



Cylinder, DN12...25 acc. to ISO 6432



Cylinder, DN 32...50 acc. to ISO 15552

Pneumatic cylinder according to ISO in plastic

- Corrosion-resistant
- Also suitable for aggressive environment
- Lower weight
- Optionally food approved
- Optional in completely metal-free design

Single acting (Type 0045) and double-acting (Type 0044) pneumatic cylinder according to ISO 6432 (Ø 12...25 mm) without end position cushioning and according to ISO 15552 (Ø 32...50 mm) with end position cushioning with piston rod nut.



Single acting



Double-acting

Technical data	
Materials	
Cylinder tube	PA6, PA12 both fibreglass reinforced (optional PP Ø 32...50 mm)
Piston rod	Stainless steel 1.4401
Magnetic piston	On request
Seal material	NBR with PA6 (optional FKM); P5600 with PA12
Control medium	lubricated or non-lubricated, filtered compressed air
Temperature range	-20...+70°C
Pressure range	1...10 bar
Installation	User-defined
Approvals	FDA, EU-Directive 2002/72/EG for PA12

¹⁾ Pressure values [bar]: Overpressure with respect to atmospheric pressure

Force chart [bar]

Type 0045 single-acting, without end position cushioning (ISO 6432)

Piston diameter [mm]	Extension force [N] at operating pressure [bar]					min. retraction force ¹⁾ [N]	
	2	4	6	8	10	Stroke 25 mm	Stroke 50 mm
12	7	24.5	46.5	69.5	92.5	8.5	6.5
16	13	53	93	133	173	10	7
20	24	87	150	213	276	13.5	10
25	43	141	239	337	435	18	15

¹⁾ Tensile force at retracted piston rod

Type 0044 double-acting, without end position cushioning (ISO 6432)

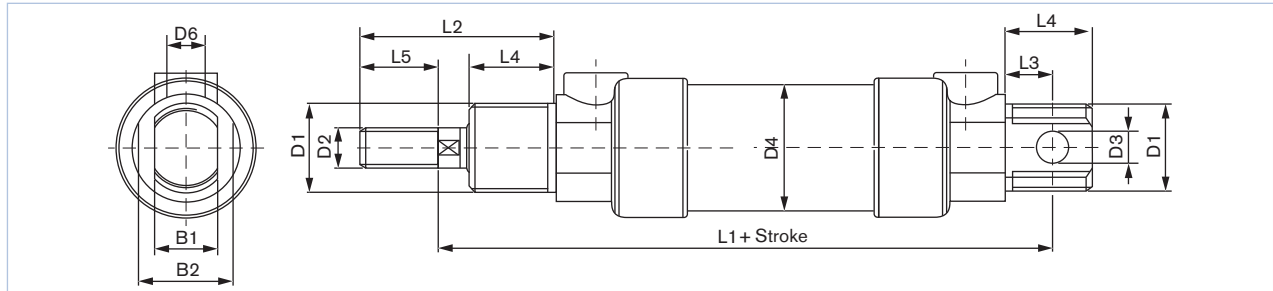
Piston diameter [mm]	Extension force [N] at operating pressure [bar]					min. retraction force [N] in % of extension force
	2	4	6	8	10	
12	16	39	61	84	107	75
16	30	70	110	150	190	85
20	46	109	172	235	298	84
25	73	171	269	367	465	84

Type 0044 double-acting, with end position cushioning (ISO 15552)

Piston diameter [mm]	Extension force [N] at operating pressure [bar]					min. retraction force [N] in % of extension force
	2	4	6	8	10	
32	145	290	430	580	729	86
40	230	450	680	900	1130	84
50	350	710	1060	1410	1770	84

Dimensions [mm]

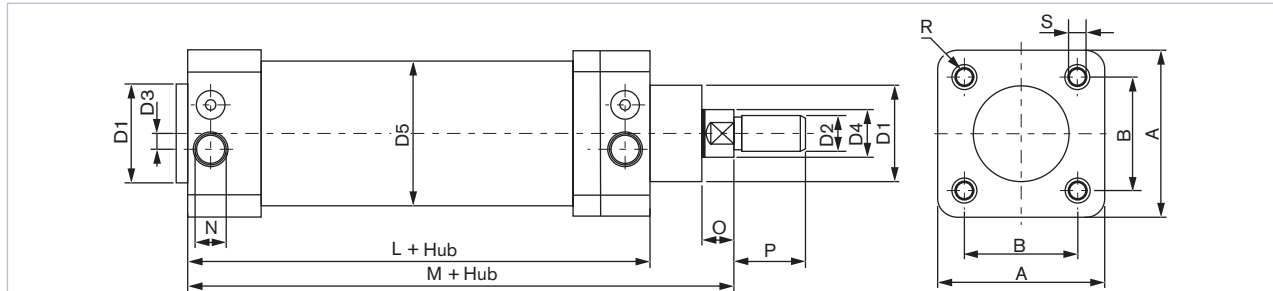
DN12...DN25



Cylinder with piston diameter 12 to 25 according to ISO 6432 (CETOP) Rp 52 P

Piston diameter [mm]	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	B1	B2
12	M16 x 1.5	M6	6	18	M5	75	38	9	17	15	12	17
16	M16 x 1.5	M6	6	22	M5	82	38	9	17	15	12	17
20	M22 x 1.5	M8	8	26	G 1/8	95	44	12	20	18	16	22
25	M22 x 1.5	M10 x 1.25	8	31	G 1/8	104	50	12	22	20	16	24

DN32...DN50



Cylinder with piston diameter 32 to 50 mm according to ISO 6431

Piston diameter [mm]	D1	D2	D3	D4	D5	L	M	N	O	P	A	B	R	A
32	30	M10 x 1.25	4.5	12	40	94	120	G 1/8	9	22	47	32.5	5.5	M5
40	34	M12 x 1.25	6	16	48	105	135	G 1/4	11	24	57	38	6.5	M6
50	40	M16 x 1.5	6	20	58	106	143	G 1/4	13	32	68	46.5	9	M8

Ordering chart for cylinders

Type 0045 single-acting, without end position cushioning (ISO 6432)

Piston diameter [mm]	Stroke [mm]	Item no. version PA6	Item no. version PA12 FDA
012	25	074 440	773 171
	50	074 805	773 172
016	25	074 868	773 173
	50	074 642	773 174
020	25	074 265	773 175
	50	074 181	773 176
025	25	074 580	773 177
	50	074 287	773 178

i Further versions on request

Ordering chart for cylinders, *continued*

Type 0044 double-acting, without end position cushioning (ISO 6432)

Piston diameter [mm]	Stroke [mm]	Item no. version PA6	Item no. version PA12 FDA
012	25	070 349	773 179
	50	073 211	773 180
	80	072 820	773 181
	100	074 130	773 182
016	25	073 204	773 183
	50	072 876	773 184
	80	072 835	773 185
	100	073 084	773 186
020	25	072 833	773 187
	50	072 787	773 188
	80	072 905	773 189
	100	072 808	773 190
025	25	072 832	773 191
	50	072 829	773 192
	80	072 803	773 193
	100	072 854	773 194



Further versions on request

Type 0044 double-acting, with end position cushioning (ISO 15552)

Piston diameter [mm]	Stroke [mm]	Item no. version PA6	Item no. version PA12 FDA
032	50	075 748	773 195
	100	075 219	773 196
	150	075 756	773 197
	200	075 220	773 198
	300	075 221	773 199
040	50	075 758	773 200
	100	075 222	773 201
	150	075 976	773 202
	200	075 759	773 203
	300	076 228	773 204
050	50	075 438	773 205
	100	075 225	773 206
	150	075 382	773 207
	200	075 226	773 208
	300	773 210	773 209

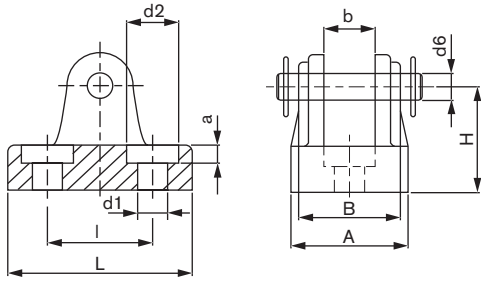


Further versions on request

Ordering chart – Accessories

Bearing support

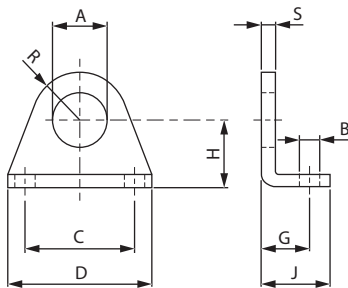
for cylinder DN12...DN25, ISO 6432



Piston Ø	L	A	H	B	b	I	a	d1	d2	d6	Item no. plastic
12/16	32	24	24	22	12	20	4	5.4	10	6	192 373
20/25	42	32	28	30.5	16	24	5	6.4	11	8	192 374

Foot fastener

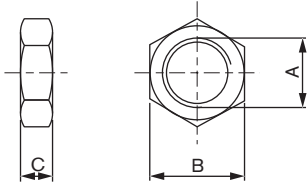
consists of an angle bracket and 2 fastening screws



Piston Ø	A	B	C	D	G	H	J	R	S	Item no. Steel	Item no. Stainless steel
12/16	16	5.5	32	40	14	20	20	13.4	4	780 754	192 380
20/25	22	6.6	40	54	17	25	25	18	5	780 755	192 381

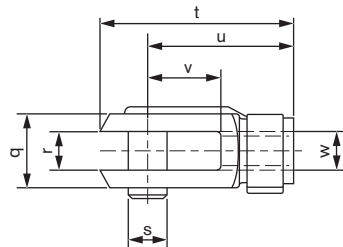
Mounting and piston rod nut set

each consists of a fastening nut and a piston rod nut



Piston Ø	Fastening nut			Piston rod nut			Item no. Steel	Item no. Stainless steel
	A	B	C	A	B	C		
12/16	M16 x 1.5	22	5	M6	10	3	780 766	192 385
20	M22 x 1.5	27	8	M8 x 1.25	13	4	780 768	192 386
25	M22 x 1.5	27	8	M10 x 1.25	17	6	780 769	192 387

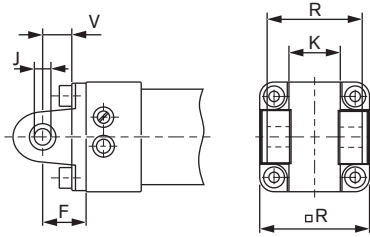
Fork head according to DIN 71 752



Piston Ø	q	r	s	t	u	v	w	Item no. Steel	Item no. Stainless steel
12/16	12	6	6	31	24	12	M6	192 360	192 361
20	16	8	8	42	32	16	M8	192 360	192 363
25/32	20	10	10	52	40	20	M10 x 1.25	192 364	192 365
40	24	12	12	62	48	24	M12 x 1.25	192 366	192 367
50	32	16	16	83	64	32	M16 x 1.5	192 368	192 369

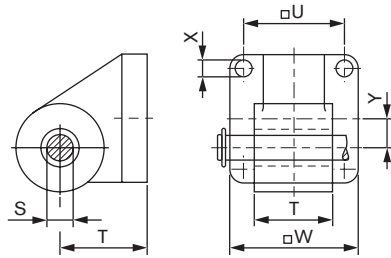
Ordering chart – Accessories, continued

Fork fastener



Piston Ø	F	J	K	R	V	W	Item no. cast alu- minium
32	22	10	26	45	15	46	192 370
40	25	12	28	52	17	56	192 371
50	27	12	32	60	17	66	192 372

End support for Fork fastener



Piston Ø	S H1	T±0,2	U±0,15	V±0,1	W	XH13	Y	Item no. cast alu- minium
32	10	30	32,5	25,8	45	5,5	11	192 375
40	12	36	38	27,8	56	6,6	14	192 376
50	12	45	46,5	31,8	66	9	18	192 377

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