

Series 1200, Rolled end covers "MIR"

Construction characteristics

End caps	hard anodised aluminium
Barrel	stainless steel AISI 304
Piston rod	stainless steel
Piston	brass (ø8-10-12) aluminium (ø16-20-25)
Seals	Standard: NBR Oil resistant rubber, PUR Piston rod seals (HNBR or FPM seals available upon request)
Mounting	steel painted in cataphoresis
Forks	zinc plated steel
Single-acting springs	C98 zinc plated steel for springs
Cushioning length	$\varnothing \quad \frac{16}{15} - \frac{20}{18} - \frac{25}{18} - \frac{32}{18}$ mm

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous.
Maximum working pressure	10 bar
Working temperature	-5°C - +70°C with standard seals magnetic or non magnetic piston -5°C - +80°C with FPM seals magnetic piston -5°C - +80°C with HNBR seals magnetic piston -5°C - +120°C with HNBR seals non magnetic piston -5°C - +150°C with FPM seals non magnetic piston

Please follow the suggestions below to ensure a long life for these cylinders:

- use clean and lubricated air
- correct alignment during assembly with regard to the applied load so as to avoid radial components or bending the rod.
- avoid high speeds together with long strokes and heavy loads: this would produce kinetic energy which the cylinder cannot absorb, especially if used as a limit stop (in this case use mechanical stop device)
- evaluate the environmental characteristics of cylinder used (high temperature, hard atmosphere, dust, humidity etc.)

Please note: air must be dried for applications with lower temperature.

Use hydraulic oils H class (ISO VG32) for correct continued lubrication.

Our Technical Department will be glad to help.

Standard strokes

Double acting version

Ø8 - Ø10 : 15 - 25 - 50 - 75 - 80 - 100 mm

Ø12 - Ø16 : 15 - 25 - 50 - 75 - 80 - 100 - 150 - 160 - 200 - 250 - 300 mm

Ø20 - Ø25 : 15 - 25 - 50 - 75 - 80 - 100 - 150 - 160 - 200 - 250 - 300 - 320 - 350 - 400 mm

Ø32 : 15 - 25 - 50 - 75 - 80 - 100 - 150 - 160 - 200 - 250 - 300 - 320 - 350 - 400 - 450 - 500 mm

On request are available strokes up to:

Ø8 - Ø10 : 250 mm

Ø12 - Ø16 : 700 mm

Ø20 - Ø32 : 1000 mm

Single acting version

Front spring Ø8 - Ø32 : up to stroke 50 mm

Rear spring Ø16 - Ø32 : up to stroke 50 mm

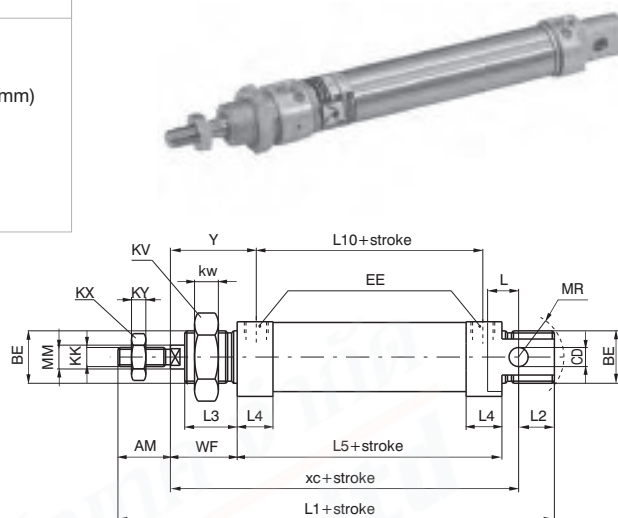
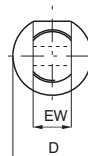
Minimum and maximum springs load for single acting version

Bore	Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Min. load (N)	2.2	2.2	4	7.5	11	16.5	23
Max. load (N)	4.2	4.2	8.7	21	22	30.7	52.5

Basic version

Ordering code	Description
1280.Ø.stroke	Basic version
1291.Ø.stroke	Basic version front spring (max stroke 50 mm)
1292.Ø.stroke	Basic version rear spring from Ø16 (max stroke 50 mm)
12- -Ø.stroke.A	Adjustable cushioning (from Ø16)
12- -Ø.stroke.M	Magnetic piston
12- -Ø.stroke.A.M	Cushioning with magnetic piston (from Ø16)
12- -Ø.stroke. . . .T	HNBR seals version
12- -Ø.stroke. . . .V	FPM seals version

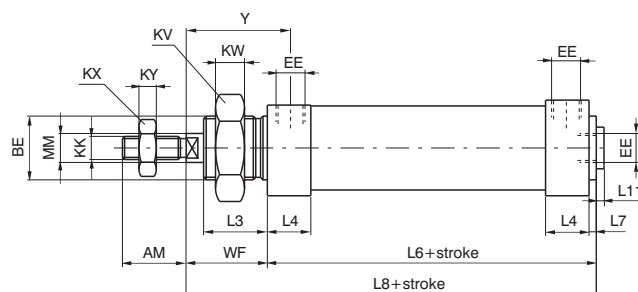
Standard version, fully compliant with ISO standards. Can use all available mountings. For single acting type, the maximum stroke is 50 mm., after which overall dimensions increase in length to an extent not proportional to the stroke (and in any case not longer than stroke 100).



Without rear eye version

Ordering code	Description
1281.Ø.stroke	Without rear eye
1293.Ø.stroke	Without rear eye front spring (max stroke 50 mm)
1294.Ø.stroke	Without rear eye rear spring from Ø16 (max stroke 50 mm)
12- -Ø.stroke.A	Adjustable cushioning (from Ø16)
12- -Ø.stroke.M	Magnetic piston
12- -Ø.stroke.A.M	Cushioning with magnetic piston (from Ø16)
12- -Ø.stroke. . . .T	HNBR seals version
12- -Ø.stroke. . . .V	FPM seals version

Version derived from standard version 1260 and not included in ISO standard. Not having a rear eye it is shorter. Rear inlet connection is at 90 like the front one, in line and plugged. The considerations made for the basic type 1280 apply for all single-acting types.



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PNEUMATIC ACTUATION

Through rod cylinder version

Ordering code	Description
1282.Ø.stroke	Through rod cylinder version
1282.Ø.stroke.M	Magnetic piston
1282.Ø.stroke.A	Adjustable cushioning (from Ø16)
1282.Ø.stroke.A.M	Cushioning with magnetic piston (from Ø16)
1282.Ø.stroke. . . .T	HNBR seals version
1282.Ø.stroke. . . .V	FPM seals version

This version having rods coming out from both end caps with overall dimensions, except for the rod, equal to 1280 version. This version is not suitable for Ø8 and Ø10 due to difficulty in anchoring the pistons to rods.

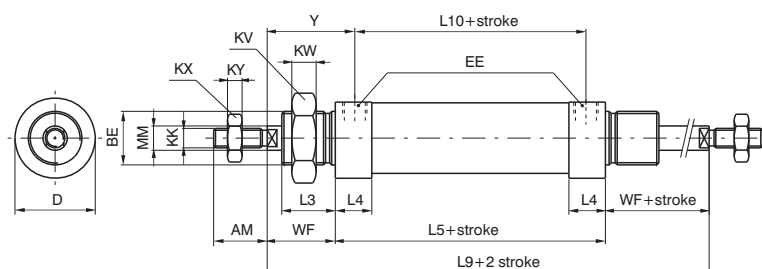


Table of dimensions

		Bore						
		8	10	12	16	20	25	32
AM (-0,2)		12	12	16	16	20	22	20
BE		M12X1,25	M12X1,25	M16X1,5	M16X1,5	M22X1,5	M22X1,5	M30X1,5
CD (H9)		4	4	6	6	8	8	12
D (h11)		16	16	20	21	27	30	38
EE		M5	M5	M5	M5	G1/8"	G1/8"	G1/8"
EW (d13)		8	8	12	12	16	16	26
KK (6g)		M4X0,7	M4X0,7	M6X1	M6X1	M8X1,25	M10X1,25	M10X1,25
KV		17	17	22	22	30	30	42
KW		5,5	5,5	6	6	7	7	8
KX		7	7	10	10	13	17	17
KY		3	3	4	4	5	6	6
L		6	6	9	9	12	13	13
L1 (±1)	★	86	86	105	111	130	141	139
L2		10	10	14	13	15	15	14
L3		12	12	17	17	18	22	22
L4		9	9	9	11	15,5	15	14,5
L5 (±1)	★	46	46	50	56	68	69	69
L6	★	48	48	52	58	70,5	71,5	71,5
L7		2	2	2	2	2,5	2,5	2,5
L8	★	64	64	74	80	94,5	99,5	99,5
L9 (±1,2)	★	78	78	94	100	116	125	125
L10 (±1)	★	37	37	41	45	52,5	53	54,5
L11		1,5	1,5	1,5	1,5	2	2	2
MM (f7)		4	4	6	6	8	10	12
MR		12	12	16	16	18	19	22
WF (±1,2)		16	16	22	22	24	28	28
XC (±1)	★	64	64	75	82	95	104	105
Y (±1,2)		20,5	20,5	26,5	27,5	32	36	35
Stroke tolerance: until stroke 100 +1,5 mm, beyond +2 mm								
Weight	stroke 0	30	35	65	80	160	200	310
g	every 10mm	2	2,5	4	5	7,5	11,5	18
Variations of the versions: without rear eye version								
Weight	stroke 0	25	30	60	75	150	185	290
g	every 10mm	2	2,5	4	5	7,5	11,5	18
Through rod cylinder version								
Weight	stroke 0	35	40	75	95	200	250	370
g	every 10mm	2,5	3	6	7	10,5	15,5	24

Dimensions marked with * do not increase proportionally to stroke for rear spring version (over 25 mm stroke).