

# Cylinders Series 60

1

Single and double-acting, magnetic cushioned  
 $\varnothing$  32, 40, 50, 63, 80, 100, 125 (ISO 15552)



- » ISO 15552 (corresponding to the previous DIN/ISO 6431/VDMA 24562 standards)
- » Rolled stainless steel rod
- » Adjustable pneumatic cushioning



The Series 60 cylinders have been designed to comply with the dimensions laid down in the ISO 15552 standards. A permanent magnet, mounted on the piston, enables information to be received regarding the piston position by means of proximity switches positioned along the cylinder tube.

This cylinders series is normally equipped with adjustable end-stroke cushioning. Moreover these cylinders are equipped with a mechanical cushioning in order to reduce the impact of the piston as it reaches the end of the stroke.

## GENERAL DATA

Type of construction	with tie-rods
Operation	double-acting, single-acting, tandem
Materials	end-blocks = AL, seals = NBR, rod = PU, other parts: see coding
Type of mounting	with tie-rods, front flange, rear flange, feet, centre trunnion, front and rear trunnion, swivel combination
Strokes min - max	10 ÷ 2500 mm
Operating temperature	0°C + 80°C (with dry air - 20°C)
Special design	see coding examples
Operating pressure	1 + 10 bar
Speed	10 ÷ 1000 mm/sec (No load)
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISOVG32. Once applied the lubrication should never be interrupted.

**STANDARD STROKES FOR CYLINDERS SERIES 60**

■ = Single-acting  
✕ = Double-acting

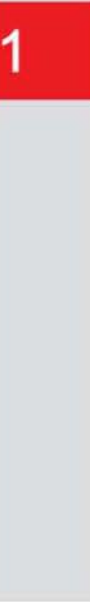
Ø	25	50	75	100	125	150	160	200	250	300	320	400	500
32	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
40	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
50	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
63	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
80	■ ✕	■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
100		■ ✕	■ ✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
125		✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

**CODING EXAMPLE**

60	M	2	L	050	A	0200	
----	---	---	---	-----	---	------	--

<b>60</b>	SERIES
<b>M</b>	VERSIONS M = magnetic N = non magnetic
<b>2</b>	OPERATION 1 = single-acting (front spring) 2 = double-acting (front and rear cushions) 3 = double-acting (no cushion) 4 = double-acting (rear cushion) 5 = double-acting (front cushion) 6 = double-acting (through-rod with front and rear cushions) 7 = single-acting (through-rod)
<b>L</b>	MATERIALS L = rolled stainless steel rod AISI 420B - anodized AL round tube - NBR seals nuts and tie-rods zinc-plated steel - rod seals PU T = rolled stainless steel rod AISI 420B - anodized AL round tube - NBR seals nut stainless steel AISI 303 - tie-rods stainless steel AISI 420B - rod seals PU
<b>050</b>	BORE 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm 080 = 80 mm 100 = 100 mm 125 = 125 mm
<b>A</b>	CONSTRUCTION A = standard with lock nut for rod RL = cylinder with rod lock F = cylinder with centre trunnion
<b>020</b>	STROKE (see table)  = standard V = rod seal FKM N = tandem R = rod seal NBR W = all seals FKM +130C°

**ACCESSORIES FOR CYLINDERS SERIES 60**



Piston rod socket joint  
Mod. GY



Piston rod lock nut Mod.  
U



Clevis pin Mod. S



Rear trunnion ball-joint  
Mod. R



Rod fork end Mod. G



Swivel ball joint Mod. GA



90° male trunnion Mod.  
ZC



Swivel combination Mod.  
C+L+S



Centre trunnion Mod. F



Self aligning rod Mod.  
GK



Counter bracket for  
centre trunnion Mod. BF



Foot mount Mod. B



Front and rear flange  
Mod. D-E



Rear female trunnion  
Mod. C and C-H



Front female trunnion  
Mod. H and C-H



Rear male trunnion  
Mod. L



All accessories are supplied separately, except for Piston Rod Lock Nut Mod. U

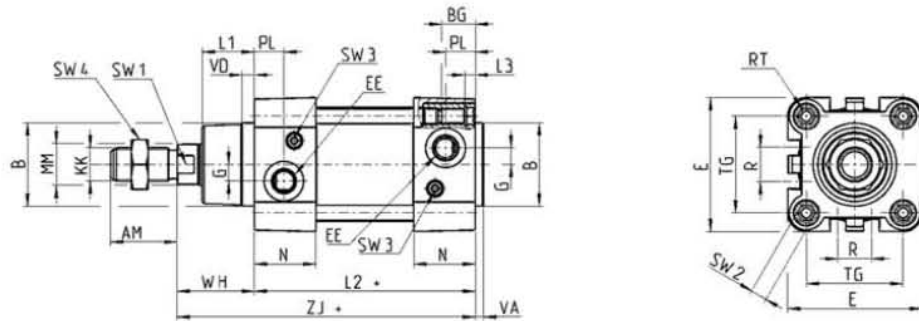
1

**Cylinders Series 60**

Note: the single-acting cylinders' sizes ZJ and L2 are increased by 25 mm.



+ = add the stroke



**DIMENSIONS**

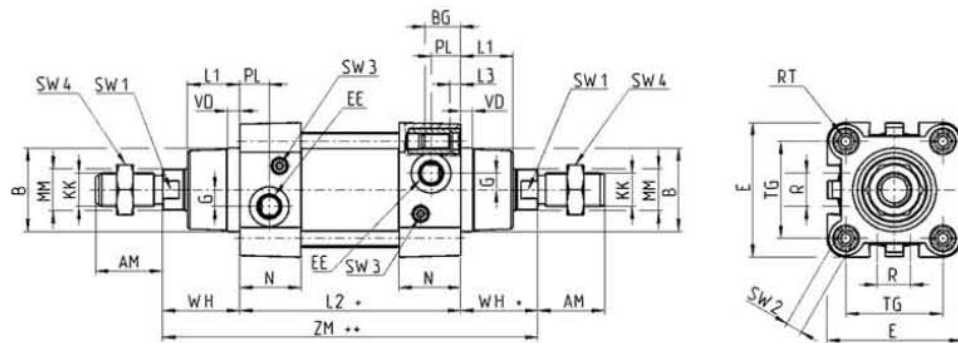
Ø	AM	B	BG	E	EE	G	KK	L1	L2+	L3	MM	N	PL	R	RT	SW1	SW2	SW3	SW4	TG	VA	VD	WH	ZJ+	Front/rear cushion stroke
32	22	30	16	46	G1/8	5	M10x1,25	18	94	5	12	26	14	13	M6	10	6	2	17	32,5	4	5	26	120	17 / 12
40	24	35	16	55	G1/4	5	M12x1,25	21	105	5	16	29	15	13,5	M6	13	6	2	19	38	4	5	30	135	20 / 17
50	32	40	16	64,5	G1/4	8	M16x1,5	25	106	5	20	29,5	15	16	M8	17	8	3	24	46,5	4	6	37	143	15 / 14
63	32	45	16	75	G3/8	8	M16x1,5	26	121	5	20	36,5	21	28	M8	17	8	3	24	56,5	4	6	37	158	17 / 16
80	40	45	19	93	G3/8	8	M20x1,5	30	128	0	25	36	21	30	M10	22	10	5	30	72	4	7	46	174	20 / 20
100	40	55	19,5	110	G1/2	8	M20x1,5	35	138	0	25	38,5	23	40	M10	22	10	5	30	89	4	7	51	189	21 / 19
125	54	60	23	135	G1/2	10,5	M27x2	42	160	0	32	43	23,5	50	M12	27	12	4	41	110	6	8	65	225	26 / 25

**Cylinders Series 60 - through-rod**

Note: the single-acting cylinders' sizes ZJ and L2 are increased by 25 mm.



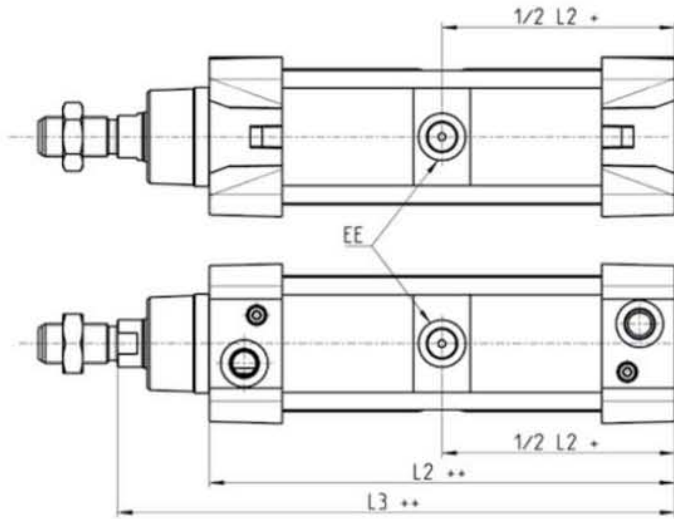
+ = add the stroke  
++ = add the stroke two times



**DIMENSIONS**

Ø	AM	B	BG	E	EE	G	KK	L1	L2+	L3	MM	N	PL	R	RT	SW1	SW2	SW3	SW4	TG	VD	WH	ZM++	Front/rear cushion stroke
32	22	30	16	46	G1/8	5	M10x1,25	18	94	5	12	26	14	13	M6	10	6	2	17	32,5	5	26	146	17 / 12
40	24	35	16	55	G1/4	5	M12x1,25	21	105	5	16	29	15	13,5	M6	13	6	2	19	38	5	30	165	20 / 17
50	32	40	16	64,5	G1/4	8	M16x1,5	25	106	5	20	29,5	15	16	M8	17	8	3	24	46,5	6	37	180	15 / 14
63	32	45	16	75	G3/8	8	M16x1,5	26	121	5	20	36,5	21	28	M8	17	8	3	24	56,5	6	37	195	17 / 16
80	40	45	19	93	G3/8	8	M20x1,5	30	128	0	25	36	21	30	M10	22	10	5	30	72	7	46	220	20 / 20
100	40	55	19,5	110	G1/2	8	M20x1,5	35	138	0	25	38,5	23	40	M10	22	10	5	30	89	7	51	240	21 / 19
125	54	60	23	135	G1/2	10,5	M27x2	42	160	0	32	43	23,5	50	M12	27	12	4	41	110	8	65	290	26 / 25

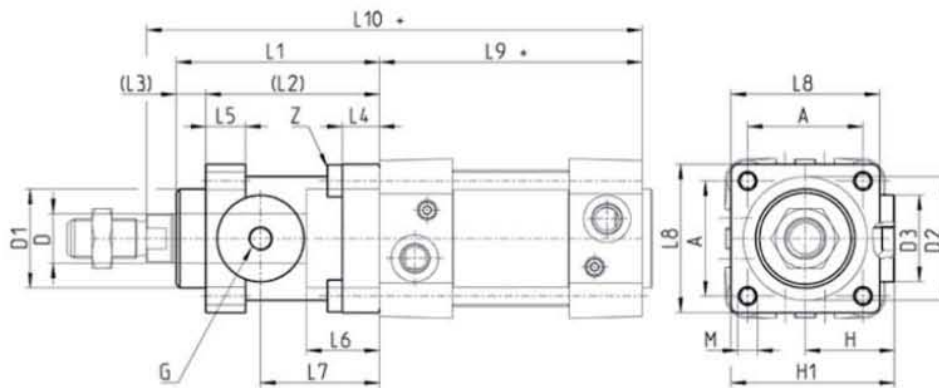
Cylinders Series 60 - tandem version



+ = add the stroke  
++ = add the stroke two times

DIMENSIONS			
∅	EE	L2	L3
32	G1/8	171,5	197,5
40	G1/4	191,5	221,5
50	G1/4	188	225
63	G3/8	204	230
80	G3/8	225,5	271,5
100	G1/2	231	282
125	G1/2	264	329

Cylinders Series 60 with rod lock



+ = add the stroke

DIMENSIONS																				
∅	D	D1	D2	D3	A	G	H	H1	L1	L2	L3	L4	L5	L6	L7	L8	L9+	L10+	M	Z
32	12	30,5	35	25	32,5	M5	25,5	46,5	58	48	10	8	13	20,5	34	45	94	160	M6	M6X20
40	16	35	40	28	38	G1/8	30	53	65	55	10	8	13	22,5	38	50	105	178	M6	M6X20
50	20	40	50	35	46,5	G1/8	36	64	82	70	12	15	16	29,5	48	60	106	200	M8	M8X30
63	20	45	60	38	56,5	G1/8	40	75	82	70	12	15	16	29,5	49,5	70	121	215	M8	M8X30
80	25	45	80	48	72	G1/8	50	95	110	90	20	18	20	35	61	90	128	254	M10	M10X35
100	25	55	100	58	89	G1/8	58	110,5	115	100	15	18	20	39	69	105	138	269	M10	M10X35
125	32	60	130	65	110	G1/8	80	150	167	122	45	22	30	51	86,5	140	160	350	M12	M12X40

MOVEMENT > Cylinders Series 60

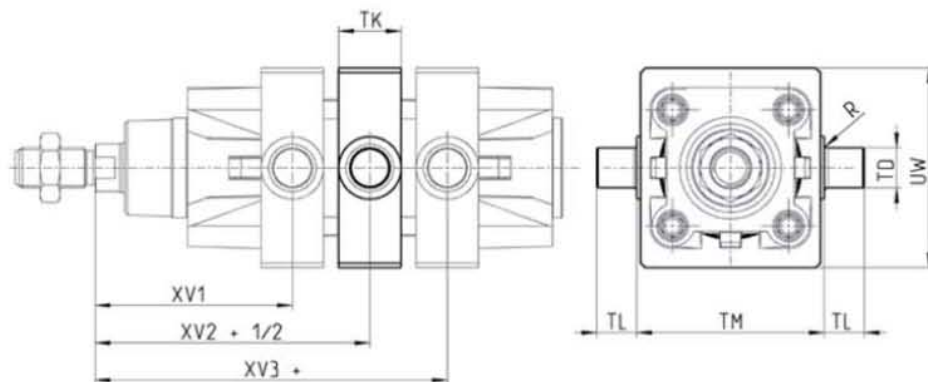
CATALOGUE > Release 8.2

1

Cylinders Series 60 with centre trunnion Mod F.



+ = add the stroke  
++ = add the stroke twice



DIMENSIONS

Ø	XV1	XV2	XV3	TM	TK	TD	TL	UW	R
32	62	73	84	50	20	12	12	65	0,1
40	71,5	82,5	93,5	63	25	16	16	74	0,15
50	79	90	101	75	25	16	16	85	0,15
63	88,5	97,5	106,5	90	30	20	20	100	0,15
80	97	110	123	110	30	20	20	120	0,15
100	104,5	120	135,5	132	30	25	25	135	0,2
125	123	145	167	162	30	25	25	160	0,2

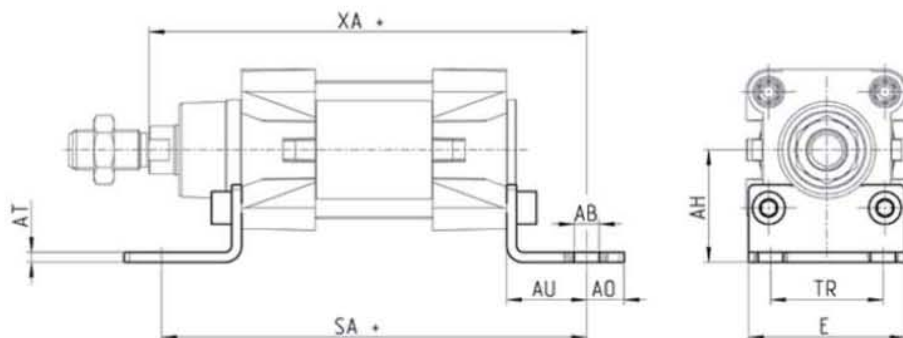
Foot mount Mod. B

Material: zinc-plated steel



Supplied with:  
2x feet  
4x screws

+ = add the stroke



DIMENSIONS

Mod.	Ø	AT	SA+	XA+	TR	E	AB	AH	AO	AU	torque force
B-41-32	32	4	142	144	32	45	7	32	11	24	6 Nm
B-41-40	40	4	161	163	36	53,5	10	36	15	28	6 Nm
B-41-50	50	4	170	175	45	62,5	10	45	15	32	13 Nm
B-41-63	63	5	185	190	50	73	10	50	15	32	13 Nm
B-41-80	80	6	210	216	63	92	12	63	20	41	19 Nm
B-41-100	100	6	220	230	75	108,5	14,5	71	25	41	22 Nm
B-41-125	125	7	250	270	90	132	16,5	90	25	45	26 Nm