



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

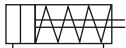


Cylinder, DN32 ... 50 acc. to  
ISO 15552

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

<sup>1)</sup> 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 <sup>1)</sup> [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

<sup>1)</sup> Tensile force at retracted piston rod

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

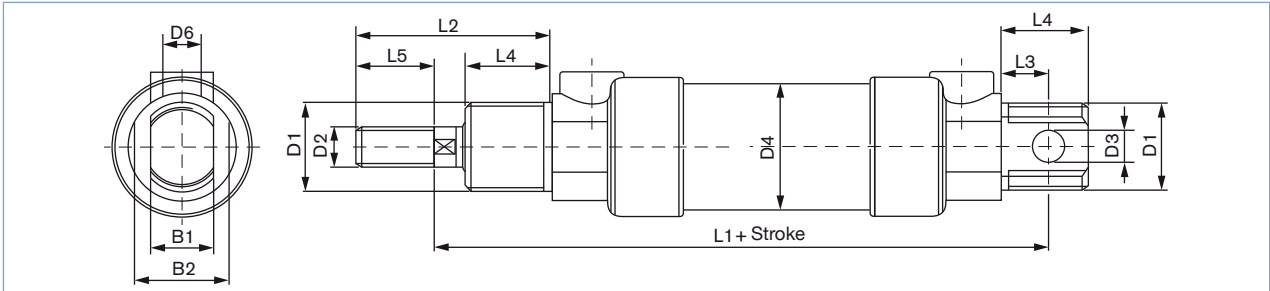
Piston diameter [mm]	Extension force [N] at operating pressure [bar]					min. retraction force [N]
	2	4	6	8	10	in % of extension force
12	16	39	61	84	107	75
16	30	70	110	150	190	85
20	46	109	172	235	298	84
25	73	171	269	367	465	84

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

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

Dimensions [mm]

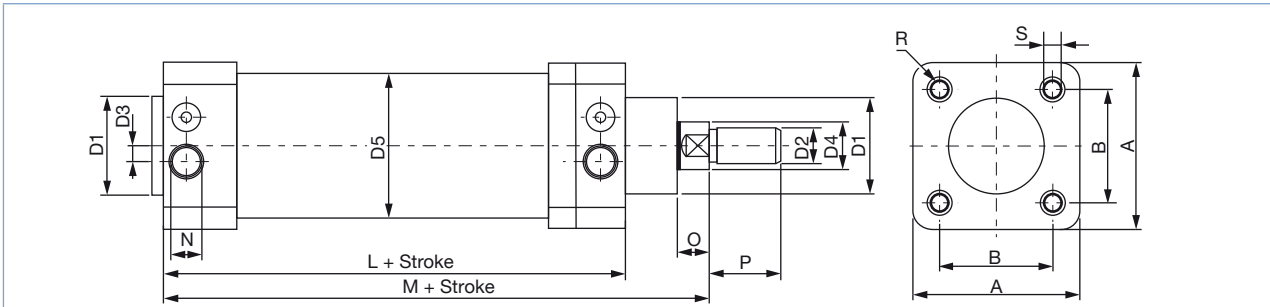
DN12...DN25



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

Piston diameter [mm]	D1	D2	D3	D4	D6	L1	L2	L3	L4	L5	B1	B2
12	M16 × 1.5	M6	6	18	M5	75	38	9	17	15	12	17
16	M16 × 1.5	M6	6	22	M5	82	38	9	17	15	12	17
20	M22 × 1.5	M8	8	26	G 1/8	95	44	12	20	18	16	22
25	M22 × 1.5	M10 × 1.25	8	31	G 1/8	104	50	12	22	20	16	24

DN32...DN50



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

Piston diameter [mm]	D1	D2	D3	D4	D5	L	M	N	O	P	A	B	R	S
32	30	M10 × 1.25	4.5	12	40	94	120	G 1/8	9	22	47	32.5	5.5	M5
40	34	M12 × 1.25	6	16	48	105	135	G 1/4	11	24	57	38	6.5	M6
50	40	M16 × 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	074440	773171
	50	074805	773172
016	25	074868	773173
	50	074642	773174
020	25	074265	773175
	50	074181	773176
025	25	074580	773177
	50	074287	773178

**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	073049 	773179 
	50	073211 	773180 
	80	072820 	773181 
	100	074130 	773182 
016	25	073204 	773183 
	50	072876 	773184 
	80	072835 	773185 
	100	073084 	773186 
020	25	072833 	773187 
	50	072787 	773188 
	80	072905 	773189 
	100	072808 	773190 
025	25	072832 	773191 
	50	072829 	773192 
	80	072803 	773193 
	100	072854 	773194 

 Further versions on request

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

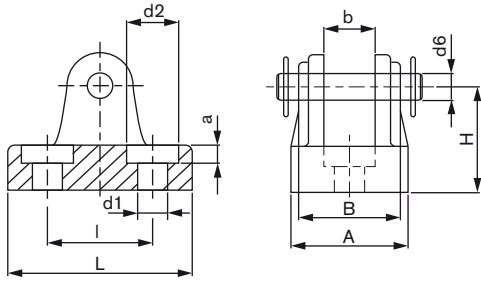
Piston diameter [mm]	Stroke [mm]	Item no. version PA6	Item no. version PA12 FDA
032	50	075748 	773195 
	100	075219 	773196 
	150	075756 	773197 
	200	075220 	773198 
	300	075221 	773199 
040	50	075758 	773200 
	100	075222 	773201 
	150	075976 	773202 
	200	075759 	773203 
050	300	076228 	773204 
	50	075438 	773205 
	100	075225 	773206 
	150	075382 	773207 
	200	075226 	773208 
	300	773210 	773209 

 Further versions on request

Ordering chart – Accessories

**Bearing support**

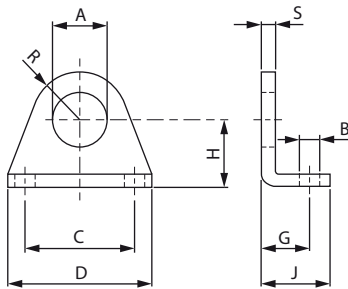
for cylinder DN12...DN25, ISO 6432



Piston Ø	L	A	H	B	b	l	a	d1	d2	d6	Item no. plastic
12/16	32	24	24	22	12	20	4	5.4	10	6	192373
20/25	42	32	28	30.5	16	24	5	6.4	11	8	192374

**Foot fastener**

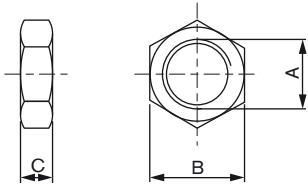
consists of an angle bracket and 2 fastening screws



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	780754	192380
20/25	22	6.6	40	54	17	25	25	18	5	780755	192381

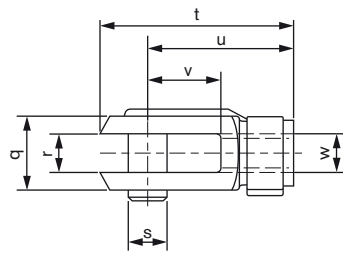
**Mounting and piston rod nut set**

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	780766	192385
20	M22 x 1.5	27	8	M8 x 1.25	13	4	780768	192386
25	M22 x 1.5	27	8	M10 x 1.25	17	6	780769	192387

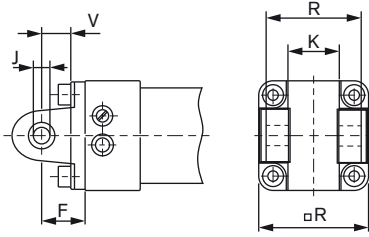
**Fork head according to DIN 71 752**



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	192360	192361
20	16	8	8	42	32	16	M8	192360	192363
25/32	20	10	10	52	40	20	M10 x 1.25	192364	192365
40	24	12	12	62	48	24	M12 x 1.25	192366	192367
50	32	16	16	83	64	32	M16 x 1.5	192368	192369

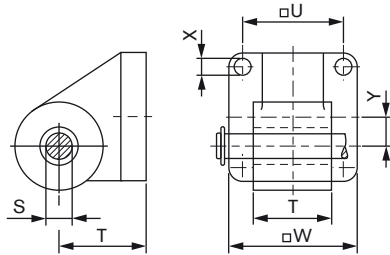
## Ordering chart – Accessories, continued

## Fork fastener



Piston Ø	F	J	K	R	V	W	Item no. cast aluminium
32	22	10	26	45	15	46	192370
40	25	12	28	52	17	56	192371
50	27	12	32	60	17	66	192372

## End support for Fork fastener



Piston Ø	S H1	T±0.2	U±0.15	V±0.1	W	XH13	Y	Item no. cast aluminium
32	10	30	32.5	25.8	45	5.5	11	192375
40	12	36	38	27.8	56	6.6	14	192376
50	12	45	46.5	31.8	66	9	18	192377

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