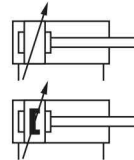




- > Ø 32 ... 320 mm
- > Comprehensive range for the utmost versatility
- > Conforms to ISO 15552 (ISO 6431, VDMA 24562 and NFE 49-003-1)
- > High performance, stability and reliability ideal for the demands of today
- > Supplied complete with piston rod locknut
- > Comprehensive range of standard mountings



## 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

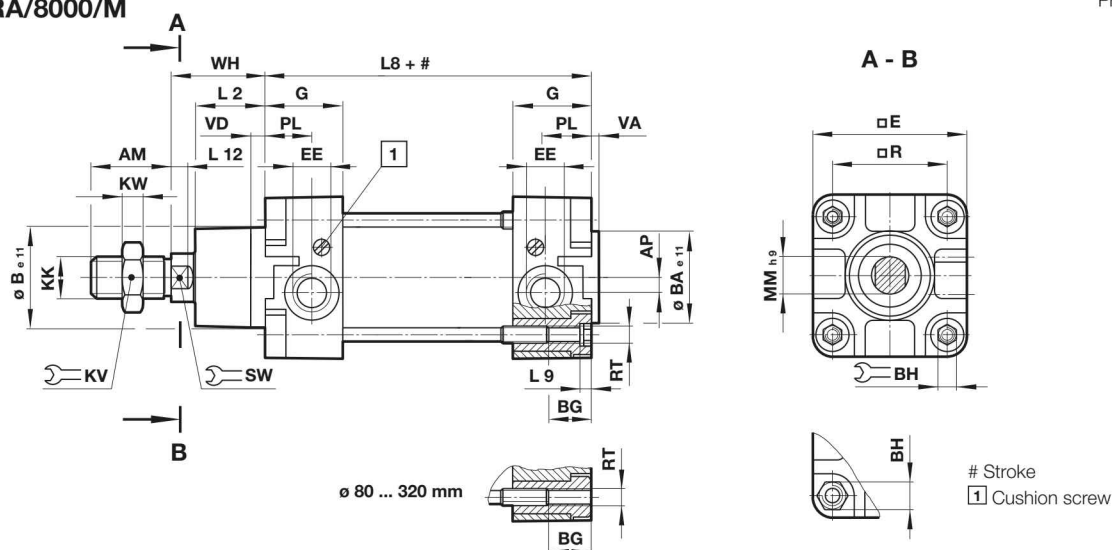
Cylinder Ø (mm)	32	40	50	63	80	100	125	160	200	250	320
Port size	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4	G1	G1
Piston rod Ø (mm)	12	16	20	20	25	25	32	40	40	50	63
Piston rod thread	M10 x 1,25	M12 x 1,25	M16 x 1,5	M16 x 1,5	M20 x 1,5	M20 x 1,5	M27 x 2	M36 x 2	M36 x 2	M42 x 2	M48 x 2
Cushion length mm	19	22	24	24	27	34	41	45	45	60	65
Initial cushion volume (cm³)	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	•	•	•	•	•	•	•	•	•	•	•

## Basic dimensions RA/8000; RA/8000/M


Dimensions in mm  
Projection/First angle



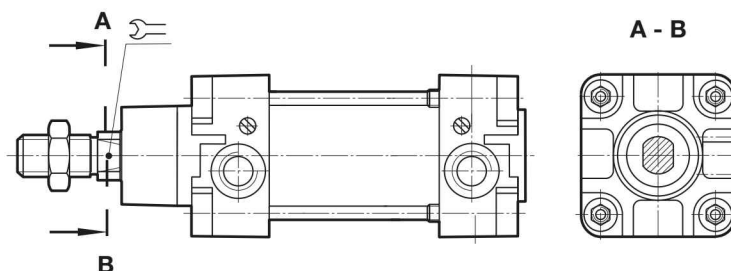
Ø	AM	AP	Ø B e11	Ø BA e11	BG		□ E	EE	G	KK		KW	L2	L8	L9
32	22	3,5	30	30	18	6	47	G 1/8	27,5	M10x1,25	17	5	20	94	4
40	24	4,5	35	35	18	6	53	G 1/4	32	M12x1,25	19	6	22	105	4
50	32	6	40	40	18	8	65	G 1/4	31	M16x1,5	24	8	27	106	5
63	32	10	45	45	17,5	8	75	G 3/8	33	M16x1,5	24	8	29	121	5
80	40	8,5	45	45	21,5	19	95	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		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.

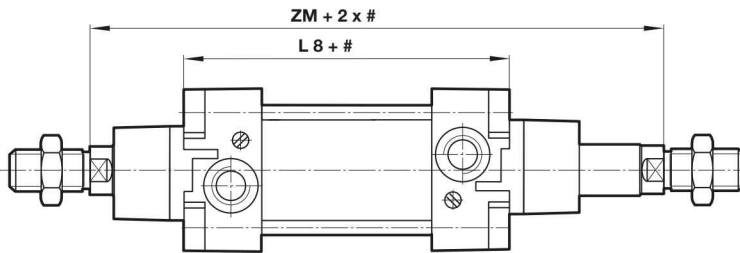
## Cylinder variants RA/8000/N1, RA/8000/N2 – Cylinder with non-rotating piston rod

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.



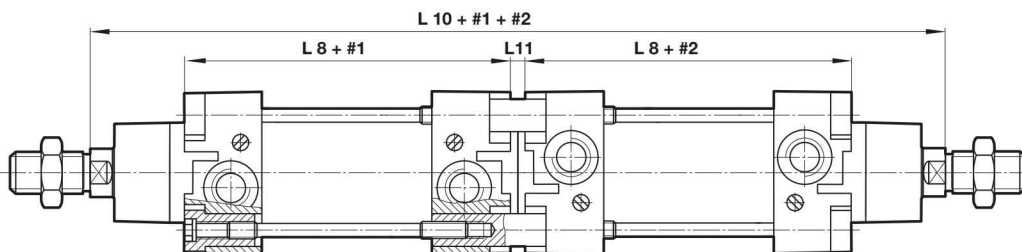
**Cylinder variants**
**RA/8000/J, RA/8000/JM – Cylinder with double ended piston rod**

 Dimensions in mm  
Projection/First angle


# Stroke

Ø	ZM	L8	Model non-magnetic piston	Model magnetic piston
32	146	94	RA/8032/J/*	RA/8032/JM/*
40	165	105	RA/8040/J/*	RA/8040/JM/*
50	180	106	RA/8050/J/*	RA/8050/JM/*
63	195	121	RA/8063/J/*	RA/8063/JM/*
80	220	128	RA/8080/J/*	RA/8080/JM/*
100	240	138	RA/8100/J/*	RA/8100/JM/*
125	290	160	RA/8125/J/*	RA/8125/JM/*
160	340	180	RA/8160/J/*	RA/8160/JM/*
200	370	180	RA/8200/J/*	RA/8200/JM/*
250	410	200	RA/8250/J/*	RA/8250/JM/*
320	460	220	RA/8320/J/*	RA/8320/JM/*

\* Please insert standard stroke length.

**RA/8000/IT, RA/8000/MT – Four-position cylinder**


# Stroke

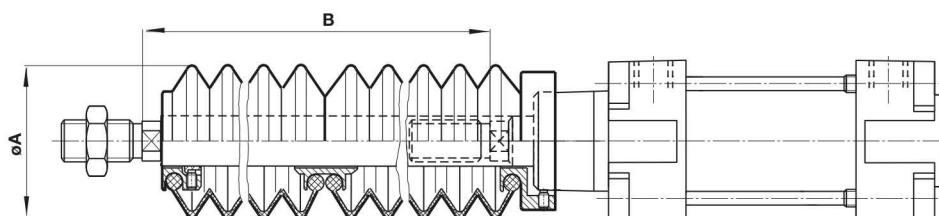
Ø	L 8	L 10	L 11	Model non-magnetic piston	Model magnetic piston
32	94	247	7	RA/8032/IT/*/**	RA/8032/MT/*/**
40	105	278	8	RA/8040/IT/*/**	RA/8040/MT/*/**
50	106	294	8	RA/8050/IT/*/**	RA/8050/MT/*/**
63	121	325	9	RA/8063/IT/*/**	RA/8063/MT/*/**
80	128	357	9	RA/8080/IT/*/**	RA/8080/MT/*/**
100	138	387	9	RA/8100/IT/*/**	RA/8100/MT/*/**
125	160	462	12	RA/8125/IT/*/**	RA/8125/MT/*/**
160	180	532	12	RA/8160/IT/*/**	RA/8160/MT/*/**
200	180	560	10	RA/8200/IT/*/**	RA/8200/MT/*/**

\* Please insert standard stroke length 1

\*\* Please insert standard stroke length 2

**RA/8000/G, RA/8000/MG – Piston rod bellow**

Dimensions in mm  
 Projection/First angle



Ø	Ø A	Max. stroke per bellow	Piston rod extension B		Model non-magnetic piston	Model magnetic piston
			for first bellow	for further bellow		
32	40	60	30	25	RA/8032/G/*	RA/8032/MG/*
40	63	145	50	32	RA/8040/G/*	RA/8040/MG/*
50	63	145	40	32	RA/8050/G/*	RA/8050/MG/*
63	63	145	40	32	RA/8063/G/*	RA/8063/MG/*
80	80	250	50	45	RA/8080/G/*	RA/8080/MG/*
100	80	250	50	45	RA/8100/G/*	RA/8100/MG/*
125	80	250	50	45	RA/8125/G/*	RA/8125/MG/*
160	116	350	70	60	RA/8160/G/*	RA/8160/MG/*
200	116	350	70	60	RA/8200/G/*	RA/8200/MG/*
250	116	350	70	60	RA/8250/G/*	RA/8250/MG/*
320	143	500	110	100	RA/8320/G/*	RA/8320/MG/*

\* Please insert standard stroke length.