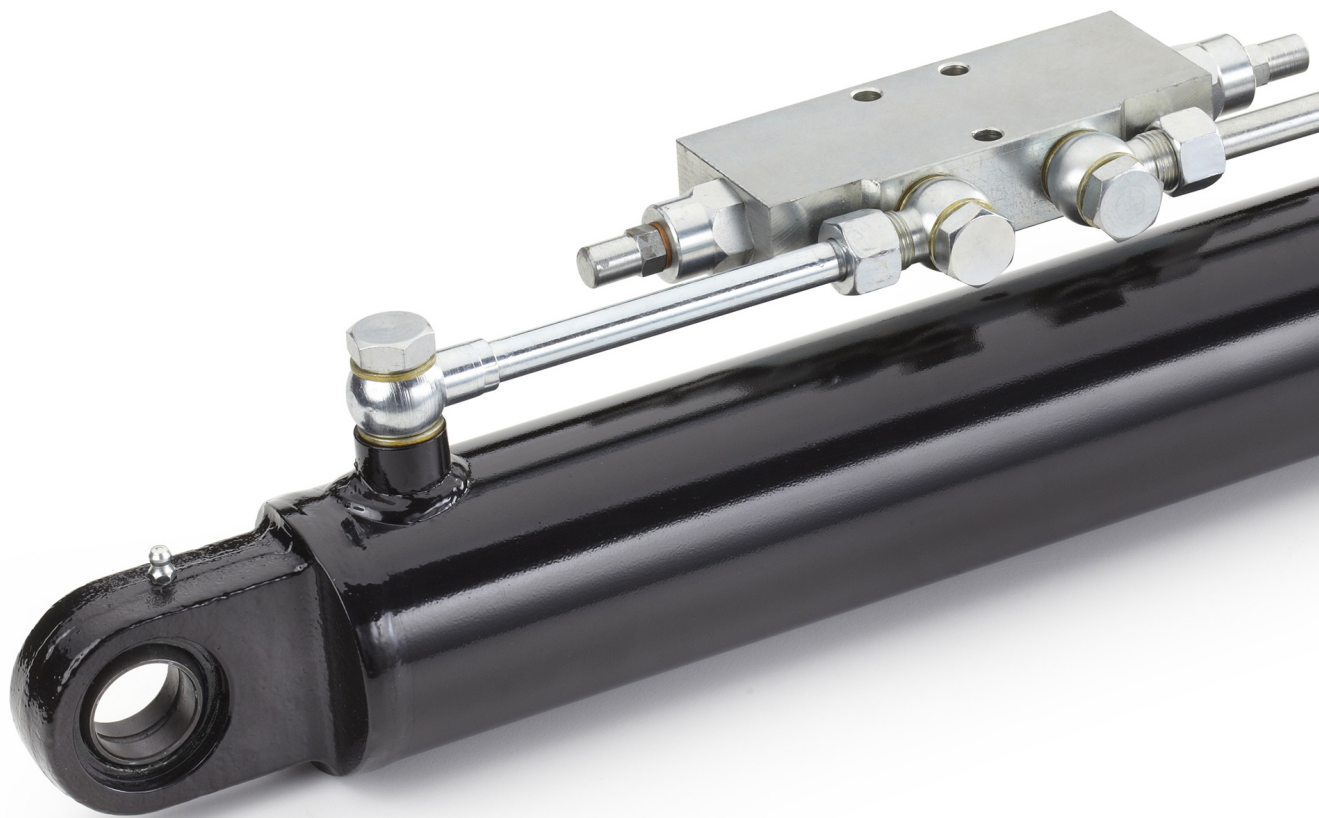


CL CYLINDERS SERIES

WELDED CYLINDERS



CL CYLINDERS SERIES



WELDED CYLINDERS

The **CL series**, welded cylinders with accessible prices, is suitable for the mobile sector or for applications which do not present cyclical fatigue stress.

The choice of selected materials, the hydraulic and electronic controls of 100% of all cylinders produced and the quality of the means of production, allow to reach high standards of quality, reliability and enduring product performance.

The seals used, supplied by premium suppliers, grant high performance and international availability.

The wide range of seals, allows us to offer cylinders for applications with different kinds of hydraulic fluids, speed, frequency and operating temperature

Technical characteristics:

- Nominal pressure 14 MPa
- Maximum pressure 21 MPa
- Bore 40-100 mm
- Stroke up to 4000 mm
- Single or double rod
- 2 rod diameter per bore
- 6 mounting styles
- 3 versions of rod mounting styles

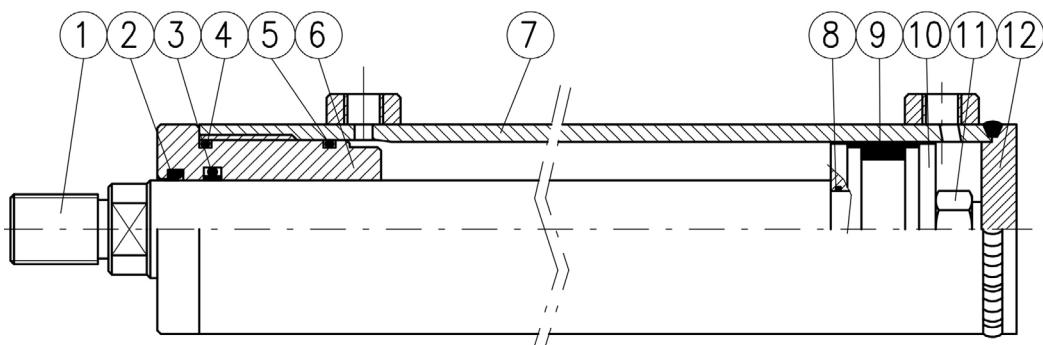
Options:

- Integrated position transducer with analogue output signal: 4/20 mA or 0/10V (contact our technical department)
- Air bleeds
- Rod treatment : chromed, induction hardened and chromed, nickel-chromed

EPC Cylinder configurator

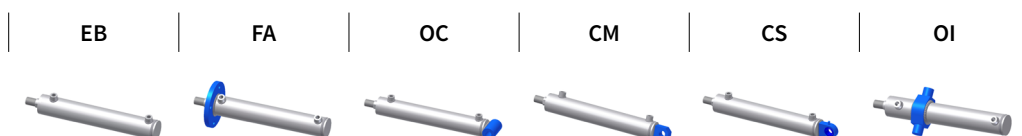
This is an innovative tool that allows the client to configure CL cylinders in a rapid and intuitive way, guiding the technician through the choices of all the options available. Once the cylinder code is defined, the EPC software provides 2D, 3D and PDF drawings, and gives the user the possibility to save projects and request offers. With the complete access, reserved to the purchasing department, it is possible to make orders directly. For all orders received through EPC an extra discount will be applied.

Login at: <http://configuratore.grices.it/>



N°	ITEM	MATERIAL
1	Rod	Chromium-plated steel
2	Scraper	Polyurethane
3	Rod seal	Polyurethane
4	O-Ring	Nitrile rubber
5	O-Ring + PBK	Nitrile rubber + Polyurethane
6	Guide	Cast iron
7	Body	Steel
8	O-Ring	Nitrile rubber
9	Piston seal	Nitrile rubber
10	Piston	Steel
11	Nut	Steel
12	Rear head	Steel

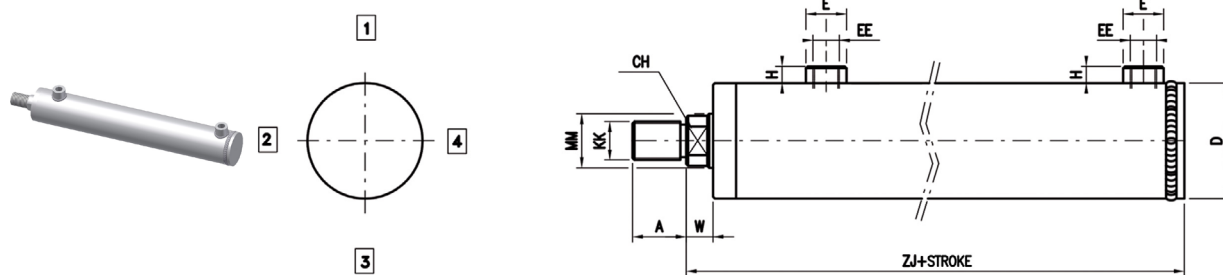
Mounting style



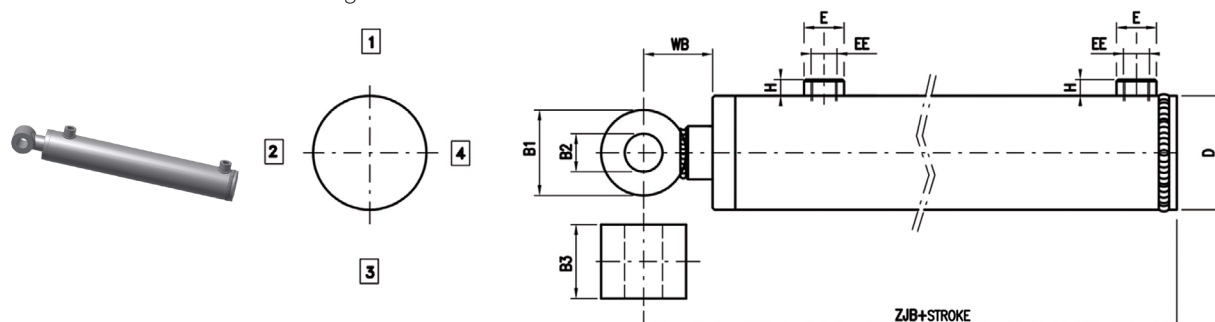
Rod mounting style



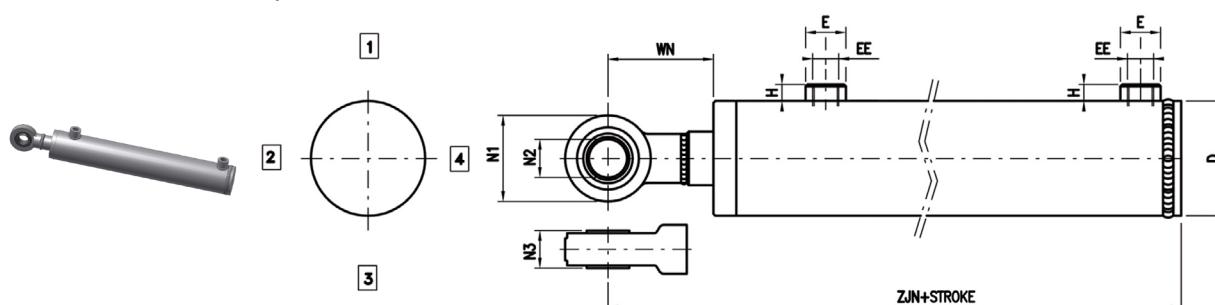
EBM Basic - male thread



EBB Basic - welded bushing

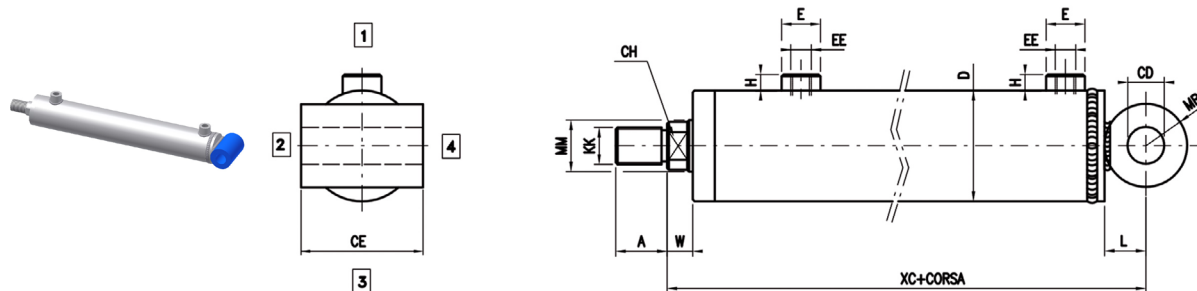


EBN Basic - welded joint

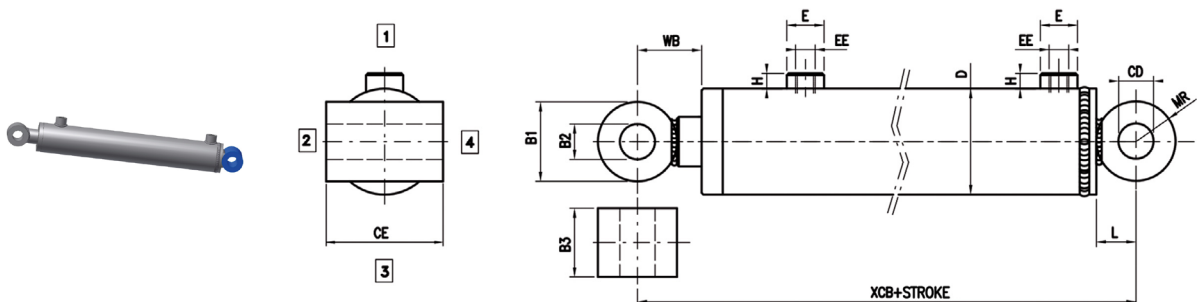


BORE	MM Rod	CH	KK	A	B1	B2	B3	D	E	EE	H	N1	N2	N3	W	WB	WN	ZJ	ZJB	ZJN
40	20	18	M16x1,5	22	40	20,5	40	50	22	1/4"	16	53	20	16	13	42	60	121	150	168
	25	22	M20x1,5	28																
50	25	22	M20x1,5	28	40	20,5	40	60	26	3/8"	17	53	20	16	14	42	60	132	160	178
	30	24	M20x1,5	28																
60	30	24	M20x1,5	28	50	25,5	45	70	26	3/8"	17	64	25	20	16	48	68	153	185	205
	35	29	M27x2	36																
70	35	29	M27x2	36	50	30,5	55	80	26	3/8"	17	73	30	22	16	48	74	153	185	211
	40	34	M27x2	36																
80	40	34	M27x2	36	50	30,5	55	95	30	1/2"	18	73	30	22	18	50	76	176	208	234
	50	44	M33x2	45																
100	50	44	M33x2	45	70	40,25	70	115	30	1/2"	18	92	40	28	20	60	94	210	250	284
	60	52	M42x2	56																

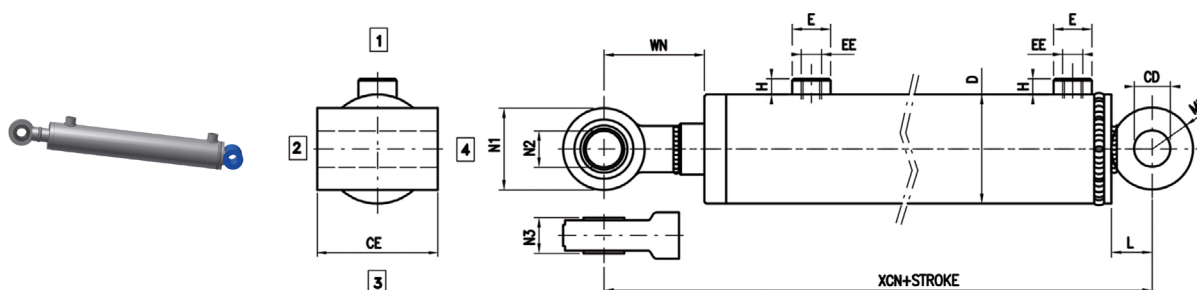
OCM

 Eye hinge - male thread


OCB

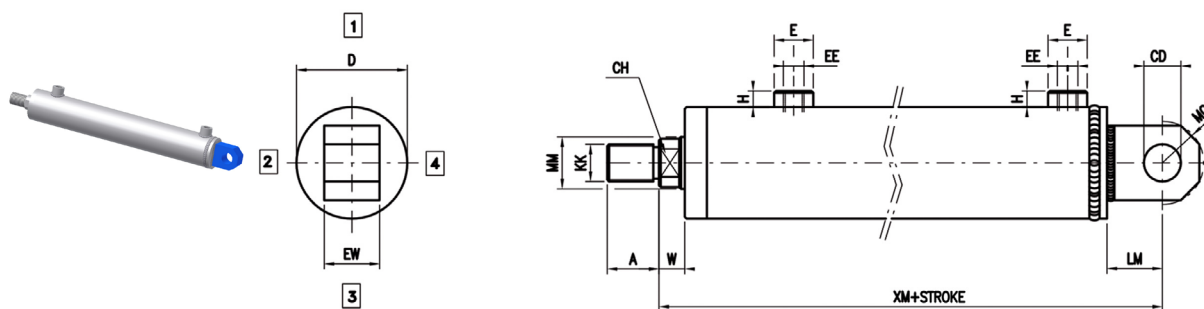
 Eye hinge - welded bushing


OCN

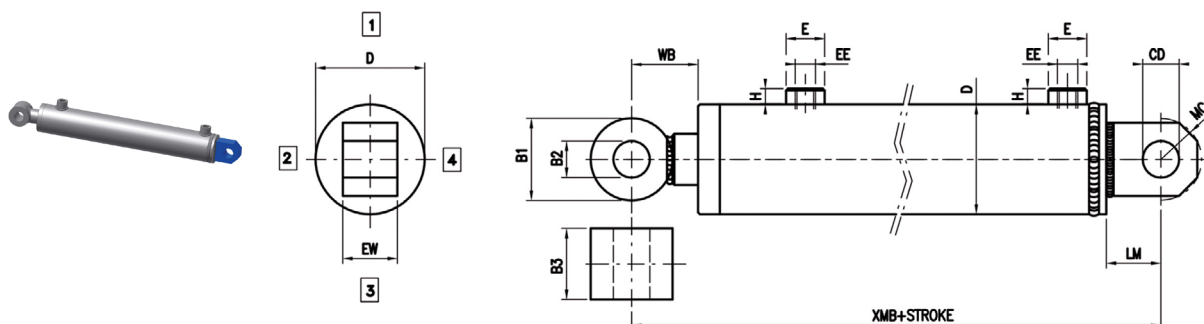
 Eye hinge - welded joint


BORE	MM Rod	CH	KK	A	B1	B2	B3	CD	CE	D	E	EE	H	L	MR	N1	N2	N3	W	WB	WN	XC	XCB	XCN
40	20	18	M16x1,5	22	40	20,5	40	20,25	70	50	22	1/4"	16	20	20	53	20	16	13	42	60	141	170	188
	25	22	M20x1,5	28																				
50	25	22	M20x1,5	28	40	20,5	40	20,25	70	60	26	3/8"	17	20	20	53	20	16	14	42	60	152	180	198
	30	24	M20x1,5	28																				
60	30	24	M20x1,5	28	50	25,5	45	25,25	80	70	26	3/8"	17	25	25	64	25	20	16	48	68	178	210	230
	35	29	M27x2	36																				
70	35	29	M27x2	36	50	30,5	55	30,25	110	80	26	3/8"	17	30	30	73	30	22	16	48	74	183	215	241
	40	34	M27x2	36																				
80	40	34	M27x2	36	50	30,5	55	30,25	110	95	30	1/2"	18	30	30	73	30	22	18	50	76	206	238	264
	50	44	M33x2	45																				
100	50	44	M33x2	45	70	40,25	70	40,25	130	115	30	1/2"	18	35	35	92	40	28	20	60	94	245	285	319
	60	52	M42x2	56																				

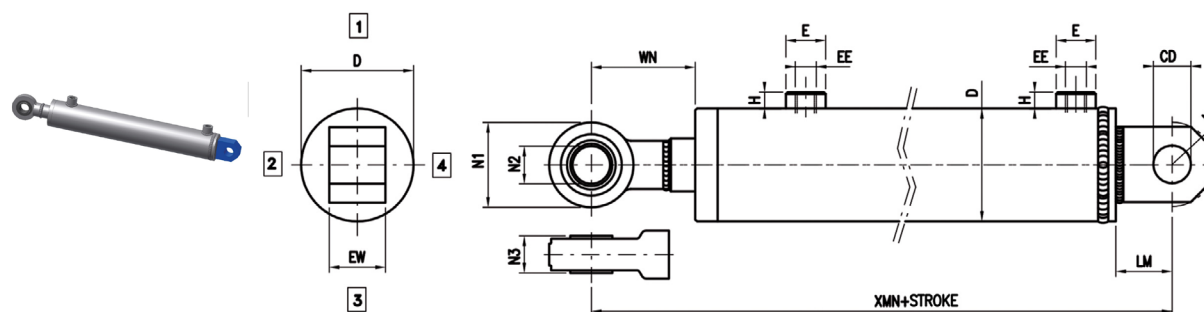
CMM Male hinge - male thread



CMB Male hinge - welded bushing

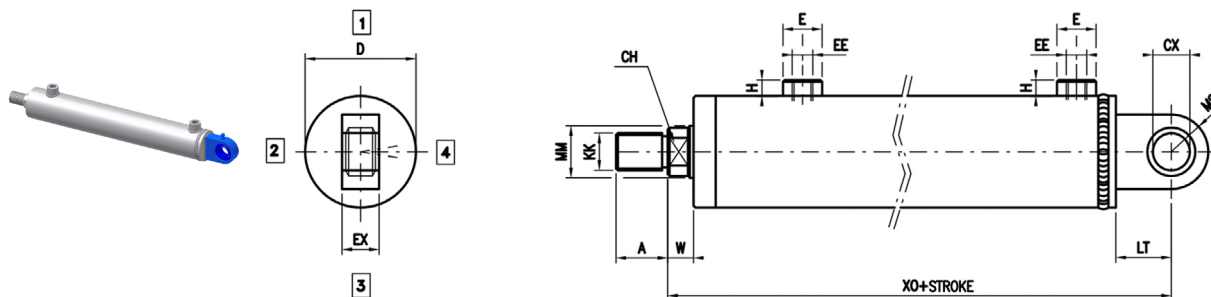


CMN Male hinge - welded joint

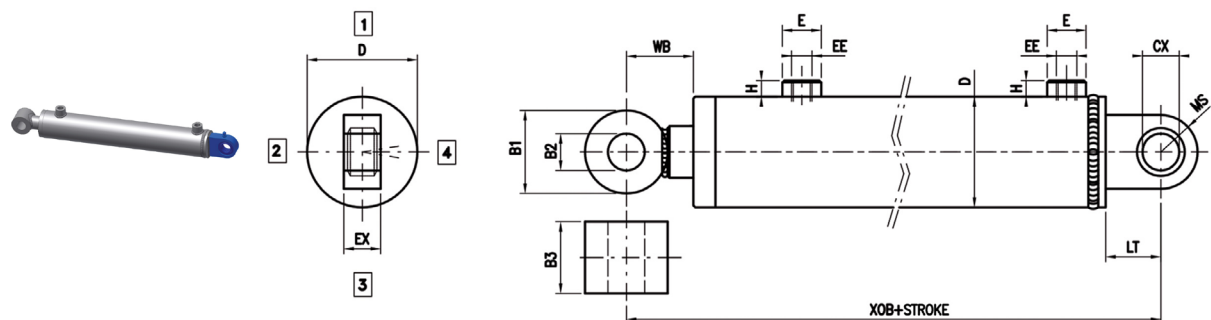


BORE	MM Rod	CH	KK	A	B1	B2	B3	CD	D	E	EE	EW	H	LM	MC	N1	N2	N3	W	WB	WN	XM	XMB	XMN
40	20	18	M16x1,5	22	40	20,5	40	20,25	50	22	1/4"	25	16	30	26	53	20	16	13	42	60	151	180	198
	25	22	M20x1,5	28																				
50	25	22	M20x1,5	28	40	20,5	40	20,25	60	26	3/8"	25	17	30	26	53	20	16	14	42	60	162	190	208
	30	24	M20x1,5	28																				
60	30	24	M20x1,5	28	50	25,5	45	25,25	70	26	3/8"	30	17	35	30	64	25	20	16	48	68	188	220	240
	35	29	M27x2	36																				
70	35	29	M27x2	36	50	30,5	55	30,25	80	26	3/8"	35	17	45	35	73	30	22	16	48	74	198	230	256
	40	34	M27x2	36																				
80	40	34	M27x2	36	50	30,5	55	30,25	95	30	1/2"	35	18	45	35	73	30	22	18	50	76	221	253	279
	50	44	M33x2	45																				
100	50	44	M33x2	45	70	40,25	70	40,25	115	30	1/2"	56	18	55	42	92	40	28	20	60	94	265	305	339
	60	52	M42x2	56																				

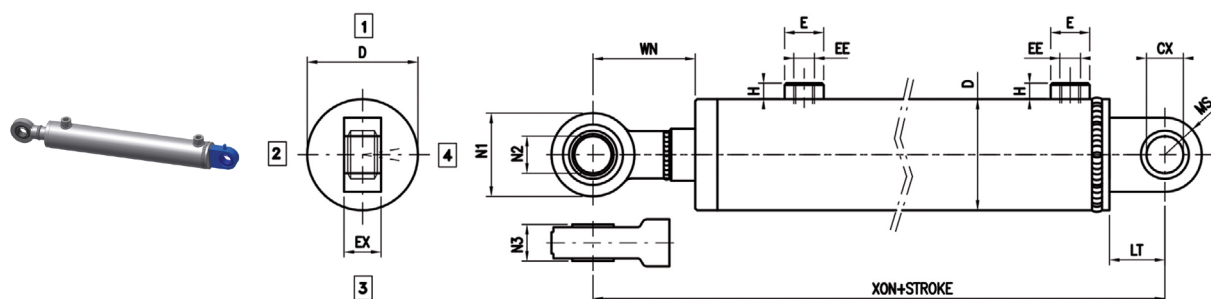
CSM Joint hinge - male thread



CSB Joint hinge - welded bushing

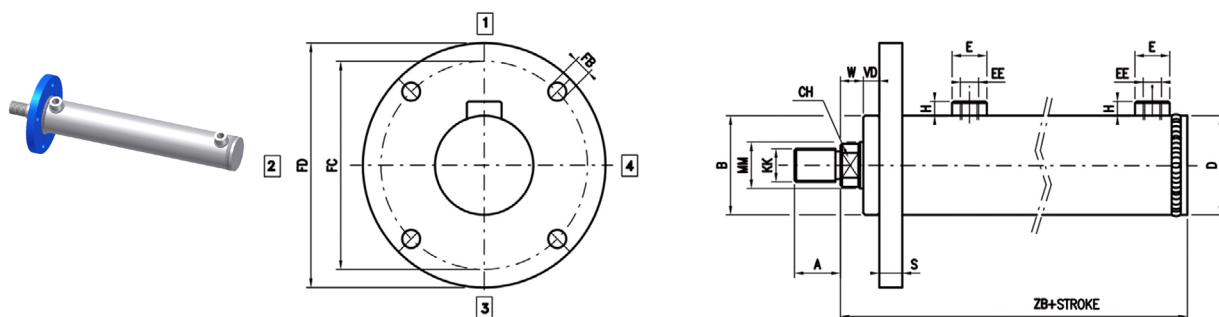


CSN Joint hinge - welded joint

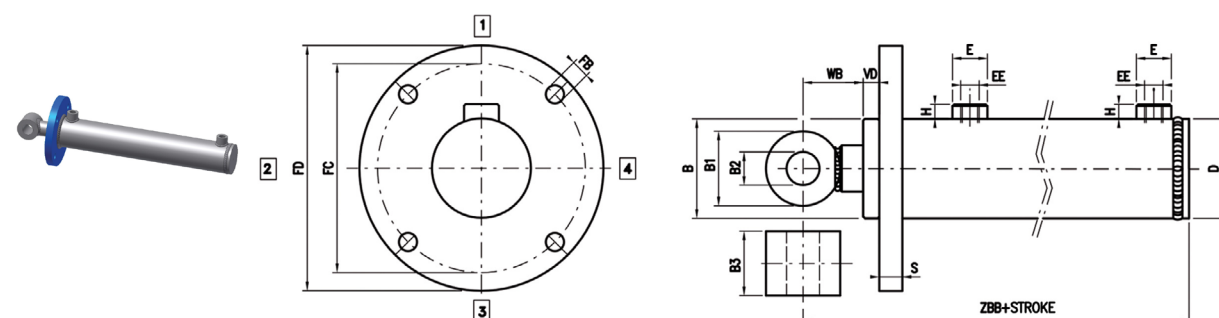


BORE	MM Rod	CH	KK	A	B1	B2	B3	CX	D	E	EE	EX	H	LT	MS	N1	N2	N3	W	WB	WN	XO	XOB	XON
40	20	18	M16x1,5	22	40	20,5	40	20	50	22	1/4"	19	16	38	25	53	20	16	13	42	60	159	188	206
	25	22	M20x1,5	28																				
50	25	22	M20x1,5	28	40	20,5	40	20	60	26	3/8"	19	17	38	25	53	20	16	14	42	60	170	198	216
	30	24	M20x1,5	28																				
60	30	24	M20x1,5	28	50	25,5	45	25	70	26	3/8"	23	17	45	27,5	64	25	20	16	48	68	198	230	250
	35	29	M27x2	36																				
70	35	29	M27x2	36	50	30,5	55	30	80	26	3/8"	28	17	51	32,5	73	30	22	16	48	74	204	236	262
	40	34	M27x2	36																				
80	40	34	M27x2	36	50	30,5	55	30	95	30	1/2"	28	18	51	32,5	73	30	22	18	53	79	224	259	285
	50	44	M33x2	45																				
100	50	44	M33x2	45	70	40,25	70	40	115	30	1/2"	35	18	69	50	92	40	28	20	60	94	279	319	353
	60	52	M42x2	56																				

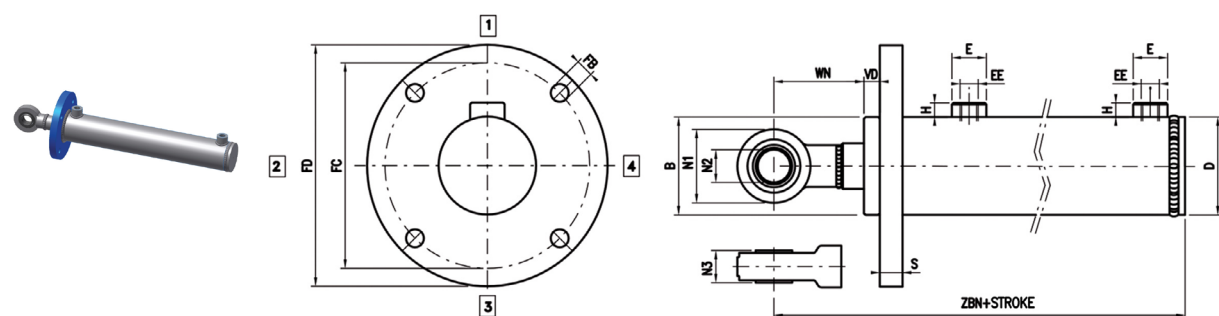
FAM Front flange - male thread



FAB Front flange - welded bushing

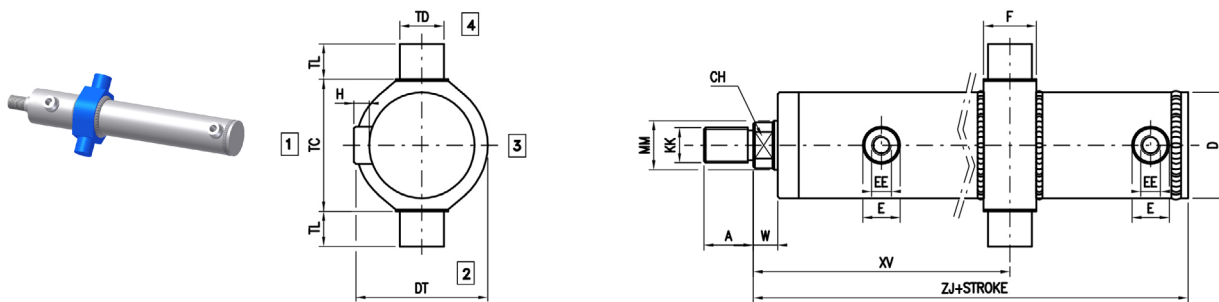


FAN Front flange - welded joint

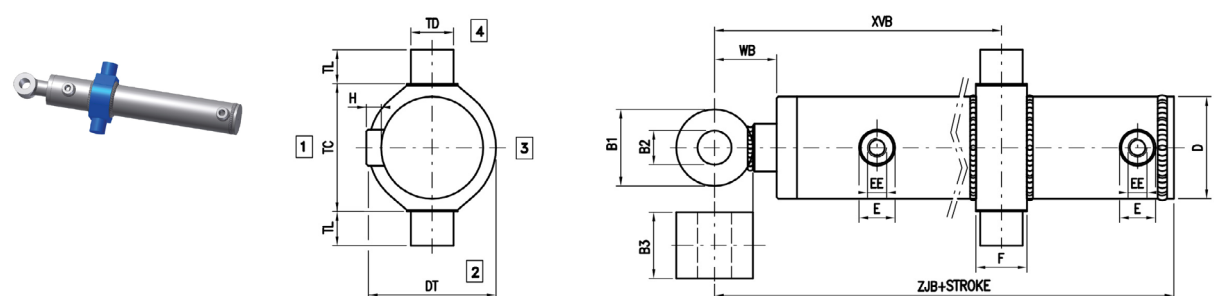


BORE	MM Rod	CH	KK	A	B	B1	B2	B3	D	E	EE	FB	FC	FD	H	N1	N2	N3	S	VD	W	WB	WN	ZB	ZBB	ZBN
40	20	18	M16x1,5	22	49	40	20,5	40	50	22	1/4"	11	87	109	20	53	20	16	12,5	8	13	42	60	123	152	170
	25	22	M20x1,5	28																						
50	25	22	M20x1,5	28	59	40	20,5	40	60	26	3/8"	13	105	128	20	53	20	16	14,5	8	14	42	60	134	162	180
	30	24	M20x1,5	28																						
60	30	24	M20x1,5	28	69	50	25,5	45	70	26	3/8"	13	117	142	25	64	25	20	16,5	10	16	48	68	156	188	208
	35	29	M27x2	36																						
70	35	29	M27x2	36	79	50	30,5	55	80	26	3/8"	15	127	162	30	73	30	22	16,5	10	16	48	74	156	188	214
	40	34	M27x2	36																						
80	40	34	M27x2	36	94	50	30,5	55	95	30	1/2"	17 n°6	149	181	30	73	30	22	18,5	10	18	50	76	178	210	236
	50	44	M33x2	45																						
100	50	44	M33x2	45	114	70	40,25	70	115	30	1/2"	17 n°6	162	194	35	92	40	28	24,5	12	20	60	94	210	250	284
	60	52	M42x2	56																						

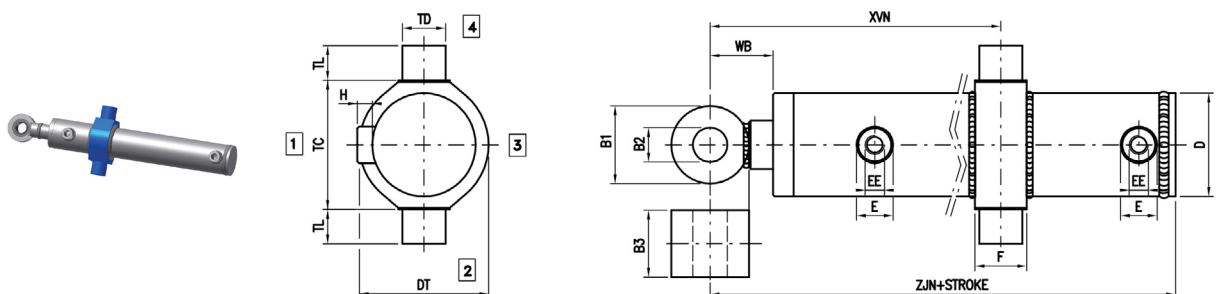
OIM

 Intermediate trunnion - male thread


OIB

 Intermediate trunnion - welded bushing


OIN

 Intermediate trunnion - welded joint


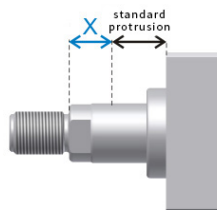
BORE	MM Rod	CH	KK	A	B1	B2	B3	D	DT	E	EE	H	N1	N2	N3	TC	TD	TL	XV min	XV max	XVB min	XVB max	XVN min	XVN max	W	WB	WN	ZJ	ZJB	ZJN
40	20	18	M16x1,5	22	40	20,5	40	50	65	22	1/4"	20	53	20	16	70	20	20	100	50 + stroke	129	79 + stroke	147	97 + stroke	13	42	60	121	150	168
	25	22	M20x1,5	28																26	3/8"	25	110	52 + stroke	138	80 + stroke	156	98 + stroke		
50	25	22	M20x1,5	28	40	20,5	40	60	75	26	3/8"	20	53	20	16	80	25	25	110	52 + stroke	138	80 + stroke	156	98 + stroke	14	42	60	134	162	180
	30	24	M20x1,5	28																26	3/8"	25	110	62 + stroke	152	94 + stroke	172	114 + stroke		
60	30	24	M20x1,5	28	50	25,5	45	70	90	26	3/8"	25	64	25	20	100	30	30	120	62 + stroke	152	94 + stroke	172	114 + stroke	16	48	68	153	185	205
	35	29	M27x2	36																26	3/8"	30	125	65 + stroke	157	99 + stroke	183	123 + stroke		
70	35	29	M27x2	36	50	30,5	55	80	100	26	3/8"	30	73	30	22	110	35	35	125	65 + stroke	157	99 + stroke	183	123 + stroke	16	48	74	153	185	211
	40	34	M27x2	36																26	3/8"	30	125	75 + stroke	172	107 + stroke	198	133 + stroke		
80	40	34	M27x2	36	50	30,5	55	95	115	30	1/2"	30	73	30	22	115	40	40	140	75 + stroke	172	107 + stroke	198	133 + stroke	18	50	76	176	208	234
	50	44	M33x2	45																26	1/2"	35	145	95 + stroke	209	132 + stroke	246	169 + stroke		
100	50	44	M33x2	45	70	40,25	70	115	145	30	1/2"	35	92	40	28	145	50	50	172	95 + stroke	209	132 + stroke	246	169 + stroke	20	60	94	210	250	284
	60	52	M42x2	56																26	1/2"	35	145	95 + stroke	209	132 + stroke	246	169 + stroke		

EXAMPLE OF ORDER ACRONYM

CL/50/28/530/OIMO AQ1R10XV...

CHARACTERISTIC	DESCRIPTION	SYM.	EXAMPLE		
SERIES	Welded cylinders	CL	CL/		
BORE	Indicate in mm		CL/ 50/		
ROD	Indicate in mm		CL/50/ 28/		
STROKE	Indicate in mm		CL/50/28/ 530/		
EXECUTION	Base	EB	CL/50/28/530/ OI		
	Front flange	FA			
	Eye hinge	OC			
	Male hinge	CM			
	Joint hinge	CS			
	Intermediate trunnion	OI			
ROD END	Male thread	M	CL/50/28/530/ OIM		
	Welded bushing	B			
	Welded joint	N			
SPACES	None	0	CL/50/28/530/ OIM0		
	50 mm	1			
	100 mm	2			
	150 mm	3			
	200 mm	4			
SEALS	Elastomer + Nitrile (low pressure seal)	A	CL/50/28/530/ OIM0A		
FRONT HEAD					
POS. OIL PORTS	Side 1	Side 2	Side 3	Side 4	CL/50/28/530/ OIM0AQ1
REAR HEAD					
POS. OIL PORTS	Side 1	Side 2	Side 3	Side 4	CL/50/28/530/ OIM0AQ1R1
*EXTRA ROD X QUOTE	Indicate mm				CL/50/28/530/ OIM0AQ1R10
XV - XVB - XVN QUOTE	Indicate mm (only version OI)				CL/50/28/503/ OIM0AQ1R10XV...

* Specify the possible *extra-rod (X)* size in addition to the standard rod protrusion:



Login at: <http://configuratore.grices.it/>

Configure your cylinder in a quick and intuitive way choosing all the available options.

Note

The indicated operating pressures are efficient for smooth applications without blows. For extreme loads or high operating pressures with high frequency, it is necessary to use mounting styles and thread-rod links designed to be stress-resistant.

For further information contact our Technical Department.