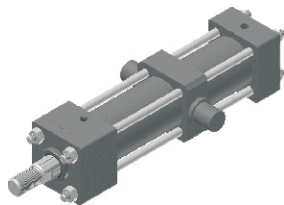


HC1系列油壓缸



■ 特性

- 1、廣泛應用於產業機械，工作機械上。
- 2、有多樣的固定座形式。
- 3、有低速性優良的高精度動作。

■ 規格表

缸管内徑 mm	φ 40, φ 50, φ 63, φ 70, φ 80, φ 90, φ 100, φ 125, φ 150		
固定座形式	LA, LB, FA, FB, FC, FD, CA, SD, TA, TC,		
使用壓力 kgf/cm ²	70/140		
最高使用壓力 kgf/cm ²	※1	90/180	
最低作動壓力 kgf/cm ²	3		
最高使用速度 mm/sec	φ 40~ φ 60=400	φ 80 ~ φ 125=300	φ 140 ~ φ 250=200
最低使用速度 mm/sec	8		
最大衝程 mm	※2	φ 40~ φ 50=1200	φ 60 ~ φ 80=1600 φ 90 ~ φ 150=2000
周圍溫度範圍 ℃	-10~+80		
關連零件	I接頭	Y接頭	防塵套

※1、最高使用壓力是指包含瞬間上升之衝壓，而且強度上可以使用之最高壓力而言。

※2、最大衝程是依彎曲強度低值而求得——彎曲強度限制衝程；參考(DRAW)。

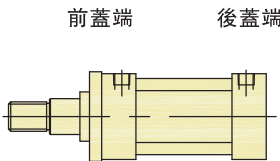
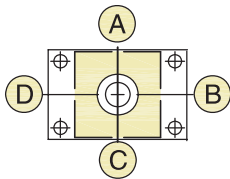
■ 衝程之容許差

衝程 mm	~100	100~250	250~630	630~1000	1000~1600	1600~
容許差 mm	+0.8	+1.0	+1.25	+1.4	+1.6	+1.8

■ 出入口及排氣孔的方向

各個之方向是從前蓋端看順時針方向依 (A) (B) (C) (D) 排成標準之方向是出入口在 (A) 排氣孔在 (D)

注：出入口和排氣孔不可在同一方向。



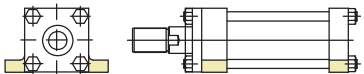
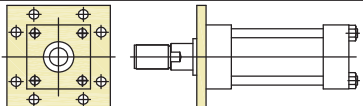
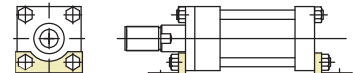
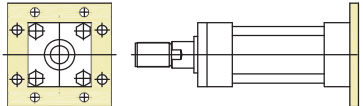
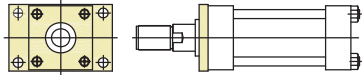
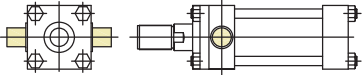
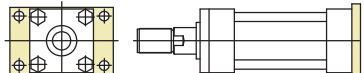
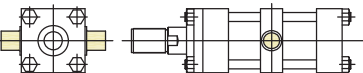
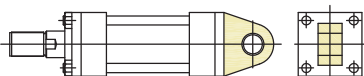
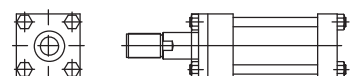
※大概重量計算：基本重量及加算重量其數值，記載於各固定座形式之附圖上，所以可在各固定座形式之外觀尺寸圖上計算出。

HC1

■ 訂購內容索引

1	2	3	4	5	6	7	8	9	10
140	HC1	FA	080	A	800	A	E		V
140	HC1R	FA	080	A	800	A	E	R	V
1	使用壓力 kgf/cm ²								

■ 固定座形式

記號	名稱	略圖	記號	名稱	略圖
LA	軸直角 方向腳架形		FC	前蓋端 正方形法蘭形	
LB	軸方向腳架形		FD	後蓋端 正方形法蘭形	
FA	前蓋端 長方形法蘭形		TA	前蓋附支撐形	
FB	後蓋端 長方形法蘭形		TC	中間 固定支撐形	
CA	山形座 (1山形)		SD	基本形	

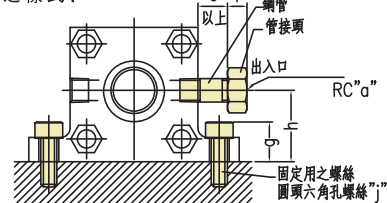
HC 1

■ 固定座形式

	推 出	拉 入	推出及拉入
FA			根據推出或拉入其出力大的一方為基準，請選擇下列之任何二種固定座。如果推出及拉入之出力有必要同樣大時，敬請再洽談為宜！
FB			
LA LB			
CA	衝程如操超過1000mm以上時，請不要橫向安裝。		

■ L A形配管上需注意

La形缸管內徑40~100而且出入口方向使用在B(右)或者D(左)時，其配管接頭會干涉到油壓缸固定用螺絲而無法配管，在使用這種形式時，請參考下圖之樣式：



缸管內徑	a	e	f	g	h	j
40	3/8	27	30	24	32.5	M10
50	3/8	33	30	29	37.5	M12
63	3/8	36	30	31	45	M12
70	1/2	38	40	37	50	M16
80	1/2	40	40	41	55	M16
90	1/2	43	40	43	62.5	M16
100	3/4	46	42	47	67.5	M20

※如使用鎖入形配管接頭時請參照上圖選擇長形種類。

■ 技術參數

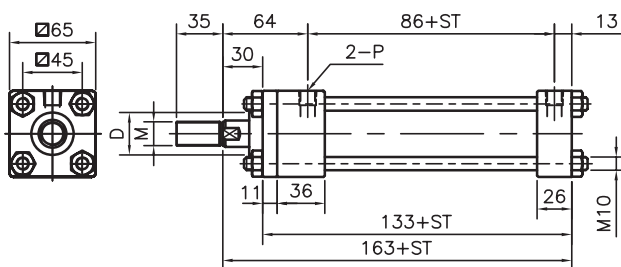
缸管內徑 mm	活塞杆徑 mm	動 作	有效面積 cm ²	出 力				流量10L/ 分之速度	速度10mm/ 秒之流量
				30kgf/cm ²	70kgf/cm ²	140kgf/cm ²	210kgf/cm ²		
40		推力	12.6	377	880	1759	2639	132.9	0.8
	20	拉力	9.4	283	660	1319	1979	177.2	0.6
	25		7.7	230	536	1072	1608	218.1	0.5
50		推力	19.6	589	1374	2749	4123	85.1	1.2
	25	拉力	14.7	442	1031	2062	3093	113.4	0.9
	30		12.6	377	880	1759	2639	132.9	0.8
63		推力	31.2	935	2181	4364	6546	53.6	1.9
	30	拉力	24.1	723	1687	3375	5062	69.3	1.4
	35		21.6	647	1509	3017	4256	77.5	1.3
70		推力	38.5	1155	2694	5388	8082	43.4	2.3
	35	拉力	28.9	866	2020	4041	6061	57.9	1.7
	40		25.9	778	1814	3629	5443	64.4	1.6
80		推力	50.3	1508	3519	7037	10556	33.2	3.0
	40	拉力	37.7	1131	2639	5278	7917	44.3	2.3
	45		34.4	1031	2405	4811	7216	48.6	2.1
90		推力	63.6	1909	4453	8906	13360	26.3	3.8
	45	拉力	47.7	1431	3340	6680	10020	35.0	2.9
	50		44.0	1319	3079	6158	9236	38.0	2.6
100		推力	78.5	2356	5495	10996	16493	21.3	4.7
	50	拉力	58.9	1767	4123	8247	12370	28.4	3.5
	60		50.3	1508	3519	7037	10556	33.2	3.0
125		推力	122.7	3682	8590	17181	25771	13.6	7.3
	60	拉力	94.4	2833	6611	13222	19833	17.7	5.7
	70		84.2	2527	5896	11793	17689	19.8	5.0
150		推力	176.7	5301	12370	24740	37110	9.5	10.6
	70	拉力	138.2	4147	9676	19352	29028	12.1	8.3
	90		113.1	3393	7917	15834	23750	14.8	6.8

■ 尺寸圖

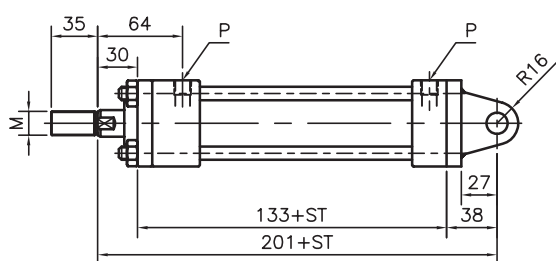
HC1- $\phi 40$

SD

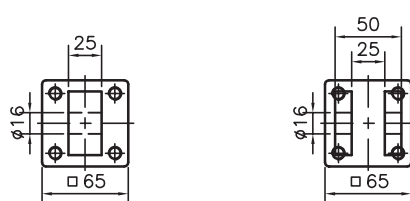
TYPE	ROD	M	D	P
A	$\phi 20$	M18*P1.5	$\phi 32$	Rc1/4"
B	$\phi 25$	M22*P1.5	$\phi 38$	



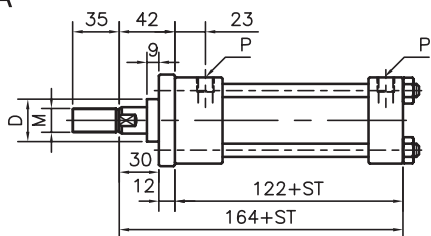
CA



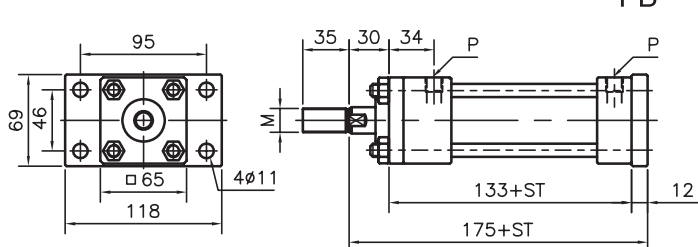
CB



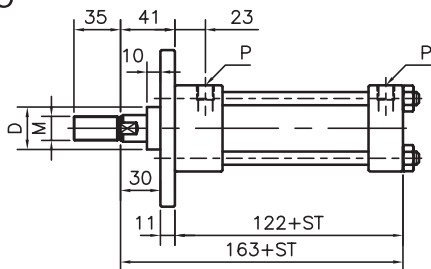
FA



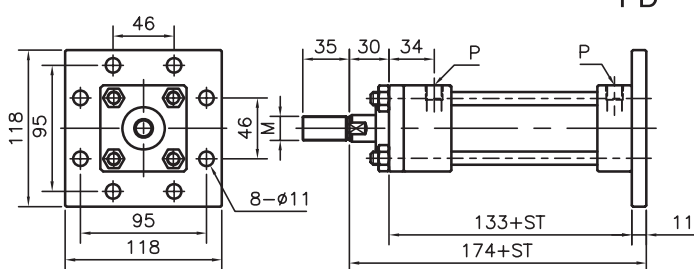
FB



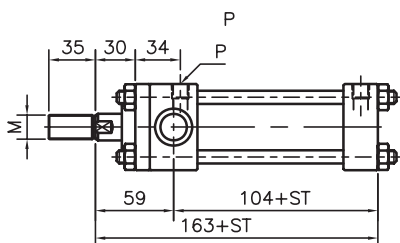
FC



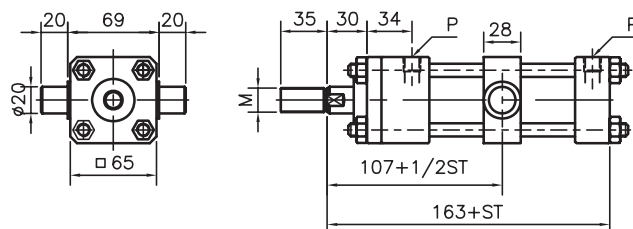
FD



TA



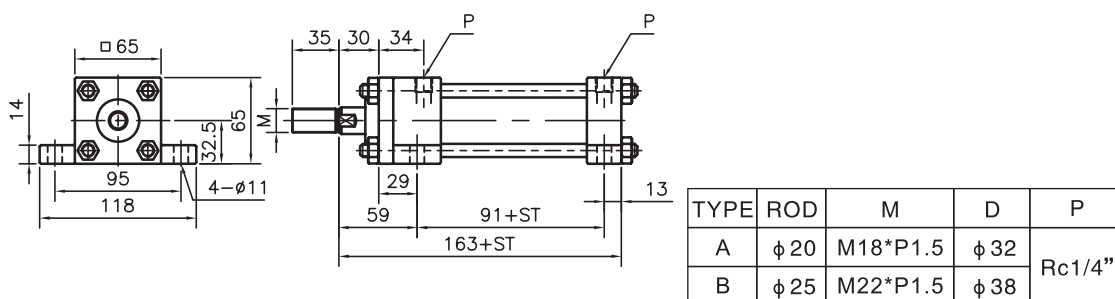
TC



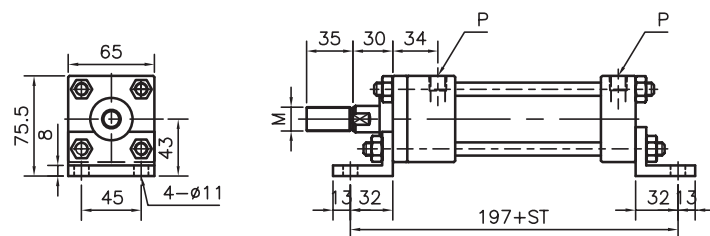
■ 尺寸圖

HC1- $\phi 40$

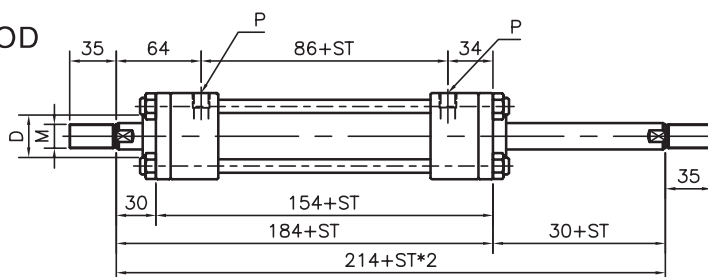
LA



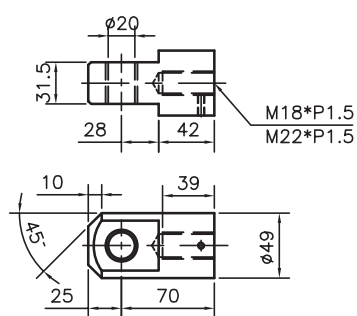
LB



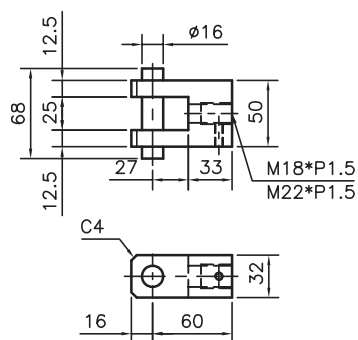
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

EX : FA, ST=200mm

weight= $W1 + (W2 * ST) = 4.5 + (0.93 * 2) = 6.36$ kg

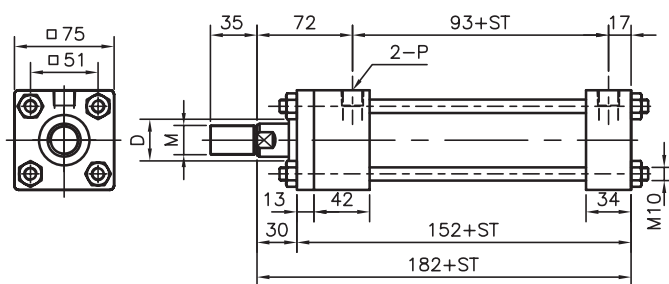
連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	4.2	4.5	5.0	5.0	5.5	4.9	4.6	4.9	4.3	4.9
W2 (kg/100mm)	0.93									

■ 尺寸圖

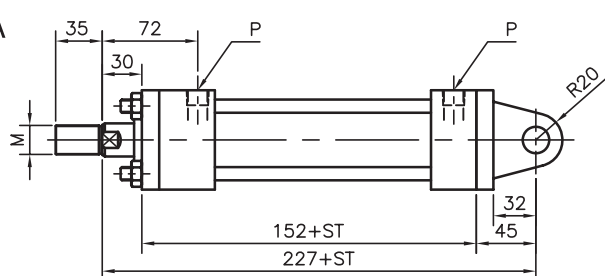
HC1- $\phi 50$

SD

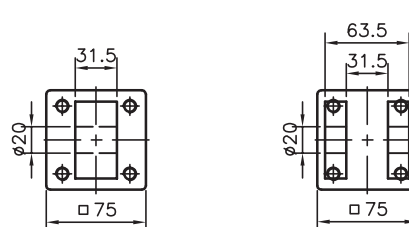
TYPE	ROD	M	D	P
A	$\phi 25$	M22*P1.5	$\phi 38$	Rc3/8"
B	$\phi 30$	M26*P1.5	$\phi 44$	



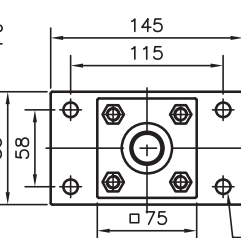
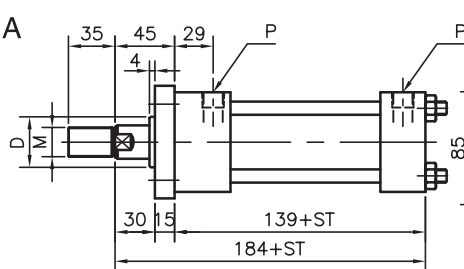
CA



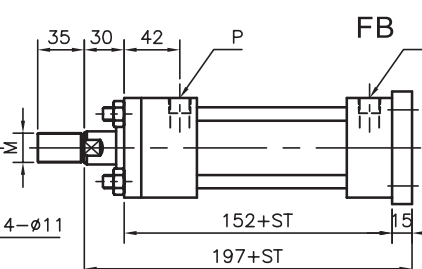
CB



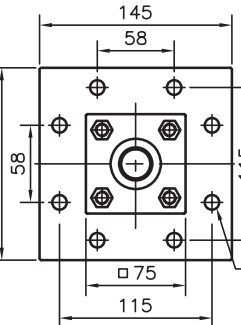
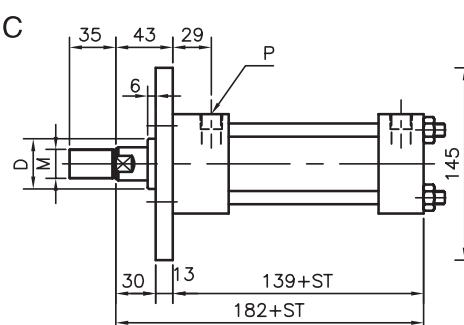
FA



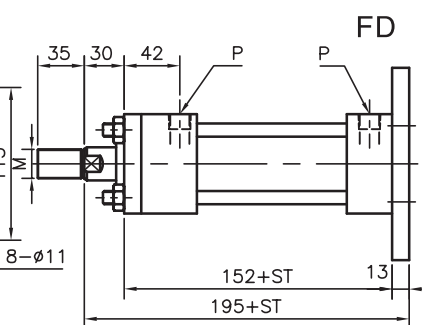
FB



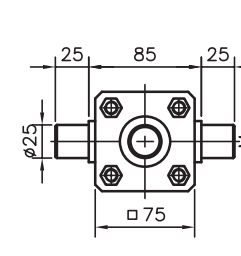
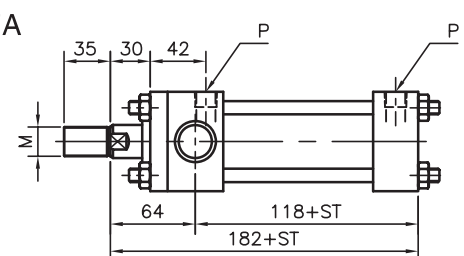
FC



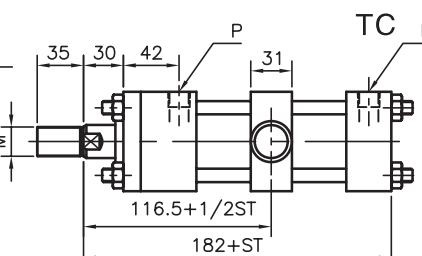
FD



TA



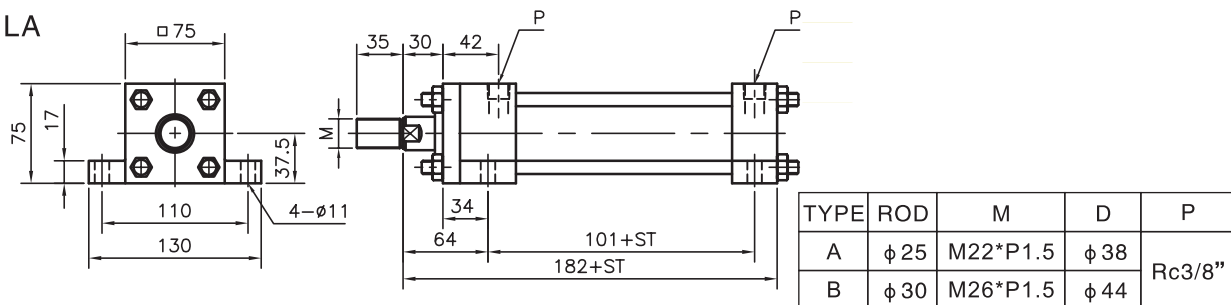
TC



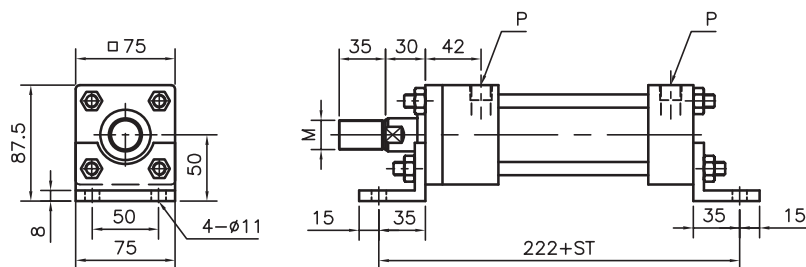
■ 尺寸圖

HC1- $\phi 50$

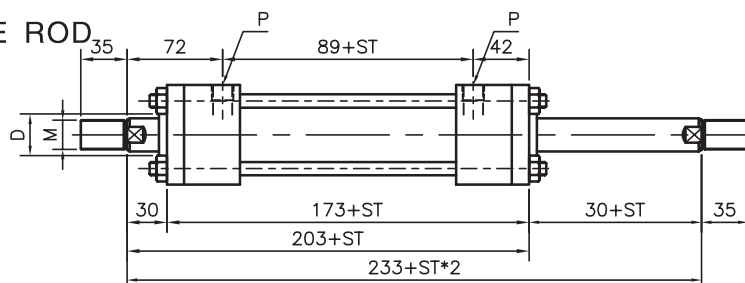
LA



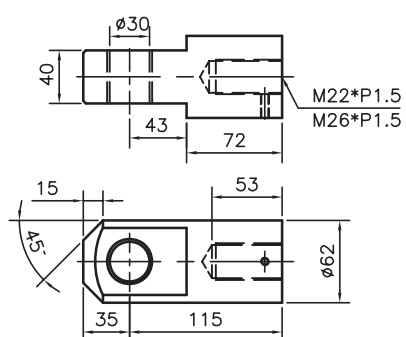
LB



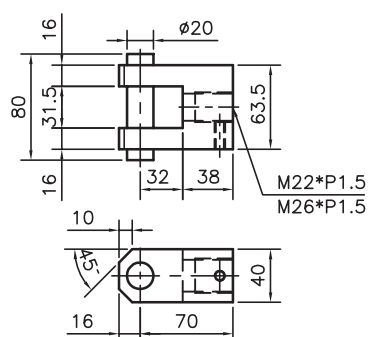
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

EX : FA, ST=200mm

weight= $W1 + (W2 * ST) = 7.2 + (1.31 * 2) = 9.82$ kg

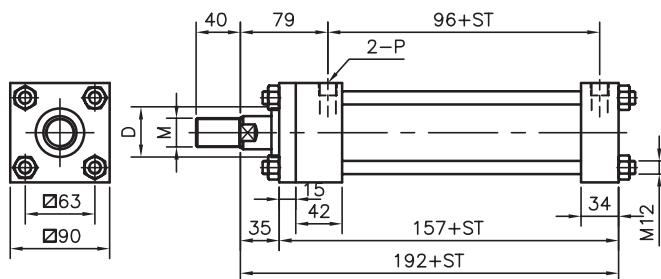
連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	6.4	7.2	7.8	8.2	8.8	7.5	6.9	7.1	6.5	7.4
W2 (kg/100mm)	1.31									

■ 尺寸圖

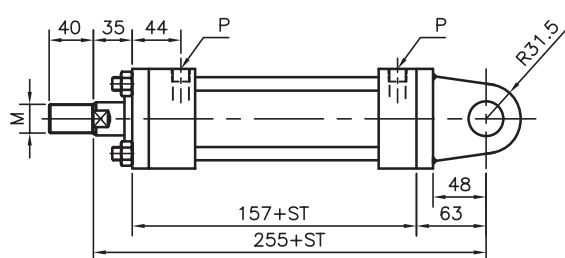
HC1- $\phi 63$

SD

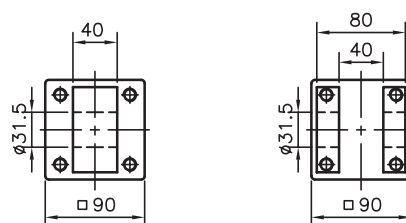
TYPE	ROD	M	D	P
A	$\phi 30$	M26*P1.5	$\phi 44$	Rc3/8"
B	$\phi 35$	M30*P1.5	$\phi 50$	



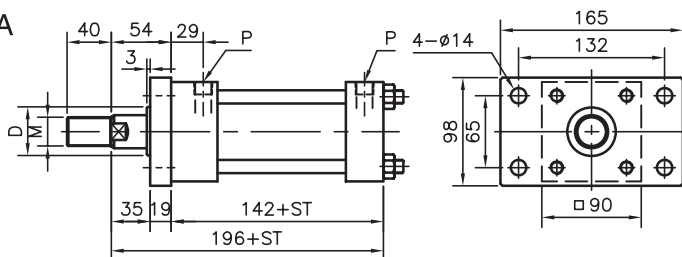
CA



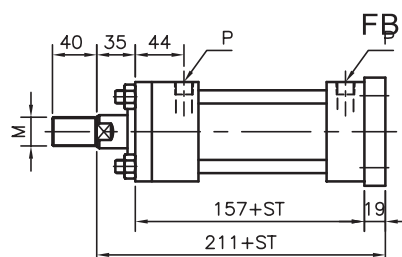
CB



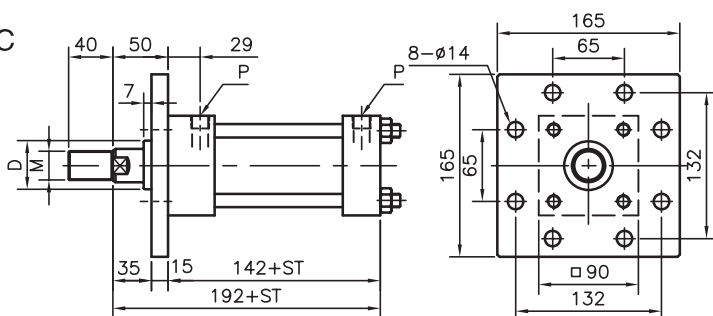
FA



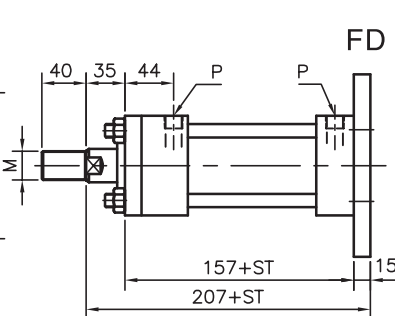
FB



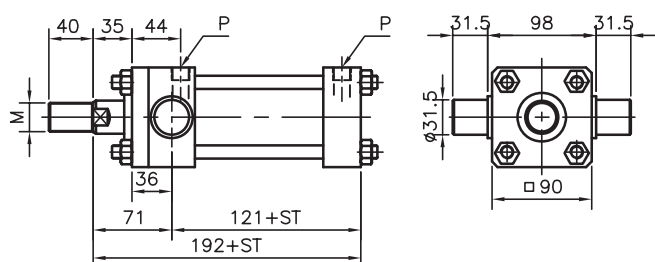
FC



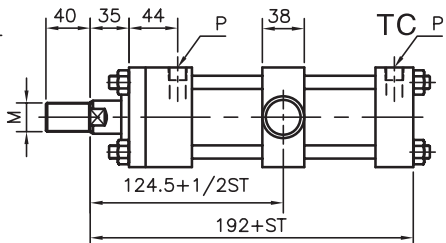
FD



TA



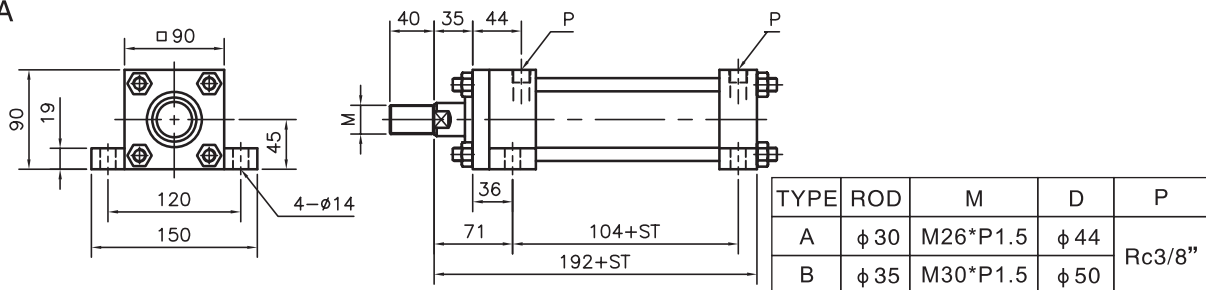
TC



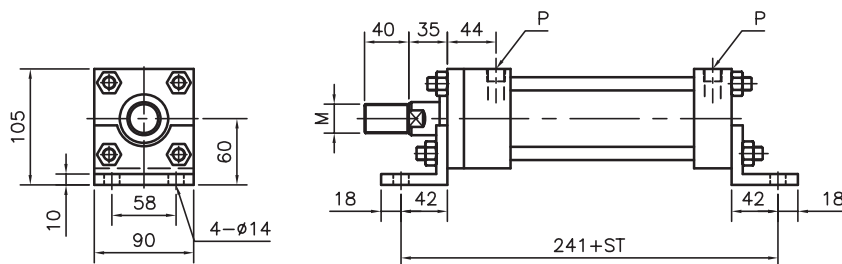
■ 尺寸圖

HC1-φ63

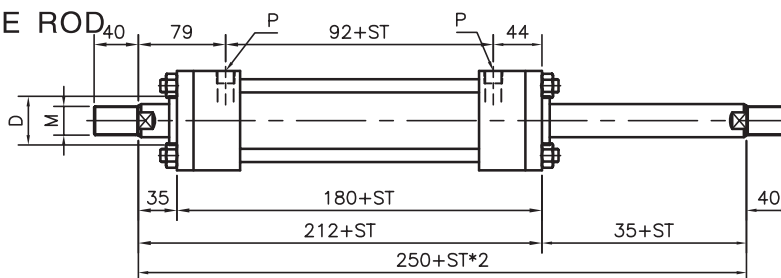
LA



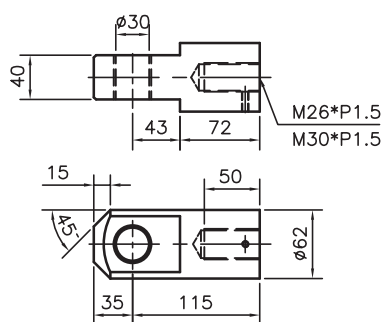
LB



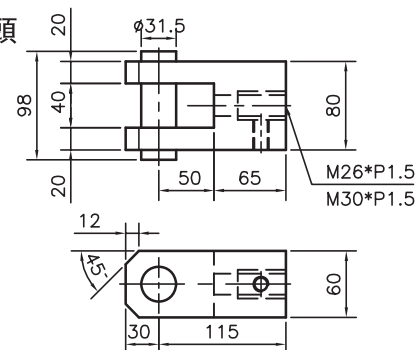
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

EX : FA, ST=200mm

weight= W1 + (W2 * ST)= 10.0 + (1.76 * 2)= 13.52 kg

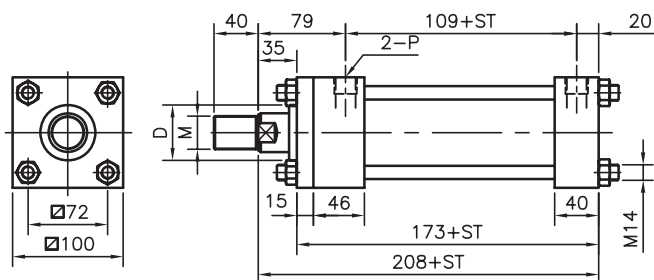
連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	8.6	10.0	11.0	10.8	11.8	11.2	9.3	10.0	9.1	11.2
W2 (kg/100mm)	1.76									

■ 尺寸圖

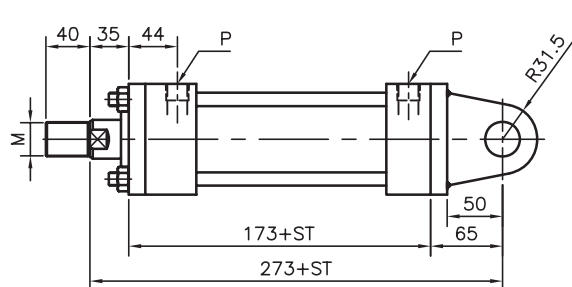
HC1- $\phi 70$

SD

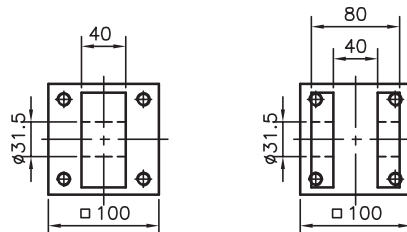
TYPE	ROD	M	D	P
A	$\phi 35$	M30*P1.5	$\phi 50$	Rc1/2"
B	$\phi 40$	M36*P2.0	$\phi 54$	



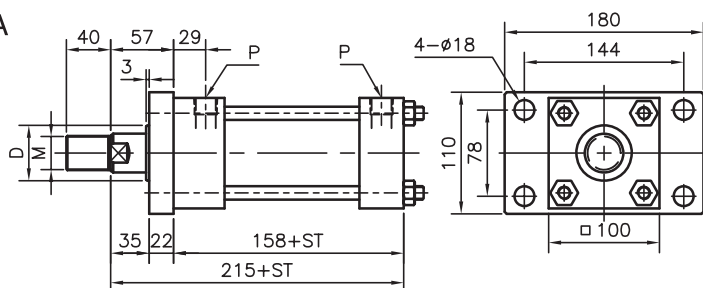
CA



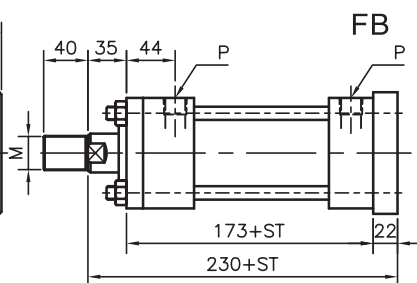
CB



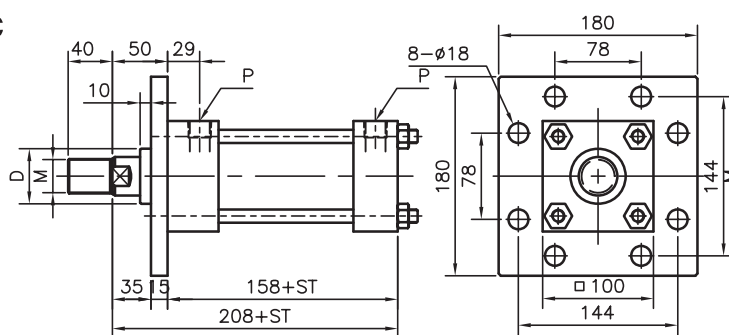
FA



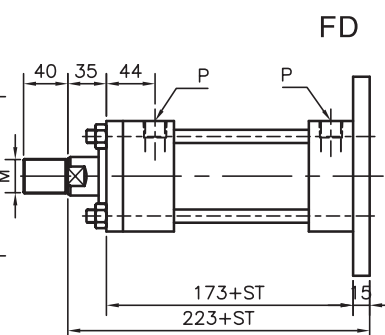
FB



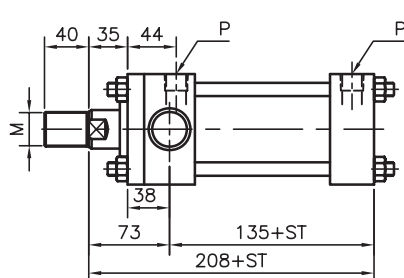
FC



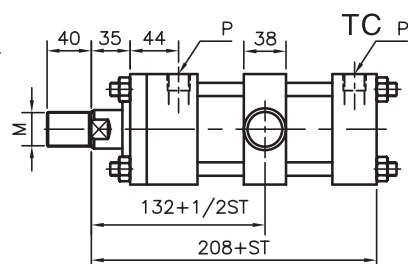
FD



TA



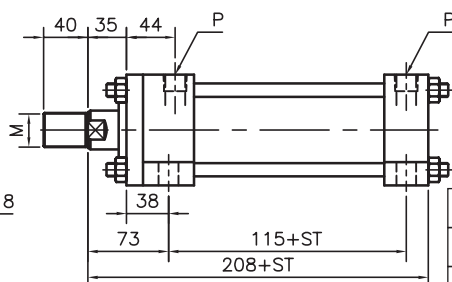
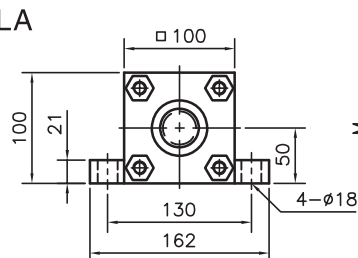
TC



■ 尺寸圖

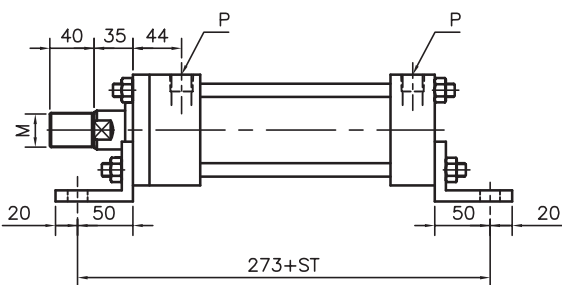
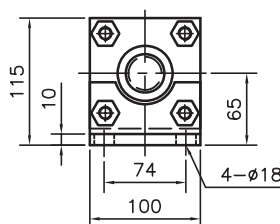
HC1-φ70

LA

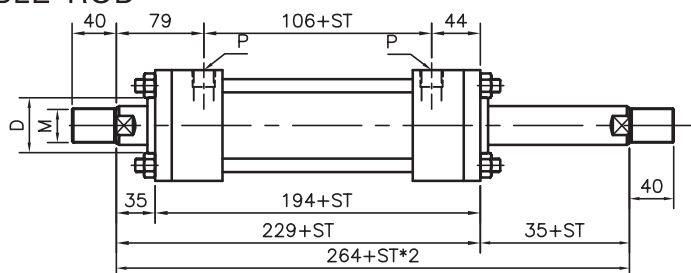


TYPE	ROD	M	D	P
A	φ 35	M30*P1.5	φ 50	Rc1/2"
B	φ 40	M36*P2.0	φ 54	

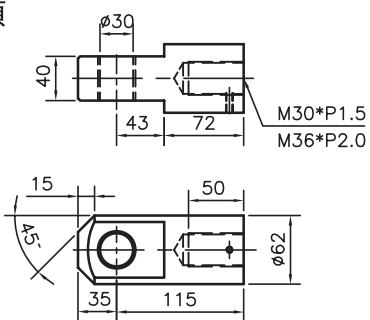
LB



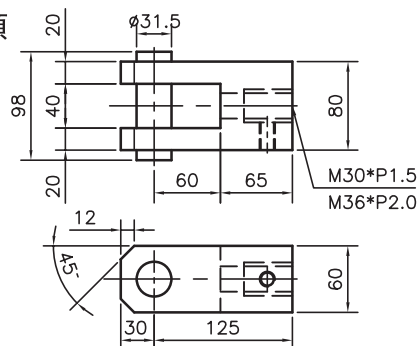
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

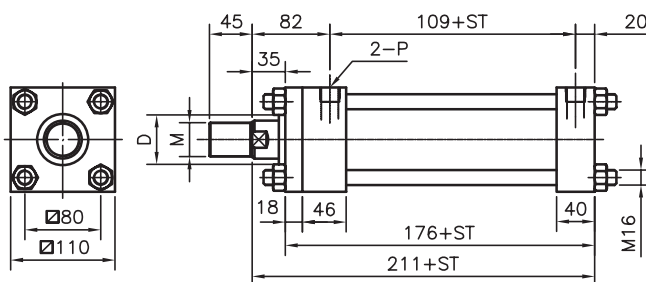
EX : FA , ST=200mm

weight= W1 + (W2 * ST)= 14.5 + (2.18 * 2)= 18.86 kg

連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	12.4	14.5	15.8	15.0	16.2	15.3	13.2	14.1	12.9	15.3
W2 (kg/100mm)	2.18									

HC 1 - $\phi 80$

TYPE	ROD	M	D	P
A	φ 40	M36*P1.5	φ 54	Rc1/2"
B	φ 45	M40*P2.0	φ 58	

[illegible]

Technical drawing of a hydraulic cylinder. The drawing includes a side view and a front view. The side view shows a cylinder with a diameter of 118 mm and a length of 215 mm. The front view shows a square flange with a side length of 155 mm and a central hole with a diameter of 110 mm. The drawing also shows a cross-section of the cylinder with a diameter of 118 mm and a length of 215 mm. The drawing includes the following dimensions and labels:

- 45, 57, 29, 3, P, P, 4- $\varnothing 18$, 190, 155, 118, 87, 35, 22, 158+ST, 215+ST, $\square 110$, D, M.

Technical drawing of a mechanical assembly. Dimensions are given in mm. The drawing shows a cross-section of a component with a central shaft. Key dimensions include: 45, 35, 47, 176+ST, 233+ST, 22, and 2. Labels include M, P, FB, and F.

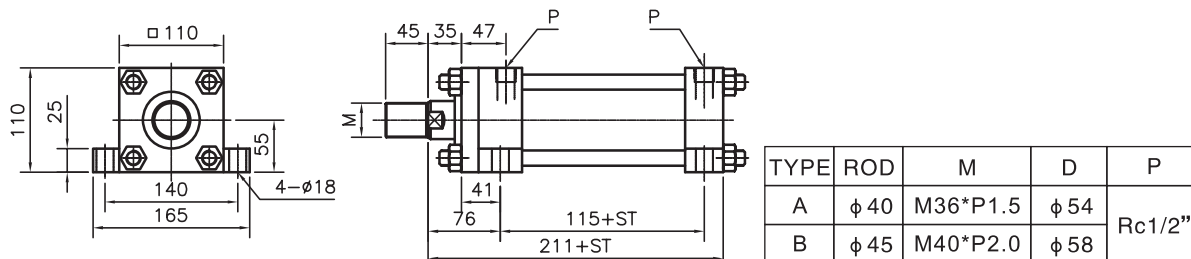
[illegible][illegible]

Technical drawing of a 4-way valve assembly. The front view (left) shows a square body with a central circular port and four side ports. Dimensions include a central port diameter of $\varnothing 31.5$, side port diameters of 31.5, and a square body width of 118. The side view (right) shows the valve's profile with dimensions for port diameters (45, 35, 47, 38), a central port diameter of $\varnothing 31.5$, and overall lengths of $135 + 1/2ST$ and $211 + ST$. Labels 'P' and 'TC' indicate pressure and temperature measurement points.

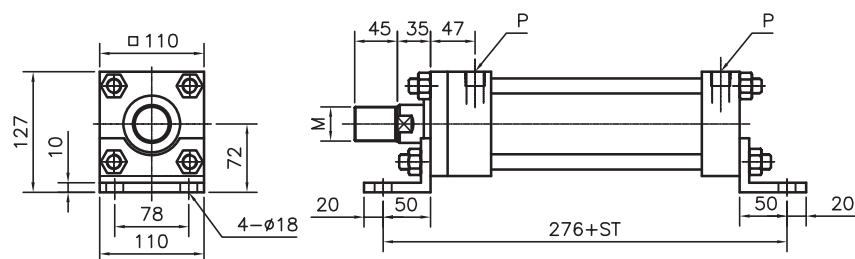
■ 尺寸圖

HC1- $\phi 80$

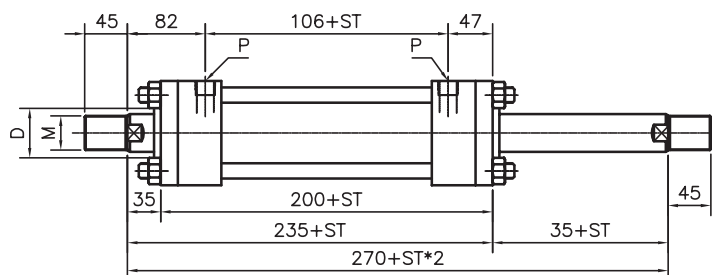
LA



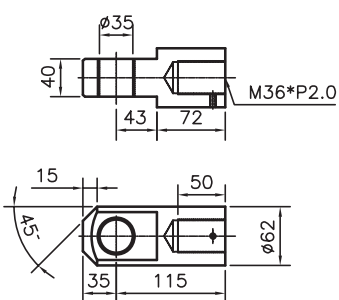
LB



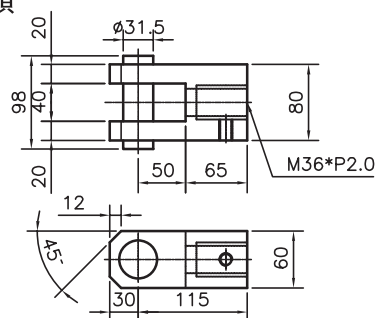
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

EX : FA, ST=200mm

weight= W1 + (W2 * ST)= 17.8 + (2.68 * 2)= 23.16 kg

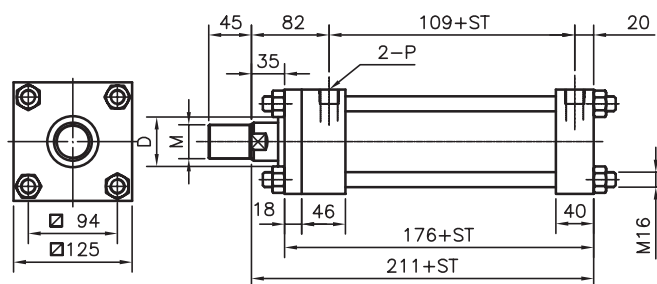
連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	15.7	17.8	19.0	19.0	20.1	18.9	16.0	17.7	15.7	17.3
W2 (kg/100mm)	2.68									

■ 尺寸圖

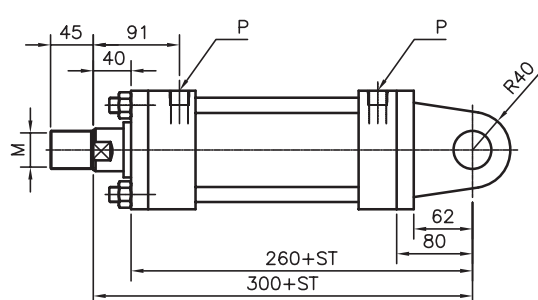
HC1- $\phi 90$

SD

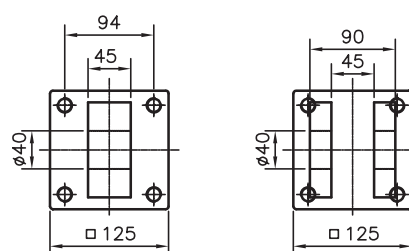
TYPE	ROD	M	D	P
A	$\phi 45$	M40*P2.0	$\phi 58$	Rc1/2"
B	$\phi 50$	M45*P2.0	$\phi 64$	



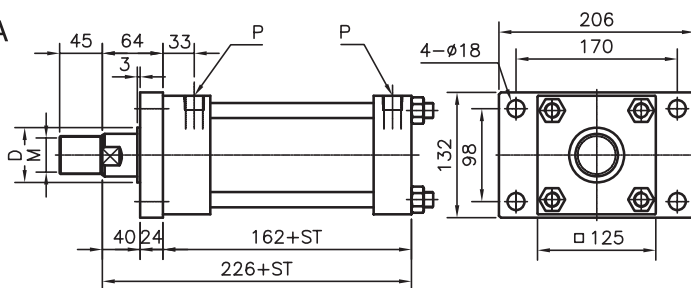
CA



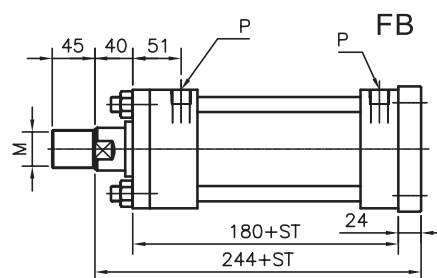
CB



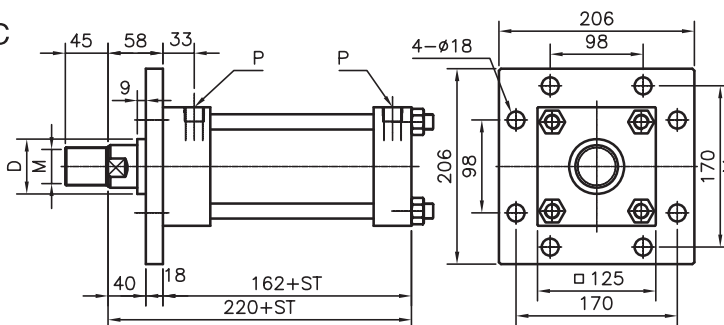
FA



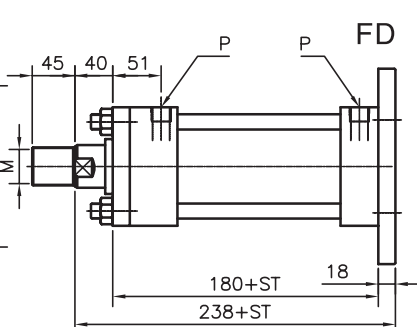
FB



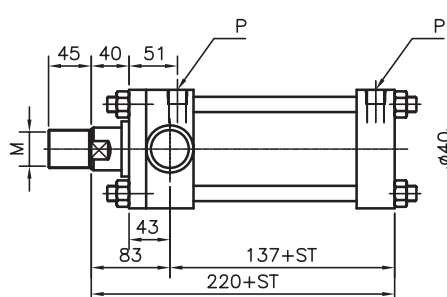
FC



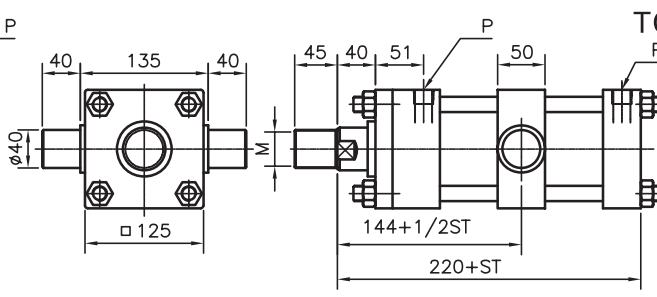
FD



TA



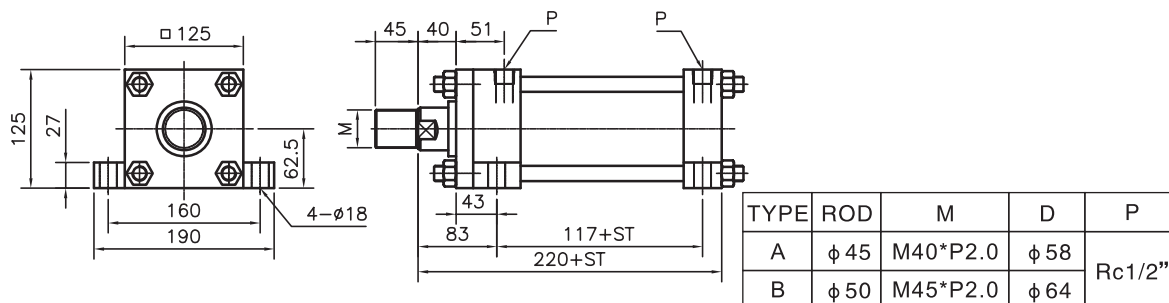
TC



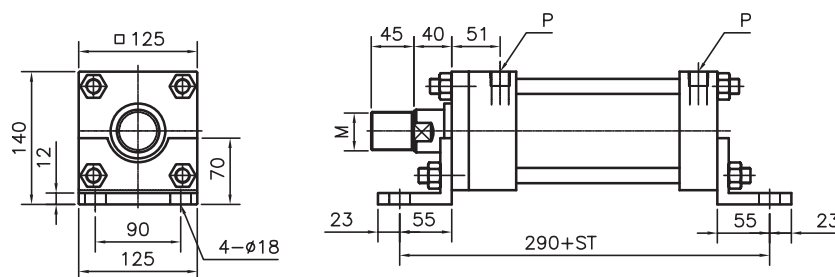
■ 尺寸圖

HC1-φ90

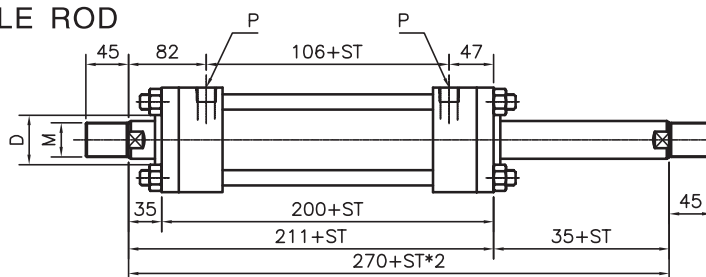
LA



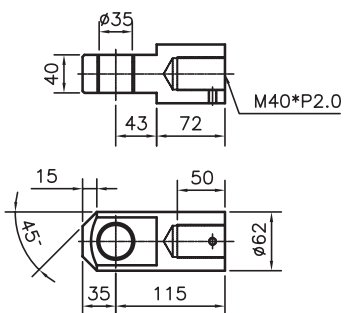
LB



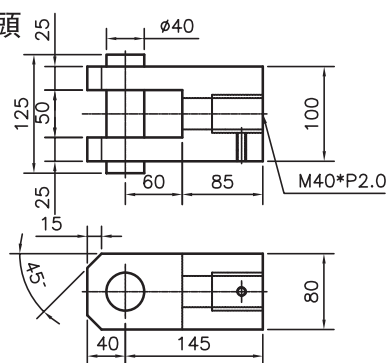
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

EX : FA, ST=200mm

weight= W1 + (W2 * ST)= 23.0 + (3.1 * 2)= 29.2 kg

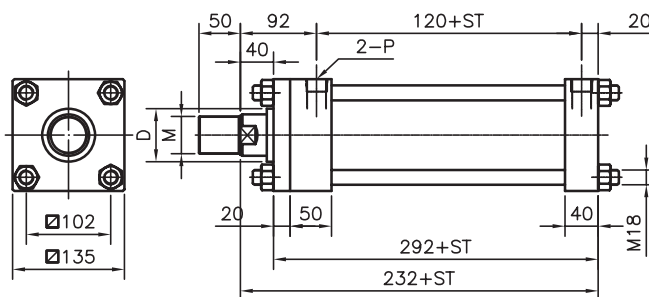
連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	20.3	23.0	25.3	23.9	26.1	25.4	21.4	23.4	21.3	24.3
W2 (kg/100mm)	3.1									

■ 尺寸圖

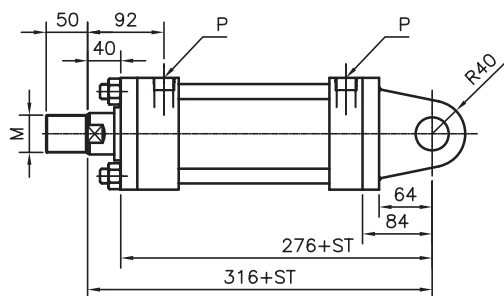
HC1- $\phi 100$

SD

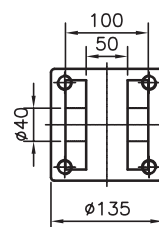
TYPE	ROD	M	D	P
A	$\phi 50$	M45*P2.0	$\phi 64$	Rc3/4"
B	$\phi 60$	M55*P2.0	$\phi 75$	



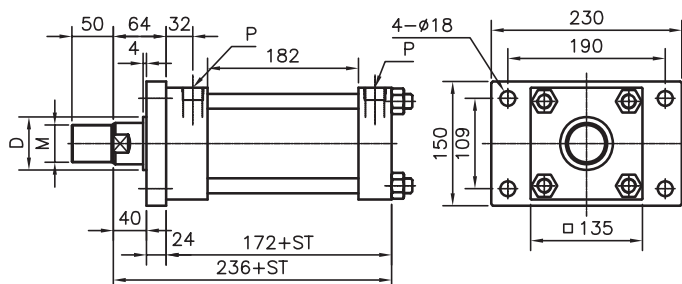
CA



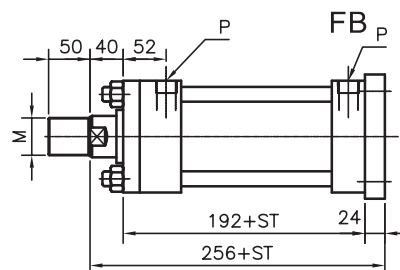
CB



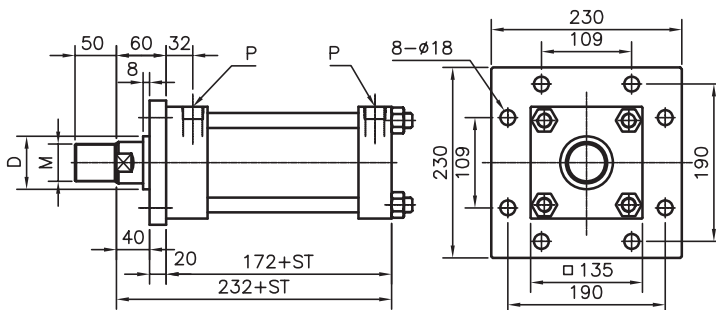
FA



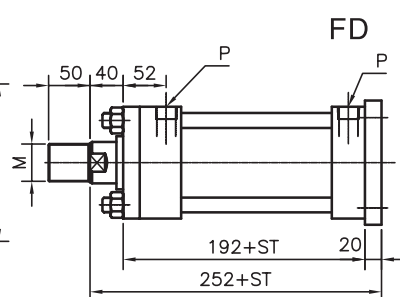
FB



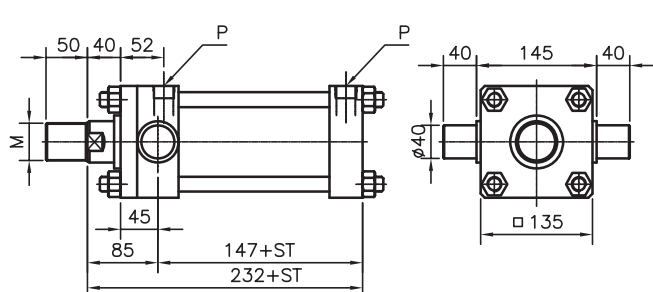
FC



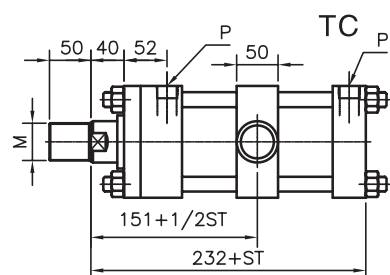
FD



TA



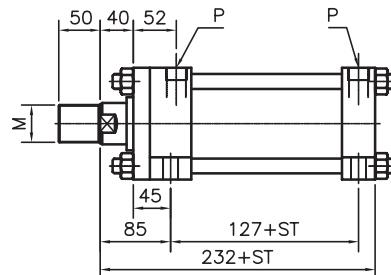
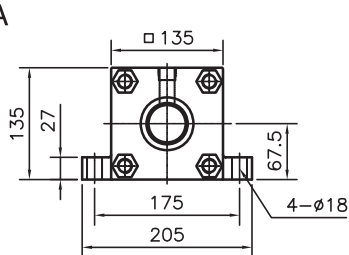
TC



■ 尺寸圖

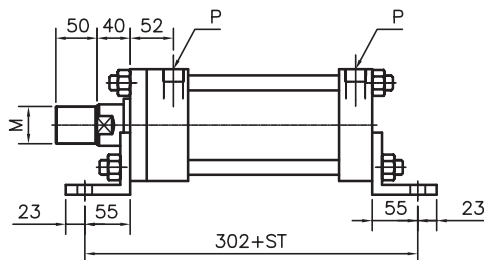
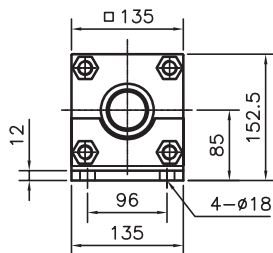
HC1- $\phi 100$

LA

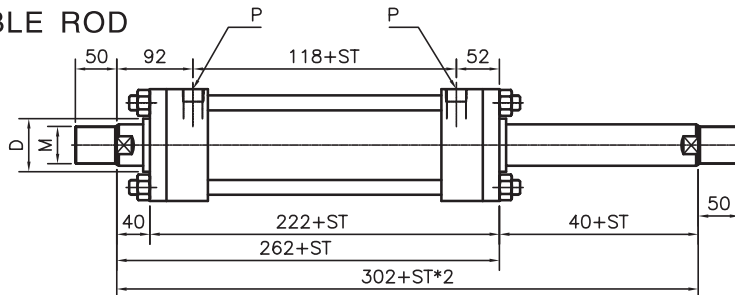


TYPE	ROD	M	D	P
A	$\phi 50$	M45*P2.0	$\phi 64$	Rc3/4"
B	$\phi 60$	M55*P2.0	$\phi 75$	

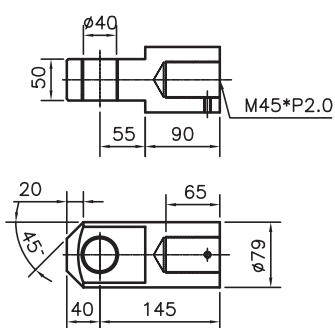
LB



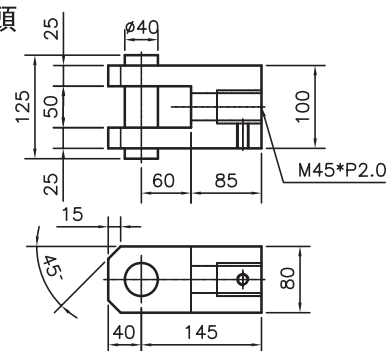
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

EX : FA, ST=200mm

weight= W1 + (W2 * ST)= 26.6 + (4.2 * 2)= 35.0 kg

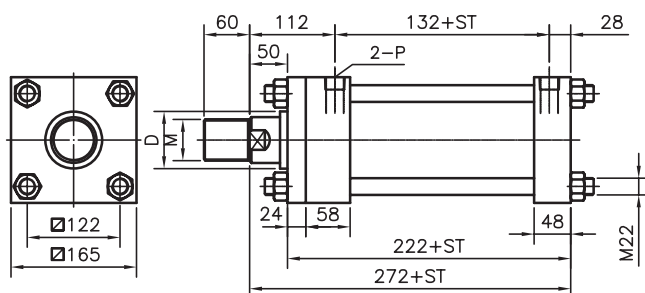
連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	23.1	26.6	29.5	28.4	31.2	29.9	24.5	26.7	24.8	27.4
W2 (kg/100mm)	4.2									

■ 尺寸圖

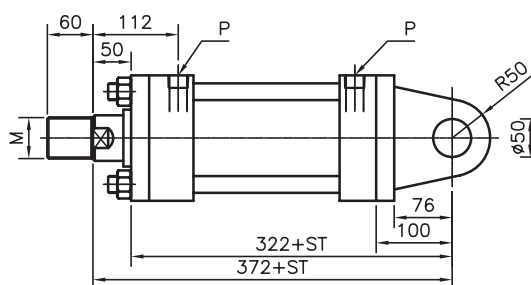
HC1- $\phi 125$

SD

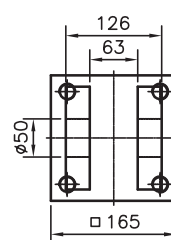
TYPE	ROD	M	D	P
A	$\phi 60$	M55*P2.0	$\phi 75$	Rc3/4"
B	$\phi 70$	M65*P2.0	$\phi 85$	



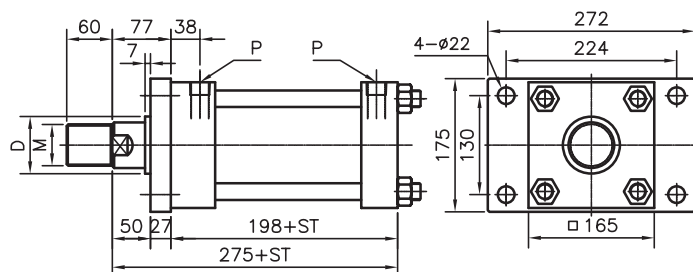
CA



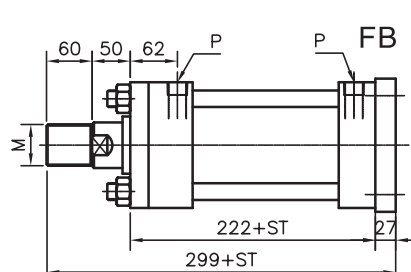
CB



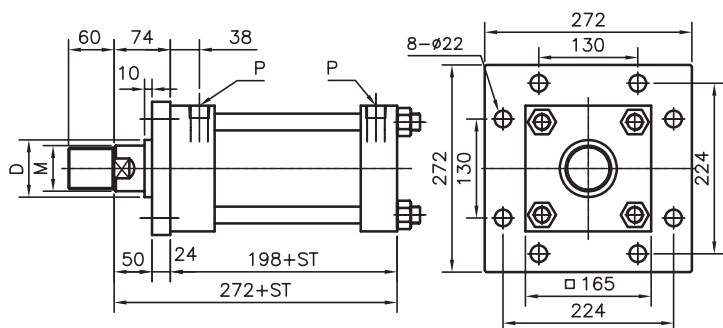
FA



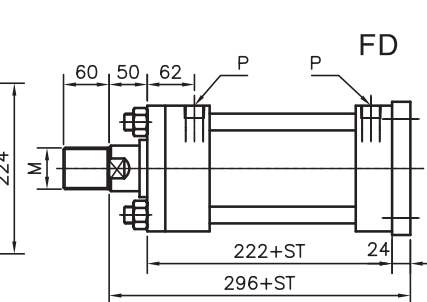
FB



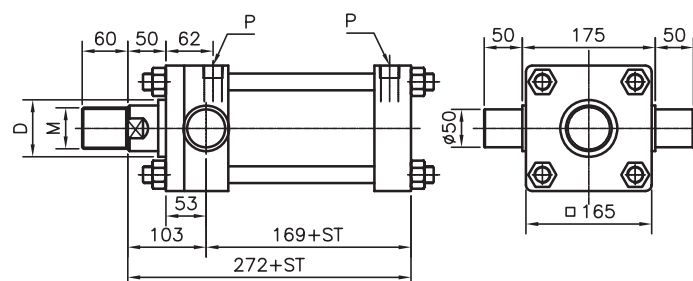
FC



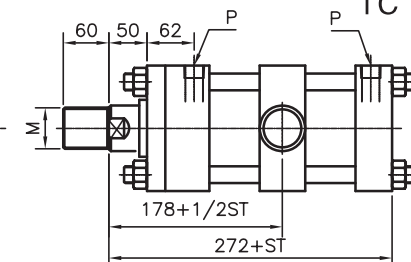
FD



TA



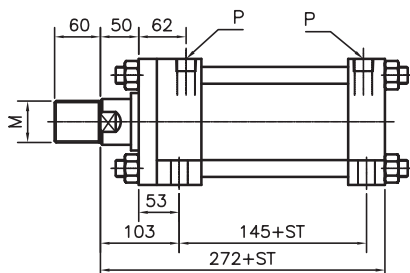
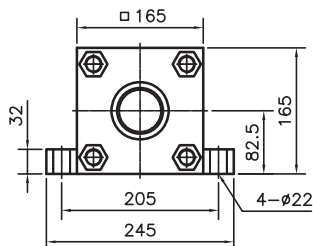
TC



■ 尺寸圖

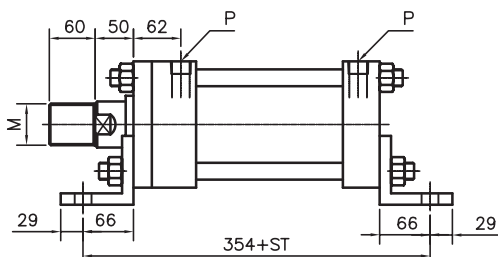
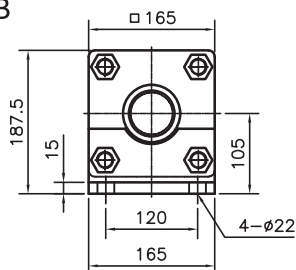
HC1-φ125

LA

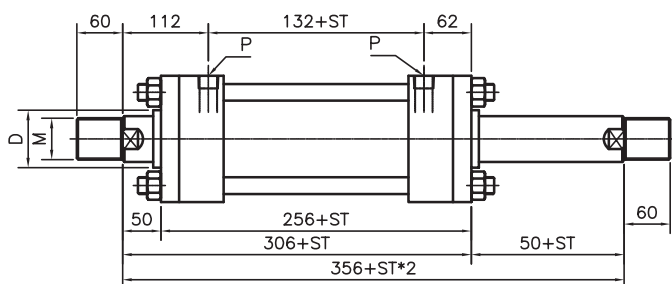


TYPE	ROD	M	D	P
A	φ 60	M55*P2.0	φ 75	Rc3/4"
B	φ 70	M65*P2.0	φ 85	

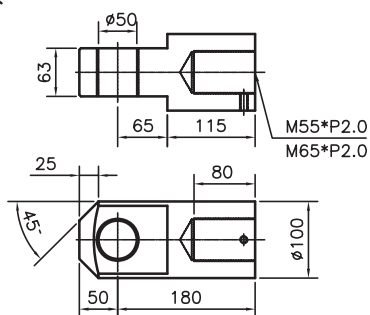
LB



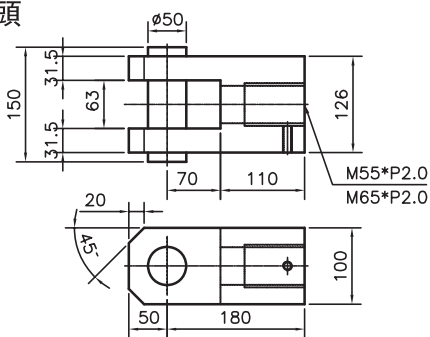
DOUBLE ROD



I接頭



Y接頭



■ 油壓缸大概重量計算

EX : FA , ST=200mm

weight= W1 + (W2 * ST)= 45.5 + (5.9 * 2)= 57.3 kg

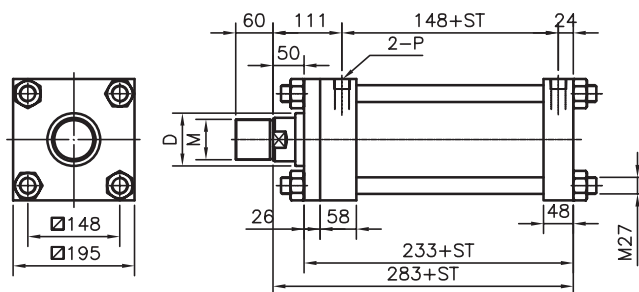
連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	40.7	45.5	50.7	49.4	54.5	51.6	43.0	47.2	42.6	48.2
W2 (kg/100mm)	5.9									

■ 尺寸圖

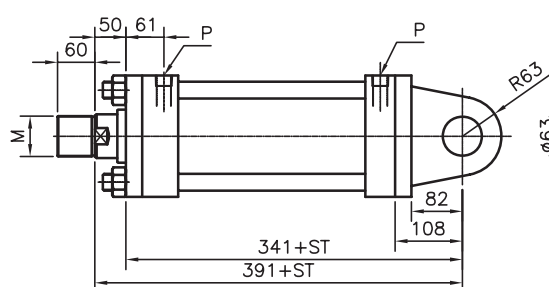
HC1- $\phi 150$

SD

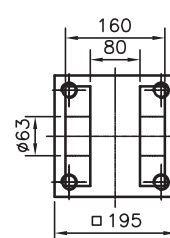
TYPE	ROD	M	D	P
A	$\phi 70$	M65*P2.0	$\phi 85$	Rc3/4"
B	$\phi 90$	M85*P2.0	$\phi 105$	



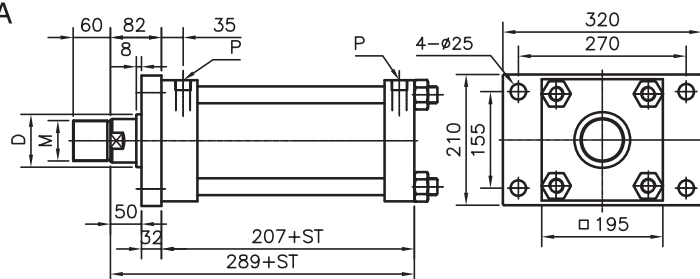
CA



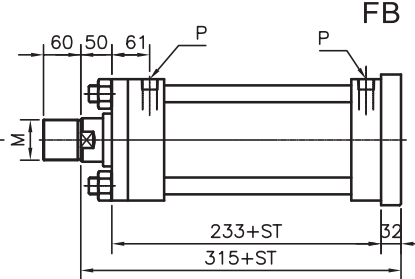
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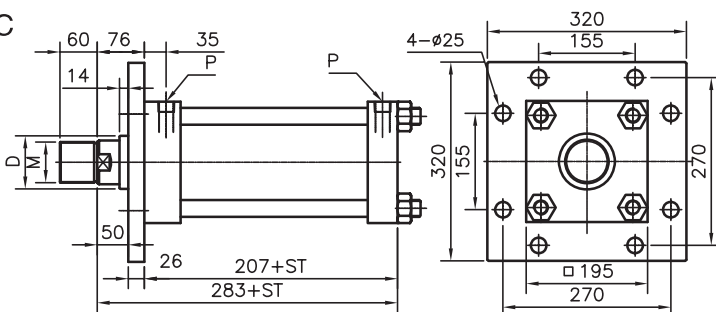
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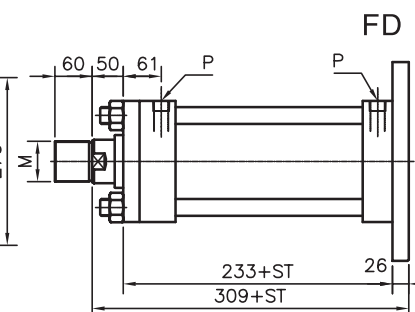
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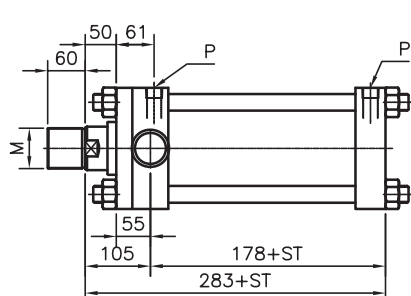
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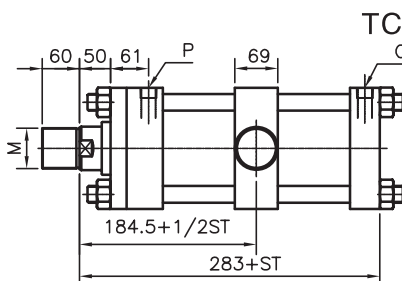
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TA



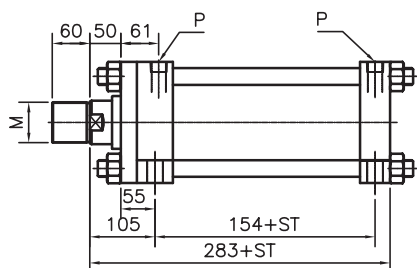
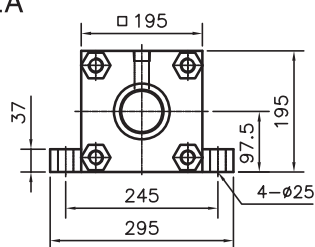
TC



■ 尺寸圖

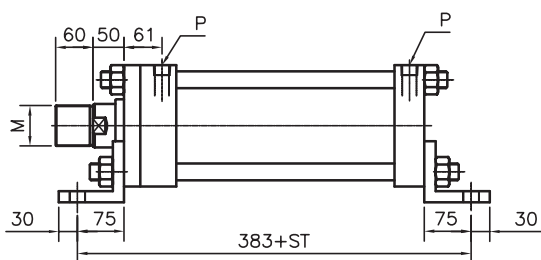
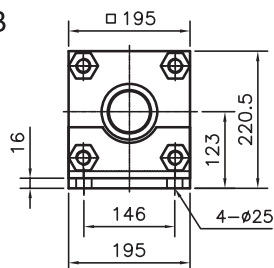
HC1- $\phi 150$

LA

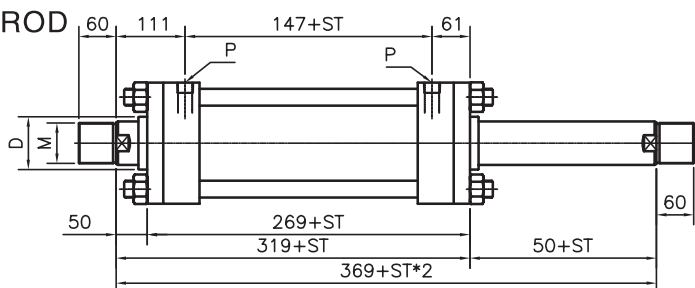


TYPE	ROD	M	D	P
A	$\phi 70$	M65*P2.0	$\phi 85$	Rc3/4"
B	$\phi 90$	M85*P2.0	$\phi 105$	

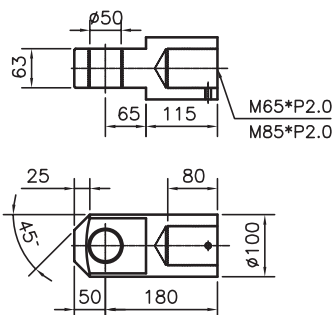
LB



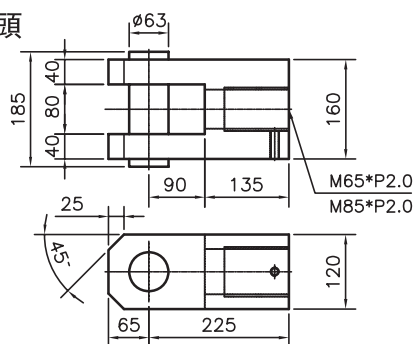
DOUBLE ROD



I接頭



Y接頭



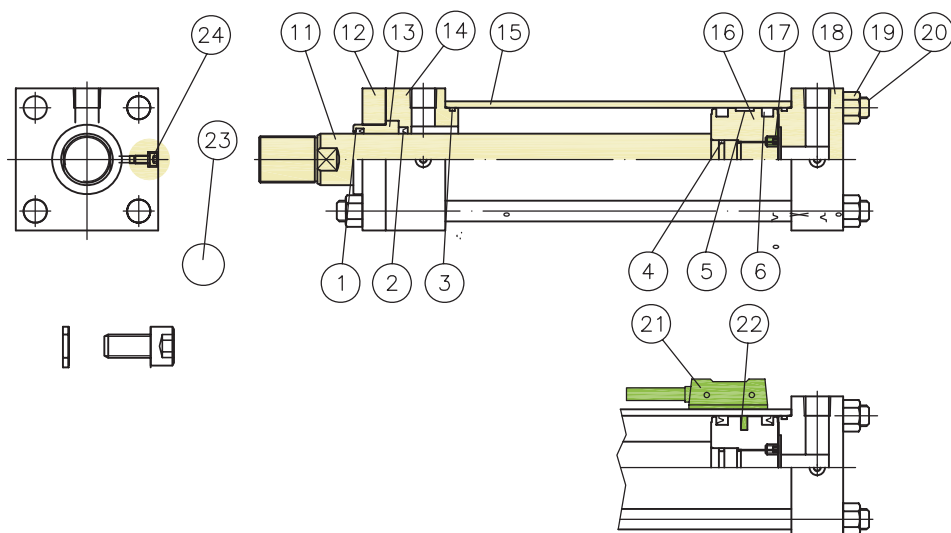
■ 油壓缸大概重量計算

EX : FA, ST=200mm

weight= W1 + (W2 * ST)= 66.5 + (8.2 * 2)= 82.9 kg

連接形式	SD	FA	FB	FC	FD	CA	LA	LB	TA	TC
W1 (kg)	57.7	66.5	74.2	70.5	77.9	74.6	43.0	47.2	42.6	48.2
W2 (kg/100mm)	8.2									

HC 1



■ 零件名稱及材質表

NO	名稱	材質	Q'TY	NO	名稱	材質	Q'TY
11	活塞杆	機械構造用碳鋼	1	18	後蓋	一般構造用軋鋼	1
12	壓板	一般構造用軋鋼	1	19	六角螺帽	一般構造用軋鋼	4
13	銅襯	銅合金	1	20	支杆	機械構造用碳鋼	4
14	前蓋	一般構造用軋鋼	1	21	感測器		*
15	缸管	機械構造用碳鋼鋼管	1	22	磁石		*
16	活塞	一般構造用軋鋼	1	23	銅墊片	銅合金	2
17	防鬆螺絲	機械構造用碳鋼	1	24	六角承窩螺絲	機械構造用碳鋼	2

■ 油封規格表

NO	1		2		3	4	5	6
名稱	防塵油封		軸心油封		O型環	O型環	耐磨片	活塞油封
材質	PU		PU		NBR	NBR	PTFE	PU
數量 內徑	$\phi, \phi.W$	1 mm	$\phi, \phi.W$	1 mm	2	1	1	2 mm
	A	B	A	B				$\phi, \phi.-$
$\phi 40$	20-28-6	25-33-6	20-28-5	25-33-5	G-35	P-12	40-2.5	40-30-6
$\phi 50$	25-33-6	30-38-6.5	25-33-5	30-40-6	G-45	P-16	50-2.5	50-40-6
$\phi 63$	30-38-6.5	35-43-6.5	30-40-6	35-45-6	G-58	P-18	63-2.5	63-53-6
$\phi 70$	35-43-6.5	40-48-6.5	35-45-6	40-50-6	G-65	P-22	70-2.5	70-60-6
$\phi 80$	40-48-6.5	45-53-6.5	40-50-6	45-55-6	G-75	P-25	80-2.5	80-70-6
$\phi 90$	45-53-6.5	50-58-6.5	45-55-6	50-60-6	G-85	G-30	90-2.5	90-80-6
$\phi 100$	50-58-6.5	60-68-6.5	50-60-6	60-70-6	G-95	G-35	100-2.5	100-85-9
$\phi 125$	60-68-6.5	70-80-8	60-70-6	70-80-6	G-125	G-45	125-2.5	125-112-9
$\phi 150$	70-80-8	90-100-8	70-80-6	90-105-9	G-145	G-55	150-2.5	150-136-9