

# Compact cylinders to ISO 21287 standard

# series BX

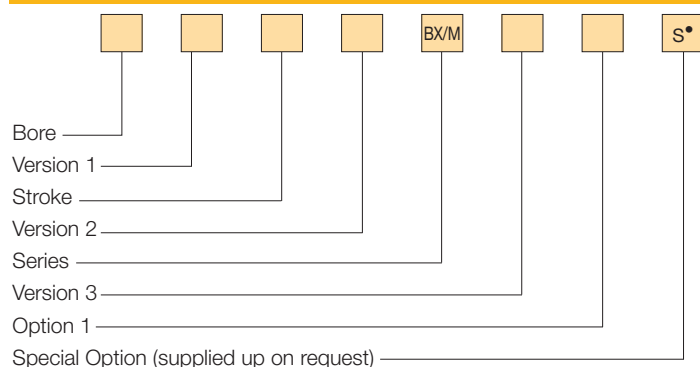
## DESCRIPTION

Cylinders series "BX" comply with ISO 21287 standard and they are available from Ø 20 to Ø 100, and they are supplied with magnetic piston type as standard. The barrel, in extruded aluminium alloy, has some TEE-slots on the sides that can host directly the magnetic sensors series "FM100".

## TECHNICAL DATA

Operating pressure	Single acting 2÷10 bar - Double acting 1÷10 bar
Working temperature	0 ÷ +80 °C (-20 °C with dry air)
Fluid	Filtered, unlubricated, continuous lubricated, or dry compressed air
Versions	Double acting, Single acting front spring, Single acting rear spring, Through rod, Double push tandem, Double stroke tandem, Opposed tandem, Non rotating piston rod device
Bore	Ø 20, 25, 32, 40, 50, 63, 80, 100
Port size	Ø 20 - 25 = M5; Ø 32 ÷ 100 = G 1/8
Standard strokes (mm)	Ø 20 - 25 = 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150 Ø 32 ÷ 63 = 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150, 200, 250, 300 Ø 80 ÷ 100 = 5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150, 200, 250, 300, 350, 400
Max. stroke single acting (mm)	Ø 20 ÷ 100 = 25
Max. stroke no rotating (mm)	Ø 20 - 25 = 40; Ø 32 ÷ 100 = 80
Spring theoretical tractive force	See technical data on page 0.13

## ORDER KEY



• See Chapter 1 on page 1.1.

## ORDER EXAMPLES

Basic cylinder Ø 50, 50 mm stroke, double acting, magnetic piston type, female threaded piston rod: **50/50 DBX/M8**

Cylinder Ø 63, through rod, 80 mm stroke, double acting, magnetic piston type, stainless steel rod and male threaded piston rod: **63R80 DBX/M17**

Cylinder Ø 80, double stroke push tandem, 50 mm stroke 1 + 100 mm stroke 2, double acting, magnetic piston type, female threaded piston rod: **80P50+100 DBX/M8**



## MATERIALS

End Caps	Die-cast aluminium alloy
Cylinder barrel	Extruded profile, 20 µm anodized aluminium alloy
Screws	Steel
Piston rod	AISI 303 rolled stainless steel
Rod nut	Steel Stainless steel
Piston rod bearing	Self lubricating sintered bronze
Piston	NBR rubber block (supplied with magnet)
Seals	NBR rubber Polyurethane
Springs	Springs steel

## VERSION 1

/ Basic cylinder	V Opposed tandem
R Through rod	P Double stroke tandem
T Double push tandem	

## VERSION 2

D Double acting	Y Single acting rear spring
S Single acting front spring	

## VERSION 3

A Non-rotating piston rod device (supplied only with female threaded piston option)
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## OPTION 1

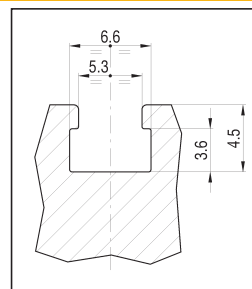
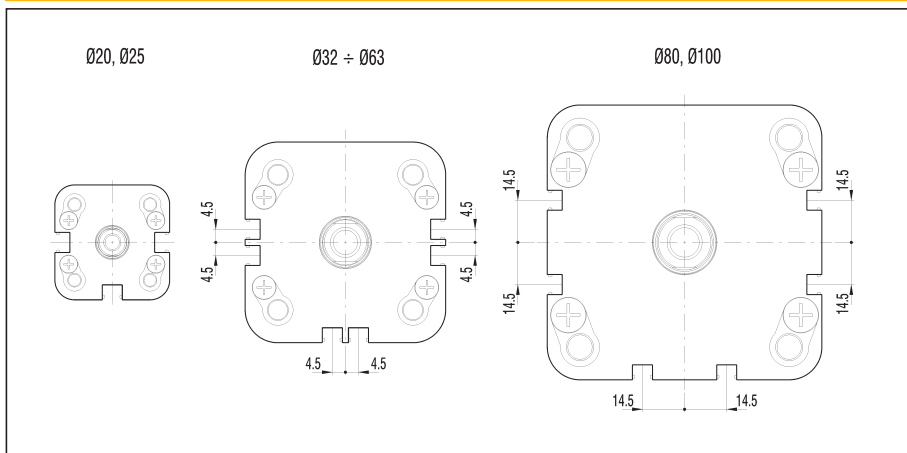
7 Male threaded piston rod	8 Female threaded piston rod
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## SPARE PARTS

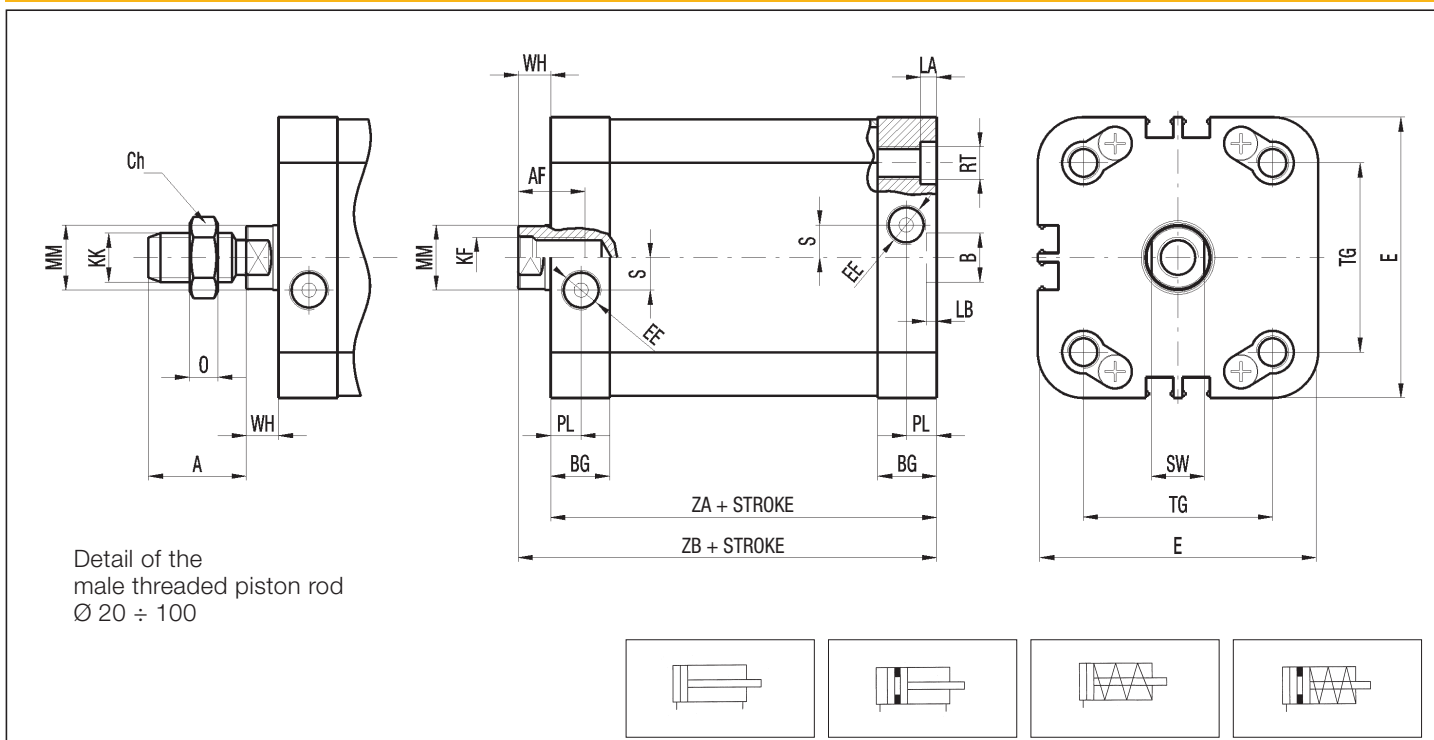
SEALS KIT	
Polyurethane - NBR	Ø/SG/BX
Through rod polyurethane - NBR	Ø/SG/R/BX

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### POSITION OF THE SLOTS FOR MAGNETIC SENSORS



### BX BASIC CYLINDER

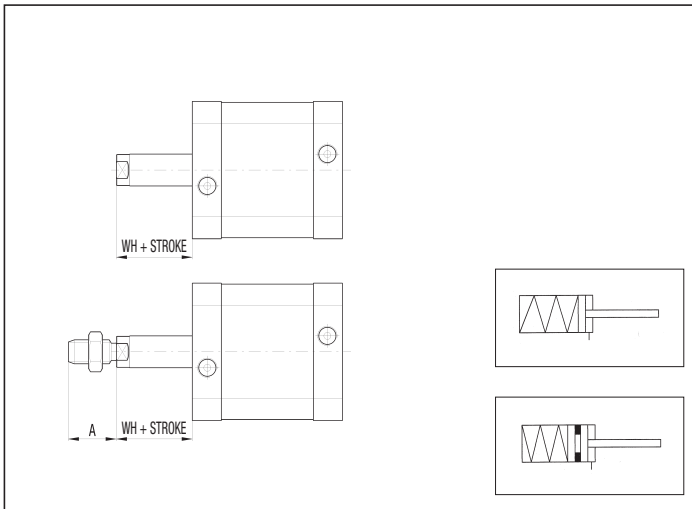


P.S.: Rod nut supplied as standard

### DIMENSIONS AND WEIGHTS BASIC CYLINDER

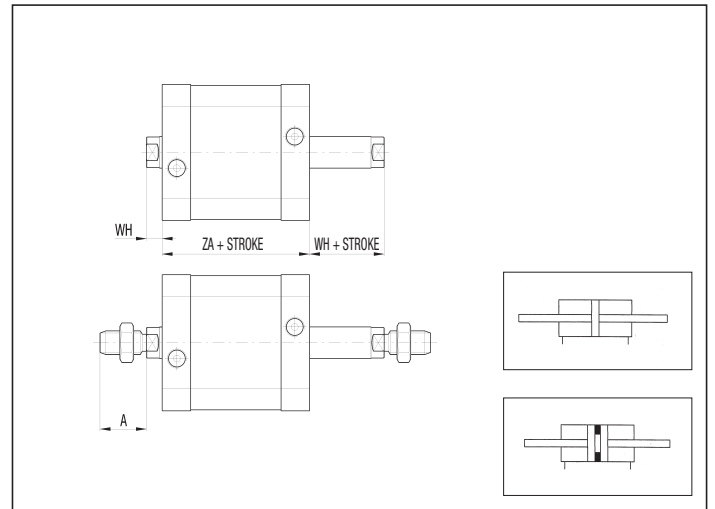
Ø	A	AF	B	BG*	CH	E	EE	KF	KK	LA	LB	MM	O	PL	RT	S	SW	TG	WH	ZA	ZB	ZT	WEIGHT (g)		INCR. (g) x 5 mm
																							A	AF	
20	16	10	9	14,25	13	36	M5	M6	M8	3	2,1	10	5	7	M5	2,5	9	22	6	37	43	74	123	115	10
25	16	10	9	14	13	39,5	M5	M6	M8	3	2,1	10	5	7	M5	2,5	9	26	6	39	45	78	150	142	11
32	19	12	9	15,5	17	49,5	G 1/8	M8	M10 X 1,25	3,5	2,1	12	6	7,75	M6	6	10	32,5	7	44	51	88	256	240	16,5
40	19	12	9	15,5	17	54	G 1/8	M8	M10 X 1,25	3,5	2,1	12	6	7,75	M6	8	10	38	7	45	52	90	296	280	16
50	22	16	12	14,5	19	69	G 1/8	M10	M12 X 1,25	4	2,6	16	7	7,5	M8	8	13	46,5	8	45	53	90	501	473	26
63	22	16	12	15,5	19	79	G 1/8	M10	M12 X 1,25	4	2,6	16	7	7,75	M8	11,5	13	56,5	8	49	57	98	703	676	28
80	28	20	12	17,5	24	94,5	G 1/8	M12	M16 X 1,5	5	2,6	20	8	8,75	M10	11,5	17	72	10	54	64	108	1147	1089	40
100	28	20	12	21	24	114,5	G 1/8	M12	M16 X 1,5	5	2,6	25	8	10,5	M10	20	21	89	10	67	77	134	2164	2068	56

**SINGLE ACTING  
REAR SPRING**



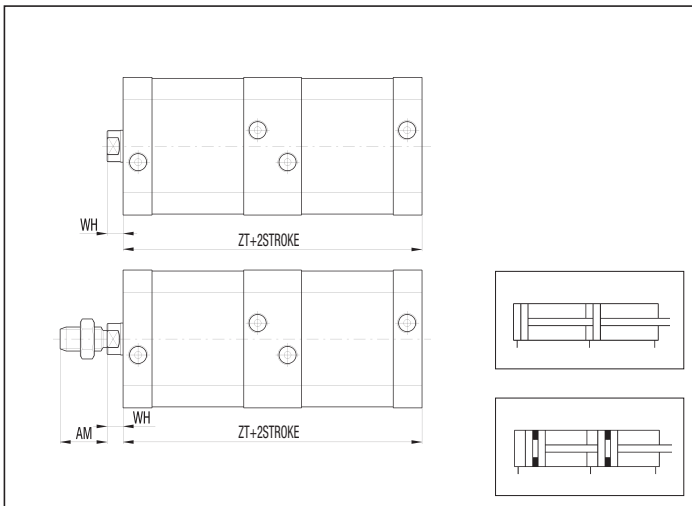
P.S.: Rod nut supplied as standard

**THROUGH ROD AND  
SINGLE ACTING THROUGH ROD**



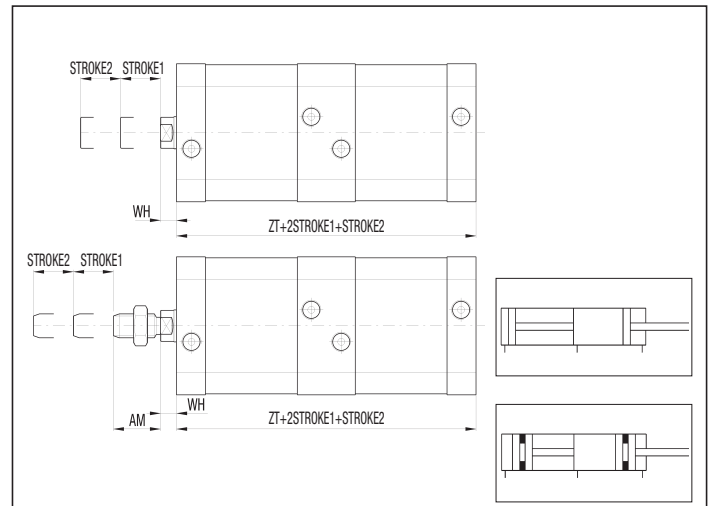
P.S.: Rod nut supplied as standard

**DOUBLE PUSH  
TANDEM**

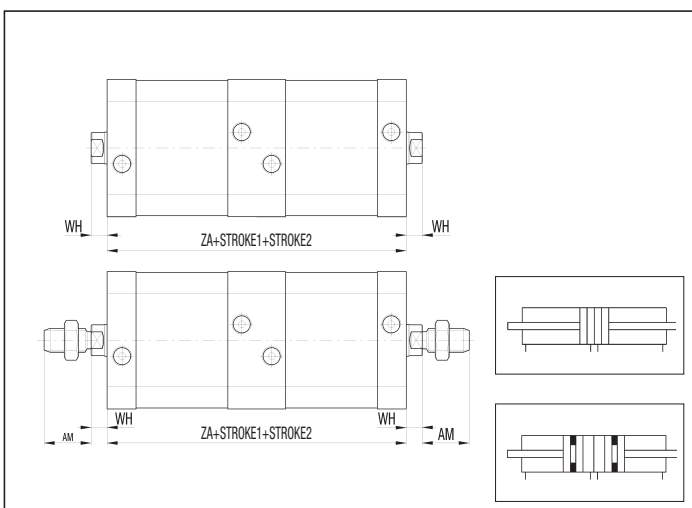


P.S.: Rod nut supplied as standard

**DOUBLE STROKE  
TANDEM**



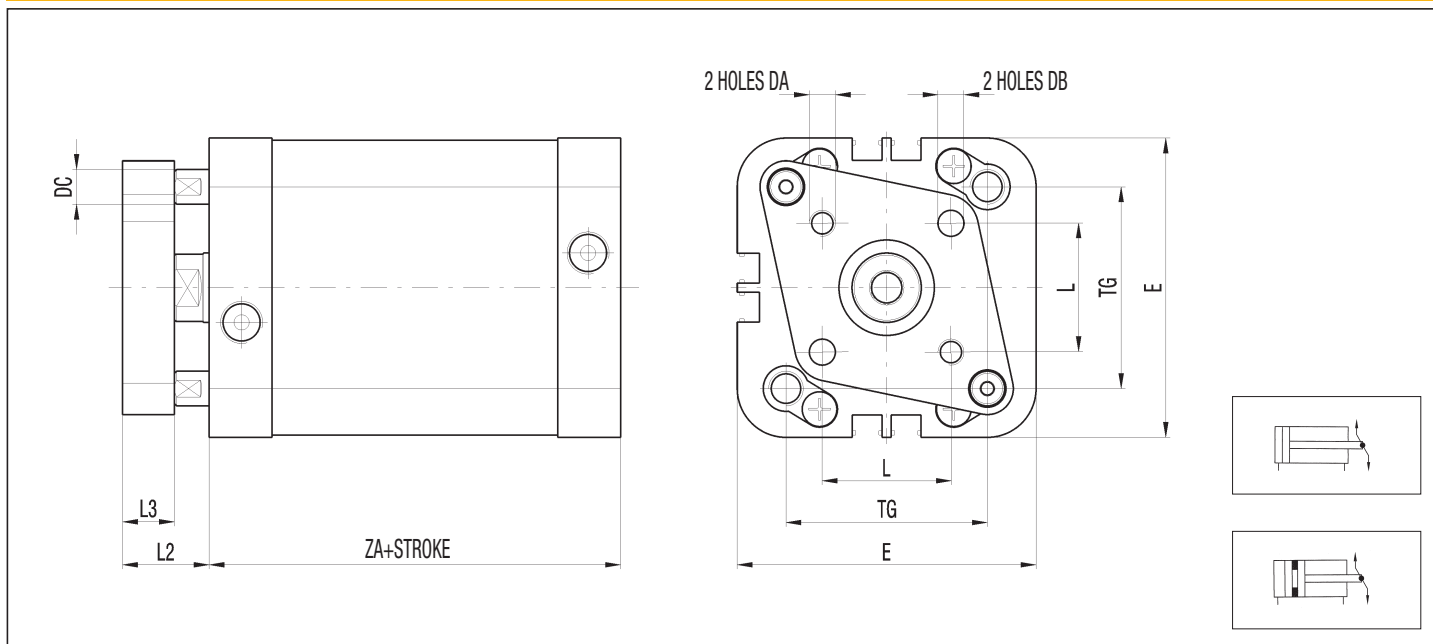
**OPPOSED  
TANDEM**



P.S.: Rod nut supplied as standard

### BX NON-ROTATING BASIC CYLINDER

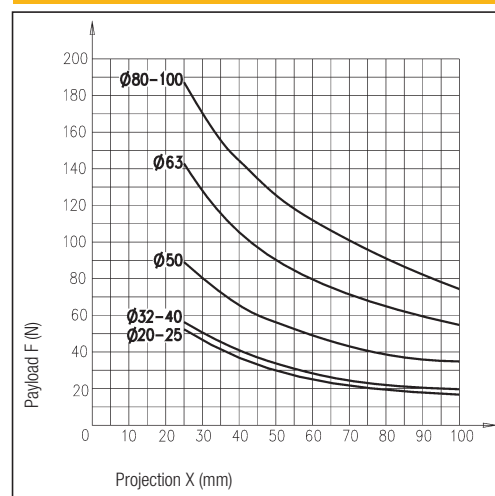
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### DIMENSIONS AND WEIGHTS

Ø	DA	DB	DC	E	L	L2	L3	TG	ZA	WEIGHT (g)	INCR. (g) x 5 mm
20	M4	4	5	36	12	14	8	22	37	139	10
25	M5	5	5	39,5	15,5	14	8	26	39	165	11
32	M5	5	5	49,5	19,8	17	10	32,5	44	287	16,5
40	M5	5	6	54	23,3	17	10	38	45	336	16
50	M6	6	8	69	29,7	20	12	46,5	45	574	26
63	M6	6	8	79	35,4	20	12	56,5	49	804	28
80	M8	8	10	94,5	46	24	14	72	54	1363	40
100	M10 X 1,25	10	10	114,5	56,6	24	14	89	67	2446	56

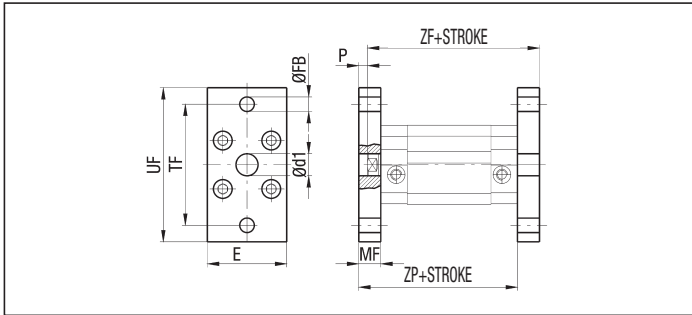
### MAX PERMISSIBLE LOAD - NON ROTATING BX



## Accessories

# BX - Fixings for compact cylinders to ISO 21287 standards

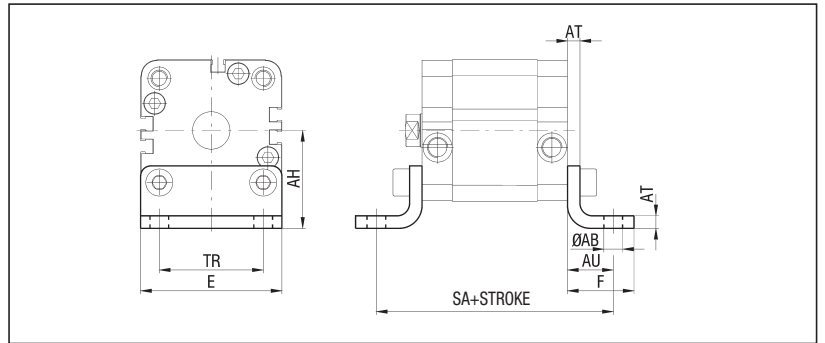
FLANGE Ø 20-25 - ALUMINIUM - BX/F Ø  
(Supplied with screws) - STEEL - BX/F Ø AC



Ø	d1 H11	E	FB H13	MF	P	R	TF	UF	ZF	ZP	WEIGHT ALL (g)	WEIGHT STEEL (g)
20	12	36	6,6	10	4	-	55	70	53	47	70	160
25	12	40	6,6	10	4	-	60	76	55	49	80	200

LOW FOOT - STEEL - BX/PB Ø (Supplied with screws)

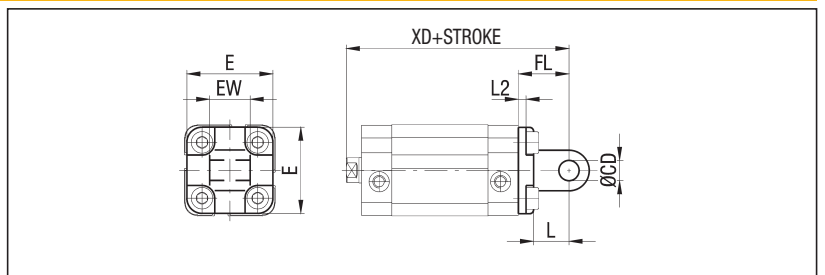
Ø	AB H13	AH	AU	AT	E	F	SA	TR	WEIGHT (g)
20	6,6	27	16	4	36	22	69	22	32
25	6,6	30	16	4	40	22	71	26	38



REAR MALE HINGE - ALUMINIUM - BX/CM Ø  
(Supplied with screws) - STEEL - BX/CM Ø AC

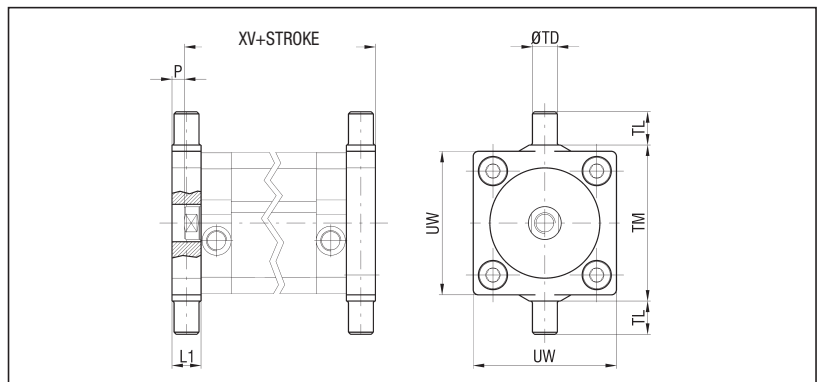
Ø	CD H9	E	EW h14	FL	L	L2	XD	WEIGHT ALL (g)	WEIGHT STEEL (g)
20	8	34	16	20	14	2,6	63	21	80
25	8	38	16	20	14	2,6	65	27	85

PS.: THIS MOUNTING CAN BE USED WITH THE REAR HINGE MOUNTING OF CYLINDERS SERIES "U"  
(SEE ON PAGE 1.6)



FLOATING HINGE - STEEL - BX/CTA Ø (Supplied with screws)

Ø	L1	P	TD e9	TL h14	TM h14	UW	XV	WEIGHT (g)
20	14	8	12	12	38	35	57	100
25	14	8	12	12	42	39	59	114



PS.: Only for Ø 32 ÷ 100 use the accessories of the series CPUI. See from page 1.33.