Series 1200, Threaded end covers

Construction characteristics

Barrel	anodised aluminium (brass for Ø8 and Ø10)
Fixing devices	steel painted in cataphoresis
Forks	zinc plated steel
Seals	standard: NBR Oil resistant rubber, PUR Piston rod seals (HNBR or FPM seals available upon request)
Single-acting springs	Steel for springs and stainless steel
Pistons	aluminium
Piston rod	non magnetic piston: Ø8 - Ø10: stainless steel / Ø12 ... Ø50: C43 chromed magnetic piston: Ø10 ... 20: stainless steel / Ø25 ... 50: C43 chromed
End caps	anodized aluminium

Cushioning lenght	Ø	16	20	25	32	40	50
	mm	15	18	18	18	22	22

Operational characteristics

Fluid	filtered air, preferably lubricated
Max. 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.

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 ... Ø50:
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 ... Ø50: 1000 mm

Single acting version

Ø12 ... Ø50:
up to stroke 40 mm
On request are available strokes up to 200 mm

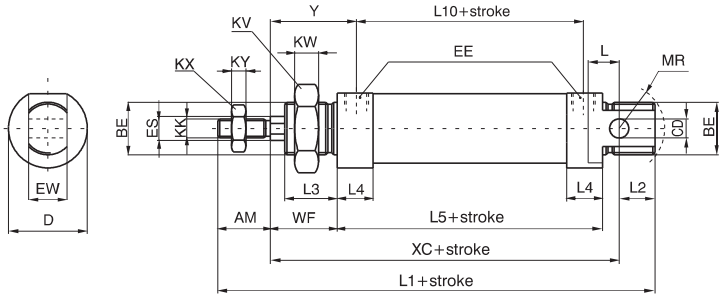
Minimum and maximum springs load for single acting version

Bore	Ø12 ... Ø20	Ø25	Ø32	Ø40 - Ø50
Min. load (N)	10	10	20	40
Max. load (N)	25	50	55	110

Basic version

Coding: 12Ⓣ.Ø.stroke.ⓋⒼ

Ⓣ	TYPE
	60 = Double acting version
	71 = front spring from Ø12 (max stroke 40 mm)
	72 = rear spring from Ø12 (max stroke 40 mm)
Ø	BORE
	8 = Ø8
	10 = Ø10
	...
	50 = Ø50
Ⓥ	VERSION
	A = Adjustable cushioning (from Ø16)
	M = Magnetic piston (from Ø10)
	X = Stainless steel rod
	MA = Cushioning with magnetic piston
	MAX = Cushioning, magnetic piston and stainless steel piston rod
Ⓖ	SEALS
	= NBR
	T = HNBR
	V = FPM

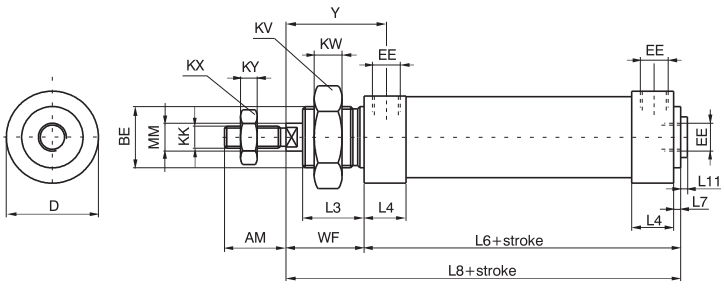


Standard execution, fully complying with ISO standards from ø8 to ø25. Bores 32, 40 and 50 not included in the standard, comply with our own specifications. Can use all available mountings. For single acting type, the maximum stroke is 40 mm., after which overall dimensions increase in length to an extent not proportional to the stroke (and in any case not longer than stroke 100).

Without rear eye version

Coding: 12Ⓣ.Ø.stroke.ⓋⒼ

Ⓣ	TYPE
	61 = Double acting version
	73 = front spring from Ø12 (max stroke 40 mm)
	74 = rear spring from Ø12 (max stroke 40 mm)
Ø	BORE
	8 = Ø8
	10 = Ø10
	...
	50 = Ø50
Ⓥ	VERSION
	A = Adjustable cushioning (from Ø16)
	E = version with non-rotating hexagonal rod, non magnetic piston (from Ø12)
	M = Magnetic piston (from Ø10)
	X = Stainless steel rod
	AE = version with non-rotating hexagonal rod, with cushioning (from Ø16)
	MA = Cushioning with magnetic piston
	ME = version with non-rotating hexagonal rod, magnetic piston (from Ø12)
	MAE = version with non-rotating hexagonal rod, with cushioning and magnetic piston (from Ø16)
	MAX = Cushioning, magnetic piston and stainless steel piston rod
	L = Air inlet at 90° version
Ⓖ	SEALS
	= NBR
	T = HNBR
	V = FPM



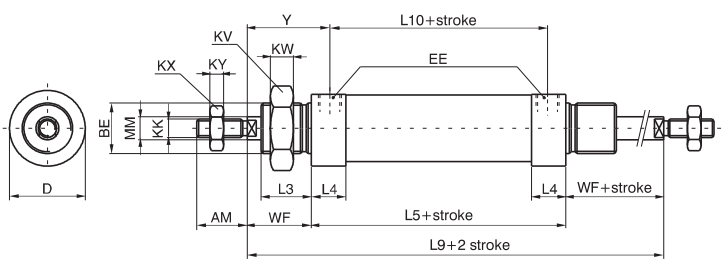
Version derived from standard execution 1260 and not included in ISO standard. Not having a rear eye it is shorter and the air inlet is from the rear or at 90° like it is on the front. The considerations made for the basic type 1260 apply for all single-acting types.

Through rod cylinder version

Coding: 1262.Ø.stroke.ⓋⒼ

Ø	BORE
	8 = Ø8
	10 = Ø10
	...
	50 = Ø50
Ⓥ	VERSION
	A = Adjustable cushioning (from Ø16)
	E = version with non-rotating hexagonal rod, non magnetic piston (from Ø12)
	M = Magnetic piston (from Ø10)
	X = Stainless steel rod
	AE = version with non-rotating hexagonal rod, with cushioning (from Ø16)
	MA = Cushioning with magnetic piston
	ME = version with non-rotating hexagonal rod, magnetic piston (from Ø12)
	MAE = version with non-rotating hexagonal rod, with cushioning and magnetic piston (from Ø16)
	MAX = Cushioning, magnetic piston and stainless steel piston rod
Ⓖ	SEALS
	= NBR
	T = HNBR*
	V = FPM*

***Excludes hexagonal rod version**

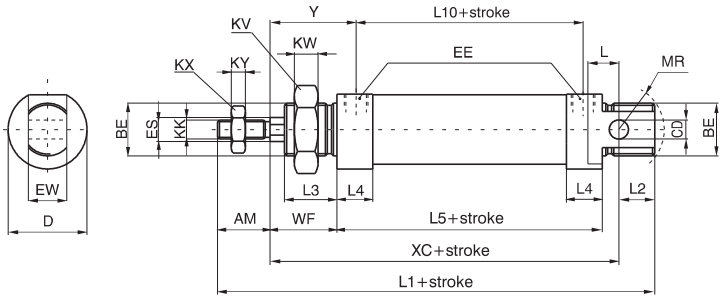


Execution by rod coming out from both end caps, with overall dimensions. except for the rod, equal to 1260 version. Not available with Ø8 and 10.

Non rotating hexagonal piston rod version (from Ø 12)

Coding: 12Ⓣ.Ø.stroke.ⓋⒼ

Ⓣ	TYPE
	60 = Double acting version
	71 = front spring from Ø12 (max stroke 40 mm)
	72 = rear spring from Ø12 (max stroke 40 mm)
Ø	BORE
	8 = Ø8
	10 = Ø10
	...
	50 = Ø50
Ⓥ	VERSION
	E = with non magnetic piston
	AE = version with non-rotating hexagonal rod, with cushioning (from Ø16)
	ME = Hexagonal piston rod with magnetic piston (from Ø12)
	MAE = version with non-rotating hexagonal rod, with cushioning and magnetic piston (from Ø16)
Ⓖ	SEALS
	= NBR
	T = HNBR
	V = FPM



Similar overall dimensions as 1260 basic type, it differs because of the hexagonal rod (instead of circular) to avoid the rotation. It is particularly suitable when it is used as a guide and support to the linked element. Not for use with high frequencies and long strokes. For which, whenever possible use front spring.

Table of dimensions

Bore	8	10	12	16	20	25	32	40	50
AM (-0,2)	12	12	16	16	20	22	20	25	25
BE	M12x1,25	M12x1,25	M16x1,5	M16x1,5	M22x1,5	M22x1,5	M30x1,5	M40x1,5	M40x1,5
CD (H9)	4	4	6	6	8	8	12	14	14
D (-0,3)	16	17	19	24	28	33	40	48	58
EE	M5	M5	M5	M5	G1/8"	G1/8"	G1/8"	G1/4"	G1/4"
ES	-	-	6	6	8	10	12	12	12
EW (d13)	8	8	12	12	16	16	26	30	30
KK (6g)	M4x0,7	M4x0,7	M6x1	M6x1	M8x1,25	M10x1,25	M10x1,25	M12x1,75	M12x1,75
KV	17	17	22	22	30	30	42	52	52
KW	5,5	5,5	6	6	7	7	8	9	9
KX	7	7	10	10	13	17	17	19	19
KY	3	3	4	4	5	6	6	7	7
L	6	6	9	9	12	13	13	16	16
L1(±1) *	85	85	105	111	130	141	139	164	167
L2	9	9	14	13	15	15	14	16	16
L3	11	11	17	17	18	22	22	25	25
L4	10	10	9,5	10,5	15	15	15	18	18
L5 (±1) *	46	46	50	56	68	69	69	79	82
L6 (±1) *	48	48	52	58	70,5	71,5	71,5	82	85
L7	2	2	2	2	2,5	2,5	2,5	3	3
L8 (±1) *	64	64	74	80	94,5	99,5	99,5	117	120
L9 (±1,2) *	78	78	94	100	116	125	125	149	152
L10 (±1) *	35	35	40	45	52	53	53	60	63
L11	-	-	-	1,5	2	2	2	2	2
MM (f7)	4	4	6	6	8	10	12	14	14
MR (min.)	12	12	16	16	18	19	22	28	28
WF (±1,2)	16	16	22	22	24	28	28	35	35
XC (±1) *	64	64	75	82	95	104	105	123	126
Y (±1,2)	21,5	21,5	27	27,5	32	36	36	44,5	44,5

(*) These dimensions increase of 10 mm for microbore cylinders equipped with magnetic piston and spring return, and of 9 mm for microbore cylinders with 10 mm BORE magnetic piston

STROKE TOLERANCE: until stroke 100 mm - 1,5, beyond + 2 mm.

Weight	Stroke 0	55	60	80	100	175	240	365	610	790
g	every 10mm	6	7	5	5	8	11	15	19	21

Without rear eye version

Weight	Stroke 0	50	55	75	95	170	230	345	570	750
g	every 10mm	6	7	5	5	8	11	15	19	21

Through rod cylinder version

Weight	Stroke 0	55	60	95	120	220	310	450	760	950
g	every 10mm	7	8	7	7	12	17	24	31	33

Hexagonal rod version

Weight	Stroke 0	-	-	85	105	180	250	370	590	760
g	every 10mm	-	-	5	6	8	12	16	17	19