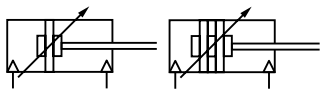
ISO/VDMA Cylinders

DA/8000

Double acting

Ø 32 ... 320 mm



Conforms to ISO 6431, VDMA 24562 and NFE 49-003-1

High performance, ruggedness and reliability

Extensive range of mountings

Technical data

Medium:

Compressed air, filtered, lubricated or non-lubricated

Standard:

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

Operation:

RA/8000 double acting, adjustable cushioning

RA/8000/M double acting, magnetic piston, adjustable cushioning

Operating pressure:

15 to 232 psig (1 to 16 bar) 15 to 145 psig [1 to 10 bar] for Ø 250 and 320 mm

Operating temperature:

-4°F to +176°F (-20°C to +80°C) max.

Consult our Technical Service for use below +35°F (+2°C)

Strokes:

Standard, see table

Non-standard strokes up to 3000 mm maximum

Materials

Barrel: anodized aluminum

End covers: pressure diecast aluminium (Ø 200 to 320 mm gravity cast aluminum)

Piston rod: stainless steel (Martensitic)

Piston rod seals: polyurethane (Ø 125 to 320 mm nitrile rubber)

Piston seals: polyurethane (Ø 125 to 320 mm nitrile rubber)

'O'-rings: nitrile rubber

Standard models

Ø	Piston rod Ø	ISO Port size	Model non-magnetic	Model magnetic	NPT Port size	Model non-magnetic	Model magnetic	Service kit
32	12	G1/8	DA/8032/*	DA/8032/M/*	1/8"	DC/8032/*	DC/8032/M/*	**QA/8032/00**
40	16	G1/4	DA/8040/*	DA/8040/M/*	1/4"	DC/8040/*	DC/8040/M/*	**QA/8040/00**
50	20	G1/4	DA/8050/*	DA/8050/M/*	1/4"	DC/8050/*	DC/8050/M/*	**QA/8050/00**
63	20	G3/8	DA/8063/*	DA/8063/M/*	3/8"	DC/8063/*	DC/8063/M/*	**QA/8063/00**
80	25	G3/8	DA/8080/*	DA/8080/M/*	3/8"	DC/8080/*	DC/8080/M/*	**QA/8080/00**
100	25	G1/2	DA/8100/*	DA/8100/M/*	1/2"	DC/8100/*	DC/8100/M/*	**QA/8100/00**
125	32	G1/2	DA/8125/*	DA/8125/M/*	1/2"	DC/8125/*	DC/8125/M/*	**QA/8125/00**
160	40	G3/4	DA/8160/*	DA/8160/M/*	3/4"	DC/8160/*	DC/8160/M/*	**QA/8160/00**
200	40	G3/4	DA/8200/*	DA/8200/M/*	3/4"	DC/8200/*	DC/8200/M/*	**QA/8200/00**
250	50	G1	DA/8250/*	DA/8250/M/*	1"	DC/8250/*	DC/8250/M/*	**QA/8250/00**
320	63	G1	DA/8320/*	DA/8320/M/*	1"	DC/8320/*	DC/8320/M/*	**QA/8320/00**

* Insert stroke length in mm.

Options selector

★DC/8050/M★/★★★★

Special variants	Substitute
Heat resistant seals, 150°C max.	T

Piston rod material	Substitute
Chrome plated stainless steel	D

Threads	Substitute
Metric ports: ISO 228 (G 1/8 to G 1)	A
NPT ports	C

Series	Substitute
8000	8

Cylinder diameters (mm)	Substitute
032, 040, 050, 063, 080, 100, 125, 160, 200, 250, 320	

Variants (magnetic piston)	Substitute
Standard	M
Special wiper/seal	W2
Low friction	X2
Piston rod bellow	MG
Without cushioning	MW
Without cushioning, low friction	X4
Double ended piston rod	JM
Double ended piston rod, special wiper/seal	W4
Four position	MT
Non-rotating piston rod	N2*
Locking unit	L4
Extended piston rod	MU
Extended piston rod, special wiper/seal	W6

A/8000/MU//***/***
/W6/ → Extension (mm)

Strokes (mm)
3000 max.

Variants (non-magnetic piston)	Substitute
Standard	None
Special wiper/seal	W1
Low friction	X1
Piston rod bellow	G
Without cushioning	W
Without cushioning, low friction	X3
Double ended piston rod	J
Double ended piston rod, special wiper/seal	W3
Four position	IT
Non-rotating piston rod	N1*
Locking unit	L2
Extended piston rod	IU
Extended piston rod, special wiper/seal	W5

A/8000/IU//***/***
/W5/ → Extension (mm)

Note:If option is not required, disregard option position within part number eg. RA/8100/100

For combinations of cylinder variants consult our Technical Service.

* N1 and N2 option built using non chrome plate, stainless steel piston rods

ISO/VDMA Cylinders

DA/8000

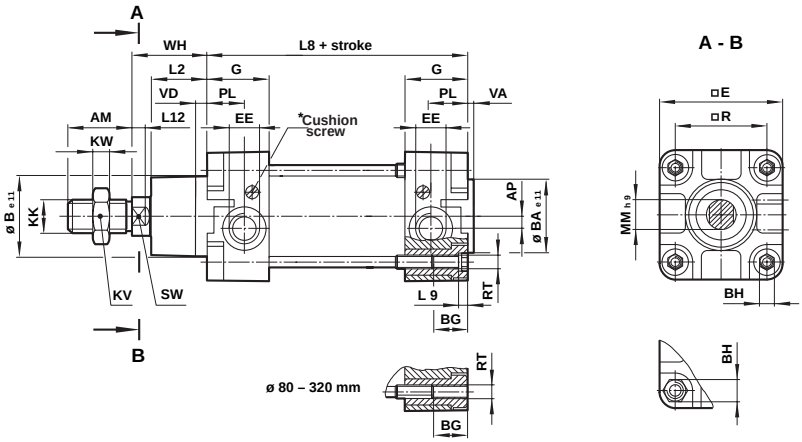
Double acting

Ø 32 ... 320 mm

Dimensions in mm

Standard cylinders

DA/8000, DA/8000/M

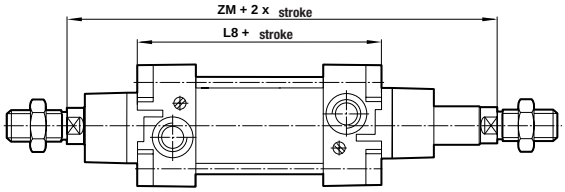


Ø	AM	AP	Ø B e11	Ø BA e11	BG	BH (A/F)	❑ E	EE	G	KK	KV (A/F)	KW	L2
32	22	3.5	30	30	18	6	47	G 1/8	27.5	M10x1.25	17	5	20
40	24	4.5	35	35	18	6	53	G 1/4	32	M12x1.25	19	6	22
50	32	6	40	40	18	8	65	G 1/4	31	M16x1.5	24	8	27
63	32	10	45	45	17.5	8	75	G 3/8	33	M16x1.5	24	8	29
80	40	8.5	45	45	21.5	19	95	G 3/8	33	M20x1.5	30	10	33
100	40	9	55	55	21.5	19	115	G 1/2	37	M20x1.5	30	10	36
125	54	10	60	60	30	24	140	G 1/2	46	M27x2	41	13.5	45
160	72	18	65	65	28.5	32	183.5	G 3/4	50	M36x2	55	18	58
200	72	18	75	75	28.5	32	224	G 3/4	50	M36x2	55	18	67
250	84	22.5	90	90	35	36	280	G 1	58	M42x2	65	21	80
320	96	22.5	110	110	30	46	350	G 1	60	M48x2	75	24	90

Ø	L8	L9	L12	Ø MM h9	PL	❑ R	RT	SW (A/F)	VA	VD	WH	Cylinder weight lbs.at 0 mm	Cylinder weight lbs/25 mm
32	94	4	6	12	13	32.5	M 6	10	3	6	26	1.12 lb	0.13 lb
40	105	4	6.5	16	15	38	M 6	13	3.5	6	30	1.76 lb	0.18 lb
50	106	5	8	20	18.5	46.5	M 8	17	3.5	6	37	2.93 lb	0.26 lb
63	121	5	8	20	19	56.5	M 8	17	4	6	37	3.97 lb	0.29 lb
80	128	-	10	25	19	72	M 10	22	4	6	46	7.17 lb	0.44 lb
100	138	-	10	25	18	89	M 10	22	4	6	51	10.6 lb	0.51 lb
125	160	-	13	32	22.5	110	M 12	27	6	15.5	65	17.6 lb	0.73 lb
160	180	-	16	40	21	140	M 16	36	4	15	80	32.9 lb	1.21 lb
200	180	-	16	40	21	175	M 16	36	5	15	95	47.8 lb	1.32 lb
250	200	-	20	50	29	220	M 20	41	7	13	105	71.9 lb	2.03 lb
320	220	-	24	63	30	270	M 24	55	7	13	120	131.9 lb	3.22 lb

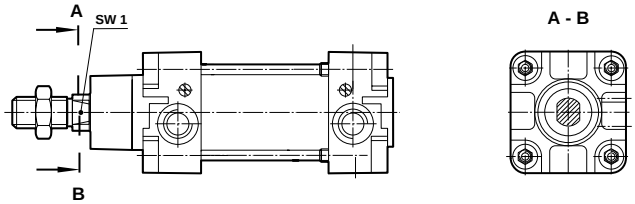
Cylinder variants

DA/8000/J, DA/8000/JM – Cylinders with double ended piston rod



Ø	ZM	L8
32	146	94
40	165	105
50	180	106
63	195	121
80	220	128
100	240	138
125	290	160
160	340	180
200	370	180

DA/8000/N1, DA/8000/N2 – Cylinders with non-rotating piston rod



Ø	SW1 (A/F)
32	10
40	13
50	16
63	16
80	21
100	21

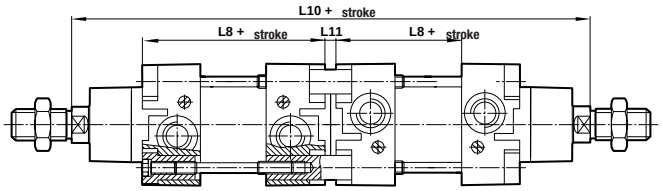
ISO/VDMA Cylinders

DA/8000

Double acting

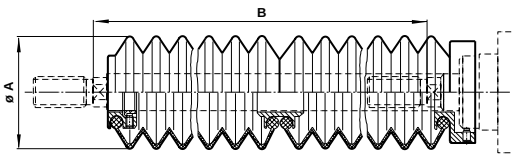
Ø 32 ... 320 mm

DA/8000/IT, DA/8000/MT – Four position cylinders



Ø	L 8	L 10	L 11
32	94	247	7
40	105	278	8
50	106	294	8
63	121	325	9
80	128	357	9
100	138	387	9
125	160	462	12
160	180	530	10
200	180	560	10

DA/8000/G, DA/8000/MG – Cylinders with piston rod gaiter



Ø	Ø A	Maximum stroke per gaiter	Piston rod extension B First gaiter	Further gaiter
32	40	60	30	25
40	63	145	50	32
50	63	145	40	32
63	63	145	40	32
80	80	250	50	45
100	80	250	50	45
125	80	250	50	45
160	116	350	70	60
200	116	350	70	60
250	116	350	70	60
320	143	500	110	100

ISO/VDMA Cylinders

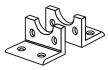
DA/8000

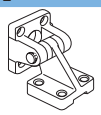
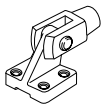
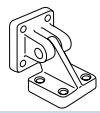
Double acting

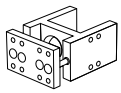
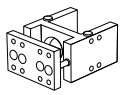
Ø 32 ... 320 mm

Dimensions in mm

Mountings

Ø	A	AK	B, G	C	D	D2	F	FH	H
									
32	QM/8032/35	QM/8025/38	QA/8032/22	QA/8032/21	QA/8032/23	QA/8032/42	QM/8025/25	QA/8032/34	QM/8032/28
40	QM/8032/35	QM/8040/38	QA/8040/22	QA/8040/21	QA/8040/23	QA/8040/42	QM/8040/25	QA/8040/34	QM/8040/28
50	QM/8050/35	QM/8050/38	QA/8050/22	QA/8050/21	QA/8050/23	QA/8050/42	QM/8050/25	QA/8050/34	QM/8050/28
63	QM/8050/35	QM/8050/38	QA/8063/22	QA/8063/21	QA/8063/23	QA/8063/42	QM/8050/25	QA/8063/34	QM/8063/28
80	QM/8080/35	QM/8080/38	QA/8080/22	QA/8080/21	QA/8080/23	QA/8080/42	QM/8080/25	QA/8080/34	QM/8080/28
100	QM/8080/35	QM/8080/38	QA/8100/22	QA/8100/21	QA/8100/23	QA/8100/42	QM/8080/25	QA/8100/34	QM/8100/28
125	QM/8125/35	QM/8125/38	QM/8125/22	QM/8125/21	QM/8125/23	QA/8125/42	QM/8125/25	QA/8125/34	QM/8125/28
160	QM/8160/35	QM/8160/38	QM/8160/22	QM/8160/21	QM/8160/23	QA/8160/42	QM/8160/25	–	QM/8160/28
200	QM/8160/35	QM/8160/38	QM/8200/22	QM/8200/21	QM/8200/23	QA/8200/42	QM/8160/25	–	QM/8200/28
250	QM/8250/35	–	QM/8250/22	QM/8250/21	QM/8250/23	–	QM/8250/25	–	QM/8250/28
320	QM/8320/35	–	QM/8320/22	QM/8320/21	QM/8320/23	–	QM/8320/25	–	QM/8320/28

Ø	L	M	R	S	SS	SW	UF	UH	UL
									
32	QA/8032/24	QM/8032/26	QA/8032/27	QA/8032/41	M/P19931	M/P19493	QM/8025/32	QA/8032/40	QA/8032/43
40	QA/8040/24	QM/8040/26	QA/8040/27	QA/8040/41	M/P19932	M/P19494	QM/8040/32	QA/8040/40	QA/8040/43
50	QA/8050/24	QM/8050/26	QA/8050/27	QA/8040/41	M/P19933	M/P19495	QM/8050/32	QA/8050/40	QA/8050/43
63	QA/8063/24	QM/8063/26	QA/8063/27	QA/8063/41	M/P19934	M/P19496	QM/8050/32	QA/8063/40	QA/8063/43
80	QA/8080/24	QM/8080/26	QA/8080/27	QA/8063/41	M/P19935	M/P19497	QM/8080/32	QA/8080/40	QA/8080/43
100	QA/8100/24	QM/8100/26	QA/8100/27	QA/8100/41	M/P19936	M/P19498	QM/8080/32	QA/8100/40	QA/8100/43
125	QM/8125/24	QM/8125/26	QM/8125/27	QA/8100/41	M/P19937	M/P19499	QM/8125/32	QA/8125/40	QA/8125/43
160	QM/8160/24	QM/8160/26	QM/8160/27	QM/8160/41	M/P19938	M/P19679	QM/8160/32	QA/8160/40	QM/8160/43
200	QM/8200/24	QM/8200/26	QM/8200/27	QM/8160/41	M/P19939	M/P19683	QM/8160/32	QA/8200/40	QM/8200/43
250	QM/8250/24	–	–	–	–	M/P19446	QM/8250/32	–	–
320	QM/8320/24	–	–	–	–	M/P19447	QM/8320/32	–	–

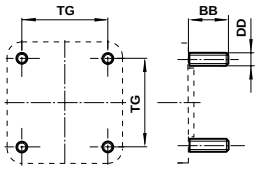
Ø	UR	US	Guide blocks	Guide blocks	Locking unit (passive)	Bracket for M/50 switches	Bracket for QM/32, QM/132 switches	Bracket for QM/140switches
								
32	QA/8032/33	M/P40310	QA/8032/51/*	QA/8032/61/*	QA/8032/59			
40	QA/8040/33	M/P40311	QA/8040/51/*	QA/8040/61/*	QA/8040/59			
50	QA/8050/33	M/P40312	QA/8050/51/*	QA/8050/61/*	QA/8050/59			
63	QA/8063/33	M/P40313	QA/8063/51/*	QA/8063/61/*	QA/8063/59			
80	QA/8080/33	M/P40314	QA/8080/51/*	QA/8080/61/*	QA/8080/59			
100	QA/8100/33	M/P40315	QA/8100/51/*	QA/8100/61/*	QA/8100/59			
125	QM/8125/33	M/P71355	–	–	QA/8125/59			
160	QM/8160/33	M/P71356	–	–	–			
200	QM/8200/33	M/P71357	–	–	–			

ISO/VDMA Cylinder mountings

For DA/8000; RA/191000; RA/192000; RA/193000; PVA/8000/M

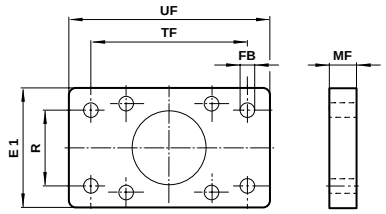
Dimensions in mm

Front or rear stud – A
ISO 6431



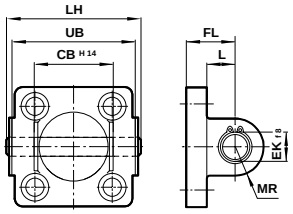
Ø	BB	DD	TG	lb
32	17	M6	32.5	0.04
40	17	M6	38	0.04
50	23	M8	46.5	0.11
63	23	M8	56.5	0.11
80	28	M10	72	0.18
100	28	M10	89	0.18
125	34	M12	110	0.31
160	42	M16	140	0.68
200	42	M16	175	0.68
250	50	M20	220	2.03
320	60	M24	270	3.22

Rear flange – B
Front flange – G
ISO 6431 and
VDMA 24562 Part 2



Ø	E1	Ø FB	MF	R	TF	UF	lb
20	36	6.6	10	0	55	70	0.35
25	40	6.6	10	0	60	76	0.44
32	50	7	10	32	64	80	0.55
40	55	9	10	36	72	90	0.77
50	65	9	12	45	90	110	1.54
63	75	9	12	50	100	125	1.76
80	100	12	16	63	126	154	2.98
100	120	14	16	75	150	186	4.85
125	140	16	20	90	180	224	3.75
160	180	18	20	115	230	280	6.84
200	220	22	25	135	270	320	10.14
250	280	26	25	165	330	395	16.32
320	350	33	30	200	400	475	29.0

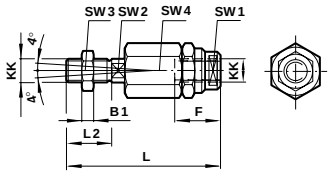
Rear clevis – D
ISO 6431 and
VDMA 24562 Part 2



Ø	CB H14	Ø EK f8	FL	L	LH	MR	UB	lb
32	26	10	22	13	52	9	45	0.24
40	28	12	25	16	60	12	52	0.35
50	32	12	27	17	68	12	60	0.49
63	40	16	32	22	79	15	70	0.75
80	50	16	36	22	99	15	90	1.19
100	60	20	41	27	119	20	110	1.98
125	70	25	50	31	139 (40)	25	130	5.95
160	90	30	55	35.5	181	30	170	9.48
200	90	30	60	36	181	30	170	13.45
250	110	40	70	45	218	40	200	4.19
320	120	45	80	50	238	45	220	67.25

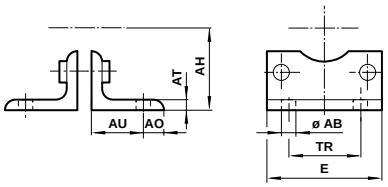
( ) Stainless steel, weight on request

Piston rod swivel – AK



Thread KK	B1	F	L	L2	SW1	SW2	SW3	SW4	lb
M10x1.25	5	26	73	20	19	12	17	30	0.44
M12x1.25	6	26	77	24	19	12	19	30	0.44
M16x1.5	8	34	106	32	30	19	24	42	1.43
M20x1.5	10	42	122	40	30	19	30	42	1.59
M27x2	13.5	40	147	54	40	24	41	55	3.75
M36x2	18	78	251	72	50	36	55	75	11.91

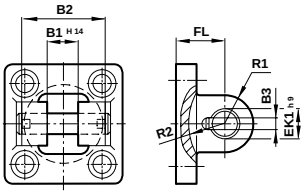
Foot – C
ISO 6431 and
VDMA 24562 Part 2



Ø	Ø AB	AH	AO	AT	AU	E	TR	lb
20	6.6	27	6	4	16	36	22	0.07
25	6.6	30	7	4	16	40	26	0.09
32	7	32	8 (11)	4	24	48	32	0.33
40	9	36	9 (12)	4 (5)	28	53	36	0.40
50	9	45	10 (13)	5	32	64	45	0.66
63	9	50	12 (13)	5	32	74	50	0.86
80	12	63	19	5 (6)	41	98	63	1.76
100	14	71	19	5 (6)	41	115	75	2.09
125	16	90	20 (25)	9 (7)	45	140	90	5.30
160	18	115	20	8	60	180	115	7.72
200	22	135	30	9	70	220	135	11.58
250	26	165	35	10	75	280	165	20.94
320	33	200	45	16	85	350	200	48.51

( ) stainless steel, weight on request

Rear clevis – D2
VDMA 24562 Part 2



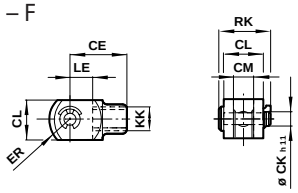
Ø	B1 H14	B2	B3	Ø EK h9	FL	R1	R2	lb
32	14	34	3.3	10	22	11	17	0.44
40	16	40	4.3	12	25	12	20	0.51
50	21	45	4.3	16	27	14.5	22	0.79
63	21	51	4.3	16	32	18	25	1.21
80	25	65	4.3	20	36	22	30	1.98
100	25	75	6.3	20	41	22	32	3.20
125	37	97	6.3	30	50	30	42	5.95
160	43	122	6.3	35	55	36	46	9.48
200	43	122	6.3	35	60	38	49	13.45

ISO/VDMA Cylinder mountings

For DA/8000; KA/8000; RA/191000; RA/192000; RA/193000; PVA/8000/M

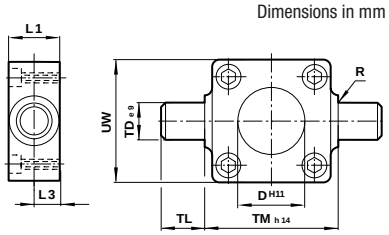
Dimensions in mm

Piston rod clevis – F



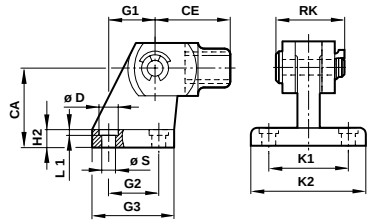
Thread KK	CE	Ø CK h11	CL	CM	ER	LE	RK	lb
M10x1.25	40	10	20	10	16	20	28	0.20
M12x1.25	48	12	24	12	19	24	32	0.29
M16x1.5	64	16	32	16	25	32	41.5	0.73
M20x1.5	80	20	40	20	32	40	50	1.48
M27x2	110	30	55	30	45	54	62	2.98
M36x2	144	35	70	35	57	72	95	6.62
M42x2	168	40	85	40	68	84	106	14.11
M48x2	192	50	96	50	85	96	121	19.18

Front or rear detachable trunnion – FH



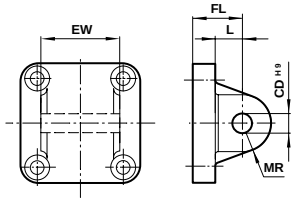
Ø	Ø D H11	L1	L3	R	ØTD e9	TL	TM h14	UW1	lb
32	30	16	8	1	12	12	50	50	0.44
40	35	20	10	1.6	16	16	63	55	0.84
50	40	24	12	1.6	16	16	75	65	1.32
63	45	24	12	1.6	20	20	90	75	2.43
80	45	28	14	1.6	20	20	110	100	4.19
100	55	38	19	2	25	25	132	120	7.72
125	60	50	25	2	25	25	160	145	14.33

Front hinge – M



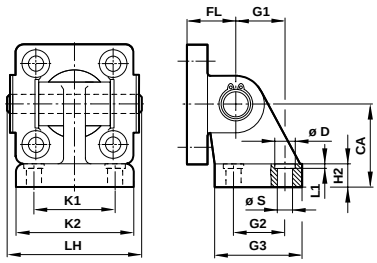
Thread KK	Ø	CA	CE	Ø D	G1	G2	G3	H2	K1	K2	L1	RK	Ø S	lb
M10x1.25	32	32	40	11	21	18	31	8	38	51	1.6	28	6.6	0.53
M12x1.25	40	36	48	11	24	22	35	10	41	54	1.6	32	6.6	0.73
M16x1.5	50	45	64	15	33	30	45	12	50	65	1.6	41.5	9	1.79
M16x1.5	63	50	64	15	37	35	50	12	52	67	1.6	41.5	9	1.83
M20x1.5	80	63	80	18	47	40	60	14	66	86	2.5	50	11	3.13
M20x1.5	100	71	80	18	55	50	70	15	76	96	2.5	50	11	4.12
M27x2	125	90	110	20	70	60	90	20	94	124	3.2	62	14	8.49
M36x2	160	115	144	20	97	88	126	25	118	156	4	95	14	19.85
M36x2	200	135	144	24	105	90	130	30	122	162	4	95	16	23.37

Rear eye – R
ISO 6431 and VDMA 24562 Part 2

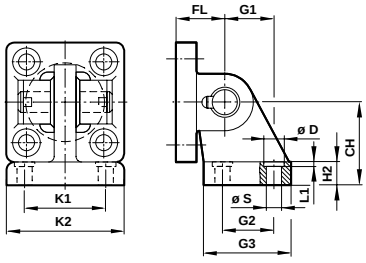


Ø	Ø CD H9	EW	FL	L	MR	lb
20	8	15.8	20	14	8	0.04
25	8	15.8	20	14	8	0.07
32	10	25.8	22	13	9	0.20
40	12	27.8	25	16	12	0.24
50	12	31.7	27	17	12	0.37
63	16	39.7	32	22	15	0.53
80	16	49.7	36	22	15	0.82
100	20	59.7	41	27	20	1.30
125	25	69.7	50	33	25	7.06
160	30	89.7	55	35.5	30	13.45
200	30	89.7	60	37	30	14.99

Rear hinge – L



Rear hinge – UL
VDMA 24562 Part 2



Ø	CA	CH	Ø D	FL	G1	G2	G3	H2	K1	K2	L1	LH	Ø S	L–lb	UL–lb
32	32	32	11	22	21	18	31	8	38	51	1.6	52	6.6	0.35	5.27
40	36	36	11	25	24	22	35	10	41	54	1.6	60	6.6	0.51	1.04
50	45	45	15	27	33	30	45	12	50	65	1.6	68	9	0.79	1.81
63	50	50	15	32	37	35	50	12	52	67	1.6	79	9	1.15	2.51
80	63	63	18	36	47	40	60	14	66	86	2.5	99	11	1.81	4.26
100	71	71	18	41	55	50	70	15	76	96	2.5	119	11	2.91	6.28
125	90	90	20	50	70	60	90	20	94	124	3.2	139	14	11.91	12.79
160	115	115	20	55	97	88	126	25	118	156	4	181	14	23.37	23.59
200	135	135	24	60	105	90	130	30	122	162	4	181	18	31.09	33.52
250*	165	–	33	70	128	110	160	35	150	200	2	218	22	71.44	–
320*	200	–	40	80	150	122	186	40	170	234	2	238	26	115.76	–

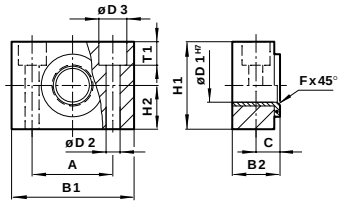
* Stainless steel, weight on request

ISO/VDMA Cylinder mountings

For DA/8000; KA/8000; RA/191000; RA/192000; RA/193000; PVA/8000/M

Dimensions in mm

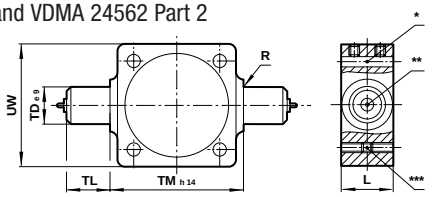
Trunnion support – S
VDMA 24562
Part 2



Ø	A	B1	B2	C	ØH7	ØD2	ØD3	fx45°	H1	H2	T1	lb
32	32	46	18	10.5	12	6.6	11	1	30	15	6.8	0.22
40	36	55	21	12	16	9	15	1.6	36	18	9	0.31
50	36	55	21	12	16	9	15	1.6	36	18	9	0.31
63	42	65	23	13	20	11	18	1.6	40	20	11	0.42
80	42	65	23	13	20	11	18	1.6	40	20	11	0.42
100	50	75	28.5	16	25	14	20	2	50	25	13	0.75
125	50	75	28.5	16	25	14	20	2	50	25	13	0.75
160	60	92	39	21.5	32	18	26	2.5	60	25	15.5	4.19
200	60	92	39	21.5	32	18	26	2.5	60	25	15.5	4.19

For use with mountings style H, FH and UH. Stainless steel, weight on request.

Center trunnion – H (for tie rod types)
ISO 6431 and VDMA 24562 Part 2



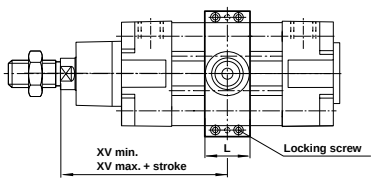
*Type – UH ***Type – H
**Grease nipple up to Ø 125 mm

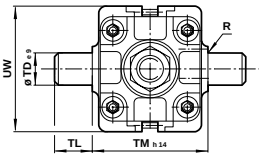
Ø	L	R	ØTD e9	TL	TM h14	UW	XV min.	XV max.	lb	Torque in. lb.
32	20	1	12	12	50	50	66	80	0.35	53.1
40	24	1.6	16	16	63	58	76	89	0.77	53.1
50	28	1.6	16	16	75	70	82	98	0.77	53.1
63	28	1.6	20	20	90	80	88	107	1.87	88.5
80	28	1.6	20	20	110	100	97	123	1.87	88.5
100	38	2	25	25	132	126	112	128	5.07	132.75
125	50	2	25	25	160	152	136	154	7.28	221.25
160	50	2.5	32	32	200	192	155	185	11.69	354
200	50	2.5	32	32	250	240	170	200	20.73	354
250	60	3.2	40	40	320	318	193	217	39.69	–
320	70	3.2	50	50	400	400	215	245	66.15	–

Note: Style 'H': These mountings are only supplied assembled complete with the cylinder. Unless otherwise specified, units will be supplied with dimension 'XV' plus half the stroke length. 'XV' = Distance from the piston rod shoulder to the center of the mounting.

Style 'UH': 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.

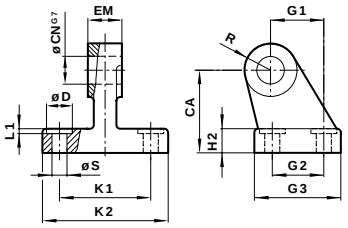
Adjustable center trunnion – UH (for profile types)



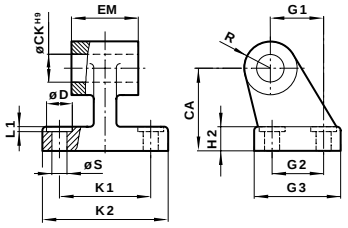


Ø	L	R	Ø TD e9	TL	TM h14	UW	lb	Torque in. lb.
32	25	1	12	12	50	58	0.77	17.70
40	28	1.6	16	16	63	65	1.10	30.98
50	28	1.6	16	16	75	80	1.76	30.98
63	36	1.6	20	20	90	96	3.09	44.25
80	36	1.6	20	20	110	116	4.19	53.10
100	48	2	25	25	132	140	5.07	53.10
125	50	2	25	25	160	163	7.28	53.10

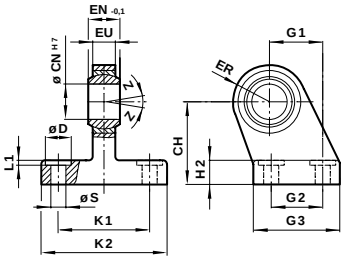
Narrow hinge – SS



Wide hinge – SW



Swivel hinge – US



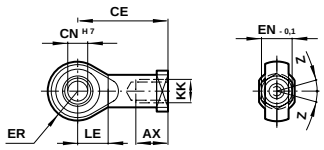
Ø	CA	CH CN H7	Ø CK H9	Ø D	H2	EM	EM1	EN-0.1	ER	EU	G1	G2	G3	H6	K1	K2	L1	R1	Ø S	Z	SW lb	SS lb	US lb
32	32	32	10	10	11	26	10	14	16	10.5	21	18	31	8	38	51	1.6	10	6.6	13°	0.11	0.33	0.42
40	36	36	12	12	11	28	12	16	18	12	24	22	35	10	41	54	1.6	11	6.6	13°	0.15	0.44	0.53
50	45	45	16	12	11	32	16	21	21	15	33	30	45	10	50	65	1.6	13	6.6	13°	0.31	1.06	1.01
63	50	50	16	16	15	40	16	21	23	15	37	35	50	12	52	67	1.6	15	9	15°	0.40	1.10	1.30
80	63	63	20	16	18	50	20	25	28	18	47	40	60	14	66	86	2.5	15	11	15°	0.62	1.65	2.27
100	71	7	20	20	18	60	20	25	30	18	55	50	70	15	76	96	2.5	19	11	15°	3.13	2.65	3.09
125	90	90	30	–	20	70	30	37	40	25	70	60	90	20	94	124	–	22	14	15°	5.95	5.51	6.84
160	115	115	35	30	20	90	35	43	44	28	97	88	126	25	118	156	4	31	14	15°	13.89	13.23	14.11
200	135	135	35	30	24	90	35	43	47	28	105	90	130	30	122	162	4	31	16	15°	17.64	16.76	20.07
250	165	–	–	40	33	110	–	–	–	–	128	110	160	35	150	200	2	40	22	–	29.55	–	–
320	200	–	–	45	40	120	–	–	–	–	150	122	186	40	170	234	2	45	26	–	48.51	–	–

ISO/VDMA Cylinder mountings

For DA/8000; KA/8000; RA/191000; RA/192000; RA/193000,.../M; PVA/8000/M

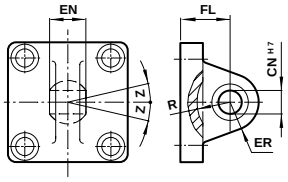
Dimensions in mm

Universal piston rod eye – UF
DIN ISO 8139



Thread KK	AX	CE	Ø CN H7	EN -0.1	ER	LE	Z	lb
M10x1.25	20	43	10	14	14	15	13°	0.20
M12x1.25	22	50	12	16	16	17	13°	0.29
M16x1.5	28	64	16	21	21	22	15°	0.73
M20x1.5	33	77	20	25	25	26	15°	1.48
M27x2	51	110	30	37	35	36	15°	2.98
M36x2	56	125	35	43	40	41	16°	6.62
M42x2	60	142	40	49	45	46	17°	14.11
M48x2	65	160	50	60	58	59	12°	19.18

Universal rear eye – UR



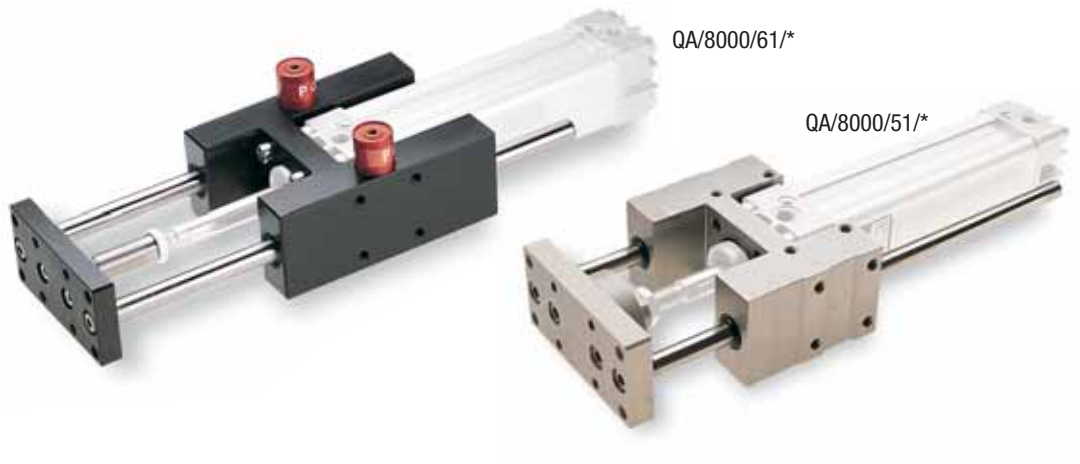
Ø	Ø CN H7	EN	ER	FL	R	Z	lb
32	10	14	16	22	14.5	13°	0.33
40	12	16	19	25	18	13°	0.55
50	16	21	21	27	19	13°	0.88
63	16	21	24	32	24	15°	1.21
80	20	25	28	36	24	15°	1.98
100	20	25	30	41	29	15°	3.31
125	30	37	40	50	36	15°	5.95
160	35	43	44	55	41	16°	10.14
200	35	43	48	60	42	16°	16.10

Guide blocks for ISO/VDMA cylinders

QA/8000/51/*

QA/8000/61/*

Ø 32 ... 100mm



Conforms to ISO 6431, VDMA 24562 and NFE 49 003 1

Ensures protection against external rotary and bending forces

Guide rods run through bearings protected by wiper rings

Provides accurate guidance for unsupported loads

Technical data

Operating temperature:

+32°F to +176°F (0°C to +80°C) maximum

Materials

Guide block, nut & mounting plate: anodized aluminum

Plain bearings:
Sintered bronze QA/8***/51/*
Steel roller bearing QA/8***/61/*

Rods: Stainless steel

Wiper rings: nitrile rubber

Standard models QA/8000/51/* (plain bearing)

Ø	Piston rod Ø	Model	Suitable for cylinders Magnetic	Non-magnetic
32	12	QA/8032/51/*	DA/8032/M, PDA/182032/M	DA/8032, PDA/182032
40	16	QA/8040/51/*	DA/8040/M, PDA/182040/M	DA/8040, PDA/182040
50	20	QA/8050/51/*	DA/8050/M, PDA/182050/M	DA/8050, PDA/182050
63	20	QA/8063/51/*	DA/8063/M, PDA/182063/M	DA/8063, PDA/182063
80	25	QA/8080/51/*	DA/8080/M, PDA/182080/M	DA/8080, PDA/182080
100	25	QA/8100/51/*	DA/8100/M, PDA/182100/M	DA/8100, PDA/182100

* Insert stroke length in mm.

Standard models QA/8000/61/* (roller bearing)

Ø	Piston rod Ø	Model	Passive locking cartridge	Locking force (N)	Suitable for cylinders Magnetic #	Non-magnetic #
32	12	QA/8032/61/*	QA/8032/63	600	DA/8032/M, PDA/182032/MIL #	DA/8032, PDA/182032/IIL #
40	16	QA/8040/61/*	QA/8040/63	1000	DA/8040/M, PDA/182040/MIL #	DA/8040, PDA/182040/IIL #
50	20	QA/8050/61/*	QA/8050/63	1500	DA/8050/M, PDA/182050/MIL #	DA/8050, PDA/182050/IIL #
63	20	QA/8063/61/*	QA/8050/63	1500	DA/8063/M, PDA/182063/MIL #	DA/8063, PDA/182063/IIL #
80	25	QA/8080/61/*	QA/8080/63	3000	DA/8080/M, PDA/182080/MIL #	DA/8080, PDA/182080/IIL #
100	25	QA/8100/61/*	QA/8080/63	3000	DA/8100/M, PDA/182100/MIL #	DA/8100, PDA/182100/IIL #

* Insert stroke length in mm.

Locking cartridges should be ordered separately. Active – pressure applied to lock, passive – pressure released to lock. 2 required per guide block.

Note: For all applications please consult our Technical Service

When using guide blocks (QA/8000/61) for profile cylinders PDA/182000 you have to order a model with a barrel which is turned at 90° so that the port threads are in line with the two switch grooves.

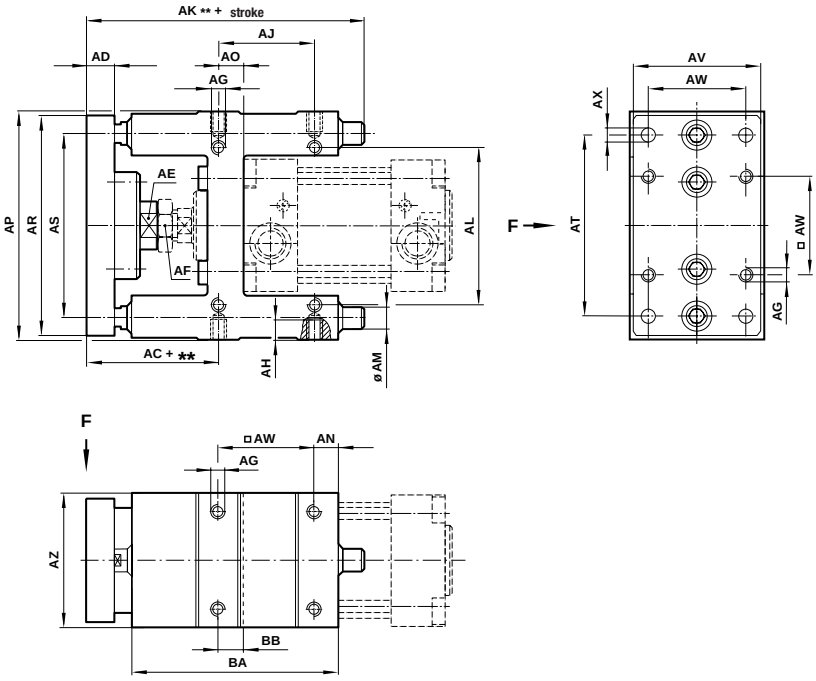
Guide blocks with plain bearings

QA/8000/51/*

Ø 32 ... 100 mm

Dimensions in mm

QA/8000/51/* – Guide blocks (plain bearing)



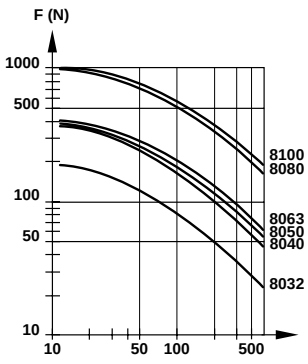
** Adjustment range

Ø	AC + **	AD	AE (A/F)	AF (A/F)	AG	AH	AJ	AK**	AL	Ø AM	AN	AO
32	69 + 2	12	15	17	M 6	10	32.5	110	58	10	6	9
40	74 + 2	12	15	19	M 6	10	38	122	64	12	6	11
50	91.5 + 4	15	22	24	M 8	12	46.5	135	80	12	6	19
63	92 + 4	15	22	24	M 8	12	56.5	153	95	12	7	15
80	106 + 6	15	27	30	M 10	15	50	180	130	16	9	14
100	111 + 6	15	27	30	M 10	15	70	199	150	16	9	19
Ø	**AP**	**AR**	**AS**	**AT**	**AV**	**❑ AW**	**Ø AX**	**AZ**	**BA**	**BB**	**at 0 mm**	**per 100**
32	100	90	74	78	45	32.5	6.6	48	76	9	2.20 lb	0.13 lb
40	106	100	80	84	50	38	6.6	56	85	11	2.65 lb	0.20 lb
50	125	120	96	100	60	46.5	9	66	99	19	3.97 lb	0.20 lb
63	132	125	104	105	70	56.5	9	76	114	15	4.90 lb	0.20 lb
80	165	155	130	130	90	72	11	98	134.5	25	9.04 lb	0.35 lb
100	185	175	150	150	110	89	11	118	153.5	28.5	12.80 lb	0.35 lb

** Adjustment ranges

Note: Supplied complete with mounting screws for cylinder.

Load capacity



Outstroke (mm)

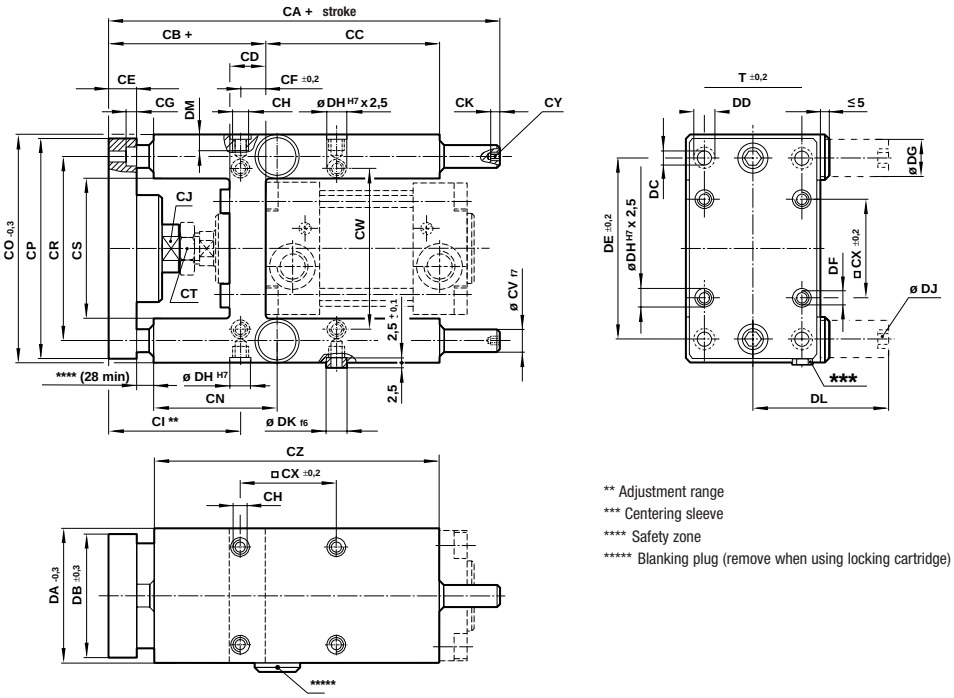
Guide blocks with roller bearings

QA/8000/61/*

Ø 32 ... 100 mm

Dimensions in mm

QA/8000/61/* – Guide blocks (roller bearing)



** Adjustment range
*** Centering sleeve
**** Safety zone
***** Blanking plug (remove when using locking cartridge)

Ø	CA**	CB + **	CC	CD	CE	CF ±0.2	CG	CH	CI**	CJ (A/F)	CK	CN	
32	177	100 + 5	65	28	12	15.3	6.5	M 6	84.5	13	5	61	
40	192	111 + 5	69	33	12	23	6.5	M 6	88	15	6	67	
50	237	128 + 10	65	40	15	33.8	9	M 8	94	22	6	75.5	
63	237	128 + 10	97	40	15	29.3	9	M 8	98.5	22	6	80	
80	280	151 + 10	112	50	20	37	11	M 10	114	27	7	92	
100	280	156 + 10	112	55	20	40.5	11	M 10	115.5	27	7	93	
Ø	**CO -0.3**	**CP**	**CR**	**CS**	**CT (A/F)**	**Ø CV f7**	**CW**	**❑ CX ±0.2**	**CY (A/F)**	**CZ**	**DA -0.3**	**DB ±0.3**	
32	97	90	74	50.5	17	12	61	32.5	5	125	50	45	
40	115	110	87	58.5	19	16	69	38	6	140	58	54	
50	137	130	104	70.5	24	20	85	46.5	6	150	70	63	
63	152	145	119	85.5	24	20	100	56.5	6	182	85	80	
80	189	180	148	105.5	30	25	130	72	8	215	105	100	
100	213	200	172	130.5	30	25	150	89	8	220	130	120	
Ø	**C**	**Ø DD**	**DE ±0.2**	**DF**	**Ø DG**	**Ø DH H7**	**DJ**	**Ø DK f6**	**DL**	**DM**	**T**	**at 0 mm**	**per 100 mm**
32	6.6	11	78	M 6	22.5	9	M 5	9	70.5	14	32.5	2.65 lb	0.40 lb
40	6.6	11	84	M 6	27.5	9	G 1/8	9	74.5	14	38.0	4.85 lb	0.71 lb
50	9	15	100	M 8	32.5	11	G 1/8	11	91.5	16	46.5	7.94 lb	1.08 lb
63	9	15	105	M 8	32.5	11	G 1/8	11	91.5	16	56.5	10.14 lb	1.08 lb
80	11	18	130	M 10	54.5	13	G 1/8	13	141.5	20	72.0	19.18 lb	1.70 lb
100	11	18	150	M 10	54.5	13	G 1/8	13	141.5	20	87.0	24.26 lb	1.70 lb

** Adjustment range

Note: Supplied complete with mounting screws for cylinders and two centering sleeves.

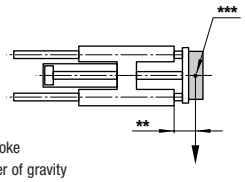
Attention

When using guide blocks (QA/8000/61) for profile cylinders PDA/182000 you have to order a model with a barrel which is turned at 90° (PDA/182000/IIL, .../MIL) so that the port threads are in line with the two switch grooves.

Guide blocks with roller bearings

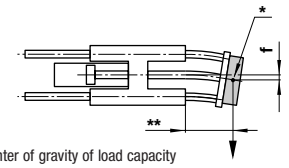
QA/8000/61/*

Ø 32 ... 100 mm



** Outstroke
*** Center of gravity

Maximum load capacity is dependent on the outstroke of a horizontally installed guide unit. In the case of short stroke operation, the load capacity figures taken from the diagram must be multiplied by the correction factor (diagram 2). In the curves of load capacity (diagram 1), the short stroke corrections have already been taken into account for an outstroke > 60 mm.

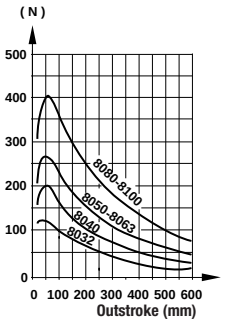


* Center of gravity of load capacity
** Outstroke

The total deflection of guide rods will be determined by the addition of that due to own weight (diagram 3) and that due to load capacity (diagram 4).

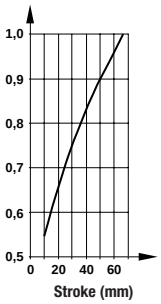
Maximum load capacity depending on outstroke (diagram 1)

Load capacity



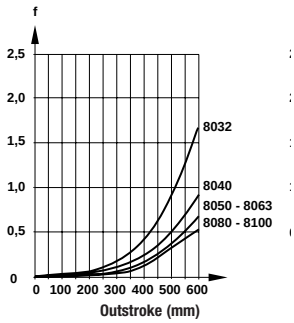
(diagram 2)

Correction factor



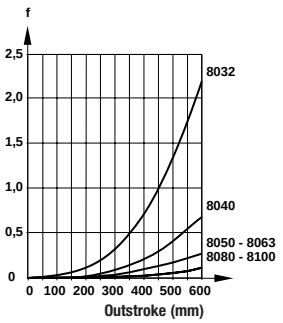
Deflection caused by own weight (diagram 3)

Deflection (mm)



Deflection caused by a load of 10 N (diagram 4)

Deflection (mm)



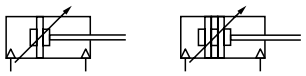
In the case of shock load applications, the figures given in the diagrams above must be reduced by a factor of 2.

ISO/VDMA Profile cylinders

PDA/182000, PDA/182000/M

Double acting

Ø 32 ... 125 mm



Conforms to ISO 6431, VDMA 24562 and NFE 49-003-1

Profile barrel with concealed tie rods

High performance, stability and reliability

Polyurethane seals ensure efficient low friction operation and long life

Switches can be mounted flush with the profile barrel

Comprehensive range of standard mountings

Technical data

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

PDA/182000: Adjustable cushioning
PDA/182000/M: Magnetic piston, adjustable cushioning

Operating pressure:

15 to 232 psig (1 to 16 bar)

Operating temperature:

-4°F to +176°F
(-20°C to +80°C) max.
High temperature versions:
302°F (150°C) max.
Consult our Technical Service for use below +35°F (+2°C)

Strokes:

Standard: see next page
Non-standard strokes available (10 to 3000 mm)

Materials:

Profile barrel: anodized aluminum
End covers: pressure diecast aluminum
Piston rod: stainless steel (Martensitic)
Piston rod seals: polyurethane
Piston seals: polyurethane
'O-rings: nitrile rubber

Standard models

Ø	Piston rod Ø	Port size	Magnetic Standard	Non-rotating	Non-magnetic Standard	Non-rotating	Service kit Standard	Non-rotating
32	12	G1/8	PDA/182032/M/*	PDA/182032/N2/*	PDA/182032/*	PDA/182032/N1/*	QA/8032/00	QA/8032/N1/00
40	16	G1/4	PDA/182040/M/*	PDA/182040/N2/*	PDA/182040/*	PDA/182040/N1/*	QA/8040/00	QA/8040/N1/00
50	20	G1/4	PDA/182050/M/*	PDA/182050/N2/*	PDA/182050/*	PDA/182050/N1/*	QA/8050/00	QA/8050/N1/00
63	20	G3/8	PDA/182063/M/*	PDA/182063/N2/*	PDA/182063/*	PDA/182063/N1/*	QA/8063/00	QA/8063/N1/00
80	25	G3/8	PDA/182080/M/*	PDA/182080/N2/*	PDA/182080/*	PDA/182080/N1/*	QA/8080/00	QA/8080/N1/00
100	25	G1/2	PDA/182100/M/*	PDA/182100/N2/*	PDA/182100/*	PDA/182100/N1/*	QA/8100/00	QA/8100/N1/00
125	32	G1/2	PDA/182125/M/*	–	PDA/182125/*	–	QA/8125/00	–

*Insert stroke length in mm.

Options selector

★P★A/182★★★/★★/★★★★

Special variants	Substitute
Heat resistant seals, 150°C max.	T
Hydraulic	H

Piston rod material	Substitute
Chrome plated stainless steel	D

Threads	Substitute
Metric ports: ISO 228 (G 1/8 to G 1)	A
NPT ports	C

Cylinder diameters (mm)	Substitute
032, 040, 050, 063, 080, 100, 125	

Variants (magnetic piston)	Substitute
Standard	M
Special wiper/seal	W2
Low friction	X2
Piston rod bellow	MG
Without cushioning	MW
Without cushioning, low friction	X4
Double ended piston rod	JM
Double ended piston rod & special wiper/seal	W4
Four-position	MT
Non-rotating piston rod	N2
Locking unit	L4
Barrel turned at 90° for use with guide blocks	MIL
Extended piston rod	MU
Extended piston rod & special wiper/seal	W6

P*A/182***/MU/****/***
/W6/ Extension (mm)

Strokes (mm)
3000 max.

Variants (non-magnetic piston)	Substitute
Standard	None
Special wiper/seal	W1
Low friction	X1
Piston rod bellow	G
Without cushioning	W
Without cushioning, low friction	X3
Double ended piston rod	J
Double ended piston rod, special wiper/seal	W3
Four-position	IT
Non-rotating piston rod	N1
Locking unit	L2
Barrel turned at 90° for use with guide blocks QA/8000/61/*	IIL
Extended piston rod	IU
Extended piston rod, special wiper/seal	W5

P*A/182***/IU/****/***
/W5/ Extension (mm)

Note: Disregard option positions not used.
For combinations of cylinder variants consult our Technical Service.

ISO/VDMA Profile cylinders

PDA/182000, PDA/182000/M

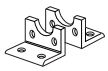
Double acting

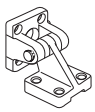
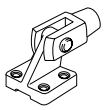
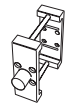
Ø 32 ... 125 mm

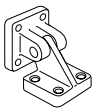
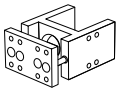
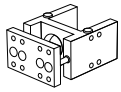
Theoretical forces

Theoretical forces (lbs) at 87 psig		
Cylinder Ø	**Outstroke**	**Instroke**
32	108	93
40	170	142
50	265	223
63	421	378
80	679	612
100	1060	994
125	1657	1548

Mountings

Ø	A	AK	B, G	C	D	D2	F
							
32	QM/8032/35	**QM/8025/38**	**QA/8032/22**	**QA/8032/21**	**QA/8032/23**	**QA/8032/42**	**QM/8025/25**
40	QM/8032/35	QM/8040/38	**QA/8040/22**	**QA/8040/21**	**QA/8040/23**	**QA/8040/42**	**QM/8040/25**
50	QM/8050/35	**QM/8050/38**	**QA/8050/22**	**QA/8050/21**	**QA/8050/23**	**QA/8050/42**	**QM/8050/25**
63	QM/8050/35	**QM/8050/38**	**QA/8063/22**	**QA/8063/21**	**QA/8063/23**	**QA/8063/42**	**QM/8050/25**
80	QM/8080/35	QM/8080/38	**QA/8080/22**	**QA/8080/21**	**QA/8080/23**	**QA/8080/42**	**QM/8080/25**
100	QM/8080/35	QM/8080/38	**QA/8100/22**	**QA/8100/21**	**QA/8100/23**	QA/8100/42	**QM/8080/25**
125	QM/8125/35	QM/8125/38	**QM/8125/22**	QM/8125/21	**QM/8125/23**	QA/8125/42	**QM/8125/25**

Ø	L	M	R	S	SS	SW	UF	UH
								
32	**QA/8032/24**	**QM/8032/26**	**QA/8032/27**	QA/8032/41	**M/P19931**	**M/P19493**	**QM/8025/32**	PQA/182032/40
40	**QA/8040/24**	**QM/8040/26**	**QA/8040/27**	**QA/8040/41**	**M/P19932**	**M/P19494**	**QM/8040/32**	PQA/182040/40
50	**QA/8050/24**	**QM/8050/26**	**QA/8050/27**	**QA/8040/41**	**M/P19933**	**M/P19495**	**QM/8050/32**	PQA/182050/40
63	**QA/8063/24**	**QM/8063/26**	**QA/8063/27**	**QA/8063/41**	**M/P19934**	**M/P19496**	**QM/8050/32**	PQA/182063/40
80	**QA/8080/24**	QM/8080/26	**QA/8080/27**	**QA/8063/41**	**M/P19935**	**M/P19497**	**QM/8080/32**	PQA/182080/40
100	**QA/8100/24**	QM/8100/26	**QA/8100/27**	QA/8100/41	M/P19936	**M/P19498**	**QM/8080/32**	PQA/182100/40
125	**QM/8125/24**	QM/8125/26	**QM/8125/27**	QA/8100/41	M/P19937	M/P19499	QM/8125/32	PQA/182125/40

Ø	UL	UR	US	Guide blocks*	Guide blocks*	Locking unit* (passive)	Groove-key
							
32	**QA/8032/43**	**QA/8032/33**	**M/P40310**	QA/8032/51/*	QA/8032/61/*	**QA/8032/59**	Ø32 M/P72816
40	QA/8040/43	QA/8040/33	M/P40311	QA/8040/51/*	QA/8040/61/*	**QA/8040/59**	Ø40 M/P72816
50	**QA/8050/43**	**QA/8050/33**	**M/P40312**	QA/8050/51/*	QA/8050/61/*	**QA/8050/59**	Ø50 M/P72816
63	QA/8063/43	**QA/8063/33**	M/P40313	QA/8063/51/*	QA/8063/61/*	**QA/8063/59**	Ø63 M/P72816
80	QA/8080/43	**QA/8080/33**	**M/P40314**	QA/8080/51/*	QA/8080/61/*	**QA/8080/59**	Ø80 M/P72816
100	QA/8100/43	QA/8100/33	M/P40315	QA/8100/51/*	QA/8100/61/*	QA/8100/59	Ø100 M/P72816
125	QA/8125/43	QM/8125/33	M/P71355	–	–	QA/8125/59	

ISO/VDMA Profile cylinders

PDA/182000, PDA/182000/M

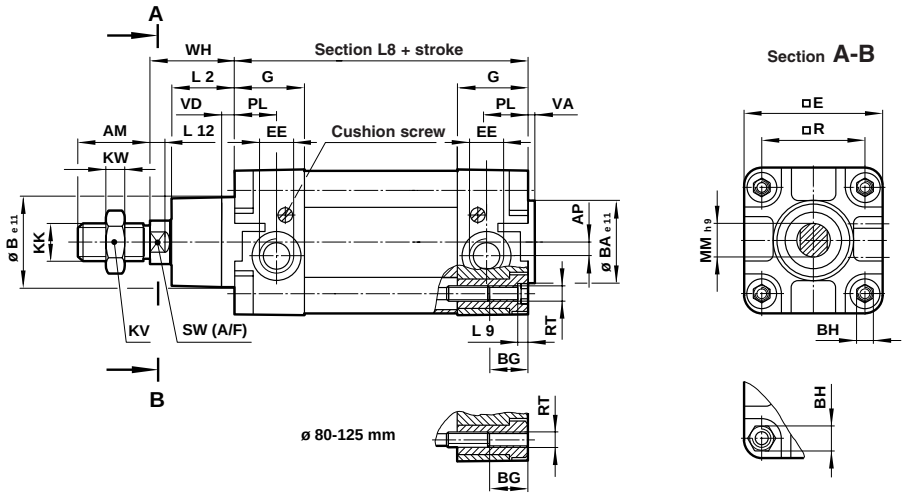
Double acting

Ø 32 ... 125 mm

Dimensions in mm

Standard cylinders

PDA/182000, PDA/182000/M



Ø	AM	AP	Ø B e11	Ø BA e11	BG	BH (A/F)	❑ E	EE	G	KK	KV (A/F)	KW	L2
32	22	3.5	30	30	18	6	47	G 1/8	27.5	M10 x 1.25	17	5	20
40	24	4.5	35	35	18	6	53	G 1/4	32	M12 x 1.25	19	6	22
50	32	6	40	40	18	8	65	G 1/4	31	M16 x 1.5	24	8	27
63	32	10	45	45	17.5	8	75	G 3/8	33	M16 x 1.5	24	8	29
80	40	8.5	45	45	21.5	19	95	G 3/8	33	M20 x 1.5	30	10	33
100	40	9	55	55	21.5	19	115	G 1/2	37	M20 x 1.5	30	10	36
125	54	10	60	60	30	24	140	G 1/2	46	M27 x 2	41	13.5	45

Ø	L8	L9	L12	Ø MM h9	PL	❑ R	RT	SW (A/F)	VA	VD	WH	at 0 mm	per 25 mm
32	94	4	6	12	13	32.5	M 6	10	3	6	26	1.12 lb	0.13 lb
40	105	4	6.5	16	15	38	M 6	13	3.5	6	30	1.80 lb	0.18 lb
50	106	5	8	20	18.5	46.5	M 8	17	3.5	6	37	2.93 lb	0.26 lb
63	121	5	8	20	19	56.5	M 8	17	4	6	37	3.97 lb	0.29 lb
80	128	–	10	25	19	72	M 10	22	4	6	46	7.17 lb	0.44 lb
100	138	–	10	25	18	89	M 10	22	4	6	51	10.6 lb	0.51 lb
125	160	–	13	32	22.5	110	M 12	27	6	15.5	65	17.6 lb	0.73 lb

ISO/VDMA Profile cylinders

PDA/182000, PDA/182000/M

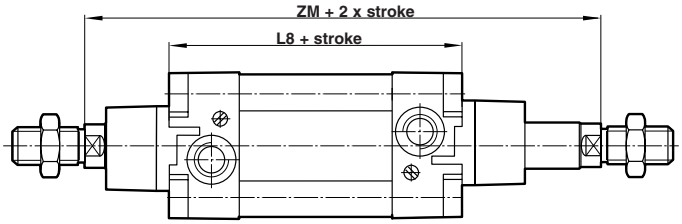
Double acting

Ø 32 ... 125 mm

Dimensions in mm

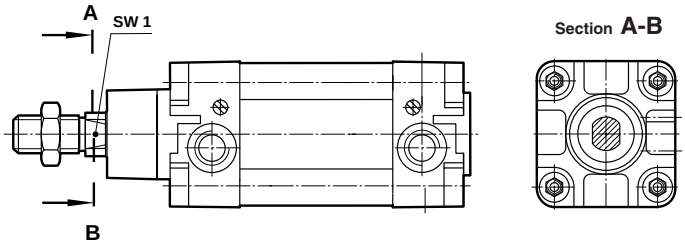
Cylinder variants

PDA/182000/J, PDA/182000/JM — Cylinders with double ended piston rod



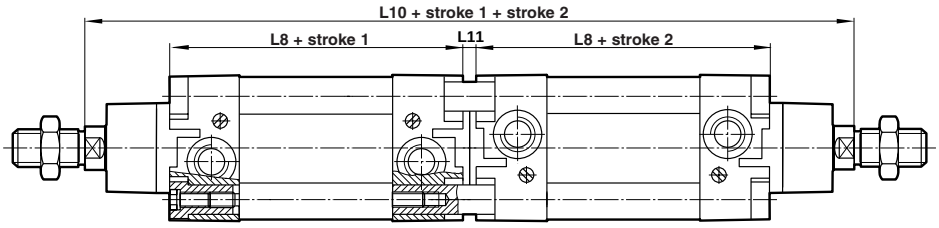
Ø	ZM	L8
32	146	94
40	165	105
50	180	106
63	195	121
80	220	128
100	240	138
125	290	160

PDA/182000/N1, PDA/182000/N2 — Cylinders with non-rotating piston rod



Ø	SW1 (A/F)
32	10
40	13
50	16
63	16
80	21
100	21

PDA/182000/IT, PDA/182000/MT – Four-position cylinders

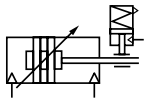


Ø	L 8	L 10	L 11
32	94	247	7
40	105	278	8
50	106	294	8
63	121	325	9
80	128	357	9
100	138	387	9
125	160	462	12

Cylinders with piston rod locking units (ISO/VDMA/NFE)

PDA/182000/L2 & L4, RA/8000/L2 & L4

Ø 32 ... 125 mm



Passive

Magnetic and non-magnetic piston conforms to ISO 6431, VDMA 24562 and NFE 49-003-1

Secure locking of piston rod in any position

Passive locking models

Compact, maintenance-free design

Ø	Magnetic ISO/VDMA/NFE Profile cylinder	ISO/VDMA/NFE Tie-rod cylinder	Non-magnetic ISO/VDMA/NFE Profile cylinder	ISO/VDMA/NFE Tie-rod cylinder
32	PDA/182032/L4/*	DA/8032/L4/*	PDA/182032/L2/*	DA/8032/L2/*
40	PDA/182040/L4/*	DA/8040/L4/*	PDA/182040/L2/*	DA/8040/L2/*
50	PDA/182050/L4/*	DA/8050/L4/*	PDA/182050/L2/*	DA/8050/L2/*
63	PDA/182063/L4/*	DA/8063/L4/*	PDA/182063/L2/*	DA/8063/L2/*
80	PDA/182080/L4/*	DA/8080/L4/*	PDA/182080/L2/*	DA/8080/L2/*
100	PDA/182100/L4/*	DA/8100/L4/*	PDA/182100/L2/*	DA/8100/L2/*
125	PDA/182125/L4/*	DA/8125/L4/*	PDA/182125/L2/*	DA/8125/L2/*

* Insert stroke length in mm.

Locking unit includes cartridge

For non-magnetic versions substitute L2 for L4.

For all applications please consult our Technical Service.

Ø	Locking unit Passive	Spare cartridge only Passive
32	QA/8032/59	QA/8032/63
40	QA/8040/59	QA/8040/63
50	QA/8050/59	QA/8050/63
63	QA/8063/59	QA/8063/63
80	QA/8080/59	QA/8100/63
100	QA/8100/59	QA/8100/63
125	QA/8125/59	QA/8125/63

Technical data

Medium:

Compressed air, filtered, lubricated or non-lubricated

Type:

Passive model – pressure applied to release

Operating pressure:

58 to 145 psig (4 to 10 bar)

Operating temperature:

+32°F to 176°F (0°C to +80°C). Consult our Technical Service for use below +35°F (+2°C).

Materials

Body: hard anodised diecast aluminum

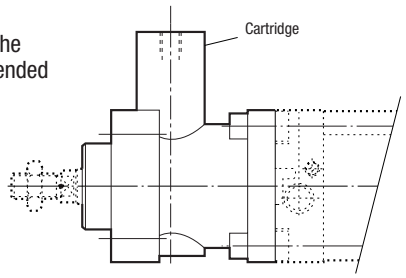
Seals: polyurethane & nitrile

Cartridge: anodized aluminum body

Locking wedges: hardened steel

Locking unit

If retro fitting locking unit the cylinder must be of an extended piston rod design.

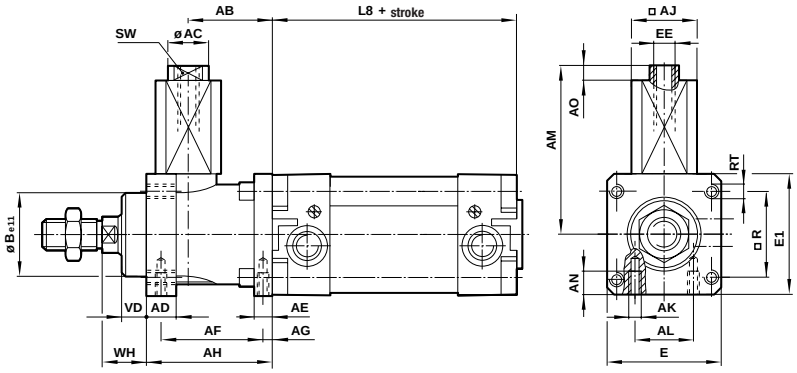


Cylinders with piston rod locking units (ISO/VDMA/NFE)

PDA/182000/L2 & L4, RA/8000/L2 & L4

Ø 32 ... 125 mm

Dimensions in mm



Ø	AB	Ø AC	AD	AE	AF	AG	AH	❑ AJ	AK	AL	AM	AN
32	32	10	12	8	40	4	48	22.5	M 5	20	71	8
40	35.5	10	12	10	46	4.5	55	27.5	M 5	24	74.5	10
50	49	15	16	15	54	11.5	70	32.5	M 6	30	91.5	12
63	49	15	15	15	55	7.5	70	41	M 8	38	108.5	12
80	62	19	16	16	.70	10	90	53	M 8	48	141.5	16
100	65	19	18	16	70	10	92	53	M 8	48	141.5	16
125	85	19	27	25	95	11	122	65	M 10	65	152	20

Ø	AO	Ø B e11	E	E 1	EE	L 8	❑ R	RT	SW (A/F)	VD	WH
32	4	30	48	50	M 5	94	32.5	M 6	8	10	16
40	4	35	56	58	G 1/8	105	38	M 6	8	10	18
50	4	40	68	70	G 1/8	106	46.5	M 8	13	12	22
63	4	45	82	85	G 1/8	121	56.5	M 8	13	12	20
80	4	45	100	105	G 1/8	128	72	M 10	17	20	33
100	4	55	120	130	G 1/8	138	89	M 10	17	23	38
125	4	60	140	150	G 1/8	160	110	M 12	17	32	65

Lock retention forces

Ø	Locking forces
32	135 lbs
40	225 lbs
50	338 lbs
63	495 lbs
80	1125 lbs
100	1125 lbs
125	1575 lbs