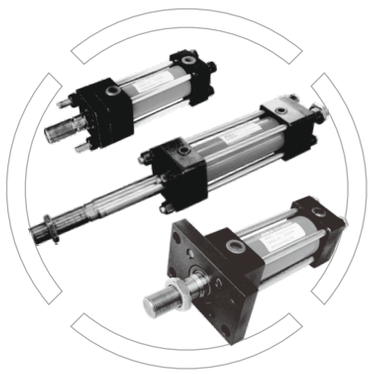
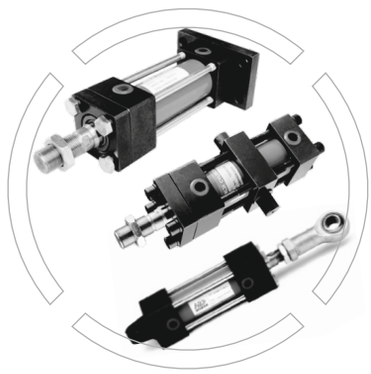
THM-OB/OD Series

OB/OD Medium Duty Tie Rod Hydraulic Cylinder
Working pressure 140 bar





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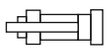
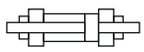
Ordering Code

THM-OB - R - D - 63 * 35 * 100 - LB - Y - 140 bar

Type

Standard  = THM-OB

Double  = THM-OD

Without magnet = No code
With magnet = R

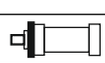
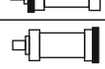
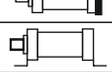
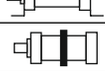
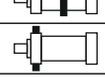
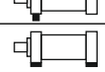
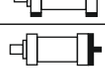
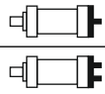
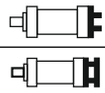
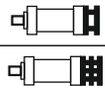
No Sign = No Code
Both ends = D
Head = F
Cap = B

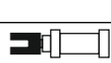
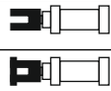
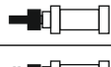
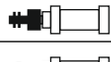
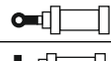
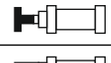
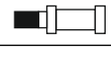
Bore = Ø40, Ø50, Ø63, Ø80, Ø100, Ø125, Ø150, Ø180, Ø200

Standard = Ø25, Ø30, Ø35, Ø40, Ø50, Ø60, Ø80, Ø100, Ø100
Max. = - , Ø35, Ø40, Ø50, Ø60, Ø80, Ø100, Ø120, Ø120

Stroke

Standard Stroke = 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000

Cylinder mounting		
FA	Front Flange	
FB	Cap Flange	
LB	Side end angles	
TC	Intermediate Fixed Trunnion	
TA	Front Trunnion	
LA	Side lugs	
CA	Detachable eye	
CB	Detachable Clevis	
CBP	CB PIN	
CAB	CA+P+CB	

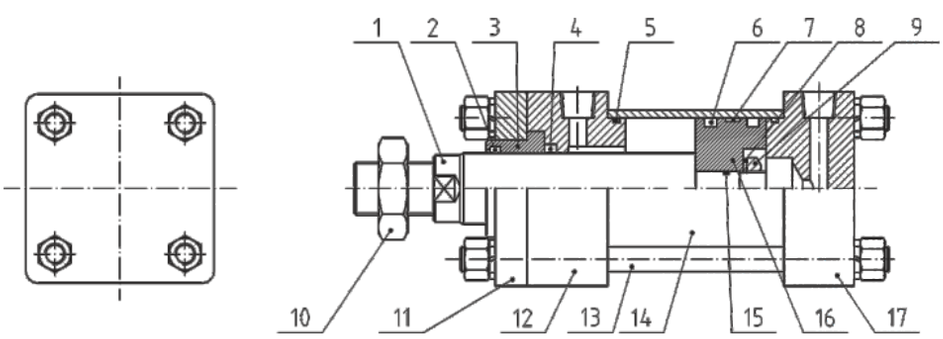
Piston rod end connecting type		
Y	Female Rod Clevis	
YP	Female Rod Clevis+PIN	
I	I Connecting	
KG	Float Connecting	
PHS	Spherical Rod eye	
T	T Connecting	
H	Welded Bushing	
A	Adjustable Nut	

Features

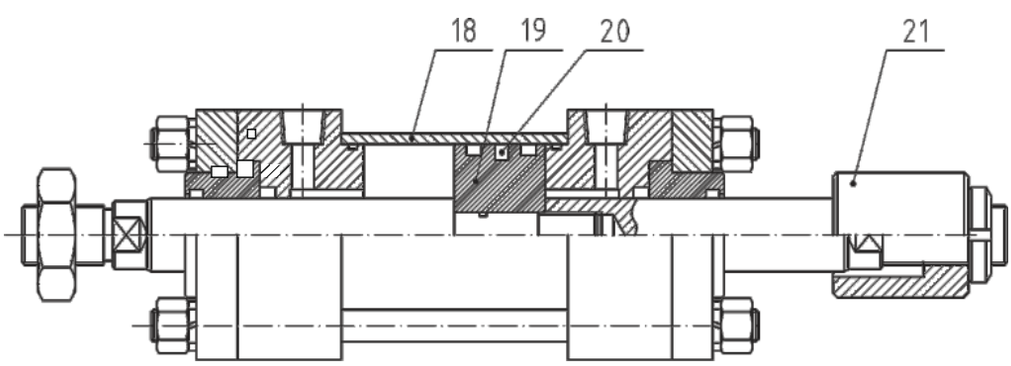
Bore Size	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø150	Ø180	Ø200
Working medium	Clean Standard Hydraulic Oil								
Cylinder Barrel Material	20# Carbon steel/304								
Working pressure range	8-140 bar, Testing pressure: 160bar								
Temperature Range	-10-+60(°C)								
Speed Range	0-300(mm/s)								
Standard Piston Length (PM)	30	35	35	50	60	65	65	90	90
Piston Length (PM) 1501-2500mm	60	70	70	80	100	100	100	140	140
Piston length (PM) 2501-4000mm	120	140	140	150	180	180	180	200	200

Construction Drawing

THM-OB



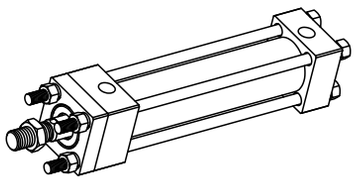
THM-OD

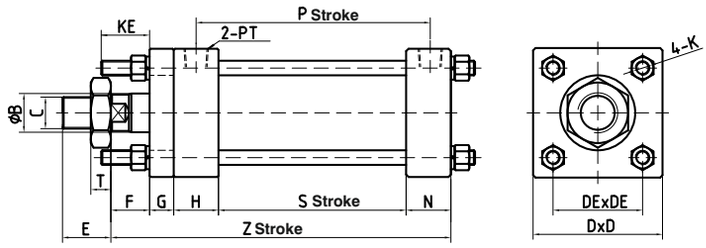


No	Part Name	Qty.	No	Part Name	Qty.	No	Part Name	Qty.
1	Piston Rod	1	8	Spring Washer Nut	1	15	O-Ring	1
2	Dust Wiper	1	9	Nut	1	16	Piston	1
3	Stand	1	10	Piston Rod Nut	1	17	End Cap	1
4	Rod Steals	1	11	Flange	1	18	Cylinder Barrel	1
5	O- Ring	2	12	Head Cap	1	19	Piston	1
6	Piston Seals	2	13	Tie Rod	4	20	Magnetic Ring	1
7	Wear Ring	1	14	Cylinder Barrel	1	21	Adjustable Nut	1

Unit Dimensions

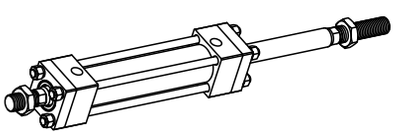
Tie Rod Extended

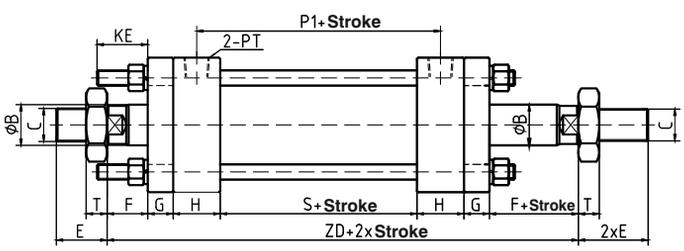




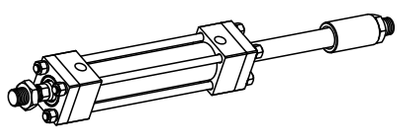
THM-OB																
Bore	ØB	C	D	DE	E	F	G*	H*	N*	P*	PT	K	KE	S*	T*	Z
Ø40	25	M22*P1.5	65	45	40	20	17	35	30	80	3/8	M10	30	54	13	156
Ø50	30	M26*P1.5	80	56	40	20	17	38	28	87	3/8	M12	40	59	13	162
Ø63	35	M30*P1.5	90	65	45	20	17	40	30	87	3/8	M12	40	59	13	166
Ø80	40	M30*P1.5	110	80	45	20	20	40	40	108	1/2	M14	60	74	13	194
Ø100	50	M40*P2.0	131	95	55	25	20	40	40	120	1/2	M16	60	84	15	209
Ø125	60	M50*P2.0	162	122	70	35	30	52	43	139	3/4	M22	70	95	15	255
Ø150	80	M70*P2.0	195	144	80	35	30	62	52	146	3/4	M24	70	95	20	274
Ø180	100	M90*P2.0	235	175	100	35	40	65	55	179	1	M30	70	120	20	315
Ø200	100	M90*P2.0	262	203	100	40	40	65	60	179	1	M33	70	120	20	325

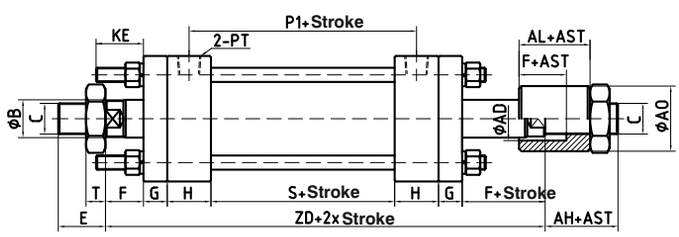
Double Rod Cylinders





Double Rod Cylinders + Adjustable Nut





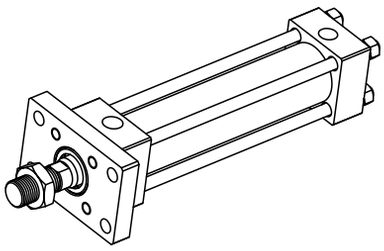
THM-OD														A adjustable stroke type			
Bore	ØB	C	D	KE	E	F	G*	H*	N*	P1*	PT	S*	T*	ZD	AL	AH	ØAO	ØAD
Ø40	25	M22*P1.5	65	30	40	20	17	35	28	80	3/8	54	13	198	40	35	45	30
Ø50	30	M26*P1.5	80	40	40	20	17	38	30	87	3/8	59	13	209	45	40	55	35
Ø63	35	M30*P1.5	90	40	45	20	17	40	30	87	3/8	59	13	213	45	45	60	40
Ø80	40	M30*P1.5	110	60	45	20	20	40	35	106	1/2	74	13	234	50	45	70	45
Ø100	50	M40*P2.0	131	60	55	25	20	40	37	116	1/2	84	15	254	55	45	80	55
Ø125	60	M50*P2.0	162	70	70	35	30	52	47	143	3/4	95	15	329	70	50	100	65
Ø150	80	M70*P2.0	195	70	80	35	30	62	50	155	3/4	95	20	349	75	60	120	85
Ø180	100	M90*P2.0	235	70	100	35	40	65	55	184	1	120	20	400	75	65	150	110
Ø200	100	M90*P2.0	262	70	100	40	40	65	60	184	1	120	20	410	80	65	150	110

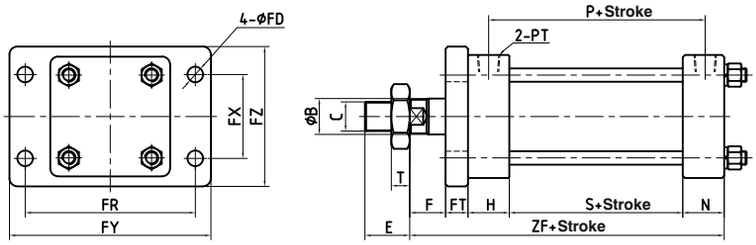
Remarks:

- If rod diameter need to be enlarged, the rod length will be made according to the standard, unless otherwise specified.
- An extra base need to be fixed between the head and cap when stroke≥2000mm.
- The rod screw nut outside shape is round when the size in this series over M50mm
- AST means the adjustable stroke specified by the customers.
- The sizes are just for your reference

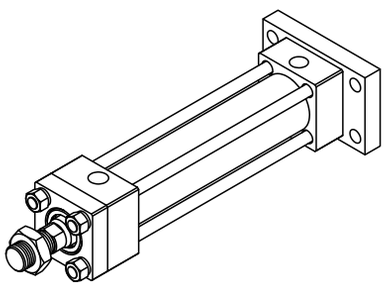
Unit Dimensions

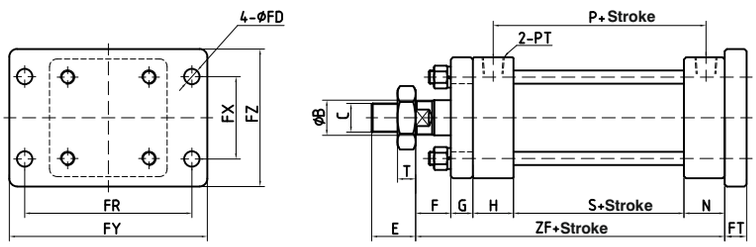
THM-OB+FA Head Flange



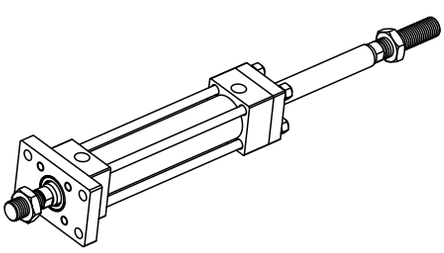


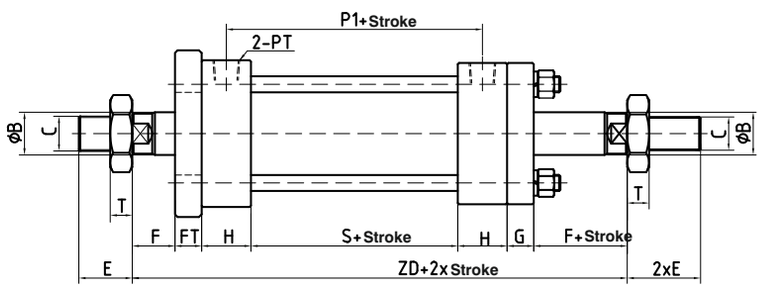
THM-OB+FA Cap Flange





THM-OD+FA Double Rod Cylinders+Head Flange





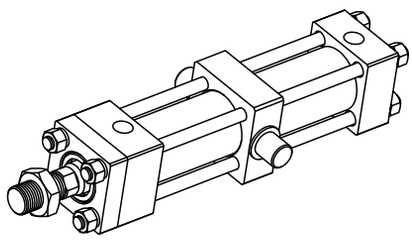
THM-OB/OD															FA+FB					
Bore	ØB	C	E	F	G*	H*	N*	P*	P1*	PT	S*	T*	ZF	ZD	ØFD	FT	FR	FX	FY	FZ
Ø40	25	M22xP1.5	40	20	17	35	30	80	80	3/8	54	13	156	198	12	17	93	50	115	75
Ø50	30	M26xP1.5	40	20	17	38	28	87	87	3/8	59	13	162	209	14	17	110	56	150	85
Ø63	35	M30xP1.5	45	20	17	40	30	87	87	3/8	59	13	166	213	14	17	126	68	155	95
Ø80	40	M30xP1.5	45	20	20	40	40	108	106	1/2	74	13	194	234	18	20	152	75	190	120
Ø100	50	M40xP2.0	55	25	20	40	40	120	116	1/2	84	15	209	254	20	20	180	100	220	140
Ø125	60	M50xP2.0	70	35	30	52	43	139	143	3/4	95	15	255	329	24	30	222	122	280	170
Ø150	80	M70xP2.0	80	35	30	62	52	146	155	3/4	95	20	274	349	28	30	260	155	310	206
Ø180	100	M90xP2.0	100	35	40	65	55	179	184	1	120	20	315	400	35	40	315	188	375	250
Ø200	100	M90xP2.0	100	40	40	65	60	179	184	1	120	20	325	410	35	40	355	207	425	272

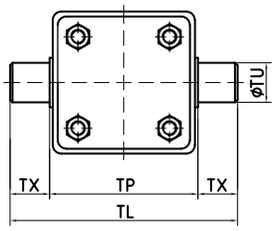
Remarks:

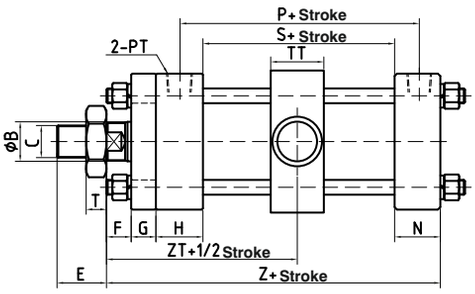
- If rod diameter need to be enlarged, the rod length will be made according to the standard, unless otherwise specified.
- An extra base need to be fixed between the head and cap when stroke ≥2000mm.
- The rod screw nut outside shape is round when the size in this series over M50mm
- The sizes are just for your reference.

Unit Dimensions

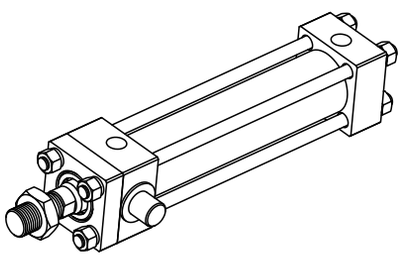
THM-OB+TC Intermediate Fixed Trunnion

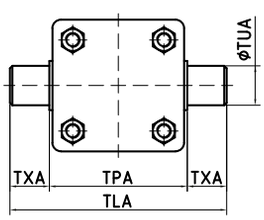


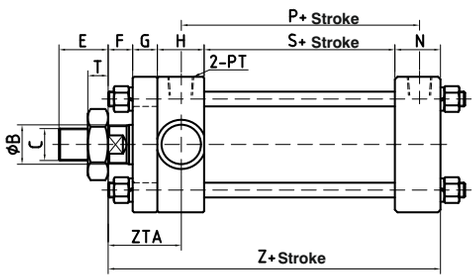




THM-OB+TA Head Trunnion





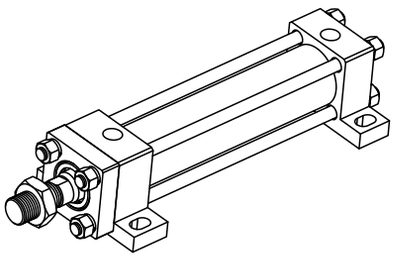


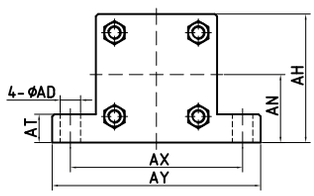
THM-OB												
Bore	ØB	C	E	F	G*	H*	N*	P*	PT	S*	T*	Z
Ø40	25	M22xP1.5	40	20	17	35	30	80	3/8	54	13	156
Ø50	30	M26xP1.5	40	20	17	38	28	87	3/8	59	13	162
Ø63	35	M30xP1.5	45	20	17	40	30	87	3/8	59	13	166
Ø80	40	M30xP1.5	45	20	20	40	40	108	1/2	74	13	194
Ø100	50	M40xP2.0	55	25	20	40	40	120	1/2	84	15	209
Ø125	60	M50xP2.0	70	35	30	52	43	139	3/4	95	15	255
Ø150	80	M70xP2.0	80	35	30	62	52	146	3/4	95	20	274
Ø180	100	M90xP2.0	100	35	40	65	55	179	1	120	20	315
Ø200	100	M90xP2.0	100	40	40	65	60	179	1	120	20	325

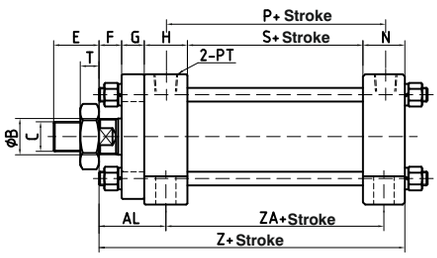
	TC						TA				
Bore	ZT	ØTU	TL	TP	TT	TX	ZTA	ØTUA	TLA	TPA	TXA
Ø40	98	20	115	75	28	20	53.5	20	109	69	20
Ø50	106	25	140	90	33	25	56	25	134	84	25
Ø63	109	32	166	102	40	32	56	30	154	94	30
Ø80	114	32	184	120	43	32	59	30	174	114	30
Ø100	124	40	220	140	53	40	66	35	205	135	35
Ø125	161	50	275	175	58	50	94	45	256	166	45
Ø150	179	60	326	206	73	60	95	50	300	200	50
Ø180	200	80	403	243	98	80					
Ø200	205	90	452	272	108	90					

Unit Dimensions

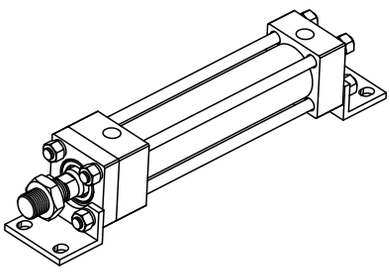
THM-OB+LA Side Lugs

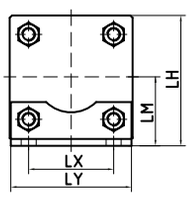


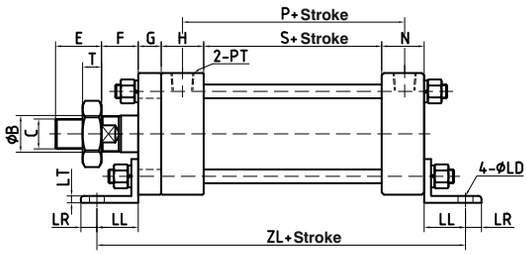




THM-OB+LB Side End Angles







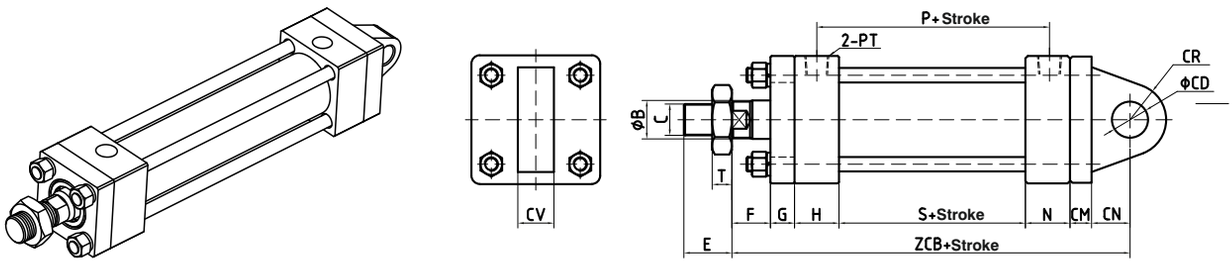
THM-OB											
Bore	ØB	C	E	F	G*	H*	N*	P*	PT	S*	T*
Ø40	25	M22xP1.5	40	20	17	35	30	80	3/8	54	13
Ø50	30	M26xP1.5	40	20	17	38	28	87	3/8	59	13
Ø63	35	M30xP1.5	45	20	17	40	30	87	3/8	59	13
Ø80	40	M30xP1.5	45	20	20	40	40	108	1/2	74	13
Ø100	50	M40xP2.0	55	25	20	40	40	120	1/2	84	15
Ø125	60	M50xP2.0	70	35	30	52	43	139	3/4	95	15
Ø150	80	M70xP2.0	80	35	30	62	52	146	3/4	95	20
Ø180	100	M90xP2.0	100	35	40	65	55	179	1	120	20
Ø200	100	M90xP2.0	100	40	40	65	60	179	1	120	20

	LA									LB								
Bore	ZA	Z	AN	AH	AL	ØAD	AT	AX	AY	ZL	ØLD	LR	LM	LL	LT	LX	LY	LH
Ø40	88	156	37.5	70	53	12	14	90	112	212	11	12	46	38	6	45	68	78.5
Ø50	95	162	45	85	54	14	17	115	140	226	14	22	54	42	8	56	85	94
Ø63	95	166	50	95	56	14	19	128	156	234	16	22	58	44	8	65	95	103
Ø80	115	194	60	115	59	18	25	152	184	300	18	24	76	63	13	80	120	131
Ø100	123	209	69.5	135	66	21	27	178	210	316	20	27	93	66	15	95	140	158.5
Ø125	139	255	90	171	94	24	30	230	280	380	24	30	114	80	15	122	169	195
Ø150	153	274	113	210	95	28	35	270	325	399	28	30	135	80	20	144	200	222.5
Ø180	180	315	143	260	107	35	45	330	395	460	35	40	150	90	20	175	240	267.5
Ø200	183	325	161	292	112	35	50	360	430	475	35	40	175	95	25	193	265	306

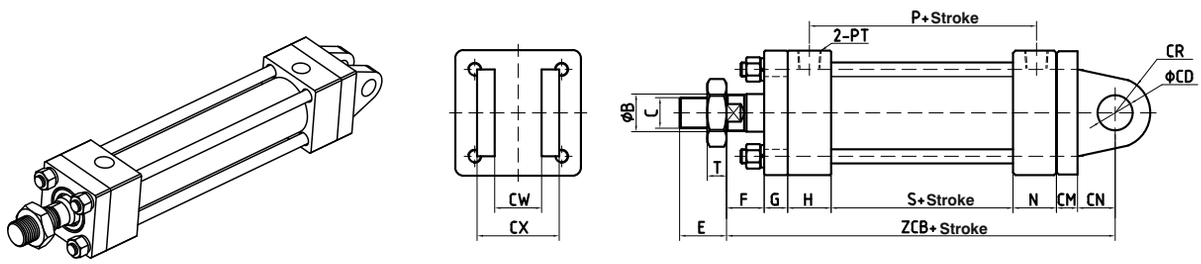
* The sizes are just for your reference

Unit Dimensions

THM-OB+CA Cap Detachable Eye



THM-OB+CB Cap Detachable Clevis



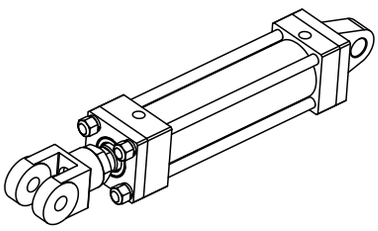
THM-OB													
Bore	ØB	C	E	F	G*	H*	N*	P*	PT	S*	T*	Z	ZCB
Ø40	25	M22xP1.5	40	20	17	35	30	80	3/8	54	13	156	198
Ø50	30	M26xP1.5	40	20	17	38	28	87	3/8	59	13	162	214
Ø63	35	M30xP1.5	45	20	17	40	30	87	3/8	59	13	166	228
Ø80	40	M30xP1.5	45	20	20	40	40	108	1/2	74	13	194	264
Ø100	50	M40xP2.0	55	25	20	40	40	120	1/2	84	15	209	289
Ø125	60	M50xP2.0	70	35	30	52	43	139	3/4	95	15	255	355
Ø150	80	M70xP2.0	80	35	30	62	52	146	3/4	95	20	274	384
Ø180	100	M90xP2.0	100	35	40	65	55	179	1	120	20	315	455
Ø200	100	M90xP2.0	100	40	40	65	60	179	1	120	20	325	475

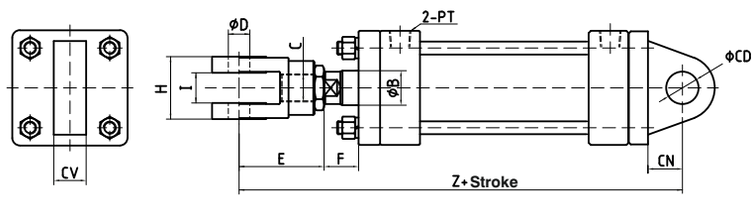
CA+CB							
Bore	ØCD	CM	CN	CR	CV	CW	CX
Ø40	16	17	25	15	22	23	47
Ø50	20	17	35	20	22	23	47
Ø63	25	17	45	25	30	31	59
Ø80	30	20	50	30	35	36	76
Ø100	35	20	60	35	40	41	81
Ø125	50	30	70	50	55	56	106
Ø150	60	30	80	60	60	61	121
Ø180	80	40	100	80	80	81	161
Ø200	90	40	110	90	90	91	171

* The sizes are just for your reference

Unit Dimensions

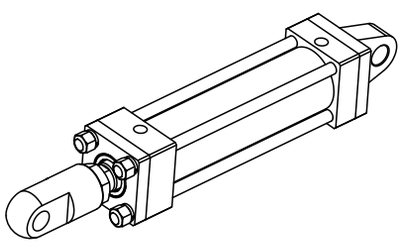
THM-OB+CA+Y Cap Detachable Eye+Female Rod Clevis

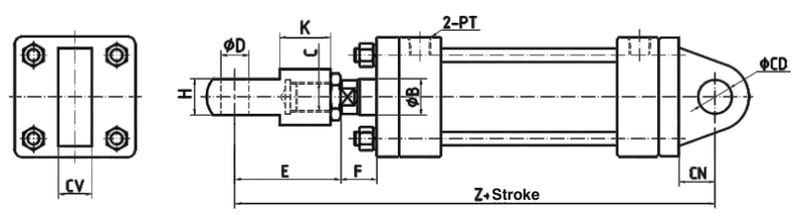




THM-OB											
Bore	ØB	C	ØD	E	F	PT	≥Z	CN	ØCD	I	H	CV
Ø40	25	M22x1.5	20	81	20	3/8	279	25	16	24	52	22
Ø50	30	M26x1.5	20	80	20	3/8	294	35	20	28	58	22
Ø63	35	M30x1.5	20	94	20	3/8	322	45	25	30	70	30
Ø80	40	M30x1.5	20	94	20	1/2	358	50	30	30	70	35
Ø100	50	M40x2.0	35	111	25	1/2	400	60	35	30	70	40
Ø125	60	M50x2.0	40	121	35	3/4	476	70	50	35	80	55

THM-OB+CA+Y Cap Detachable Eye+I Connecting



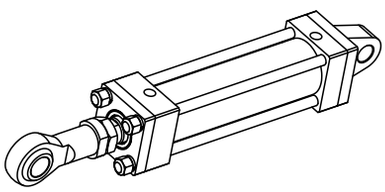


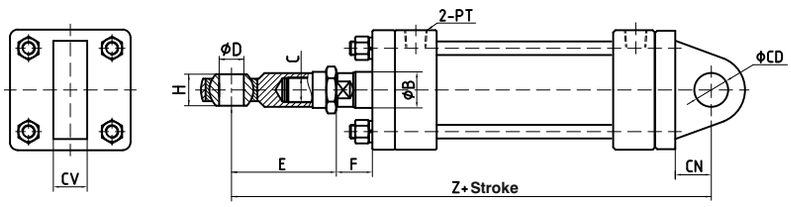
THM-OB											
Bore	ØB	C	ØD	E	F	PT	≥Z	CN	ØCD	H	CV	K
Ø40	25	M22x1.5	16	70	20	3/8	268	25	16	30	22	32
Ø50	30	M26x1.5	25	95	20	3/8	309	35	20	32	22	45
Ø63	35	M30x1.5	25	100	20	3/8	328	45	25	35	30	45
Ø80	40	M30x1.5	25	100	20	1/2	364	50	30	35	35	45
Ø100	50	M40x2.0	35	108	25	1/2	397	60	35	45	40	50
Ø125	60	M50x2.0	50	126	35	3/4	481	70	50	55	55	50

Unit Dimensions

THM-OB+CA+PHS Cap Detachable Eye + Spherical Rod Eye PHS Series

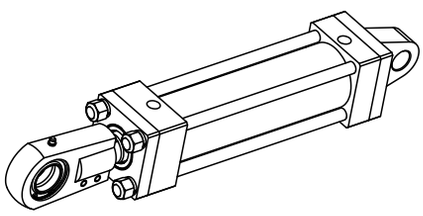
s

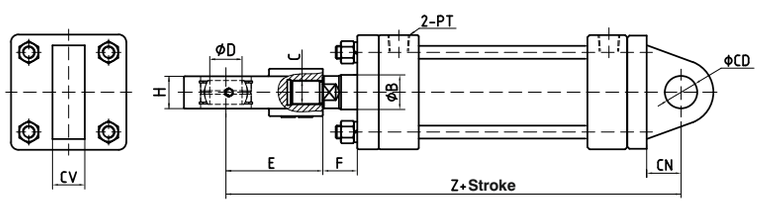




THM-OB+PHS											Rodends
Bore	ØB	C	ØD	E	F	PT	≥Z	CN	ØCD	H	CV	
Ø40	25	M22x1.5	22	95	20	3/8	293	25	16	28	22	PHSA22
Ø50	30	M24x2	25	106	20	3/8	321	35	20	31	22	PHSA25
Ø63	35	M30x2	30	124	20	3/8	352	45	25	37	30	PHSA30
Ø80	40	M30x2	30	124	20	1/2	388	50	30	37	35	PHSA30

THM-OB+CA Cap Detachable Eye + Spherical Bearings GKSK Series

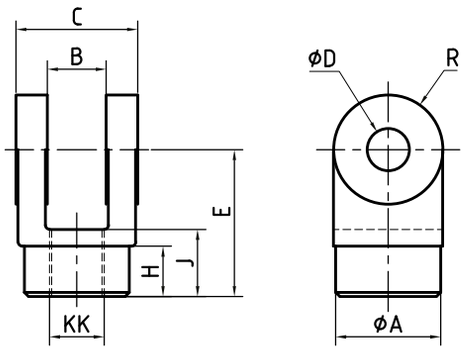




THM-OB											Rodends
Bore	ØB	C	ØD	E	F	PT	≥Z	CN	ØCD	H	CV	
Ø40	25	M24x2	30	75	20	3/8	273	25	16	28	22	GK30SK
Ø50	30	M24x2	30	75	20	3/8	289	35	20	28	22	GK30SK
Ø63	35	M30x2	35	90	20	3/8	318	45	25	40	30	GK35SK
Ø80	40	M30x2	35	90	20	1/2	354	50	30	40	35	GK35SK
Ø100	50	M39x3	40	105	25	1/2	394	60	35	45	40	GK40SK
Ø125	60	M50x3	50	135	35	3/4	490	70	50	55	55	GK50SK
Ø150	80	M64x3	60	170	35	3/4	554	80	60	65	60	GK60SK
Ø180	100	M90x3	80	210	35	1	665	100	80	80	80	GK80SK
Ø200	100	M90x3	80	210	40	1	685	110	90	80	90	GK80SK

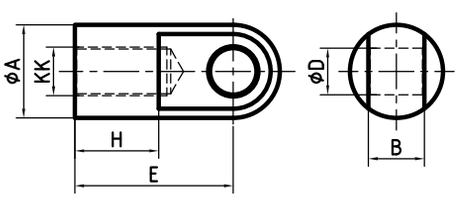
Unit Dimensions of Spares for THM OB/OD

Y Female Rod Clevis



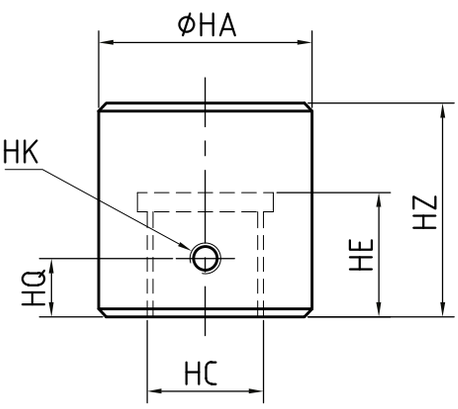
KK	A	B	C	D	E	J	R	R	H
M22*1.5	42	24	52	20	70	32	23	23	20
M26*1.5	50	28	58	20	70	32	26	26	20
M30*1.5	53	30	70	20	80	38	29	29	18
M40*2	66	30	70	35	93	46	34	34	30
M50*2	80	35	80	40	100	50	40	40	35

I Connecting



KK	ØA	B	ØD	E	H
M22*1.5	40	30	16	59	32
M26*1.5	50	32	25	85	45
M30*1.5	55	35	25	86	45
M40*2	75	45	35	90	50
M50*2	90	55	50	105	50

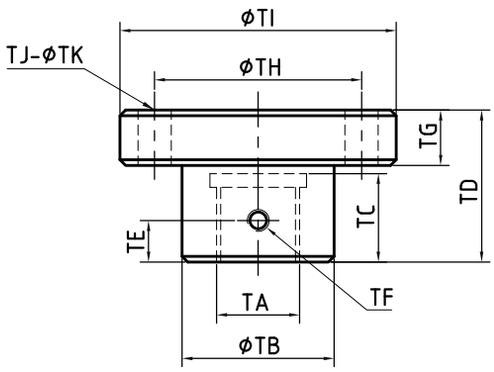
H Welded Bushing



Model	ØHA	HC	HE	HK	HQ	HZ
HT-022	40	M22xP1.5	32	M8xP1.25	15	50
HT-026	45	M26xP1.5	32	M8xP1.25	15	50
HT-030	50	M30xP1.5	35	M8xP1.25	20	55
HT-040	60	M40xP2.0	48	M10xP1.5	25	65
HT-050	80	M50xP2.0	55	M10xP1.5	25	75
HT-070	100	M70xP2.0	65	M12xP1.75	30	100
HT-090	140	M90xP2.0	85	M12xP1.75	40	120

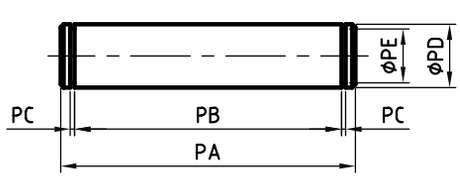
Unit Dimensions of Spares for THM OB/OD

T Connecting



Model	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK
HT-022	M22xP1.5	35	32	50	15	M8xP1.25	15	65	85	4	10
HT-026	M26xP1.5	40	32	50	15	M8xP1.25	15	70	90	4	10
HT-030	M30xP1.5	55	35	55	20	M8xP1.25	20	75	100	4	12
HT-040	M40xP2.0	60	48	65	25	M10xP1.5	25	90	115	6	12
HT-050	M50xP2.0	80	55	75	25	M10xP1.5	25	110	140	6	14
HT-070	M70xP2.0	100	65	100	30	M12x1.75	30	140	180	6	18
HT-090	M90xP2.0	140	85	120	40	M12xP1.75	40	180	220	6	18

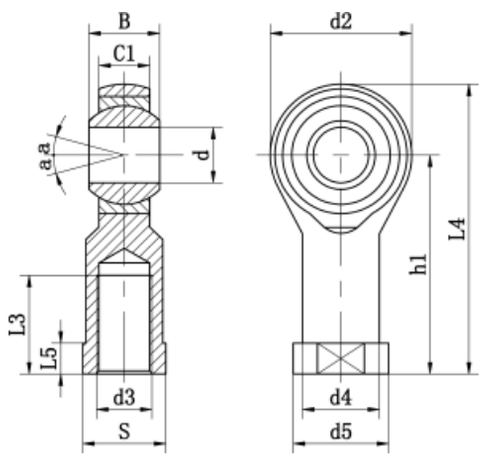
Pin



Model	PA	PB	PC	ØPD	ØPE
M22*1.5	63	54	1.15	20	19
M26*1.5	69	61	1.15	20	19
M30*1.5	81	72	1.35	20	19
M40*2.0	82	72	1.75	35	33
M50*2.0	95	82	1.75	40	37.5

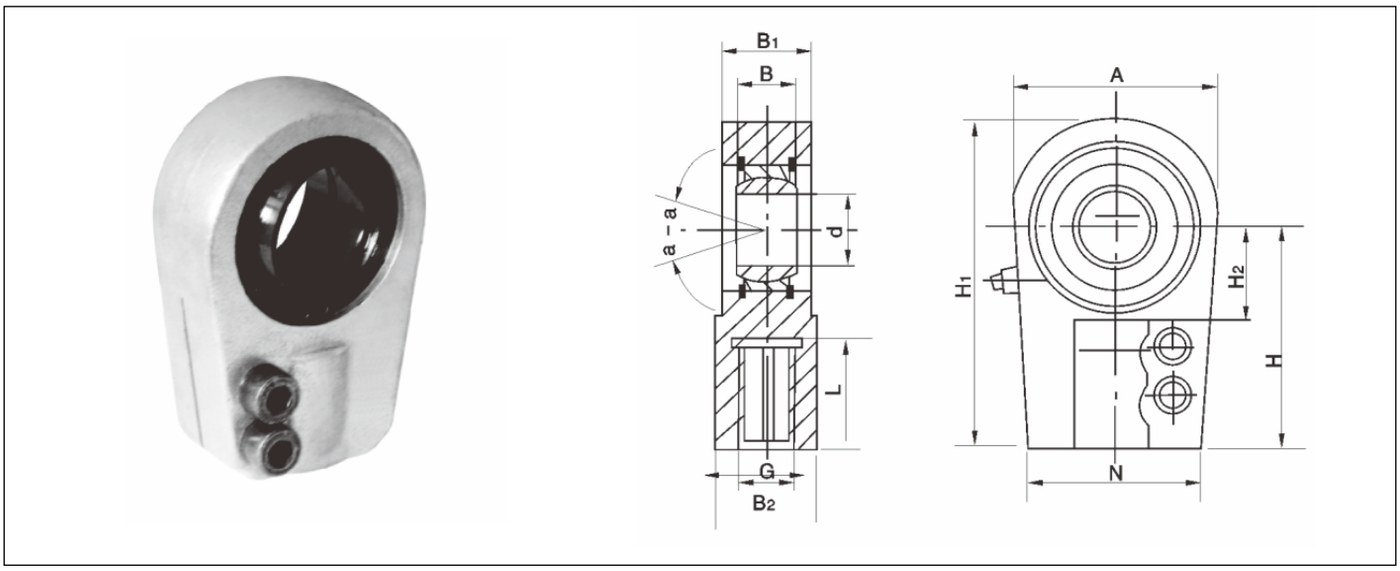
CB	PA	PB	PC	ØPD	ØPE
Ø40	57	49	1.15	16	15.2
Ø50	58	49	1.15	20	19
Ø63	70	61	1.35	25	23.9
Ø80	87	78	1.35	30	28.6
Ø100	93	83	1.75	35	33
Ø125	122	108	2.25	50	47
Ø150	137	123	2.25	60	57
Ø180	180	163	2.75	80	76.5
Ø200	190	173	2.75	90	86.5

Female Spherical Rod Eye



Bearing Model	Size													Load	Weight	Model
	d	D3	d2	d5	S	B	L5	C1	h1	L3	d4	L4	a°			
PHSA5	5	M5x0.8	18	12.5	10	8	4	6	27	10	9	36	13			SI6T/K
PHSA6	6	M6x1	20	13	11	9	5	6.75	30	12	10	45	13	7.20	0.027	SI6T/K
PHSA8	8	M8x1.25	24	16	14	12	5	9	36	16	12.5	48	13	11.60	0.046	SI8T/K
PHSA10	10	M10x1.5	28	19	17	14	6.5	10.5	43	20	15	57	13	14.50	0.076	SI10T/K
PHSA12	12	M12x1.75	32	22	19	16	6.5	12	50	22	17.5	66	13	17.00	0.115	SI12T/K
PHSA14	14	M14x2	36	25	22	19	8	13.5	57	25	20	75	13	24.00	0.170	SI14T/K
PHSA16	16	M16x2	40	27	22	21	8	15	64	28	22	84	13	28.50	0.230	SI16T/K
PHSA18	18	M18x1.5	46	31	27	23	10	16.5	71	32	25	94	13	35.00	0.320	SI18T/K
PHSA20	20	M20x1.5	50	34	30	25	10	18	77	33	27.5	102	13	40.00	0.42	SI20T/K
PHSA22	22	M22x1.5	54	37	32	28	12	20	84	37	30	111	13	52.00	0.54	SI22T/K
PHSA25	25	M24x2	60	42	30	31	12	22	94	42	33.5	124	13	60.00	0.75	SI25T/K
PHSA28	28	M27x2	66	46	41	35	14	26	103	41	37	136	13			SI28T/K
PHSA30	30	M30x2	70	50	41	37	15	25	110	51	40	145	13	81.00	1.30	SI30T/K

Hydraulic Cylinder Spherical series GK...SK



Bearings number	Dimensions mm											Ratings load		weight kg
	d	G	B	B1	B2	H2	L	A	N	H	H1	Dynamic	Static	
GK20SK	20	M18x2	16	23	28	25	30	56	48	65	95	48	82	0.42
GK25SK	25	M18x2	20	23	28	25	30	56	48	65	95	63	122	0.57
GK30SK	30	M24x2	22	28	34	30	35	64	54	75	109	82.7	177	0.91
GK35SK	35	M30x2	25	30	44	40	45	78	66	90	132	107	287	1.9
GK40SK	40	M39x3	28	35	55	45	55	94	78	105	155	135	422	3.0
GK50SK	50	M50x3	35	40	70	55	75	116	90	135	198	210	522	4.9
GK60SK	60	M64x3	44	50	87	65	95	130	118	170	240	234	707	7.5
GK70SK	70	M80x3	49	55	105	75	110	154	130	195	278	431	870	11.5
GK80SK	80	M90x3	55	60	125	80	120	176	158	210	305	554	1248	16.5
GK90SK	90	M100x3	60	65	150	90	140	206	162	250	365	671	1460	35.5
GK100SK	100	M110x4	70	70	170	105	150	230	172	275	400	842	2024	43.5
GK110SK	110	M120x4	70	80	180	115	160	264	194	300	442	910	2970	60.5
GK120SK	120	M150x4	85	90	210	140	190	334	224	360	540	1336	3500	96.5
GK140SK	140	M160x4	90	110	230	185	200	380	252	420	620	1665	6302	138
GK160SK	160	M180x4	105	110	230	200	220	480	290	460	710	1935	8650	209

Accuracy of the thread is 6H
The value of a is saue as that of GE...ES serues plain radial bearings.
What installed inside is GE...ES scries plain radial bearings.
There are champing groove and binding screws on the thread.

The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.

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