

Guide cylinders, Series GPC-BV

- Ø 10-100 mm
- double-acting
- Plain bearing
- Cushioning elastic
- with magnetic piston



Working pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Pressure for determining piston forces	6.3 bar
Weight	See table below



Technical data

Piston Ø	10 mm	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm
Stroke 10	R402000294	0822060000	0822061000	0822062000	0822063000	-	-
20	R402000296	0822060001	0822061001	0822062001	0822063001	-	-
25	R402000297	0822060007	0822061007	0822062007	0822063007	0822064000	0822065000
30	R402000298	0822060002	0822061002	0822062002	0822063002	-	-
40	R402000300	0822060003	0822061003	0822062003	0822063003	-	-
50	R402000302	0822060004	0822061004	0822062004	0822063004	0822064001	0822065001
75	R402000307	0822060005	0822061005	0822062005	0822063005	0822064002	0822065002
100	R402000312	0822060006	0822061006	0822062006	0822063006	0822064003	0822065003
125	-	0822060024	0822061024	0822062024	0822063024	0822064004	0822065004
150	-	0822060029	0822061029	0822062029	0822063029	-	-
160	-	-	-	-	0822063031	0822064005	0822065005
200	-	-	-	-	0822063039	0822064006	0822065006

Piston Ø	50 mm	63 mm	80 mm	100 mm
Stroke 10	-	-	-	-
20	-	-	-	-
25	0822066000	0822067000	R402000914	R402000928
30	-	-	-	-

Piston Ø	50 mm	63 mm	80 mm	100 mm
40	-	-	-	-
50	0822066001	0822067001	R402000915	R402000929
75	0822066002	0822067002	R402000916	R402000930
100	0822066003	0822067003	R402000917	R402000931
125	0822066004	0822067004	R402000918	R402000932
150	-	-	-	-
160	0822066005	0822067005	R402000919	R402000933
200	0822066006	0822067006	R402000920	R402000934

Technical data

Piston Ø	10 mm	12 mm	16 mm	20 mm
Port	M5	M5	M5	M5
Working pressure min./max.	2 ... 8 bar	2 ... 8 bar	2 ... 8 bar	2 ... 8 bar
Retracting piston force	42 N	53 N	95 N	148 N
Extracting piston force	49 N	71 N	127 N	198 N
Speed max.	0,5 m/s	0,5 m/s	0,5 m/s	0,5 m/s
Impact energy	0,04 J	0,1 J	0,11 J	0,15 J

Piston Ø	25 mm	32 mm	40 mm	50 mm
Port	G 1/8	G 1/8	G 1/8	G 1/4
Working pressure min./max.	1,5 ... 8 bar	1,3 ... 8 bar	1 ... 8 bar	1 ... 8 bar
Retracting piston force	260 N	435 N	720 N	1110 N
Extracting piston force	309 N	507 N	792 N	1237 N
Speed max.	0,8 m/s	0,6 m/s	0,6 m/s	0,6 m/s
Impact energy	0,35 J	0,4 J	0,52 J	0,64 J

Piston Ø	63 mm	80 mm	100 mm
Port	G 1/4	G 1/4	G 3/8
Working pressure min./max.	1 ... 8 bar	1 ... 8 bar	1 ... 8 bar
Retracting piston force	1837 N	2969 N	4639 N
Extracting piston force	1964 N	3167 N	4948 N
Speed max.	0,6 m/s	0,4 m/s	0,4 m/s
Impact energy	0,75 J	0,75 J	1 J

Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

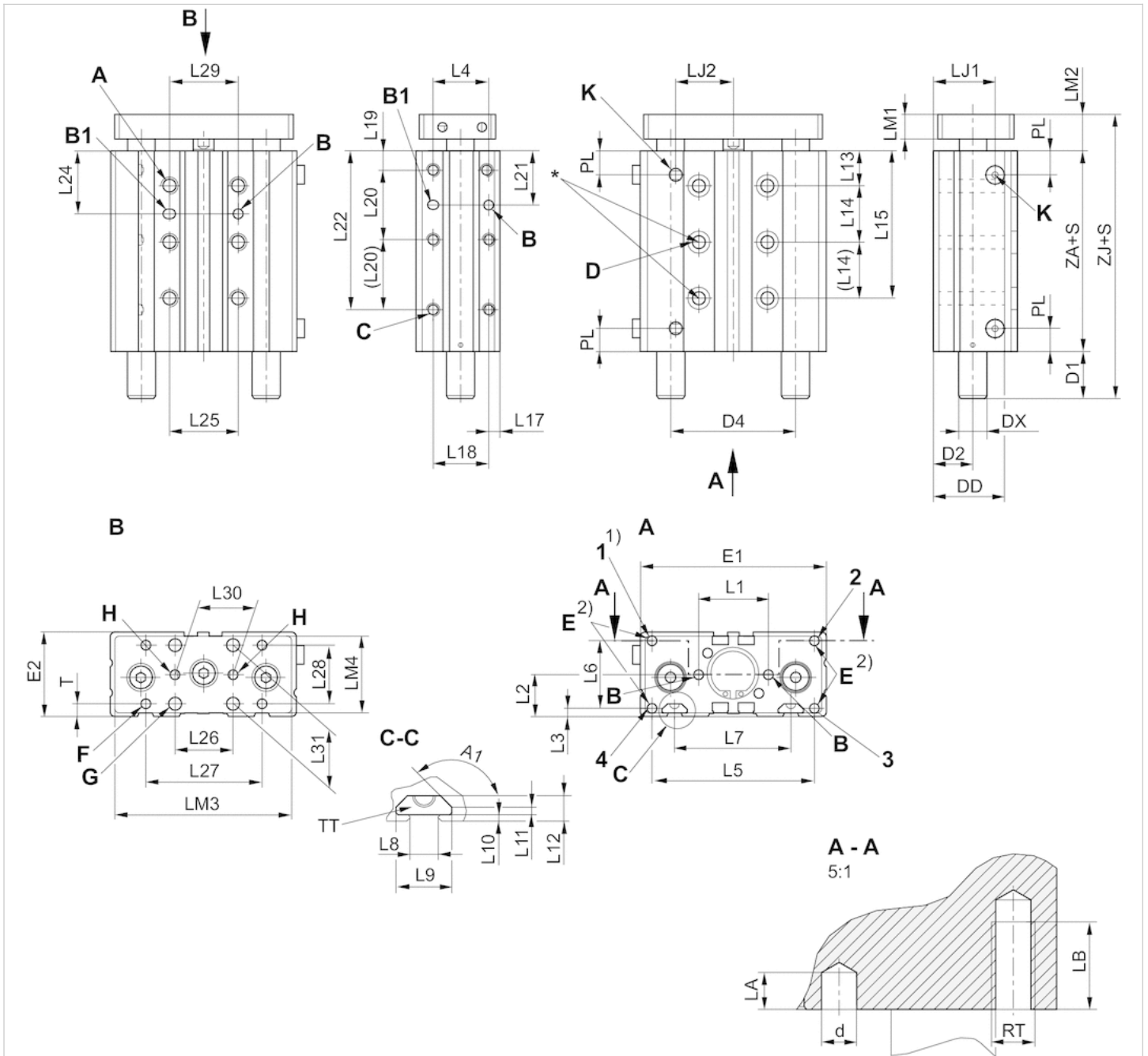
Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

Technical information

Material	
Housing	Aluminum, anodized
Seal	Polyurethane
Front plate	Steel, galvanized
Guide rod	Stainless steel
Bearing	Sintered bronze
Piston rod	Stainless steel

Dimensions

Dimensions, Ø 10 ... 20



* Suitable for screws according to ISO 4762

1) Only Ø 20 threaded hole

2) M4 mounting hole for GPC-E accessories

1, 2, 3, 4: threaded holes

S = stroke

Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

Dimensions

Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxDxLA	C RTxLB	D Ø
10 mm	M4x6	–	4H7x4	4H7x5x4	M4x6	3.2
12 mm	M5x8	–	4H7x4	4H7x5x4	M5x8	4.2
16 mm	M5x8	135°	4H7x4	4H7x5x4	M5x8	4.2
20 mm	M6x10	135°	4H7x4	4H7x5x4	M6x10	5.2

Piston Ø	D1 S=10-30	D1 S=40-100	D1 S>100	D2	D4	DD	DX
10 mm	13.5	13.5	13.5	7	–	17.4	8
12 mm	0	17.6	32.6	14.5	40	20	10
16 mm	0	20	35	15.8	47	28.5	12
20 mm	0	20	35	16.5	54	30.5	12

Piston Ø	E RTxLB	E1	E2	F Ø 1)	G Ø 2)	H Ø 2)	K	L1
10 mm	M4x8	50	21	M4	–	–	M5	20 ±0,04
12 mm	M5x8	58	30.5	M4	4.5	4H9	M5	23 ±0,04
16 mm	M5x8	68	33	M4	5.5	4H9	M5	28 ±0,04
20 mm	M5x10	80	36	M5	5.5	4H9	M5	30 ±0,04

Piston Ø	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
10 mm	10.5	3	–	20	15	–	–	–	–	–
12 mm	15	4	22	50	22	–	–	–	–	–
16 mm	16.5	4	25	61	25	43	6.15	12	1.5	1.5
20 mm	18	3.5	24	70	29	50	6.15	12	1.5	1.5

Piston Ø	L12	L13	L14 S=10	L14 S=20	L14 S>20	L15 S=40	L15 S>40
10 mm	–	15	–	20	20	55	55
12 mm	–	14.5	–	18	22	–	58.5
16 mm	5.5	14	18	25	25	–	64
20 mm	5.5	15	16	24	24	–	63

Piston Ø	L17	L18	L19	L20 S=10	L20 S>10	L21 S=10	L21 S>10
10 mm	15	–	8	20	20	13	13
12 mm	4	22	8	20	20	18	18
16 mm	4	25	8	18	25	20.5	20.5
20 mm	4.5	24	8	20	30	18	23

Piston Ø	L22 S≤40	L22 S>40	L24 S=10	L24 S>10	L25	L26	L27
10 mm	48	48	25	25	20	–	20
12 mm	–	48	25.5	25.5	20	–	40
16 mm	–	58	26.5	26.5	25	20	40
20 mm	–	68	23	27	30	25	50

Piston Ø	L28	L29	L30	L31	LJ1	LJ2	LM1	LM2	LM3
10 mm	10	20	–	–	15.5	15	5	13.5	48

Piston Ø	L28	L29	L30	L31	LJ1	LJ2	LM1	LM2	LM3
12 mm	20	20	–	–	24.8	17.5	8	12.7	55
16 mm	20	25	20 ±0,04	22	27	21	8	13.5	65
20 mm	25	30	25 ±0,04	25	26.5	25	10	15.5	77

Piston Ø	LM4	PL	T	TT	ZA	ZJ S=10-30	ZJ S=40-100
10 mm	19	8	5.5	–	36	63	63
12 mm	27	8.5	5	–	34.4	47.1	64.7
16 mm	30	8.8	6.5	N6	36	49.5	69.5
20 mm	33	10	5.5	N6	36	51.5	71.5

S = stroke

To determine the cylinder length (ZA) for intermediate strokes (i.e. stroke 10 with dia. 40), the next available standard stroke size must be used

- 1) Through hole with thread
- 2) through-hole

Two holes C-C 10 mm.

Dimensions

Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxD	C RTxLB	D Ø 1)	D2	D4	DX	E RTxLB	E1	E2
25 mm	M6x10	135°	4x4	4x5	M6x10	5.5	18	59	16	M6x12	95	43
32 mm	M8x14	135°	4x4	4x5	M8x14	7.4	23	75.6	20	M6x12	114	48.5
40 mm	M8x14	135°	4x4	4x5	M8x14	7.4	23	86	20	M8x16	124	54.5
50 mm	M10x20	135°	5x5	5x6	M10x20	9.3	27.5	104	25	M8x16	148	64
63 mm	M10x20	135°	5x5	5x6	M10x20	9.3	35	124	25	M10x20	162	78.5
80 mm	M12x24	135°	6x6	6x7	M12x25	11.2	39.5	152	32	M12x25	202	91.5
100 mm	M12x24	135°	6x6	6x7	M12x25	11.2	39.5	174	32	M12x25	226	111

Piston Ø	F Ø 1)	G Ø 2)	H Ø 2)	K EE	L1	L2	L3	L4	L5	L6	L7	L8	L9
25 mm	M6	6.5	4H8	G 1/8	35 ±0,1	20.5	4.5	25 ±0,1	85	34	52	6.15	12
32 mm	M8	6.5	4H8	G 1/8	44 ±0,1	24	5	33 ±0,1	105	26	70	8.2	16.7
40 mm	M8	8.5	4H8	G 1/8	53 ±0,15	27	6	40 ±0,15	110	42	80	8.2	16.7
50 mm	M8	8.5	4H8	G 1/4	66 ±0,15	32	8	48 ±0,15	133	34.5	93	8.2	16.7
63 mm	M10	10.5	5H8	G 1/4	84 ±0,15	39	8	60 ±0,15	147	62	112	10.2	20.3
80 mm	M12	10.5	5H8	G 1/4	100 ±0,15	46	9	60 ±0,15	182	54.5	132	10.2	20.3
100 mm	M12	12.5	6H8	G 3/8	120 ±0,15	55.5	9	60 ±0,15	206	76	155	10.2	20.3

Piston Ø	L10	L11	L12	L13	L15	L17	L18	L19	L22	L25	L26	L27	L28	L29	L30	L31	LJ1
25 mm	1.5	1.5	5.5	16.5	25	5.5	25	8	32	32	30	81	23	32 ±0,1	30 ±0,2	24	29.6
32 mm	2.2	2.8	9	20.5	33	6.5	33	10	42	42	32	97	30	42 ±0,1	32 ±0,2	25	40
40 mm	2.2	2.8	9	20	40	6	40	10	53	53	42	107	30	53 ±0,15	42 ±0,2	32.5	37.8
50 mm	2.2	2.8	9	23	48	7.5	48	12	63	63	53	134	40	63 ±0,15	53 ±0,2	40	54.5
63 mm	6	6	16	24	60	11	60	12	80	80	63	140	48	80 ±0,15	63 ±0,2	48	57
80 mm	6	6	16	33.5	60	12	60	13	96	96	80	176	52	96 ±0,15	80 ±0,2	60	77.5
100 mm	6	6	16	32.5	60	12	60	13	119	119	96	204	64	119 ±0,15	96 ±0,2	60	68.5

Piston Ø	LJ2	LM1	LM2	LM3	LM4	PL1	PL2	PL3	PL4	T	T1	T2	T3
25 mm	32	10	15.5	93	33	11	11	11	11	6.5	18 ±0,4	32,5 ±0,4	30 ±0,05
32 mm	40.5	12	18.5	112	43	13.5	13.5	13.5	13.5	8	23 ±0,4	41 ±0,4	35 ±0,05
40 mm	44	12	19.5	122	43	12	12	12	12	8	23 ±0,4	41 ±0,4	35,5 ±0,1
50 mm	50.5	15	23.5	146	52	13	13	13	13	7.5	27,5 ±0,4	47,5 ±0,4	41 ±0,1
63 mm	59	15	24	160	67	13.7	13.7	13.7	13.7	11	35 ±0,4	49,5 ±0,5	39 ±0,1
80 mm	74.5	20	30	200	76	23	23	23	23	13.5	39,5 ±0,45	61 ±0,5	51 ±0,2
100 mm	86.5	20	31	224	84	21.5	21.5	21.5	21.5	18.5	50,5 ±0,45	65 ±0,5	53 ±0,2

Piston Ø	T4	TT	ZA
25 mm	20,5 ±0,05	N6	42 3)
32 mm	24 ±0,05	N8	46.5
40 mm	27 ±0,1	N8	44
50 mm	32 ±0,1	N8	46
63 mm	39 ±0,1	N10	51
80 mm	46 ±0,2	N10	77
100 mm	55,5 ±0,2	N10	77

S = stroke

To determine the cylinder length (ZA) for intermediate strokes (i.e. stroke 10 with dia. 40), the next available standard stroke size must be used

- 1) Through hole with thread
 - 2) through-hole
 - 3) For stroke 150, ZA = 52, for stroke 25, ZA = 47
- Two holes C-C 10 mm.

Dimensions

Piston Ø	S=10 D1	S=20 D1	S=25 D1	S=30 D1	S=40 D1	S=50 D1
25 mm	0	0	0	0	0	0
32 mm	-	-	17	17	17	17
40 mm	-	-	19	19	19	19
50 mm	-	-	25	25	25	25
63 mm	-	-	19	19	19	19
80 mm	-	-	10.5	10.5	10.5	10.5
100 mm	-	-	9.5	9.5	9.5	9.5

Piston Ø	S=75 D1	S=100 D1	S=125 D1	S=150 D1	S=160 D1	S=200 D1
25 mm	11	11	27	27	27	27
32 mm	17	17	35	35	35	35
40 mm	19	19	37	37	37	37
50 mm	25	25	55	55	55	55
63 mm	19	19	49	49	49	49
80 mm	10.5	10.5	38.5	38.5	38.5	38.5
100 mm	9.5	9.5	37.5	37.5	37.5	37.5

Piston Ø	S=10 L14	S=20 L14	S=25 L14	S=30 L14	S=40 L14	S=50 L14
25 mm	19	25	25	25	25	25
32 mm	30	30	30	33	33	33
40 mm	30	30	30	40	40	40
50 mm	25	25	25	48	48	48
63 mm	28	28	28	28	28	28
80 mm	35	35	35	60	60	60
100 mm	37	37	37	60	60	60

Piston Ø	S=75 L14	S=100 L14	S=125 L14	S=160 L14	S=200 L14
25 mm	25	25	25	25	25
32 mm	33	33	33	33	33
40 mm	40	40	40	40	40
50 mm	48	48	48	48	48
63 mm	60	60	60	60	60
80 mm	60	60	60	60	60
100 mm	60	60	60	60	60

S = stroke

Dimensions

Piston Ø	S=10 N	S=20 N	S=25 N	S=30 N	S=40 N	S=50 N	S=75 N
25 mm	1	1	1	1	1	2	3
32 mm	-	-	1	1	1	1	2
40 mm	-	-	1	1	1	1	2
50 mm	-	-	1	1	1	1	1
63 mm	-	-	1	1	1	1	1
80 mm	-	-	1	1	1	1	1
100 mm	-	-	1	1	1	1	1

Piston Ø	S=100 N	S=125 N	S=160 N	S=200 N	S=40 L16	S=50 L16
25 mm	3	3	3	3	65.5	-
32 mm	3	3	3	3	-	76
40 mm	2	3	3	3	-	-
50 mm	2	2	3	3	-	-
63 mm	1	2	2	3	-	-
80 mm	1	2	2	3	-	-
100 mm	1	2	2	3	-	-

Piston Ø	S=100 L16	S=125 L16	S=160 L16	S=200 L16
25 mm	125.5	150.5	185.5	225.5
32 mm	-	151	186	226
40 mm	-	-	184	224
50 mm	-	148	-	223
63 mm	127	-	187	-
80 mm	143.5	-	203.5	-
100 mm	144.5	-	204.5	-

S = stroke

Dimensions

Piston Ø	S=20 L20	S=25 L20	S=30 L20	S=40 L20	S=50 L20	S=75 L20
25 mm	22	32	32	32	32	32
32 mm	35	35	42	42	42	42
40 mm	30	30	53	53	53	53
50 mm	30	30	30	30	30	63
63 mm	30	30	30	30	30	80
80 mm	47	47	47	47	47	96
100 mm	49	49	49	49	49	49

Piston Ø	S=100 L20	S=125 L20	S=160 L20	S=200 L20	S=20 L21	S=25 L21
25 mm	32	32	32	32	19	24
32 mm	42	42	42	42	27.5	27.5
40 mm	53	53	53	53	25	25
50 mm	63	63	63	63	27	27

Piston Ø	S=100 L20	S=125 L20	S=160 L20	S=200 L20	S=20 L21	S=25 L21
63 mm	80	80	80	80	27	27
80 mm	96	96	96	96	36.5	36.5
100 mm	119	119	119	119	37.5	37.5

Piston Ø	S=30 L21	S=40 L21	S=50 L21	S=75 L21	S=100 L21	S=125 L21
25 mm	24	24	24	24	24	24
32 mm	31	31	31	31	31	31
40 mm	36.5	36.5	36.5	36.5	36.5	36.5
50 mm	27	27	27	43.5	43.5	43.5
63 mm	27	27	27	52	52	52
80 mm	36.5	36.5	36.5	61	61	61
100 mm	37.5	37.5	37.5	37.5	72.5	72.5

Piston Ø	S=160 L21	S=200 L21
25 mm	24	24
32 mm	31	31
40 mm	36.5	36.5
50 mm	43.5	43.5
63 mm	52	52
80 mm	61	61
100 mm	72.5	72.5

S = stroke

Dimensions

Piston Ø	S10 M	S20 M	S25 M	S30 M	S40 M	S50 M	S75 M
25 mm	1	1	1	1	1	1	2
32 mm	-	-	1	1	1	1	2
40 mm	-	-	1	1	1	1	1
50 mm	-	-	1	1	1	1	1
63 mm	-	-	1	1	1	1	1
80 mm	-	-	1	1	1	1	1
100 mm	-	-	1	1	1	1	1

Piston Ø	S100 M	S125 M	S160 M	S200 M	S40 L24	S50 L24	S75 L24
25 mm	3	3	3	3	60	70	95
32 mm	2	3	3	3	-	-	-
40 mm	2	2	3	3	-	-	91
50 mm	1	2	2	3	-	-	-
63 mm	1	1	2	2	-	-	-
80 mm	1	1	1	2	-	-	-
100 mm	1	1	1	1	-	-	-

Piston Ø	S100 L24	S125 L24	S160 L24	S200 L24
25 mm	-	145	180	220
32 mm	122.5	-	182.5	222.5

Piston Ø	S100 L24	S125 L24	S160 L24	S200 L24
40 mm	-	-	-	216
50 mm	116	-	176	-
63 mm	-	142	-	217
80 mm	-	160	195	-
100 mm	-	-	195	235

S = stroke

Dimensions

Piston Ø	S10 L34	S20 L34	S25 L34	S30 L34	S40 L34	S50 L34
25 mm	26	29	29	29	29	29
32 mm	35.5	35.5	35.5	37	37	37
40 mm	35	35	35	40	40	40
50 mm	35.5	35.5	35.5	47	47	47
63 mm	38	38	38	38	38	38
80 mm	51	51	51	51	51	63.5
100 mm	51	51	51	51	51	62.5

Piston Ø	S75 L34	S100 L34	S125 L34	S160 L34	S200 L34	S10 L35
25 mm	29	29	29	29	29	4
32 mm	37	37	37	37	37	4
40 mm	40	40	40	40	40	4
50 mm	47	47	47	47	47	4
63 mm	54	54	54	54	54	4
80 mm	63.5	63.5	63.5	63.5	63.5	4
100 mm	62.5	62.5	62.5	62.5	62.5	4

Piston Ø	S20 L35	S25 L35	S30 L35	S40 L35	S50 L35	S75 L35
25 mm	4	4	4	6	6	8
32 mm	4	4	4	4	4	6
40 mm	4	4	4	4	4	6
50 mm	4	4	4	4	4	4
63 mm	4	4	4	4	4	4
80 mm	4	4	4	4	4	4
100 mm	4	4	4	4	4	4

Piston Ø	S100 L35	S125 L35	S160 L35	S200 L35
25 mm	8	10	10	10
32 mm	8	8	10	10
40 mm	6	6	8	10
50 mm	6	6	8	8
63 mm	4	6	6	8
80 mm	4	6	6	6
100 mm	4	4	6	6

S = stroke

Dimensions

Piston Ø	S10 L36	S20 L36	S25 L36	S30 L36	S40 L36	S50 L36
25 mm	4	4	4	4	6	6
32 mm	4	4	4	4	4	6
40 mm	4	4	4	4	4	4
50 mm	4	4	4	4	4	4
63 mm	4	4	4	4	4	4
80 mm	4	4	4	4	4	4
100 mm	4	4	4	4	4	4

S75 L36	S100 L36	S125 L36	S160 L36	S200 L36	S10 ZJ	S20 ZJ
8	10	10	10	10	57.5	57.5
6	8	10	10	10	-	-
6	6	8	10	10	-	-
4	6	8	8	10	-	-
4	6	6	8	10	-	-
4	6	6	8	8	-	-
4	6	6	8	8	-	-

S25 ZJ	S30 ZJ	S40 ZJ	S50 ZJ	S75 ZJ	S100 ZJ	S125 ZJ	S160 ZJ
57.5	57.5	57.5	57.5	68.5	68.5	84.5	84.5
82	-	-	82	82	82	100	100
82.6	-	-	82.6	82.6	82.6	124.5	124.5
94.5	-	-	94.5	94.5	94.5	124.6	124.6
94.6	-	-	94.6	94.6	94.6	145.5	145.5
117.5	-	-	117.5	117.5	117.5	145.5	145.5
117.5	-	-	117.5	117.5	117.5	145.5	145.5

S200 ZJ
84.5
100
124.5
124.6
145.5
145.5
145.5

S = stroke

Weight [kg]

Piston Ø	S	Weight kg
10 mm	10 mm	0,19 kg
10 mm	20 mm	0,22 kg
10 mm	25 mm	0,23 kg
10 mm	30 mm	0,24 kg
10 mm	40 mm	0,27 kg

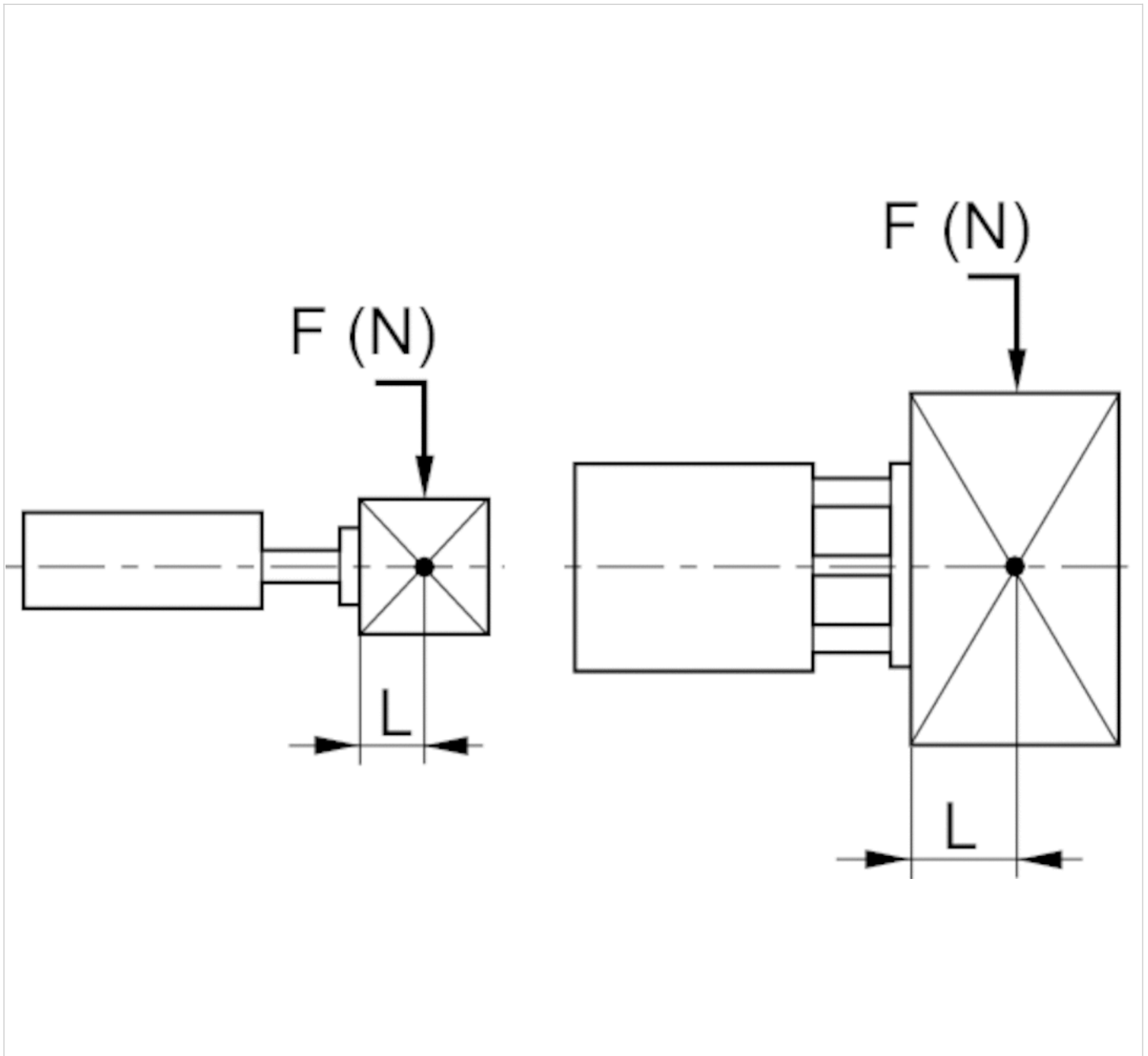
Piston Ø	S	Weight kg
10 mm	50 mm	0,29 kg
10 mm	75 mm	0,36 kg
10 mm	100 mm	0,42 kg
12 mm	10 mm	0,3 kg
12 mm	20 mm	0,34 kg
12 mm	25 mm	0,37 kg
12 mm	30 mm	0,39 kg
12 mm	40 mm	0,45 kg
12 mm	50 mm	0,49 kg
12 mm	75 mm	0,61 kg
12 mm	100 mm	0,73 kg
12 mm	125 mm	0,85 kg
12 mm	150 mm	0,97 kg
16 mm	10 mm	0,38 kg
16 mm	20 mm	0,44 kg
16 mm	25 mm	0,46 kg
16 mm	30 mm	0,49 kg
16 mm	40 mm	0,57 kg
16 mm	50 mm	0,63 kg
16 mm	75 mm	0,77 kg
16 mm	100 mm	0,91 kg
16 mm	125 mm	1,06 kg
16 mm	150 mm	1,2 kg
20 mm	10 mm	0,5 kg
20 mm	20 mm	0,57 kg
20 mm	25 mm	0,6 kg
20 mm	30 mm	0,64 kg
20 mm	40 mm	0,73 kg
20 mm	50 mm	0,8 kg
20 mm	75 mm	0,98 kg
20 mm	100 mm	1,16 kg
20 mm	125 mm	1,35 kg
20 mm	150 mm	1,52 kg
25 mm	10 mm	0,82 kg
25 mm	20 mm	0,92 kg
25 mm	25 mm	-
25 mm	30 mm	1,05 kg
25 mm	40 mm	1,14 kg
25 mm	50 mm	1,25 kg
25 mm	75 mm	1,56 kg
25 mm	100 mm	1,83 kg
25 mm	125 mm	2,15 kg
25 mm	150 mm	-
25 mm	160 mm	2,53 kg
25 mm	200 mm	2,97 kg
32 mm	25 mm	1,56 kg
32 mm	50 mm	1,93 kg
32 mm	75 mm	2,26 kg
32 mm	100 mm	2,62 kg

Piston Ø	S	Weight kg
32 mm	125 mm	3,06 kg
32 mm	160 mm	3,57 kg
32 mm	200 mm	4,17 kg
40 mm	25 mm	1,8 kg
40 mm	50 mm	2,2 kg
40 mm	75 mm	2,6 kg
40 mm	100 mm	3,08 kg
40 mm	125 mm	3,6 kg
40 mm	160 mm	4,1 kg
40 mm	200 mm	4,8 kg
50 mm	25 mm	3 kg
50 mm	50 mm	3,6 kg
50 mm	75 mm	4,2 kg
50 mm	100 mm	4,8 kg
50 mm	125 mm	5,6 kg
50 mm	160 mm	6,4 kg
50 mm	200 mm	7,3 kg
63 mm	25 mm	3,8 kg
63 mm	50 mm	4,5 kg
63 mm	75 mm	5,2 kg
63 mm	100 mm	5,9 kg
63 mm	125 mm	6,86 kg
63 mm	160 mm	7,78 kg
63 mm	200 mm	8,9 kg
80 mm	25 mm	7,3 kg
80 mm	50 mm	8,3 kg
80 mm	75 mm	9,3 kg
80 mm	100 mm	10,3 kg
80 mm	125 mm	11,6 kg
80 mm	160 mm	12,9 kg
80 mm	200 mm	14,5 kg
100 mm	25 mm	8,8 kg
100 mm	50 mm	10 kg
100 mm	75 mm	11,1 kg
100 mm	100 mm	12,2 kg
100 mm	125 mm	13,7 kg
100 mm	160 mm	15,2 kg
100 mm	200 mm	17 kg

S = stroke

Dimensions

Permissible static side load F [N] at distance L



Dimensions

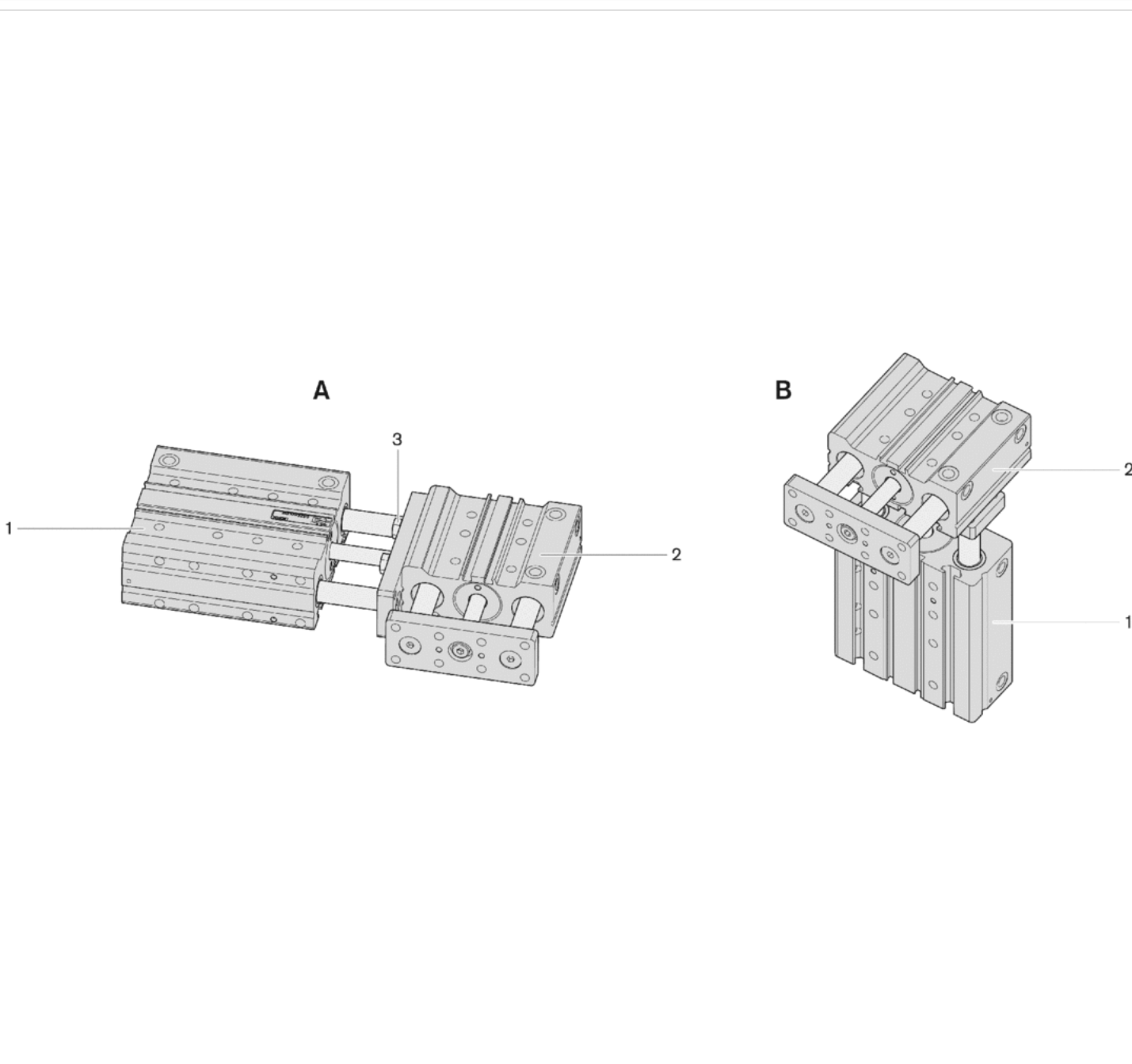
Piston Ø	L	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=150	S=160	S=200
10 mm	25	12	11	11	10	10	9	8	7	-	-	-	-
12 mm	25	28	24	23	21	31	28	22	19	16	13	-	-
16 mm	50	63	56	53	51	73	67	55	49	42	35	-	-
20 mm	50	63	56	53	51	73	67	55	49	42	35	-	-
25 mm	50	53.2	48.4	-	44.4	41	38.1	59	51.9	65.4	-	57.3	50.1
32 mm	50	-	-	139	-	-	118	103	90.8	116	-	102	90.2
40 mm	50	-	-	138	-	-	118	102	90.4	116	-	102	89.9
50 mm	50	-	-	218	-	-	187	164	146	215	-	191	169

Piston Ø	L	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=150	S=160	S=200
63 mm	50	-	-	217	-	-	186	163	145	214	-	190	169
80 mm	50	-	-	392	-	-	342	304	273	356	-	318	284
100 mm	50	-	-	390	-	-	341	302	272	354	-	318	284

S = stroke

Dimensions

GPC combinations



- 1) Cylinder 1
- 2) Cylinder 2
- 3) Screw

Minimum strokes for cylinder 1 when using 2 assembled guide cylinders

Piston Ø	S
32 mm	25
40 mm	25
50 mm	30
63 mm	30
80 mm	35
100 mm	40

S = stroke

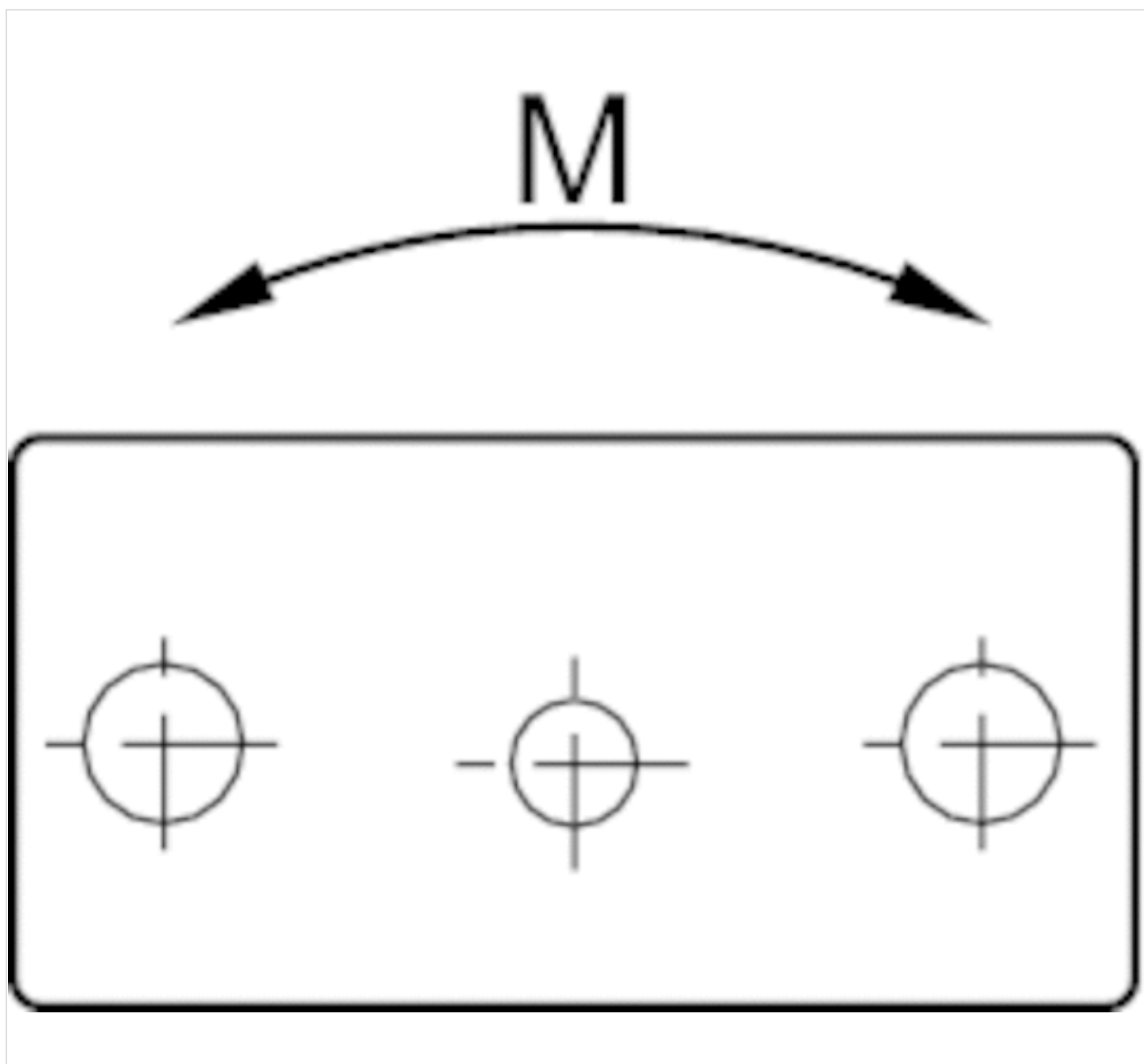
Minimum strokes for cylinder 2 when using 2 assembled guide cylinders

Piston Ø	Ø 2	A	B	3
10 mm	12	–	–	M4x12
12 mm	16	–	–	M5x15
16 mm	20	–	–	M5x18
20 mm	25	–	–	M6x20
25 mm	32	25	15	M6x20
32 mm	40	30	30	M8x25
40 mm	50	30	30	M8x30
50 mm	63	55	30	M10x30
63 mm	80	55	55	M10x35
80 mm	100	55	30	M12x40

A = min.stroke: assembly A↔B = min.stroke: assembly B↔3 = screw

Dimensions

Permissible static moment M [Nm]



Dimensions

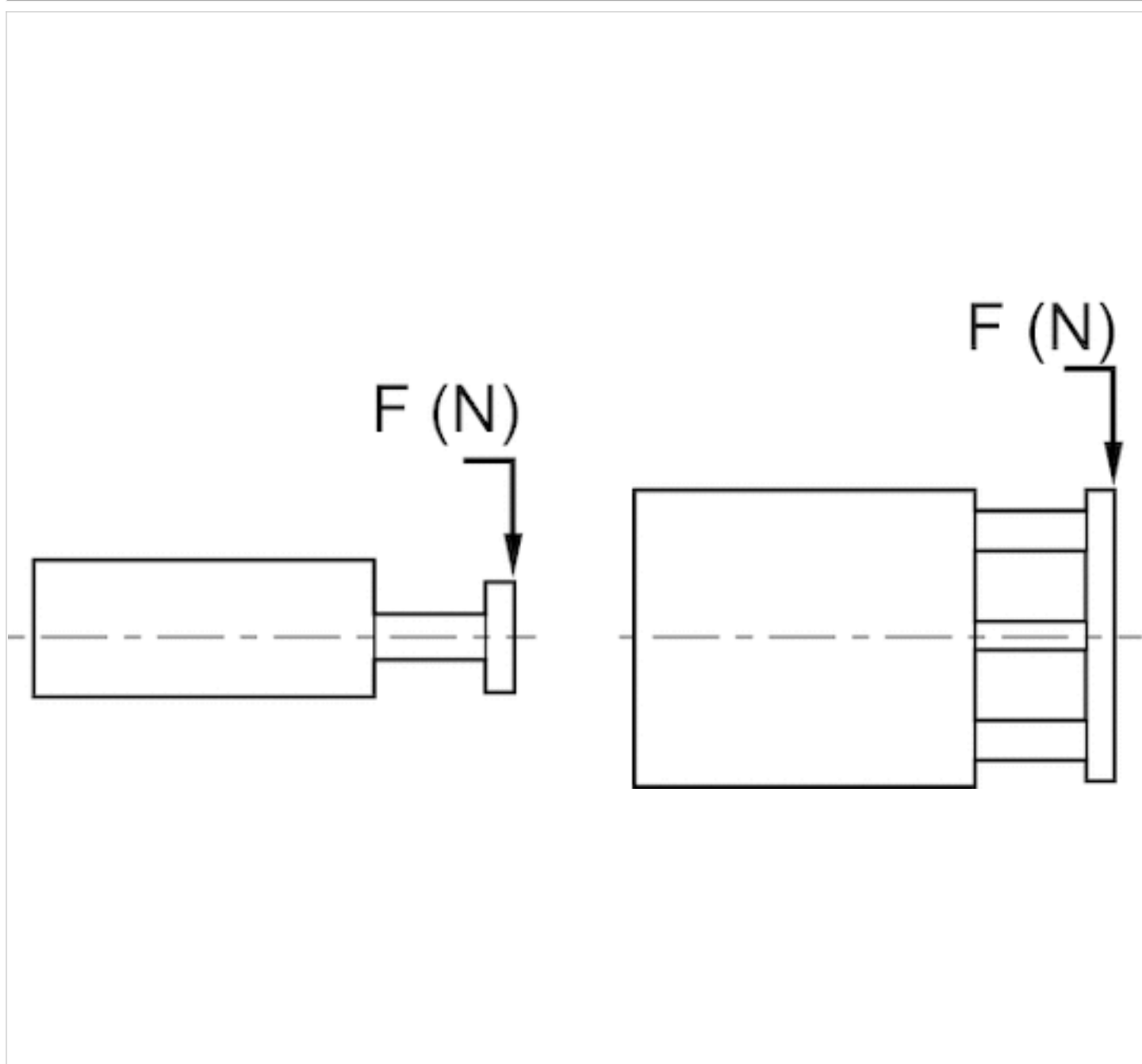
Piston \varnothing	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=160	S=200
10 mm	1.75	1.5	1.4	1.3	1.2	1.1	0.85	0.75	–	–	–
12 mm	0.56	0.48	0.46	0.42	0.62	0.56	0.44	0.38	0.32	0.26	–
16 mm	1.48	1.32	1.25	1.2	1.72	1.57	1.29	1.15	0.99	0.82	–
20 mm	1.7	1.51	1.43	1.38	1.97	1.81	1.49	1.32	1.13	0.95	–
25 mm	3.11	2.6	–	2.23	1.96	1.74	2.41	2.02	2.42	2.05	1.75
32 mm	–	–	8.17	–	–	6.4	5.26	4.47	5.45	4.67	4.01
40 mm	–	–	9.19	–	–	7.22	5.95	5.05	6.17	5.29	4.55
50 mm	–	–	17	–	–	13.6	11.4	9.73	13.6	11.8	10.3

Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=160	S=200
63 mm	-	-	20.1	-	-	16.1	13.4	11.5	16.1	14	12.2
80 mm	-	-	42.1	-	-	34.9	29.8	26	32.4	28.5	24.9
100 mm	-	-	47.8	-	-	39.7	33.9	29.6	37	32.5	28.5

S = stroke

Dimensions

Permissible static side force F [N]



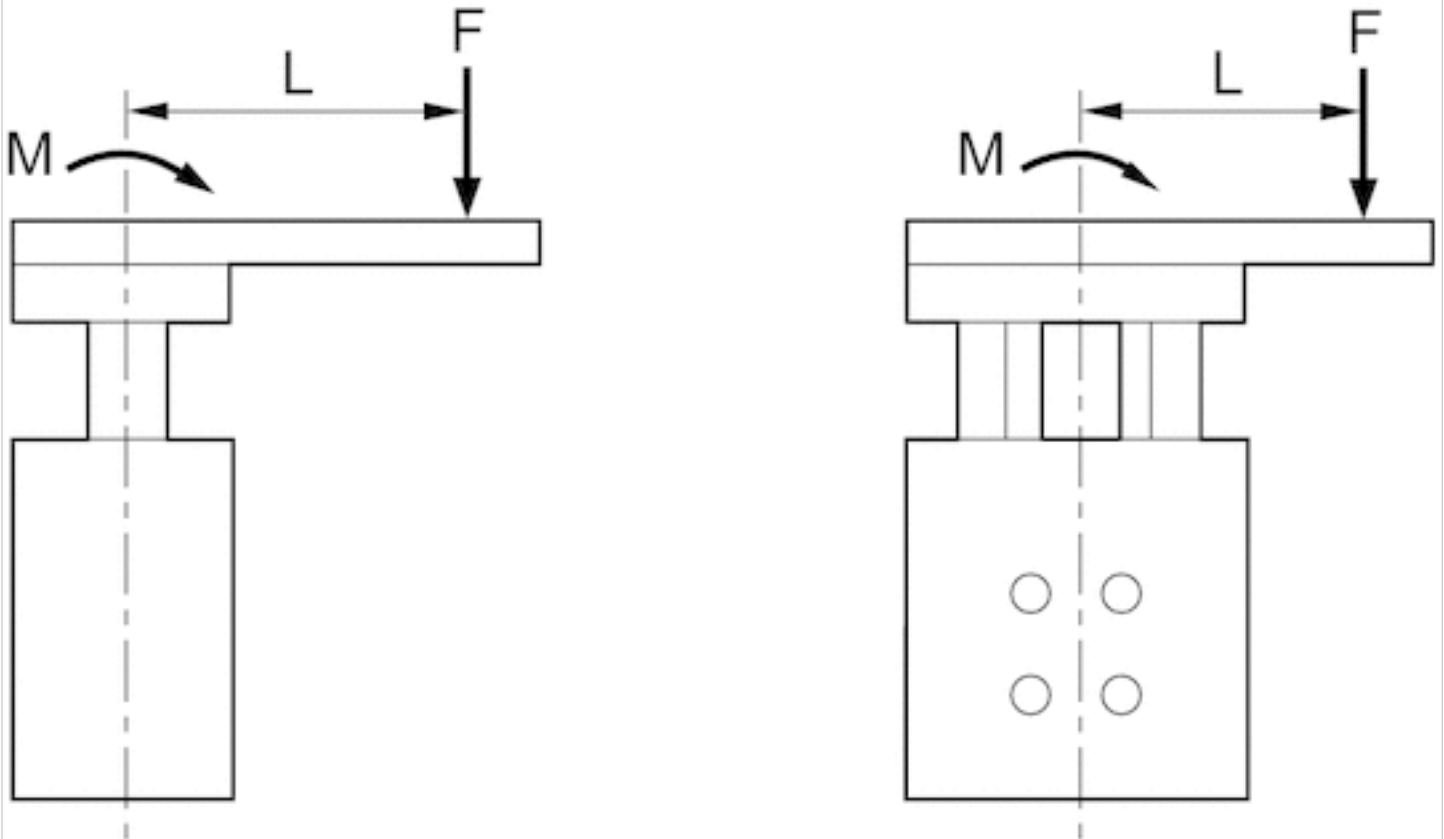
Dimensions

Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=150	S=160	S=200
25 mm	106	88	–	76	66	59	82	69	82	–	70	59
32 mm	–	–	216	–	–	169	139	118	144	–	124	106
40 mm	–	–	214	–	–	168	138	118	144	–	123	106
50 mm	–	–	327	–	–	262	218	187	261	–	227	197
63 mm	–	–	324	–	–	260	217	186	260	–	226	196
80 mm	–	–	554	–	–	459	392	342	427	–	374	328
100 mm	–	–	549	–	–	456	390	341	425	–	373	327

S = stroke

Dimensions

Permissible static moment M [Nm]



$$M = F \times L$$

Dimensions

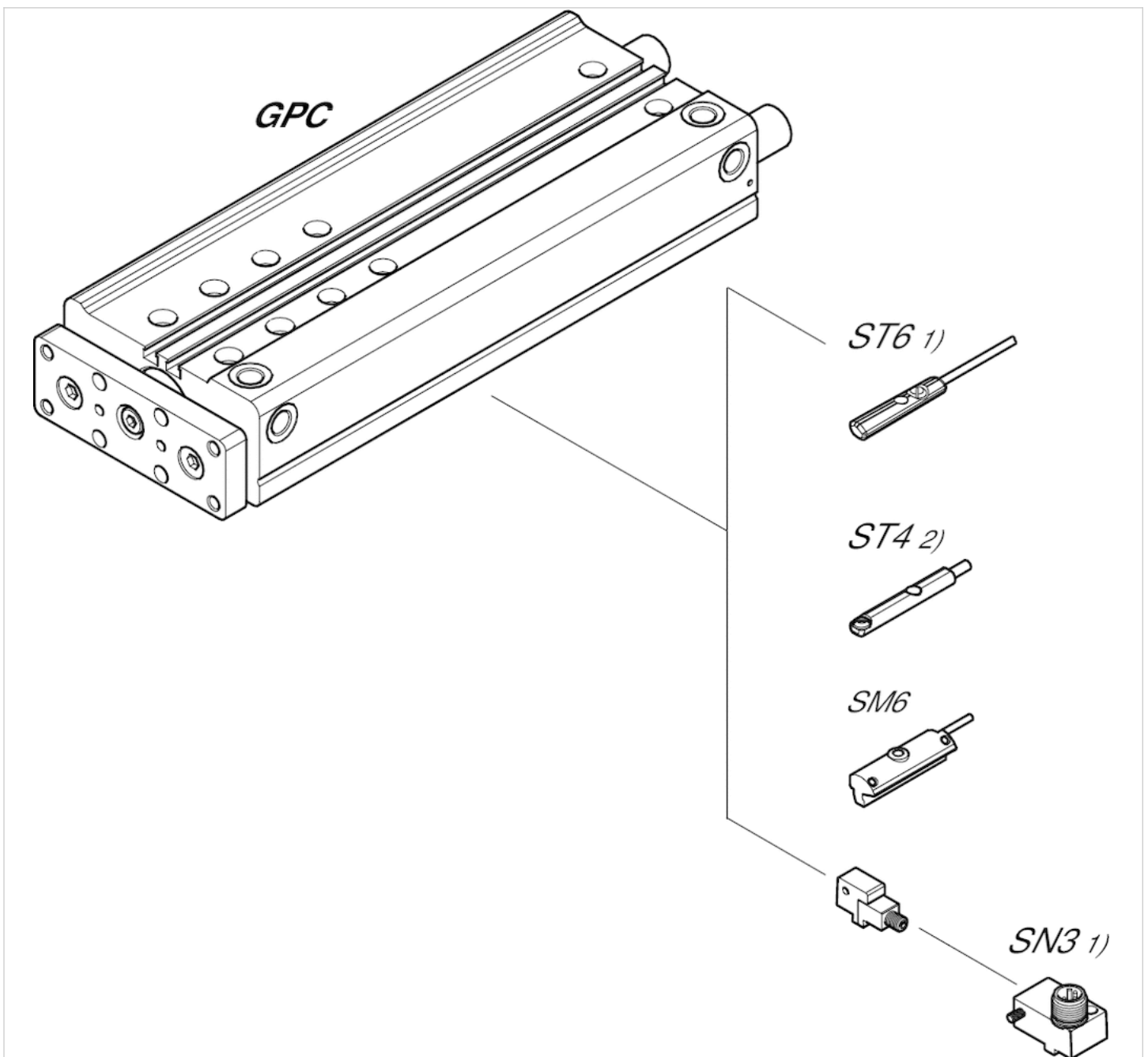
Piston Ø	S 5–30	S >30	S 35–50	S 55–100	S >100
10 mm	1,5	1,5	–	–	–
12 mm	2	3,5	–	–	–
16 mm	4,5	14	–	–	–
20 mm	4,5	14	–	–	–
25 mm	4,6	–	4,9	9,4	14,5
32 mm	15,2	–	16,5	17,2	26,4
40 mm	15,3	–	15,3	17,2	26,4
50 mm	26	–	26	28,9	51,6

Piston Ø	S 5–30	S>30	S 35–50	S 55–100	S>100
63 mm	26	–	26	28.9	51.6
80 mm	52.1	–	52.1	57.9	90.3
100 mm	52.3	–	52.3	57.9	90.4

S = stroke

Accessories overview

Overview drawing



1) ≤ Ø12 mm (GPC-BV, GPC-E, GPC-TL)

2) Only for Ø10 mm (GPC-BV) and all Ø (GPC-ST)

NOTE:

This overview drawing is only for orientation to indicate where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.

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