方型重油油壓缸 14Mpa Hydraulic Cylinders

型式表示法
Ordering Information

安 裝	—	緩 衝	—	內 徑	X	行 程	—	桿 徑	—	配件
Mounting Styles		Cushion		Bore Diameter		Stroke		Rod series		Accessories

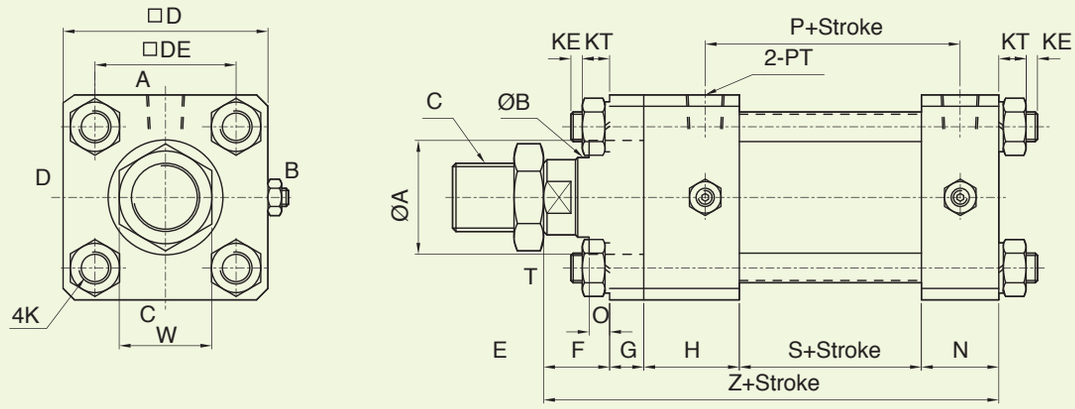
- 桿徑 (Rod series):
  - B : 140 kg/cm^2
  - C : 70 kg/cm^2
- 緩衝 (Cushion):
  - N : No Cushion 無緩衝
  - B : Both End Cushion 雙邊緩衝
  - H : Head End Cushion 後蓋緩衝
  - R : Rod End Cushion 前蓋緩衝
- 安裝 (Mounting Styles): OS , OD, FA , FB , LA , LB , CA , TC , MF3 , MF4 , MT4 , MP3

OS： 標準型
OD： 雙軸型

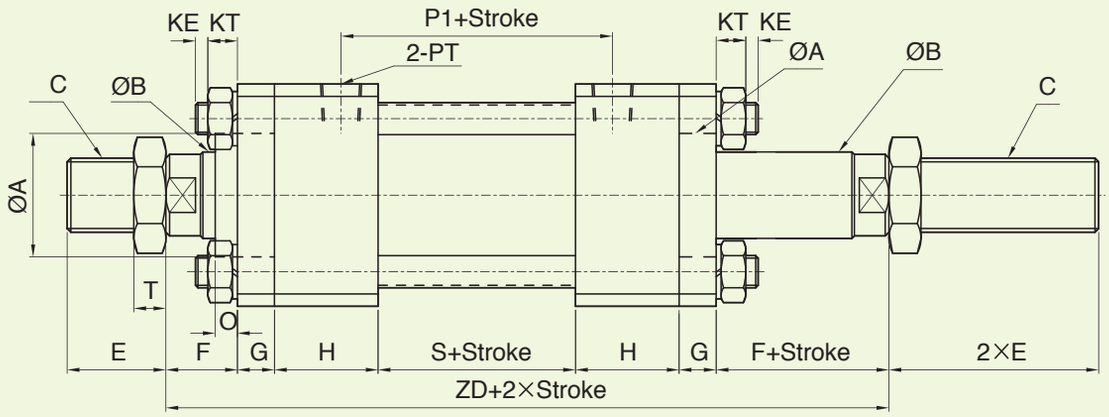
※緩衝方式，標準型為無緩衝，但如油缸速度在 **6~10 m/min** 以上時，宜考慮附加緩衝裝置，請於訂購時說明。

Cushion device , Standard is no cushion , When speed of hydraulic cylinder is over 6~10 m/min , Must be consindered to set cushion upon request when ordering.

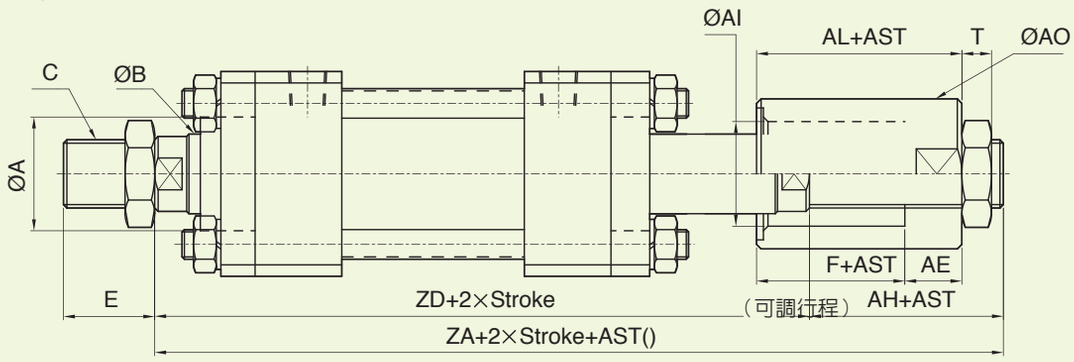
標準型 OS STANDARD TYPE



雙軸型 Double Acting Hydraulic Cylinder OD TYPE

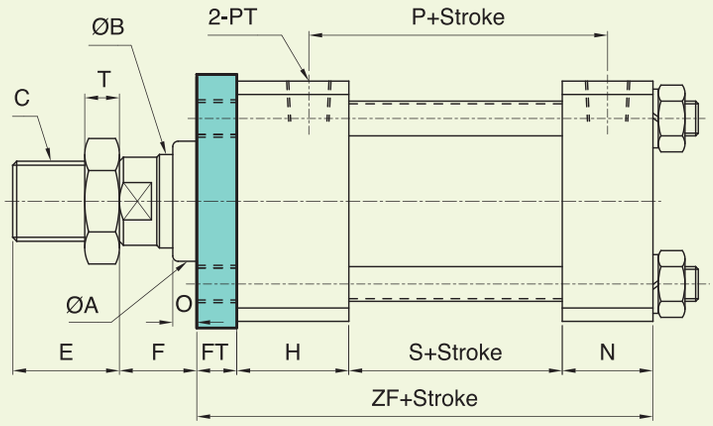


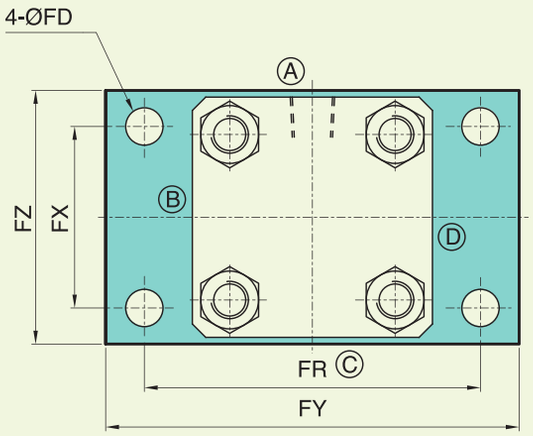
雙軸型附可調帽 Double Acting Hydraulic Cylinder With Adjustable OD+AST TYPE

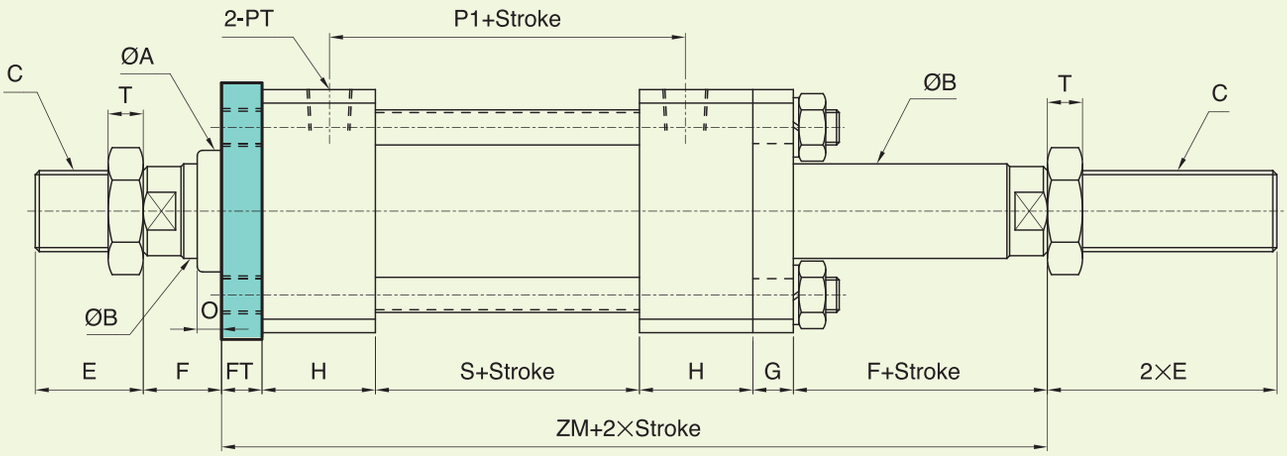


OS / OD TYPE																										A TYPE (可調行程 Adj.)			
SIZE / BORE	ØA	ØB	C	□D	□DE	E	F	G	H	O	N	P	P1	PM	PT	K	KE	KT	S	T	W	Z	ZD	ZA	AH	AE	ØAI	ØAO	AL
Ø40	35	20	M18XP1.5	65	45	30	25	11	36	11	26	88	90	40	1/4	M10XP1.25	10	8	60	8	26	158	204	234	30	20	25	40	45
Ø50	40	25	M22XP1.5	75	52	35	25	13	42	9	34	92	90	40	3/8	M10XP1.25	10	8	60	13	32	174	220	255	35	20	28	45	45
Ø63	45	30	M26XP1.5	90	63	40	30	15	42	9	34	97	95	45	3/8	M12XP1.5	10	10	65	13	41	186	239	279	40	25	38	55	55
Ø80	55	40	M36XP1.5	110	80	45	30	18	46	7	40	105	105	45	1/2	M16XP1.5	10	13	65	15	50	199	253	298	45	30	48	65	60
Ø100	65	50	M45XP2.0	135	102	50	40	20	50	7	40	114	114	50	1/2	M18XP1.5	10	15	74	15	65	224	294	339	45	30	60	80	70

方型重油油壓缸 FA 尺寸圖
14Mpa Hydraulic Cylinders FA Dimensional Features







OS / OD TYPE																		FA TYPE					
BORE \ SIZE	ØA	ØB	C	E	F	G	H	O	N	P	P1	PM	PT	S	T	ZF	ZM	ØFD	FT	FR	FX	FY	FZ
Ø40	35	20	M18XP1.5	30	25	11	36	11	26	88	90	40	1/4	60	8	133	179	11	11	95	46	118	69
Ø50	40	25	M22XP1.5	35	25	13	42	9	34	92	90	40	3/8	60	13	149	195	11	13	115	58	145	85
Ø63	45	30	M26XP1.5	40	30	15	42	9	34	97	95	45	3/8	65	13	156	209	14	15	132	65	165	98
Ø80	55	40	M36XP1.5	45	30	18	46	7	40	105	105	45	1/2	65	15	169	223	18	18	155	87	190	118
Ø100	65	50	M45XP2.0	50	40	20	50	7	40	114	114	50	1/2	74	15	184	254	18	20	190	109	230	150

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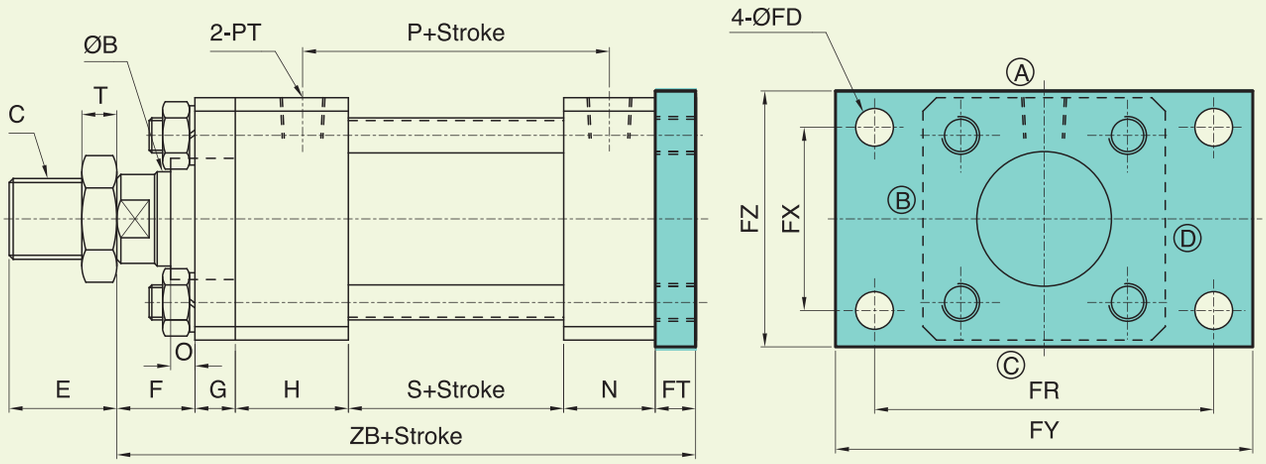
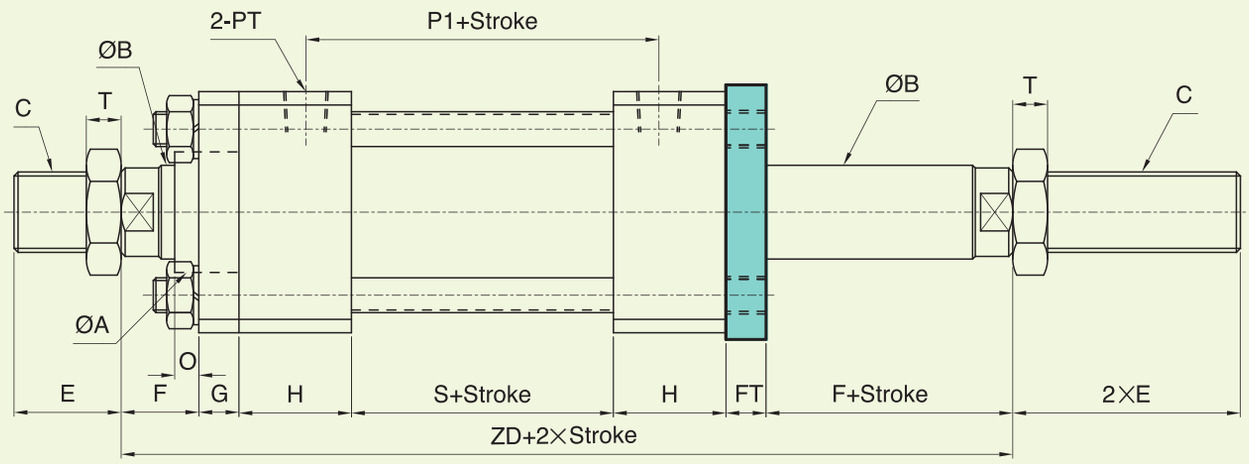
方型重油油壓缸 FB 尺寸圖
14Mpa Hydraulic Cylinders FB Dimensional Features

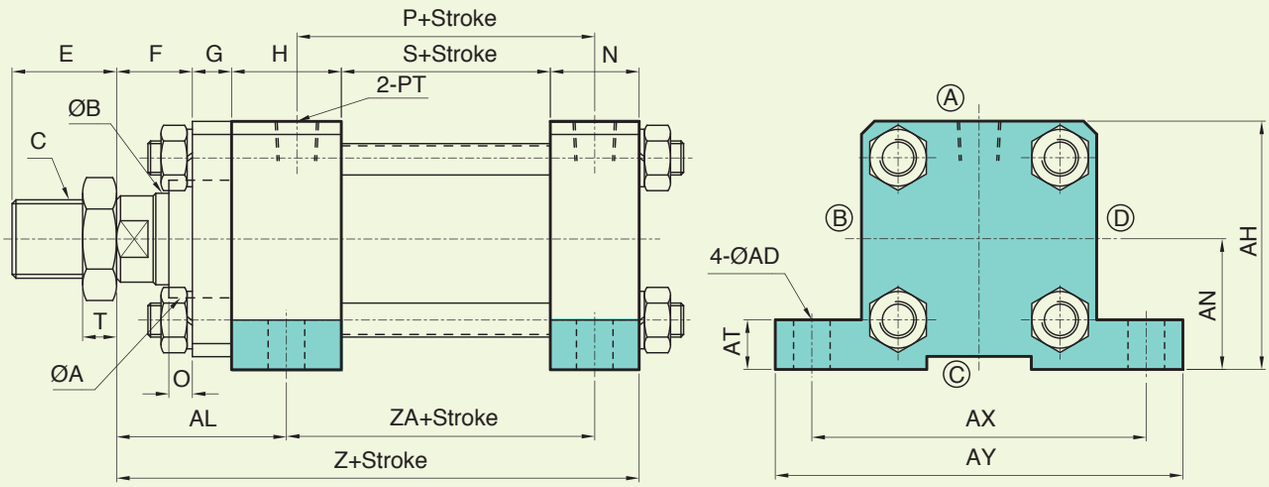


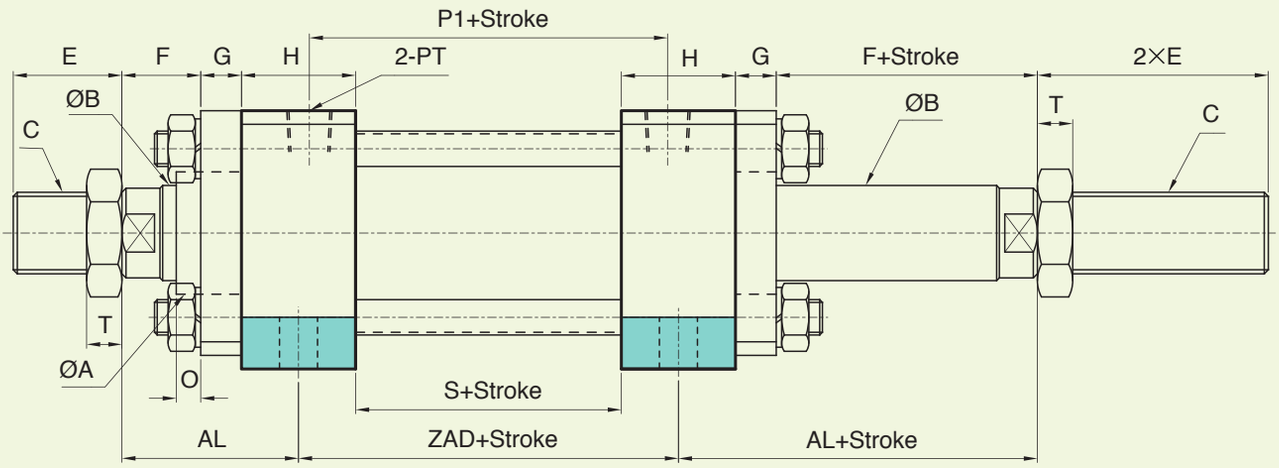


OS / OD TYPE																		FB TYPE					
BORE \ SIZE	ØA	ØB	C	E	F	G	H	O	N	P	P1	PM	PT	S	T	ZB	ZD	ØFD	FT	FR	FX	FY	FZ
Ø40	35	20	M18XP1.5	30	25	11	36	11	26	88	90	40	1/4	60	8	169	204	11	11	95	46	118	69
Ø50	40	25	M22XP1.5	35	25	13	42	9	34	92	90	40	3/8	60	13	187	220	11	13	115	58	145	85
Ø63	45	30	M26XP1.5	40	30	15	42	9	34	97	95	45	3/8	65	13	201	239	14	15	132	65	165	98
Ø80	55	40	M36XP1.5	45	30	18	46	7	40	105	105	45	1/2	65	15	217	253	18	18	155	87	190	118
Ø100	65	50	M45XP2.0	50	40	20	50	7	40	114	114	50	1/2	74	15	244	294	18	20	190	109	230	150

方型重油油壓缸 LA 尺寸圖

14Mpa Hydraulic Cylinders LA Dimensional Features





OS / OD TYPE																						LA TYPE			
BORE \ SIZE	ØA	ØB	C	E	F	G	H	O	N	AH	AL	AN	P	P1	PM	PT	S	T	ZA	ZAD	Z	ØAD	AT	AX	AY
Ø40	35	20	M18XP1.5	30	25	11	36	11	26	70	54	37.5	88	90	40	1/4	60	13	91	96	158	11	14	95	118
Ø50	40	25	M22XP1.5	35	25	13	42	9	34	80	59	42.5	92	90	40	3/8	60	13	98	102	174	11	17	115	145
Ø63	45	30	M26XP1.5	40	30	15	42	9	34	95	66	50	97	95	45	3/8	65	13	103	107	186	14	19	132	165
Ø80	55	40	M36XP1.5	45	30	18	46	7	40	115	71	60	105	105	45	1/2	65	15	108	111	199	18	25	155	190
Ø100	65	50	M45XP2.0	50	40	20	50	7	40	140	85	72.5	114	114	50	1/2	74	15	119	124	224	18	27	190	230

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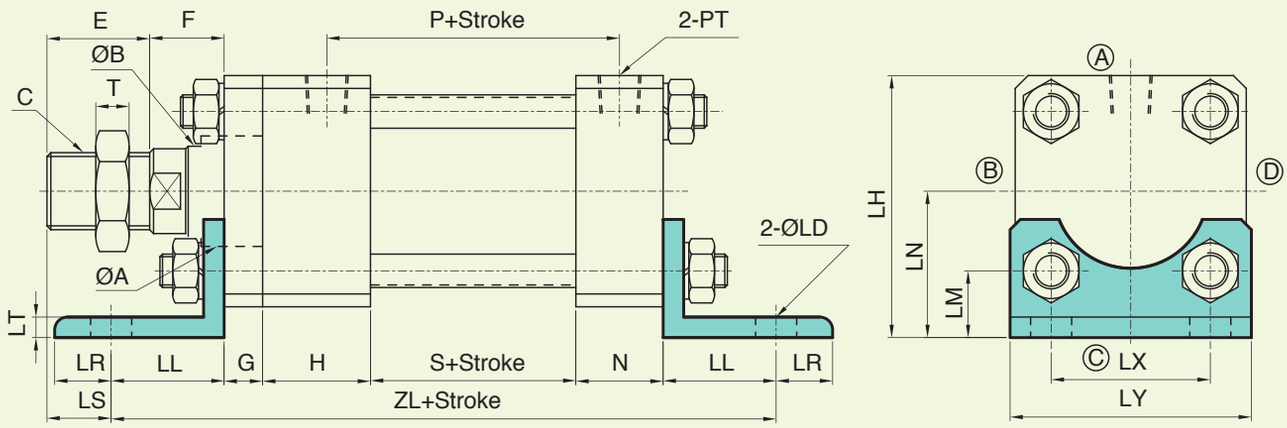
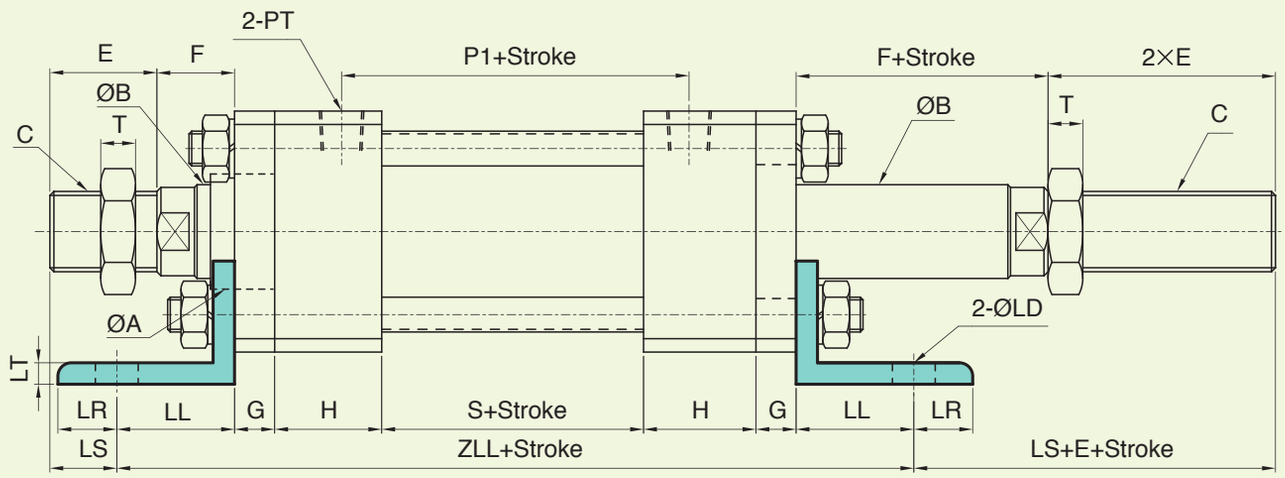
方型重油油壓缸 LB 尺寸圖

14Mpa Hydraulic Cylinders LB Dimensional Features

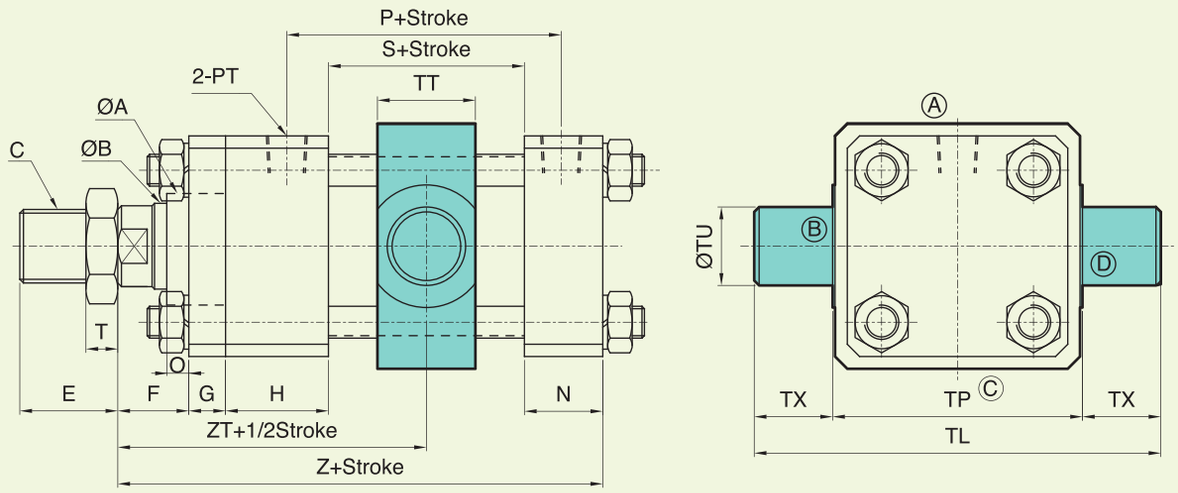


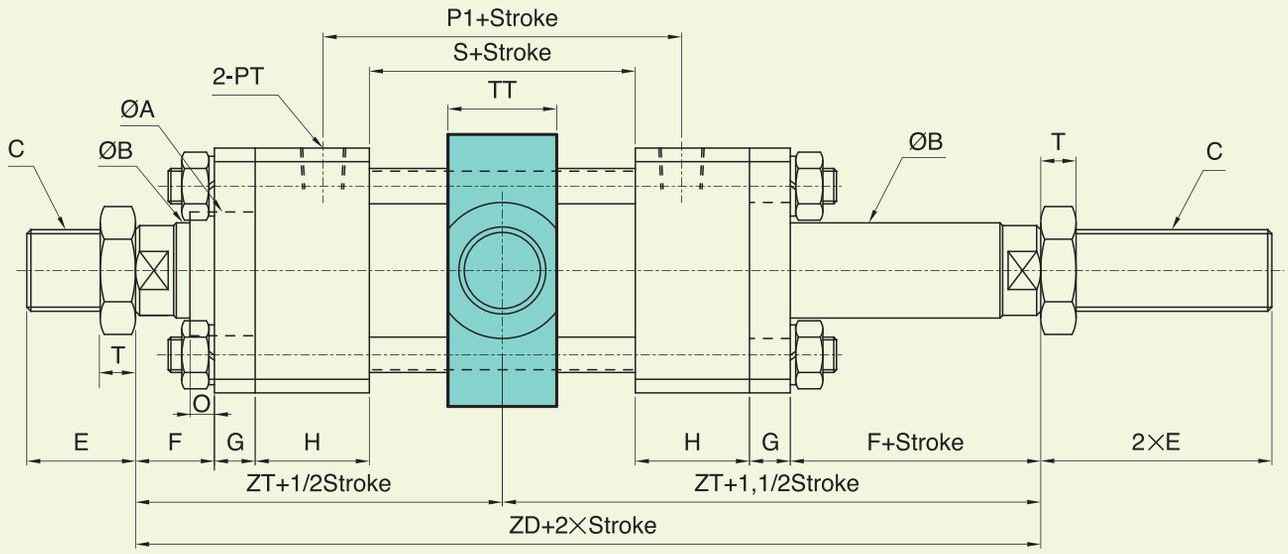


OS / OD TYPE																	LB TYPE						
BORE \ SIZE	ØA	ØB	C	E	F	G	H	N	P	P1	PM	PT	S	T	ZL	ZLL	ØLD	LL	LM	LR	LT	LX	LY
Ø40	35	20	M18XP1.5	30	25	11	36	26	88	90	40	1/4	60	8	197	218	11	32	20.5	13	8	45	65
Ø50	40	25	M22XP1.5	35	25	13	42	34	92	90	40	3/8	60	13	219	240	11	35	24	15	8	50	75
Ø63	45	30	M26XP1.5	40	30	15	42	34	97	95	45	3/8	65	13	240	263	14	42	28.5	18	10	58	90
Ø80	55	40	M36XP1.5	45	30	18	46	40	105	105	45	1/2	65	15	269	293	18	50	32	20	12	78	110
Ø100	65	50	M45XP2.0	50	40	20	50	40	114	114	50	1/2	74	15	294	324	18	55	34	23	12	96	135

方型重油油壓缸 TC 尺寸圖

14Mpa Hydraulic Cylinders TC Dimensional Features





OS / OD TYPE																			TC TYPE				
SIZE / BORE	ØA	ØB	C	E	F	G	H	O	N	P	P1	PM	PT	S	T	Z	ZD	ZT	ØTU	TL	TP	TT	TX
Ø40	35	20	M18XP1.5	30	25	11	36	11	26	88	90	40	1/4	60	8	158	204	102	20	109	69	25	20
Ø50	40	25	M22XP1.5	35	25	13	42	9	34	92	90	40	3/8	60	13	174	220	110	25	135	85	33	25
Ø63	45	30	M26XP1.5	40	30	15	42	9	34	97	95	45	3/8	65	13	186	239	119.5	30	160	100	40	30
Ø80	55	40	M36XP1.5	45	30	18	46	7	40	105	105	45	1/2	65	15	199	253	126.5	30	180	120	40	30
Ø100	65	50	M45XP2.0	50	40	20	50	7	40	114	114	50	1/2	74	15	224	294	147	40	225	145	50	40

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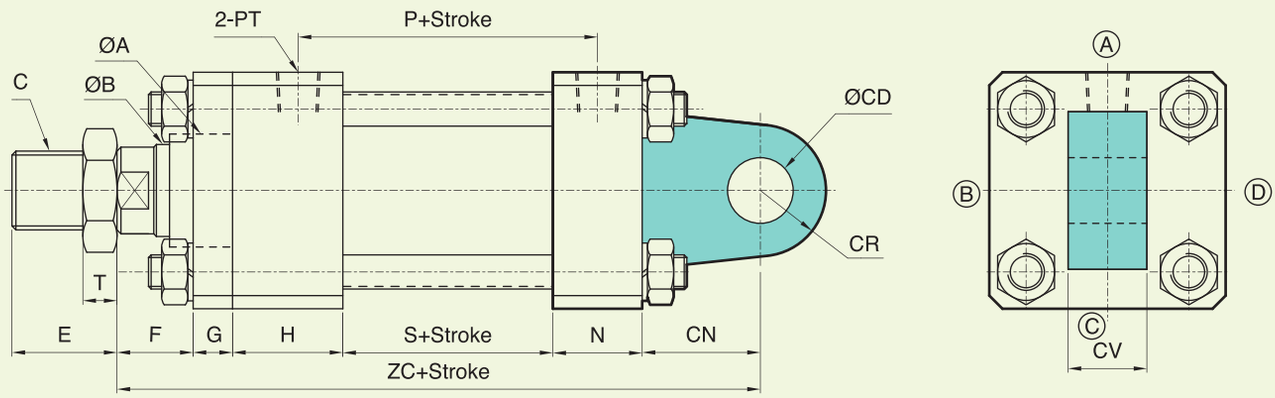
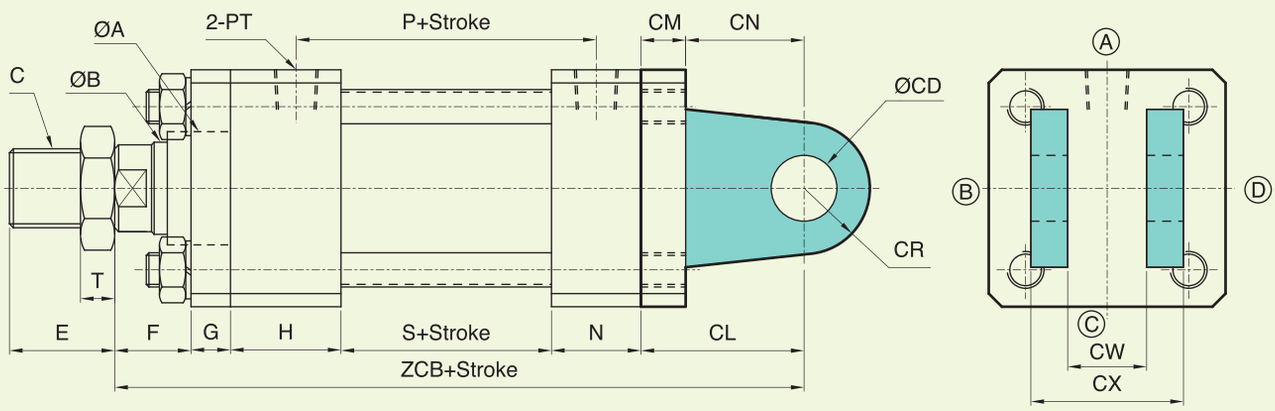
方型重油油壓缸 CA , CB 尺寸圖
14Mpa Hydraulic Cylinders CA , CB Dimensional Features

CA



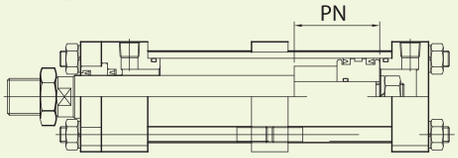
CB



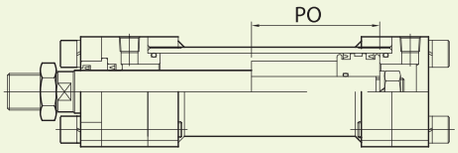
OS TYPE																CA , CB TYPE							
SIZE / BORE	ØA	ØB	C	E	F	G	H	N	P	PM	PT	S	T	ZC	ZCB	ØCD	CL	CM	CN	CR	CV	CW	CX
Ø40	35	20	M18XP1.5	30	25	11	36	26	88	40	1/4	60	8	183	194	16	36	11	25	15	18	19	43
Ø50	40	25	M22XP1.5	35	25	13	42	34	92	40	3/8	60	13	209	222	20	48	13	35	20	20	21	45
Ø63	45	30	M26XP1.5	40	30	15	42	34	97	45	3/8	65	13	226	241	25	55	15	40	25	25	26	54
Ø80	55	40	M36XP1.5	45	30	18	46	40	105	45	1/2	65	15	239	257	30	58	18	40	30	30	31	71
Ø100	65	50	M45XP2.0	50	40	20	50	40	114	50	1/2	74	15	274	294	35	70	20	50	35	40	41	81

方型重油油壓缸結構圖
14Mpa Hydraulic Cylinders parts List

[說明 1] 長衝程活塞加長襯套尺寸與緊緊模式選用參考 :



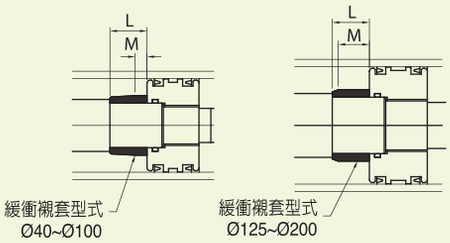
加中座模式－適用於缸徑 040~0100, 行程 1500 以上



兩端加法蘭模式－建議用於缸徑 040~0100, 行程 2000mm 以上

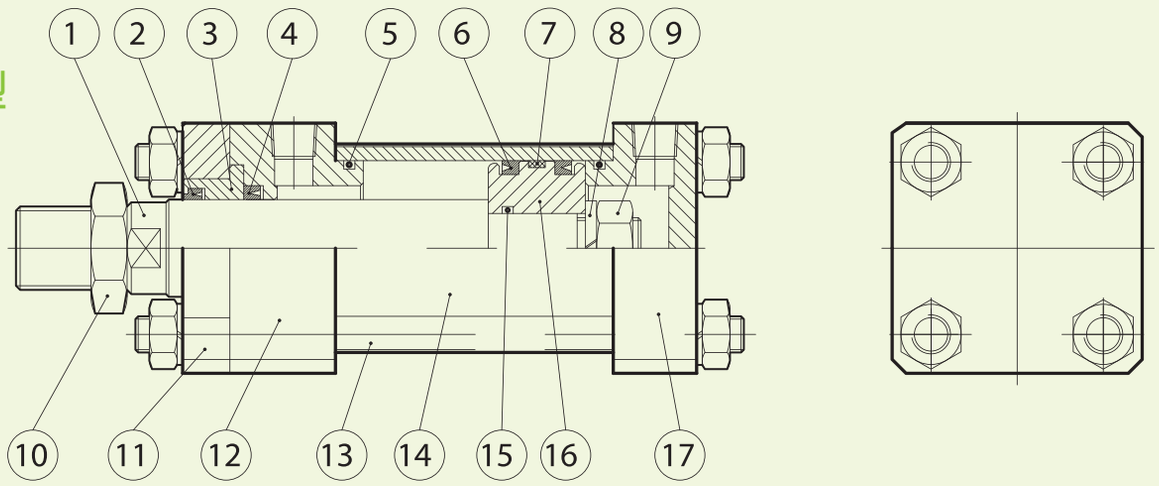
缸徑 Cylinder	PN	PO
Ø40	60	90
Ø50	70	100
Ø63	70	100
Ø80	100	150
Ø100	100	120

[說明 2] 緩衝標準距離尺寸 :

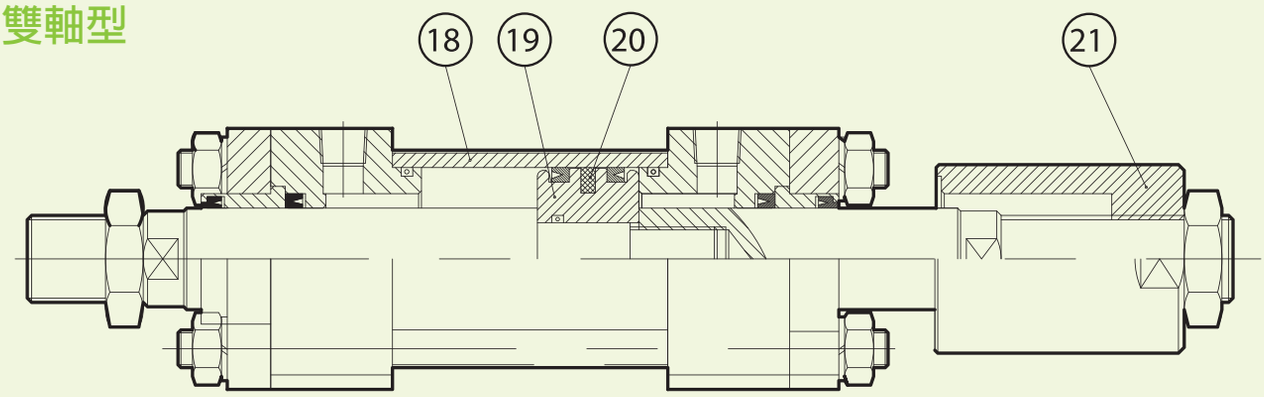


缸徑 Cylinder	L 長度	M 長度
Ø40~Ø63	20	8
Ø80~Ø100	25	8

OS
標準型



OD
雙軸型



NO	零件 Part		數量 Quantity	NO	零件 Part		數量 Quantity	NO	零件 Part		數量 Quantity
1	活塞桿	Piston rod	1	8	彈簧墊片	Spring washer	1	15	O 型環	O-ring	1
2	刮油環	Dust wiper	1	9	螺帽	Nut	1	16	活塞本體	Piston	1
3	套銅	Rod bush	1	10	軸心螺帽	Rod nut	1	17	後蓋	End cover	1
4	軸用油封	Rod packing	1	11	銅壓板	End plate	1	18	油缸本體	Cylinder tube	1
5	O 型環	O-ring	2	12	前蓋	Rod cover	1	19	活塞本體	Piston	1
6	橡膠活塞環	Piston packing	2	13	固定柱子	Tie bolt	4	20	磁石	Magnet	1
7	耐用環	Wearing ring	1	14	油缸本體	Cylinder tube	1	21	可調螺帽	Adjustable nut	1

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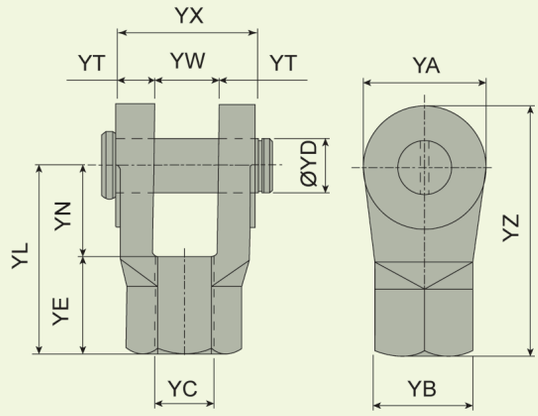
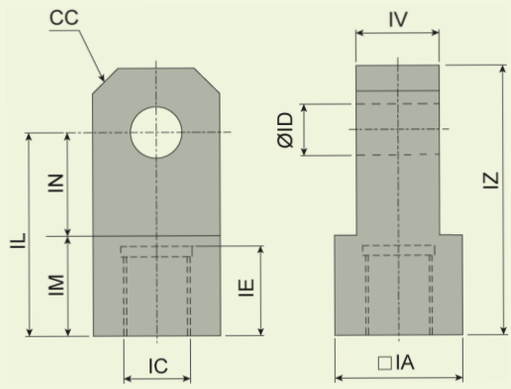
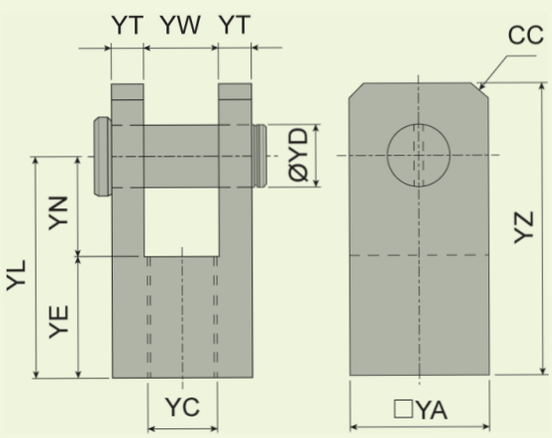
油壓系列軸心配件尺寸圖
Accessories fot Hydraulic Series Cylinders

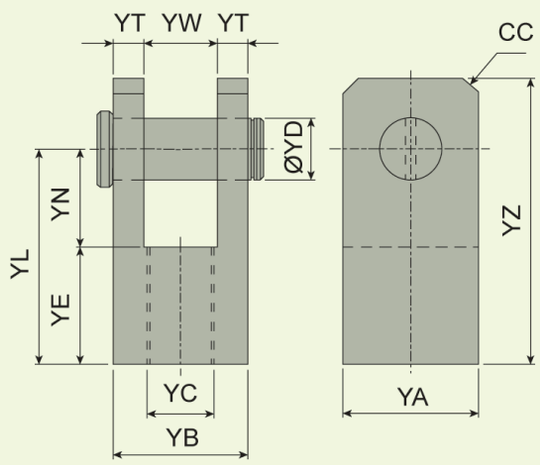




Y 型接頭附 pin			Rod Clevis (With pin)					Material : FCD45 (鑄鐵)			
TYPE	YA	YB	YC	YD	YE	YL	YN	YT	YW	YX	YZ
MY-014	29	27.5	M14xP1.5	12	35	56	20	14	16	44	70
MY-016	29	27.5	M16xP1.5	12	35	56	20	14	16	44	70
MY-018	29	27.5	M18xP1.5	12	35	56	20	14	16	44	70
MY-022	46	37	M22xP1.5	20	36	70	34	14	24	52	93
MY-026	52	42	M26xP1.5	20	35	70	35	15	28	58	96
MY-030	55	42	M30xP1.5	20	41	80	39	20	32	72	107
MY-030A	55	47	M30xP1.5	25	41	80	39	22	40	84	107

I 型接頭		I Rod end mounting				Material : SS41 (鐵製)				
TYPE	IA	IC	ID	IE	IL	IM	IN	IV	IZ	CC
FI-018	32	M18xP1.5	16	23	50	25	25	18	70	8
FI-022	40	M22xP1.5	20	23	55	25	30	20	80	10
FI-026	50	M26xP1.5	25	28	60	30	30	25	90	10
FI-036	60	M36xP1.5	30	32	75	35	40	35	110	10
FI-045	70	M45xP2.0	35	38	90	40	50	40	130	10

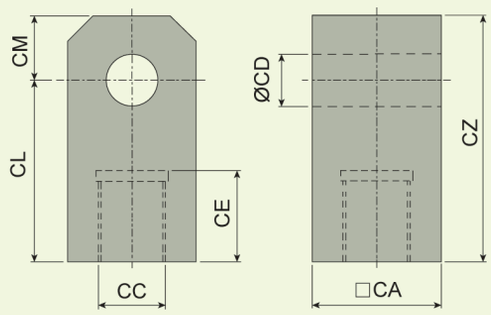




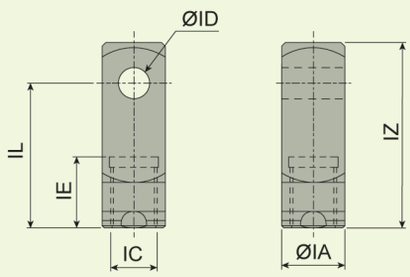
Y 型接頭附 pin		Rod Clevis (With pin)							Material : SS41 (鐵製)	
TYPE	YA	YC	YD	YE	YN	YL	YT	YW	YZ	CC
HY-014	32	M14xP1.5	12	36	20	56	8	16	70	6
HY-016	32	M16xP1.5	12	36	20	56	8	16	70	6
HY-018	38	M18xP1.5	16	36	20	56	8	16	70	6
HY-022	44	M22xP1.5	20	38	32	70	10	24	93	10
HY-026	50	M26xP1.5	20	37	33	70	11.5	27	96	10
HY-030	60	M30xP1.5	30	40	48	88	15	30	115	10
HY-040	70	M40xP2.0	35	47	46	93	20	30	127	15
HY-050	80	M50xP2.0	40	50	50	100	22.5	35	140	15
HY-070	115	M70xP2.0	50	60	60	120	27.5	60	170	25
HY-090	150	M90xP2.0	70	85	85	170	40	70	240	30

Y 型接頭附 pin			Rod Clevis (With pin)							Material : SS41 (鐵製)	
TYPE	YA	YB	YC	YD	YE	YN	YL	YT	YW	YZ	CC
FY-018	32	38	M18xP1.5	16	25	20	50	10	18	70	8
FY-022	40	44	M22xP1.5	20	25	30	55	12	20	80	10
FY-026	50	55	M26xP1.5	25	30	30	60	15	25	90	15
FY-036	60	65	M36xP1.5	30	35	40	75	15	35	110	15
FY-045	70	80	M45xP2.0	35	40	50	90	20	40	135	15

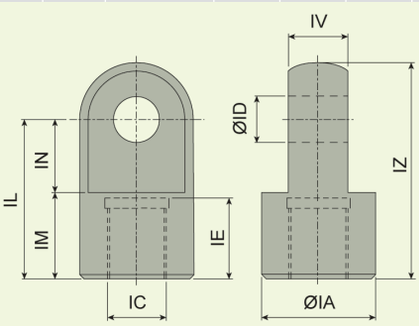
油壓系列軸心配件尺寸圖
Accessories fot Hydraulic Series Cylinders



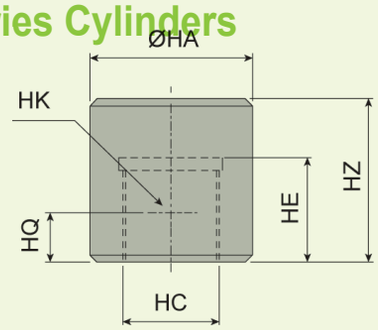
I 型接頭	I Rod end mounting			Material : SS41			
TYPE	□CA	CC	CD	CE	CL	CM	CZ
CI-026	44.5	M26xP1.5	25	40	60	25	85
CI-030	50.8	M30xP1.5	30	45	70	30	100
CI-040	60	M40xP2.0	30	50	75	30	105
CI-050	70	M50xP2.0	35	55	85	35	120
CI-060	90	M60xP2.0	50	70	105	50	155



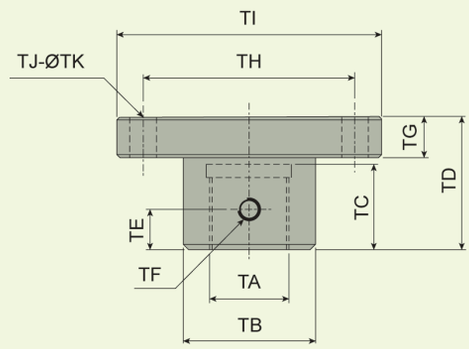
I 型接頭	I Rod end mounting			Material : SS41		
TYPE	IA	IC	ID	IE	IL	IZ
SI-014	25.4	M14xP1.5	12	40	57	73
SI-016	25.4	M16xP1.5	12	40	57	73
SI-018	25.4	M18xP1.5	12	40	57	73
SI-022	31.75	M22xP1.5	16	40	59	76



I 型接頭附	I Rod end mounting				Material : SS41				
TYPE	IA	IC	ØID	IE	IL	IM	IN	IV	IZ
HI-026	50	M26xP1.5	25	40	85	45	40	30	110
HI-030	55	M30xP1.5	25	40	83	45	38	35	110
HI-040	75	M40xP2.0	35	50	90	40	50	45	130
HI-050	90	M50xP2.0	50	60	105	50	55	55	150
HI-070	115	M70xP2.0	60	65	120	65	55	60	177
HI-090	150	M90xP2.0	70	82	180	90	90	70	250



H 焊套接頭	H Rod end mounting			Material : SS41		
TYPE	ØHA	HC	HE	HK	HQ	HZ
HH-010	20	M10xP1.25	20	M6xP1.0	10	30
HH-014	35	M14xP1.5	25	M8xP1.25	12	40
HH-016	35	M16xP1.5	25	M8xP1.25	12	40
HH-018	35	M18xP1.5	25	M8xP1.25	12	40
HH-022	40	M22xP1.5	32	M8xP1.25	15	50
HH-026	45	M26xP1.5	32	M8xP1.25	15	50
HH-030	50	M30xP1.5	35	M8xP1.25	20	55
HH-036	55	M36xP2.0	40	M8xP1.25	20	60
HH-040	60	M40xP2.0	48	M10xP1.5	25	65
HH-045	70	M45xP2.0	52	M10xP1.5	25	70
HH-050	80	M50xP2.0	55	M10xP1.5	25	75
HH-060	90	M60xP2.0	55	M10xP1.5	30	80
HH-070	100	M70xP2.0	65	M12xP1.75	30	100
HH-090	140	M90xP2.0	85	M12xP1.75	40	120



T 型接頭	T Rod end mounting					Material : SS41					
TYPE	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK
HT-010	M10xP1.25	20	20	30	10	M6xP1.0	8	40	60	4	8
HT-014	M14xP1.5	30	25	40	12	M8xP1.25	10	55	80	4	10
HT-016	M16xP1.5	30	25	40	12	M8xP1.25	10	55	80	4	10
HT-018	M18xP1.5	30	25	40	12	M8xP1.25	10	55	80	4	10
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-036	M36xP2.0	50	48	55	20	M8xP1.25	20	80	105	4	12
HT-040	M40xP2.0	60	48	65	25	M10xP1.5	25	90	115	6	12
HT-045	M45xP2.0	70	55	65	25	M10xP1.5	25	100	125	6	12
HT-050	M50xP2.0	80	55	75	25	M10xP1.5	25	110	140	6	14
HT-060	M60xP2.0	90	55	80	30	M10xP1.5	30	120	150	6	14
HT-070	M70xP2.0	100	65	100	30	M12xP1.75	30	140	180	6	18
HT-090	M90xP2.0	140	85	120	40	M12xP1.75	40	180	220	6	18

方型重油油壓缸 14Mpa Hydraulic Cylinders

理論出力表及速度比
Theoretical Power Output & Speed Scale

氣缸內徑 / Bore(mm)				30	40	50	63	80	100	125	150	180	200	224	250
受壓面積 Area(cm^2)	推出 / Push			7.07	12.57	19.64	31.17	50.27	78.54	122.72	176.72	254.47	314.16	394.08	490.87
	拉入 Pull	桿徑 Rod Series	C	5.53	10.02	15.7	25.01	40.37	62.64	98.09	141.46	204.21	250.54	315.54	392.35
			B	4.52	8.63	13.48	21.28	34.36	53.91	83.13	119.97	175.93	215.64	271.36	336.94
理論出力 Theoretical Output (kg)	壓力 10 kg/cm^2	推出 / Push		71	126	196	312	502	785	1227	1767	2545	3142	3941	4909
		拉入 Pull	C	55	100	157	250	404	626	981	1415	2042	2505	3155	3924
			B	45	86	135	213	344	539	831	1200	1759	2156	2714	3369
	壓力 70 kg/cm^2	推出 / Push		495	880	1375	2182	3519	5498	8590	12370	17813	21991	27586	34361
		拉入 Pull	C	387	702	1099	1751	2826	4385	6867	9902	14295	17538	22088	27465
			B	317	604	944	1489	2406	3774	5819	8398	12315	15095	18995	23586
	壓力 140 kg/cm^2	推出 / Push		990	1760	2750	4343	7038	10995	17181	24741	35626	43982	55171	68721
		拉入 Pull	C	774	1403	2198	3501	5652	8769	13733	19804	28589	35076	44176	54929
			B	633	1208	1887	2979	4810	7547	11638	16796	24630	30190	37990	47172
速度比 Speed Scale	推出 / Push			1	1	1	1	1	1	1	1	1	1	1	1
	拉入 Pull	桿徑 Rod Series	C	1.28	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
			B	1.56	1.46	1.46	1.46	1.46	1.46	1.48	1.47	1.45	1.46	1.45	1.46

常用計算公式
Calculation

F : 理論出力 / Theoretical Output (kg)

Q : 幫浦流量 / Pump flow quantity (ℓ/min)

V : 活塞速度 / Piston speed (cm/min)

HP : 馬達馬力 / Motor Power (HP)

t : 缸管厚度 / Bore Thick (mm)

P : 作動出力 / Working Pressure (kg/cm^2)

A : 受壓面積 / Area (cm^2)

D : 缸管內徑 / Bore (mm)

□ : 油壓泵效率 / Pump Efficiency

□ : 引張強度 / Tensile Strength (kg/mm^2)

$$F = P \times A$$

$$Q = A \times V$$

$$HP = \frac{P \times Q}{450\square}$$

$$t = \frac{P \times D}{200\ S}$$

S : = □ / 5 Safe Coefficient

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