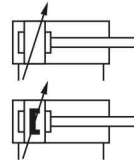


- > Ø 32 ... 320 mm
- > Comprehensive range for the utmost versatility
- > Conforms to ISO 15552 (ISO 6431, VDMA 24562 and NFE 49-003-1)
- > High performance, stability and reliability ideal for the demands of today
- > Supplied complete with piston rod locknut
- > Comprehensive range of standard mountings



### Technical features

#### Medium:

Compressed air, filtered, lubricated or non-lubricated

#### Standard:

ISO 15552

#### Operation:

RA/8000: Double acting, adjustable cushioning  
RA/8000/M: Double acting, adjustable cushioning and magnetic piston

#### Operating pressure:

Ø 32 ... 200 mm  
1 ... 16 bar (14 ... 232 psi)  
Ø 250 & 320 mm  
1 ... 10 bar (14 ... 145 psi)

#### Ports:

G1/8 ... G1

#### Cylinder diameters:

32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320 mm

#### Strokes:

See page below

#### Non-standard strokes:

Available (10 ... 3000 mm)

#### Operating temperature:

Ø 32 ... 125 mm  
-20 ... +80°C max. (-4 ... +176 °F)  
Ø 160 ... 320 mm  
-10 ... +80°C max. (+14 ... +176°F)  
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

#### Materials:

Barrel: Anodised aluminium  
End covers: Pressure diecast aluminium (Ø 200 ... 320 mm gravity cast aluminium)  
Piston rod: Stainless steel (martensitic)  
Piston rod seals: PUR (Ø 125 ... 320 mm NBR)  
Piston seals: PUR (Ø 125 ... 320 mm NBR)  
'O'-rings: NBR

### Technical data

Cylinder Ø (mm)	32	40	50	63	80	100	125	160	200	250	320
Port size	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4	G1	G1
Piston rod Ø (mm)	12	16	20	20	25	25	32	40	40	50	63
Piston rod thread	M10 x 1,25	M12 x 1,25	M16 x 1,5	M16 x 1,5	M20 x 1,5	M20 x 1,5	M27 x 2	M36 x 2	M36 x 2	M42 x 2	M48 x 2
Cushion length mm	19	22	24	24	27	34	41	45	45	60	65
Initial cushion volume (cm <sup>3</sup> )	12,3	20,7	36	64	116	242	451	816	1324	2900	5200
Theoretical thrusts at 6 bar outstroke (N)	482	754	1178	1870	3016	4710	7363	12064	18840	29436	48228
Theoretical thrusts at 6 bar instroke (N)	414	633	990	1680	2722	4416	6882	11310	18090	28236	47292
Air consumption at 6 bar outstroke (l/cm)	0,056	0,088	0,137	0,218	0,35	0,55	0,86	1,41	2,2	3,44	5,63
Air consumption at 6 bar instroke (l/cm)	0,048	0,074	0,114	0,195	0,32	0,51	0,79	1,32	2,1	3,3	5,41

### Standard strokes

Cylinder Ø (mm)	Stroke length (mm)										
	25	50	80	100	125	160	200	250	320	400	500
32	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•	•	•	•
125	•	•	•	•	•	•	•	•	•	•	•
160	•	•	•	•	•	•	•	•	•	•	•
200	•	•	•	•	•	•	•	•	•	•	•
250	•	•	•	•	•	•	•	•	•	•	•
320	•	•	•	•	•	•	•	•	•	•	•

### Mountings

	R	S	SS	SW	UF	UH	UR	US
	<b>3</b>	<b>12</b>	<b>16</b>	<b>6</b>	<b>17</b>	<b>11</b>	<b>4</b>	<b>7</b>
	Page 12	Page 12	Page 14	Page 13	Page 13	Page 12	Page 13	Page 14
Cyl. Ø	QA/8032/27	QA/8032/41	M/P19931	M/P19493	QM/8025/32	PQA/182032/40	QA/8032/33	M/P40310
32	QA/8040/27	QA/8040/41	M/P19932	M/P19494	QM/8040/32	PQA/182040/40	QA/8040/33	M/P40311
40	QA/8050/27	QA/8040/41	M/P19933	M/P19495	QM/8050/32	PQA/182050/40	QA/8050/33	M/P40312
50	QA/8063/27	QA/8063/41	M/P19934	M/P19496	QM/8050/32	PQA/182063/40	QA/8063/33	M/P40313
63	QA/8080/27	QA/8063/41	M/P19935	M/P19497	QM/8080/32	PQA/182080/40	QA/8080/33	M/P40314
80	QA/8100/27	QA/8100/41	M/P19936	M/P19498	QM/8080/32	PQA/182100/40	QA/8100/33	M/P40315
100	QM/8125/27	QA/8100/41	M/P19937	M/P19499	QM/8125/32	PQA/182125/40	QM/8125/33	M/P71355
125	QM/8160/27	QA/8160/41	M/P19938	M/P19679	QM/8160/32	QM/8160/40	QM/8160/33	M/P71356
160	QM/8200/27	QA/8160/41	M/P19939	M/P19683	QM/8160/32	QM/8200/40	QM/8200/33	M/P71357
200	—	—	—	M/P19446	QM/8250/32	—	QM/8250/33	—
250	—	—	—	M/P19447	QM/8320/32	—	QM/8320/33	—
320	—	—	—	—	—	—	—	—

### Guide blocks

	Guide blocks - plain bearings	Guide blocks - roller bearings	Guide blocks - plain bearings, long coupling	Guide blocks - plain bearings, short coupling
	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>
	Page 15	Page 16	Page 18	Page 18
Cyl. Ø	QA/8032/51/*	QA/8032/61/*	QA/8032/81/*	QA/8032/85/*
32	QA/8040/51/*	QA/8040/61/*	QA/8040/81/*	QA/8040/85/*
40	QA/8050/51/*	QA/8050/61/*	QA/8050/81/*	QA/8050/85/*
50	QA/8063/51/*	QA/8063/61/*	QA/8063/81/*	QA/8063/85/*
63	QA/8080/51/*	QA/8080/61/*	QA/8080/81/*	QA/8080/85/*
80	QA/8100/51/*	QA/8100/61/*	QA/8100/81/*	QA/8100/85/*
100	—	—	—	—

\* Insert standard stroke length: 50, 100, 160, 200, 250, 320, 400 and 500 mm, use nearest standard stroke.

### Accessories

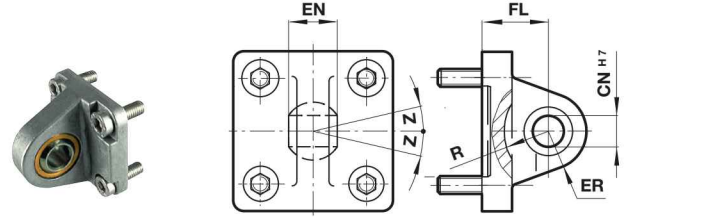
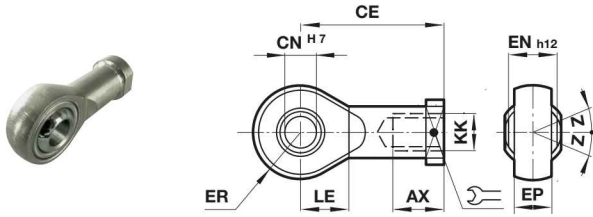
#### Magnetically operated switches

	M/50/**	Switch mounting brackets for M/50	TQM/31, QM/32, QM/132	Switch mounting brackets for TQM/31, QM/32, QM/132	QM/140	Switch mounting brackets for QM/140
		<b>23</b>				
	Page 20 & 21	Page 21	Page 22	Page 22	Page 23	Page 23
Cyl. Ø	QM/27/2/1	QM/27/2/1	QM/31/032/22	QM/31/032/22	QM/140/010/22	QM/140/010/22
32	QM/27/2/1	QM/27/2/1	QM/31/032/22	QM/31/032/22	QM/1w40/010/22	QM/140/010/22
40	QM/27/2/1	QM/27/2/1	QM/31/032/22	QM/31/032/22	QM/140/010/22	QM/140/010/22
50	QM/27/2/1	QM/27/2/1	QM/31/080/22	QM/31/080/22	QM/140/010/22	QM/140/010/22
63	QM/27/2/1	QM/27/2/1	QM/31/080/22	QM/31/080/22	—	—
80	QM/27/2/1	QM/27/2/1	QM/31/160/22	QM/31/160/22	—	—
100	—	—	QM/31/250/22	QM/31/250/22	—	—
125	—	—	QM/31/320/22	QM/31/320/22	—	—
160	—	—	—	—	—	—
200	—	—	—	—	—	—
250	—	—	—	—	—	—
320	—	—	—	—	—	—

#### Service kit

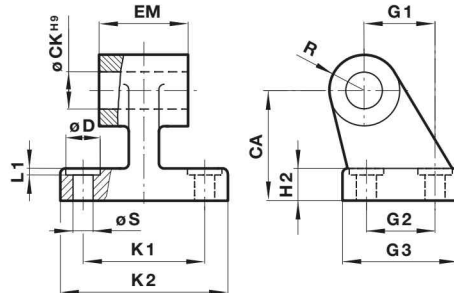
	Service kit
Cyl. Ø	QA/8032/00
32	QA/8040/00
40	QA/8050/00
50	QA/8063/00
63	QA/8080/00
80	QA/8100/00
100	QA/8125/00
125	QA/8160/00
160	QA/8200/00
200	QA/8250/00
250	QA/8320/00
320	—

**Universal piston rod eye UF  
Conforms to DIN ISO 8139**
**Universal rear eye UR  
Conforms to ISO 15552, type MP6**

 Dimensions in mm  
Projection/First angle


Ø	Thread KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg	Model (UF)
32	M10x1,25	20	43	10	14	14	15	13°	0,09	QM/8025/32
40	M12x1,25	22	50	12	16	16	17	13°	0,13	QM/8040/32
50/63	M16x1,5	28	64	16	21	21	22	15°	0,33	QM/8050/32
80/100	M20x1,5	33	77	20	25	25	26	15°	0,67	QM/8080/32
125	M27x2	51	110	30	37	35	36	15°	1,35	QM/8125/32
160/200	M36x2	56	125	35	43	40	41	16°	3	QM/8160/32
250	M42x2	60	142	40	49	45	46	17°	6,4	QM/8250/32
320	M48x2	65	160	50	60	58	59	12°	8,7	QM/8320/32

Ø	Ø CN H7	EN	ER	FL	R	Z	kg	Model (UR)
32	10	14	16	22	14,5	13°	0,15	QA/8032/33
40	12	16	18	25	18	13°	0,25	QA/8040/33
50	16	21	21	27	19	15°	0,40	QA/8050/33
63	16	21	23	32	24	15°	0,55	QA/8063/33
80	20	25	28	36	24	15°	0,90	QA/8080/33
100	20	25	30	41	29	15°	1,50	QA/8100/33
125	30	37	40	50	36	15°	2,70	QM/8125/33
160	35	43	44	55	41	16°	4,6	QM/8160/33
200	35	43	48	60	42	16°	7,3	QM/8200/33
250	40	49	50	70	47	10°	16,5	QM/8250/33
320	50	60	58	80	52	8°	26	QM/8320/33

**Wide hinge SW  
Conforms to ISO 15552, type AB7**


Ø	CA	Ø CK H9	Ø D	H2	EM	G1	G2	G3	K1	K2	L1	R	Ø S	kg	Model (SW)
32	32	10	11	7	25,5	21	18	31	38	50	1,6	10	6,6	0,05	MP19493
40	36	12	11	9	27,5	24	22	35	41	54	1,6	11	6,6	0,07	MP19494
50	45	12	15	11	31,5	33	30	45	50	65	1,6	13	9	0,14	MP19495
63	50	16	15	12	39,5	37	35	50	52	67	1,6	15	9	0,18	MP19496
80	63	16	18	14	49,5	47	40	60	66	84	2,5	15	11	0,28	MP19497
100	71	20	18	15	59,5	55	50	70	76	94	2,5	19	11	0,42	MP19498
125	90	25	20	20	70,5	70	60	90	94	124	3,2	22	14	2,70	MP19499
160	115	30	20	25	89,5	97	88	126	118	156	4	31	14	6,3	MP19679
200	135	30	26	30	89,5	105	90	130	122	162	4	31	18	8	MP19683
250	165	40*1)	40	35	109,5	128	110	160	150	200	4	39	22	13,4	MP19446
320	200	45*1)	48	40	119,5	150	122	186	170	234	4	44	26	22	MP19447