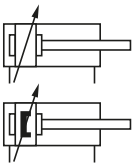
- **Ø 32 ... 320 mm**
- **Comprehensive range for the utmost versatility**
- **Conforms to ISO 15552 (ISO 6431, VDMA 24562 and NFE 49-003-1)**
- **High performance, stability and reliability ideal for the demands of today**
- **Supplied complete with piston rod locknut**
- **Comprehensive range of standard 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^3)	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

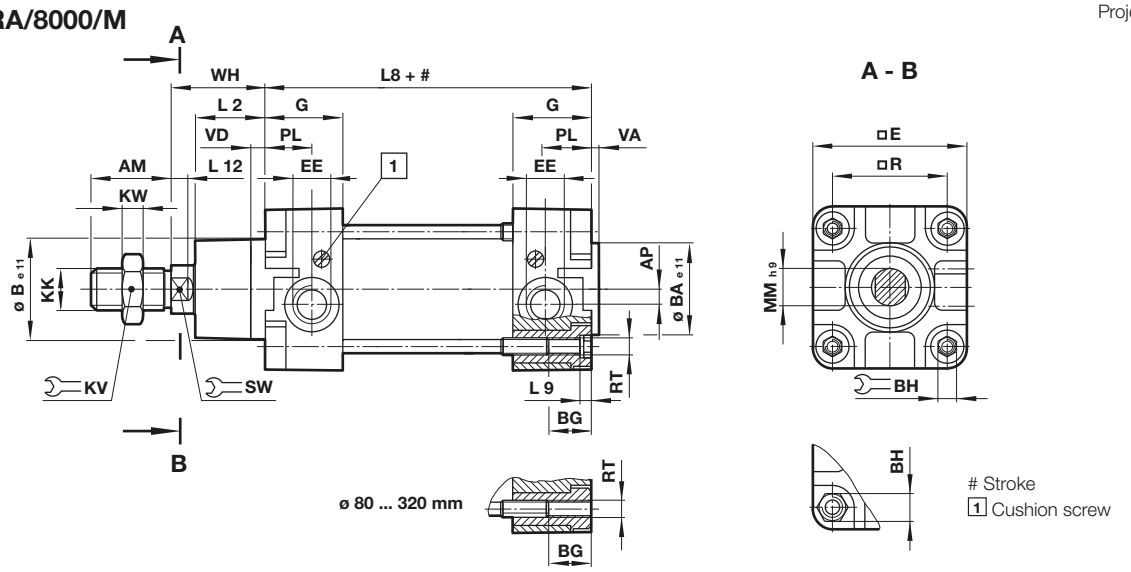
Standard strokes

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	•	•	•	•	•	•	•	•	•	•	•

Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document. (2000 - 1213e) © 2015 Norgren GmbH

Basic dimensions
RA/8000; RA/8000/M

Dimensions in mm
Projection/First angle



Ø	AM	AP	Ø B e11	Ø BA e11	BG	BH	□E	EE	G	KK	KV	KW	L2	L8	L9
32	22	3,5	30	30	18	6	47	G 1/8	27,5	M10x1,25	17	5	20	94	4
40	24	4,5	35	35	18	6	53	G 1/4	32	M12x1,25	19	6	22	105	4
50	32	6	40	40	18	8	65	G 1/4	31	M16x1,5	24	8	27	106	5
63	32	10	45	45	17,5	8	75	G 3/8	33	M16x1,5	24	8	29	121	5
80	40	8,5	45	45	21,5	19	95	G 3/8	33	M20x1,5	30	10	33	128	-
100	40	9	55	55	21,5	19	115	G 1/2	37	M20x1,5	30	10	36	138	-
125	54	10	60	60	30	24	140	G 1/2	46	M27x2	41	13,5	45	160	-
160	72	19	65	65	28,5	32	183,5	G 3/4	50	M36x2	55	18	58	180	-
200	72	19	75	75	28,5	32	224	G 3/4	50	M36x2	55	18	67	180	-
250	84	22	90	90	35	36	280	G 1	58	M42x2	65	21	80	200	-
320	96	22	110	110	30	46	350	G 1	60	M48x2	75	24	90	220	-

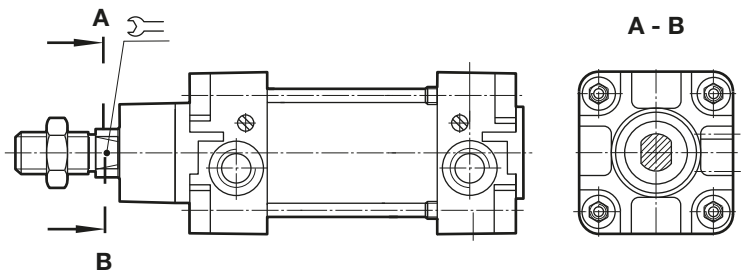
Ø	L12	Ø MM h9	PL	□R	RT	SW	VA	VD	WH	at 0 mm	per 25 mm	Model non-magnetic piston	Model magnetic piston
32	6	12	13	32,5	M 6	10	3	6	26	0,51 kg	0,06 kg	RA/8032/*	RA/8032/M/*
40	6,5	16	15	38	M 6	13	3,5	6	30	0,80 kg	0,08 kg	RA/8040/*	RA/8040/M/*
50	8	20	18,5	46,5	M 8	17	3,5	6	37	1,33 kg	0,12 kg	RA/8050/*	RA/8050/M/*
63	8	20	19	56,5	M 8	17	4	6	37	1,80 kg	0,13 kg	RA/8063/*	RA/8063/M/*
80	10	25	19	72	M 10	22	4	6	46	3,25 kg	0,20 kg	RA/8080/*	RA/8080/M/*
100	10	25	18	89	M 10	22	4	6	51	4,81 kg	0,23 kg	RA/8100/*	RA/8100/M/*
125	13	32	22,5	110	M 12	27	6	15,5	65	8,00 kg	0,33 kg	RA/8125/*	RA/8125/M/*
160	16	40	25	140	M 16	36	4	15	80	14,9 kg	0,55 kg	RA/8160/*	RA/8160/M/*
200	16	40	26	175	M 16	36	5	15	95	21,7 kg	0,60 kg	RA/8200/*	RA/8200/M/*
250	20	50	28	220	M 20	41	7	13	105	32,6 kg	0,92 kg	RA/8250/*	RA/8250/M/*
320	24	63	31	270	M 24	55	7	13	120	59,8 kg	1,46 kg	RA/8320/*	RA/8320/M/*

* Please insert standard stroke length.

Cylinder variants
RA/8000/N1, RA/8000/N2 – Cylinder with non-rotating piston rod

Ø		max. Torque (Nm)	Model non-magnetic piston	Model magnetic piston
32	10	0,5	RA/8032/N1/*	RA/8032/N2/*
40	13	1	RA/8040/N1/*	RA/8040/N2/*
50	16	1,5	RA/8050/N1/*	RA/8050/N2/*
63	16	1,5	RA/8063/N1/*	RA/8063/N2/*
80	16	2,5	RA/8080/N1/*	RA/8080/N2/*
100	21	2,5	RA/8100/N1/*	RA/8100/N2/*

* Please insert standard stroke length.



Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document. (2000 - 1213e) © 2015 Norgren GmbH