





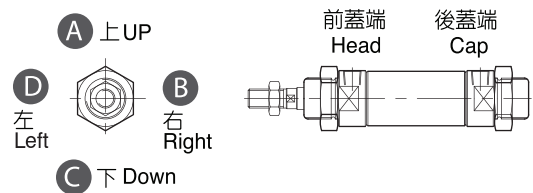
SO Series 小型圓型低壓油壓缸採購指南 7Mpa Hydraulic Cylinders How to Order

方型重油油壓缸特性資料 Specification

氣壓缸內徑 Bore sizes of cylinder(mm)	SOØ20		SOØ30		SOØ40	
缸管材質 Material of cylinder barrel	鋼管 Carbon steel STKM-13C OR/白鐵管 Stainless tubes SUS 304/鋁合金管 Aluminum alloy tubes					
使用壓力範圍 The range of pressure(MPa)	0.3-70MPa(3-70kgf/cm ²)					
使用溫度範圍 The range of temperature(°C)	PU/NBR{-20°~+80°(C°)}/VITON{-10°~150°(C°)}					
使用速度範圍 The range of speed(mm/sec)	3~300 mm/sec					
標準衝程活塞(PM)的長度Standard stroke of the piston (PM) length	24		30		30	
各缸徑最大容許衝程 STROKE .mm Max.Permissible	本系列最長衝程為1000mm,如需更長衝程請來電洽詢					
衝程之容許公差/Tolerance of stroke	衝程/STROKE	100 以下	100~250	250~630	631~1000	
JIS B 8354 B級/Refer to Right Table	容許差/Tolerance	0~+0.8	0~+1.0	0~+1.25	0~+1.4	
活塞桿螺紋加工精度/Accuracy of Threading at Rod End	JIS 6g/6H(相當JIS 2級)					

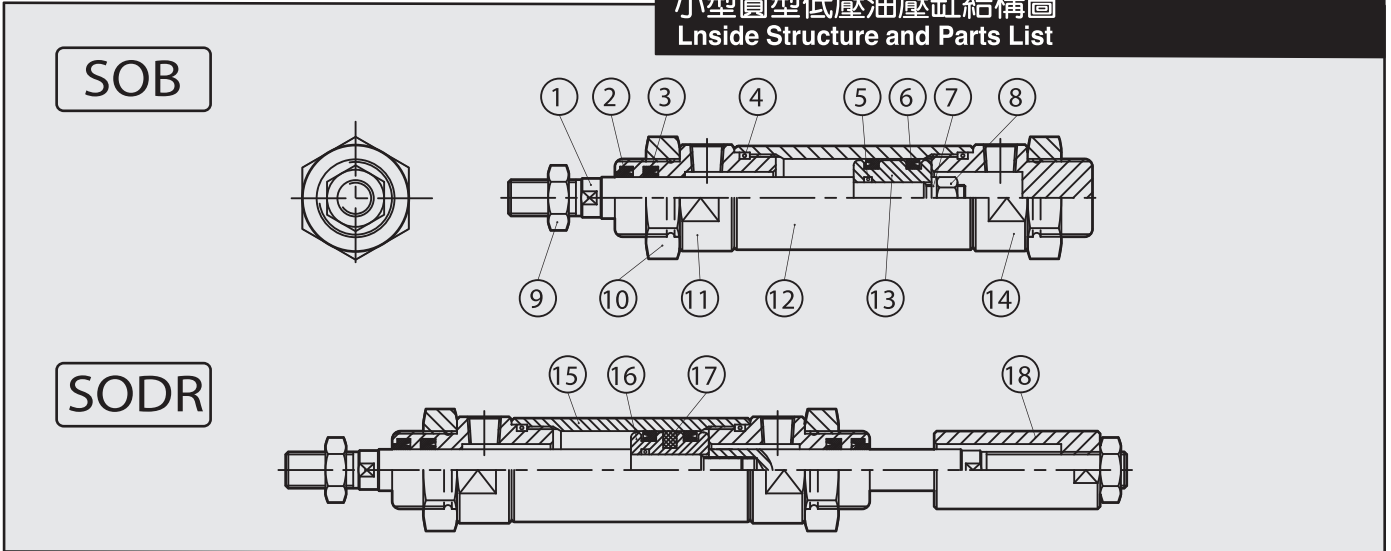
SO-B-N-020-A-A-012-0100-N-N-AST000-N



1	型式 / TYPE	A:平尾型 A:HIRAO TYPE		B:LB型 B:LB TYPE				
		C:CA型 C:CA TYPE		D: 雙軸型 D: Double-Rod type				
2	磁石/MAGNET	R: 內加磁石 N:沒有 R: with magnet inside N:No symbol						
3	鋼管內徑/外徑 CYLINDER TUBES	Ø20/Ø30		Ø30/Ø40		Ø40/Ø50		
4	油封選用 SEAL SYMBOL 油封材質/Seal material	適用作動油種類 Kind of Fluid						
		一般礦物性作動油 Pertroleum-Based fluid	水乙二醇 Water-Glycol fluid	磷酸酯油 Phosphate-Ester fluid	0/w作動油 Water in oil fluid	w/0作動油 Oil in Water fluid		
		A PU Polyurethane rubber	○	×	×	△	△	
		B NBR Nitrile rubber	○	○	×	○	○	
C VITON Fluoro elastomer	○	×	○	○	○			
備註: 允許使用 ○ 不允許使用 × 請與我們洽詢 △, 本系列Ø20,均採用PU材質油封,其他系列可供選擇 Note: allowable ○ unallowable × consult us △								
5	入油口位置填入 Port position	前蓋端 Head	A:上(標準型)/B:右/C:下/D:左 A:UP(Standard)/B:Right/C:Down/D:Left			後蓋端 Cap	A:上(標準型)/B:右/C:下/D:左 A:UP(Standard)/B:Right/C:Down/D:Left	
		A=AA / B=BB / C=CC / D=DD E=AB / F=AC / G=AD / H=BA I=BC / J=BD / K=CA / L=CB M=CD / N=DA / O=DB / P=DC						
6	軸心/ROD	標 準	Ø12		Ø16		Ø20	
7	行程/STROKE	填入需要之衝程 Max Permissible stroke						
		備註:本系列鋁合金管訂製,Ø20~Ø30最大衝程為1000mm,預訂製衝程超過最大值時,請考量活塞側向支撐力與強度,建議需補強氣壓缸機構,增加產品壽命,如有其他考量請參閱技術資料或敬請與我們相關人員洽詢						

8	缸體 固定方式	名稱 DESCRIPTION	記號 SYMBOL	略圖 CONFIGURATION	名稱 DESCRIPTION	記號 SYMBOL	略圖 CONFIGURATION
	BORE ACCESSORY	前蓋矩形法蘭 Rectangular flange at cylinder head	FA		前後端凸耳形 Foot mounting side end angles	LB	
備註：缸體固定如有其它方式可繪製圖面或與我們營業人員洽詢 Note: If the cylinder is fixed in other ways, you can draw a sketch or contact our sales staff							
9	軸心 用配件	名稱 DESCRIPTION	記號 SYMBOL	略圖 CONFIGURATION	名稱 DESCRIPTION	記號 SYMBOL	略圖 CONFIGURATION
	ROD ACCESSORY	Y型接頭 Rod Clevis	IY		Y型接頭附 插銷 Rod Clevis With Pin	IYP	
		I型接頭 I Rod end mounting	II		浮動接頭 Compensating Joint	KG	
		魚眼接頭 Oscillating Eye	PH		T型接頭 T Rod end mounting	MT	
		焊接接頭 H Rod end mounting	MH		可調螺帽 Adjustable nut	AST	
備註：軸心固定如有其它方式,可繪製草圖或與我們營業人員洽詢 Note: If the axis is fixed in other ways, you can draw a sketch or contact our sales staff							
10	雙軸 可調行程	填入需要的可調行程 AST <input type="text"/> <input type="text"/> <input type="text"/> mm 無記號:沒有 / NO Symbol Adjustable Stroke					
11	近接開關 SENSOR SWITCH	無記號:無裝置(標準型)/B:兩端近接開關/X:近接在前/Y:近接在後/T:近接*3/U:近接*4 N: No symbol/B:Double side sensor switch/X:Rod-cover side sensor switch/ Y: Cap-cover side sensor switch/T:sensor switch*3/U:sensor switch*4					

小型圓型低壓油壓缸結構圖
Inside Structure and Parts List



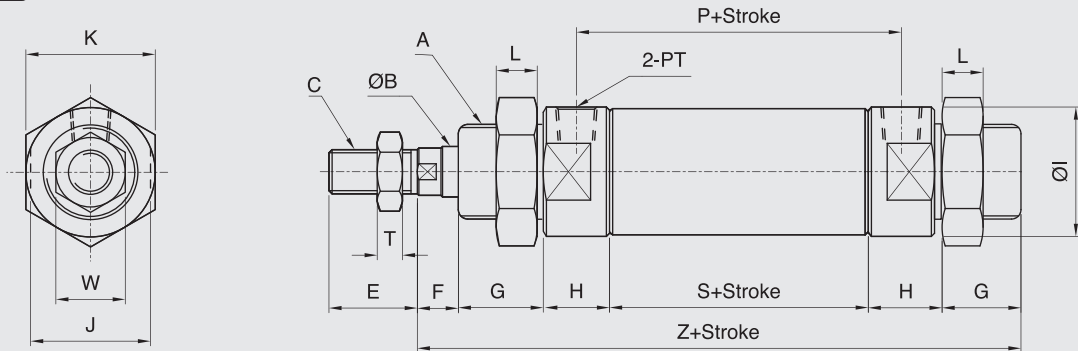
NO	零件名 Part mane	數量 Quantity	NO	零件名 Part mane	數量 Quantity	NO	零件名 Part mane	數量 Quantity
1	活塞桿 Piston rod	1	7	彈簧華司 Spring washer	1	13	活塞本體 Piston	1
2	刮油環 Dust wiper	1	8	螺帽 Nut	1	14	後蓋 End cover	1
3	軸用封環 Rod packing	1	9	螺帽 Nut	1	15	缸管本體 Cylinder tube	1
4	O型環 Gasket	1	10	螺帽 Nut	1	16	活塞本體 Piston	1
5	O型環 Gasket	1	11	前蓋 Rod cover	1	17	磁石 Magnet	1
6	橡膠活塞環 Piston packing	2	12	缸管本體 Cylinder tube	1	18	可調螺帽 Adjustable nut	1

SOB, SOD

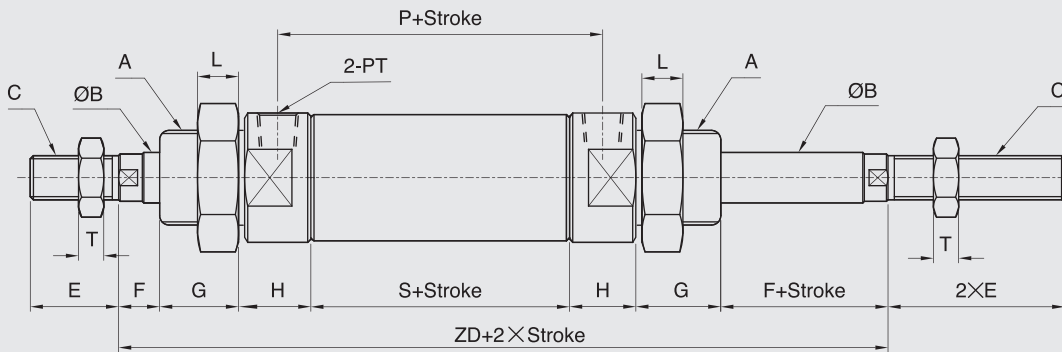
Series

小型圓型低壓油壓缸標準尺寸圖 7Mpa SO Series Dimensional Features

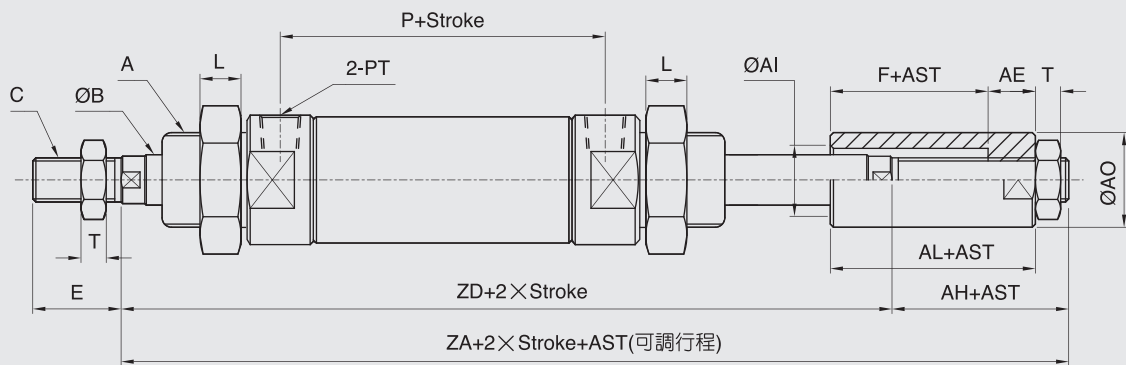
SOB SO+B(標準型) TYPE



SOD SO+D(雙軸型) TYPE



SOD SOD+AST(雙軸型附可調帽) TYPE



SOB-SOD TYPE

A(可調螺帽) TYPE

BORE	SIZE	A	ØB	C	E	F	G	H	ØI	J	K	L	P	PM	PT	S	W	T	Z	ZA	ZD	AH	AE	ØAI	ØAO	AL
Ø20	M26XP1.5	12	M10XP1.25	25	12	25	15	32	27	35	13	69	24	1/8	54	16	8	146	183	158	25	15	16	25	27	
Ø30	M30XP1.5	16	M14XP1.5	28	13	25	21	41	37	41	13	83	30	1/4	62	22	8	167	205	180	25	15	20	30	28	
Ø40	M40XP2.0	20	M16XP1.5	28	17	25	25	50	47	55	15	87	30	3/8	62	23.5	8	179	226	196	30	20	25	40	37	

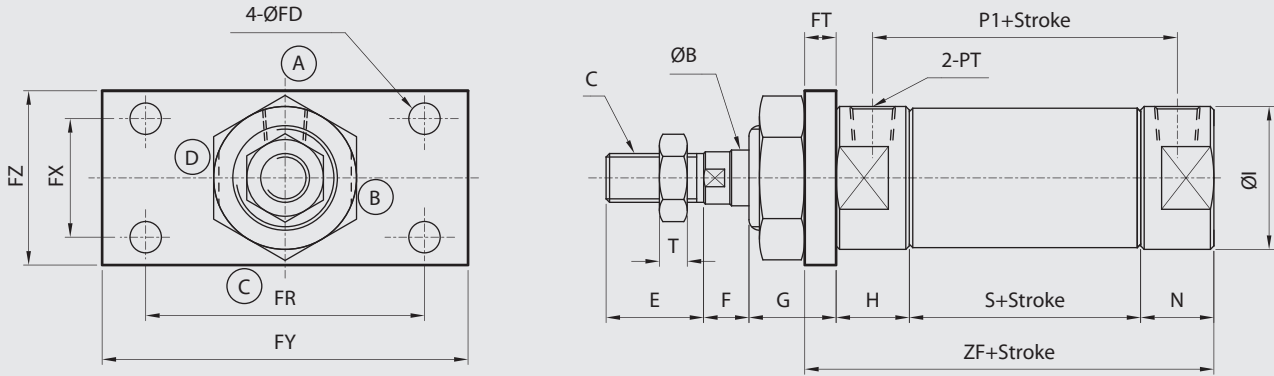
備註：

- 軸心加大或縮小時如未註明長度尺寸時,依照本公司規定自行加工。
- SO40系列行程超過 500mm以上時,軸心牙加大為M18*P1.5。
- 本系列行程超過1500mm時,活塞長度(PM)為加倍長 (P,Z,ZA,ZD須再加乙次PM尺寸)。
- AST為客戶指定之可調行程。

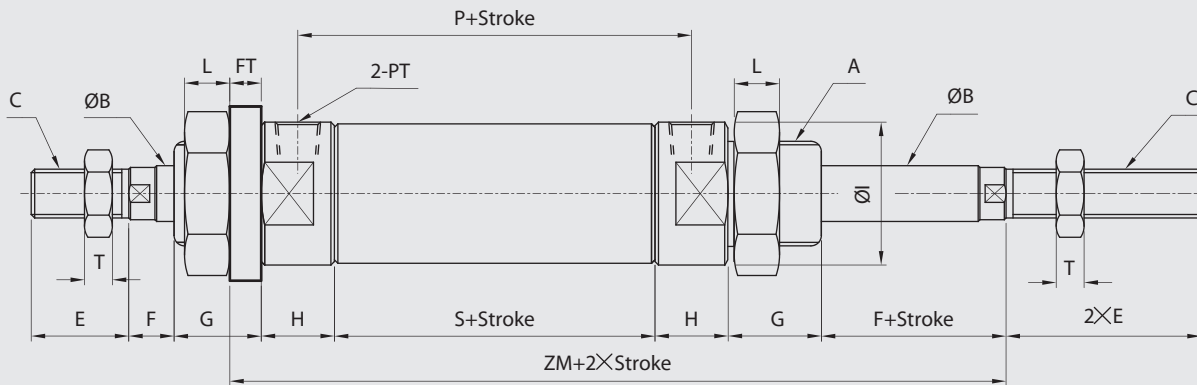
- The length and size of axis were not specific to constructed must be according to our company design's modify without prior notice.
- The series stroke exceed 500mm (includes), axletree broaden be M18xP1.5.
- The series stroke exceed (includes) 1500mm, should redouble length (PM) of piston. (Add twice length PM of size:P,Z,ZA,ZD).
- AST:Adjustable stroke by customer assignment.

小型圓型低壓油壓缸FA板尺寸圖 7Mpa SO Series FA Dimensional Features

SOA SOA+FA TYPE



SOD SOD+FA TYPE



BORE	SIZE	SOA-SOD TYPE														FA TYPE								
		A	ØB	C	E	F	G	H	ØI	L	N	P	P1	PM	PT	S	T	ZF	ZM	ØFD	FT	FR	FX	FY
Ø20	M26XP1.5	12	M10XP1.25	25	12	25	15	32	13	18	70.5	69	24	1/8	54	8	96	130	9	9	56	30	80	45
Ø30	M30XP1.5	16	M14XP1.5	28	13	25	21	41	13	24	84.5	83	30	1/4	62	8	116	151	9	9	80	34	105	50
Ø40	M40XP2.0	20	M16XP1.5	28	17	25	25	50	15	25	89.5	87	30	3/8	62	8	123	165	12	11	93	50	115	72

備註：

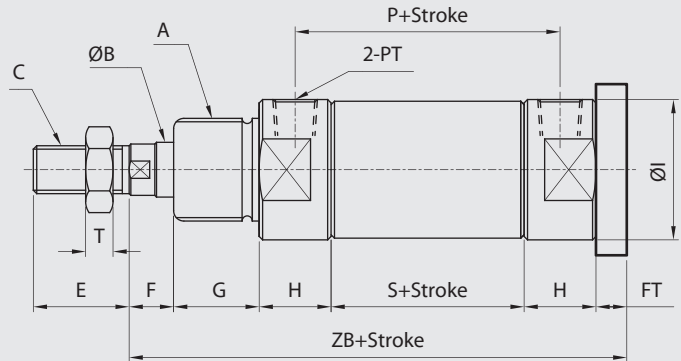
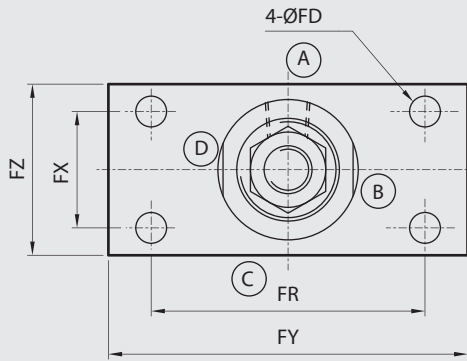
- 軸心加大或縮小時如未註明長度尺寸時,依照本公司規定自行加工。
- SO40系列行程超過 500mm以上時,軸心牙加大為M18*P1.5。
- 本系列行程超過1500mm時,活塞長度(PM)為加倍長 (P,ZF,ZM須再加乙次PM尺寸)。

- The length and size of axis were not specific to constructed must be according to our company design's modify without prior notice.
- The series stroke exceed 500mm (includes), axletree broaden be M18xP1.5.
- The series stroke exceed (includes) 1500mm, should redouble length (PM) of piston. (Add twice length PM of size:P,ZF,ZM).

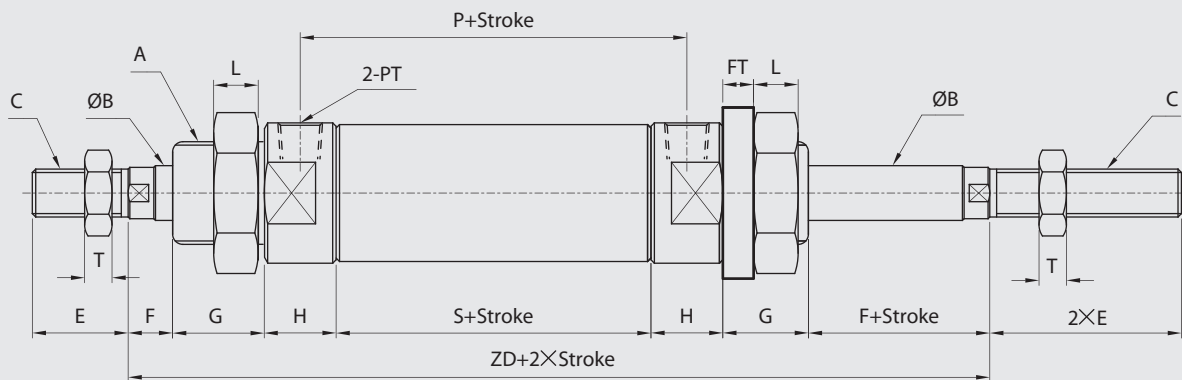
SO-FB Series

小型圓型低壓油壓缸FB板尺寸圖 7Mpa SO Series FB Dimensional Features

SOB SOB+FB TYPE



SOD SOD+FB TYPE



BORE	SIZE	SOB-SOD TYPE												FB TYPE								
		A	ØB	C	E	F	G	H	ØI	L	P	PM	PT	S	T	ZB	ZD	ØFD	FT	FR	FX	FY
Ø20	M26XP1.5	12	M10XP1.25	25	12	25	15	32	13	69	24	1/8	54	8	130	158	9	9	56	30	80	45
Ø30	M30XP1.5	16	M14XP1.5	28	13	25	21	41	13	83	30	1/4	62	8	151	180	9	9	80	34	105	50
Ø40	M40XP2.0	20	M16XP1.5	28	17	25	25	50	15	87	30	3/8	62	8	165	196	12	11	93	50	115	72

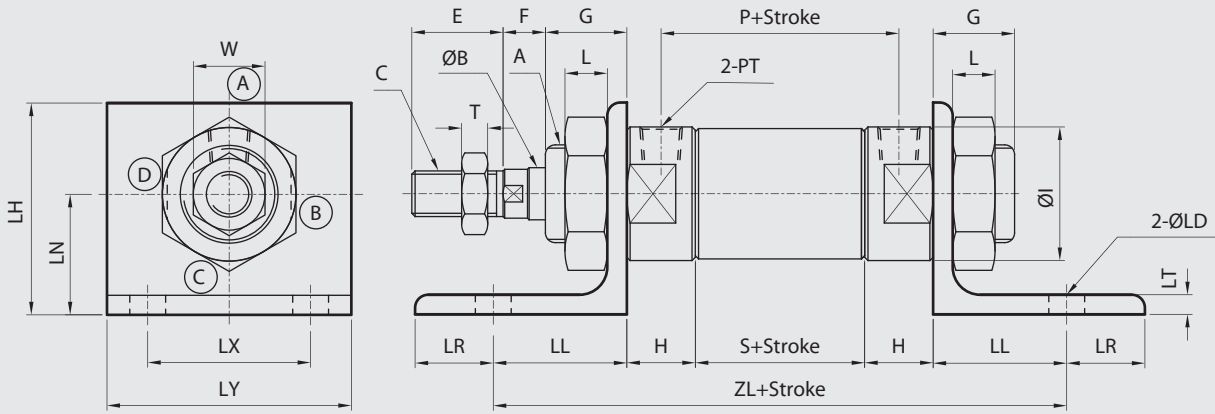
備註：

1. 軸心加大或縮小時如未註明長度尺寸時,依照本公司規定自行加工。
2. SO40系列行程超過 500mm以上時,軸心牙加大為M18*P1.5。
3. 本系列行程超過1500mm時, 活塞長度(PM)為加倍長 (P,ZB,ZD須再加乙次PM尺寸)。

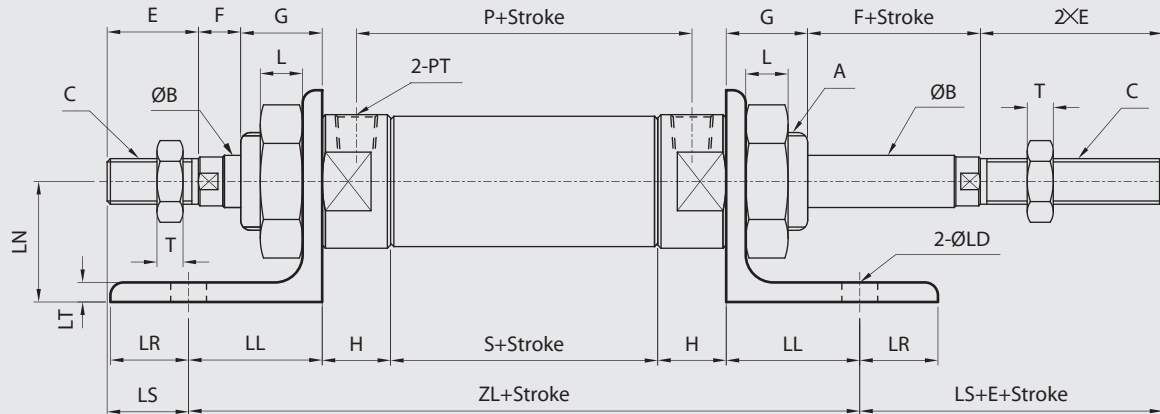
1. The length and size of axis were not specific to constructed must be according to our company design's modify without prior notice.
2. The series stroke exceed 500mm (includes), axletree broaden be M18xP1.5.
3. The series stroke exceed (includes) 1500mm, should redouble length (PM) of piston. (Add twice length PM of size:P,ZB,ZD).

小型圓型低壓油壓缸LB架尺寸圖 7Mpa SO Series LB Dimensional Features

SOB SOB+LB TYPE



SOD SOD+LB TYPE



BORE SIZE	SOB-SOD TYPE															LB TYPE									
	A	ØB	C	E	F	G	H	ØI	L	LS	P	PM	PT	S	W	T	ZL	ØLD	LH	LN	LL	LR	LT	LX	LY
Ø20	M26XP1.5	12	M10XP1.25	25	12	25	15	32	13	42.5	69	24	1/8	54	16	8	123	7	55	35	19.5	10.5	4.5	40	55
Ø30	M30XP1.5	16	M14XP1.5	28	13	25	21	41	13	25	83	30	1/4	62	22	8	186	10	65	37	41	24	6	50	75
Ø40	M40XP2.0	20	M16XP1.5	28	17	25	25	50	15	25	87	30	3/8	62	23.5	8	202	12	75	47	45	30	9	60	88

備註：

- 軸心加大或縮小時如未註明長度尺寸時,依照本公司規定自行加工。
- SO40系列行程超過 500mm以上時,軸心牙加大為M18*P1.5。
- 本系列行程未超過1500mm時,活塞長度(PM)為加倍長 (P,ZL須再加乙次PM尺寸)。

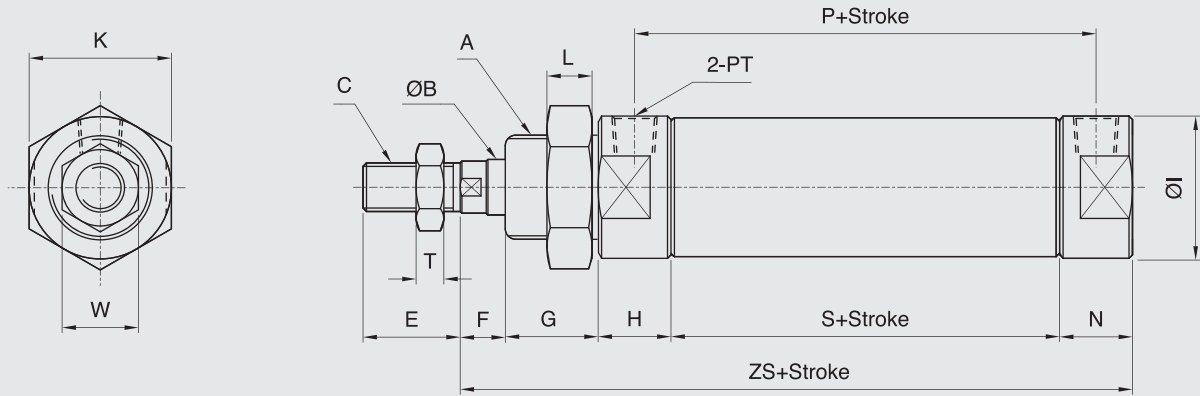
- The length and size of axis were not specific to be constructed must be according to our company design's modify without prior notice.
- The series stroke exceed 500mm (includes), axletree broaden be M18xP1.5.
- The series stroke within (includes) 1500mm, should redouble length (PM) of piston. (Add twice length PM of size:P,ZL).

SO-A, CA

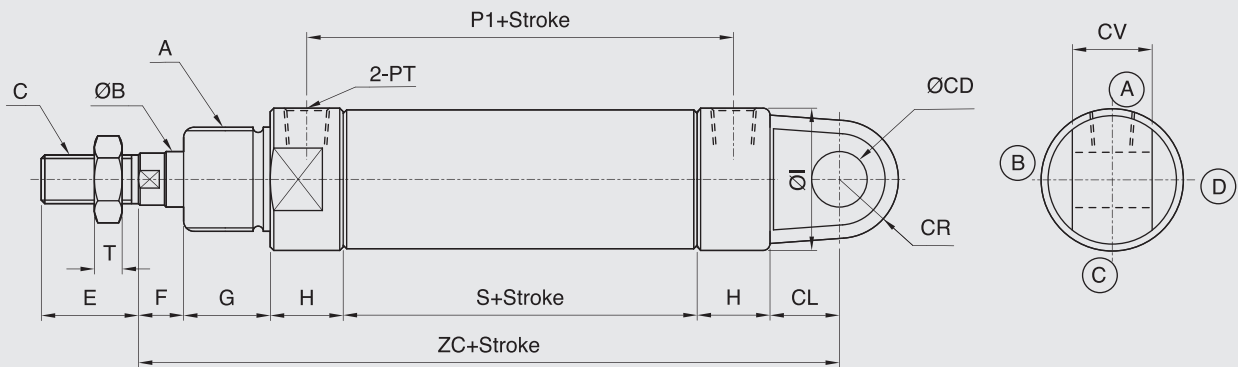
Series

小型圓型低壓油壓缸後平CA尺寸圖 7Mpa SO Series A, CA Dimensional Features

SOA SO+A(後蓋切平) TYPE



SOC SOC TYPE



SOA-SOC TYPE

CA TYPE

BORE	SIZE	A	ØB	C	E	F	G	H	ØI	K	L	N	P	P1	PM	PT	S	W	T	ZS	ZC	ØCD	CL	CR	CV
Ø20	M26XP1.5	12	M10XP1.25	25	12	25	15	32	35	13	18	70.5	69	24	1/8	54	16	8	124	136	10	15	10	15	
Ø30	M30XP1.5	16	M14XP1.5	28	13	25	21	41	41	13	24	84.5	83	30	1/4	62	22	8	145	162	16	20	17	23	
Ø40	M40XP2.0	20	M16XP1.5	28	17	25	25	50	55	15	25	89.5	87	30	3/8	62	23.5	8	154	179	16	25	18	25	

備註：

- 1.軸心加大或縮小時如未註明長度尺寸時,依照本公司規定自行加工。
- 2.SO40系列行程超過 500mm以上時,軸心牙加大為M18*P1.5。
- 3.SO系列行程未超過1500mm時,活塞長度(PM)為加倍長 (P,P1,ZS,ZC須再加一次PM尺寸)。

- 1.The length and size of axis were not specific to constructed must be according to our company design's modify without prior notice.
- 2.The series stroke exceed 500mm (includes), axletree broaden be M18xP1.5.
- 3.The series stroke exceed (includes) 1500mm, should redouble length (PM) of piston. (Add twice length PM of size:P, P1, ZS, ZC).