

Tie rods cylinders to ISO 15552 standard Ø 125 ÷ 320

series XL

DESCRIPTION

Cylinders series "XL", and their fixing accessories, comply with ISO 15552 standard, being in this way completely interchangeable with the former cylinders to ISO 6431 /VDMA 24562 standard. These cylinders are supplied cushioned as standard and, in the version with magnetic piston type, can be supplied with magnetic sensors. Upon request, cylinders series "XL" comply with ATEX directive, 2GD category.

TECHNICAL DATA

Operating pressure	1÷10 bar
Working temperature	0 ÷ +80 °C (−30 °C with dry air) 0 ÷ +150 °C with seals for high temperatures (−10 °C with dry air)
Fluid	Compressed air, filtered, continuous lubricated, unlubricated or dry lubricated
Versions	Double acting, single acting front spring, single acting rear spring, through rod, double push tandem, double stroke tandem, opposed tandem
Bore	Ø 125, 160, 200, 250, 320
Port size	Ø 125 = G 1/2 Ø 160-200 = G 3/4 Ø 250-320 = G 1
Standard strokes (mm)*	25, 50, 75, 80, 100, 125, 150, 160, 175, 200, 250, 300, 320, 350, 400, 450, 500, 550, 600, 650, 700, 800, 900, 1000
Decelerators lenght	Ø 125 160 200 250 320 mm 37 40 40 75 80
Max strokes (mm)	Ø 125 ÷ 320 = 3000; version T, P, V = 1000

*Cylinders, with strokes shorter than the decelerators lengths, are NOT cushioned as standard (only for Ø125÷200).



MATERIALS

End caps	Painted die-cast aluminium alloy
Cylinder barrel	Extruded profile, 20 µm anodized aluminium alloy
Tie rods, tie and rod nuts	Steel Stainless steel (supplied upon request for tie rods and tie nuts)
Rod nut	C45 chromium-plated steel AISI 304 rolled stainless steel
Piston rod bearing	Bronze-iron 20%, sintered, self-lubricating
Decelerators ogives	Aluminium alloy
Piston	Die-cast aluminium alloy (magnetic and non-magnetic)
Seals	Polyurethane and NBR rubber FKM (Viton®) only for Ø 125 ÷ 200

ORDER KEY

			XL /						S*
Bore									
Version									
Stroke									
Series									
Piston type									
Option 1									
Option 2									
Option 3									
Option 4									
Special option (supplied upon request)									

• See chapter 1, page 1.1.

VERSION

/ Double acting	S Single acting front spring*
R Through rod	Y Single acting rear spring*
T Double push tandem*	P Double stroke tandem*
V Opposed tandem*	

PISTON TYPE

N Non-magnetic	M Magnetic**
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OPTION 1

Z Fit for piston rod locking unit (only for Ø 125)***

OPTION 2

1 Stainless steel piston rod and rod nut	3 Stainless steel piston rod, rod nut and seals for high temperatures
2 Seals for high temperatures	

OPTION 3

5 Extruded profile (only for Ø 125)

OPTION 4

/EX Consistent with the ATEX directive  II 2GD c T5 T1 00°C -20°C<Ta<80°C

* Supplied only for Ø 125 ÷ 200.

** Available even with "FKM" (Viton®) seals but just for applications where is needed a chemical compatibility; not available for high temperatures.

*** Don't use it for high temperature application.

ORDER EXAMPLES

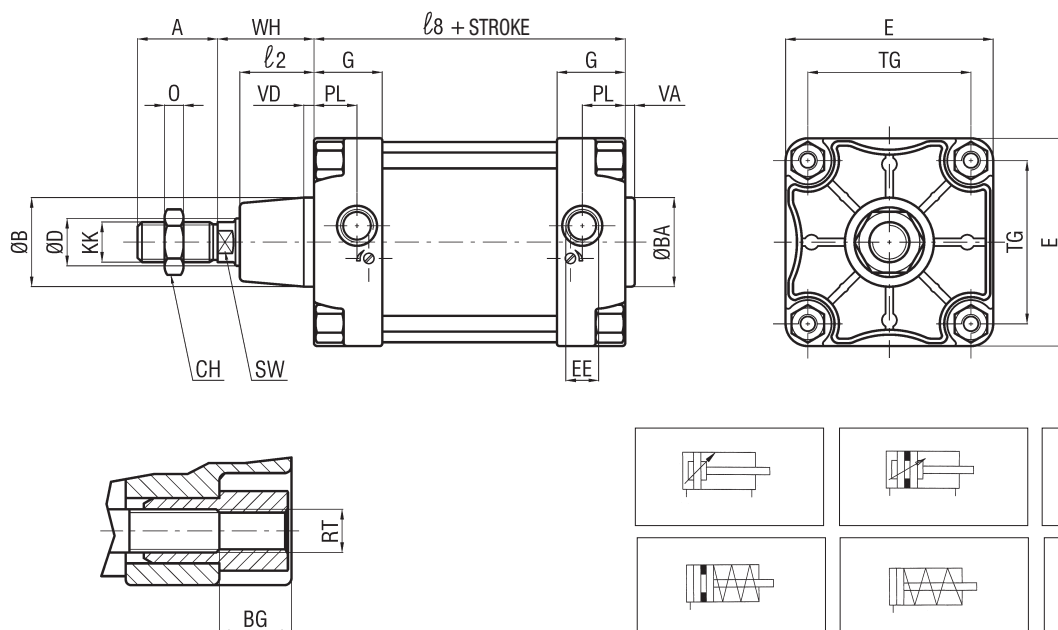
Cylinder Ø 125, double acting, 100 mm stroke, non-magnetic piston type, ATEX: **125/100 XL/N/EX**

Cylinder Ø 320, through rod, 150 mm stroke, magnetic piston type, stainless steel piston rod: **320R150 XL/M1**

SPARE PARTS

SEALS KIT	
Polyurethane	Ø/SG/XL
Through rod polyurethane	Ø/SG/R/XL
For high temperatures	Ø/SG/XL2
Through rod for high temperatures	Ø/SG/R/XL2

XL BASIC CYLINDER



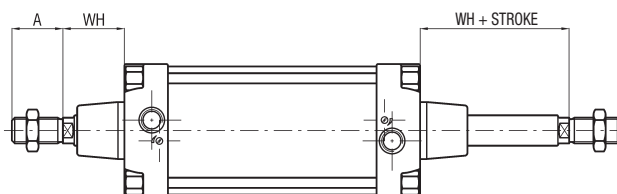
P.S.: Rod nut supplied as standard

DIMENSIONS AND WEIGHTS BASIC CYLINDER

Ø	A*	BA* B*	BG*	CH	D	E*	EE*	G	KK*	ℓ	ℓ_2^*	ℓ_8^*	O	PL*	RT*	SW*	TG*	VA*	VD*	WB	WH*	WEIGHT (g)	INCR. (g) every 10 mm
125	54	60	20	41	32	140	G1/2	46	M27x2	268	50	160	12	29	M12	27	110	6	7	205	65	6475	126
160	72	65	24	55	40	180	G3/4	50	M36x2	310	60	180	15	30	M16	36	140	6	6	-	80	10850	210
200	72	75	24	55	40	220	G3/4	48	M36x2	310	60	180	15	24	M16	36	175	6	6	-	95	15075	290
250	84	90	25	65	50	268	G1	54	M42x2	-	67	200	16	31	M20	46	220	10	20	-	105	28500	380
320	96	110	28	75	63	340	G1	66	M48x2	-	82	220	18	31	M24	55	270	10	20	-	120	48400	620

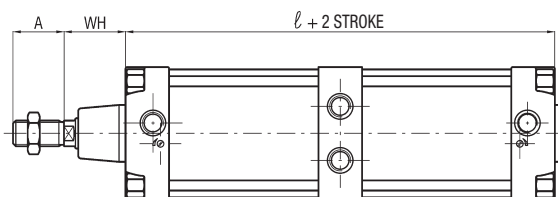
* STANDARDIZED DIMENSIONS

THROUGH ROD



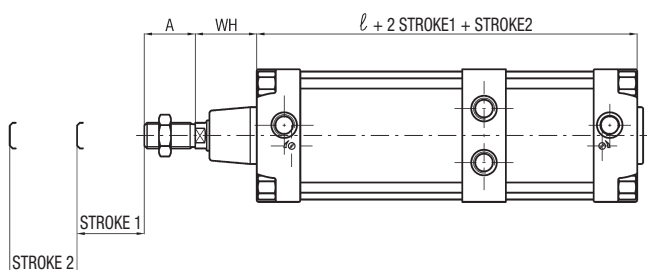
P.S.: Rod nut supplied as standard

DOUBLE PUSH TANDEM



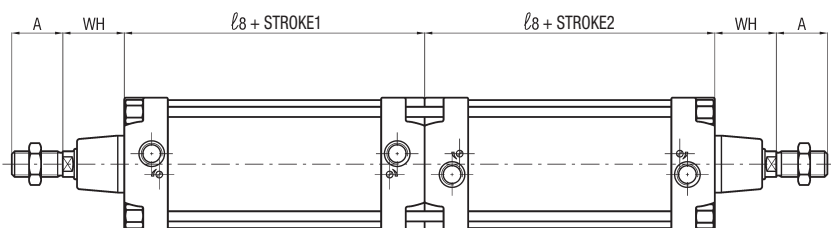
P.S.: Rod nut supplied as standard

DOUBLE STROKE TANDEM



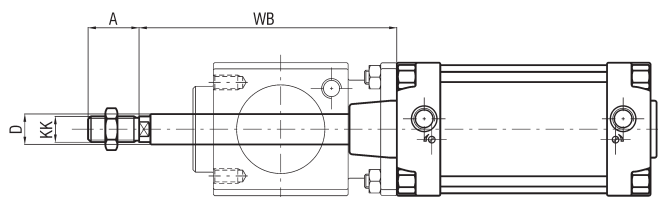
P.S.: Rod nut supplied as standard

OPPOSED TANDEM



P.S.: Rod nut supplied as standard

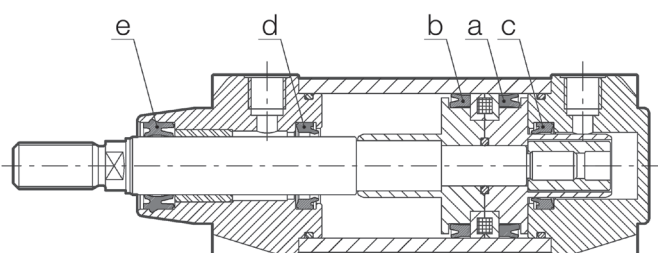
FIT FOR PISTON ROD LOCKING UNIT



P.S.: Rod nut supplied as standard

Low friction cylinders to ISO 15552 standard (Ø 32-200)

LOW FRICTION CYLINDER SEALS



- a) Piston seal for rear chamber
- b) Piston seal for front chamber
- c) Cushioning seal rear chamber
- d) Cushioning seal front chamber
- e) Piston rod seal

APPLICATIONS

DESCRIPTION	OPTION	SEALS
Rear chamber	SA	a
Rear chamber + cushion	SB	a + c
Rear chamber + piston rod seal	SC	a + e
Rear chamber + cushion + piston rod seal	SD	a + c + e
Front chamber + piston rod seal	SE	b + e
Front chamber + cushion	SF	b + d + e
Linear sliding	S7	a + b + c + d + e

DESCRIPTION

Low friction cylinders, of U, P, XT and XL Series (from Ø 125 to Ø 200), are used as “dancers” or “stretchers” cylinders, but indeed they are single acting cylinders without the return spring. As indicated in the previous table, various applications are possible, considering the different seals are present inside the cylinder. Main application is the one indicated by “SA” option, as being “a” the only used seal, it’s the one that offers less friction force.

“SB” application uses the pneumatic cushion in case of emergency, to avoid shocks in case of system damage.

In “SC” and “SD” options, the piston rod seals avoids the entry of impurities into the cylinder.

In “SE” option front chamber is under pressure, indeed in “SF” option front chamber is under pressure, but with the cushion in case of emergency. In “S7” option seals are in NBR. Mounting uses specific grease.

P.S. Contact our commercial office for low friction cylinders of other series.

ATTENTION: for the application, consider the cylinder as a single acting cylinder without spring.

ORDER EXAMPLES

Cylinder Ø 50, double acting, 100 mm stroke, magnetic piston type, rear chamber seals and cushion: **50/100 XT/M SB**

Cylinder Ø 125, double acting, 200 mm stroke, magnetic piston type, front chamber seals and cushion: **125/200 XL/M SF**