ISO 15552 TWO-FLAT CYLINDER

This version of cylinder is used to keep the parts fixed to the piston rod at an angle and to apply torques within the specified limits.
The piston rod of the Two-Flat has two opposing longitudinal surfaces; it is made of stainless steel.
The front cylinder head includes a sintered bronze bush that matches the profile of the piston rod and prevents it from rotating on its own axis.
A special polyurethane gasket ensures pneumatic seal and prevents the accumulation of dirt. This technical solution is more reliable and gives a better pneumatic seal than with square or hexagonal piston rods.
Supplied in series STD, with a smooth barrel, and type A or series 3, with a barrel with slots for retractable sensors.
They are available in several versions and with a wide range of accessories:

- with or without magnet
- double acting, single piston rod
- double acting, through rod; one piston rod is Two-Flat, the other cylindrical
- fixing accessories.

TECHNICAL DATA			Ø32	Ø40	Ø50	Ø63
Max operating pressure		bar	10			
		MPa	1			
		psi	145			
Temperature range	POLYURETHANE	°C	–25 to +80			
Design			Heads with Tap Tite screws			
Fluid			Unlubricated air. Lubrication, if used, must be continuous			
Maximun stroke		mm	300	400	500	
Versions			Double-acting cushioned, Through-rod cushioned, No stick-slip			
Sensor magnet			Available magnetic and non-magnetic versions.			
Inrush pressure		bar	0.4	0.4	0.3	0.3
Max torque on piston rod		Nm	0.2	0.4	1	1
Maximum rotation on the rod		degrees	1° 30′	1° 30′	1°	1°
Forces generated at 6 bar thrust/retraction			See cylinder "**General technical data**" at the beginning of the chapter			
Weights			See cylinder "**General technical data**" at the beginning of the chapter			
Notes			**For speeds lower than 0.2 m/s to prevent surging, use the version No stick-slip and non-lubricated air.**			

KEY TO CODES FOR ISO 15552 TWO-FLAT STD CYLINDERS

CYL	1 2 1 TYPE	0	3 2 BORE	0 0 5 0 STROKE	F MATERIAL	P GASKETS
	120 Double-acting, cushioned, non-magnetic	**0** Diameter	32	✚ Ø 32 stroke 1 to 300 mm	**F** "Two-Flat" piston rod AISI 303, stainless steel nut, technopolymer piston	**P** Polyurethane gaskets
	121 Double-acting, cushioned	**S** Non-magnetic	40	✚ Ø 40 stroke 1 to 400 mm		
	● **122** Through-rod	▲ **G** No stick-slip	50	✚ Ø 50 to 63 stroke 1 to 500 mm		
			63			

● Supplied with aluminium piston
▲ **For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only**
✚ Maximum recommended strokes. Higher values can create operating problems

KEY TO CODES FOR ISO 15552 TWO-FLAT TYPE A CYLINDERS

CYL	1 2 1 TYPE	A	3 2 BORE	0 0 5 0 STROKE	F MATERIAL	P GASKETS
	121 Double-acting, cushioned	**A** Standard	32	✚ Ø 32 stroke 1 to 300 mm	**F** "Two-Flat" piston rod AISI 303, stainless steel nut, technopolymer piston	**P** Polyurethane gaskets
	● **122** Through-rod	▲ **B** No stick-slip	40	✚ Ø 40 stroke 1 to 400 mm		
		C Non-magnetic	50	✚ Ø 50 to 63 stroke 1 to 500 mm		
			63			

● Supplied with aluminium piston
▲ **For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only**
✚ Maximum recommended strokes. Higher values can create operating problems

KEY TO CODES FOR ISO 15552 TWO-FLAT SERIES 3 CYLINDERS

CYL	1 2 1 TYPE	3	3 2 BORE	0 0 5 0 STROKE	F MATERIAL	P GASKETS
	121 Double-acting cushioned ● **122** Through-rod	**3** Series 3 ▲ **4** Series 3 No stick-slip **5** Series 3 Non-magnetic	32 40 50 63	✚ Ø 32 stroke 1 to 300 mm ✚ Ø 40 stroke 1 to 400 mm ✚ Ø 50 to 63 stroke 1 to 500 mm	**F** "Two-Flat" piston rod AISI 303, stainless steel nut, technopolymer piston	**P** Polyurethane gaskets

● Supplied with aluminium piston

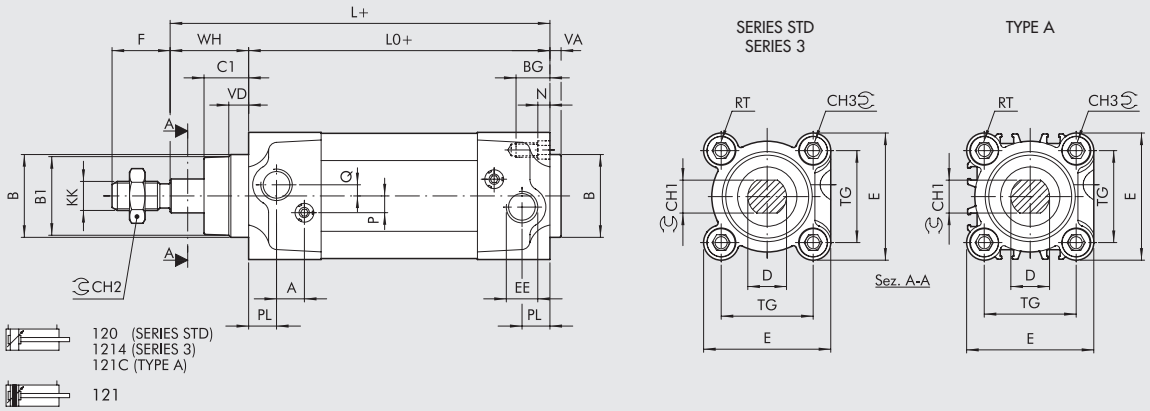
▲ **For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only**

✚ Maximum recommended strokes. Higher values can create operating problems

DIMENSIONS

STANDARD VERSION

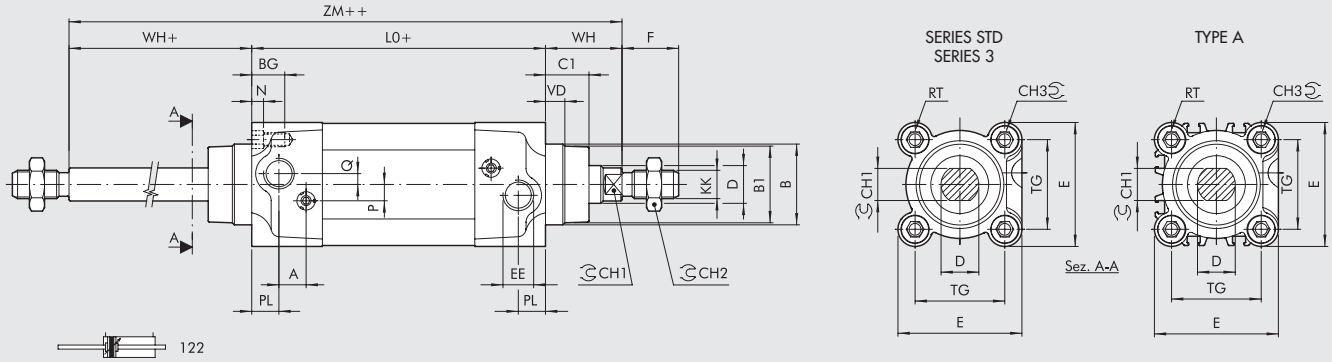
+ = ADD THE STROKE



THROUGH-ROD VERSION

+ = ADD THE STROKE

++ = ADD TWICE THE STROKE



Ø	PL	VD	A	B	B_1	WH	C_1	CH_1	CH_2	CH_3	KK	D	TG	VA	F	EE	RT	E	L	L_0	ZM	BG	N	P	Q
32	10	6.5	10	30	28	26	16	10	17	6	M10x1.25	12	32.5	4	22	G1/8	M6	46	120	94	146	14.5	4.5	6	4
40	12	8	10	35	33	30	20	13	19	6	M12x1.25	16	38	4	24	G1/4	M6	54	135	105	165	14.5	4.5	6	4
50	14	13	10	40	38	37	25	17	24	8	M16x1.5	20	46.5	4	32	G1/4	M8	64.5	143	106	180	17.5	5.5	6	6
63	16	14	10	45	40	37	25	17	24	8	M16x1.5	20	56.5	4	32	G3/8	M8	75.5	158	121	195	17.5	5.5	6	6