

HOB Series

Heavy Duty Tie Rod Hydraulic Cylinder Model Description

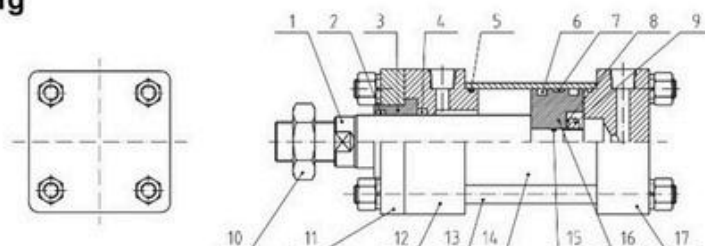
HOB		-	R	-	D	-	63	*	35	*	100		LB	+	Y
Type	Non: Without Magnet R: With Magnet	Cushions	Bore	Standard	Max	Stroke	Cylinder Mounting		Piston rod end connecting type						
HOB Standard		Non:	Φ40	Φ25	-	Standard stroke(mm)	FA Head Flange		Y Female Rod Clevis						
		D: Both ends	Φ50	Φ30	Φ35	50,100,150,200	FB Cap Flange		YP Female Rod Clevis + PIN						
HOD Double rod		F: Head	Φ63	Φ35	Φ40	250,300,350,400	LB Side End Angles		I I Connecting						
		B: Cap	Φ80	Φ40	Φ50	450,500,600,700	TC Intermediate Fixed Trunnion		KG Floating Connecting						
			Φ100	Φ50	Φ60	800,900,1000	TA Head Trunnion		PHS Spherical Rod Eye						
			Φ125	Φ60	Φ80		LA Side Lugs		T T Connecting						
			Φ150	Φ80	Φ100		CA Detachable Eye		H Welded Bushing						
			Φ180	Φ100	Φ120		CB Detachable Fixed Clevis		A Adjustable Nut						
			Φ200	Φ100	Φ120		CBP Detachable Fixed Clevis+PIN								
				Non: Standard			CAB CA+PIN+CB								

Features

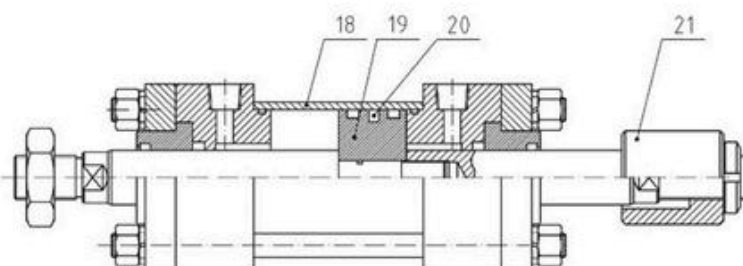
Bore size	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150	Φ180	Φ200
Working medium	Clean Standard Hydraulic Oil								
Cylinder barrel material	20#Carbon steel/SUS304								
Operating pressure rang	0.8-14MPa(116-2000PSI)								
Temprature rang	-10 — +60(°C)								
Speed rang	0-300(mm/s)								
Standard piston length(PM)	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

HOB



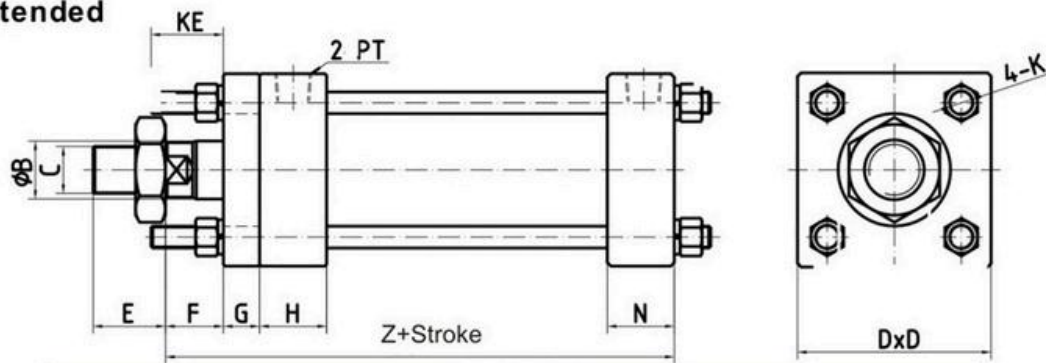
HOD



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	Sleeve	1	10	Piston Rod Nut	1	17	Back Cover(Cap)	1
4	Rod Seals	1	11	Flange Cover	1	18	Cylinder Barrel	1
5	O-Ring	2	12	Head Cover	1	19	Piston	1
6	Port seals	2	13	Tie Rod	4	20	Magnetic Ring	1
7	Wear Ring	1	14	Cylinder Barrel	1	21	Adjustable Nut	1

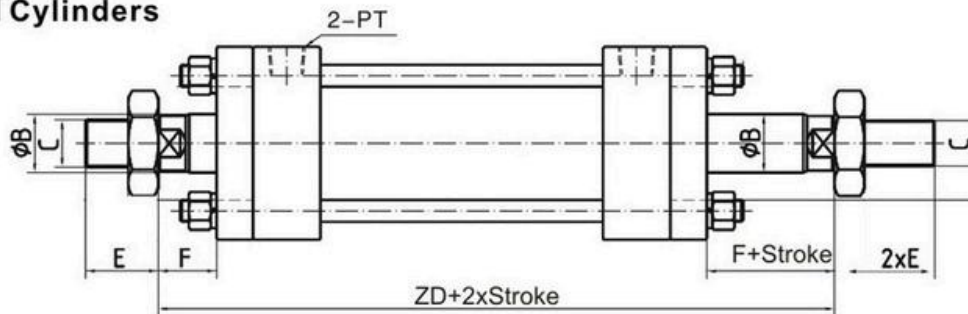
HOB Series

Tie Rod Extended

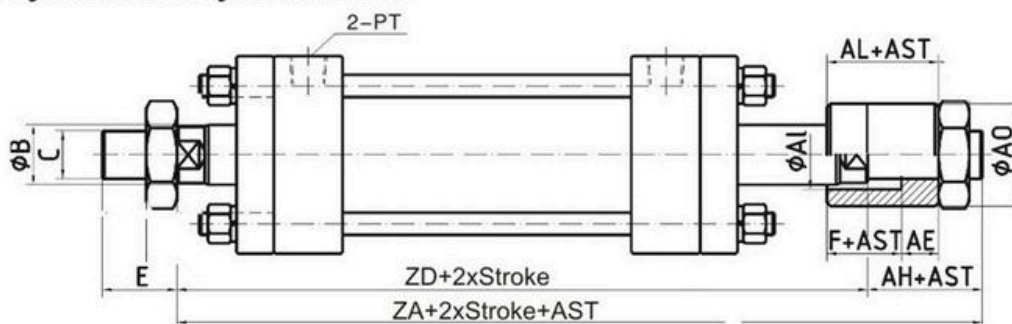


Standard HOB													
Bore	ΦB	C	D	DE	E	F	G	H	N	PT	K	KE	Z
Φ 40	25	M22*P1.5	65	45	40	20	17	35	30	3/8	M10	30	156
Φ 50	30	M26*P1.5	80	56	40	20	17	40	30	3/8	M12	40	166
Φ 63	35	M30*P1.5	90	62	45	20	17	40	30	3/8	M12	40	166
Φ 80	40	M30*P1.5	110	80	45	20	20	40	40	1/2	M16	60	194
Φ 100	50	M40*P2.0	131	95	55	25	20	40	40	1/2	M18	60	209
Φ 125	60	M50*P2.0	162	122	70	35	30	52	43	3/4	M22	70	255
Φ 150	80	M70*P2.0	195	144	80	35	30	62	52	3/4	M24	70	274
Φ 180	100	M90*P2.0	235	175	100	35	40	65	55	1	M30	70	315
Φ 200	100	M90*P2.0	262	193	100	40	40	65	60	1	M33	70	325

Double Rod Cylinders



Double Rod Cylinders+Adjustable Nut



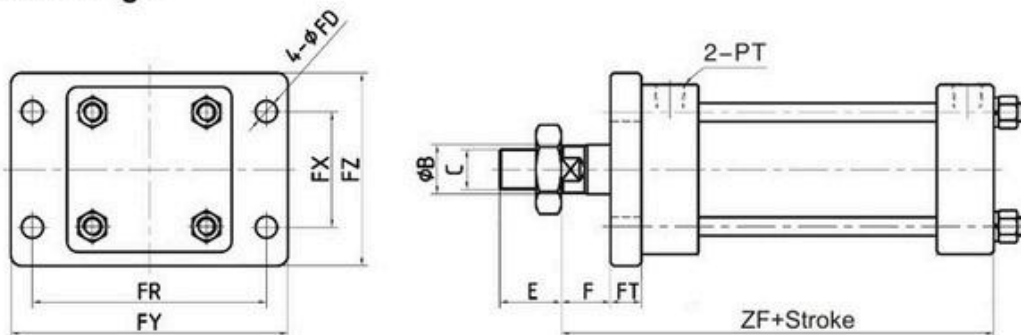
HOB,HOD								HOB,HOD		
Bore	ΦB	C	D	DE	E	F	PT	Z	ZD	K
Φ 40	25	M22xP1.5	65	45	40	20	3/8	156	198	M10
Φ 50	30	M26xP1.5	80	56	40	20	3/8	166	213	M12
Φ 63	35	M30xP1.5	90	65	45	20	3/8	166	213	M12
Φ 80	40	M30xP1.5	110	80	45	20	1/2	194	234	M14
Φ 100	50	M40xP2.0	131	95	55	25	1/2	209	254	M16
Φ 125	60	M50xP2.0	162	122	70	35	3/4	255	329	M22
Φ 150	80	M70xP2.0	195	144	80	35	3/4	274	344	M24
Φ 180	100	M90xP2.0	235	175	100	35	1	315	400	M30
Φ 200	100	M90xP2.0	262	203	100	40	1	325	410	M33

Remark:

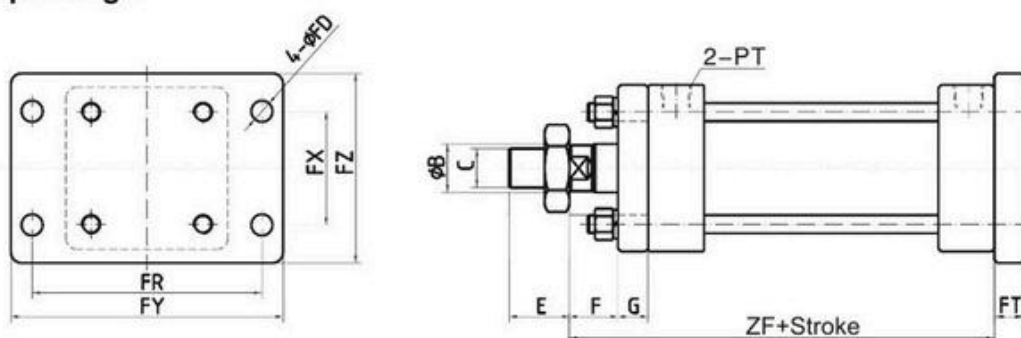
1. If rod diameter need to be enlarged, the rod length will make according to the standard, unless otherwise specified.
2. An extra base need to fix between the head and cap when stroke ≥ 2000 mm
3. The rod screw nut outside shape is round when the size in this series over M50mm
4. AST means the adjustable stroke specified by the customers

HOB Series

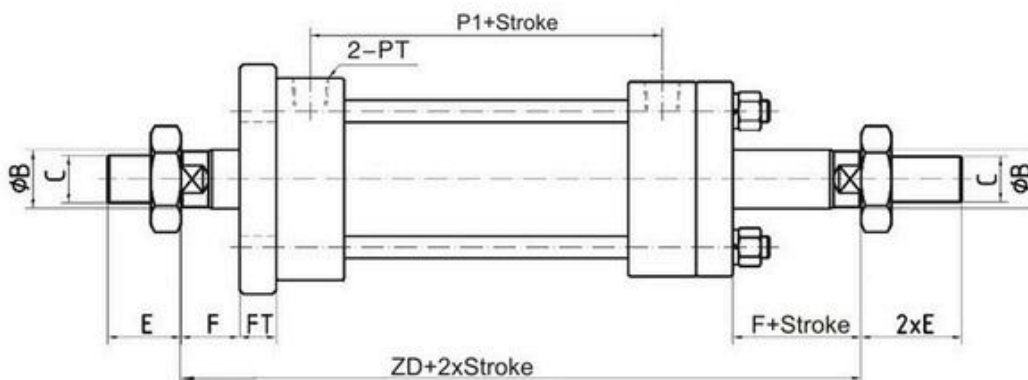
HOB+FA Head Flange



HOB+FB Cap Flange



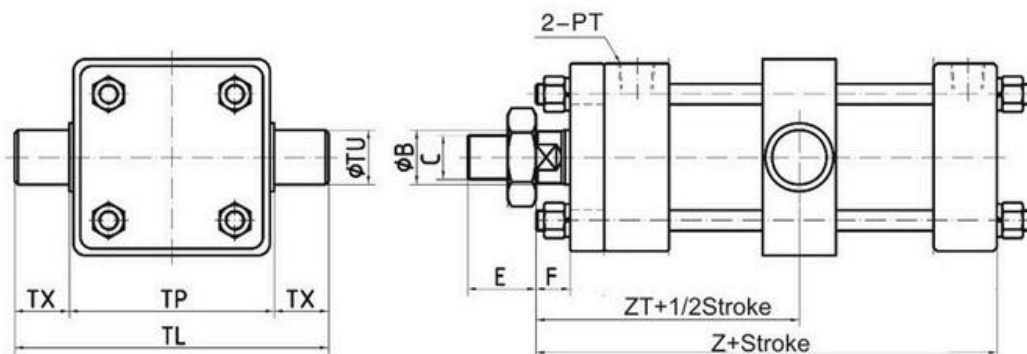
HOD+FA Double Rod Cylinders+Head Flange



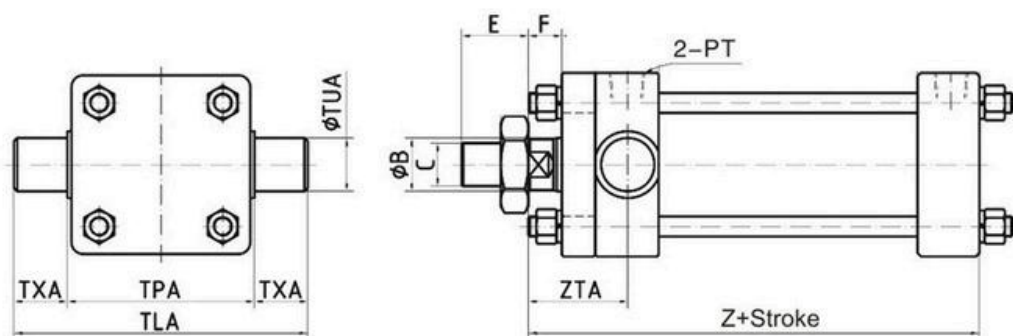
HOB-HOD							FA+FB type					
Bore	ØB	C	E	F	PT	ZF	ØFD	FT	FR	FX	FY	FZ
Φ40	25	M22xP1.5	40	20	3/8	156	12	17	93	50	115	75
Φ50	30	M26xP1.5	40	20	3/8	166	14	17	110	56	150	85
Φ63	35	M30xP1.5	45	20	3/8	166	14	17	126	68	155	95
Φ80	40	M30xP1.5	45	20	1/2	194	18	20	152	75	190	120
Φ100	50	M40xP2.0	55	25	1/2	209	20	20	180	100	220	140
Φ125	60	M50xP2.0	70	35	3/4	255	24	30	222	122	280	170
Φ150	80	M70xP2.0	80	35	3/4	274	28	30	260	155	310	206
Φ180	100	M90xP2.0	100	35	1	315	35	40	315	188	375	250
Φ200	100	M90xP2.0	100	40	1	325	35	40	355	207	425	272

HOB Series

HOB+TC Intermediate Fixed Trunnion



HOB+TA Head Trunnion

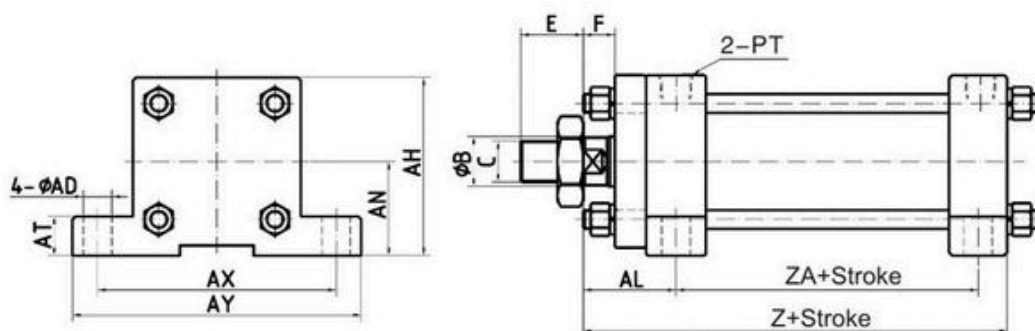


HOB						
Bore	ΦB	C	E	F	PT	Z
$\Phi 40$	25	M22 x P1.5	40	20	3/8	156
$\Phi 50$	30	M26 x P1.5	40	20	3/8	166
$\Phi 63$	35	M30 x P1.5	45	20	3/8	166
$\Phi 80$	40	M30 x P1.5	45	20	1/2	194
$\Phi 100$	50	M40 x P2.0	55	25	1/2	209
$\Phi 125$	60	M50 x P2.0	70	35	3/4	255
$\Phi 150$	80	M70 x P2.0	80	35	3/4	274
$\Phi 180$	100	M90 x P2.0	100	35	1	315
$\Phi 200$	100	M90 x P2.0	100	40	1	325

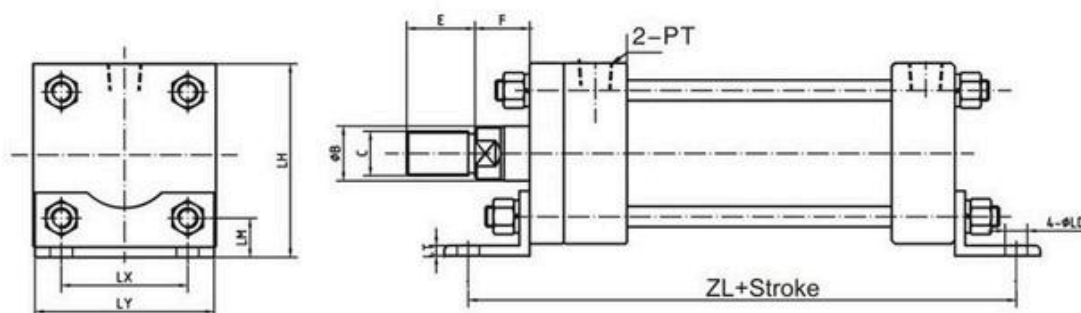
TC Type						TA Type				
Bore	ZT	ΦTU	TL	TP	TX	ZTA	ΦTUA	TLA	TPA	TXA
$\Phi 40$	98	20	115	75	20	53.5	20	109	69	20
$\Phi 50$	106	25	140	90	25	56	25	134	84	25
$\Phi 63$	109	32	166	102	32	56	30	154	94	30
$\Phi 80$	114	32	184	120	32	59	30	174	114	30
$\Phi 100$	124	40	220	140	40	66	35	205	135	35
$\Phi 125$	161	50	275	175	50	94	45	258	168	45
$\Phi 150$	179	60	326	206	60	95	50	300	200	50
$\Phi 180$	200	80	403	243	80					
$\Phi 200$	205	90	452	272	90					

HOB Series

HOB+LA Side Lugs



HOB+LB Side End Angles

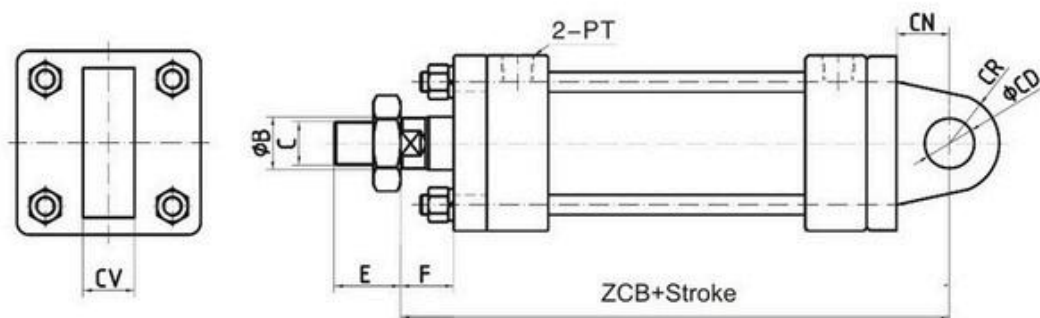


HOB					
Bore	ΦB	C	E	F	PT
Φ40	25	M22 x P1.5	40	20	3/8
Φ50	30	M26 x P1.5	40	20	3/8
Φ63	35	M30 x P1.5	45	20	3/8
Φ80	40	M30 x P1.5	45	20	1/2
Φ100	50	M40 x P2.0	55	25	1/2
Φ125	60	M50 x P2.0	70	35	3/4
Φ150	80	M70 x P2.0	80	35	3/4
Φ180	100	M90 x P2.0	100	35	1
Φ200	100	M90 x P2.0	100	40	1

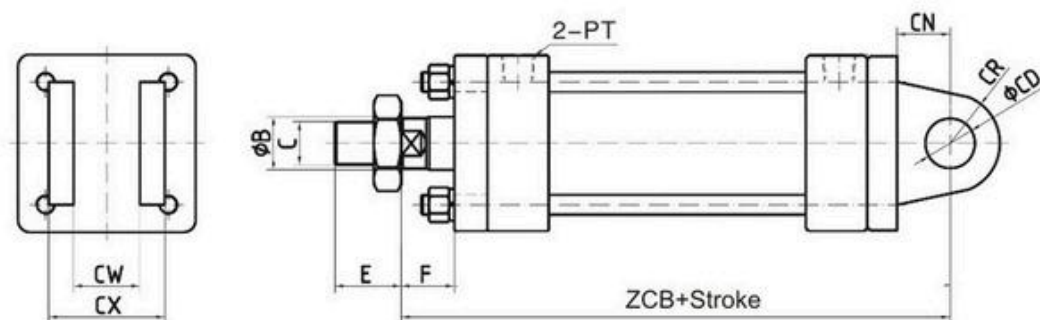
LA Type										LB Type					
Bore	ZA	Z	AN	AH	AL	ΦAD	AT	AX	AY	ZL	ΦLD	LM	LX	LY	LH
Φ40	88	156	37.5	70	53	12	14	90	112	212	11	24	45	68	79
Φ50	95	166	45	85	56	14	17	115	140	230	14	26	56	85	94
Φ63	95	166	50	95	56	14	19	128	156	234	16	26	66	95	104
Φ80	115	194	60	115	59	18	25	152	184	300	18	36	80	120	131
Φ100	123	209	69.5	135	66	21	27	178	210	316	20	44	95	140	159
Φ125	139	255	90	171	94	24	30	230	280	380	24	53	122	169	195
Φ150	153	274	113	208	95	28	35	270	325	399	28	53	144	200	220
Φ180	180	315	143	260	107	35	45	330	395	460	35	63	175	240	268
Φ200	183	325	161	292	112	35	50	360	430	475	35	74	193	265	301

HOB Series

HOB+CA Cap Detachable Eye



HOB+CB Cap Detachable Clevis

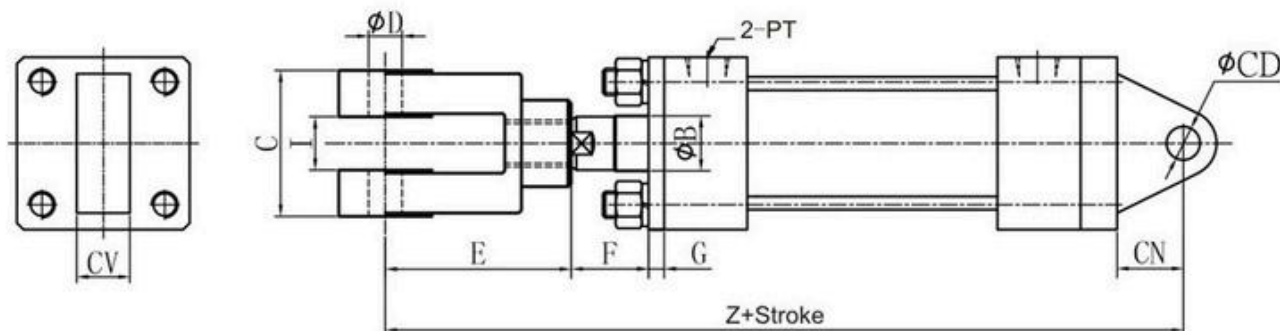


HOB						
Bore	ΦB	C	E	F	PT	ZCB
Φ40	25	M22 x P1.5	40	20	3/8	198
Φ50	30	M26 x P1.5	40	20	3/8	218
Φ63	35	M30 x P1.5	45	20	3/8	228
Φ80	40	M30 x P1.5	45	20	1/2	264
Φ100	50	M40 x P2.0	55	25	1/2	289
Φ125	60	M50 x P2.0	70	35	3/4	355
Φ150	80	M70 x P2.0	80	35	3/4	384
Φ180	100	M90 x P2.0	100	35	1	455
Φ200	100	M90 x P2.0	100	40	1	475

CA+CB Type						
Bore	ΦCD	CN	CR	CV	CW	CX
Φ40	16	25	15	22	23	47
Φ50	20	35	20	22	23	47
Φ63	25	45	25	30	31	59
Φ80	30	50	30	35	36	76
Φ100	35	60	35	40	41	81
Φ125	50	70	50	55	56	106
Φ150	60	80	60	60	61	121
Φ180	80	100	80	80	81	161
Φ200	90	110	90	90	91	171

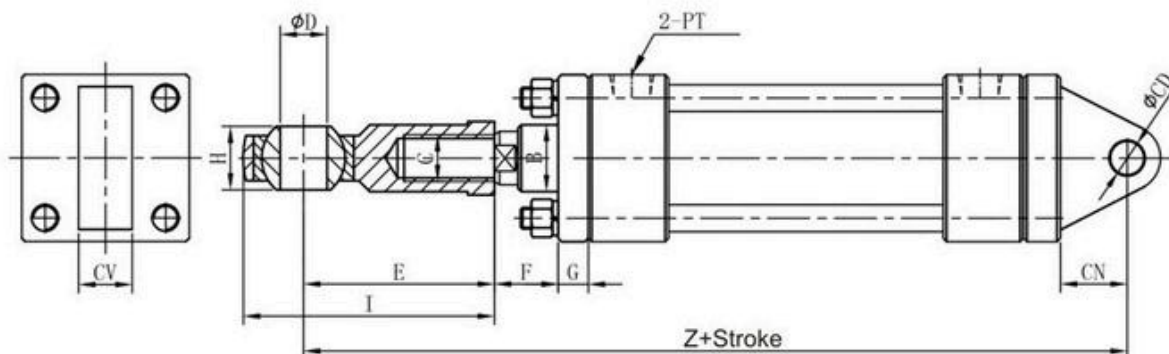
HOB Series

HOB+CA+Y Cap Detachable Eye+Female Rod Clevis



HOB +CA+Y												
Bore	ΦB	C	ΦD	E	F	G	PT	Z	CN	ΦCD	I	CV
Φ40	25	52	20	70	20	17	3/8	268	25	16	24	22
Φ50	30	58	20	70	20	17	3/8	288	35	20	28	22
Φ63	35	70	20	80	20	17	3/8	308	45	25	30	30
Φ80	40	70	20	80	20	20	1/2	344	50	30	30	35
Φ100	50	70	35	93	25	20	1/2	382	60	35	30	40
Φ125	60	80	40	100	35	30	3/4	455	70	50	35	55
Φ150	80				35	30	3/4		80	60		60
Φ180	100				35	40	1		100	80		80
Φ200	100				40	40	1		110	90		90

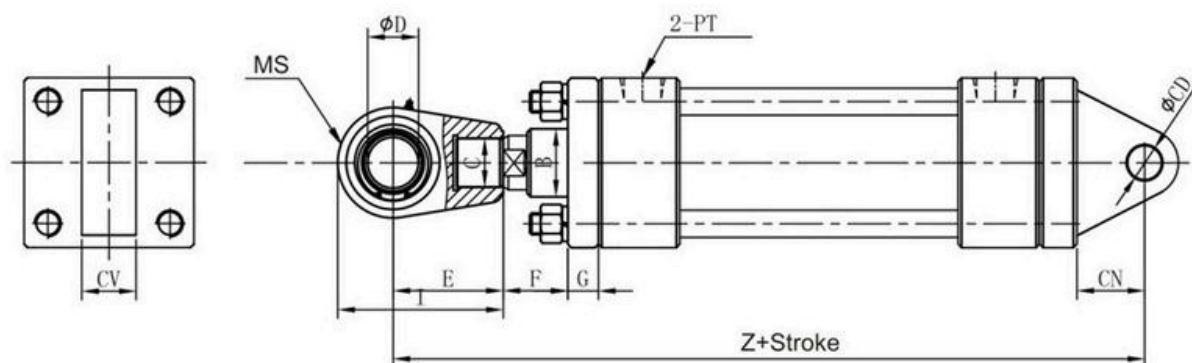
HOB+CA +PHS Cap Detachable Eye + Spherical Rod Eye PHS Series



HOB +CA+PHS													
Bore	ΦB	C	ΦD	E	F	G	NPT	Z	CN	ΦCD	H	I	CV
Φ40	25	M22X1.5	22	84	20	17	3/8	282	25	16	28	111	22
Φ50	30	M24X2	25	94	20	17	3/8	312	35	20	31	124	22
Φ63	35	M30X2	30	110	20	17	3/8	338	45	25	37	145	30
Φ80	40	M30X2	30	110	20	20	1/2	374	50	30	37	145	35

HOB Series

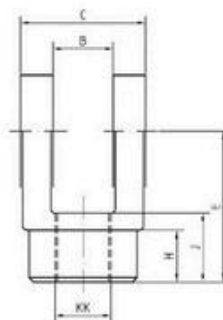
HOB+CA Cap Detachable Eye+Spherical Rod Eye GSKK Series



HOB +GSKK													
Bore	ΦB	C	ΦD	E	F	G	NPT	Z	CN	ΦCD	MS	I	CV
Φ40	25	M24X2	30	75	20	17	3/8	273	25	16	28	109	22
Φ50	30	M24X2	30	75	20	17	3/8	293	35	20	28	109	22
Φ63	35	M30X2	35	90	20	17	3/8	318	45	25	40	132	30
Φ80	40	M30X2	35	90	20	20	1/2	354	50	30	40	132	35
Φ100	50	M39X3	40	105	25	20	1/2	394	60	35	45	155	40
Φ125	60	M50X3	50	135	35	30	3/4	490	70	50	55	198	55
Φ150	80	M64X3	60	170	35	30	3/4	554	80	60	65	240	60
Φ180	100	M90X3	80	210	35	40	1	665	100	80	80	305	80
Φ200	100	M90X3	80	210	40	40	1	685	110	90	80	305	90

MOB, HOB Rod End

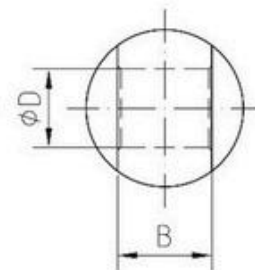
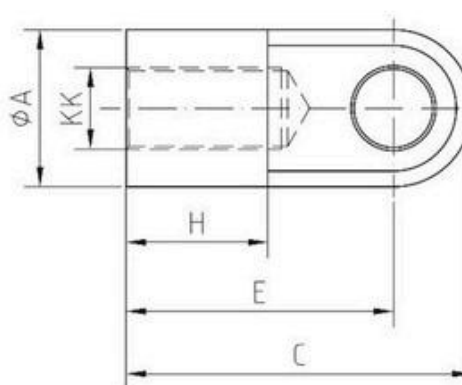
Y Female Rod Clevis



KK	A	B	C	D	E	J	R
M8*1.25	16	14	17	9	41	12	9
M10*1.25	16	14	17	9	41	12	9
M14*1.5	26	16	44	12	56	20	14
M16*1.5	26	16	44	12	56	20	14
M22*1.5	42	24	52	20	70	32	23

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

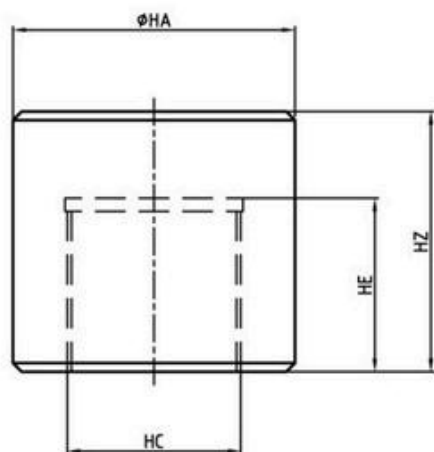
I Conneting



KK	ØA	B	C	ØD	E	H
M14*1.5	30	25	73	12	57	32
M16*1.5	30	25	73	12	57	32
M22*1.5	40	30	76	16	59	32
M26*1.5	50	32	110	25	85	45

KK	ØA	B	C	ØD	E	H
M30*1.5	55	35	110	25	86	45
M40*2	75	45	130	35	90	50
M50*2	90	55	150	50	105	50

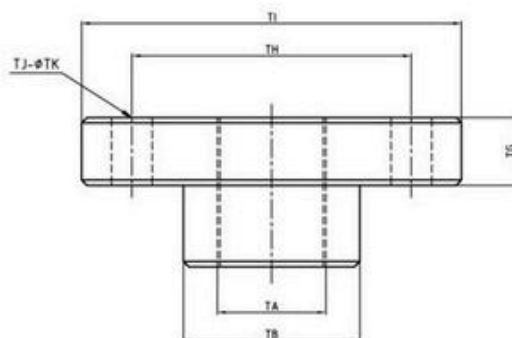
H Welded Bushing



Model	ØHA	HC	HE	HZ
HH-010	20	M10XP1.25	18	30
HH-012	25	M12XP1.25	18	30
HH-014	30	M14XP1.5	20	35
HH-016	30	M16XP1.5	20	35
HH-022	40	M22XP1.5	28	45
HH-026	45	M26XP1.5	28	45
HH-030	55	M30XP1.5	33	50
HH-040	65	M40XP2.0	40	60
HH-050	75	M50XP2.0	55	75
HH-070	100	M70XP2.0	60	80
HH-090	120	M90XP2.0	80	100

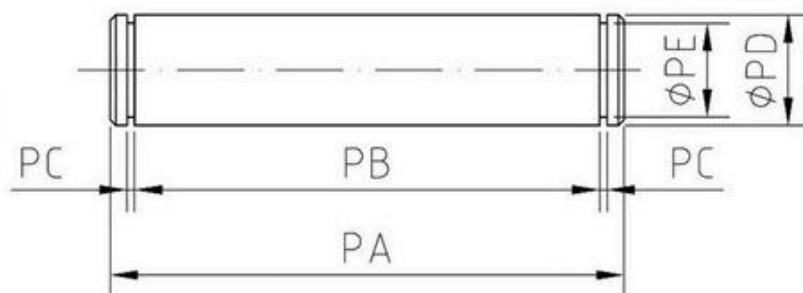
MOB, HOB Rod End

T Connecting



Model	TA	TB	TD	TG	TH	TI	TJ	TK
HT-010	M10XP1.25	20	25	8	38	55	4	7
HT-012	M12XP1.25	25	25	8	43	60	4	7
HT-014	M14XP1.5	30	30	10	53	75	4	9
HT-016	M16XP1.5	30	30	10	53	75	4	9
HT-022	M22XP1.5	40	40	15	65	90	4	11
HT-026	M26XP1.5	45	45	15	78	110	4	13
HT-030	M30XP1.5	55	50	20	93	130	4	15
HT-040	M40XP2.0	65	55	25	103	140	6	15
HT-050	M50XP2.0	75	60	25	113	150	6	17
HT-070	M70XP2.0	100	70	30	146	190	6	20
HT-090	M90XP2.0	120	85	40	171	220	6	22

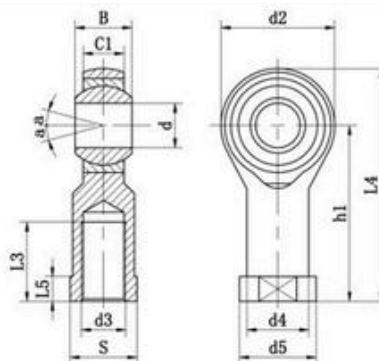
Pin



Y Female	PA	PB	PC	ΦPD	ΦPE
M14*1.5	52	44.2	1.15	12	11.5
M16*1.5	52	44.2	1.15	12	11.5
M22*1.5	60	52.5	1.35	20	19
M26*1.5	66	58.2	1.35	20	19
M30*1.5	78	70.2	1.35	20	19

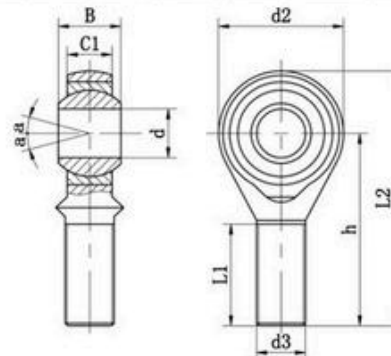
MOB, HOB Rod End

Female Spherical Rod Eye



Item NO.	Size												a°	Load	Weight	Old Item NO.
	d	D3	d2	d5	S	B	L5	C1	h1	L3	d4	L4				
PHSA5	5	M5x0.8	18	12.5	10	8	4	6	27	10	9	36	13			SI5T/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	M25x2	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

Male Spherical Rod Eye



Item NO.	Size								a°	Load	Weight	Old Item NO.
	d3	d	d2	B	C1	h	L1	L2				
POSA5	M5x8	5	18	8	6	33	19	42	13	4.40	0.021	SA5T/K
POSA6	M6x1	6	20	9	6.75	36	22	46	13	8.00	0.034	SA6T/K
POSA8	M8x1.25	8	24	12	9	42	25	54	13	12.90	0.058	SA8T/K
POSA10	M10x1.5	10	28	14	10.5	48	29	62	13	17.00	0.092	SA10T/K
POSA12	M12x1.75	12	32	16	12	54	33	70	13	24.00	0.153	SA12T/K
POSA14	M14x2	14	36	19	13.5	60	36	77	13	28.50	0.205	SA14T/K
POSA16	M16x2	16	40	21	15	66	40	86	13	25.00	0.280	SA16T/K
POSA18	M18x1.5	18	46	23	16.5	72	44	95	13	40.00	0.370	SA18T/K
POSA20	M20x1.5	20	50	25	18	78	47	103	13	52.00	0.475	SA20T/K
POSA22	M22x1.5	22	54	28	20	84	51	111	13	60.00	0.650	SA22T/K
POSA25	M25x2	25	60	31	22	94	57	124	13			SA25T/K
POSA28	M27x2	28	66	35	26	103	62	136	13	81.00	1.070	SA28T/K
POSA30	M30x2	30	70	37	25	110	66	145	13			SA30T/K