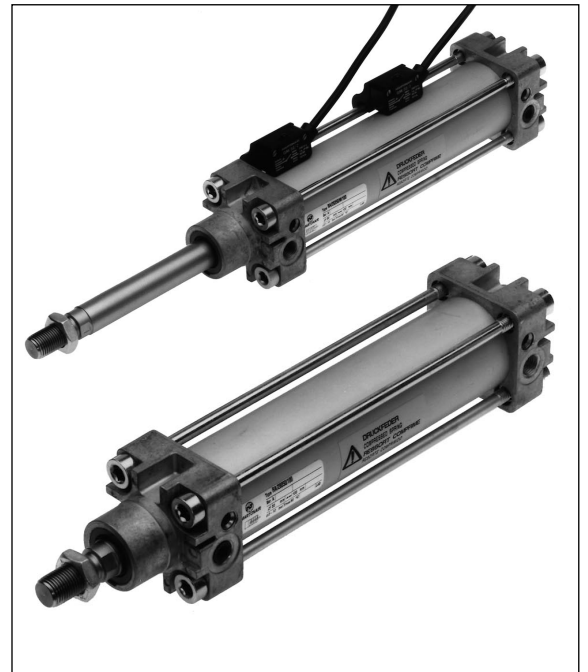


Pneumatic Cylinders
ISO 6431, VDMA 24562 and NFE 49-003-1
Non-magnetic and Magnetic, Single Acting
 \varnothing 32 to 100 mm

- **Rugged tie rod construction**
- **Polyurethane seals ensure efficient low friction operation and long life**
- **Comprehensive range of standard mountings**
- **Magnet piston models provide a more compact installation and reduce costs**
- **Ideal for a wide range of industrial applications**


Technical Data
Medium:

Compressed air, filtered, lubricated or non-lubricated

Standard:

ISO 6431, VDMA 24562, NFE 49-003-1 and corresponding BS

Note: The basic length of the single acting version is slightly longer than its double acting equivalent.

Operation:

RA/28000	Single acting, adjustable cushioning, sprung in
RA/28000/M	Single acting, magnetic piston, adjustable cushioning, sprung in
RA/28300	Single acting, adjustable cushioning, sprung out
RA/28300/M	Single acting, magnetic piston, adjustable cushioning, sprung out

Operating Pressure:

2 to 10 bar

Operating Temperature:

-20°C* to +80°C max.

*Consult our Technical Service for use below +2°C

Cylinder Diameters:

32, 40, 50, 63, 80, 100 mm

Standard Strokes:

25, 50, 80, 100 mm

Non-standard Strokes:

Non-standard strokes available (250 mm max.)

Materials:

Stainless steel (Martensitic) piston rod and tie rods, anodised aluminium barrel, diecast aluminium end covers, polyurethane piston seals and piston rod seals, nitrile rubber 'O'-rings.

Alternative Cylinders:

See page N/UK 1.4.101.02

Ordering Information

To order a basic 80 mm bore cylinder, sprung in with a 50 mm stroke quote: RA/28080/50

To order a basic 100 mm bore cylinder, sprung out with a 100 mm stroke and magnetic piston quote: RA/28310/M/100

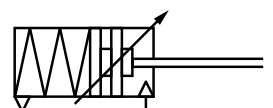
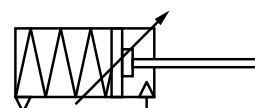
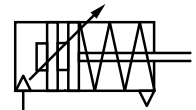
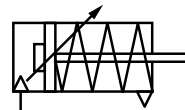
To order mounting brackets refer to appropriate cylinder mounting table.

Order magnetically operated switches separately.

Accessories

See page

Switches QM/31, QM/32	N 4.3.021.01
Switches QM/132	N 4.3.025.01
Switches QM/33, QM/34	N 4.3.051.01
Switches QM/134	N 4.3.055.01



Non-magnetic piston

Magnetic piston





Alternative Cylinders

Symbol	Model (non-magnetic piston)	Symbol	Model (magnetic piston)	Description
	CA/28000 SA/28000 . A/28000/W1 (RA/, CA/, SA/.)		CA/28000/M SA/28000/M . A/28000/W2 (RA/, CA/, SA/.)	Hard chromium plated piston rod (∅ 40 to 100 mm) Stainless steel piston rod (Austenitic) Special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.
	RA/28000/IU RA/28000/W5		RA/28000/MU RA/28000/W6	Extended piston rod Extended piston rod and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.
	CA/28300 SA/28300 . A/28300/W1 (RA/, CA/, SA/.)		CA/28300/M SA/28300/M . A/28300/W2 (RA/, CA/, SA/.)	Hard chromium plated piston rod (∅ 40 to 100 mm) Stainless steel piston rod (Austenitic) Special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.
	RA/28300/IU RA/28300/W5		RA/28300/MU RA/28300/W6	Extended piston rod Extended piston rod and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.
	RA/28000/N1		RA/28000/N2	Non-rotating piston rod
	RA/28300/N1		RA/28300/N2	Non-rotating piston rod

For combinations of alternative cylinders consult our Technical Service.

Theoretical Forces • Cushioning • Air Consumption • Torque for Cylinders RA/28000/N

∅	RA/28000 Theoretical forces (N) at 6 bar Outstroke		RA/28300 Theoretical forces (N) at 6 bar Instroke		Cushion length (mm)	Initial cushion volume (cm ³)	Air consumption (l/cm stroke)		Model	Torque max. (Nm)
	F 1	F 1	F 1	F 1			Outstroke	Instroke		
32	392	50	324	50	19	12,3	0,056	0,048	RA/28032/N1, ..N2	0,5
40	648	60	528	60	22	20,7	0,088	0,074	RA/28040/N1, ..N2	1,0
50	1043	75	854	75	24	36	0,137	0,114	RA/28050/N1, ..N2	1,5
63	1735	75	1546	75	24	64	0,218	0,195	RA/28063/N1, ..N2	1,5
80	2795	130	2501	130	27	116	0,35	0,32	RA/28080/N1, ..N2	2,5
100	4492	130	4197	130	34	242	0,55	0,51	RA/28100/N1, ..N2	2,5

F1 = Return force of spring (N)

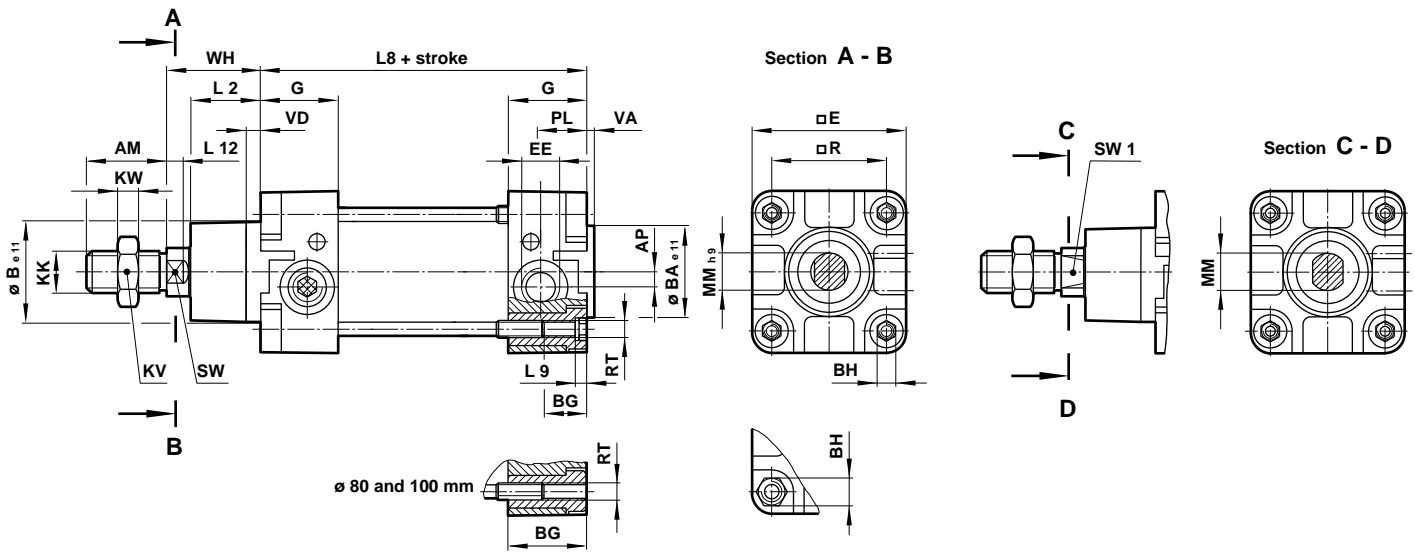
Weights of Cylinders and Mountings (kg)

Model	RA/28000 Weight at 0 mm	RA/28000 Weight per 25 mm	RA/28300 Weight at 0 mm	RA/28300 Weight per 25 mm					
					Style 'A'	Style 'AK'	Style 'B', 'G'	Style 'C'	Style 'D'
28032, 28332	0,680	0,070	0,630	0,060	0,020	0,200	0,250	0,150	0,110
28040, 28340	1,050	0,090	0,950	0,080	0,020	0,200	0,350	0,180	0,160
28050, 28350	1,700	0,150	1,590	0,130	0,050	0,650	0,700	0,300	0,220
28063, 28363	2,250	0,180	2,120	0,160	0,050	0,650	0,800	0,390	0,340
28080, 28380	3,850	0,240	3,670	0,210	0,080	0,720	1,350	0,800	0,540
28100, 28310	5,500	0,270	5,290	0,240	0,080	0,720	2,200	0,950	0,900
Model									
	Style 'D2'	Style 'F'	Style 'FH'	Style 'H'	Style 'L'	Style 'M'	Style 'R'	Style 'S'	Style 'SS'
28032, 28332	0,200	0,090	0,200	0,160	0,160	0,240	0,090	0,100	0,050
28040, 28340	0,230	0,130	0,380	0,350	0,230	0,380	0,110	0,140	0,070
28050, 28350	0,360	0,330	0,600	0,650	0,360	0,730	0,170	0,140	0,140
28063, 28363	0,550	0,330	1,100	0,850	0,520	0,880	0,240	0,190	0,180
28080, 28380	0,900	0,670	1,900	1,200	0,820	1,550	0,370	0,190	0,280
28100, 28310	1,450	0,670	3,500	2,300	1,320	2,150	0,590	0,340	0,420
Model									
	Style 'SW'	Style 'UF'	Style 'UH'	Style 'UL'	Style 'UR'	Style 'US'	Bracket for Switches	Bracket for Switches	
28032, 28332	0,050	0,080	0,160	0,370	0,170	0,190	0,010	0,026	
28040, 28340	0,070	0,120	0,350	0,520	0,250	0,240	0,010	0,026	
28050, 28350	0,140	0,150	0,650	0,900	0,400	0,460	0,010	0,026	
28063, 28363	0,180	0,230	0,850	1,250	0,550	0,590	0,010	0,026	
28080, 28380	0,280	0,330	1,200	2,300	0,900	1,030	0,010	0,028	
28100, 28310	0,420	0,420	2,300	3,200	1,500	1,400	0,010	0,028	

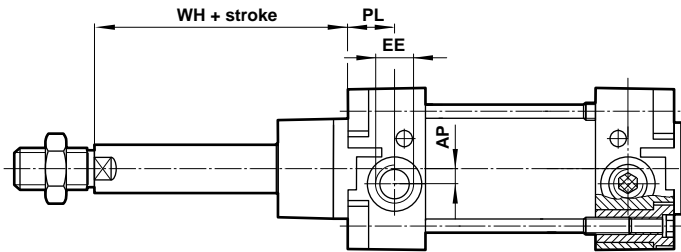


Basic Dimensions, RA/28000

Non rotating piston rod
RA/28000/N1 and RA/28000/N2



Basic Dimensions, RA/28300



Model	28032, 28332		28040, 28340		28050, 28350		28063, 28363		28080, 28380		28100, 28310	
∅	32		40		50		63		80		100	
AM	22		24		32		32		40		40	
AP	3,5		4,5		6		10		8,5		9	
∅ B e11	30		35		40		45		45		55	
∅ BA e11	30		35		40		45		45		55	
BG	18		18		18		17,5		21,5		21,5	
BH (A/F)	6		6		8		8		19		19	
□ E	47		53		65		75		95		115	
EE	G 1/8		G 1/4		G 1/4		G 3/8		G 3/8		G 1/2	
G	27,5		32		31		33		33		37	
KK	M 10 x 1,25		M 12 x 1,25		M 16 x 1,5		M 16 x 1,5		M 20 x 1,5		M 20 x 1,5	
KV (A/F)	17		19		24		24		30		30	
KW	5		6		8		8		10		10	
L2	20		22		27		29		33		36	
L9	4		4		5		5					
L12	6		6,5		8		8		10		10	
∅ MM h9	12		16		20		20		25		25	
PL	13		15		18,5		19		19		18	
□ R	32,5		38		46,5		56,5		72		89	
RT	M 6		M 6		M 8		M 8		M 10		M 10	
SW (A/F)	10		13		17		17		22		22	
SW 1 (A/F)	10		13		16		16		21		21	
VA	3		3,5		3,5		4		4		4	
VD	6		6		6		6		6		6	
WH	26		30		37		37		46		51	
Standard strokes	25, 50	80, 100	25, 50	80, 100	25, 50	80, 100	25, 50	80, 100	25, 50	80, 100	25, 50	80, 100
L8	119	147	130	158	131	159	146	174	153	181	163	191
Non-standard strokes	250 mm max.		250 mm max.		250 mm max.		250 mm max.		250 mm max.		250 mm max.	
L8	119 + (N * x 28)		130 + (N * x 28)		131 + (N * x 28)		146 + (N * x 28)		153 + (N * x 28)		163 + (N * x 28)	

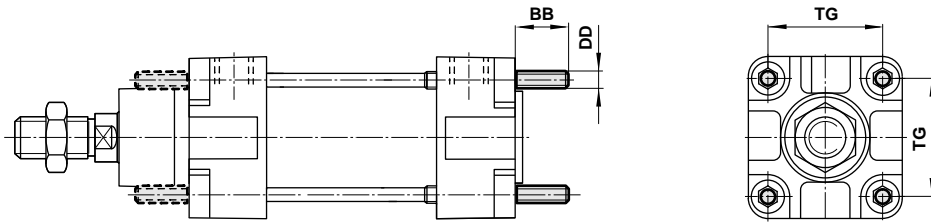
* Stroke ≤ 50 mm → N = 0

Stroke > 50 mm → N = $\frac{\text{Stroke}}{50} - 1$ (round up to integer)



Front or Rear Stud Mounting Style 'A'

(Corresponds to DIN ISO 6431, Style MX1)

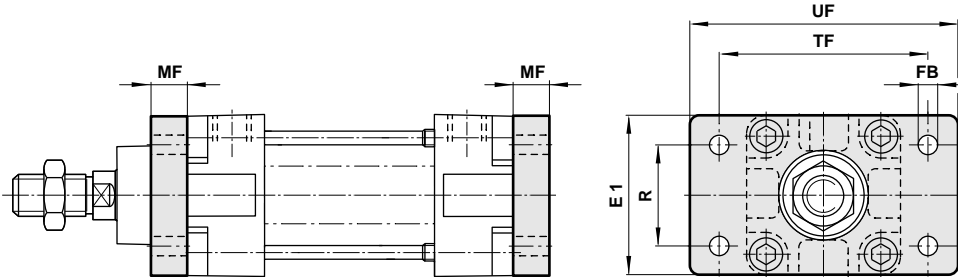


Rear Flange Mounting Style 'B'

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MF2)

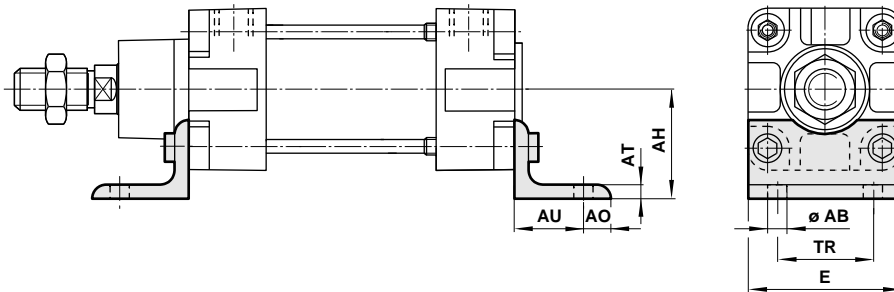
Front Flange Mounting Style 'G'

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MF1)



Foot Mounting Style 'C'

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MS1)



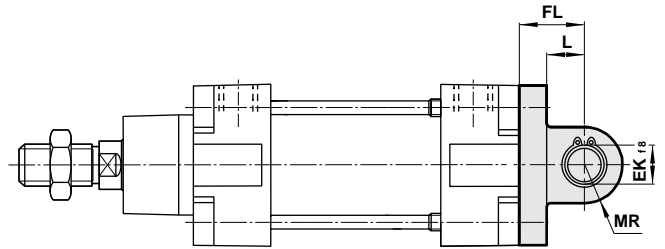
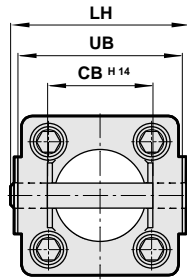
Model 'A'	QM/8032/35	QM/8032/35	QM/8050/35	QM/8050/35	QM/8080/35	QM/8080/35
Model 'B', 'G'	QA/8032/22	QA/8040/22	QA/8050/22	QA/8063/22	QA/8080/22	QA/8100/22
Model 'C'	QA/8032/21	QA/8040/21	QA/8050/21	QA/8063/21	QA/8080/21	QA/8100/21
∅	32	40	50	63	80	100
∅ AB	7	9	9	9	12	14
AH	32	36	45	50	63	71
AO	8	9	10	12	19	19
AT	4	4	5	5	5	5
AU	24	28	32	32	41	41
BB	17	17	23	23	28	28
DD	M 6	M 6	M 8	M 8	M 10	M 10
E	48	53	64	74	98	115
E1	50	55	65	75	100	120
∅ FB	7	9	9	9	12	14
MF	10	10	12	12	16	16
R	32	36	45	50	63	75
TF	64	72	90	100	126	150
□ TG	32,5	38	46,5	56,5	72	89
TR	32	36	45	50	63	75
UF	80	90	110	125	154	186

Full dimensions see page N/UK 1.4.101.03



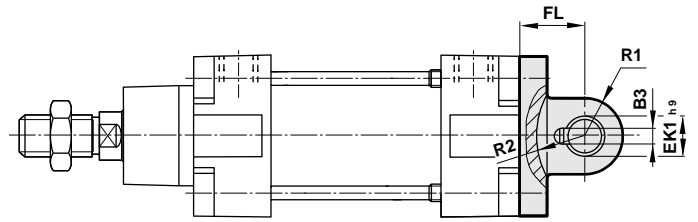
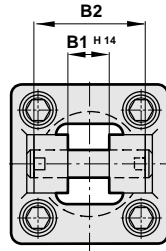
Rear Clevis Mounting Style 'D'

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MP2)



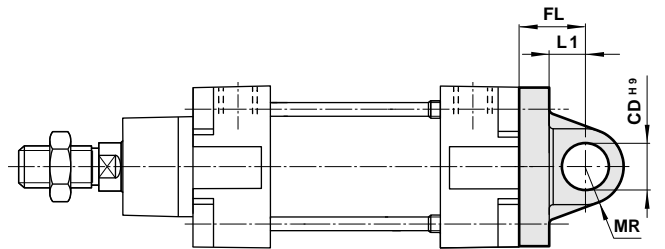
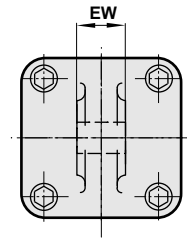
Rear Clevis Mounting Style 'D2'

(Corresponds to VDMA 24562 Part 2)



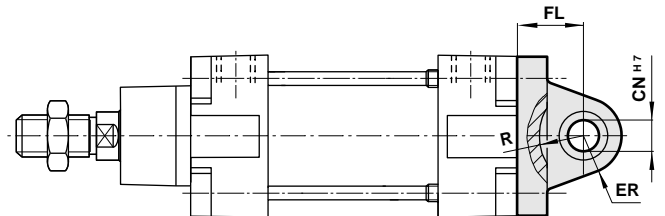
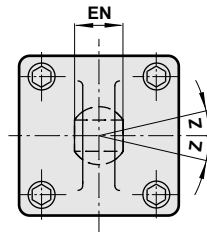
Rear Eye Mounting Style 'R'

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MP4)



Universal Rear Eye Mounting Style 'UR'

(Corresponds to VDMA 24562 Part 2)



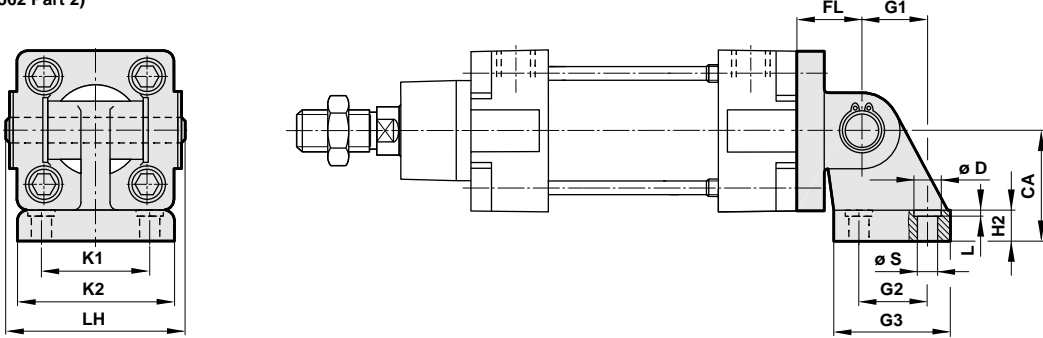
	QA/8032/23	QA/8040/23	QA/8050/23	QA/8063/23	QA/8080/23	QA/8100/23
Model 'D'	QA/8032/23	QA/8040/23	QA/8050/23	QA/8063/23	QA/8080/23	QA/8100/23
Model 'D2'	QA/8032/42	QA/8040/42	QA/8050/42	QA/8063/42	QA/8080/42	QA/8100/42
Model 'R'	QA/8032/27	QA/8040/27	QA/8050/27	QA/8063/27	QA/8080/27	QA/8100/27
Model 'UR'	QA/8032/33	QA/8040/33	QA/8050/33	QA/8063/33	QA/8080/33	QA/8100/33
∅	32	40	50	63	80	100
B 1 H14	14	16	21	21	25	25
B 2	34	40	45	51	65	75
B 3	3,3	4,3	4,3	4,3	4,3	4,3
CB H14	26	28	32	40	50	60
∅ CD H9	10	12	12	16	16	20
∅ CN H7	10	12	16	16	20	20
∅ EK f8	10	12	12	16	16	20
∅ EK 1 h9	10	12	16	16	20	20
EN	14	16	21	21	25	25
ER	16	19	21	24	28	30
EW	25,8	27,8	31,7	39,7	49,7	59,7
FL	22	25	27	32	36	41
L	13	16	17	22	22	27
L 1	13	16	17	22	22	27
LH	52	60	68	79	99	119
MR	9	12	12	15	15	20
R	14,5	18	19	24	24	29
R 1	11	12	14,5	18	22	22
R 2	17	20	22	25	30	32
UB	45	52	60	70	90	110
Z	13°	13°	13°	15°	15°	15°

Full dimensions see page N 1.4.101.03



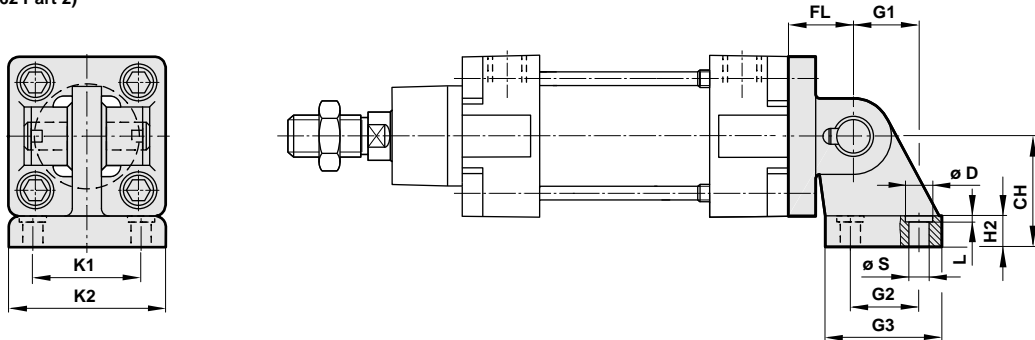
Rear Hinge Mounting Style 'L'

(Corresponds to VDMA 24562 Part 2)

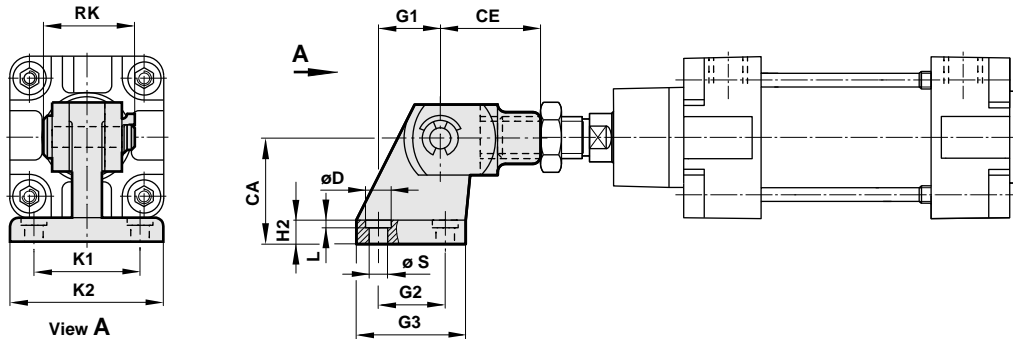


Universal Rear Hinge Mounting Style 'UL'

(Corresponds to VDMA 24562 Part 2)



Front Hinge Mounting Style 'M'



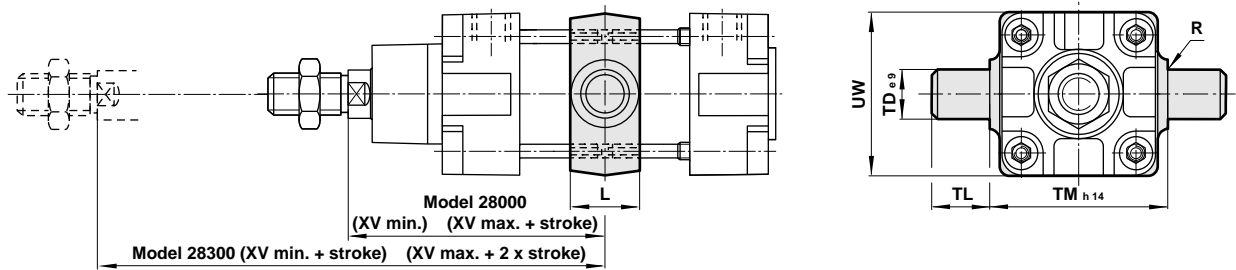
Model 'L'	QA/8032/24	QA/8040/24	QA/8050/24	QA/8063/24	QA/8080/24	QA/8100/24
Model 'M'	QM/8032/26	QM/8040/26	QM/8050/26	QM/8063/26	QM/8080/26	QM/8100/26
Model 'UL'	QA/8032/43	QA/8040/43	QA/8050/43	QA/8063/43	QA/8080/43	QA/8100/43
∅	32	40	50	63	80	100
CA/CH	32	36	45	50	63	71
CE	40	48	64	64	80	80
∅ D	11	11	15	15	18	18
FL	22	25	27	32	36	41
G 1	21	24	33	37	47	55
G 2	18	22	30	35	40	50
G 3	31	35	45	50	60	70
H 2	8	10	12	12	14	15
K 1	38	41	50	52	66	76
K 2	51	54	65	67	86	96
LH	52	60	68	79	99	119
L	1,6	1,6	1,6	1,6	2,5	2,5
∅ S	6,6	6,6	9	9	11	11
RK	28	32	41,5	41,5	50	50

Full dimensions see page N/UK 1.4.101.03



Central Trunnion Mounting Style 'H'

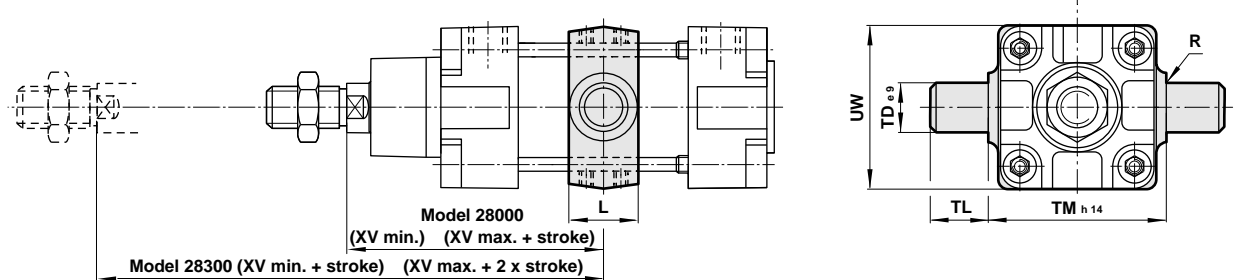
(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MT4)



Note: These mountings are only supplied assembled complete with the cylinder. In the case of cylinders supplied with Central Trunnion Mounting standard stroke prices do not apply. Unless otherwise specified, units will be supplied with dimension 'XV' plus half the stroke length.

Adjustable Intermediate Trunnion Mounting Style 'UH'

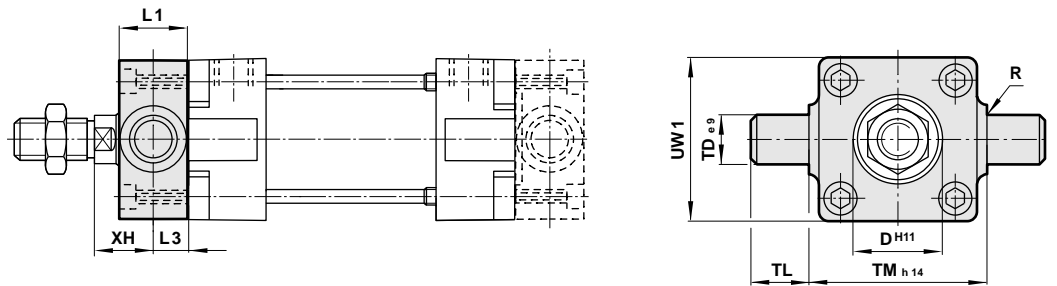
(Corresponds to DIN ISO 6431 VDMA 24562 Part 2, Style MT4)



Note: It is most important that the locking screws which secure the mounting to the tie rod are tightened to the torque figures shown in the table below. For maximum energy input, consult our Technical Service.

Head (Cap) Detachable Trunnion Mounting Style 'FH'

(Corresponds to VDMA 24562 Part 2, Style MT 5/6)



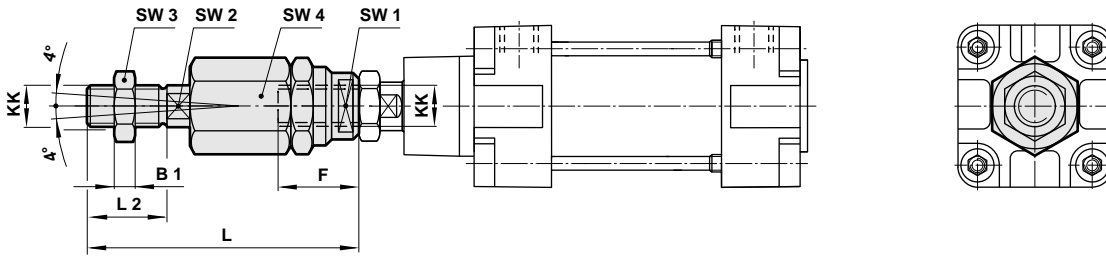
Model 'H'	QA/8032/28	QA/8040/28	QA/8050/28	QA/8063/28	QA/8080/28	QA/8100/28
Model 'FH'	QA/8032/34	QA/8040/34	QA/8050/34	QA/8063/34	QA/8080/34	QA/8100/34
Model 'UH'	QA/8032/40	QA/8040/40	QA/8050/40	QA/8063/40	QA/8080/40	QA/8100/40
∅	32	40	50	63	80	100
L	20	24	28	28	28	38
L1	16	20	24	24	28	38
L3	8	10	12	12	14	19
∅ D ^{H11}	30	35	40	45	45	55
R	1	1,6	1,6	1,6	1,6	2
∅ TD _{e9}	12	16	16	20	20	25
TL	12	16	16	20	20	25
TM _{h14}	50	63	75	90	110	132
UW	50	58	70	80	100	126
UW1	50	55	65	75	100	120
Standard strokes	25, 50	80, 100	25, 50	80, 100	25, 50	80, 100
XH	18	20	25	25	32	32
XV min.	63,5	74	82	84	93	107
XV max.	107,5	135,5	123	151	136	164
Non-standard strokes	250 max.	250 max.	250 max.	250 max.	250 max.	250 max.
XV max.	107,5 + (N * x 28)	116 + (N * x 28)	123 + (N * x 28)	136 + (N * x 28)	152 + (N * x 28)	158 + (N * x 28)
Torque Nm	6	6	10	10	15	15

* Stroke ≤ 50 mm → N = 0

Stroke > 50 mm → N = $\frac{\text{Stroke}}{50} - 1$ (round up to integer)

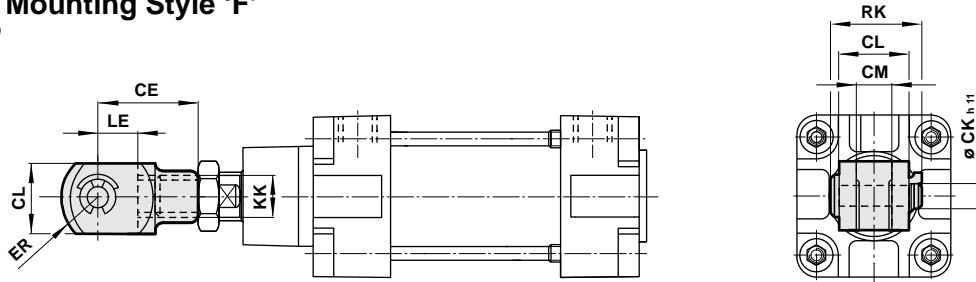


Piston Rod Swivel Mounting Style 'AK'



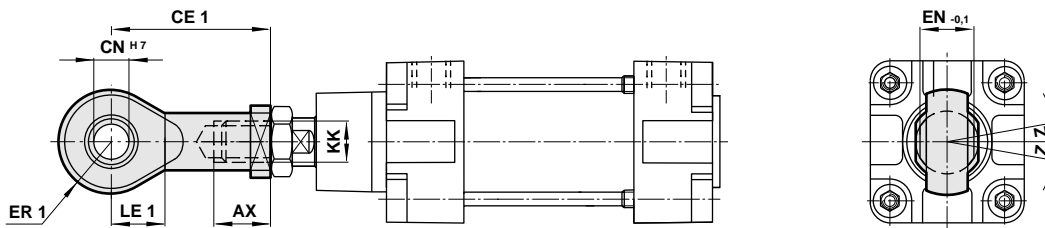
Piston Rod Clevis Mounting Style 'F'

(Corresponds to DIN ISO 8140)



Universal Piston Rod Eye Mounting Style 'UF'

(Corresponds to DIN ISO 8139)



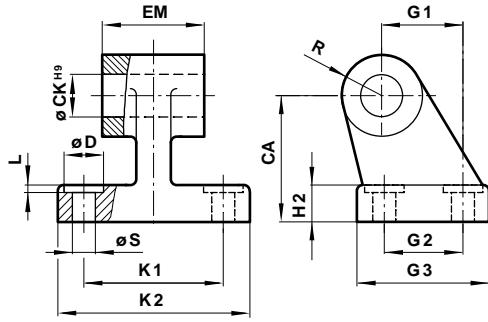
Model 'AK'	QM/8025/38	QM/8040/38	QM/8050/38	QM/8050/38	QM/8080/38	QM/8080/38
Model 'F'	QM/8025/25	QM/8040/25	QM/8050/25	QM/8050/25	QM/8080/25	QM/8080/25
Model 'UF'	QM/8025/32	QM/8040/32	QM/8050/32	QM/8050/32	QM/8080/32	QM/8080/32
∅	32	40	50	63	80	100
AX	20	22	28	28	33	33
B 1	5	6	8	8	10	10
CE	40	48	64	64	80	80
CE 1	43	50	64	64	77	77
∅ CK h11	10	12	16	16	20	20
CL	20	24	32	32	40	40
CM	10	12	16	16	20	20
∅ CN H7	10	12	16	16	20	20
EN -0,1	14	16	21	21	25	25
ER	16	19	25	25	32	32
ER 1	14	16	21	21	25	25
F	26	26	34	34	42	42
KK	M 10 x 1,25	M 12 x 1,25	M 16 x 1,5	M 16 x 1,5	M 20 x 1,5	M 20 x 1,5
L	73	77	106	106	122	122
L 2	20	24	32	32	40	40
LE	20	24	32	32	40	40
LE 1	15	17	22	22	26	26
RK	28	32	41,5	41,5	50	50
SW 1 (A/F)	19	19	30	30	30	30
SW 2 (A/F)	12	12	19	19	19	19
SW 3 (A/F)	17	19	24	24	30	30
SW 4 (A/F)	30	30	42	42	42	42
Z	13°	13°	15°	15°	15°	15°

Full dimensions see page N/UK 1.4.101.03



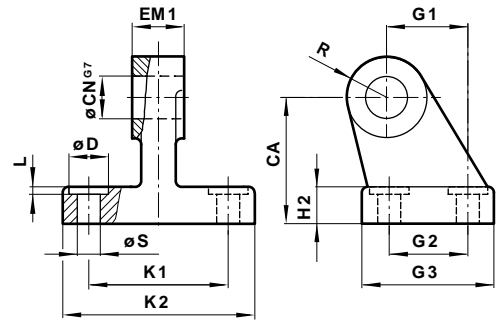
Bracket for Clevis Mounting (wide clevis) Style 'SW'

(Corresponds to VDMA 24562, Part 2)
For Rear Clevis Mounting Style 'D'



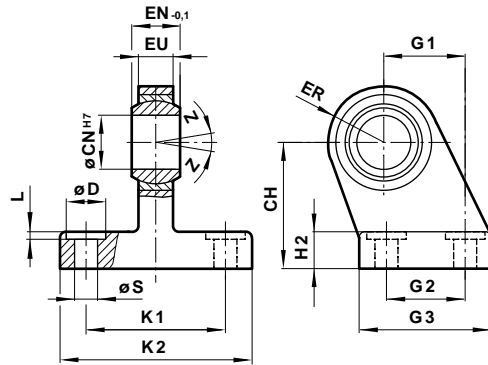
Bracket for Clevis Mounting Style 'SS'

For Piston Rod Clevis Mounting Style 'F'



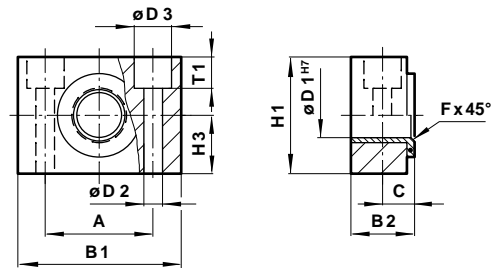
Bracket Hinge for Clevis Mounting Style 'US'

(Corresponds to VDMA 24562, Part 2)
For Rear Clevis Mounting Style 'D2'



Swivel Bearing Style 'S'

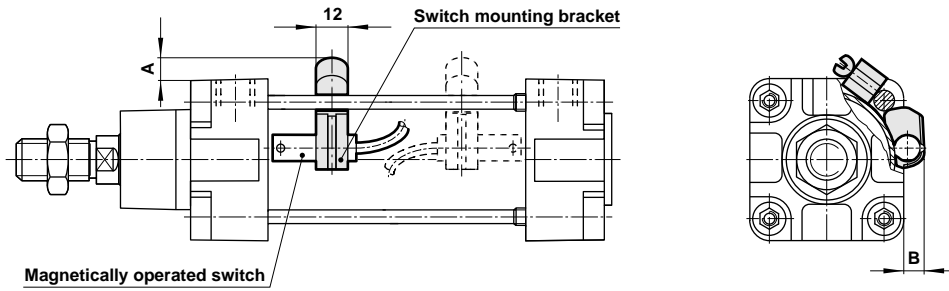
For Trunnion Mountings Style 'H', 'FH', 'UH'



Model 'S'	QA/8032/41	QA/8040/41	QA/8040/41	QA/8063/41	QA/8063/41	QA/8100/41
Model 'SW'	M/P19493	M/P19494	M/P19495	M/P19496	M/P19497	M/P19498
Model 'SS'	M/P19931	M/P19932	M/P19933	M/P19934	M/P19935	M/P19936
Model 'US'	M/P40310	M/P40311	M/P40312	M/P40313	M/P40314	M/P40315
∅	32	40	50	63	80	100
A	32	36	36	42	42	50
B 1	46	55	55	65	65	75
B 2	18	21	21	23	23	28,5
C	10,5	12	12	13	13	16
CA/CH	32	36	45	50	63	71
∅ CN H7/67	10	12	16	16	20	20
∅ CK H9	10	12	12	16	16	20
∅ D	11	11	15	15	18	18
∅ D 1	12	16	16	20	20	25
∅ D 2	6,6	9	9	11	11	14
∅ D 3	11	15	15	18	18	20
EM	26	28	32	40	50	60
EM 1	10	12	16	16	20	20
EN -0,1	14	16	21	21	25	25
ER	16	18	21	23	28	30
EU	10,5	12	15	15	18	18
F x 45°	1	1,6	1,6	1,6	1,6	2
G 1	21	24	33	37	47	55
G 2	18	22	30	35	40	50
G 3	31	35	45	50	60	70
H 1	30	36	36	40	40	50
H 2	8	10	12	12	14	15
H 3	15	18	18	20	20	25
K 1	38	41	50	52	66	76
K 2	51	54	65	67	86	96
L	1,6	1,6	1,6	1,6	2,5	2,5
R	10	11	13	15	15	19
∅ S	6,6	6,6	9	9	11	11
T 1	6,8	9	9	11	11	13
Z	13°	13°	13°	15°	15°	15°

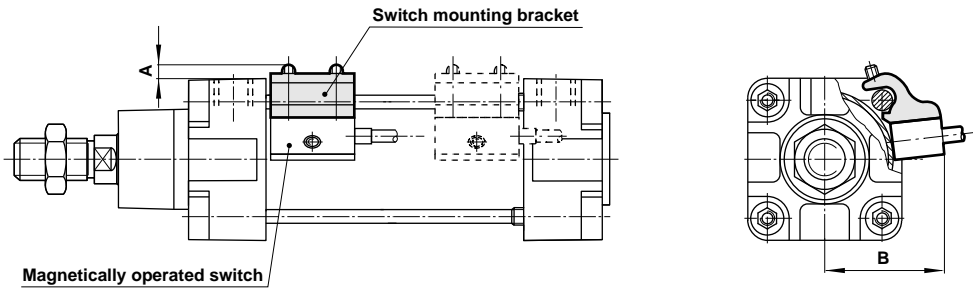


Brackets for magnetically operated switches QM/33, QM/34 and QM/134



Model	QM/27/2/1QM/27/2/1	QM/27/2/1	QM/27/2/1	QM/27/2/1	QM/27/2/1	QM/27/2/1
∅ mm	32	40	50	63	80	100
A	9	8	7	7	7	2
B	7	8	5	7	4	2

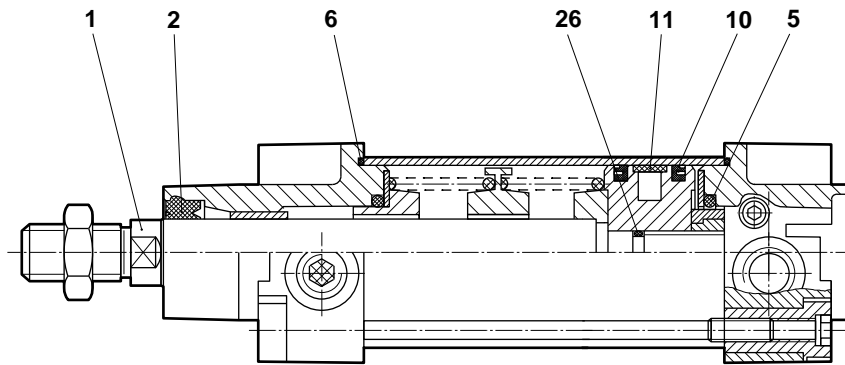
Brackets for magnetically operated switches QM/31, QM/32 and QM/132



Model	QM/31/032/22	QM/31/032/22	QM/31/032/22	QM/31/032/22	QM/31/080/22	QM/31/080/22
∅ mm	32	40	50	63	80	100
A	4,5	5,5	4,5	4,5	1,5	0,5
B	38	43	48	53	61	68



Spares RA/28000

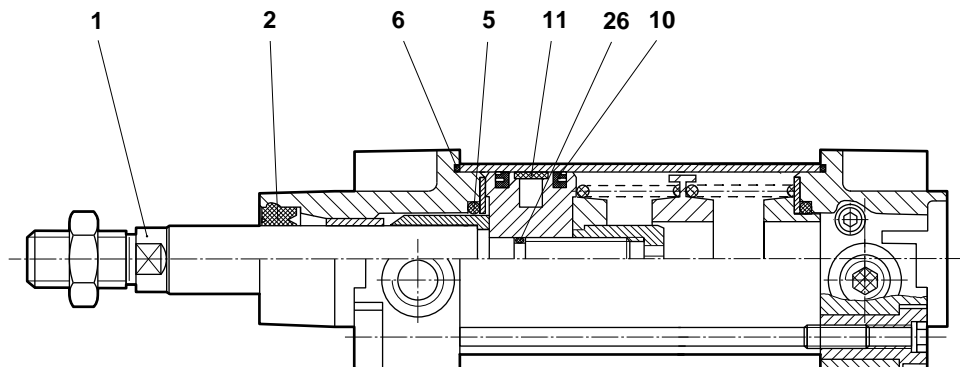


Model	Spares kit	Comprising Item	Description	Quantity	Piston rod Item 1
RA/28032, RA/28032/M	QA/8032/00	2	Piston rod seal	1	RM/P40725/IU/*/\$
RA/28040, RA/28040/M	QA/8040/00	5	Cushion seal	2	RM/P40726/IU/*/\$
RA/28050, RA/28050/M	QA/8050/00	6	'O'-ring	2	RM/P40727/IU/*/\$
RA/28063, RA/28063/M	QA/8063/00	10	Piston seal	2	RM/P40728/IU/*/\$
RA/28080, RA/28080/M	QA/8080/00	11	Wear ring	1	RM/P40729/IU/*/\$
RA/28100, RA/28100/M	QA/8100/00	26	'O'-ring	1	RM/P40730/IU/*/\$
RA/28032/N1, RA/28032/N2	QA/8032/N1/00				RM/P71426/IU/*/\$
RA/28040/N1, RA/28040/N2	QA/8040/N1/00				RM/P71427/IU/*/\$
RA/28050/N1, RA/28050/N2	QA/8050/N1/00				RM/P71428/IU/*/\$
RA/28063/N1, RA/28063/N2	QA/8063/N1/00				RM/P71429/IU/*/\$
RA/28080/N1, RA/28080/N2	QA/8080/N1/00				RM/P71430/IU/*/\$
RA/28100/N1, RA/28100/N2	QA/8100/N1/00				RM/P71431/IU/*/\$

* Insert stroke length

Note: Please quote the cylinder type number when ordering spares kits and piston rods.

Spares RA/28300



Model	Spares kit	Comprising Item	Description	Quantity	Piston rod Item 1
RA/28332, RA/28332/M	QA/8032/00	2	Piston rod seal	1	RM/P19966/*
RA/28340, RA/28340/M	QA/8040/00	5	Cushion seal	2	RM/P19967/*
RA/28350, RA/28350/M	QA/8050/00	6	'O'-ring	2	RM/P19968/*
RA/28363, RA/28363/M	QA/8063/00	10	Piston seal	2	RM/P19969/*
RA/28380, RA/28380/M	QA/8080/00	11	Wear ring	1	RM/P19970/*
RA/28310, RA/28310/M	QA/8100/00	26	'O'-ring	1	RM/P19971/*
RA/28332/N1, RA/28332/N2	QA/8032/N1/00				RM/P71084/*
RA/28340/N1, RA/28340/N2	QA/8040/N1/00				RM/P71085/*
RA/28350/N1, RA/28332/N2	QA/8050/N1/00				RM/P71086/*
RA/28363/N1, RA/28332/N2	QA/8063/N1/00				RM/P71087/*
RA/28380/N1, RA/28332/N2	QA/8080/N1/00				RM/P71088/*
RA/28100/N1, RA/28100/N2	QA/8100/N1/00				RM/P71089/*

* Insert stroke length

Note: Please quote the cylinder type number when ordering spares kits and piston rods.

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.