Slide pin	Steel
10	Piston seal	NBR
11	Rod seal	NBR
12	End cover seal	NBR
13	Seeger	Steel
14	Hexagonal screw	Steel alloy

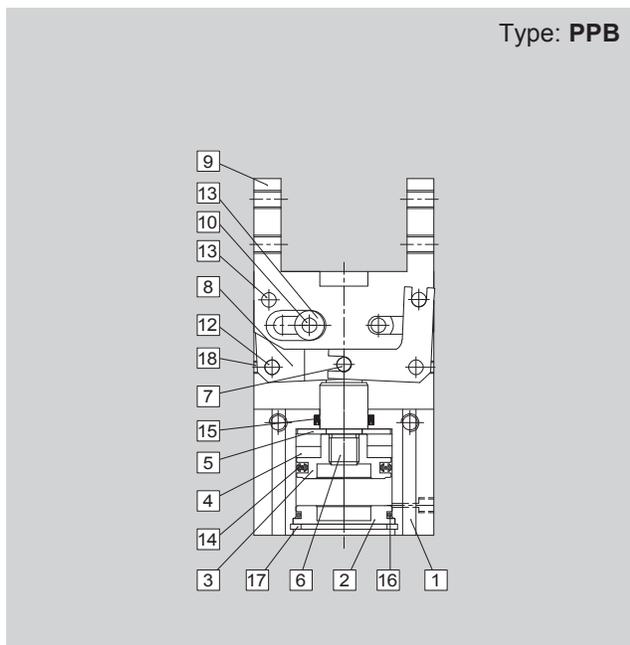
Position	Description	Materials
1	Body	Aluminium
2	End cover	Aluminium
3	Piston	Brass
4	Magnet	Plastic magnet
5	Spacer	Brass
6	Piston rod	Stainless Steel
7	End piston joint	Steel alloy
8	Piston rod pin	Steel
9	Actioning lever	Steel alloy
10	Fingers	Steel alloy
11	Nut	Steel
12	Slide pin	Steel
13	Action lever pin	Steel
14	Piston seal	NBR
15	Piston rod seal	NBR
16	End cover seal	NBR
17	Rod seal	NBR
18	Seeger	Spring steel
19	Hexagonal screw	Steel alloy

Hand grips

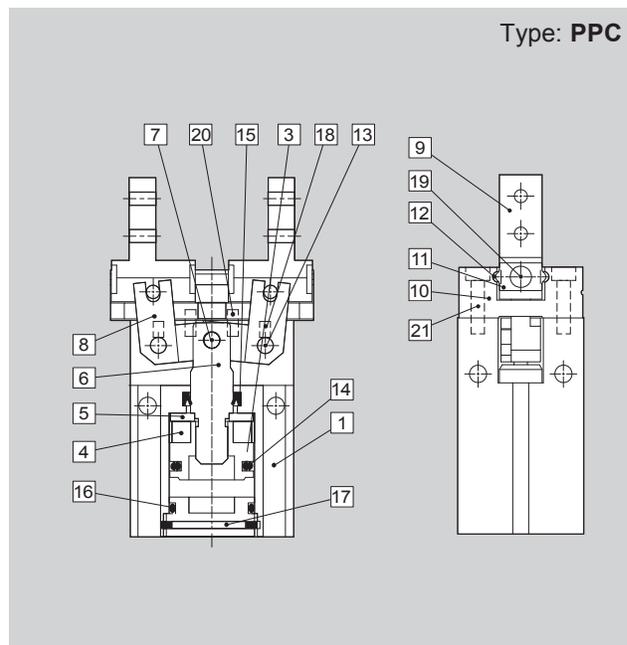
Standard materials

1 - CYLINDERS

Type: PPB



Type: PPC



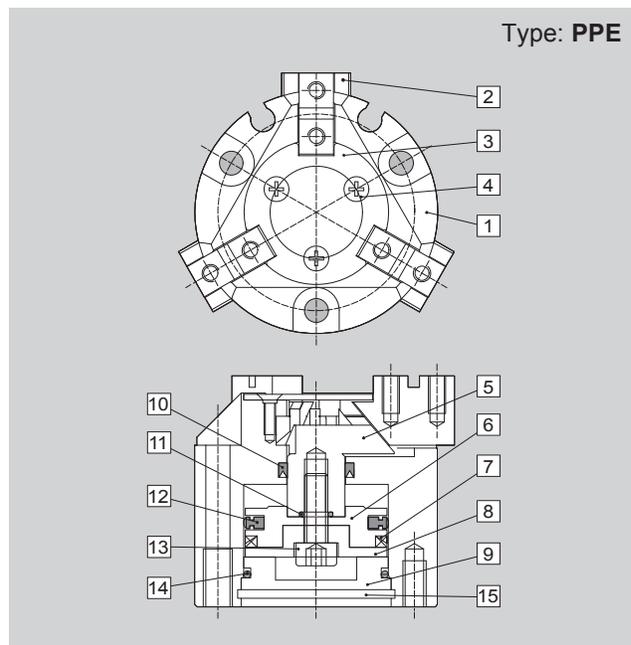
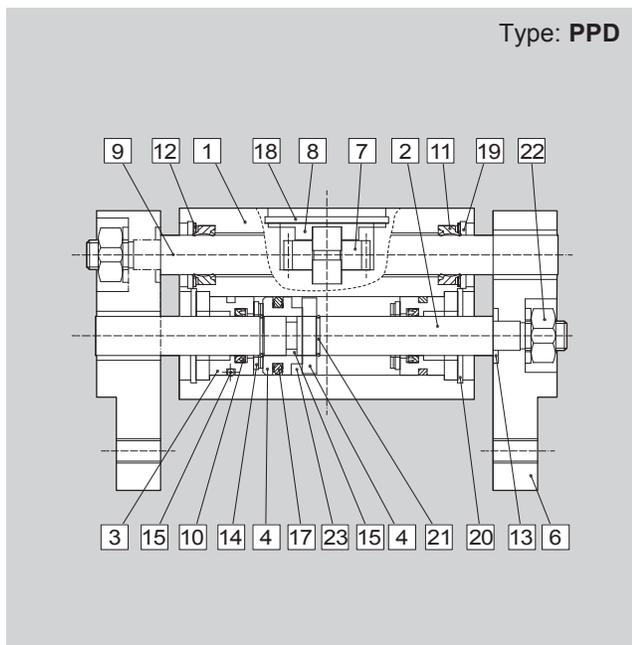
Position	Description	Materials
1	Body	Aluminium
2	End cover	Brass
3	Piston	Brass
4	Magnet	Plastic magnet
5	Spacer	Brass
6	Piston rod	Stainless Steel
7	Piston rod pin	Steel
8	Actioning lever	Steel alloy
9	Fingers	Steel alloy
10	Slide guide pin	Steel
11	Slide pin	Steel
12	Action lever pin	Steel
13	Washer	Steel alloy
14	Piston seal	NBR
15	Piston rod seal	NBR
16	End cover seal	NBR
17	Seeger	Spring steel
18	Hexagonal screw	Steel alloy

Position	Description	Materials
1	Body	Aluminium alloy
2	End cover	Aluminium alloy
3	Piston	Copper
4	Magnet	Plastic magnet
5	Spacer	Copper
6	Piston rod	Stainless Steel
7	Pin	Steel
8	Actioning lever	Stainless Steel
9	Fingers	Stainless Steel
10	Fingers base	Stainless Steel
11	Ball stopper	Stainless Steel
12	Ball	Steel
13	Action lever pin	Steel
14	Piston seal	NBR
15	Rod seal	NBR
16	End cover seal	NBR
17	Snap ring	Steel alloy
18	Screw	Steel alloy
19	Screw	Steel alloy
20	Pin	Steel
21	Mounting screw	Steel alloy

Hand grips

1 - CYLINDERS

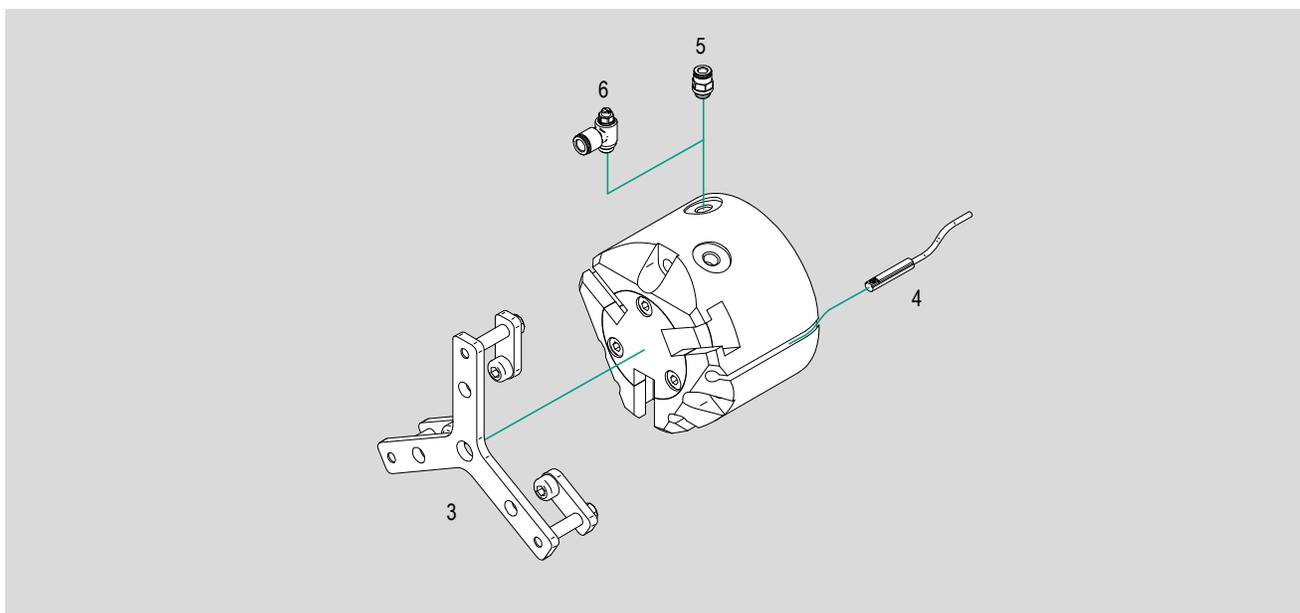
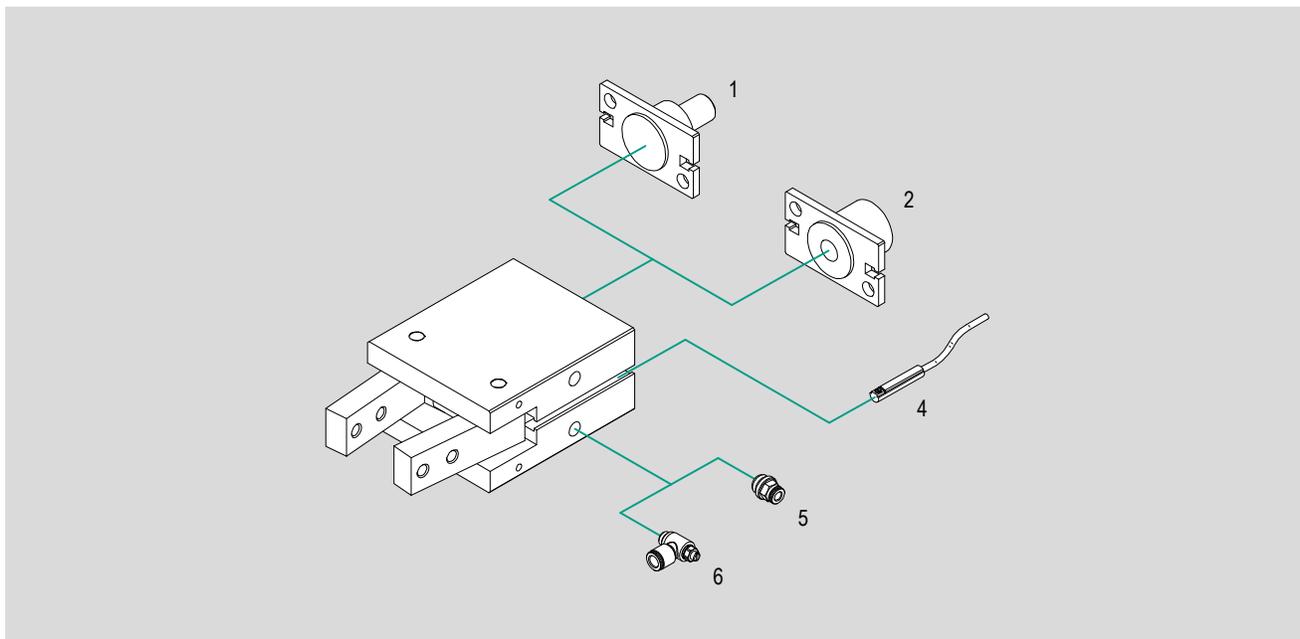
Standard materials



Position	Description	Materials
1	Body	Aluminium
2	Piston rod	Stainless Steel
3	End cover	Aluminium
4	Piston	Brass
5	Magnet holder	Brass
6	Fingers	Aluminium
7	Pinion	Carbon steel
8	Pinion cover	Iron
9	Rod guide	Stainless Steel
10	Piston rod seal	NBR
11	Rod guide seal	NBR
12	Seeger	Iron
13	Cushion spacer	Iron
14	Piston rod dampers	Polyurethane (PU)
15	End cover seal	NBR
16	Piston seal	NBR
17	Piston o-ring	NBR
18	Seeger	Spring steel
19	Seeger	Spring steel
20	Seeger	Spring steel
21	Seeger	Spring steel
22	Nut	Steel
23	Magnet	Plastic magnet

Position	Description	Materials
1	Body	Aluminium alloy
2	Fingers	Steel alloy
3	Spacer	Stainless Steel
4	Spacer screw	Steel alloy
5	Rod	Steel alloy
6	Piston	Aluminium alloy
7	Magnet	Plastic magnet
8	Magnet cover	Aluminium alloy
9	End cover	Aluminium alloy
10	Shaft seal	NBR
11	Shaft o-ring	NBR
12	Piston seal	NBR
13	Screw	Steel alloy
14	End cover o-ring	NBR
15	Seeger	Steel alloy

Accessories



N.	Cylinder bore	Item	Description	Compliance	Matching						Code page	Data sheet page
					PAB	PAC	PPB	PPC	PPD	PPE		
1	Ø 10 ÷ 32	..PM	Male mounting	-	●	●	●	-	-	-	1.60.90	1.100.350
2	Ø 10 ÷ 32	..PF	Female mounting	-	●	●	●	-	-	-		
3	Ø 25 ÷ 100	..PTD	Plate	-	-	-	-	-	-	●		1.100.351
4	Ø 6 ÷ 100	ASC..	Magnetic reed switch C groove	-	●	●	●	●	●	●	4.2.1	1.110.30
5	Ø 6 ÷ 100	R..	Push-in fittings	-	●	●	●	●	●	●		
5	Ø 6 ÷ 100	V..C	Flow controls, for cylinders	-	●	●	●	●	●	●	4.94.1	

Key

● allowed matching; - not allowed matching

Hand grips
Series PAB

1 - CYLINDERS

Main features

10 ÷ 32



PAB

Bores Ø

Double acting
Magnetic
Angular

Type



Technical data

Bore Ø mm		10	16	20	25	32
Fluid	Compressed filtered air					
Lubrication	Piston	With or without lubrication				
	Lever	Lubrication required on sliding parts				
Pressure range	1,5 ÷ 7 bar					
Temperature range	0°C ÷ +60°C					
Lever open/close angle	-10° ÷ +30°					
Maximum operation frequency	80/min.					
Ports		M3	M5			
Maximum length of gripping point L		30 mm	40 mm	60 mm	70 mm	85 mm
Theoretical gripping force M (Kgf·cm)	Closing	0,16 x P	0,80 x P	1,70 x P	3,40 x P	6,10 x P
	Opening	0,26 x P	1,10 x P	2,30 x P	4,30 x P	8,10 x P
Effective gripping force F (N)	F = M / L x 0,85					
Weight (g)		100	120	200	330	560

Key

F = effective gripping force; **M** = theoretical gripping force; **L** = maximum length of gripping point; **P** = operating pressure;

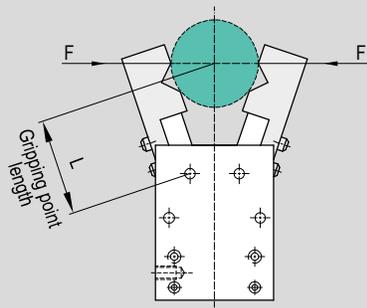
See also table at page 1.60.21

Codes

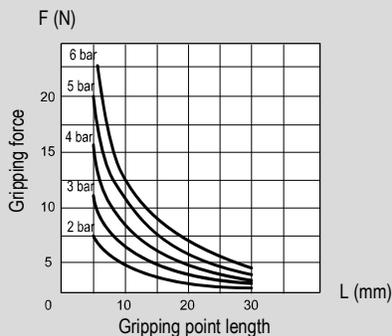
	PAB Bore Ø mm				
Function	10	16	20	25	32
Double acting	075023	075004	075006	075008	075010
Single acting	075072	075073	075070	075071	170677

Gripping forces

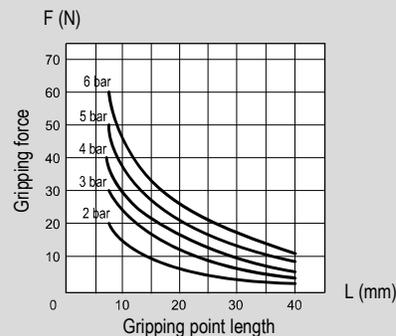
Type: PAB



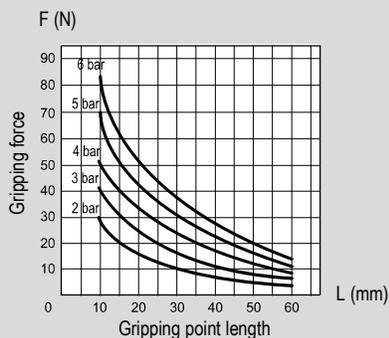
Bore: Ø 10



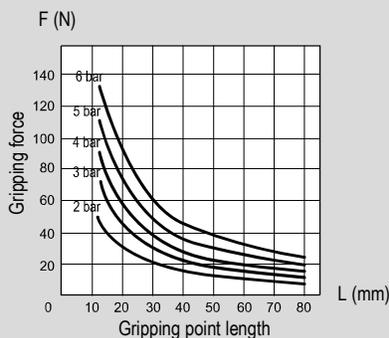
Bore: Ø 16



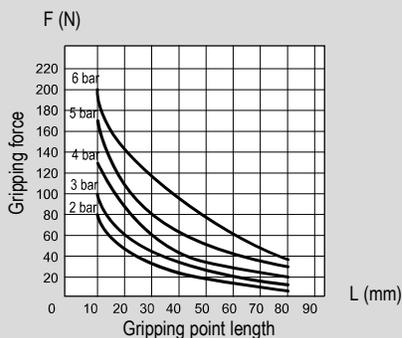
Bore: Ø 20



Bore: Ø 25



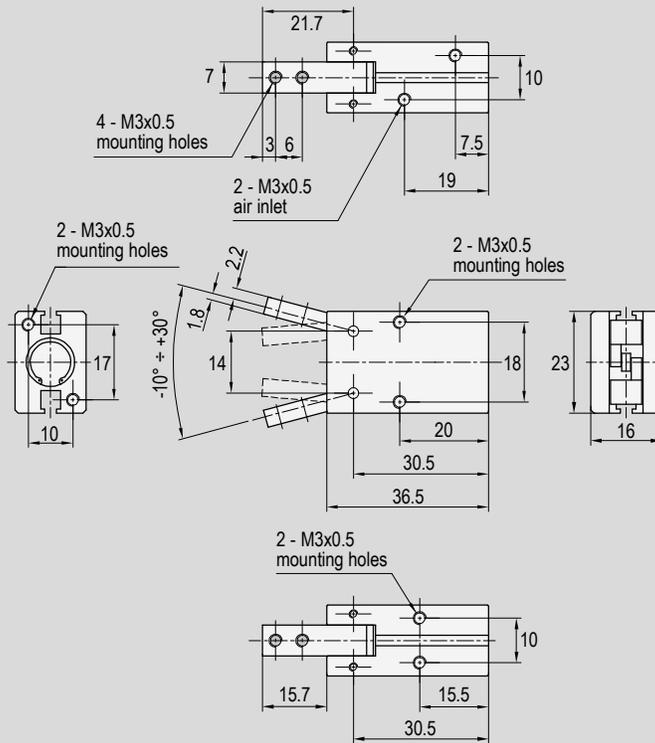
Bore: Ø 32



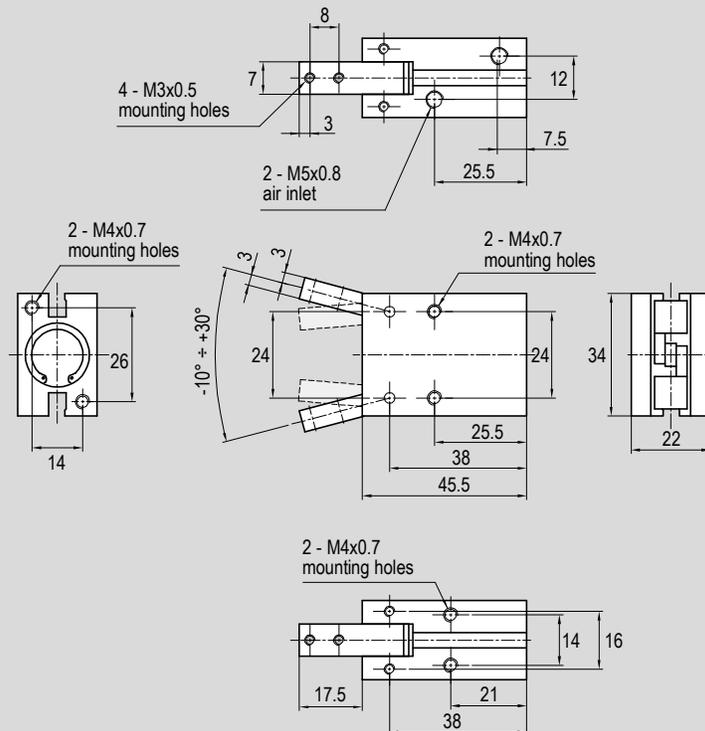
Standard dimensions

1 - CYLINDERS

Type: **PAB**
Ø 10



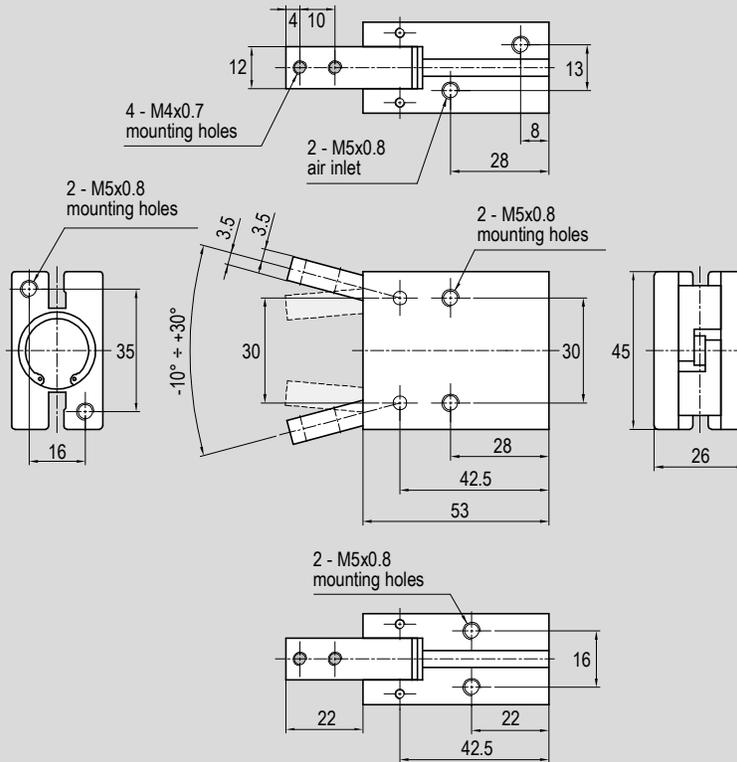
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Ø 16



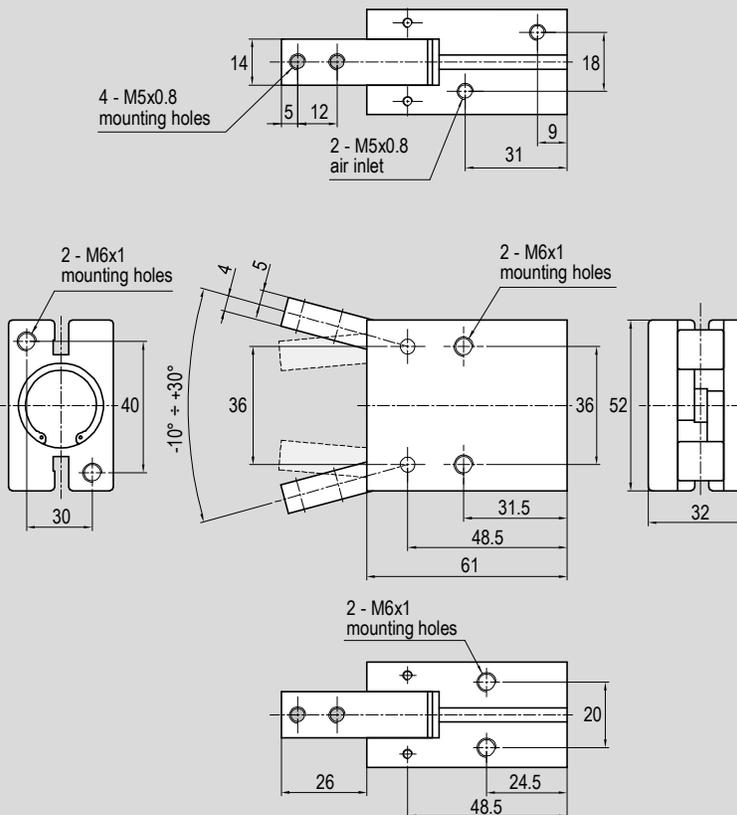
Standard dimensions

1 - CYLINDERS

Type: **PAB**
Ø 20



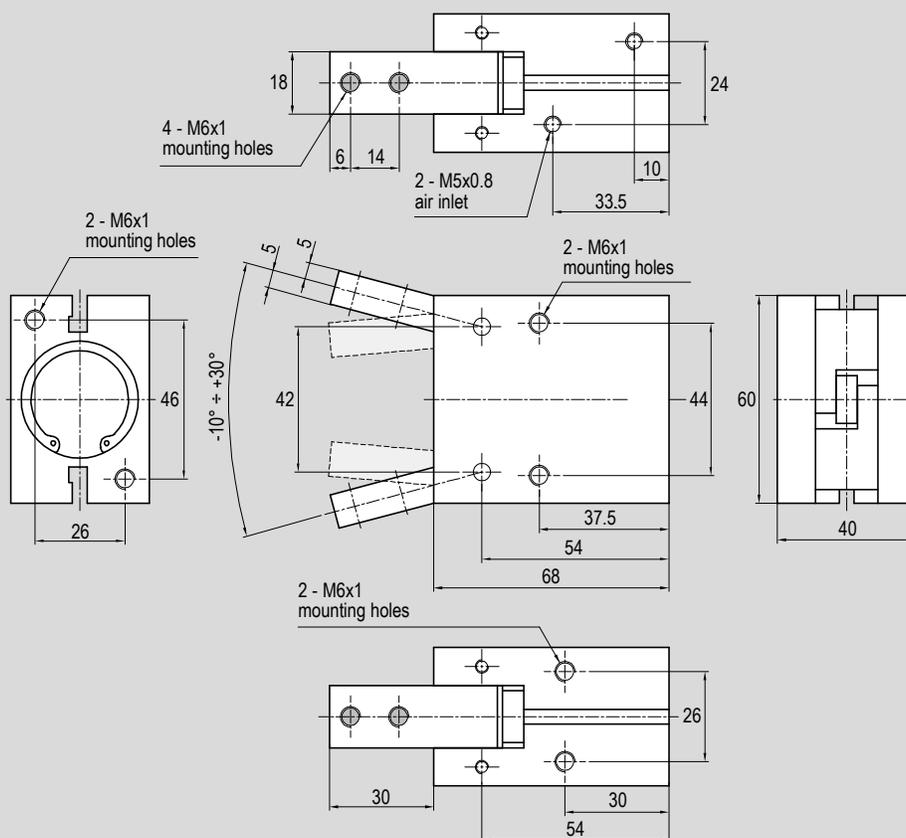
Type: **PAB**
Ø 25



Standard dimensions

1 - CYLINDERS

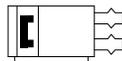
Type: **PAB**
Ø 32



Hand grips
Series PAC

Main features

12 ÷ 32



PAC

Bores Ø

Double acting
Magnetic
Angular 180°

Type



Technical data

Bore Ø mm		12	16	20	25	32
Fluid	Compressed filtered air.					
Lubrication	Piston	With or without lubrication				
	Lever	Lubrication required on sliding parts.				
Pressure range	1,5 ÷ 7 bar					
Temperature range	0°C ÷ +60°C					
Lever open/close angle	-1° ÷ +180°					
Maximum operation frequency	60/min.					
Ports	M5					
Maximum length of gripping point L		40 mm	80 mm	100 mm	120 mm	140 mm
Theoretical gripping force M (Kgf·cm)	Closing	0,20 x P	0,80 x P	1,70 x P	3,40 x P	6,10 x P
	Opening	0,50 x P	1,10 x P	2,30 x P	4,30 x P	8,10 x P
Effective gripping force F (N)	F = M / L x 0,90					
Weight (g)		100	160	550	750	1230

Key

F = effective gripping force; **M** = theoretical gripping force; **L** = maximum length of gripping point; **P** = operating pressure;

See also table at page 1.60.31

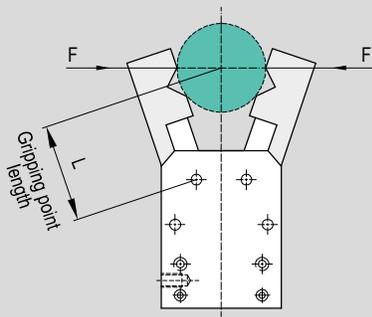
Codes

Function	PAC Bore Ø mm					
		12	16	20	25	32
Double acting		170664	075013	075017	075024	075062

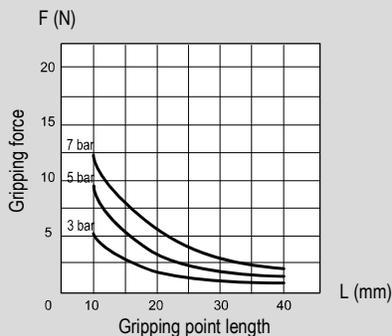
Standard dimensions

1 - CYLINDERS

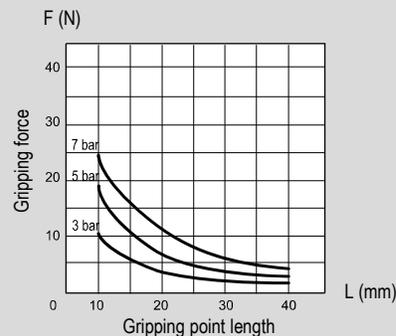
Type: PAC



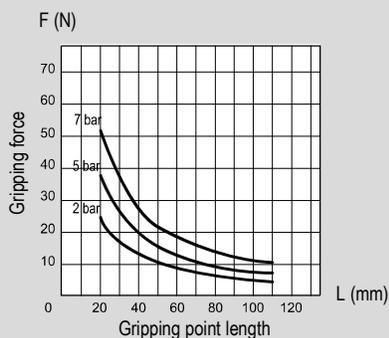
Bore: Ø 12



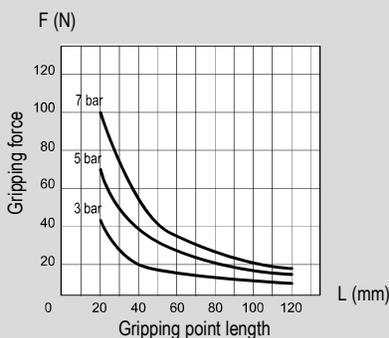
Bore: Ø 16



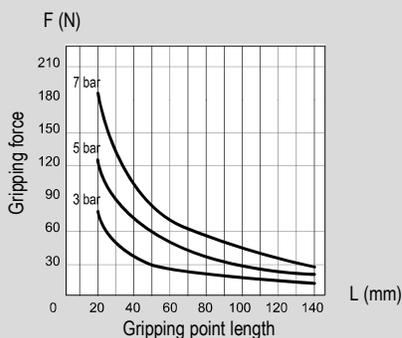
Bore: Ø 20



Bore: Ø 25

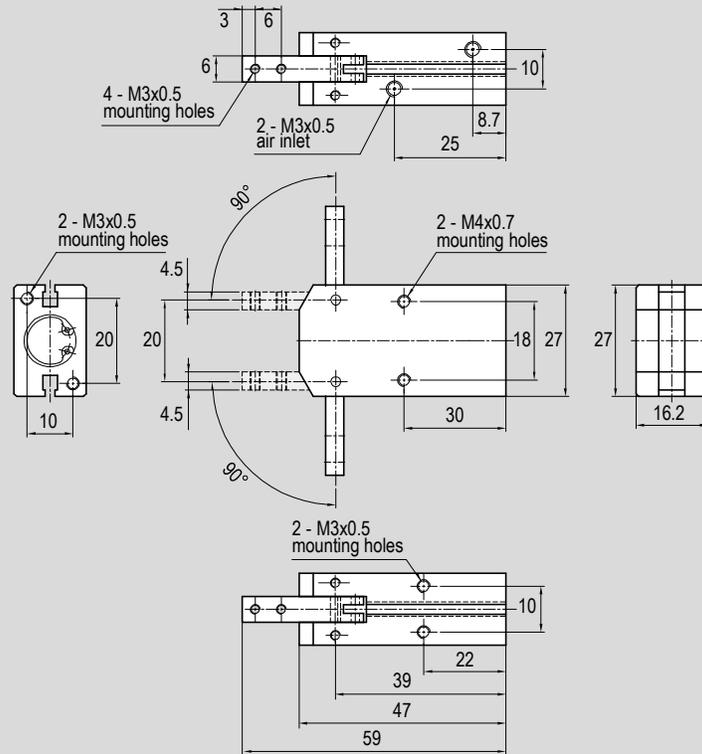


Bore: Ø 32



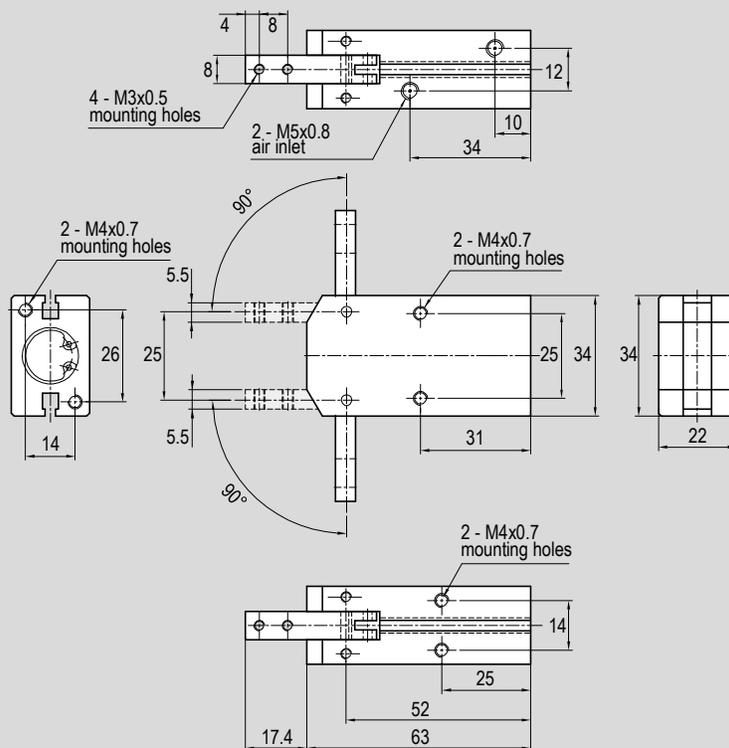
Standard dimensions

Type: PAC
Ø 12



1 - CYLINDERS

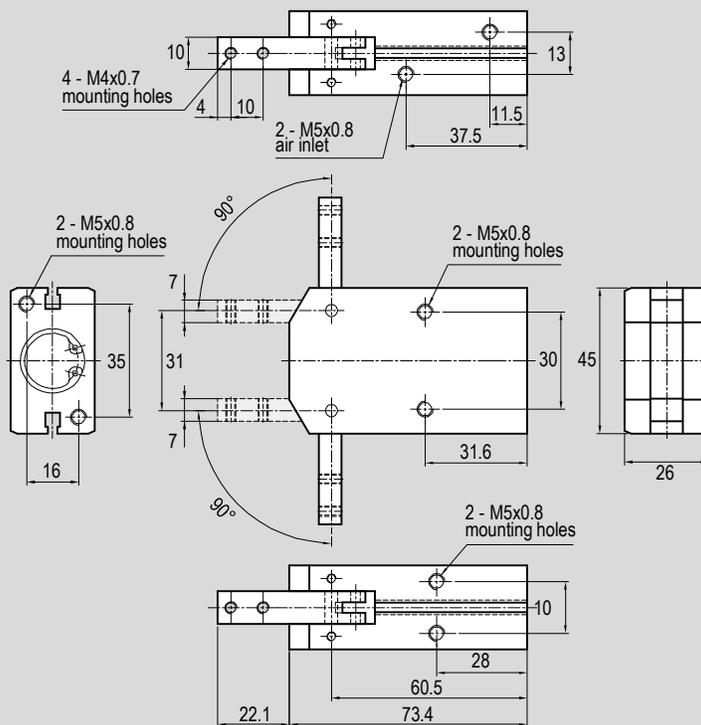
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Ø 16



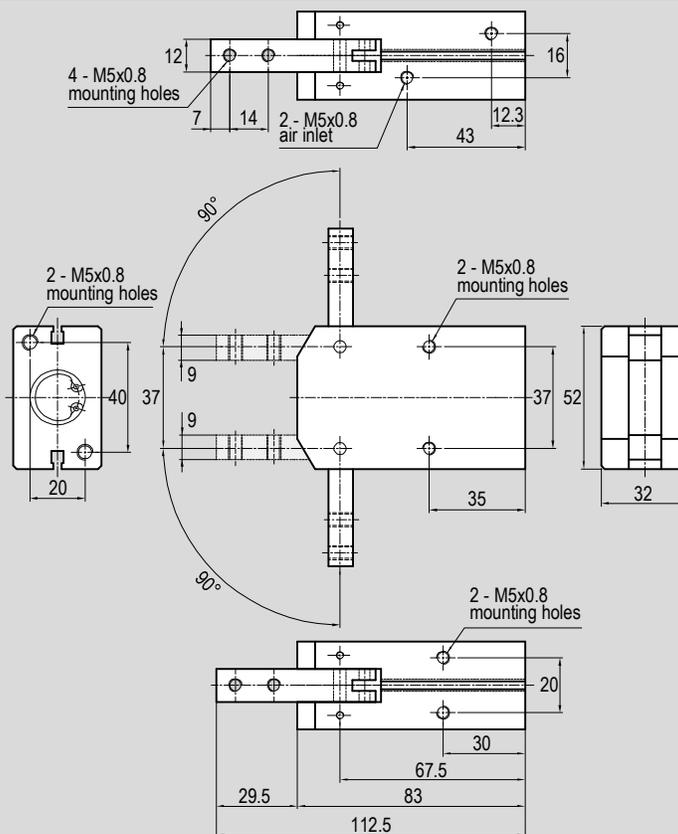
Standard dimensions

1 - CYLINDERS

Type: PAC
Ø 20

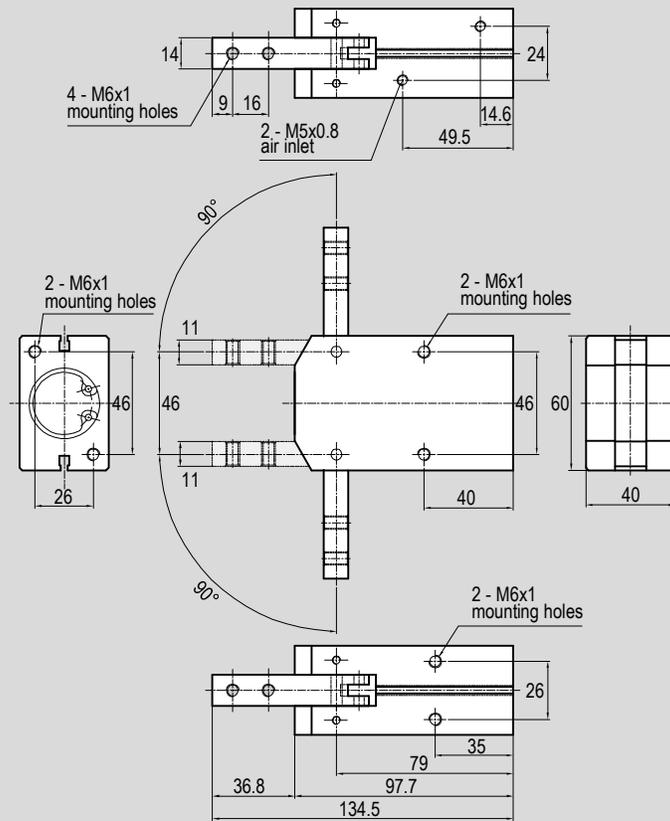


Type: PAC
Ø 25



Standard dimensions

Type: PAC
Ø 32



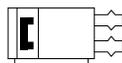
1 - CYLINDERS

Hand grips
Series PPB

1 - CYLINDERS

Main features

10 ÷ 32



PPB

Bores Ø

Double acting
Magnetic
Parallel

Type



Technical data

Bore Ø mm	10	16	20	25	32	
Fluid	Compressed filtered air.					
Lubrication	Piston	With or without lubrication				
	Lever	Lubrication required on sliding parts.				
Pressure range	1,5 ÷ 7 bar					
Temperature range	0°C ÷ +60°C					
Lever open/close stroke	4 mm	8 mm	12 mm	14 mm	16 mm	
Maximum operation frequency	100/min.					
Ports	M3	M5				
Maximum length of gripping point	30 mm	40 mm	60 mm	70 mm	85 mm	
Effective gripping force* (N)	Closing	0,80	2,40	4,70	7,50	10,00
	Opening	0,50	1,80	3,50	6,00	8,50
Weight (g)	120	160	550	750	1230	

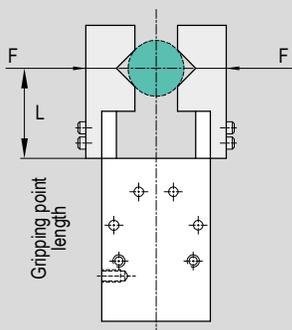
*See also table at page 1.60.41

Codes

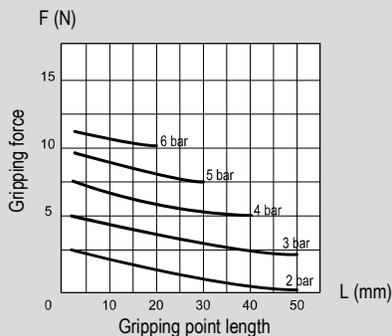
	PPB Bore Ø mm				
Function	10	16	20	25	32
Double acting	075025	075027	075063	075028	075029

Gripping forces

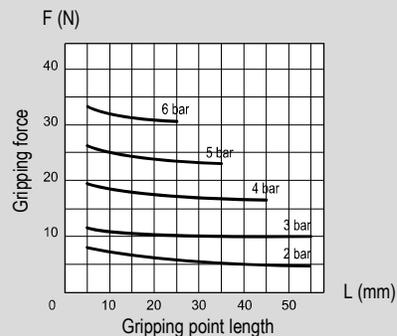
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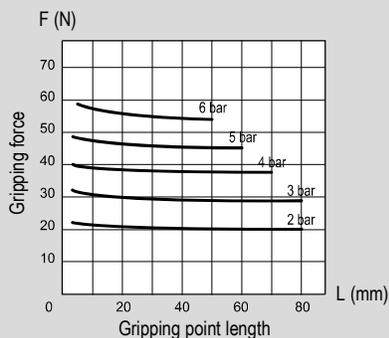
Bore: Ø 10



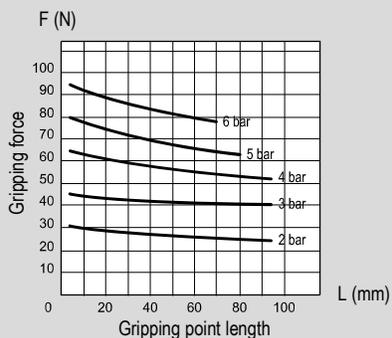
Bore: Ø 16



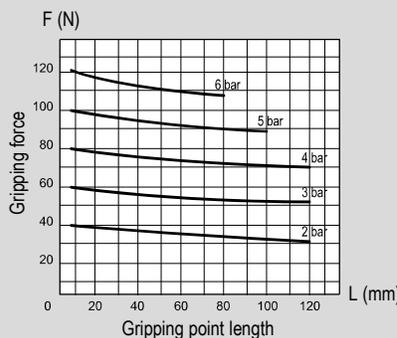
Bore: Ø 20



Bore: Ø 25



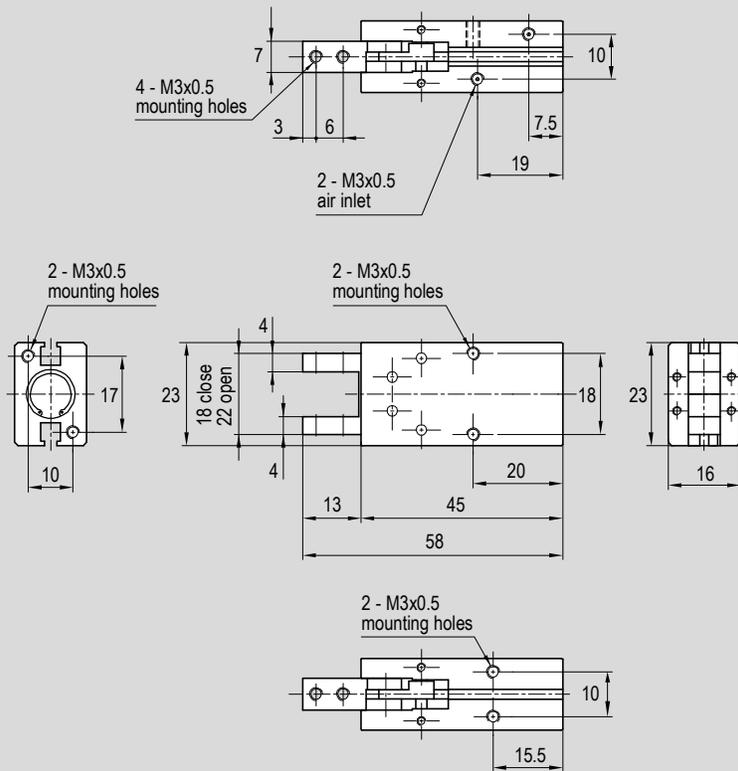
Bore: Ø 32



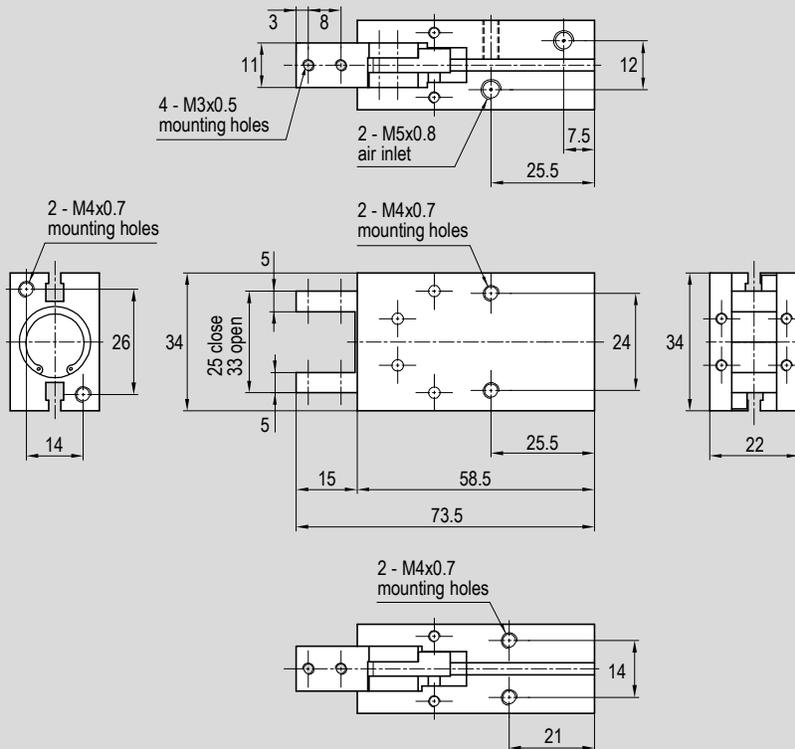
1 - CYLINDERS

Standard dimensions

Type: **PPB**
Ø 10

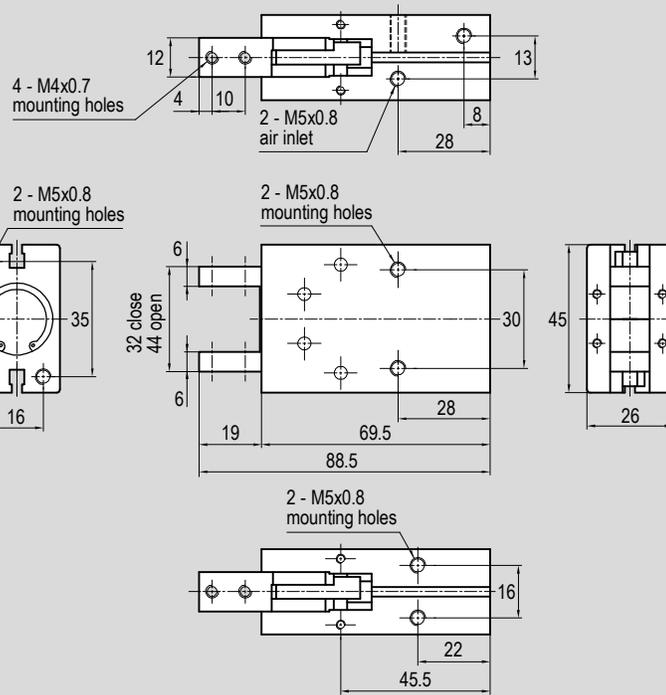


Type: **PPB**
Ø 16



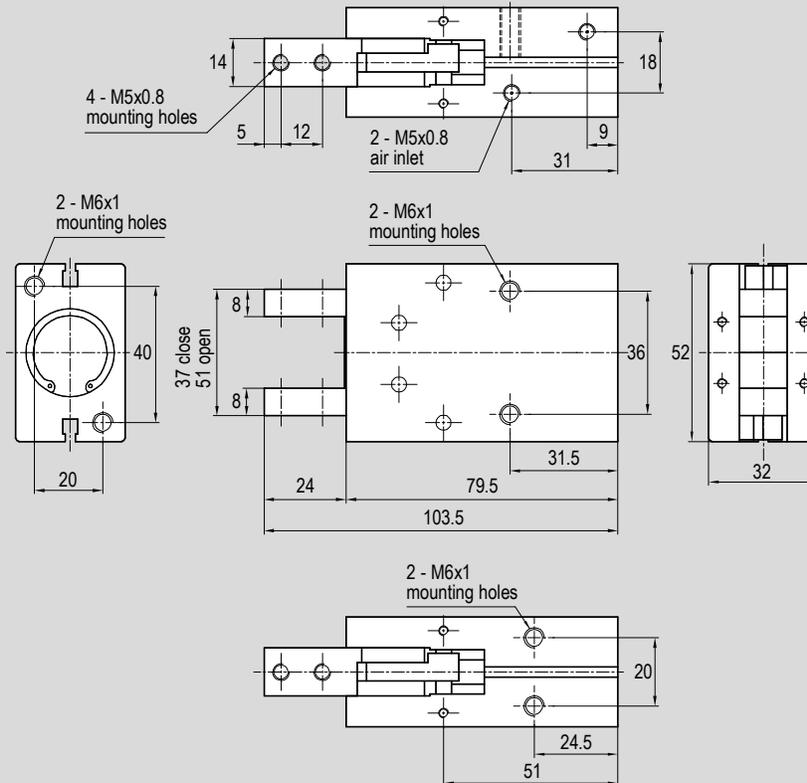
Standard dimensions

Type: **PPB**
Ø 20



1 - CYLINDERS

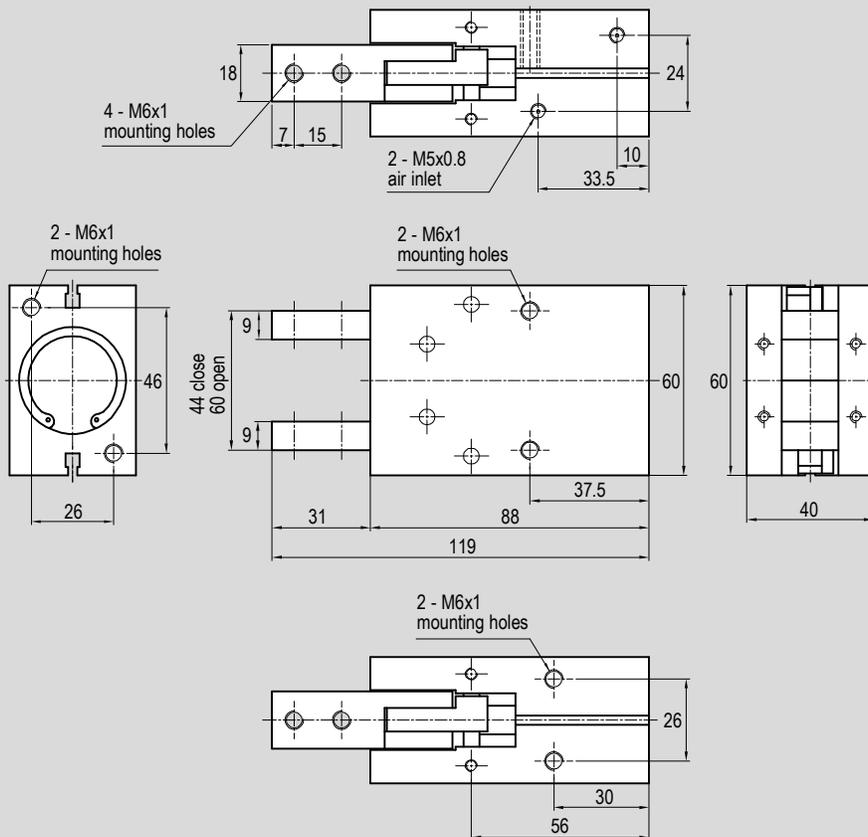
Type: **PPB**
Ø 25



Standard dimensions

1 - CYLINDERS

Type: **PPB**
Ø 32

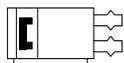


Hand grips
Series PPC

Main features

6 ÷ 40

Bores Ø



Double acting
Magnetic
Guided Parallel

PPC

Type



Technical data

Bore Ø mm	6		10	16	20	25	32	40	
Fluid	Compressed filtered air.								
Lubrication	Non richiesta								
Pressure range	2 ÷ 7 bar			1 ÷ 7 bar					
Temperature range	0°C ÷ +60°C								
Lever open/close stroke	4 mm		6 mm	10 mm	14 mm	22 mm	30 mm		
Maximum operation frequency	100/min.						60/min.		
Ports	M3			M5					
Effective gripping force* (N)	Double acting	Opening	6,1	17,0	45,0	66,0	104,0	193,0	318,0
		Closing	3,3	11,0	34,0	42,0	65,0	158,0	254,0
	Single acting	Closing	1,9	7,1	27,0	33,0	45,0	131,0	217,0
Weight (g)	25		60	140	270	490	810	1.370	

*See also tables at page 1.60.51 and 1.60.52

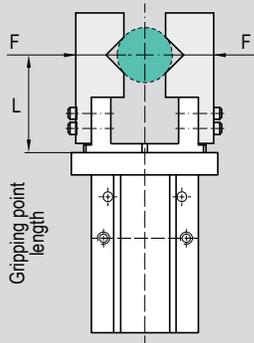
Codes

Function	PPC Bore Ø mm							
	6	10	16	20	25	32	40	
Double acting	170667	170668	075030	075031	075034	075035	170669	
Single acting	170678	170679	170680	170681	170682	170683	170684	

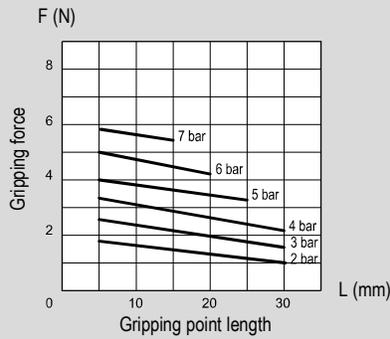
Gripping forces

1 - CYLINDERS

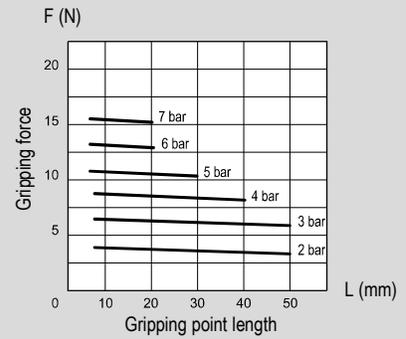
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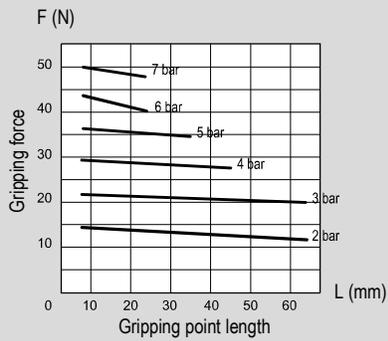
Bore: Ø 6



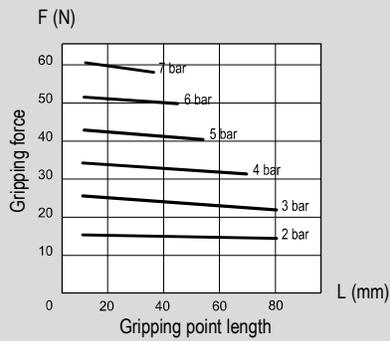
Bore: Ø 10



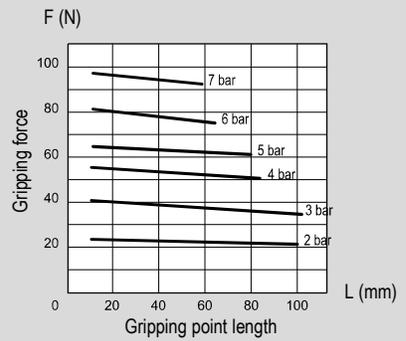
Bore: Ø 16



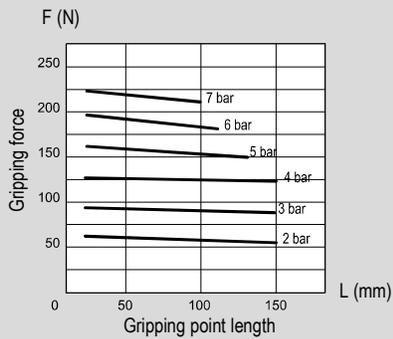
Bore: Ø 20



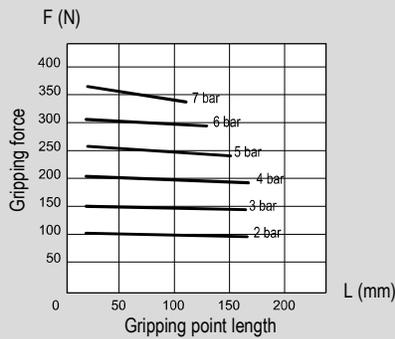
Bore: Ø 25



Bore: Ø 32

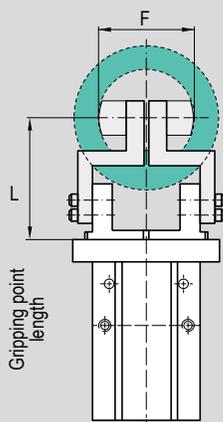


Bore: Ø 40

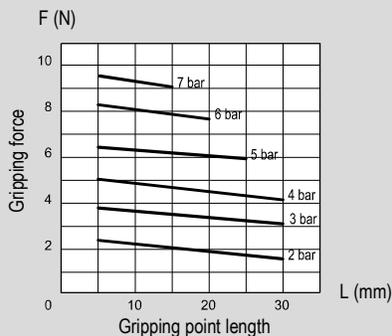


Gripping forces

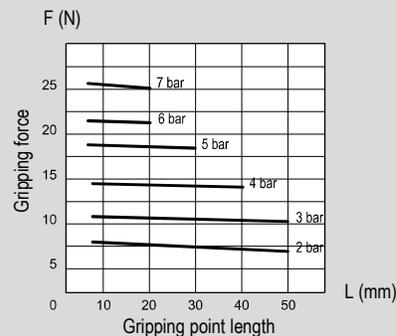
Type: PPC



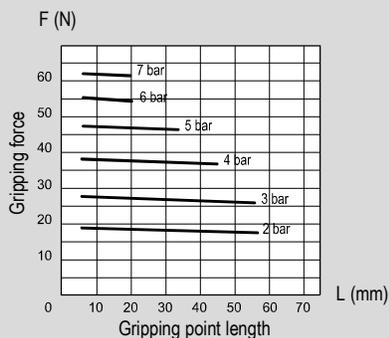
Bore: Ø 6



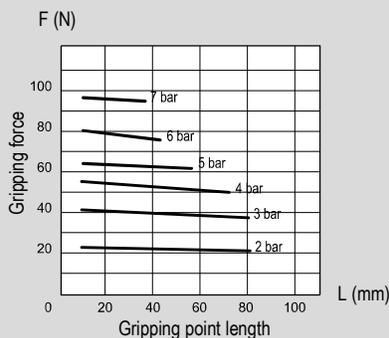
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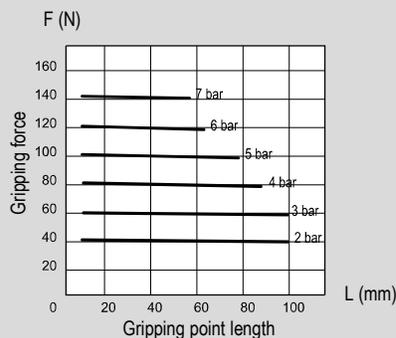
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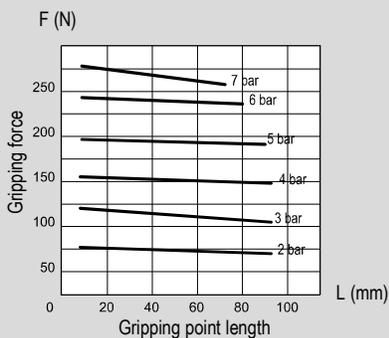
Bore: Ø 20



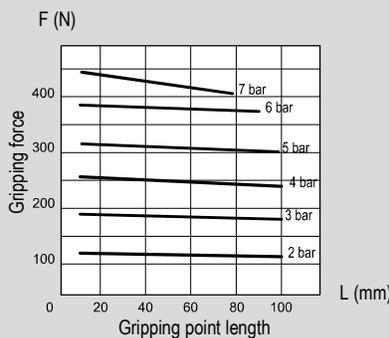
Bore: Ø 25



Bore: Ø 32



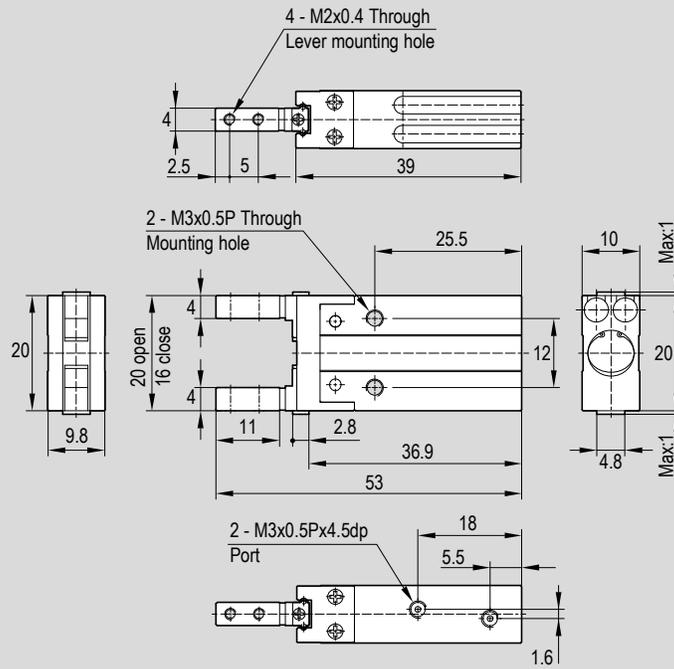
Bore: Ø 40



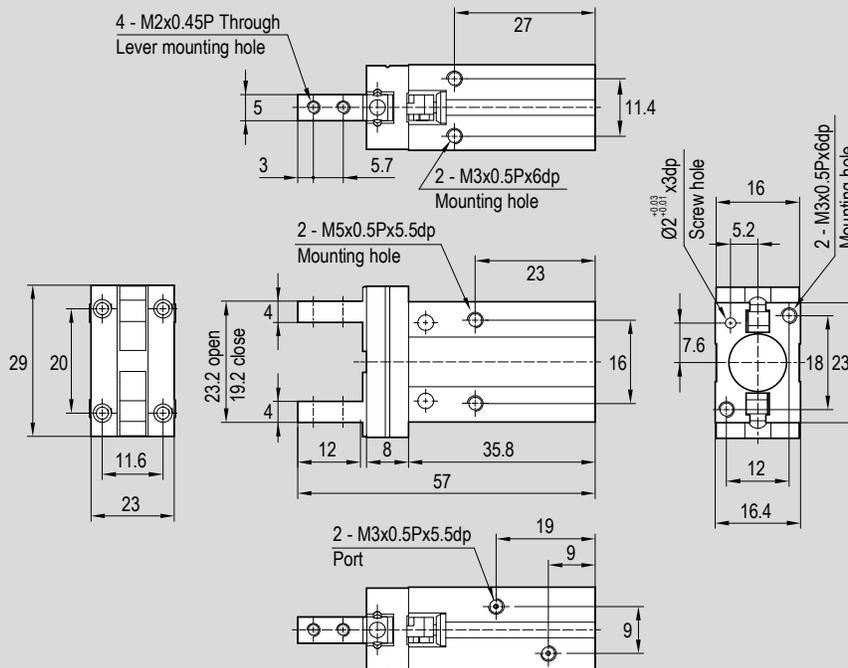
1 - CYLINDERS

Standard dimensions

Type: PPC
Ø 6

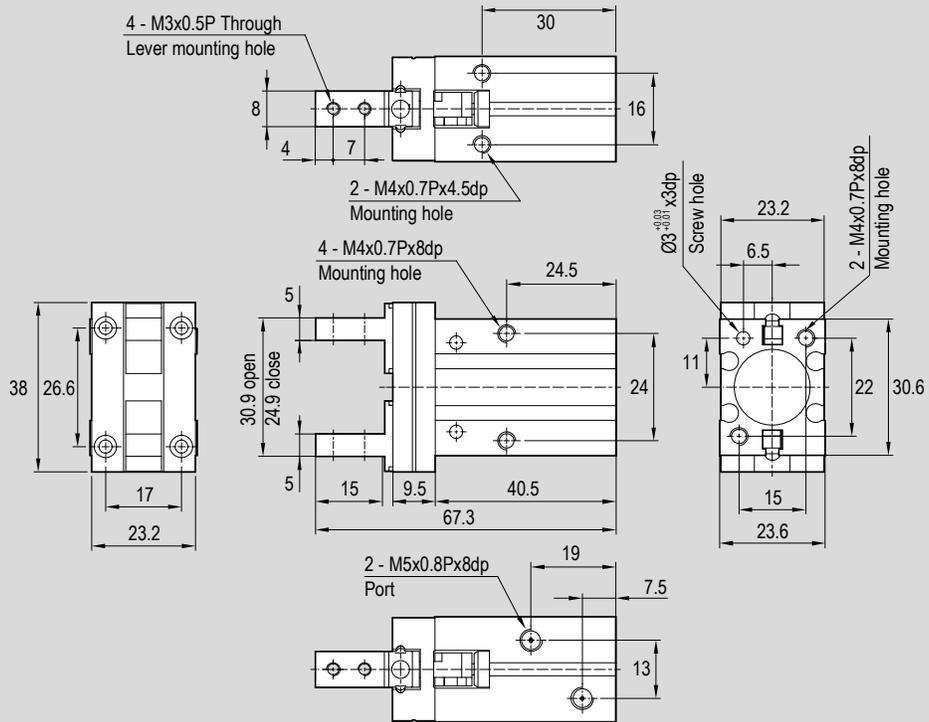


Type: PPC
Ø 10



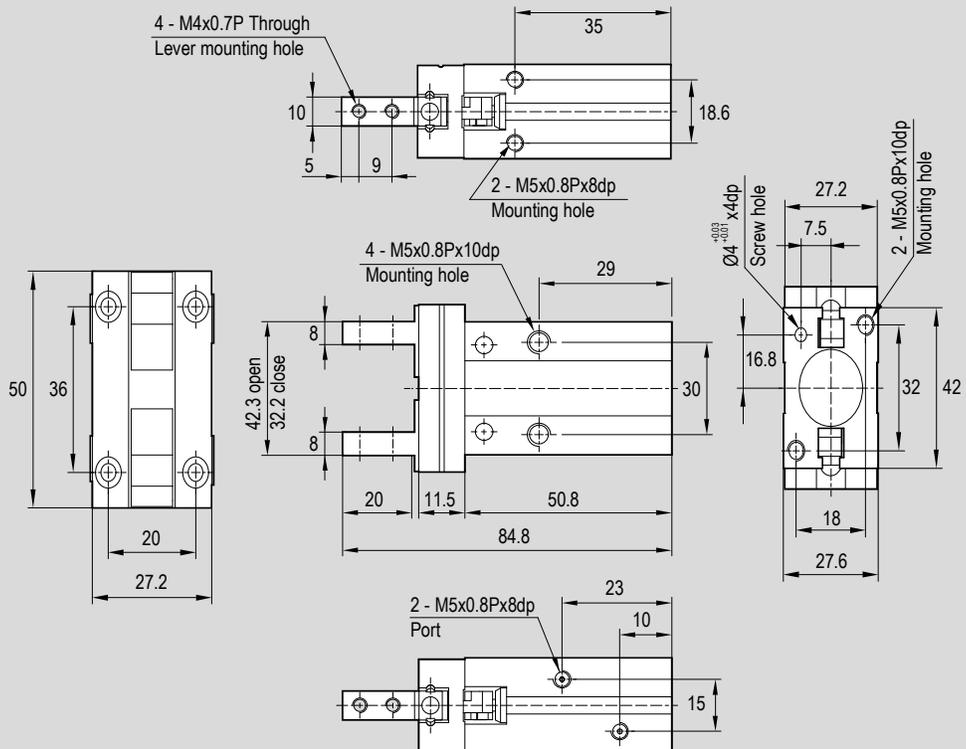
Standard dimensions

Type: PPC
Ø 16



1 - CYLINDERS

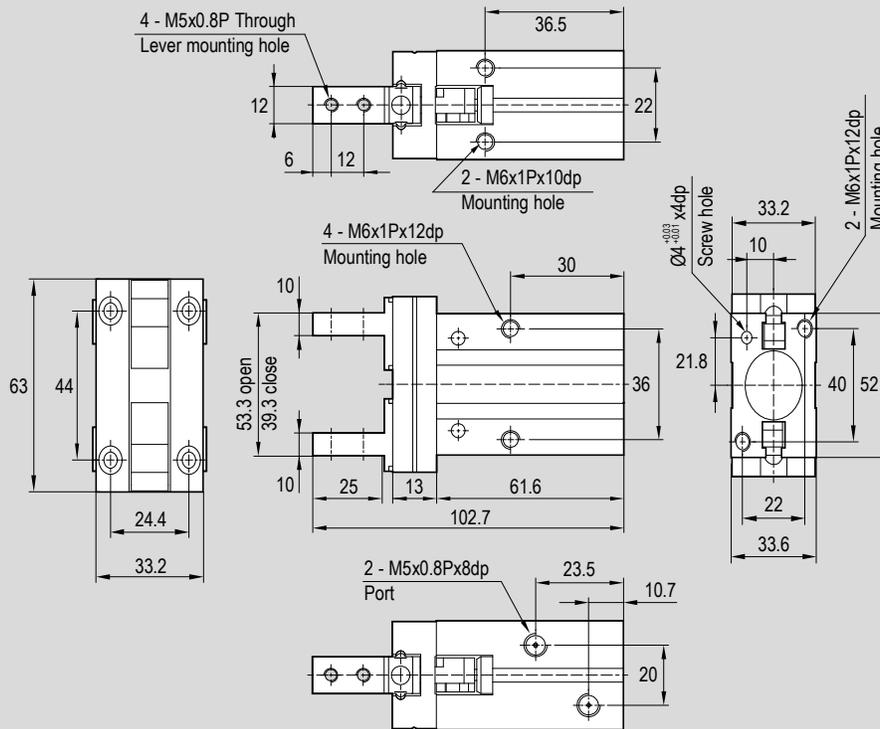
Type: PPC
Ø 20



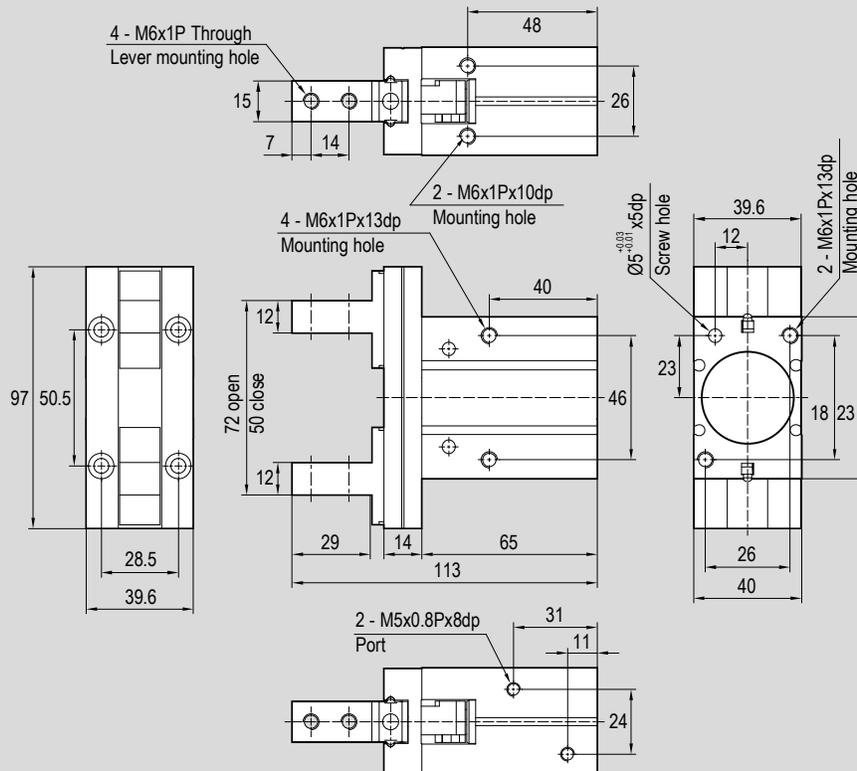
Standard dimensions

1 - CYLINDERS

Type: PPC
Ø 25



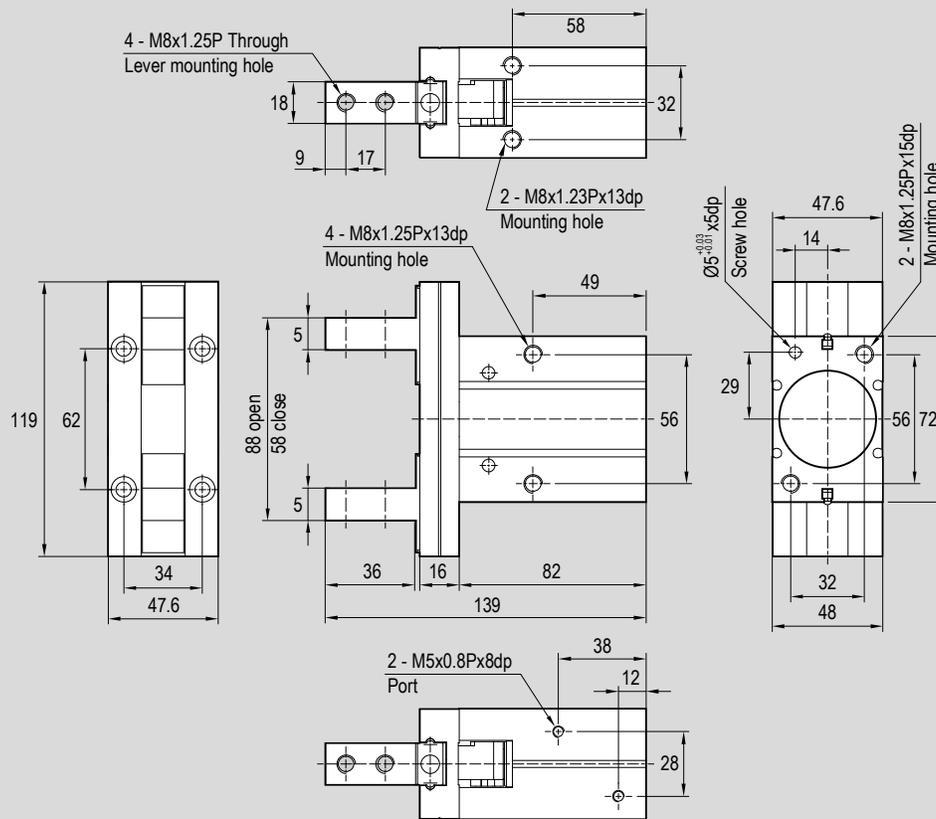
Type: PPC
Ø 32



Standard dimensions

Type: PPC
Ø 40

1 - CYLINDERS

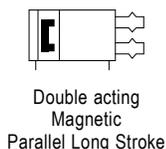


Hand grips
Series PPD

Main features

10 ÷ 40

Bores Ø



Double acting
Magnetic
Parallel Long Stroke

PPD

Type



Technical data

Bore Ø mm	10	16	20	25	32	40												
Fluid	Compressed filtered air.																	
Lubrication	Not required																	
Pressure range	1,5 ÷ 7 bar																	
Temperature range	0°C ÷ +60°C																	
Lever open/close stroke (mm)	20	40	60	30	60	80	40	80	100	50	100	120	70	120	160	100	160	200
Maximum operation frequency	40/min.											20/min.						
Ports	M5															1/8"		
Maximum length of gripping point	40 mm			60 mm			80 mm			90 mm			100 mm					
Effective gripping force* (N)	14			44			73			128			228			396		
Weight (g)	290	350	440	570	790	940	1.000	1.450	1.700	1.700	2.600	2.800	3.000	4.003	5.000	5.300	6.900	8.000

*Gripping point 30 mm at 5 bar; see also tables at page 1.60.61 and 1.60.62

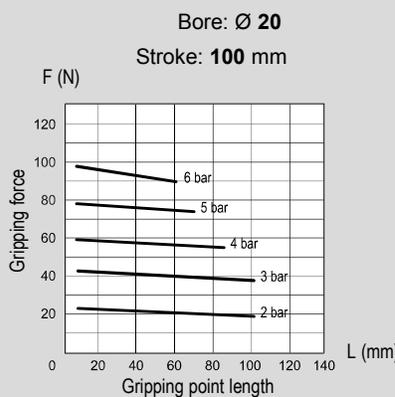
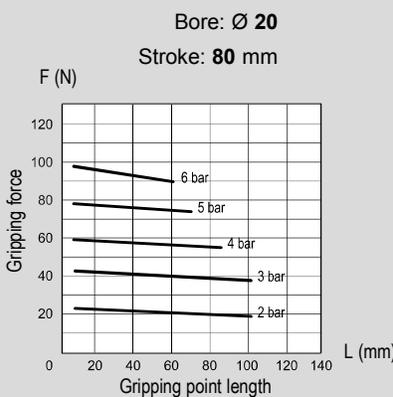
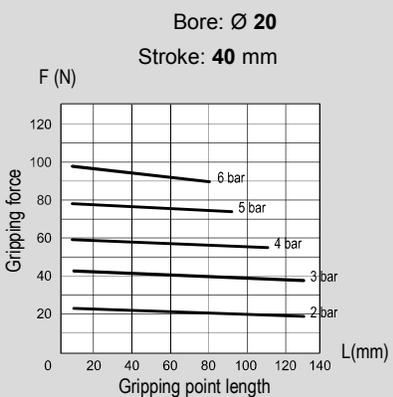
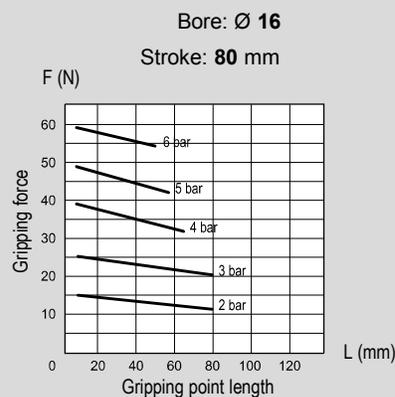
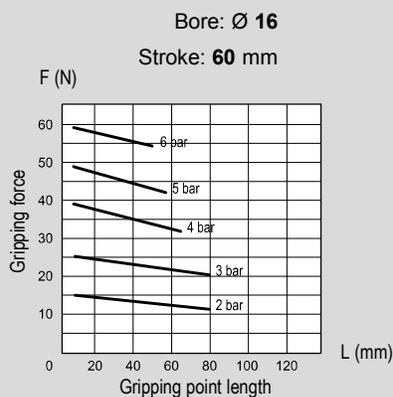
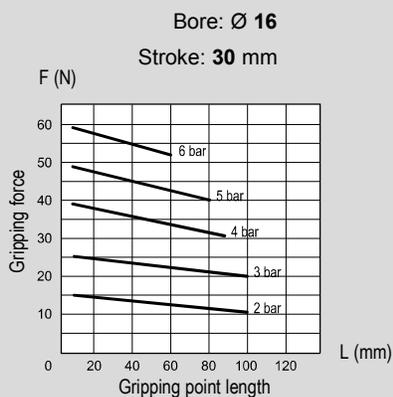
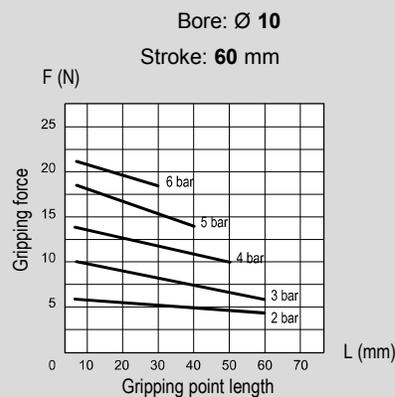
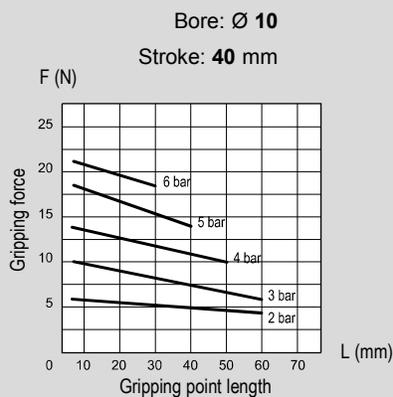
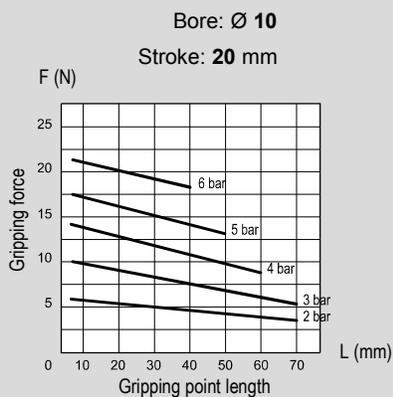
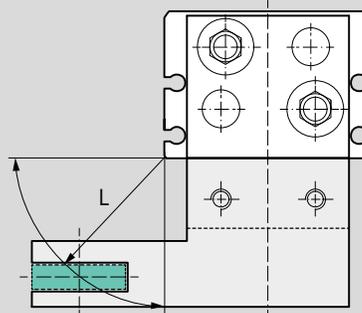
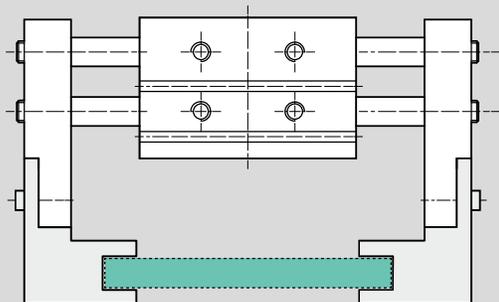
Codes and standard strokes

	PPD Bore Ø mm					
Stroke mm	10	16	20	25	32	40
20	075037					
30		075040				
40	075038		075044			
50				075048		
60	075039	075041				
70					075051	
80		075042	075045			
100			075047	075049		170670
120				075050	075052	
160					075002	170671
200						170672

Key
 Standard stroke

Gripping forces

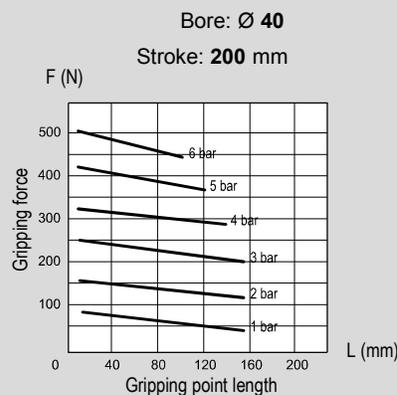
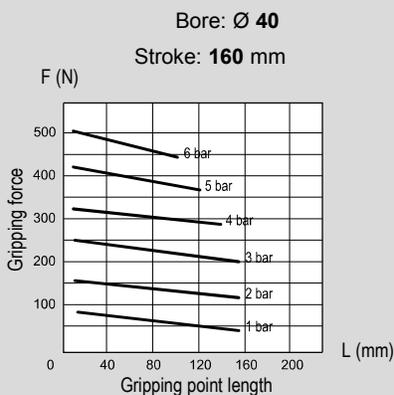
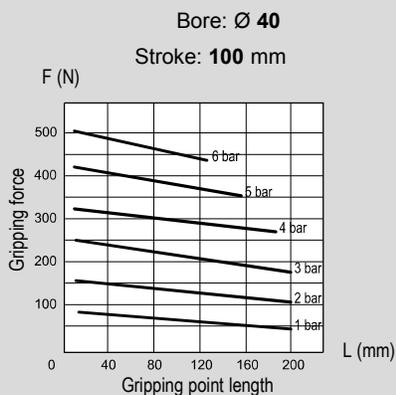
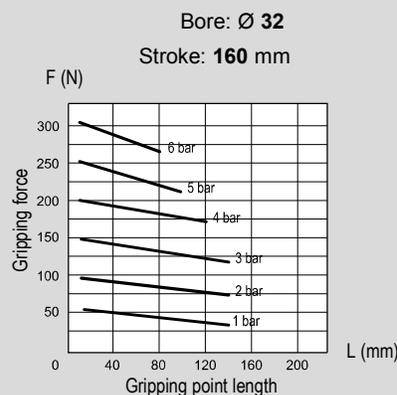
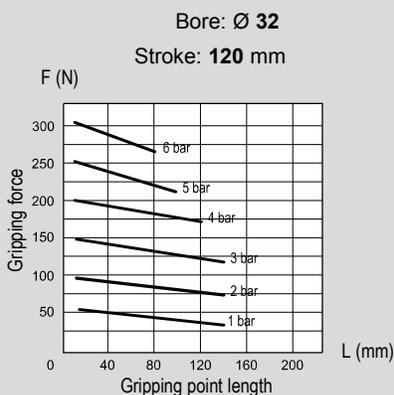
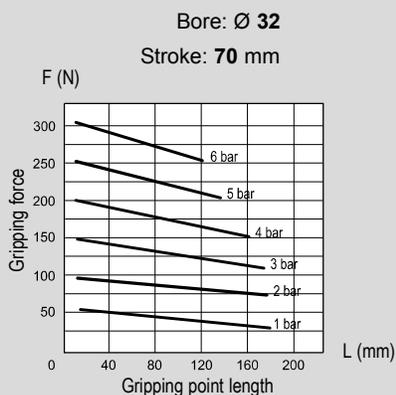
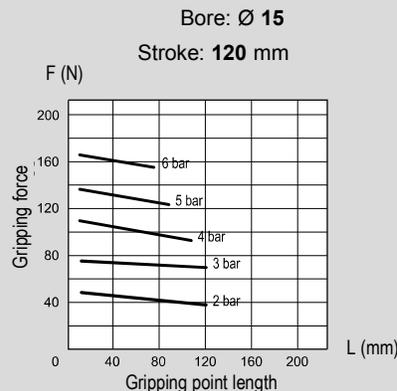
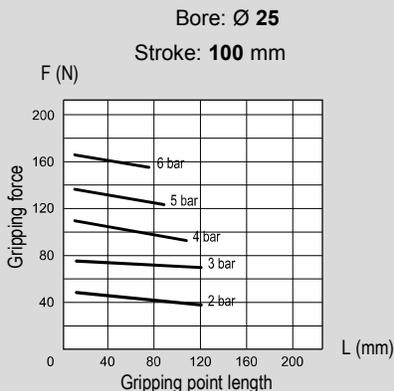
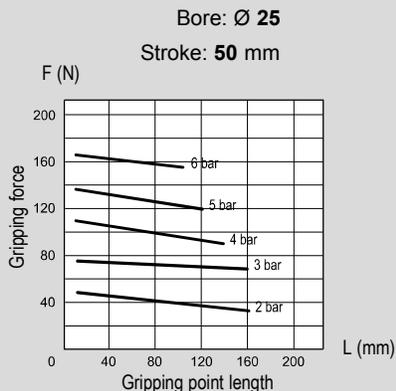
Type: PPD



Gripping forces

Type: PPD

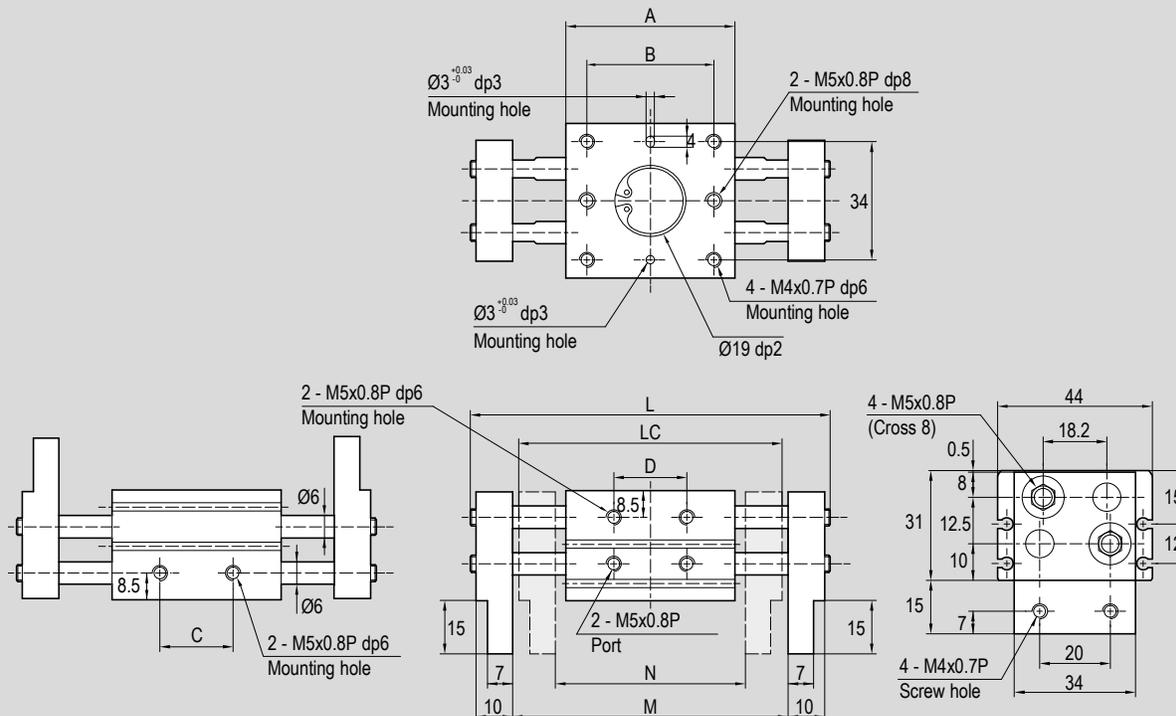
1 - CYLINDERS



Standard dimensions

Type: PPD
Ø 10

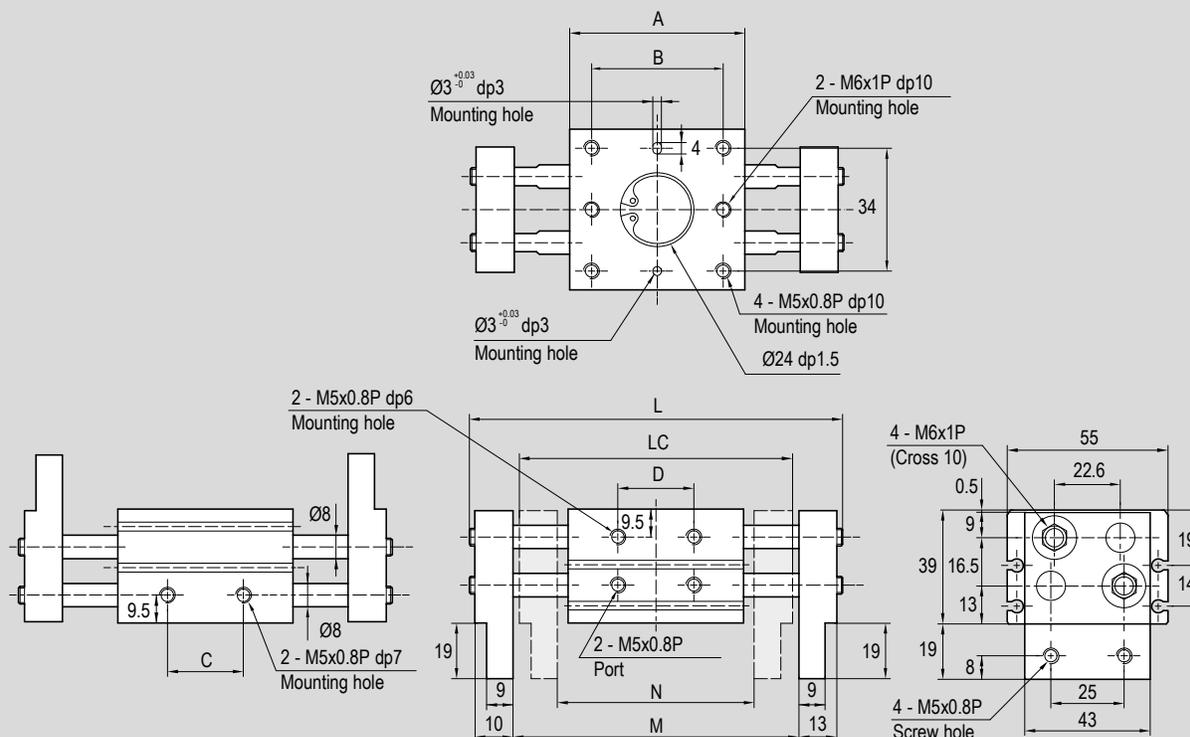
1 - CYLINDERS



Lever stroke (mm)	A	B	C	D	L	LC	M	N
20	52	36	30	30	100	80	76	56
40	68	52	46	46	136	96	112	72
60	86	70	64	64	174	114	150	90

Standard dimensions

Type: PPD
Ø 16

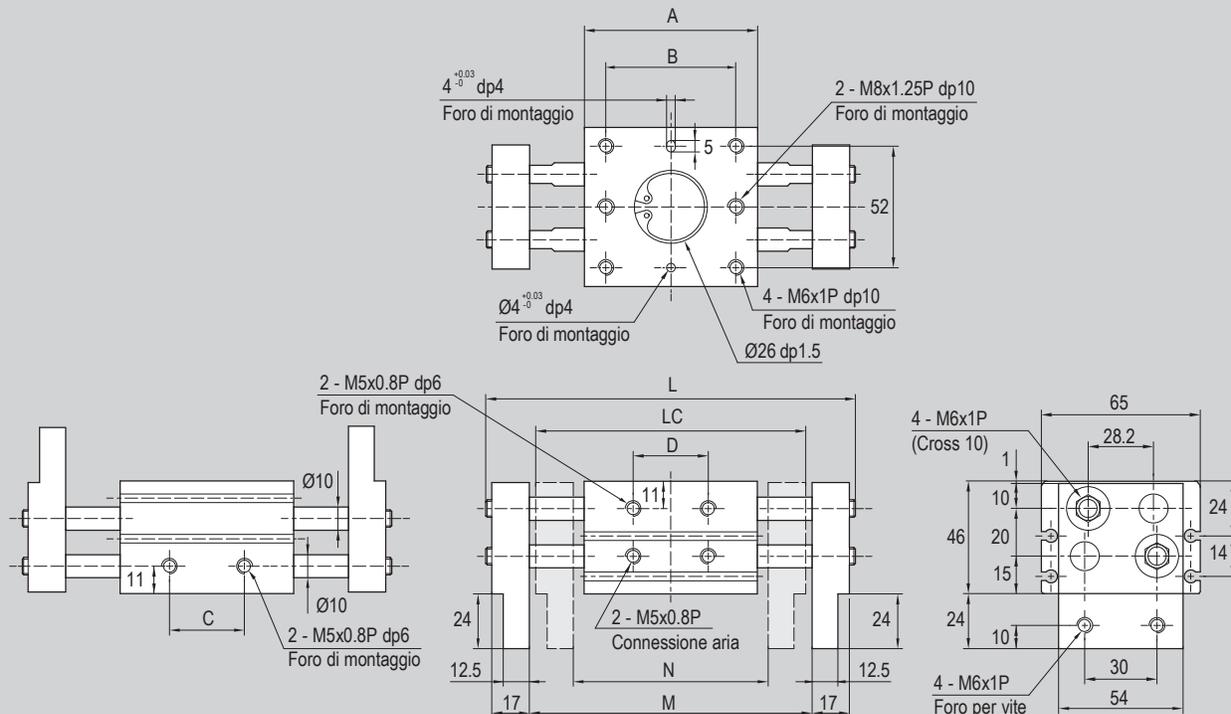


Lever stroke (mm)	A	B	C	D	L	LC	M	N
30	60	45	26	26	128	98	98	68
60	90	75	56	56	188	128	158	98
80	110	95	76	76	228	148	198	118

Dimensioni standard

Tipo: PPD
Ø 20

1 - CILINDRI

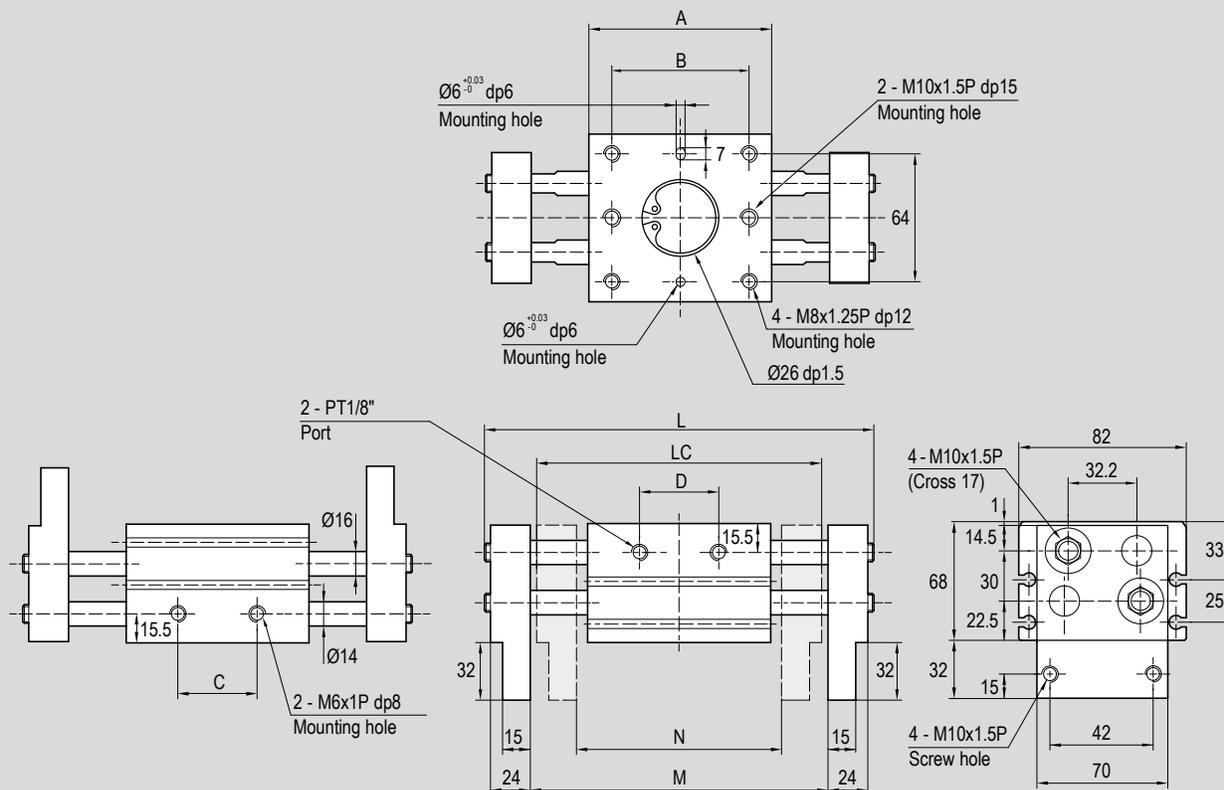


corsa leve (mm)	A	B	C	D	L	LC	M	N
40	71	58	40	40	157	113	119	79
80	113	100	82	82	239	159	201	121
100	133	120	102	102	279	179	241	141

Standard dimensions

Type: PPD
Ø 32

1 - CYLINDERS

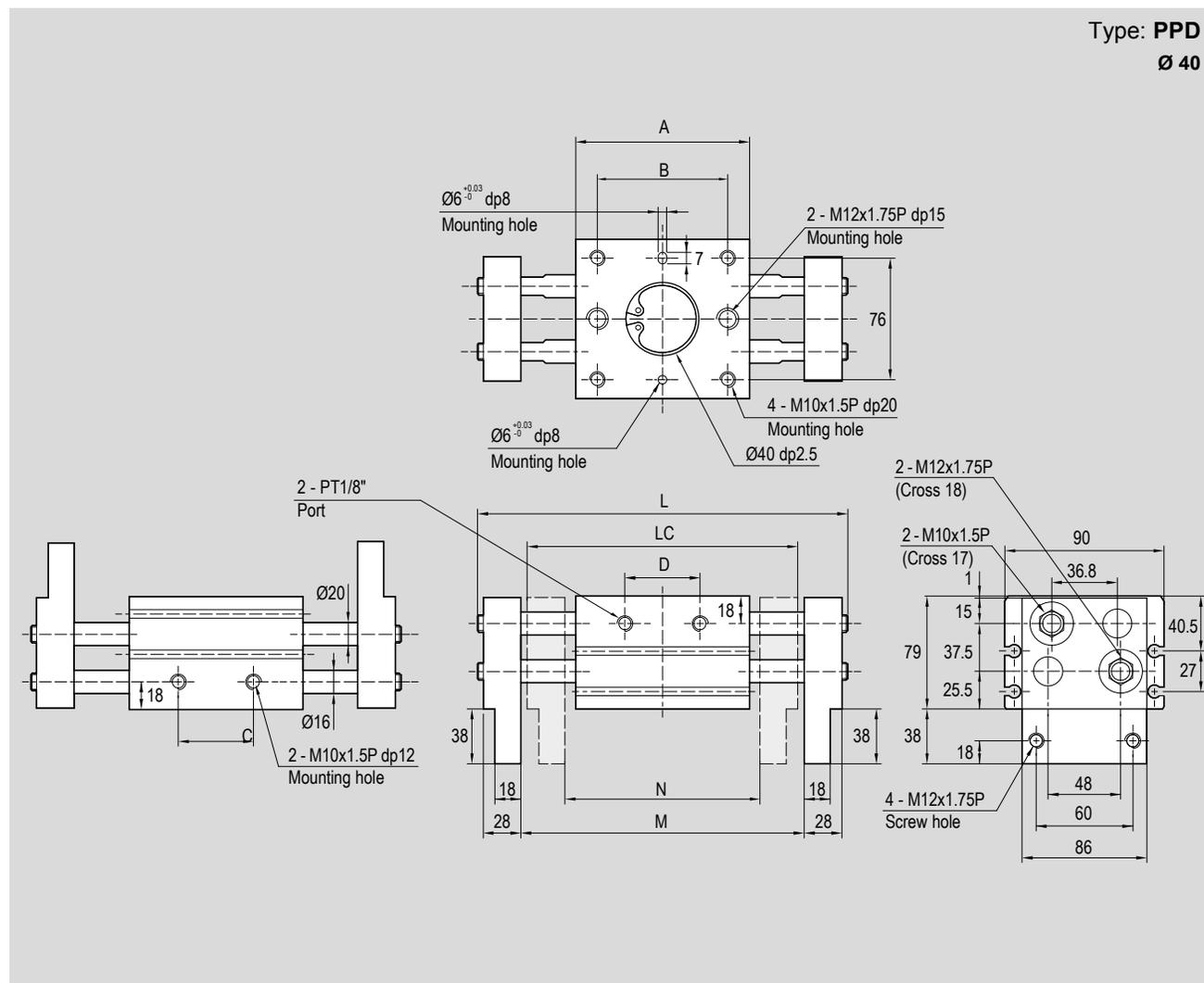


Lever stroke (mm)	A	B	C	D	L	LC	M	N
70	110	86	69	69	240	170	188	118
120	158	134	117	117	338	218	286	166
160	202	178	161	161	422	262	370	210

Standard dimensions

Type: PPD
Ø 40

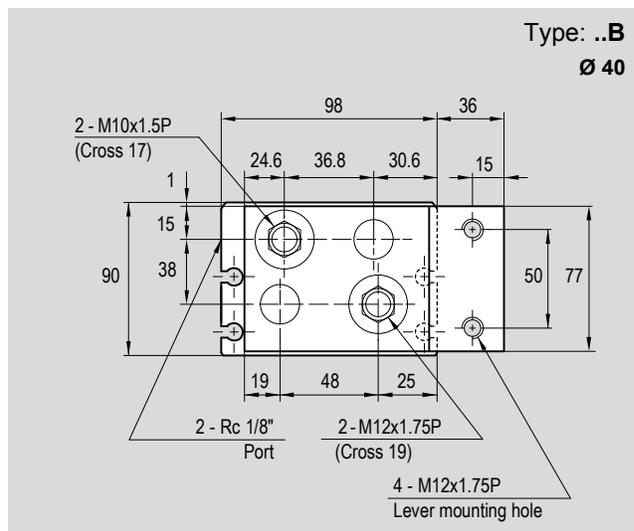
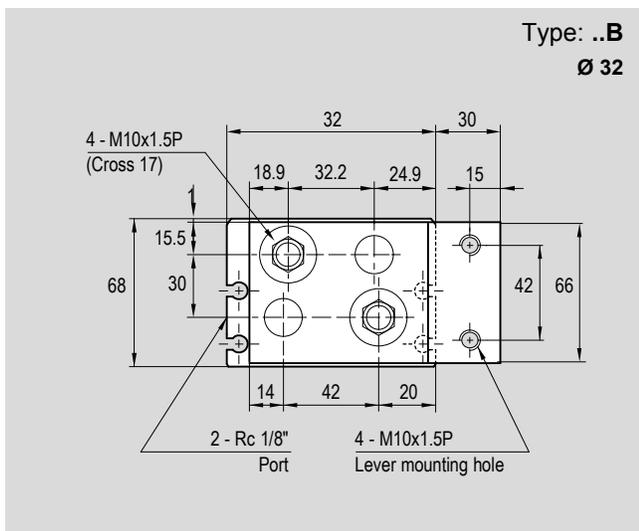
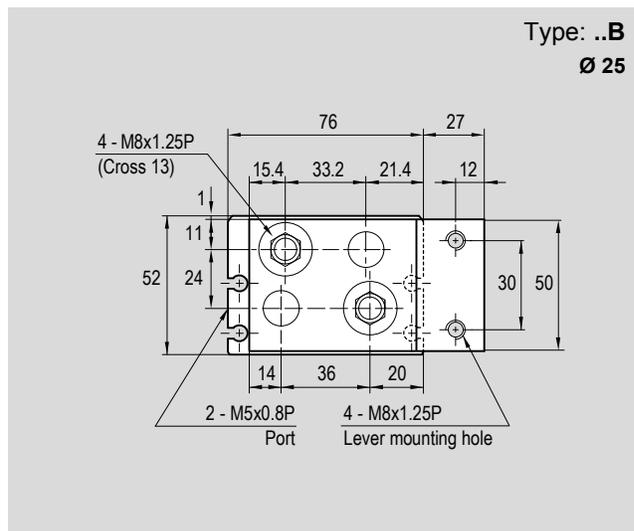
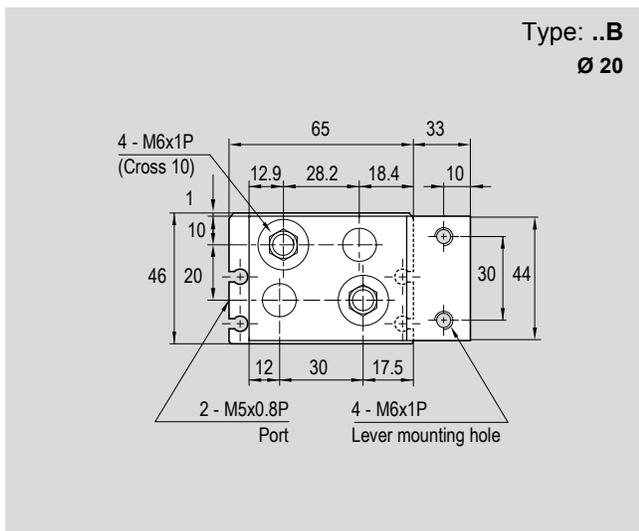
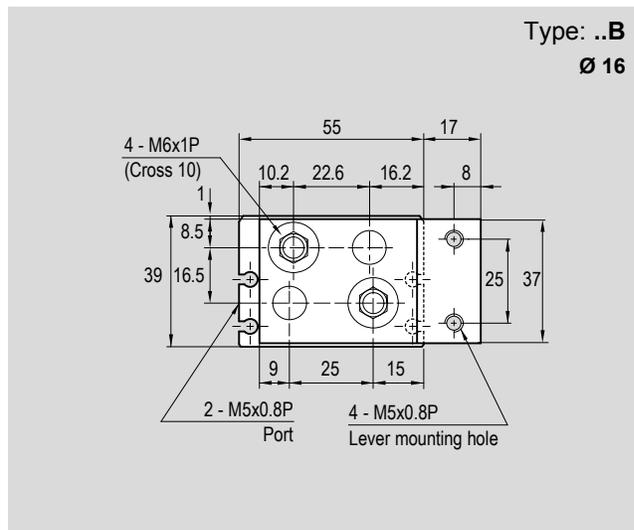
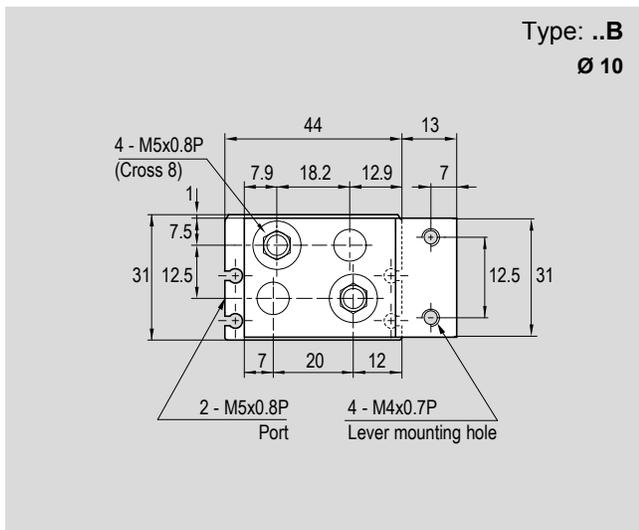
1 - CYLINDERS



Lever stroke (mm)	A	B	C	D	L	LC	M	N
100	148	116	80	80	324	224	264	164
160	206	174	138	138	442	282	382	222
200	246	214	178	178	522	322	462	262

Dimensions options

1 - CYLINDERS

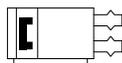


Hand grips
Series PPE

Main features

16 ÷ 100

Bores Ø



Double acting
Magnetic
3 Fingers

PPE

Type



Technical data

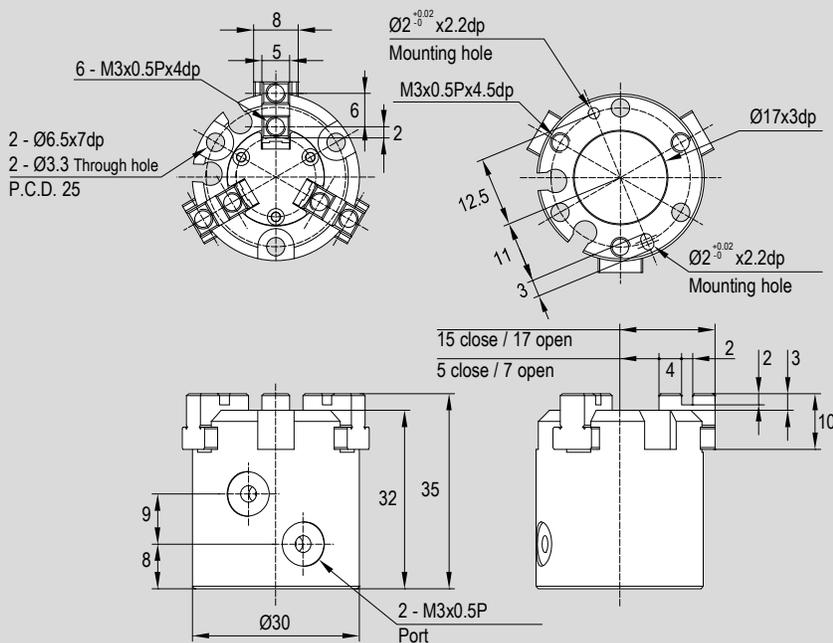
Bore Ø mm	16	20	25	32	40	50	63	80	100	
Fluid	Compressed filtered air.									
Lubrication	Not required									
Pressure range	3 ÷ 7 bar									
Temperature range	0°C ÷ +60°C									
Lever open/close stroke	4 mm	6 mm	8 mm	12 mm	16 mm	20 mm	24 mm			
Maximum operation frequency	120/min.			60/min.				30/min.		
Ports	Side	M3		M5				1/8"	1/4"	
	End cover	-			M5				1/8"	
Effective gripping force (N)	Open	21,0	37,0	63,0	111,0	177,0	280,0	502,0	710,0	1.068,0
	Close	23,0	42,0	71,0	123,0	195,0	306,0	537,0	748,0	1.111,0
Weight (g)	60	98	146	295	378	561	1.032	1.768	3.224	

Codes

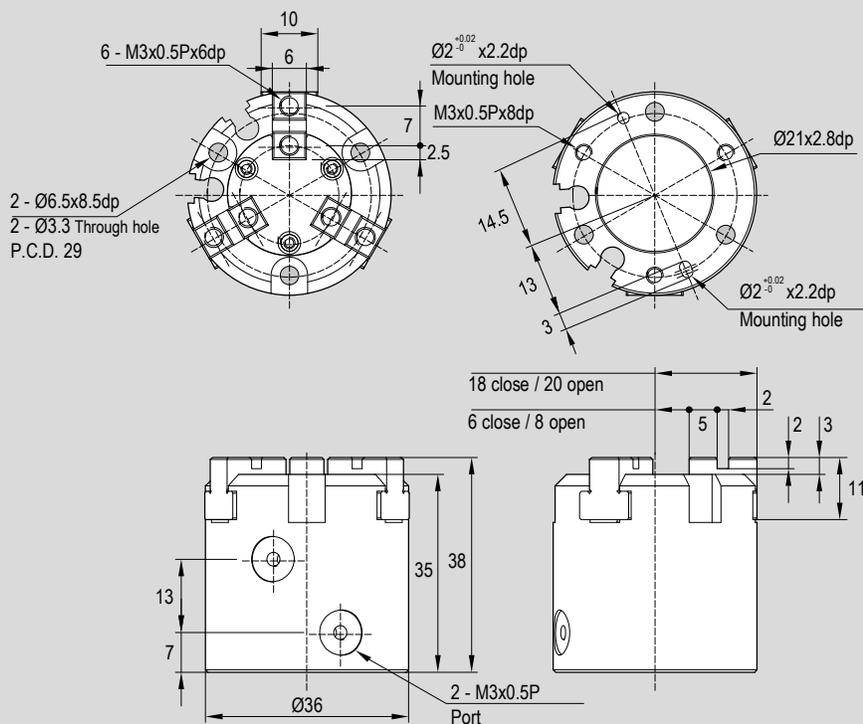
Function	PPE Bore Ø mm								
	16	20	25	32	40	50	63	80	100
Double acting	170673	170674	075053	075054	075055	075056	075057	170675	170676

Standard dimensions

Type: PPE
Ø 16

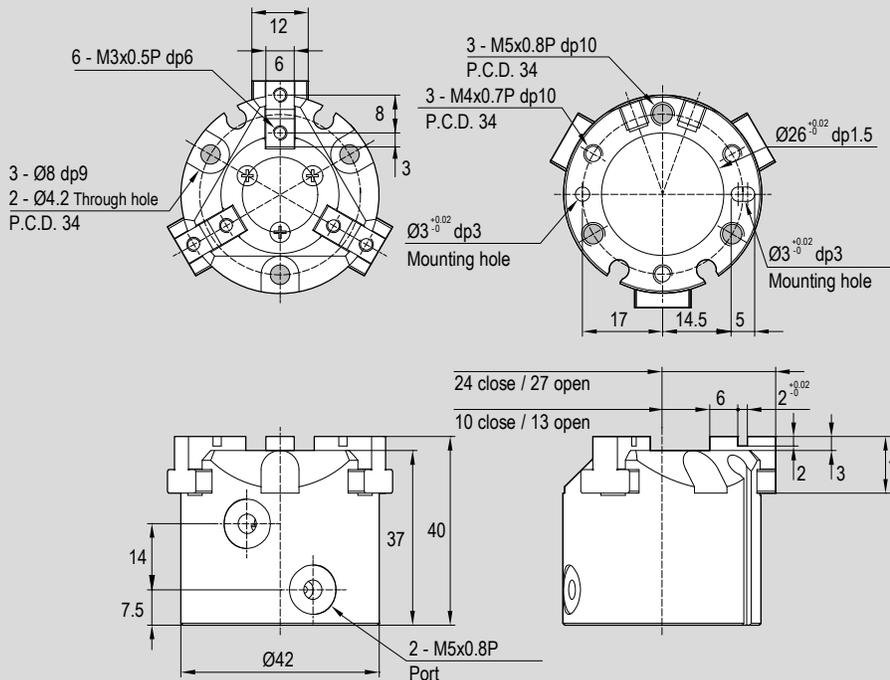


Type: PPE
Ø 20



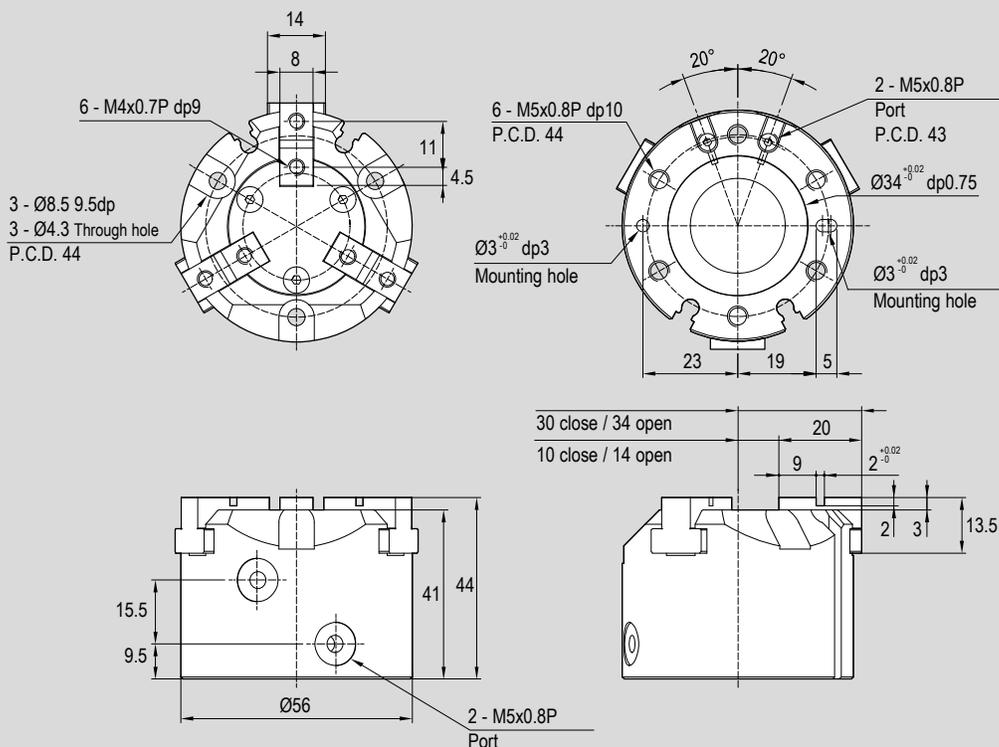
Standard dimensions

Type: PPE
Ø 25



1 - CYLINDERS

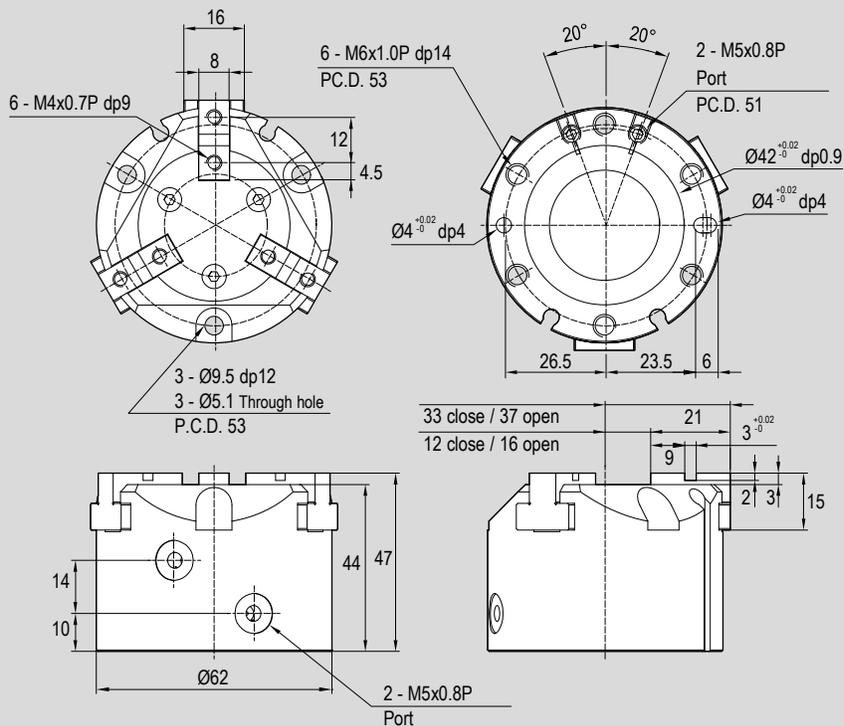
Type: PPE
Ø 32



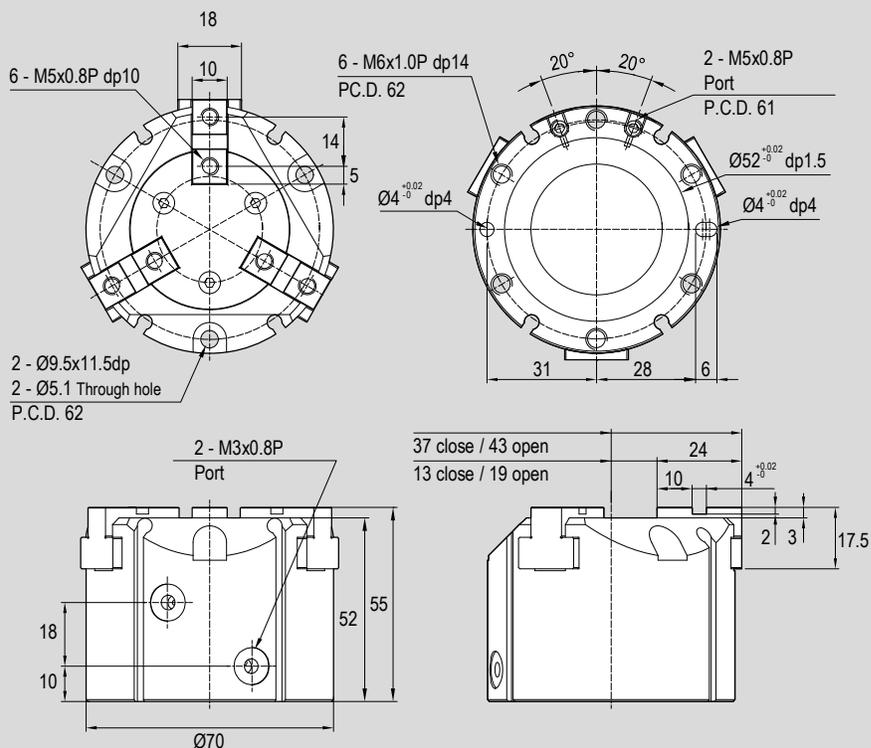
Standard dimensions

1 - CYLINDERS

Type: PPE
Ø 40



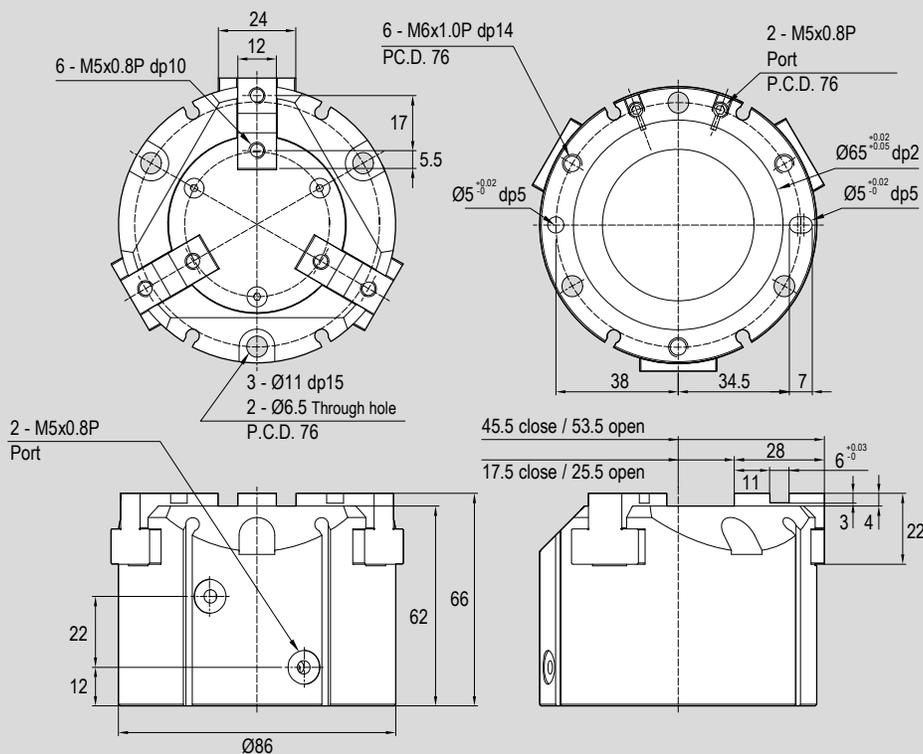
Type: PPE
Ø 50



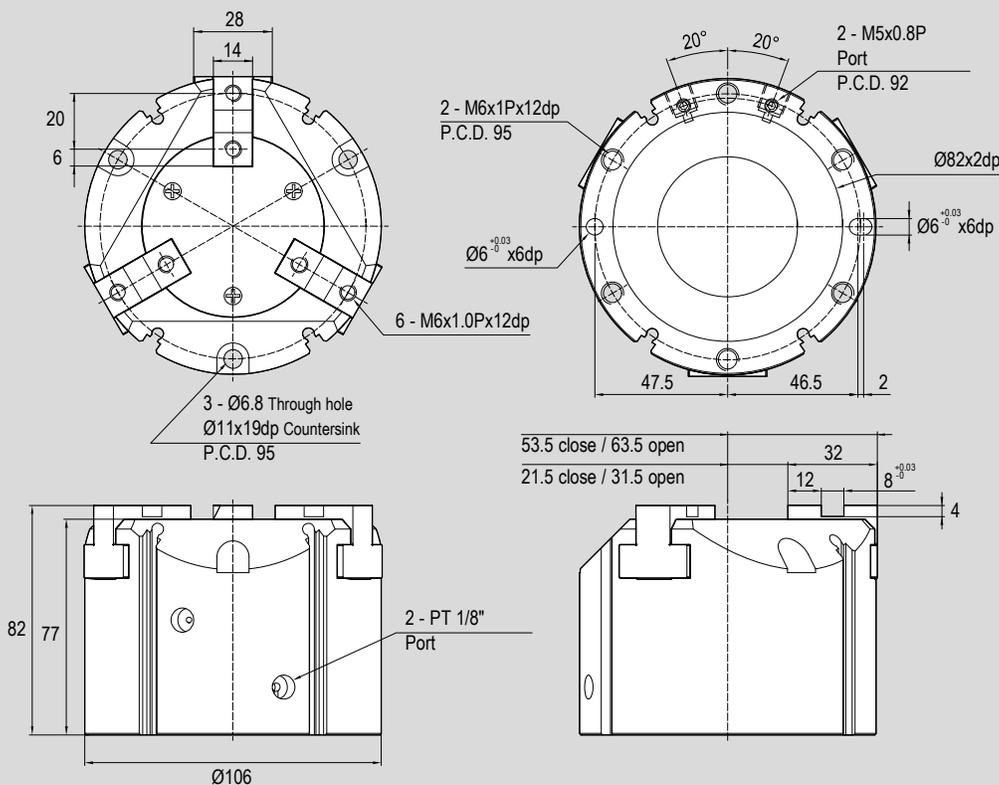
Standard dimensions

1 - CYLINDERS

Type: PPE
Ø 63



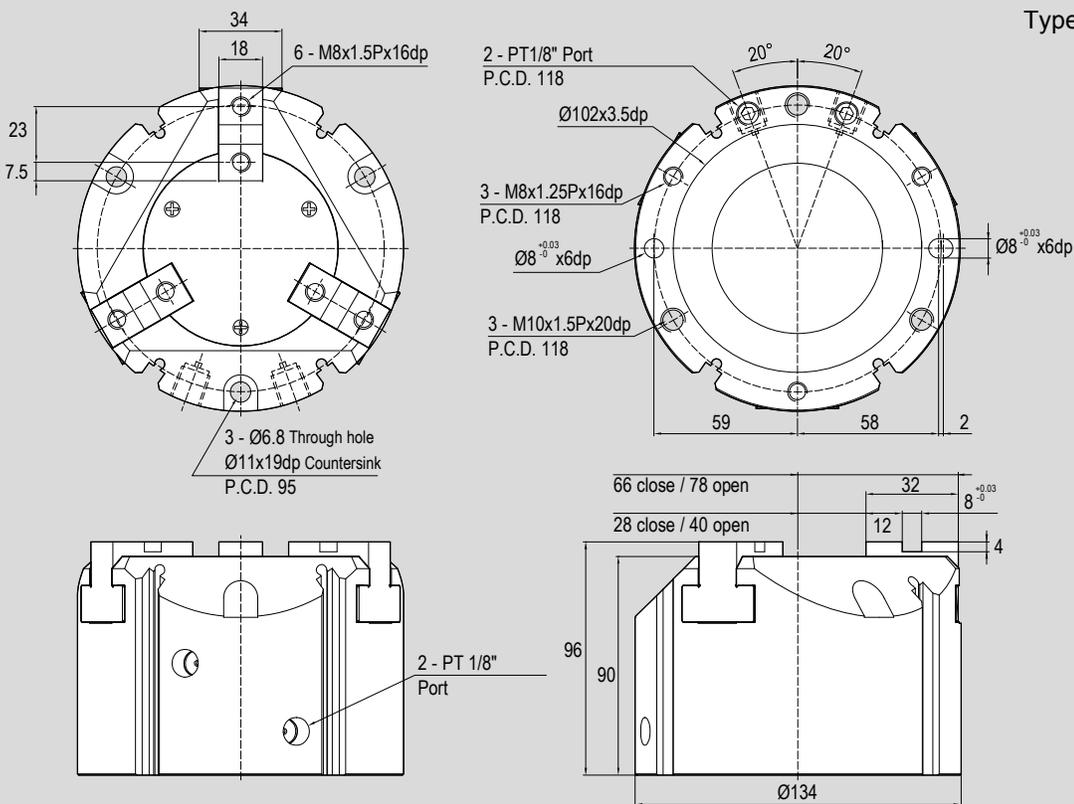
Type: PPE
Ø 80



Standard dimensions

1 - CYLINDERS

Type: PPE
Ø 100



Accessories for hand grips

1 - CYLINDERS

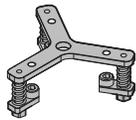
Male mounting for hand grips ..PM

	For cylinder Ø mm	Code	Item	Matching
	10	170655	10PM	PAB PAC PPB
12	170665	12PM		
16	075058	16PM		
20	075059	20PM		
25	075064	25PM		
32	075065	32PM		

Female mounting for hand grips ..PF

	For cylinder Ø mm	Code	Item	Matching
	10	170656	10PF	PAB PAC PPB PPC
12	170666	12PF		
16	075066	16PF		
20	075067	20PF		
25	075068	25PF		
32	075069	32PF		

Plate for 3 fingers hand grips ..PTD

	For cylinder Ø mm	Code	Item	Matching
	25	170657	25PTD	PPE
32	170658	32PTD		
40	170659	40PTD		
50	170660	50PTD		
63	170661	63PTD		
80	170662	80PTD		
100	170663	100PTD		

Magnetic reed switch C groove ASC..

	For cylinder Ø mm	Code	Item	Matching
	6 ÷ 100	070248	ASC1C525	PAB - PAC PPB - PPC PPD - PPE
070249		ASC7N2M8		
070382		ASC7M2M8		