

# HC3系列油壓缸 HC3 Series Hydraulic Cylinders

## 軋製鋼形 標準油壓缸 MILL TYPE Standard Hyd. Cylinders

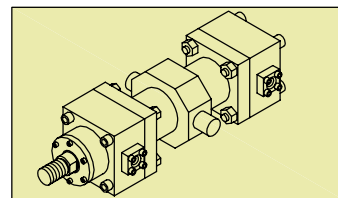
油慶公司之HC3形標準油壓缸,是著重於製鐵機械等,在較其嚴酷之條件使用為目的,而設計製造適用於,苛酷的環境,重負荷及高壓衝擊的油壓缸

- \* 加工精度,表面處理,油封材質等各零件都極為考慮的高性能油壓缸
- \* 振動,衝擊和瞬間極壓等均安全,且具有緩慢順滑之緩衝效果

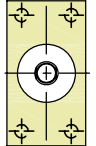
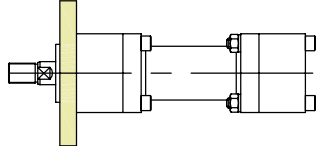
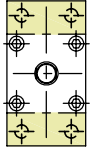
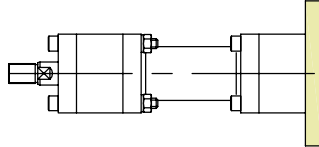
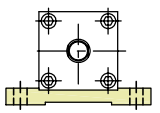
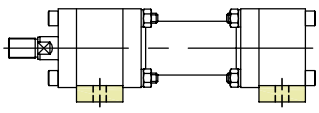
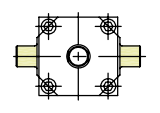
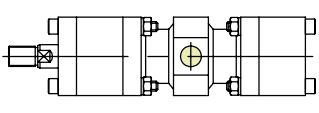
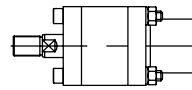
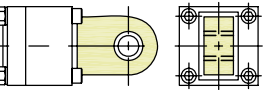
HC3 Mill Type hyd cylinders are specially employed in steel mill plant and designed which meet strictly environmental condition application, heavy load and anti impulse burst pressure etc.,

- \* Those are emphasised on processing precision surface treatment & oil sealer's material and for which high performance hyd cylinder.
- \* Vibration resistant, impulse resistant and anti instantaneous burst pressure especially for which being with moved slowly & smoothly etc., cushioning effectness.

### \* 規範 Specifications



### \* 固定座形式 Mounting :

名稱	前蓋端長方形法蘭形	Rectangular flange at cylinder head
FA		
名稱	後蓋端長方形法蘭形	Rectangular flange at cylinder cap
FB		
名稱	軸直角方向腳架形	Foot mounting
LA		
名稱	中間固定支撐形	Centre Trunnion mounting
TC		
名稱	山形座(1山形)	Plain clevis at cylinder cap
CA		

除固定形式TC外,行程未超過100MM必須全部使用繫桿式螺絲如下圖

Besides the TC mountings if the stroke is less than 100mm which all must used intensified screw bolt.

缸管內徑 mm Cylinder Bore	行程 Stroke	缸管內徑 mm Cylinder Bore	行程 Stroke
50~80	未滿 100	140~200	未滿 200
100~150	未滿 150	224~250	未滿 250

項目 Item	型式 Model	HC3系列 HC3 Series
缸管內徑 Cylinder Bore	mm	50, 63, 80, 100 125, 140, 160, 180 200, 224, 250
固定座形式 Mounting		FA, FB, LA, TC, CA
使用壓力 Operating Pressure		140kgf/cm <sup>2</sup>
* 1 最高使用壓力 Max. Operating Press.		230kgf/cm <sup>2</sup>
最低作動壓力 Min Operating Pres		5 kgf/cm <sup>2</sup>
* 2 最高使用速度 Max. Operating Speed		800mm/sec
最低使用速度 Min Operating	缸管內徑 50~140	30 mm/sec
* 3 Speed	160~250	20 mm/sec
最大衝程 Max. Stroke	mm	參考彎曲強度限制值(DRAW)
* 4 周圍溫度範圍 Range of Ambient Temperature	℃	-10~+80
衝程之容許差 Tolerance of Stroke		JIS B 8354 A級 Refer to Righ Table
活塞桿前端螺紋精度 Accuracy of Threading at Rod End		JIS B 0211-6g(2級)

- 1.最高使用壓力是含瞬間上擠壓,強度上可使用最高壓力
- 2:負載之貫性而使缸管發生壓力,請使用在最高壓力值下
- 3:最低使用速度值,不包含緩衝之行程
- 4:油封如果使用氟素橡膠VITON材質其溫度可使用至+160℃

- 1;The max. operating pressure which means the max. operating pressure at instantaneous bursting intensity.
- 2;The max. operating pressure which no initera loading pressure included.
- 3;The lowest speed value which no cushioning stroke included.
- 4;if employed the VITON oil sealer and the temp can be reached +160℃

### \* 衝程之容許差 Tolerance of Stroke

衝程 mm Stroke	容許差mm Tolerance	衝程 mm Stroke	容許差mm Tolerance
~100	+0.8	1000~1600	+1.6
100~250	+1.0	1600~2000	+1.8
250~630	+1.25	2000~2500	+2
630~1000	+1.4	2500~3000	+2.5

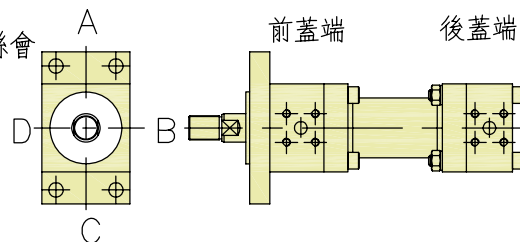
# HC3 訂購內容索引 Ordering Index :

140	HC3	LA	125	A	100	N	BAD	S	K	V
使用壓力140/230 kgf/cm <sup>2</sup> Max. Operating Pres.	HC3:系列 HC3:Series Number	固定座形式 Mounting FA, FB, LA, TC, CA	缸管內徑 Cylinder Bore mm 50, 63, 80, 100, 125, 140 160, 180, 200, 224, 250	活塞桿徑記號 Rod Type A:系列 B:系列	衝程 Stroke mm 要考慮最大容許衝程 Max. Permissible stroke	緩衝形式 Location of Cushioning B:前後蓋緩衝 B:The head and cap with cushioning R:前蓋緩衝 R:The head with cushioning H:後蓋緩衝 H:The cap with cushioning N:沒有緩衝 N:No cushioning	出入口型式 Port Type SSA, SSA-B, LSA, RC	油封材質PU,NBR,VITON Seal PU NBR VITON	特殊附件 Optionals F:附防塵套K:附固定螺帽 L:附I接頭 F:With dust-protective cover K:With locking nut L:With I adapter	B出入口之方向 B:Port Position A緩衝調整器方向 A:Cushioning Valve Position D排氣孔之方向 D:Air Vent Position 從前蓋端看 B:右(標準)A:上(標準)D:左(標準) View from cylinder head B:Right std, A:Up std,D: Left std, N:沒有調整器 N:No regulator

\* 各種特殊附件可以組合使用 - 例如:FKL  
The optional attachment can be employed in integral as item E such as FKL

## \* 出入口緩衝調整器及排氣孔的方向 Port Cushioning & Air Vent Positions

- 1:FA和FB形須注意之出入油口位置,缸管內徑50-80mm之固定座螺絲會與出入口用法蘭接觸到,所以出入油口之位置避免設置於(A)上及(C)下
- 2:標準之位置,出入油口在(B)緩衝調整器在(A)
- 3:出入口位置及緩衝調整器位置不可以在同方向 -
- 4:出入口油口,緩衝調整器及排氣孔方向,各自之方向表示,是從前蓋端看依順時針方向(A)(B)(C)(D)排成



- 1:FA,FB Type which must cared port position and the bore dia: 50~80mm for which the mounting screw may be disturbed with the flange of port so that,the port position must avoided set at up of (A) or lower of (C).
- 2:The standard position of port at (B)and cushioning regulator's position at (A).
- 3:Especially the port position & cushioning regulator will not at same direction.
- 4:As for the port position,cushioning regulator and air vent position etc., directioning which toward the cylinder head and turn in clockwise (A)(B)(C)(D)in series.

## \* 固定座形式 Mounting :

要推出或拉入原則上以出力大的一方為基準,參照下表選擇適當的固定方法如果推出及拉入有必要同樣大時,敬請再再洽談為宜  
Refer following configuration to select the suitable mounting and the retracting and extending for which emphasised at big output As for,in same output which must consult us.

推出 Extending		拉入 Retracting	
FA	FB	FA	FB

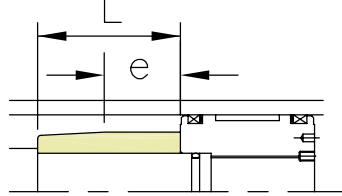
**緩衝 Cushioning:**

\*缸管內徑50，60mm活塞桿記號為A時，其前蓋端無法設置緩衝器

\*在緩衝環上，因有加工特殊節流之特性，所以有緩順之緩衝效果，但須注意再最最終行程3mm左右，其緩衝效果漸漸變弱，因此這樣之緩衝平行處(L尺寸)如需加長，也可以如有需要請與油慶公司連絡

There are bore dia 50,60mm and rod type is A thus those will not installed the cushioning device at cylinder head.

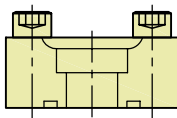
Because there is processed of throttling on cushioning ring so that there is being with cushioning effect but the range is just 3mm if want more wider of cushioning journal please consult us.



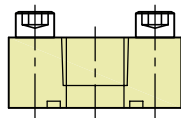
缸管內徑 Cylinder Bore		50 63		80 100		125		140		160		180		200		224 250	
活塞桿徑 Rod Dia		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
前蓋端 Head	緩衝長度(L) Cushion Length	—	35	40		45		50		50		55		65		75	
	平行處長度(e) Parallel Lenght	—	15	15	10	15	10	15	10	15	10	15	10	15	10	15	10
後蓋端 Cap	緩衝長度(L) Cushion Length	30		35		35		35		40		40		40		55	
	平行處長度(e) Parallel Lenght	10		10		10		10		10		10		10		10	

**出入口油壓凸緣 Port Flange Kite**

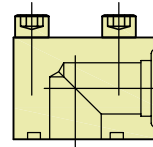
SSA



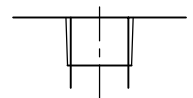
SSA-B



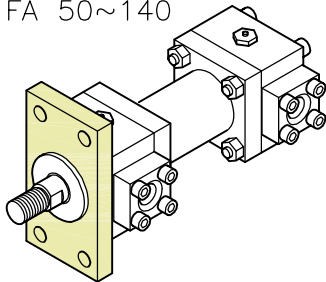
LSA



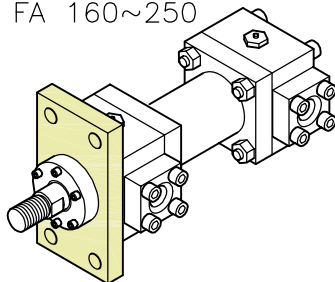
RC

**固定座形式 Mounting :**

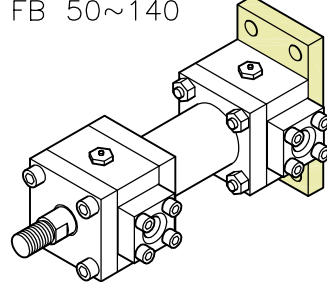
FA 50~140



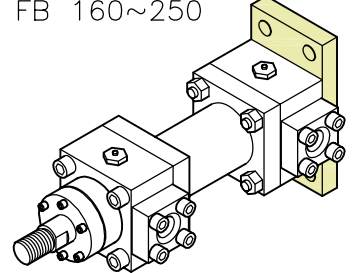
FA 160~250



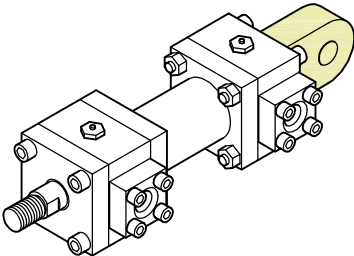
FB 50~140



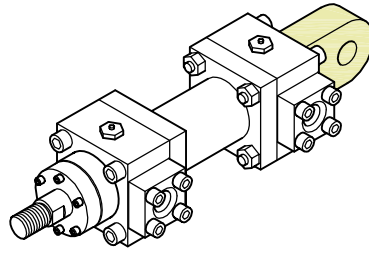
FB 160~250



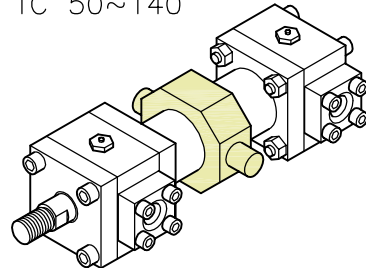
CA 50~140



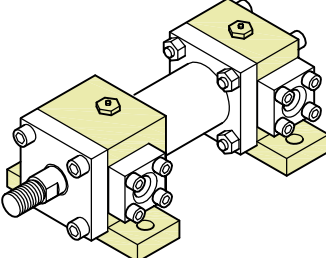
CA 160~250



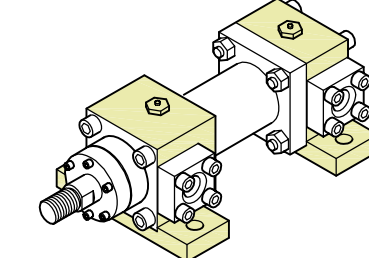
TC 50~140



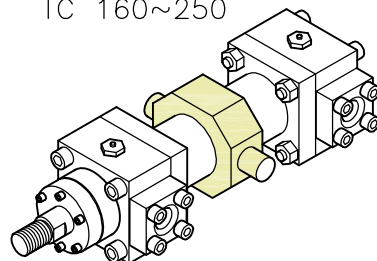
LA 50~140

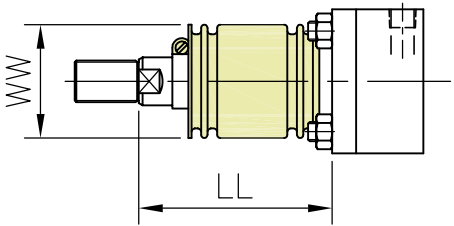


LA 160~250



TC 160~250



HC3 防塵套尺寸 	內徑	ø50		ø63		ø80		ø100		ø125		ø140	
		A	B	A	B	A	B	A	B	A	B	A	B
	WW	ø63	ø71	ø71	ø80	ø80	ø100	ø100	ø125	ø125	ø140	ø125	ø160
	LL	1/3.5ST+57		1/4 ST+60		1/4 ST+54		1/4 ST+64		1/5 ST+64		1/5 ST+69	
	內徑	ø160		ø180		ø200		ø224		ø250			
		A	B	A	B	A	B	A	B	A	B		
	WW	ø140	ø180	ø160	ø180	ø180	ø200	ø180	ø220	ø200	ø240		
	LL	1/5 ST+60		1/5 ST+80		1/5 ST+83		1/6 ST+87		1/6 ST+83			

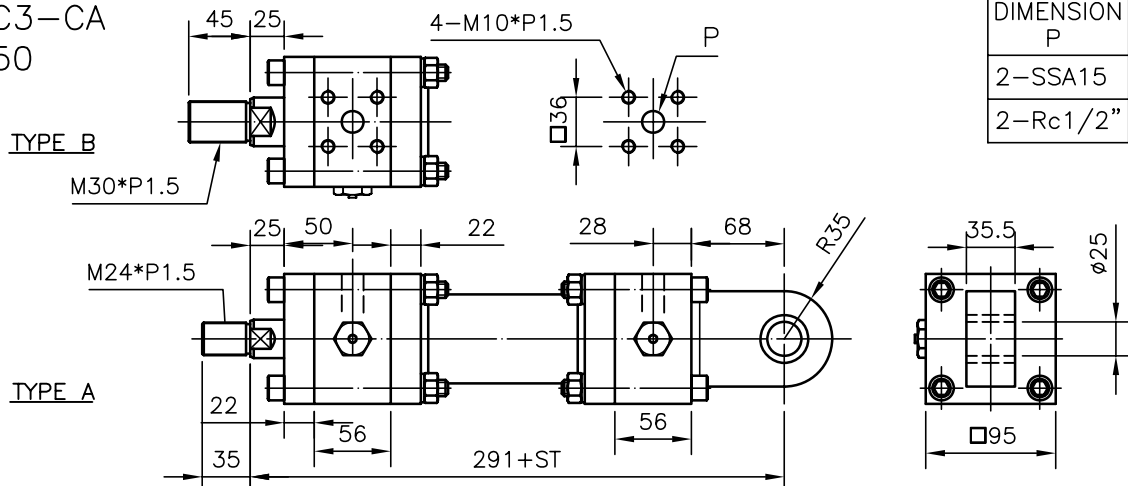
\* 技術參數
 Technical Data
 :

缸管內徑 Cylinder Bore mm	活塞桿徑 Rod Dia. mm	動 作 Action	有效面積 Effective Area cm²	出 力 Output Power kgf				流量10L/分 之速度 Flow Rate at Speed 10L/min mm/sec	速度10mm/秒 之流量 Speed at Flow Rate 10mm/sec L/min
				30 kgf/cm <sup>2</sup>	70 kgf/cm <sup>2</sup>	140 kgf/cm <sup>2</sup>	210 kgf/cm <sup>2</sup>		
50		推力 Extend	19.6	589	1374	2748	4123	85.1	1.2
	B=35.5	拉力 Retract	9.7	292	681	1362	2045	171.5	0.6
	A=28		13.5	404	943	1886	2830	123.9	0.8
63		推力 Extend	31.2	935	2181	4362	6546	53.6	1.9
	B=45	拉力 Retract	15.3	458	1068	2138	3206	109.4	0.9
	A=35.5		21.3	638	1489	2978	4468	78.5	1.3
80		推力 Extend	50.3	1507	3517	7034	10556	33.2	3.0
	B=56	拉力 Retract	25.6	769	1794	3587	5383	65.1	1.5
	A=45		34.4	1030	2404	4811	7216	48.6	2.1
100		推力 Extend	78.5	2355	5498	10990	16493	21.3	4.7
	B=71	拉力 Retract	38.9	1168	2725	5453	8179	42.9	2.3
	A=56		53.9	1617	3772	7547	11321	31.0	3.2
125		推力 Extend	122.7	3680	8590	17181	25771	13.6	7.4
	B=90	拉力 Retract	59.1	1772	4135	8270	12411	28.3	3.5
	A=71		83.1	2493	5816	11638	17457	20.1	5.0
140		推力 Extend	153.9	4616	10776	21551	32327	10.8	9.2
	B=100	拉力 Retract	75.4	2261	5275	10556	15834	22.1	4.5
	A=80		103.7	3109	7253	14514	21771	16.1	6.2
160		推力 Extend	201	6029	14074	28149	42223	8.3	12.1
	B=112	拉力 Retract	102.5	3075	7174	14349	21534	16.3	6.1
	A=90		137.4	4121	9616	19242	28863	12.2	8.2
180		推力 Extend	254.5	7630	17813	35626	53438	6.6	15.3
	B=125	拉力 Retract	131.8	3951	9218	18445	27668	1.3	7.9
	A=100		175.9	5275	12309	24630	36945	9.5	10.6
200		推力 Extend	314.2	9425	21991	43982	65973	5.3	18.8
	B=140	拉力 Retract	160.1	4804	11210	22431	33646	10.4	9.6
	A=112		215.5	6466	15087	30189	45284	7.7	13
224		推力 Extend	394.1	11822	27586	55171	82757	4.2	23.6
	B=160	拉力 Retract	193.0	5788	13505	27023	40534	8.7	11.6
	A=125		271.4	8141	18986	37991	56956	6.2	16.3
250		推力 Extend	490.9	14726	34361	68722	103084	3.4	29.4
	B=180	拉力 Retract	236.4	7089	16548	33097	49645	7.1	14.2
	A=140		336.9	10108	23586	47171	70757	5.0	20.2

# HC3-ø50

7/21MPa用

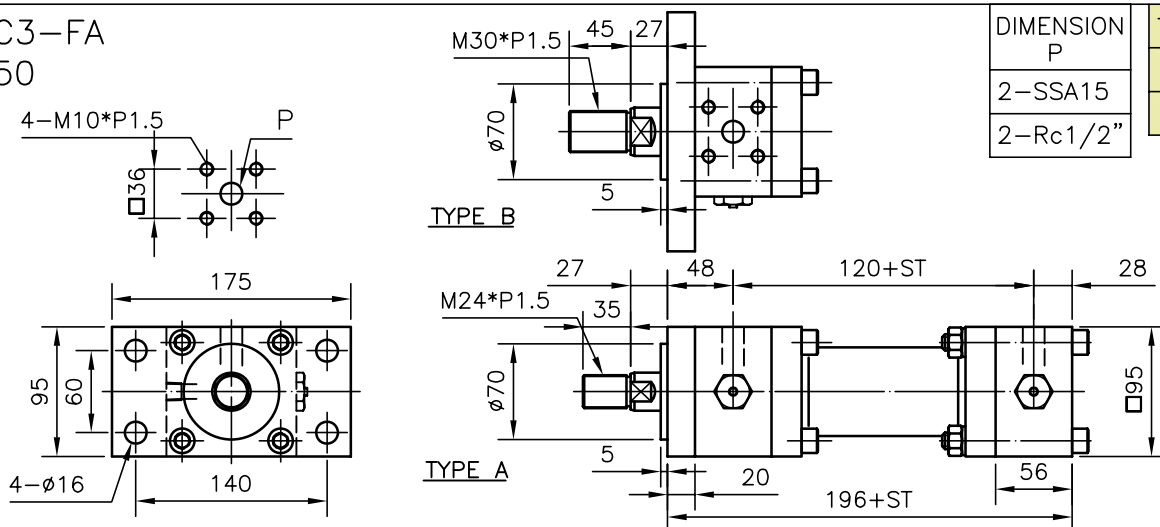
## HC3-CA ø50



DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø35.5
A	ø28

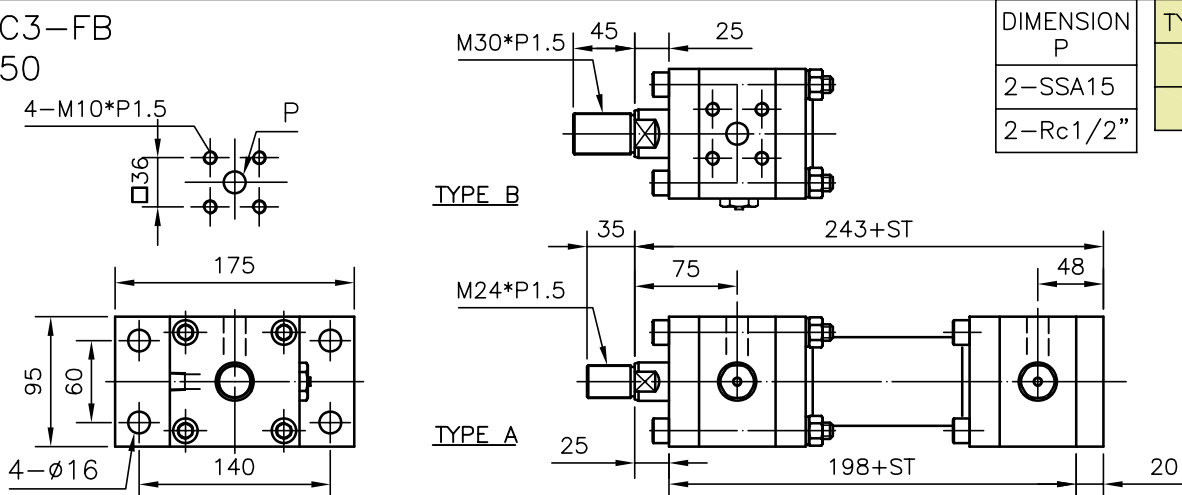
## HC3-FA ø50



DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø35.5
A	ø28

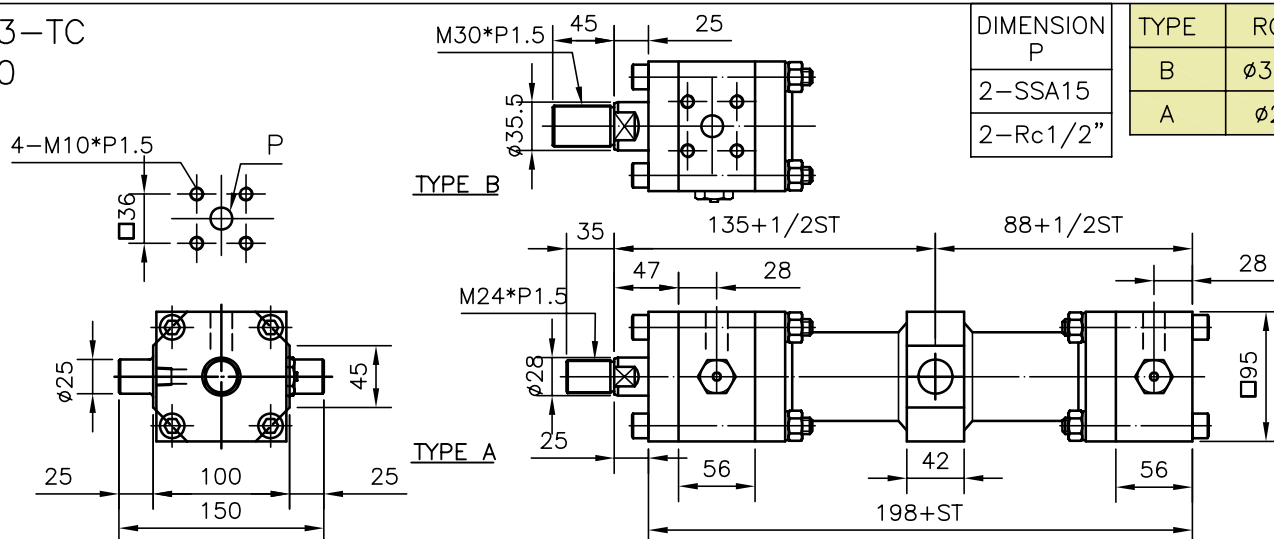
## HC3-FB ø50



DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø35.5
A	ø28

## HC3-TC ø50



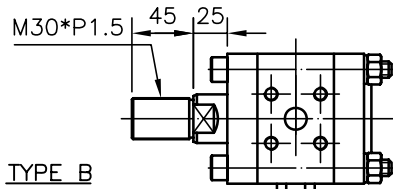
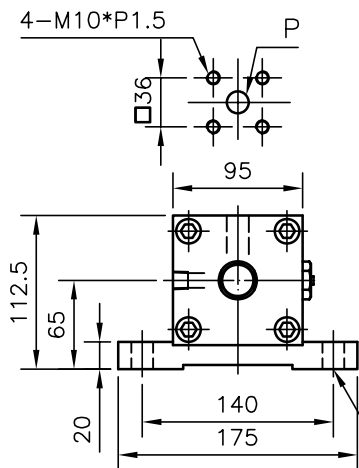
DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø35.5
A	ø28

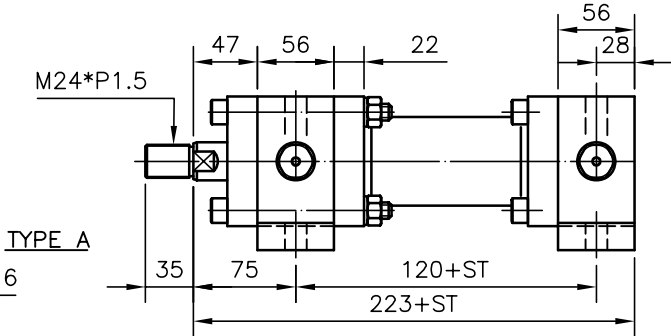
# HC3-ø50

7/21MPa用

## HC3-LA ø50



TYPE B

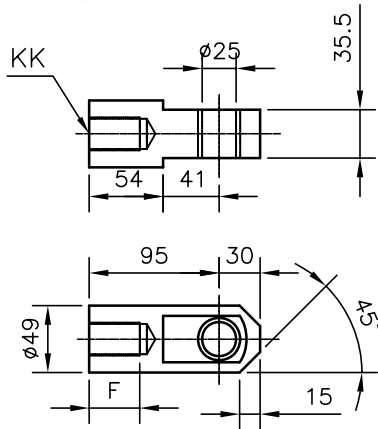


TYPE A

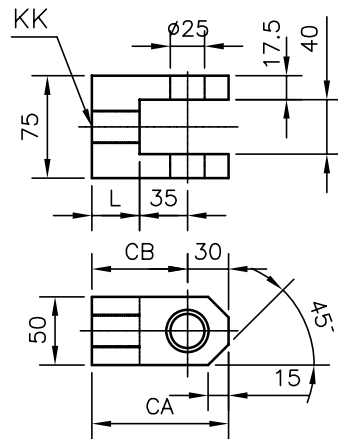
DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø35.5
A	ø28

## HC3-ø50-I接头 Clevis head,type I



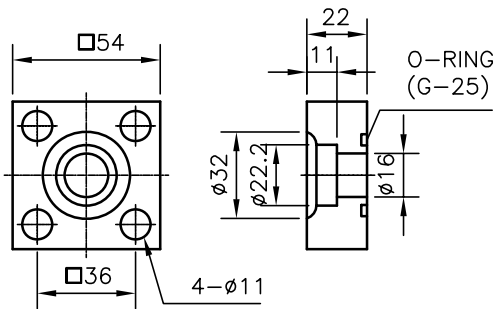
## HC3-ø50-Y接头 Clevis head,type Y



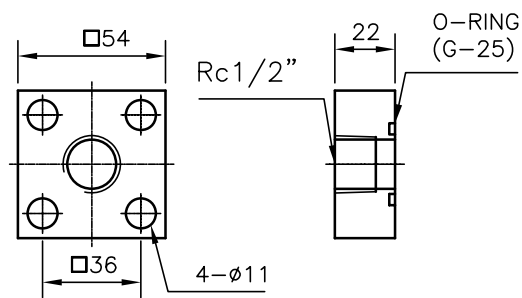
	KK	F	Weigh (kg)
TYPE A	M24x1.5	37	1.3
TYPE B	M30x1.5	47	1.2

	KK	L	CA	CB	Weigh (kg)
TYPE A	M24x1.5	35	100	70	1.7
TYPE B	M30x1.5	45	110	80	1.6

## SSA凸緣 (Port Flange Kits)



## Rc凸緣 (Port Flange Kits)



## 油壓缸大概重量計算

Estimted weight of hyd.

FA , ST=200mm ,Type A  
 weight= W1 + (W2 \* ST)  
 = 15.6 + (1.15 \* 2)  
 = 17.9 kg

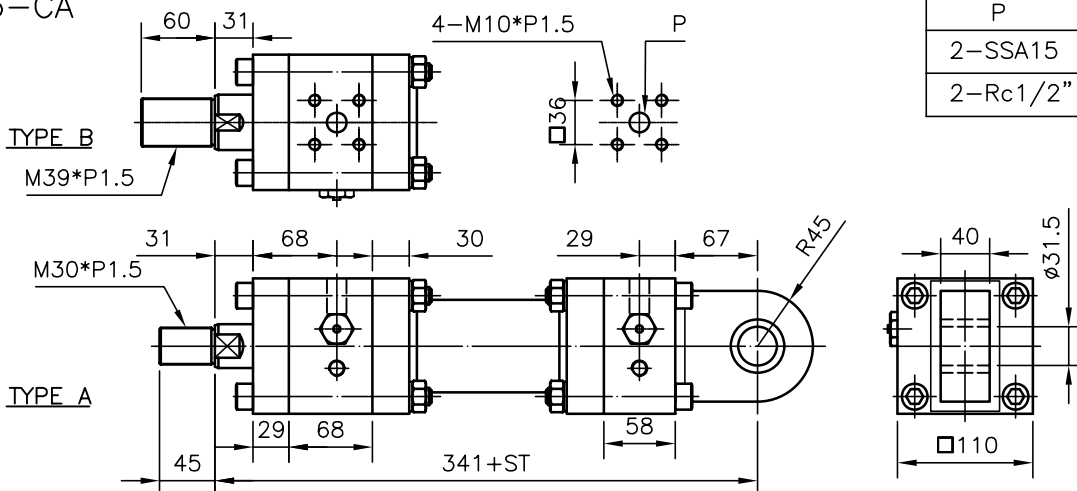
	FA	FB	CA	LA	TC
RODø28=W1 (kg)	15.6	16.9	16.5	15.6	15.4
RODø35.5=W1 (kg)	15.9	17.2	16.8	15.9	15.7
W2 (kg/100mm)	RODø28=1.15		RODø35.5=1.45		



# HC3-ø63

7/21MPa用

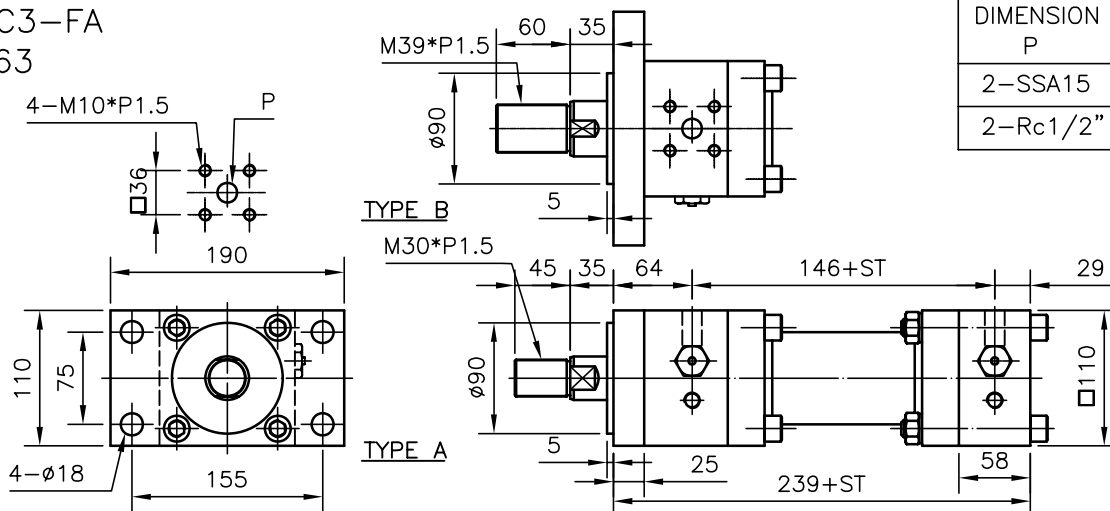
## HC3-CA ø63



DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø45
A	ø35.5

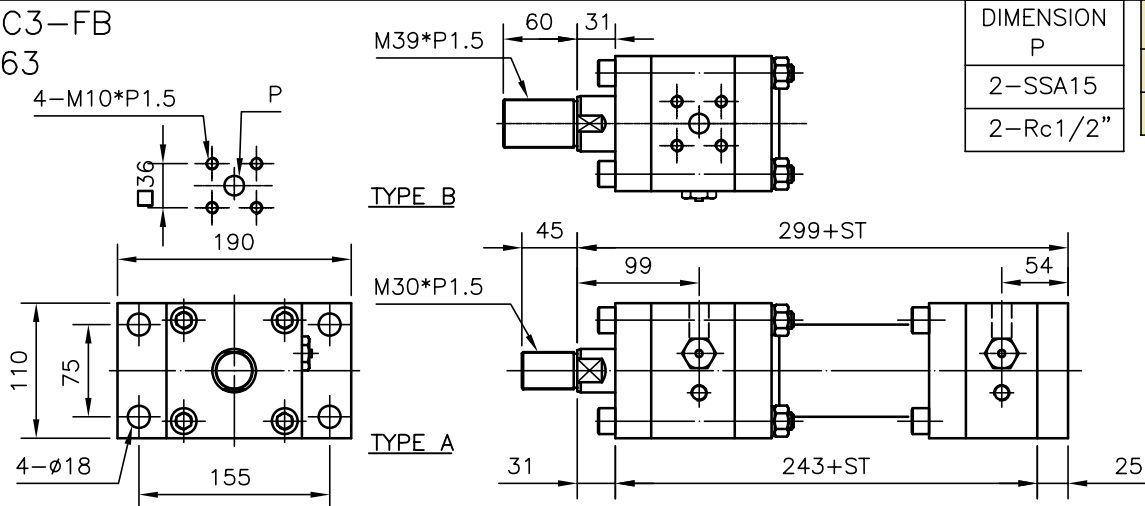
## HC3-FA ø63



DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø45
A	ø35.5

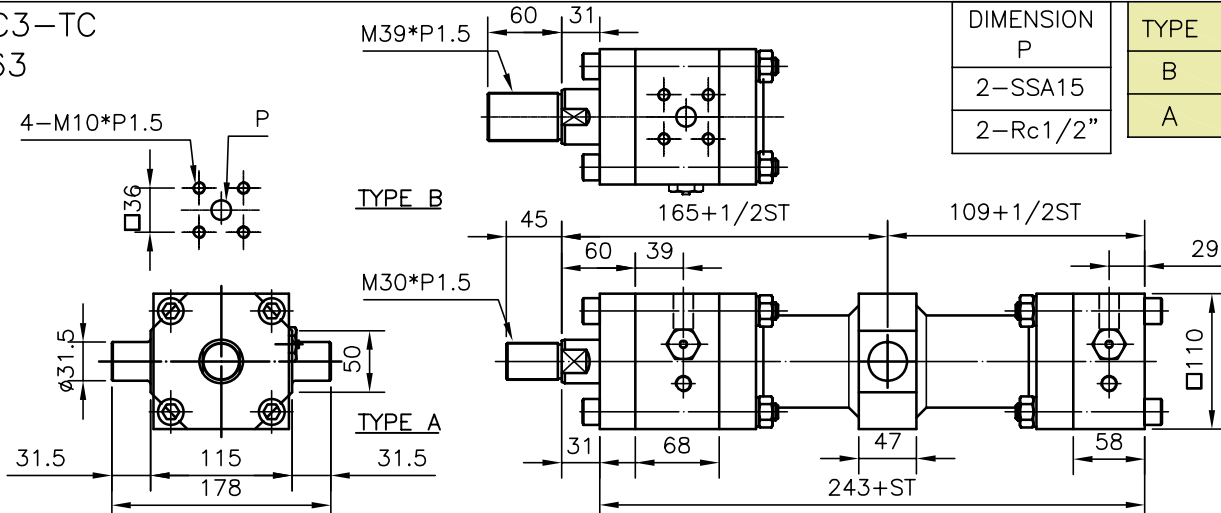
## HC3-FB ø63



DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø45
A	ø35.5

## HC3-TC ø63



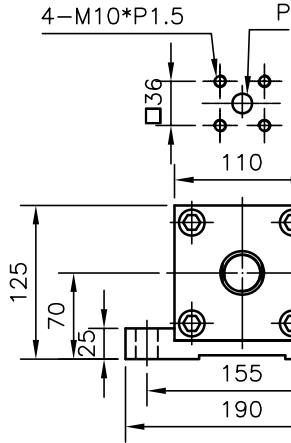
DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø45
A	ø35.5

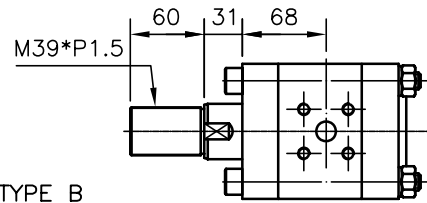
HC3-ø63

7/21MPa用

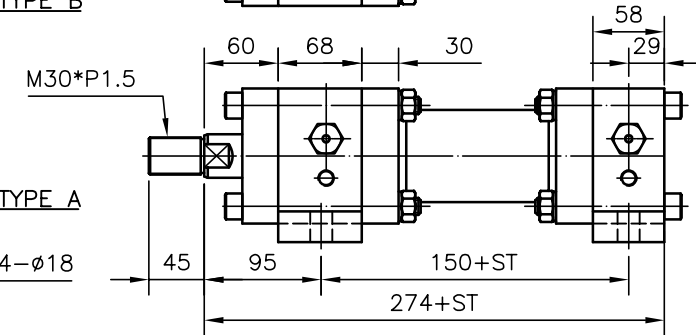
HC3-LA  
ø63



TYPE B



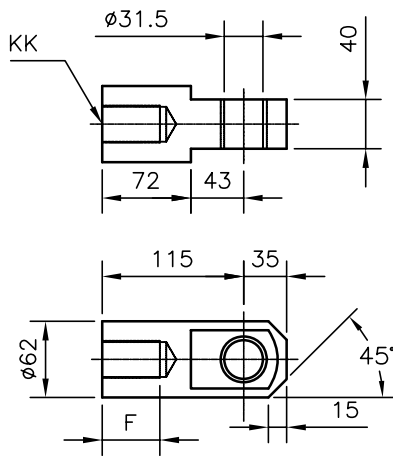
TYPE A



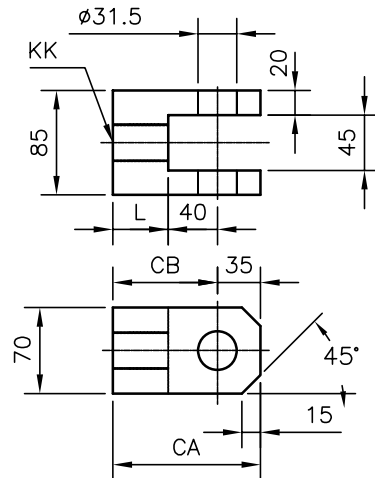
DIMENSION P
2-SSA15
2-Rc1/2"

TYPE	ROD
B	ø45
A	ø35.5

HC3-ø63-I接頭 Clevis head, type I



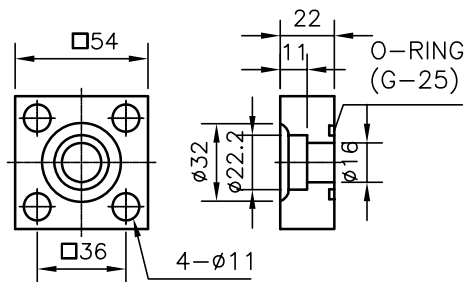
HC3-ø63-Y接頭 Clevis head, type Y



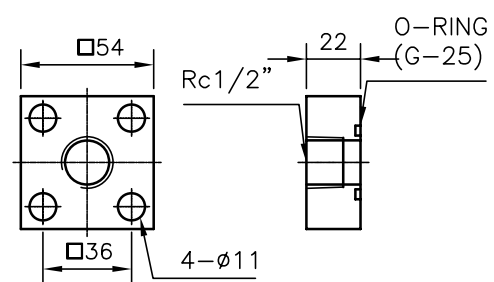
	KK	F	Weigh (kg)
TYPE A	M30x1.5	47	2.6
TYPE B	M39x1.5	62	2.2

	KK	L	CA	CB	Weigh (kg)
TYPE A	M30x1.5	45	120	85	3.7
TYPE B	M39x1.5	60	135	100	3.4

SSA凸緣 (Port Flange Kits)



Rc凸緣 (Port Flange Kits)



油壓缸大概重量計算

Estimted weight of hyd.

EX. : FA , ST=200mm ,Type A

$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 24.7 + (1.6 * 2) \\ &= 27.9 \text{ kg} \end{aligned}$$

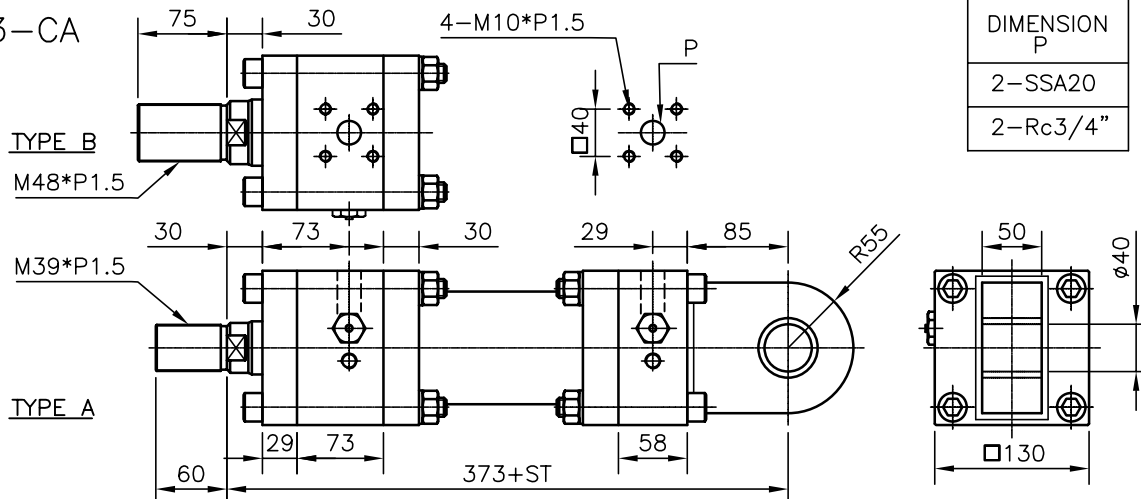
	FA	FB	CA	LA	TC
RODø35.5=W1 (kg)	24.7	26.2	25.7	24.0	25.2
RODø45=W1 (kg)	25.2	26.7	26.2	24.5	25.7
W2 (kg/100mm)	RODø35.5=1.6		RODø45=2.0		



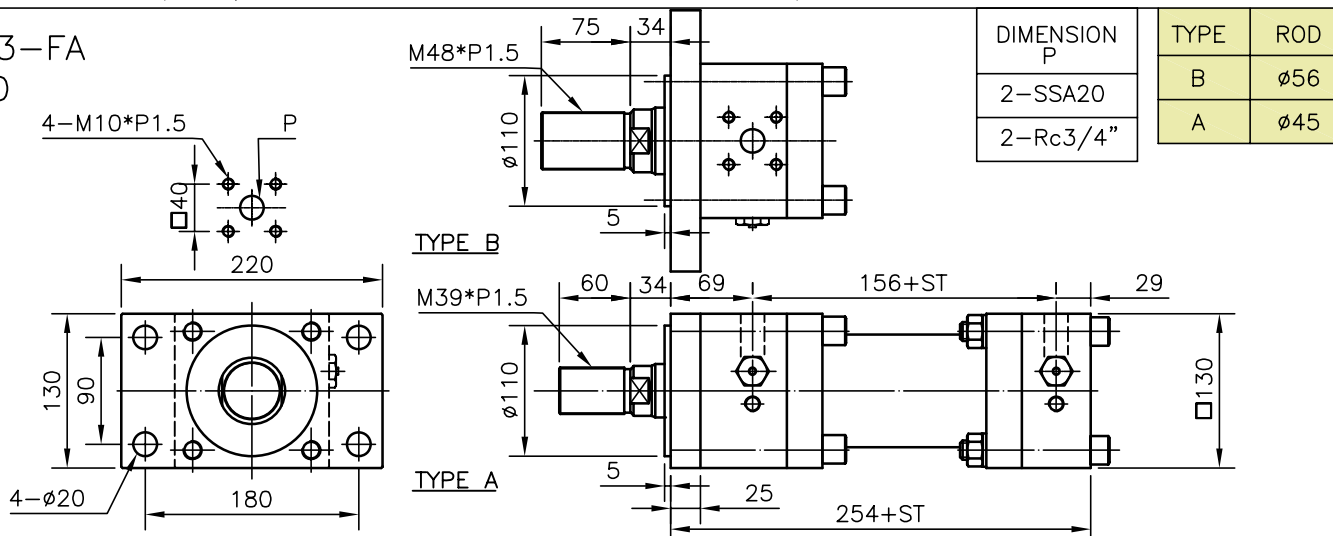
# HC3-ø80

7/21MPa用

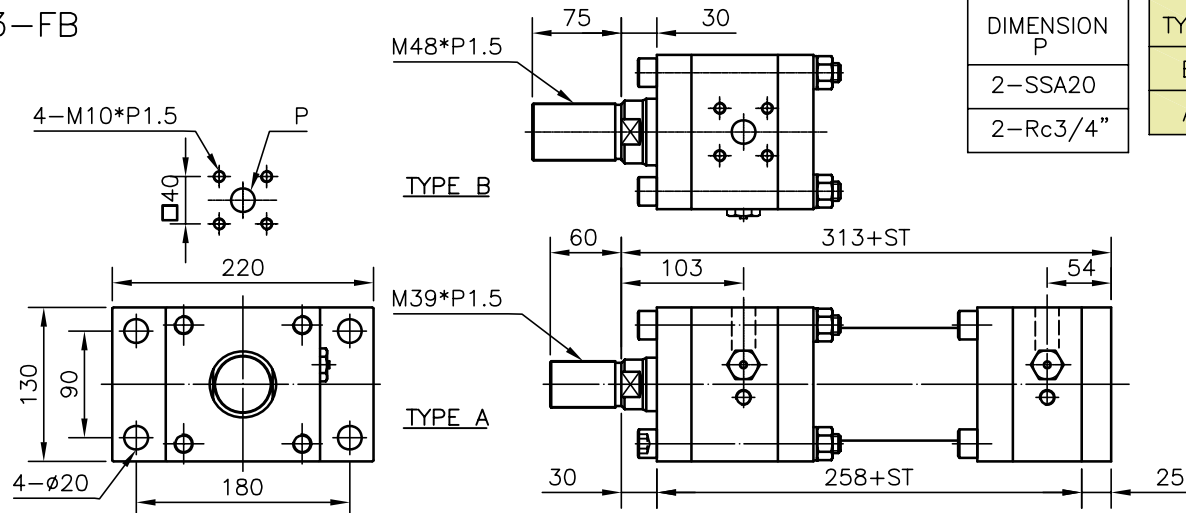
## HC3-CA ø80



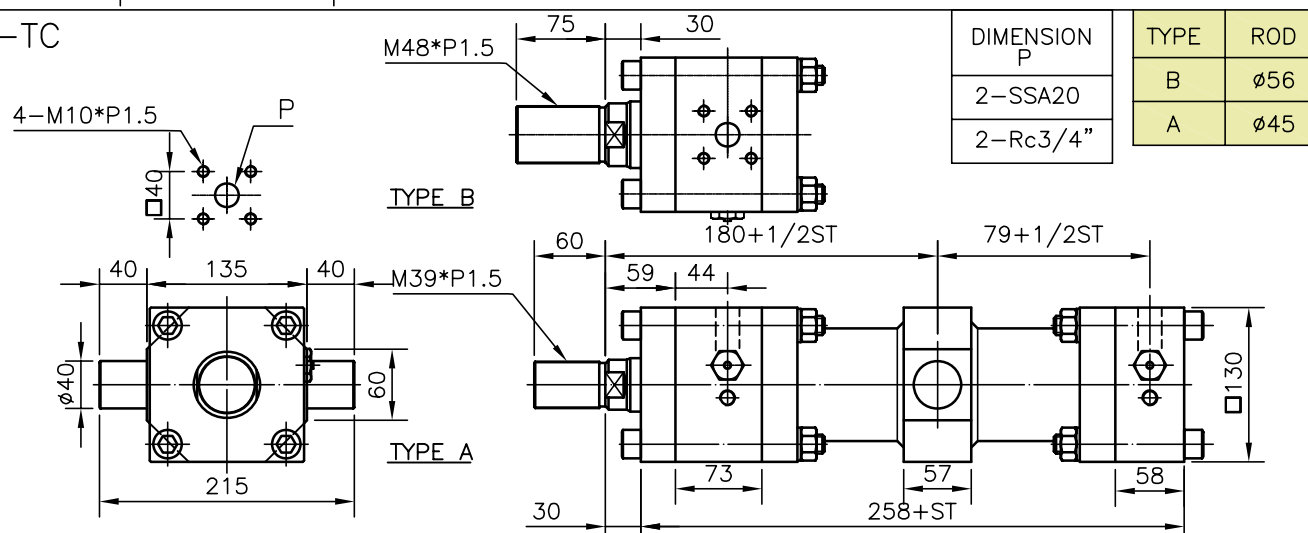
## HC3-FA ø80



## HC3-FB ø80



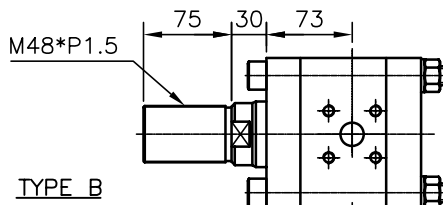
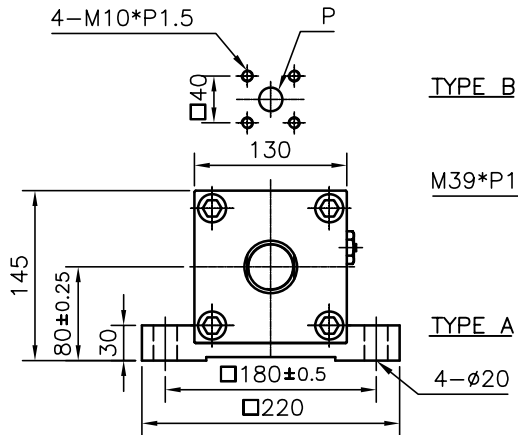
## HC3-TC ø80



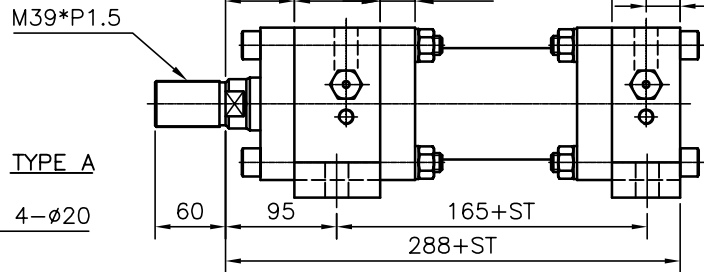
HC3- $\phi 80$

7/21MPa用

HC3-LA  
 $\phi 80$



TYPE B

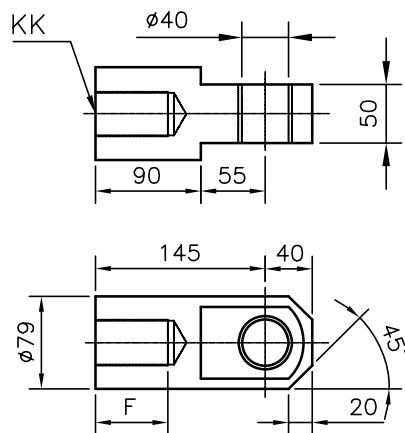


TYPE A

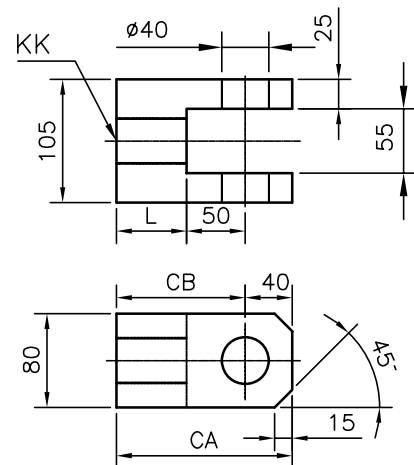
DIMENSION P
2-SSA20
2-Rc3/4"

TYPE	ROD
B	$\phi 56$
A	$\phi 45$

HC3- $\phi 80$ -I 接頭 Clevis head, type I



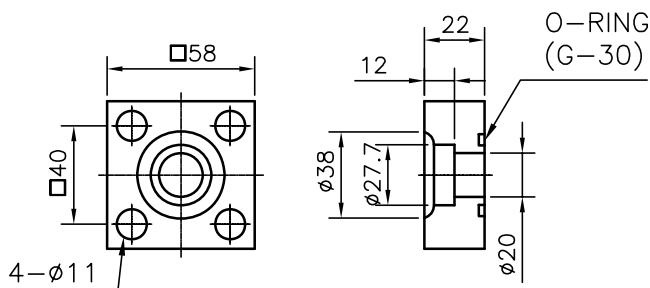
HC3- $\phi 80$ -Y 接頭 Clevis head, type Y



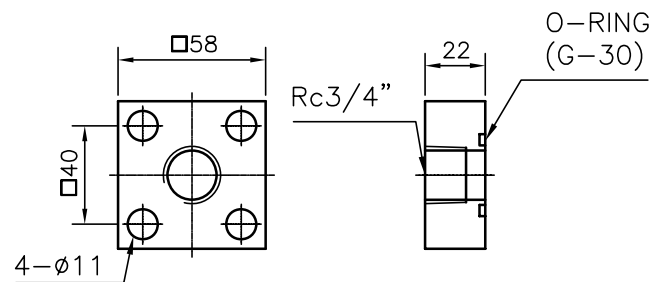
	KK	F	Weigh (kg)
TYPE A	M39x1.5	62	5.6
TYPE B	M48x1.5	77	5.0

	KK	L	CA	CB	Weigh (kg)
TYPE A	M39x1.5	60	150	110	5.9
TYPE B	M48x1.5	75	165	125	5.4

SSA凸緣 (Port Flange Kits)



Rc凸緣 (Port Flange Kits)



油壓缸大概重量計算

Estimted weight of hyd.

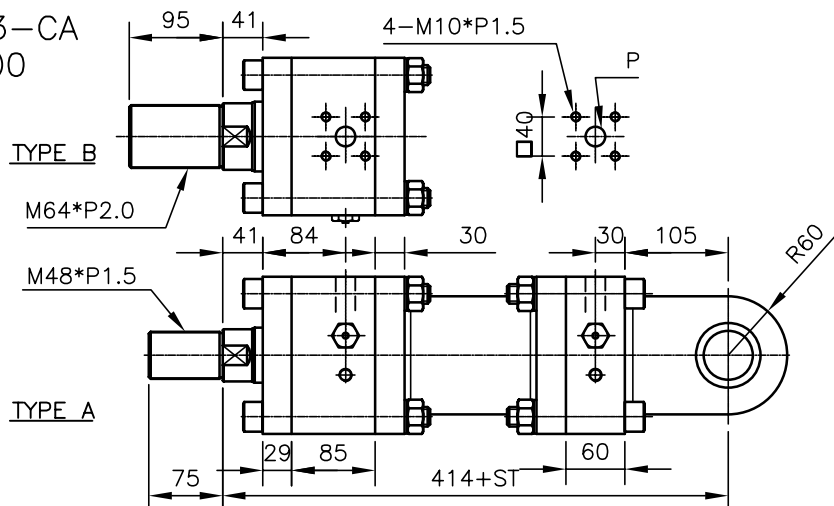
FA, ST=200mm, Type A  
 weight= W1 + (W2 \* ST)  
 = 35.6 + (2.6 \* 2)  
 = 40.8 kg

	FA	FB	CA	LA	TC
ROD $\phi 45$ =W1 (kg)	35.6	38.7	39.8	35.9	36.9
ROD $\phi 56$ =W1 (kg)	36.5	39.6	40.4	36.9	37.7
W2 (kg/100mm)	ROD $\phi 45$ =2.6		ROD $\phi 56$ =3.3		

HC3- $\phi 100$

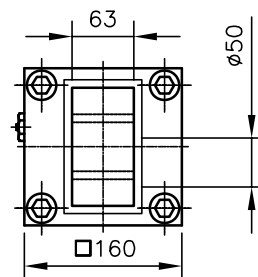
7/21MPa用

HC3-CA  
 $\phi 100$

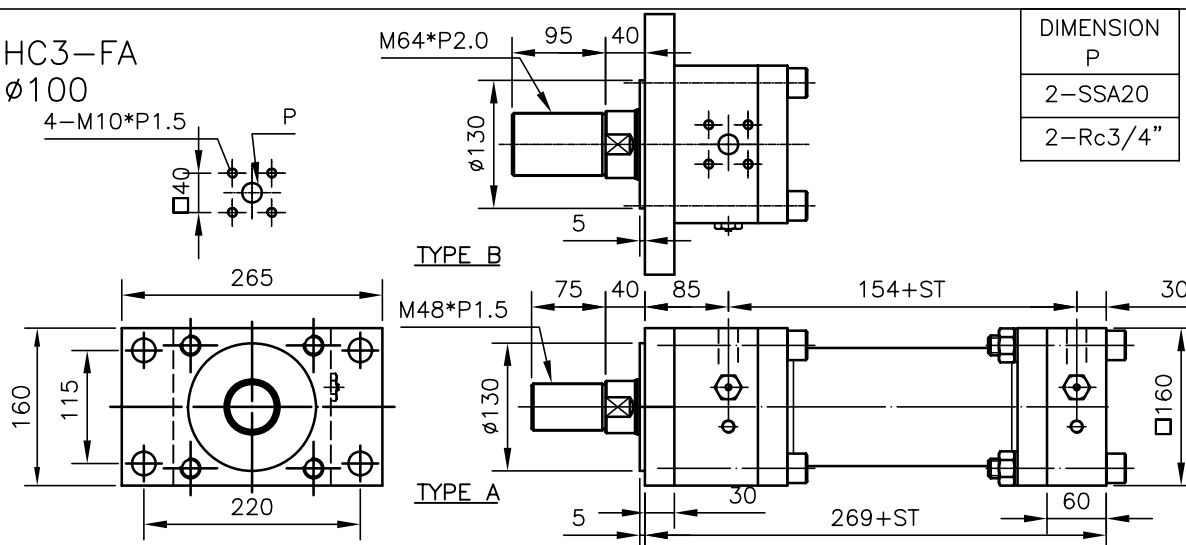


DIMENSION P
2-SSA20
2-Rc3/4"

TYPE	ROD
B	$\phi 71$
A	$\phi 56$



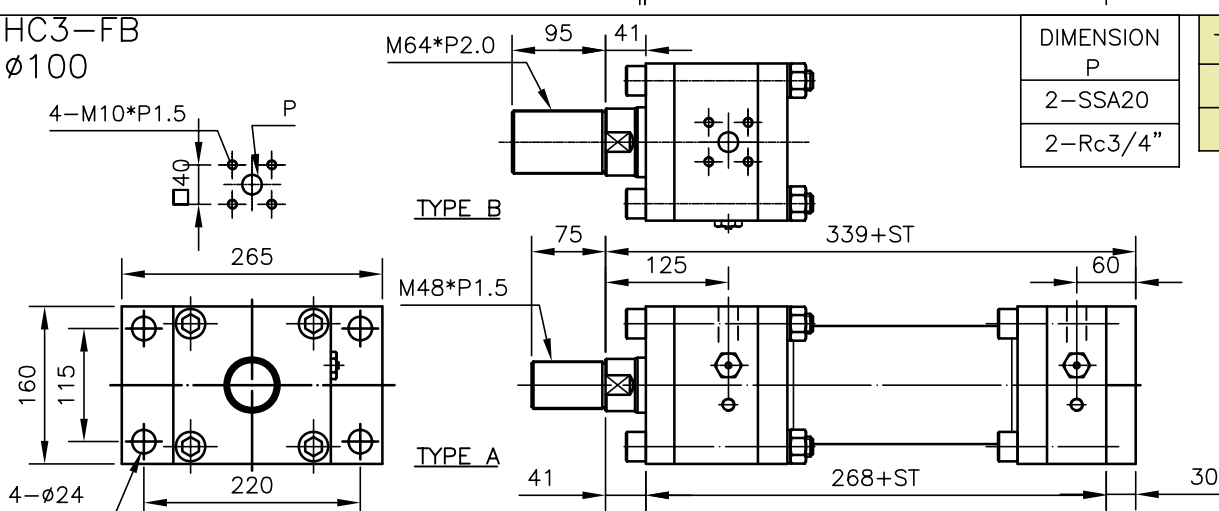
HC3-FA  
 $\phi 100$



DIMENSION P
2-SSA20
2-Rc3/4"

TYPE	ROD
B	$\phi 71$
A	$\phi 56$

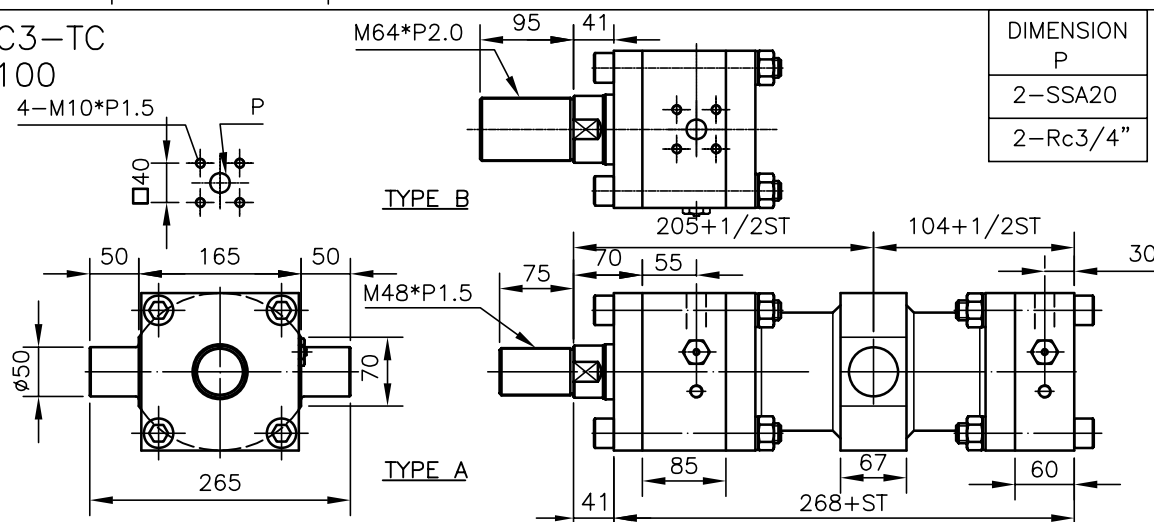
HC3-FB  
 $\phi 100$



DIMENSION P
2-SSA20
2-Rc3/4"

TYPE	ROD
B	$\phi 71$
A	$\phi 56$

HC3-TC  
 $\phi 100$



DIMENSION P
2-SSA20
2-Rc3/4"

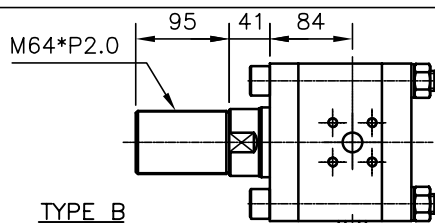
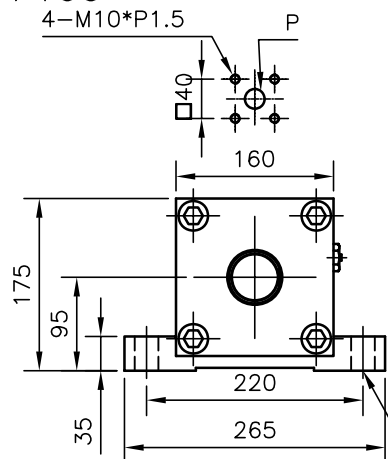
TYPE	ROD
B	$\phi 71$
A	$\phi 56$

# HC3-ø100

7/21MPa用

HC3-LA  
ø100

4-M10\*P1.5

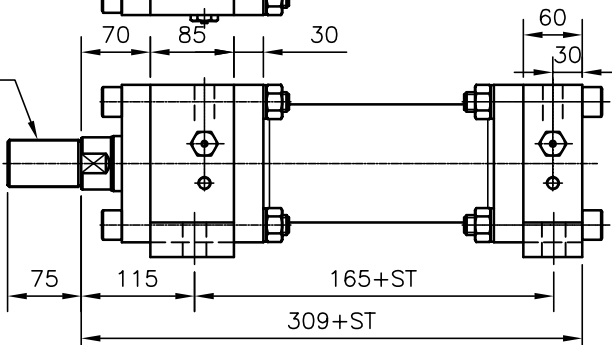


TYPE B

M48\*P1.5

TYPE A

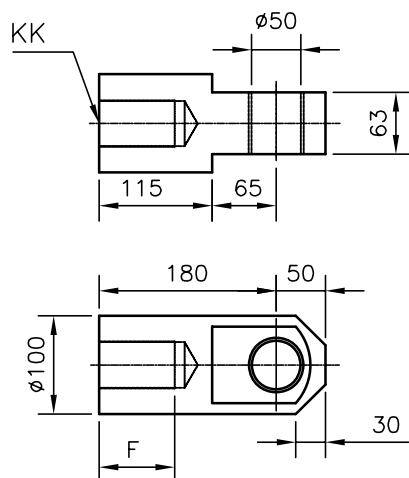
4-ø24



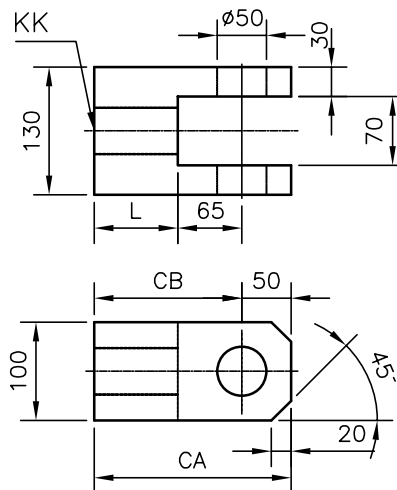
DIMENSION P
2-SSA20
2-Rc3/4"

TYPE	ROD
B	ø71
A	ø56

HC3-ø100-I接頭 Clevis head,type I



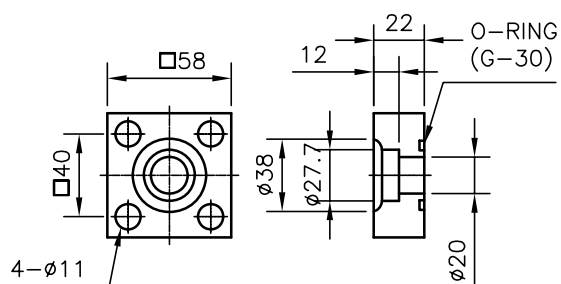
HC3-ø100-Y接頭 Clevis head,type Y



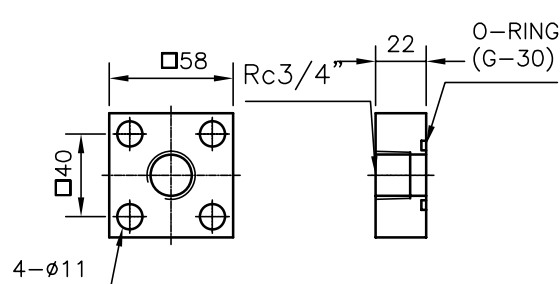
	KK	F	Weigh (kg)
TYPE A	M48x1.5	77	10.3
TYPE B	M64x2	97	8.1

	KK	L	CA	CB	Weigh (kg)
TYPE A	M48x1.5	80	195	145	11.5
TYPE B	M64x2	95	210	160	11.7

SSA凸緣 (Port Flange Kits)



Rc凸緣 (Port Flange Kits)



油壓缸大概重量計算

Estimted weight of hyd.

EX. : FA , ST=200mm ,Type A

weight= W1 + (W2 \* ST)

= 58.4 + (4.0 \* 2)

= 66.4 kg

	FA	FB	CA	LA	TC
RODø56=W1 (kg)	58.4	64.4	66.4	59.4	63.4
RODø71=W1 (kg)	60.4	66.4	68.4	61.4	65.4
W2 (kg/100mm)	RODø56=4.0		RODø71=5.2		

# HC3- $\phi 125$

7/21MPa用

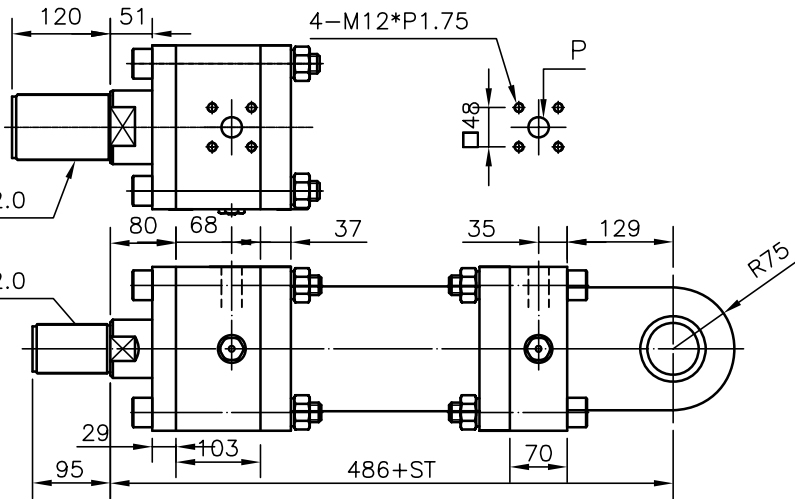
HC3-CA  
 $\phi 125$

TYPE B

M80\*P2.0

M64\*P2.0

TYPE A



DIMENSION P
2-SSA25
2-Rc 1"

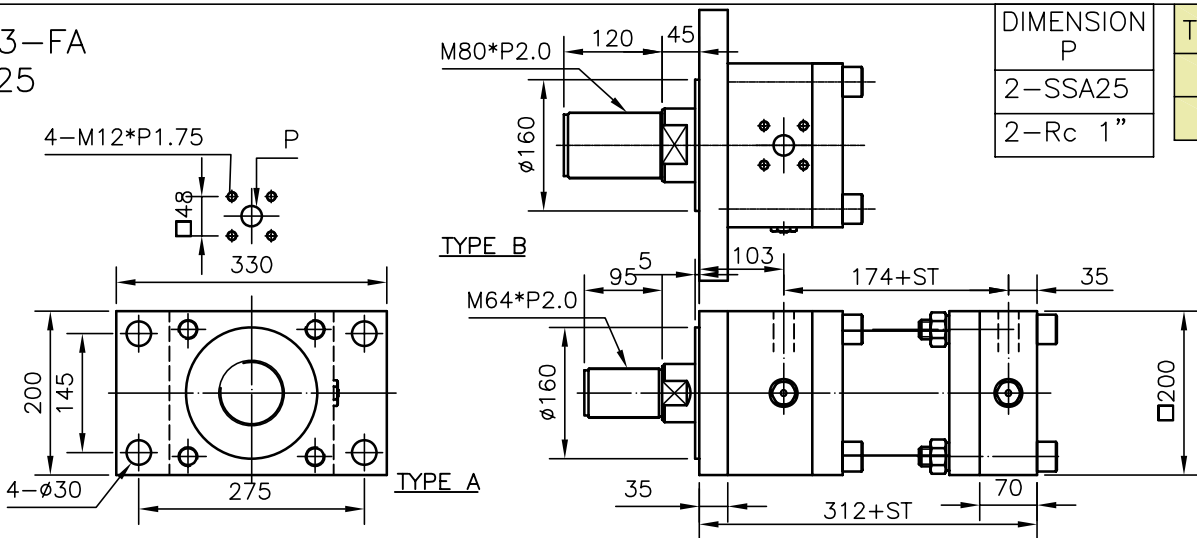
TYPE	ROD
B	$\phi 90$
A	$\phi 71$

HC3-FA  
 $\phi 125$

TYPE B

M64\*P2.0

TYPE A



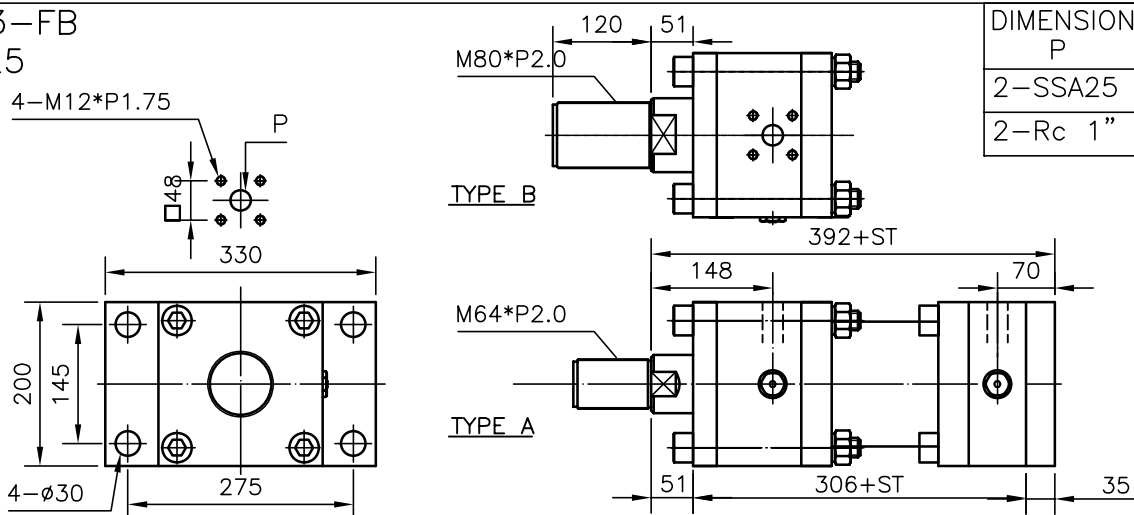
DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	$\phi 90$
A	$\phi 71$

HC3-FB  
 $\phi 125$

TYPE B

TYPE A



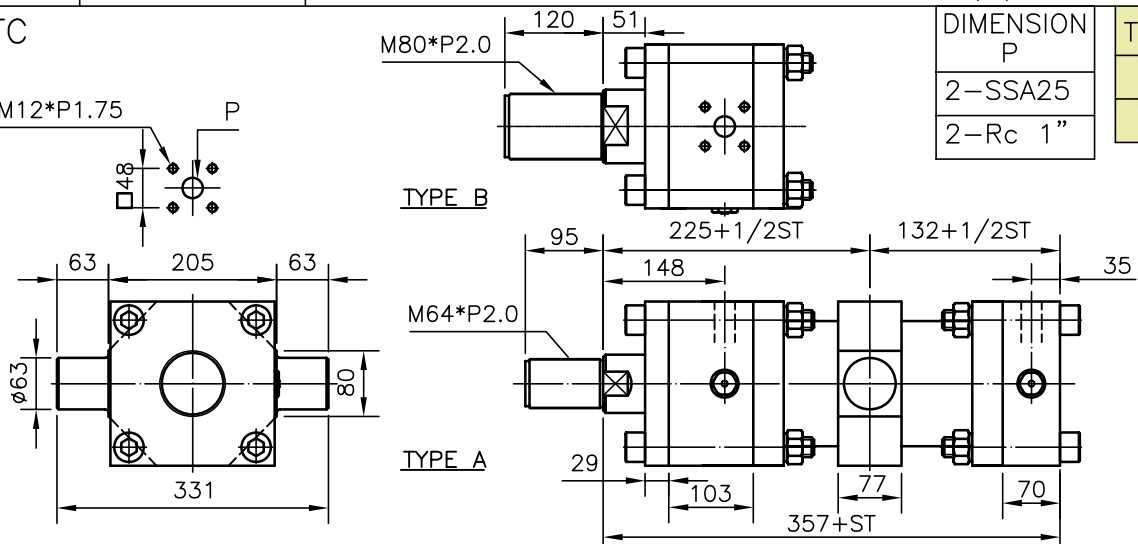
DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	$\phi 90$
A	$\phi 71$

HC3-TC  
 $\phi 125$

TYPE B

TYPE A



DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	$\phi 90$
A	$\phi 71$

7/21MPa用

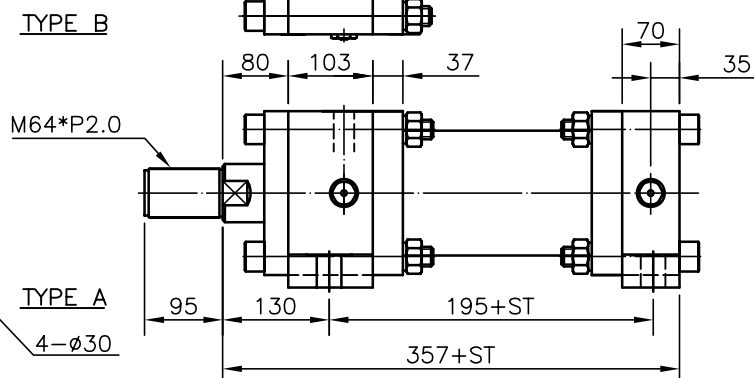
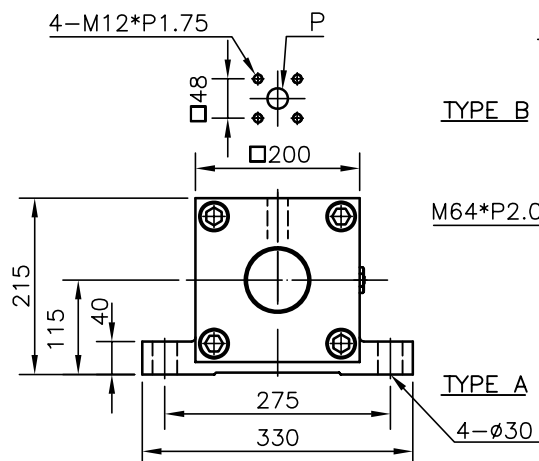
M80\*P2.0

120 51 97

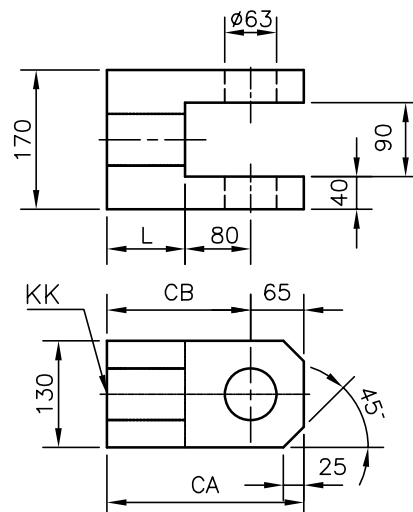
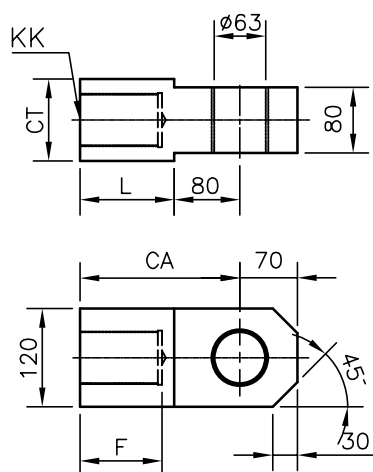
TYPE B

DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	ø90
A	ø71



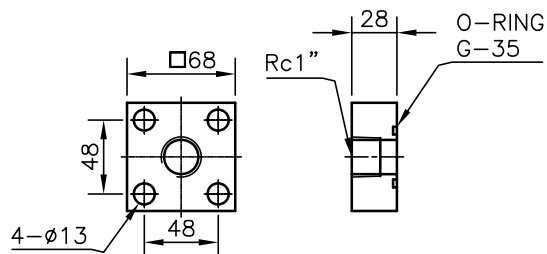
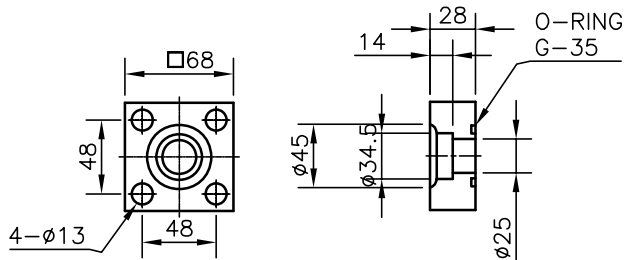
## HC3-ø125-Y接頭 Clevis head,type Y



	KK	F	L	CA	CT	Weigh (kg)
TYPE A	M64x2	100	115	195	90	16.3
TYPE B	M80x2	125	140	220	110	18.6

	KK	L	CA	CB	Weigh (kg)
TYPE A	M64x2	95	240	175	22
TYPE B	M80x2	120	265	200	25

## Rc凸緣 (Port Flange Kits)



Estimated weight of hyd.	
--------------------------	--

$$\begin{aligned}\text{weight} &= W1 + (W2 * ST) \\ &= 102 + (6.4 * 2) \\ &= 114.8 \text{ kg}\end{aligned}$$

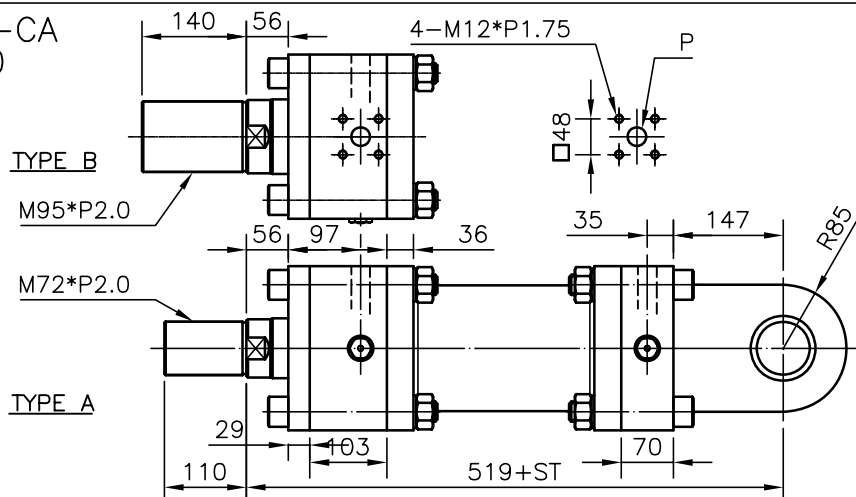
	FA	FB	CA	LA	TC
RODø71=W1 (kg)	102	112	116	101	110
RODø90=W1 (kg)	106	116	120	107	114
W2 (kg/100mm)	RODø71=6.4		RODø90=8.3		



# HC3- $\phi 140$

7/21MPa用

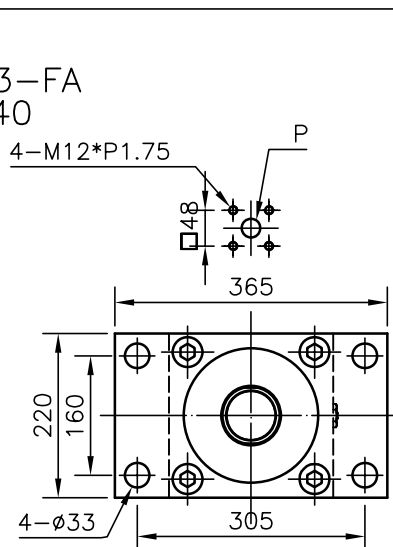
HC3-CA  
 $\phi 140$



DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	$\phi 100$
A	$\phi 80$

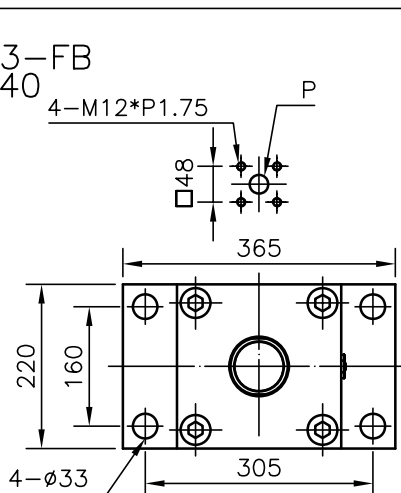
HC3-FA  
 $\phi 140$



DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	$\phi 100$
A	$\phi 80$

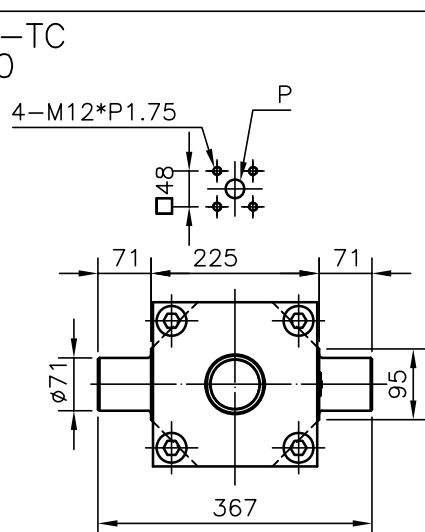
HC3-FB  
 $\phi 140$



DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	$\phi 100$
A	$\phi 80$

HC3-TC  
 $\phi 140$



DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	$\phi 100$
A	$\phi 80$

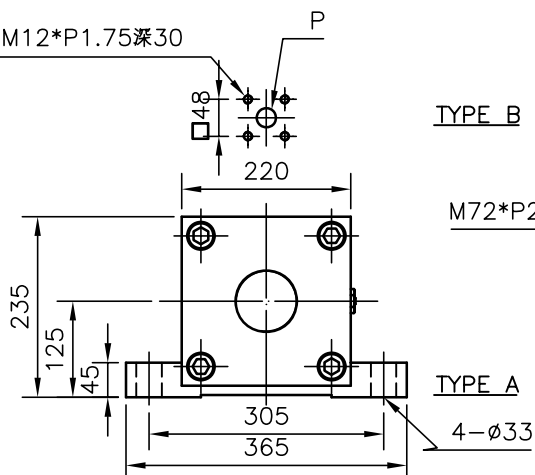
# HC3-ø140

7/21MPa用

HC3-LA

ø140

4-M12\*P1.75深30



TYPE B

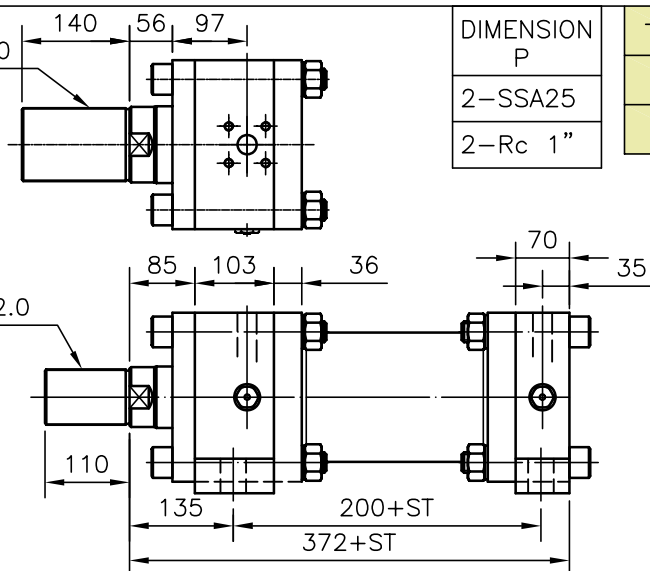
M72\*P2.0

TYPE A

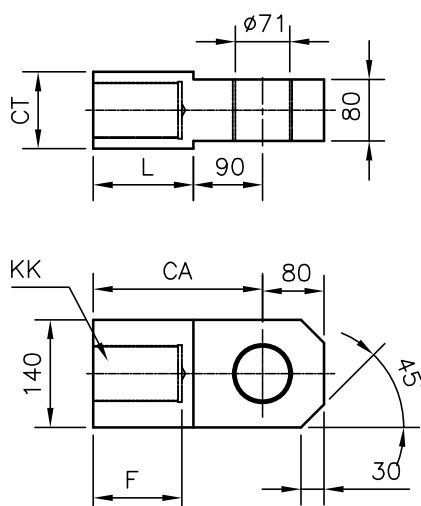
4-ø33

DIMENSION P
2-SSA25
2-Rc 1"

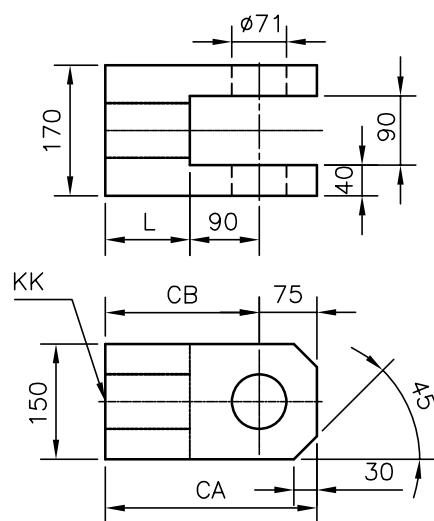
TYPE	ROD
B	ø100
A	ø80



HC3-ø140-I接头 Clevis head,type I



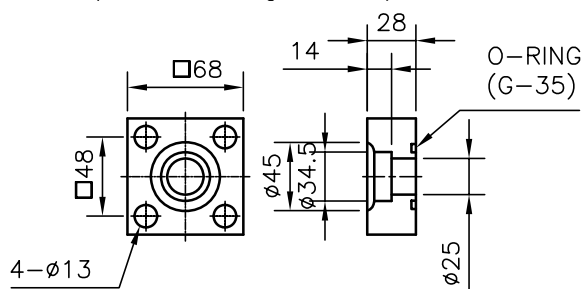
HC3-ø140-Y接头 Clevis head,type Y



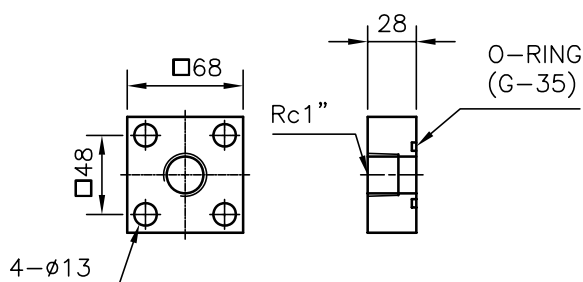
	KK	F	L	CA	CT	Weigh (kg)
TYPE A	M72x2	115	130	220	100	22.8
TYPE B	M95x2	145	165	255	130	27.5

	KK	L	CA	CB	Weigh (kg)
TYPE A	M72x2	110	275	200	32
TYPE B	M95x2	140	305	230	33

SSA凸缘 (Port Flange Kits)



Rc凸缘 (Port Flange Kits)



油壓缸大概重量計算 Estimated weight of hyd.

EX. : FA , ST=200mm ,Type A

weight= W1 + (W2 \* ST)

= 135 + (8.6 \* 2)

= 152.2 kg

	FA	FB	CA	LA	TC
RODø80=W1 (kg)	135	149	151	133	146
RODø100=W1 (kg)	140	154	157	138	151
W2 (kg/100mm)	RODø80=8.6		RODø100=10.8		

7/21MPa用

[illegible]

TYPE	ROD
B	ø112
A	ø90

Technical drawing of the 250mm diameter version of the 2-SSA25 flange. The drawing includes a top view (TYPE A) and a side view (TYPE B).

**Top View (TYPE A):**

- Outer diameter: 250
- Inner diameter: 185
- Mounting holes: 4-M12\*P1.75
- Central bore: 4- $\phi 36$
- Overall width: 405
- Overall height: 250

**Side View (TYPE B):**

- Flange thickness: 150
- Mounting hole diameter:  $\phi 185$
- Connection: M100\*P2.0
- Overall width: 405
- Overall height: 250

**Table:**

DIMENSION
P
2-SSA25
2-Rc 1"

TYPE	ROD
B	ø112
A	ø90

FB

4-M12\*P1.75

P

48

405

250

185

4-Ø36

340

M100\*P2.0

150

45

82

Ø180

TYPE\_B

120

45

117

M80\*P2.0

456+ST

80

TYPE\_A

127

284+ST

45

DIMENSION	
P	
2-SSA25	
2-Rc 1"	

TYPE	ROD
B	ø112
A	ø90

**C**

4-M12\*P1.75 P  
□48

M100\*P2.0  
150 45 117  
ø180

DIMENSION
P
2-SSA25
2-Rc 1"

TYPE B  
M80\*P2.0  
120 267+ST 144+1/2ST 35 35  
127 35

TYPE A  
80 255 80 110 415  
ø80 R

82 74 105 74  
284+ST

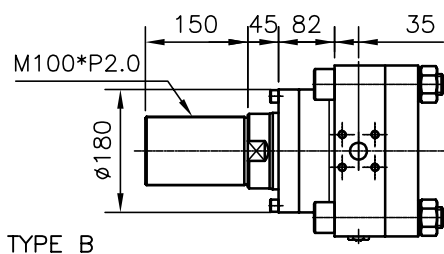
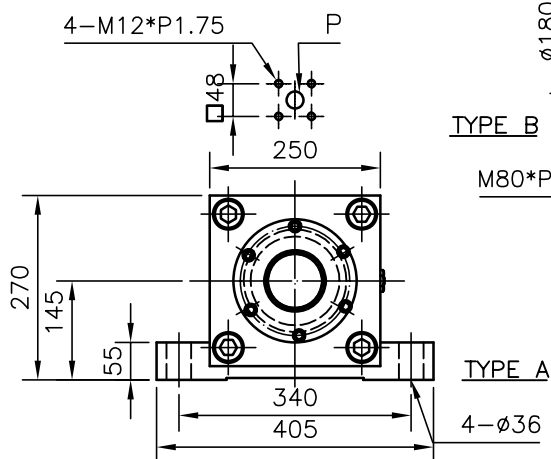
□250

TYPE	ROD
B	ø112
A	ø90

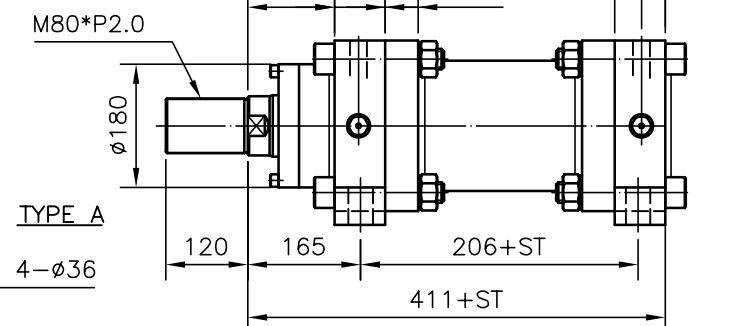
# HC3-ø160

7/21MPa用

HC3-LA  
ø160



TYPE B

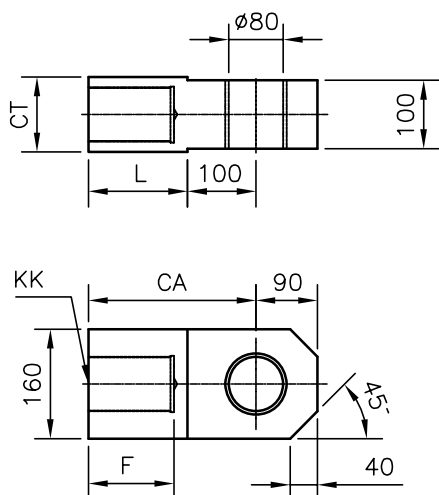


TYPE A

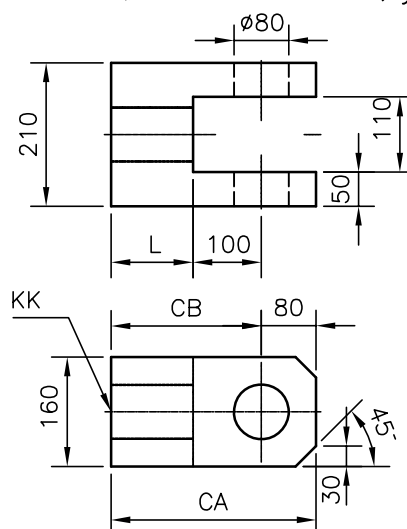
DIMENSION P
2-SSA25
2-Rc 1"

TYPE	ROD
B	ø112
A	ø90

HC3-ø160-I接頭 Clevis head,type I



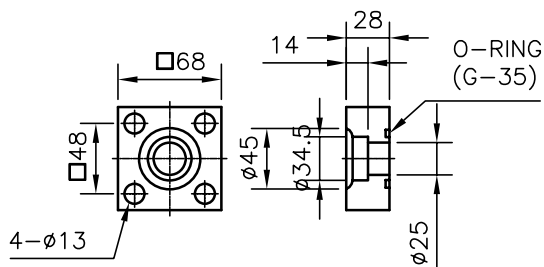
HC3-ø160-Y接頭 Clevis head,type Y



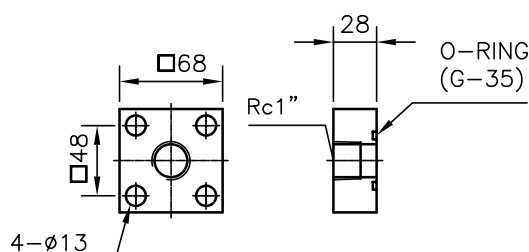
	KK	F	L	CA	CT	Weigh (kg)
TYPE A	M80x2	125	145	245	110	34.6
TYPE B	M100x2	155	175	275	140	40.6

	KK	L	CA	CB	Weigh (kg)
TYPE A	M80x2	120	300	220	46
TYPE B	M100x2	150	330	250	49

SSA凸緣 (Port Flange Kits)



Rc凸緣 (Port Flange Kits)



油壓缸大概重量計算

Estimted weight of hyd.

EX. : FA , ST=200mm ,Type A

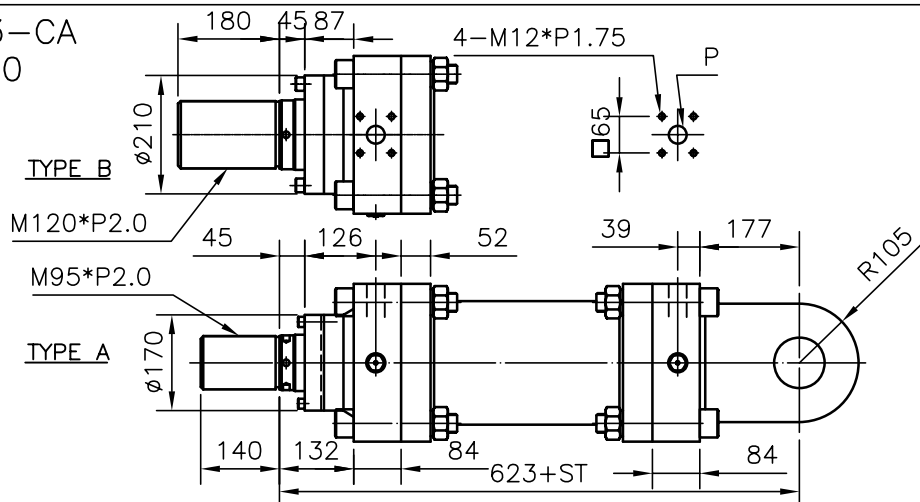
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 176 + (10.3 * 2) \\ &= 196.6 \text{ kg} \end{aligned}$$

	FA	FB	CA	LA	TC
RODø90=W1 (kg)	176	182	193	162	180
RODø112=W1 (kg)	185	193	204	173	191
W2 (kg/100mm)	RODø90=10.3		RODø112=13.0		

HC3- $\phi 180$

7/21MPa用

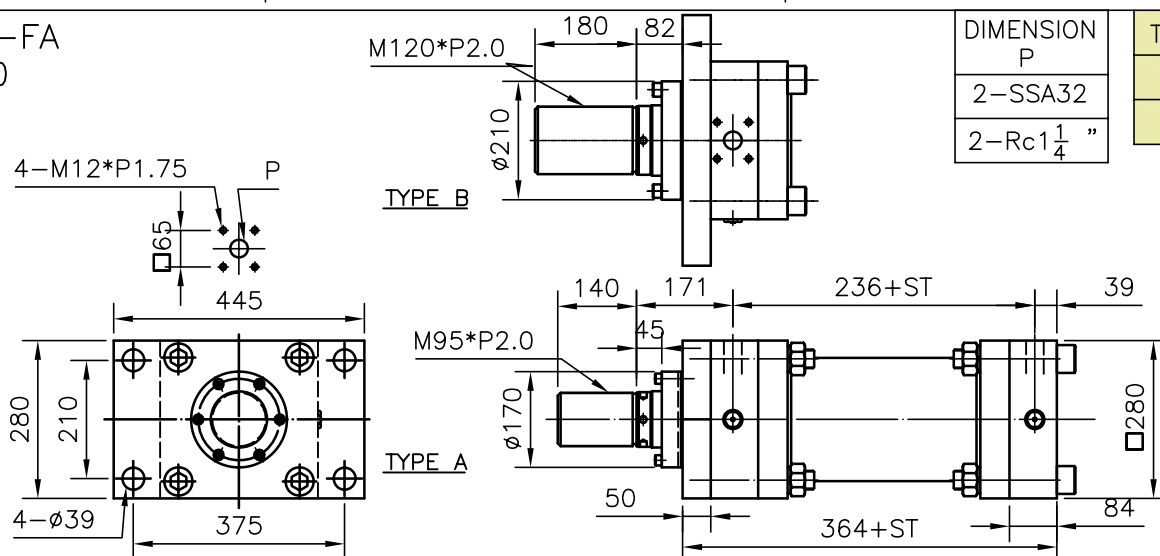
HC3-CA  
 $\phi 180$



DIMENSION P
2-SSA32
2-Rc1 $\frac{1}{4}$ "

TYPE	ROD
B	$\phi 125$
A	$\phi 100$

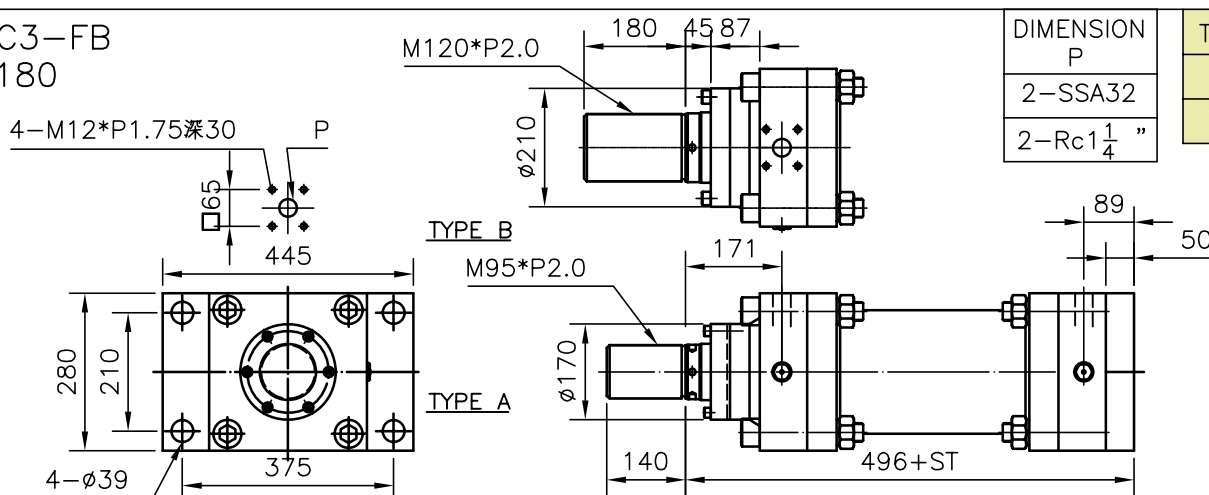
HC3-FA  
 $\phi 180$



DIMENSION P
2-SSA32
2-Rc1 $\frac{1}{4}$ "

TYPE	ROD
B	$\phi 125$
A	$\phi 100$

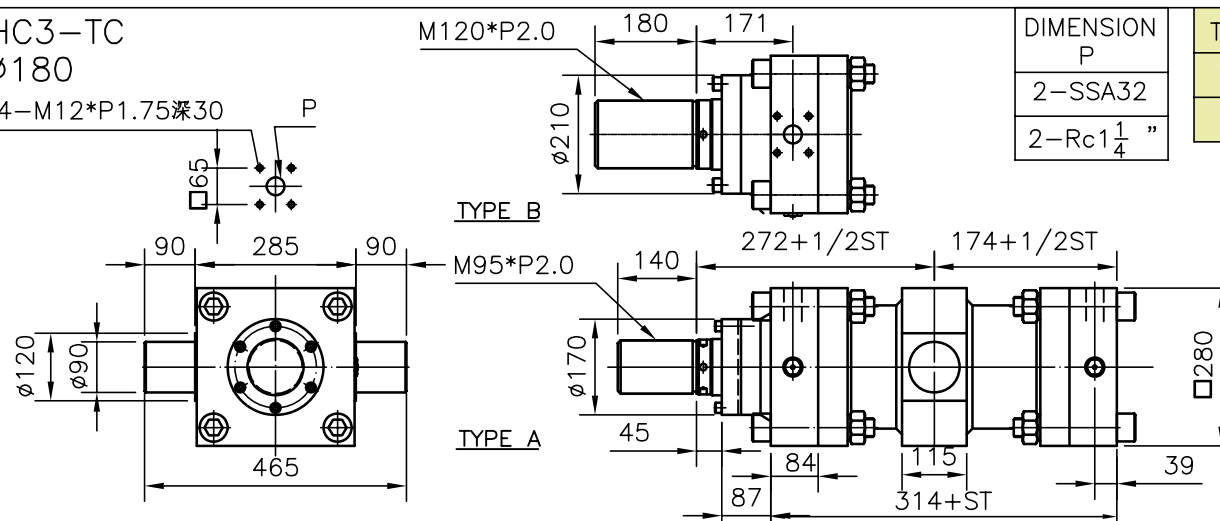
HC3-FB  
 $\phi 180$



DIMENSION P
2-SSA32
2-Rc1 $\frac{1}{4}$ "

TYPE	ROD
B	$\phi 125$
A	$\phi 100$

HC3-TC  
 $\phi 180$



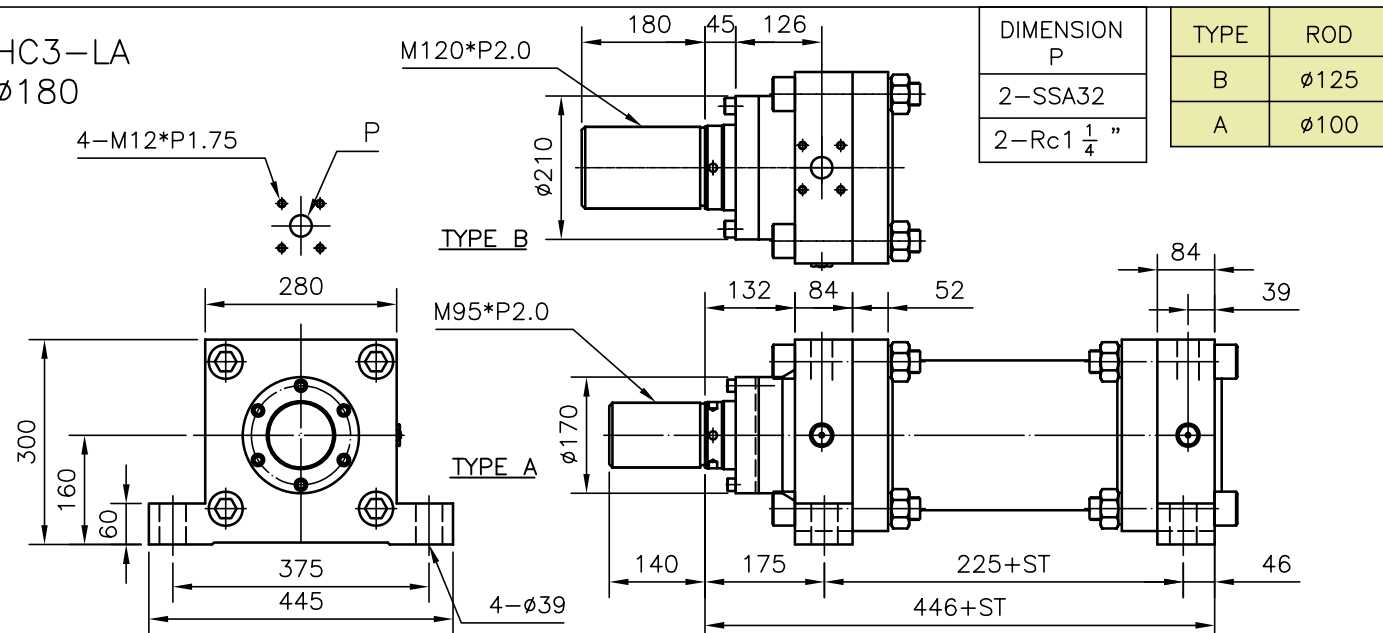
DIMENSION P
2-SSA32
2-Rc1 $\frac{1}{4}$ "

TYPE	ROD
B	$\phi 125$
A	$\phi 100$

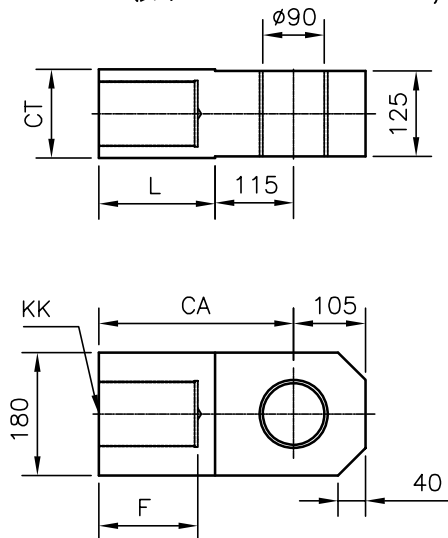
HC3- $\phi 180$

7/21MPa用

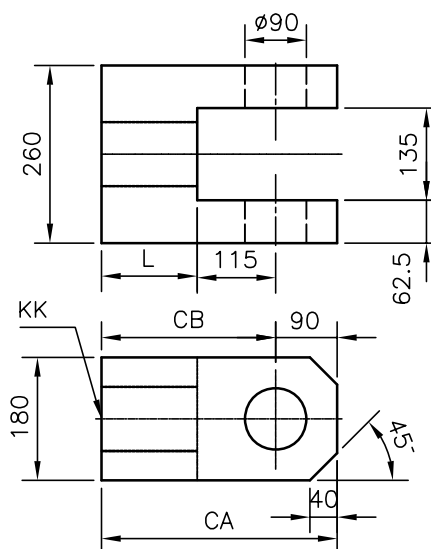
HC3-LA  
 $\phi 180$



HC3- $\phi 180$ -I接頭 Clevis head, type I



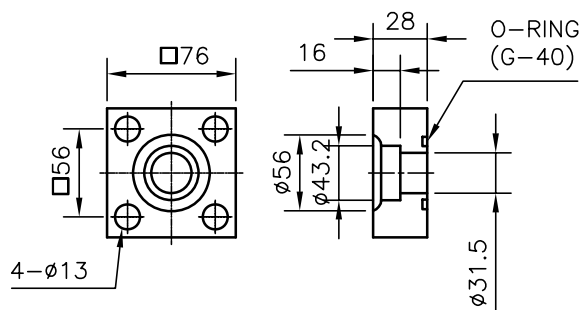
HC3- $\phi 180$ -Y接頭 Clevis head, type Y



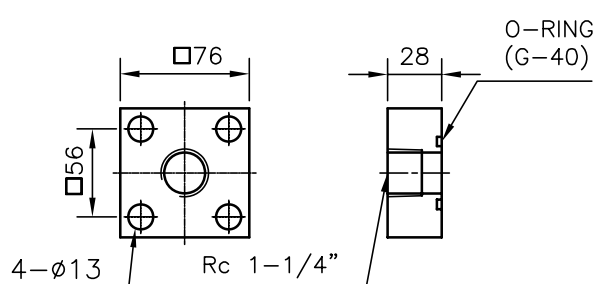
	KK	F	L	CA	CT	Weigh (kg)
TYPE A	M95x2	145	170	285	130	55
TYPE B	M120x2	185	210	325	170	69

	KK	L	CA	CB	Weigh (kg)
TYPE A	M95x2	140	345	255	74
TYPE B	M120x2	180	385	295	80

SSA凸緣 (Port Flange Kits)



Rc凸緣 (Port Flange Kits)



油壓缸大概重量計算

Estimated weight of hyd.

EX. : FA , ST=300mm , Type A  
weight= W1 + (W2 \* ST)  
= 253 + (14.0 \* 3)  
= 295 kg

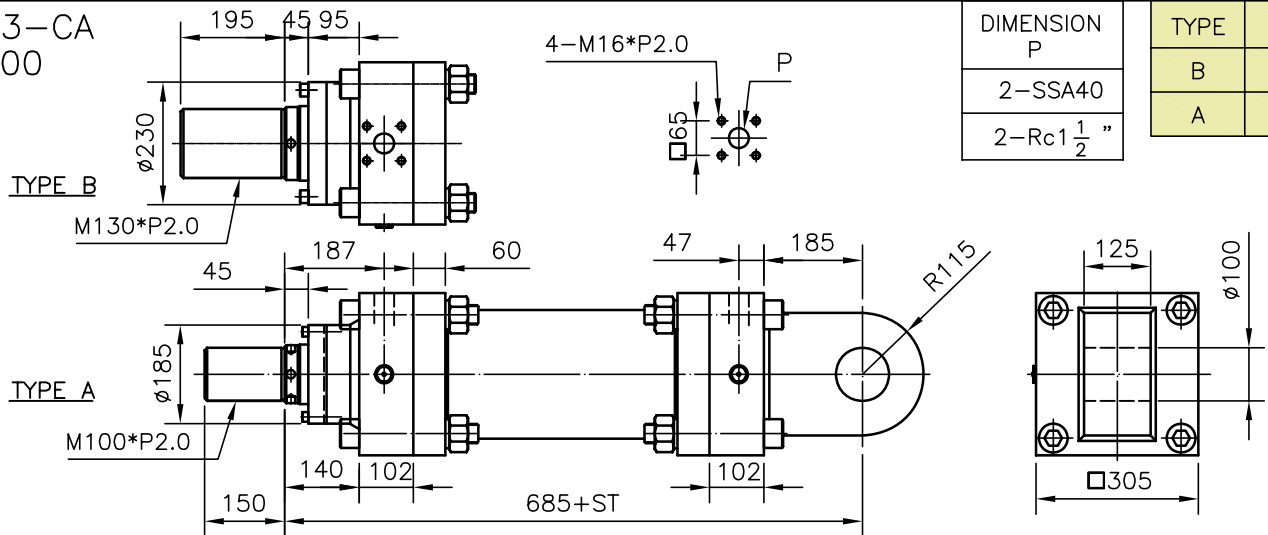
	FA	FB	CA	LA	TC
ROD $\phi 100$ =W1 (kg)	253	260	282	230	257
ROD $\phi 125$ =W1 (kg)	266	278	300	248	275
W2 (kg/100mm)	ROD $\phi 100$ =14.0		ROD $\phi 125$ =17.5		



# HC3- $\phi 200$

7/21MPa用

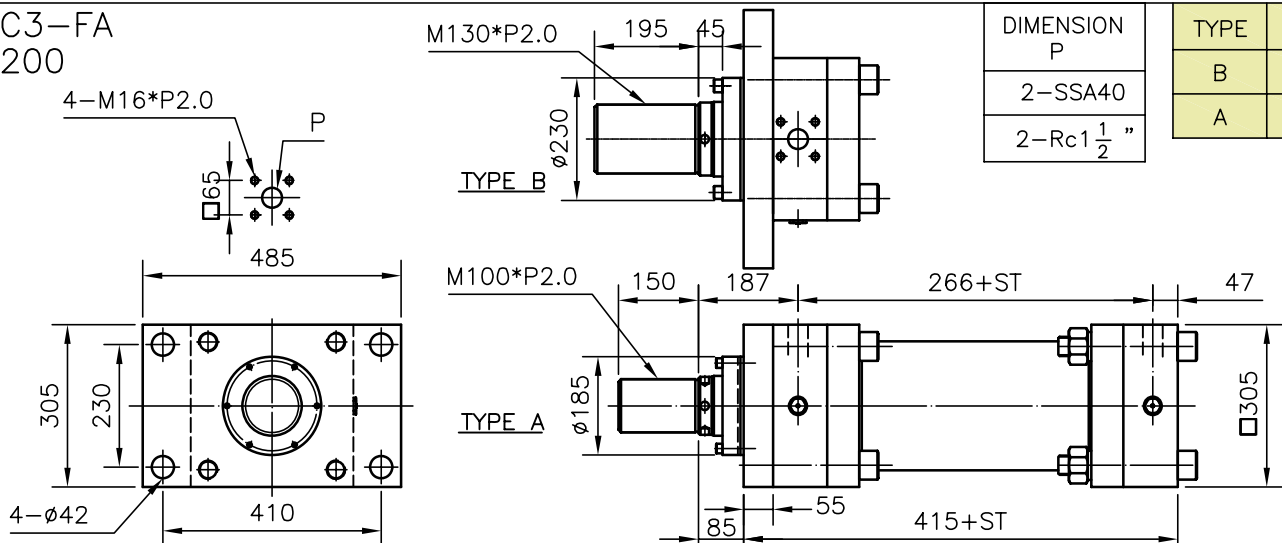
## HC3-CA $\phi 200$



DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 140$
A	$\phi 112$

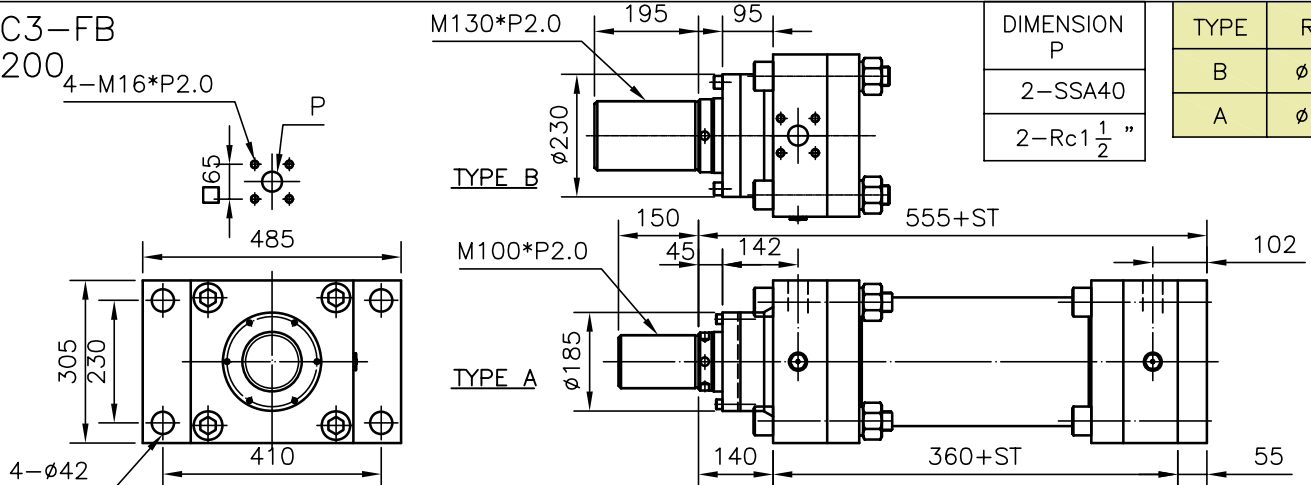
## HC3-FA $\phi 200$



DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 140$
A	$\phi 112$

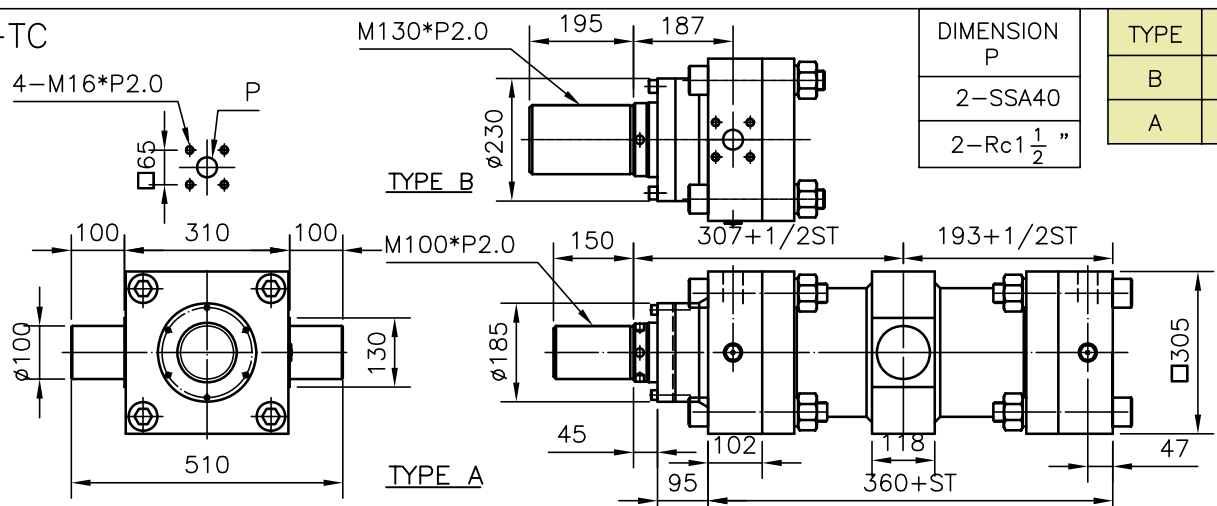
## HC3-FB $\phi 200$



DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 140$
A	$\phi 112$

## HC3-TC $\phi 200$



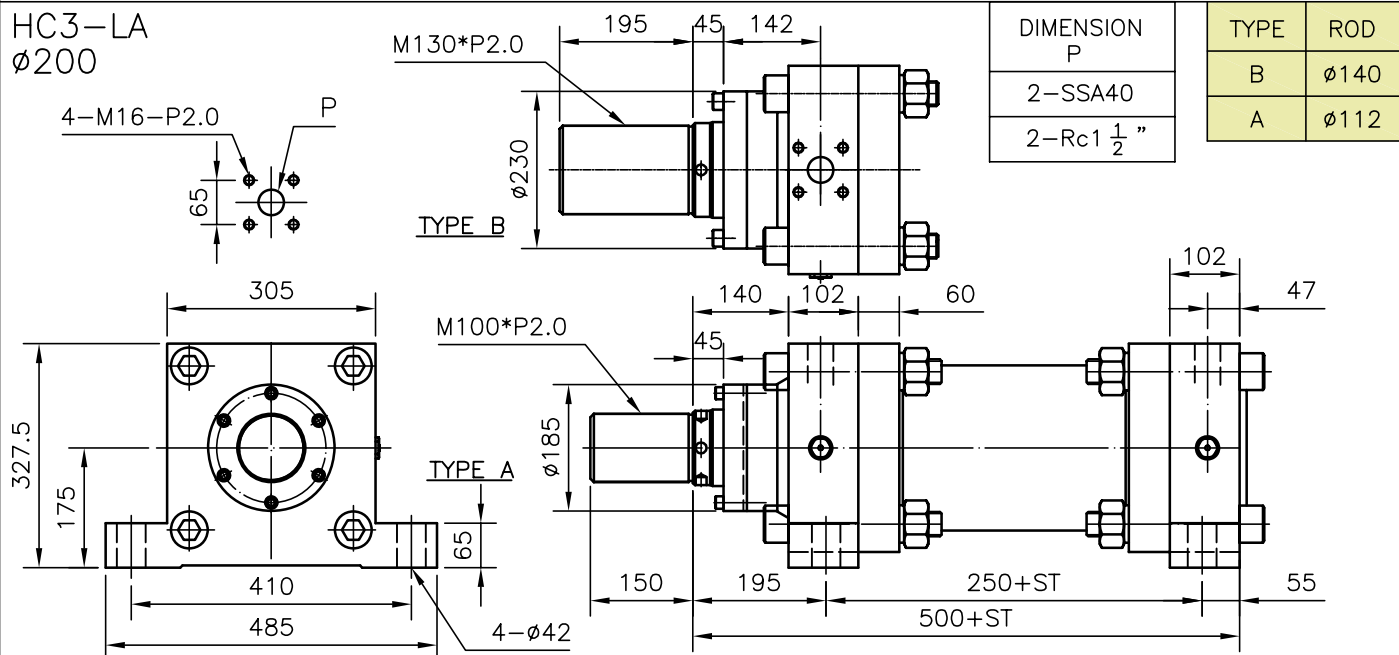
DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 140$
A	$\phi 112$

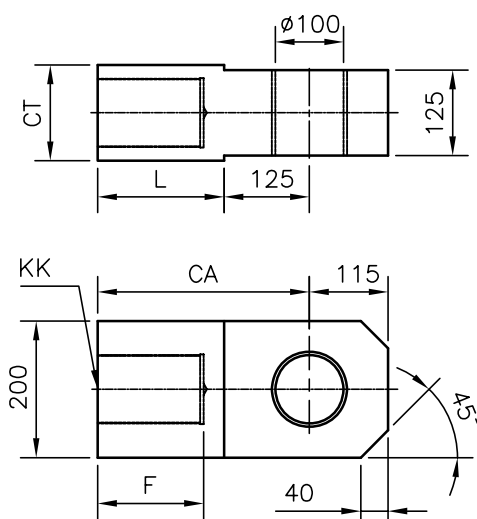
HC3- $\phi 200$

7/21MPa用

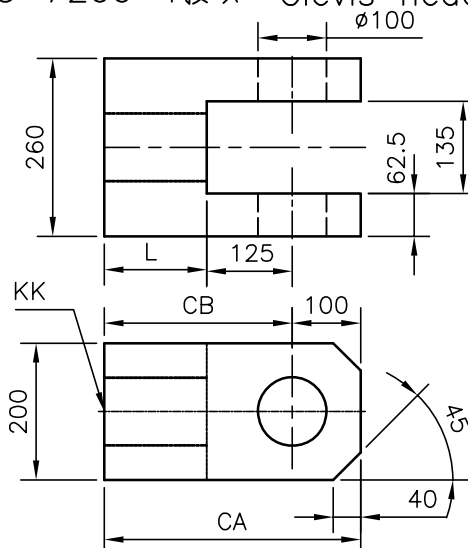
HC3-LA  
 $\phi 200$



HC3- $\phi 200$ -I接頭 Clevis head, type I



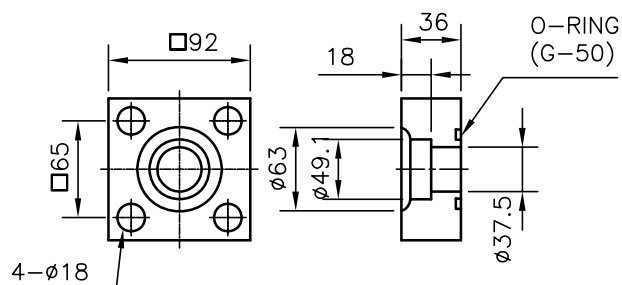
HC3- $\phi 200$ -Y接頭 Clevis head, type Y



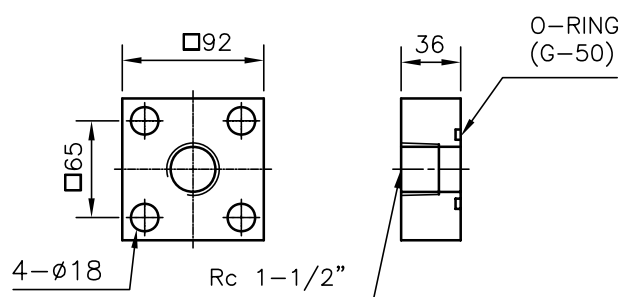
	KK	F	L	CA	CT	Weigh (kg)
TYPE A	M100x2	155	185	310	140	70
TYPE B	M130x3	200	230	355	180	82

	KK	L	CA	CB	Weigh (kg)
TYPE A	M100x2	150	375	275	94
TYPE B	M130x3	195	420	320	101

SSA凸縁 (Port Flange Kits)



Rc凸縁 (Port Flange Kits)



油壓缸大概重量計算

Estimted weight of hyd.

EX. : FA , ST=300mm , Type A

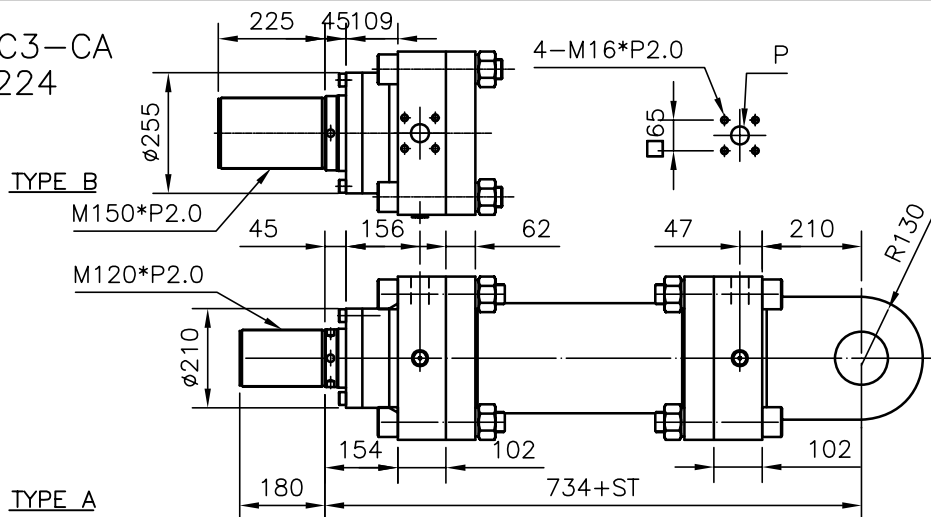
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 342 + (18.7 * 3) \\ &= 398.1 \text{ kg} \end{aligned}$$

	FA	FB	CA	LA	TC
ROD $\phi 112$ =W1 (kg)	342	352	374	315	348
ROD $\phi 140$ =W1 (kg)	362	377	399	340	373
W2 (kg/100mm)	ROD $\phi 112$ =18.7		ROD $\phi 140$ =23.0		

HC3- $\phi 224$

7/21MPa用

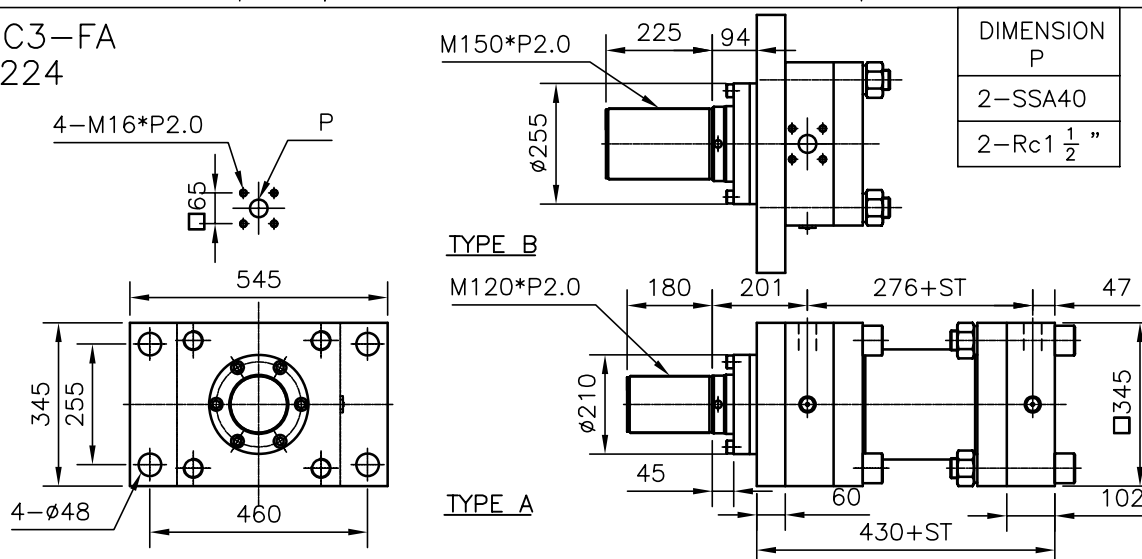
HC3-CA  
 $\phi 224$



DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 160$
A	$\phi 125$

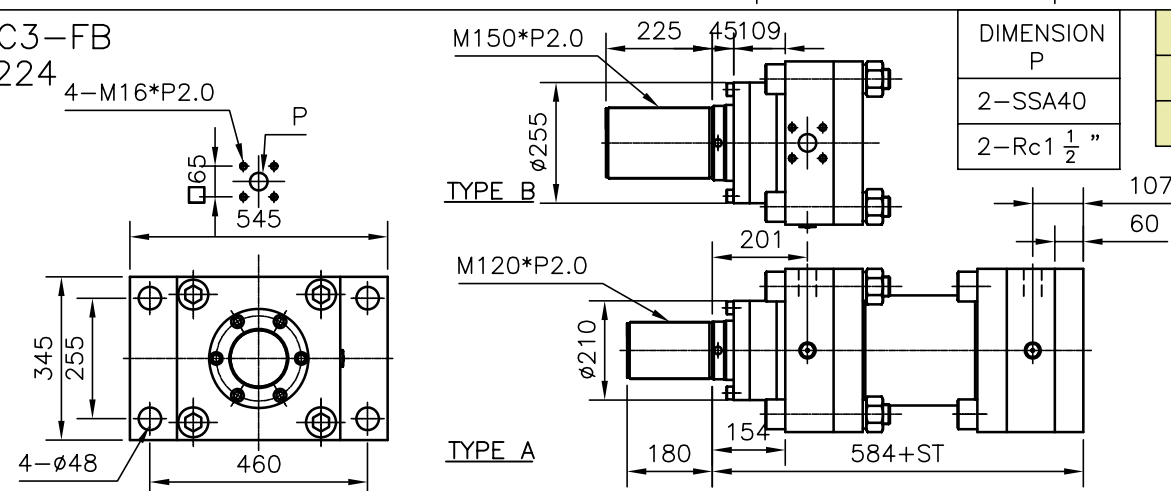
HC3-FA  
 $\phi 224$



DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 160$
A	$\phi 125$

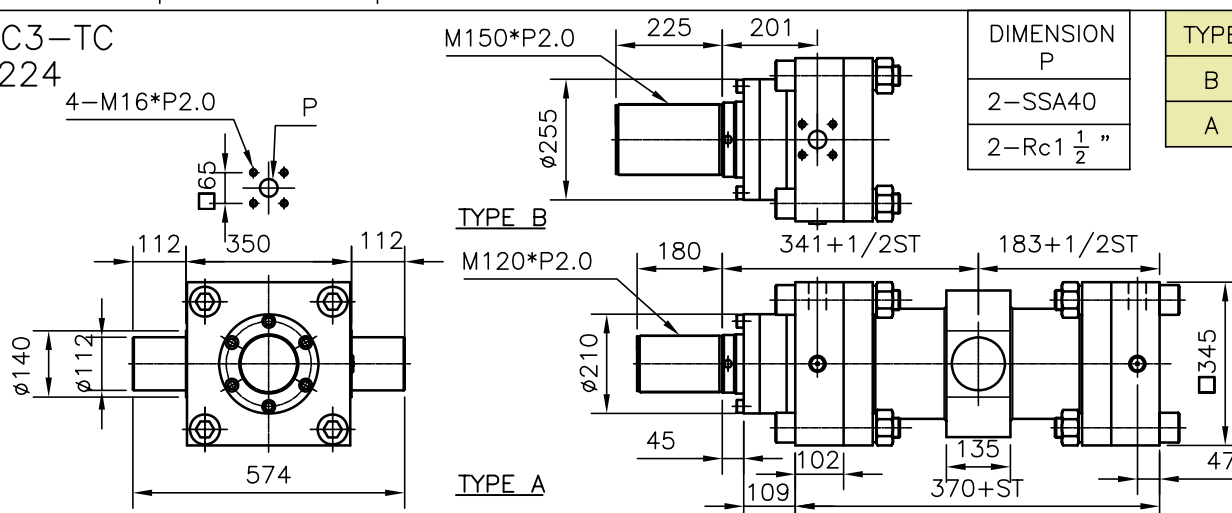
HC3-FB  
 $\phi 224$



DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 160$
A	$\phi 125$

HC3-TC  
 $\phi 224$



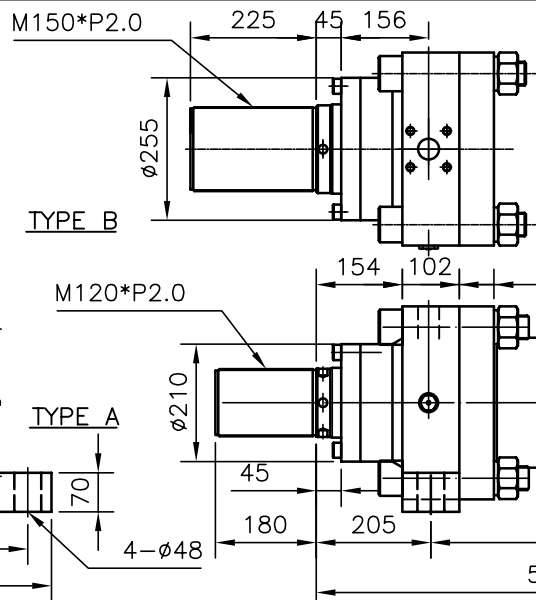
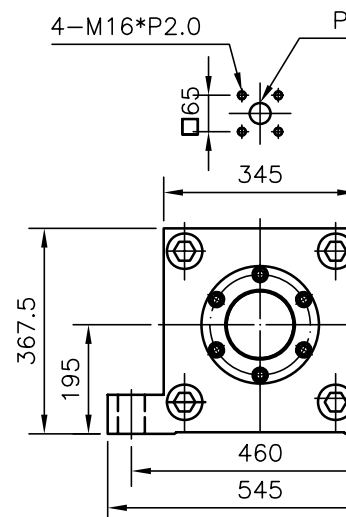
DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 160$
A	$\phi 125$

HC3- $\phi 224$

7/21MPa用

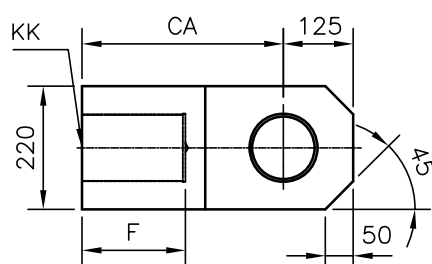
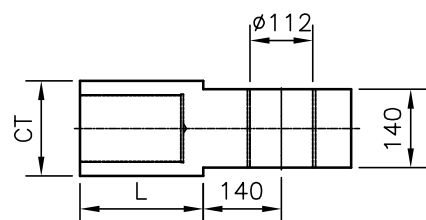
HC3-LA  
 $\phi 224$



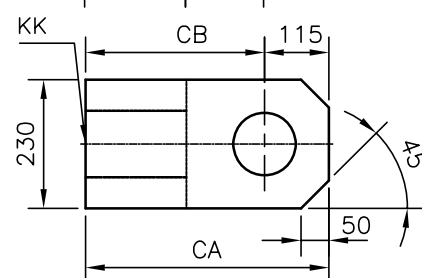
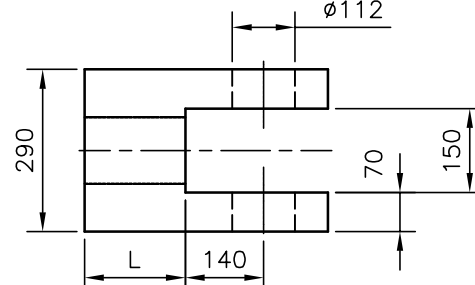
DIMENSION P
2-SSA40
2-Rc1 $\frac{1}{2}$ "

TYPE	ROD
B	$\phi 160$
A	$\phi 125$

HC3- $\phi 224$ -I接頭 Clevis head,type I



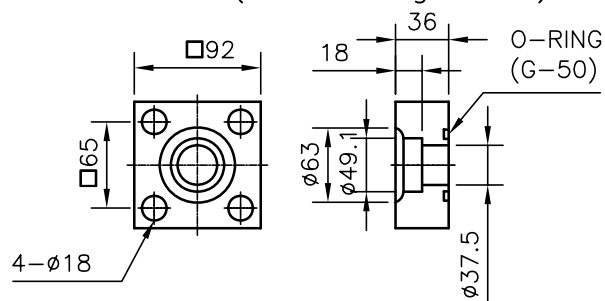
HC3- $\phi 224$ -Y接頭 Clevis head,type Y



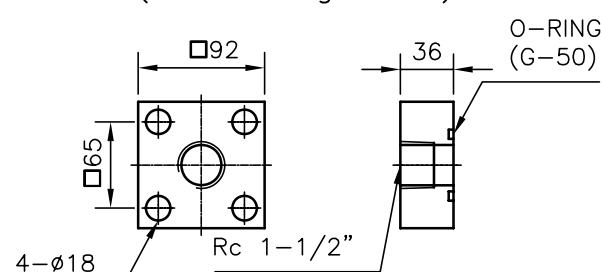
	KK	F	L	CA	CT	Weigh (kg)
TYPE A	M120x2	185	220	360	170	100
TYPE B	M150x2	230	265	405	210	129

	KK	L	CA	CB	Weigh (kg)
TYPE A	M120x2	180	435	320	130
TYPE B	M150x2	225	480	365	153

SSA凸緣 (Port Flange Kits)



Rc凸緣 (Port Flange Kits)



油壓缸大概重量計算

Estimted weight of hyd.

EX. :

FA , ST=300mm ,Type A

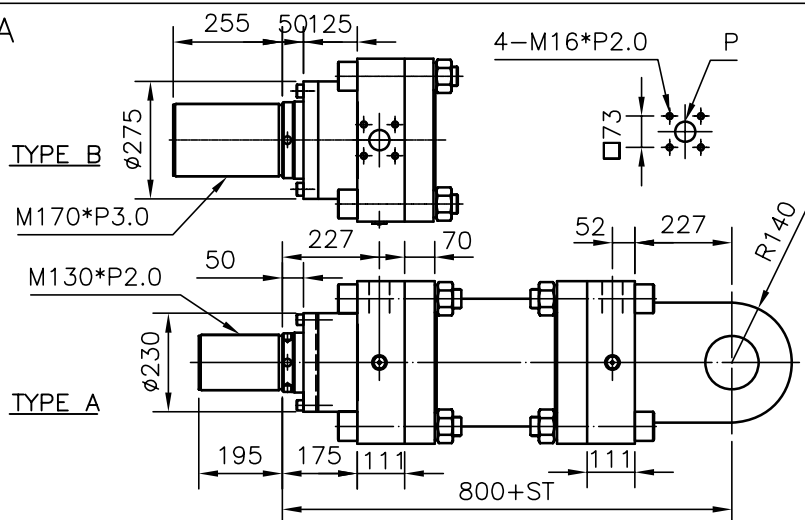
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 440 + (22.7 * 3) \\ &= 508.1 \text{ kg} \end{aligned}$$

	FA	FB	CA	LA	TC
ROD $\phi 125$ =W1 (kg)	440	455	485	399	445
ROD $\phi 160$ =W1 (kg)	468	490	520	434	480
W2 (kg/100mm)	ROD $\phi 125$ =22.7		ROD $\phi 165$ =28.8		

# HC3- $\phi 250$

7/21MPa用

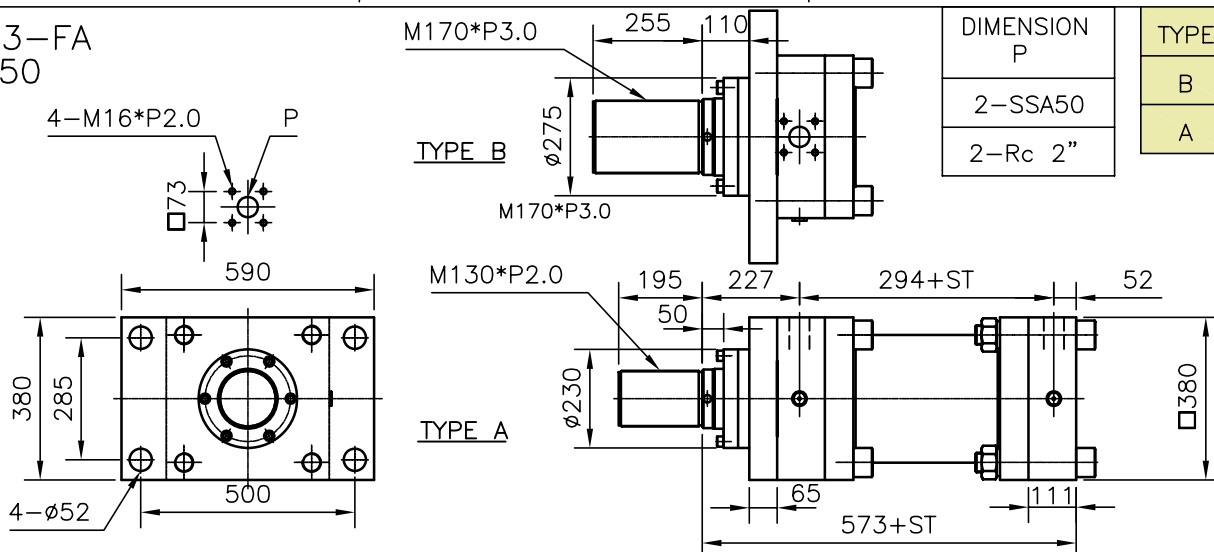
## HC3-CA $\phi 250$



DIMENSION P
2-SSA50
2-Rc 2"

TYPE	ROD
B	$\phi 180$
A	$\phi 140$

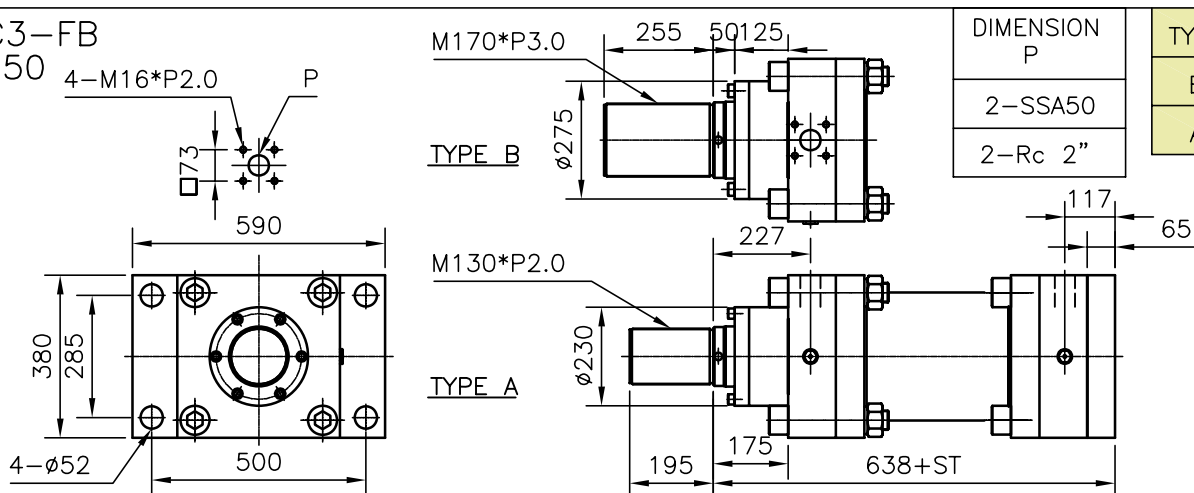
## HC3-FA $\phi 250$



DIMENSION P
2-SSA50
2-Rc 2"

TYPE	ROD
B	$\phi 180$
A	$\phi 140$

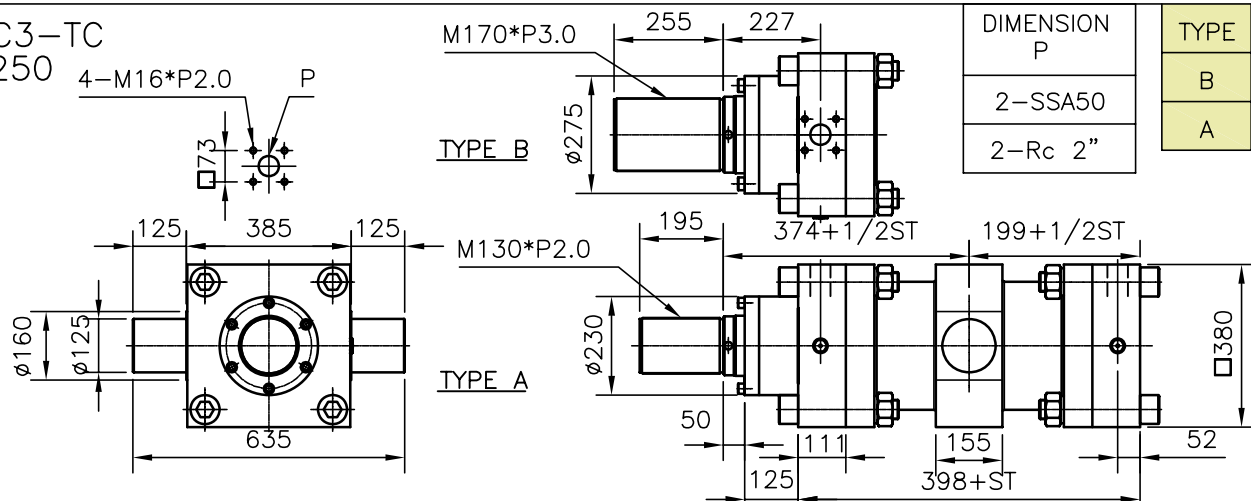
## HC3-FB $\phi 250$



DIMENSION P
2-SSA50
2-Rc 2"

TYPE	ROD
B	$\phi 180$
A	$\phi 140$

## HC3-TC $\phi 250$



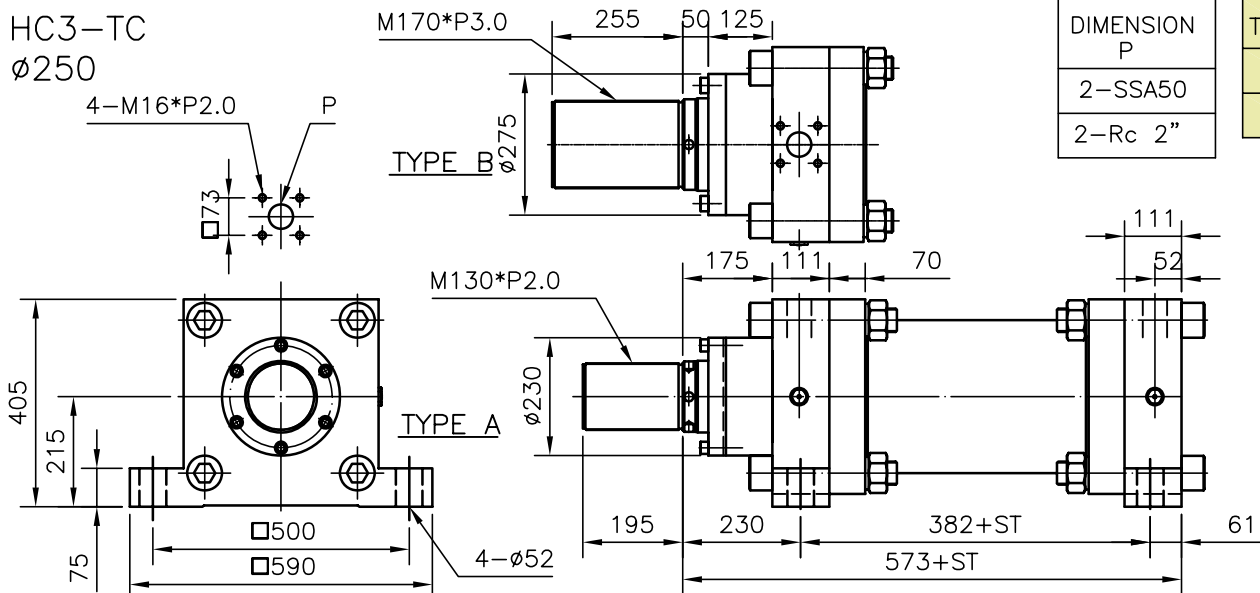
DIMENSION P
2-SSA50
2-Rc 2"

TYPE	ROD
B	$\phi 180$
A	$\phi 140$

HC3- $\phi 250$

7/21MPa用

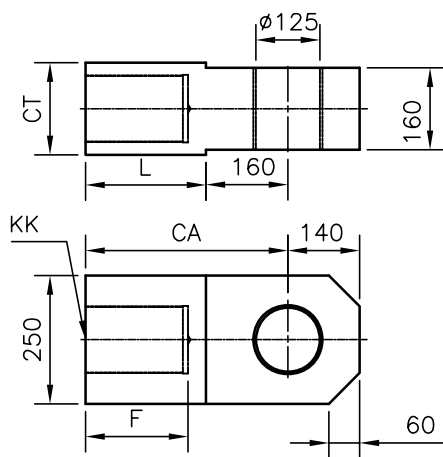
HC3-TC  
 $\phi 250$



DIMENSION P
2-SSA50
2-Rc 2"

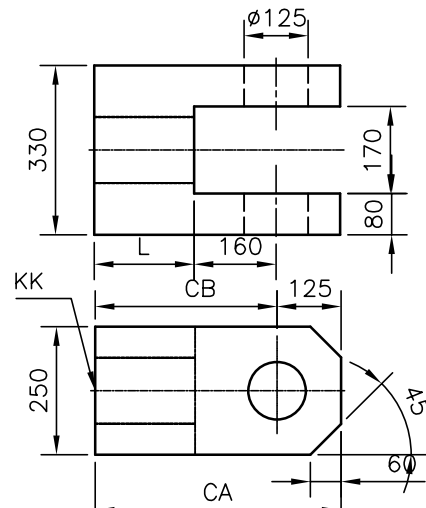
TYPE	ROD
B	$\phi 180$
A	$\phi 140$

HC3- $\phi 250$ -I接頭 Clevis head,type I



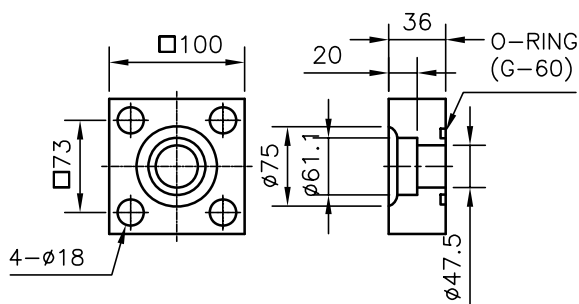
	KK	F	L	CA	CT	Weigh (kg)
TYPE A	M130x2	200	235	395	180	140
TYPE B	M170x3	260	295	455	240	169

HC3- $\phi 250$ -Y接頭 Clevis head,type Y

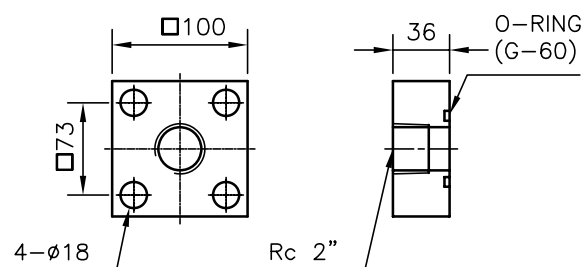


	KK	L	CA	CB	Weigh (kg)
TYPE A	M130x2	195	480	355	176
TYPE B	M170x3	255	540	415	189

SSA凸緣 (Port Flange Kits)



Rc凸緣 (Port Flange Kits)



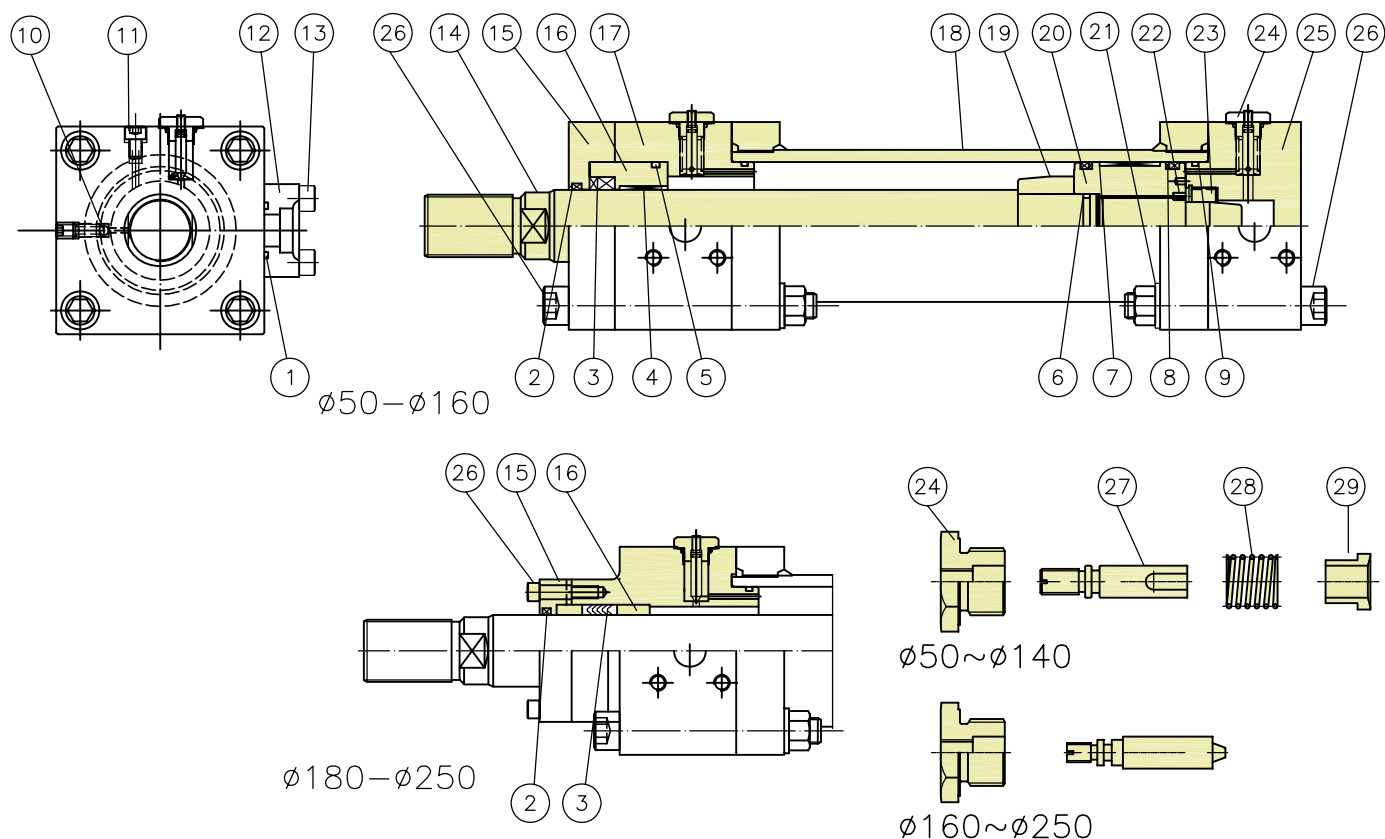
油壓缸大概重量計算 Estimated weight of hyd.

EX. :

FA , ST=300mm ,Type A  
weight= W1 + (W2 \* ST)  
= 578 + (28.3 \*3)  
= 662.9 kg

	FA	FB	CA	LA	TC
ROD $\phi 140$ =W1 (kg)	578	595	645	523	589
ROD $\phi 180$ =W1 (kg)	620	648	698	576	642
W2 (kg/100mm)	ROD $\phi 140$ =28.3		ROD $\phi 180$ =36.2		

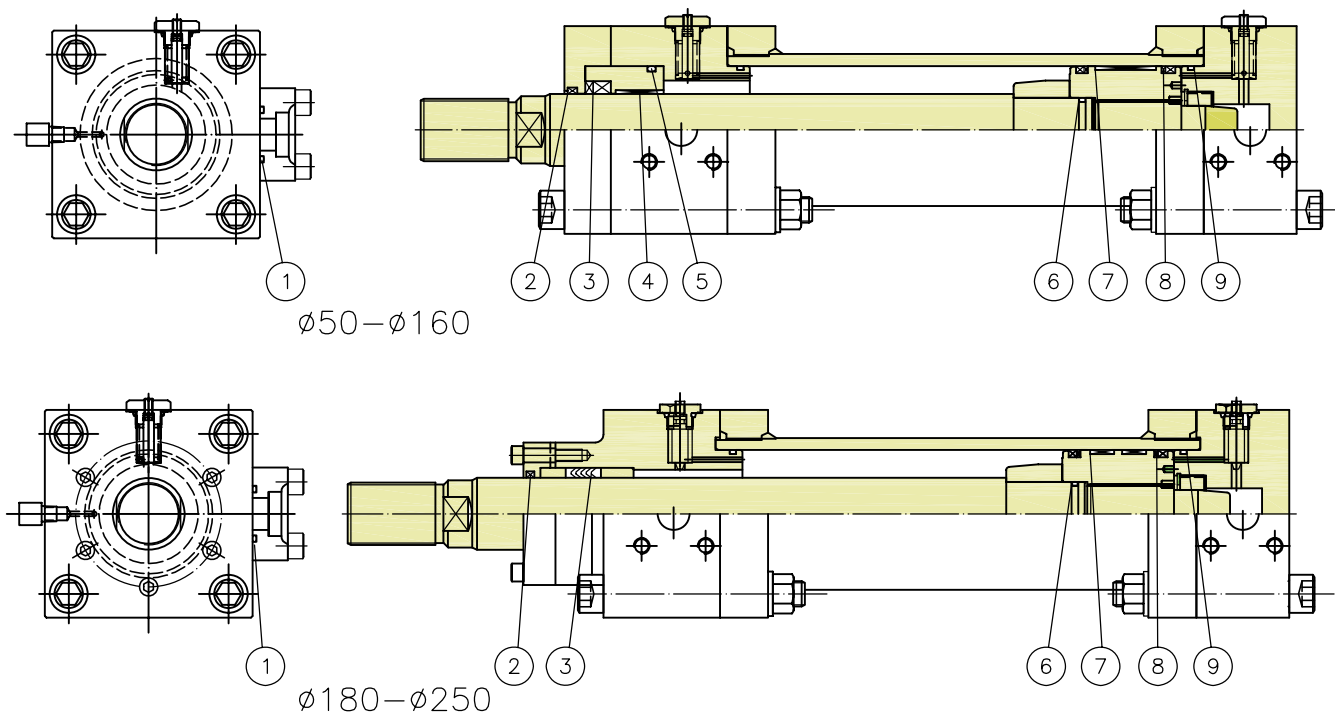




## \* 零件名稱及材質表

## Parts Description &amp; Material List:

NO	名稱Description.	材質Material.	Q'TY	NO	名稱Description.	材質Material.	Q'TY
1	O型環 O Ring	NBR	2	16	導襯套 Guide bush	機械構造用碳鋼 Carbon Steel for Mechanical Structure	2
2	防塵油封 Dust Seal	NBR	1	17	前蓋 Head	一般構造用軋鋼 Rolled Steel for General	1
3	軸心油封 Rod Seal	NBR	1	18	缸管 Cylinder Tube	機械構造用碳鋼管 Carbon Steel Pipe for Mechanical Structure.	1
4	耐磨片 Wear Ring	PTFE	1	19	緩衝環 Cushion Bush	球狀黑鉛鑄鐵 Black Lead Spherical Cast Iron	2
5	O型環 O Ring	NBR	1	20	活塞 Piston	一般構造用軋鋼 Rolled Steel for General	1
6	O型環 O Ring	NBR	1	21	六角螺帽 Tie Rod Nut	一般構造用軋鋼 Rolled Steel for General	4
7	耐磨片 Wear Ring	PTFE	2	22	防鬆螺絲 Set Screw	機械構造用碳鋼 Carbon Steel for Mechanical Structure	1
8	活塞油封 Piston Seal	NBR	2	23	緩衝環 Cushion Bush	球狀黑鉛鑄鐵 Black Lead Spherical Cast Iron	1
9	O型環 O Ring	NBR	2	24	緩衝本體 Cushion Body	機械構造用碳鋼 Carbon Steel for Mechanical Structure	2
10	止逆閥 Non return valve and bleed	機械構造用碳鋼 Carbon Steel for Mechanical Structure	1	25	後蓋 Cylinder Cap	一般構造用軋鋼 Rolled Steel for General	1
11	六角承窩螺絲 Scket Head Cap Screw	機械構造用碳鋼 Carbon Steel for Mechanical Structure	2	26	六角承窩螺絲 Scket Head Cap Screw	機械構造用碳鋼 Carbon Steel for Mechanical Structure	4
12	凸緣法蘭 Flange	一般構造用軋鋼 Rolled Steel for General	1	27	緩衝針 Cushion Adjustment	機械構造用碳鋼 Carbon Steel for Mechanical Structure	2
13	六角承窩螺絲 Scket Head Cap Screw	機械構造用碳鋼 Carbon Steel for Mechanical Structure	4	28	彈簧 Spring	琴鋼線 Qin Steel Wire	2
14	活塞桿 Piston Rod	機械構造用碳鋼 Carbon Steel for Mechanical Structure	1	29	襯套 Bush	機械構造用碳鋼 Carbon Steel for Mechanical Structure	2
15	壓板 Cover	一般構造用軋鋼 Rolled Steel for General	1	30			



油封規格表 Specifications of Oil Seal:

NO	1	2	3	4	5	6	7	8	9
名 稱	O型環 O Ring	防塵油封 Dust Seal	軸心油封 Rod Seal	耐磨片 Wear Ring	O型環 O Ring	O型環 O Ring	耐磨片 Wear Ring	活塞油封 Piston Seal	O型環 O Ring
材質	NBR	PU	PU	PTFE	NBR	NBR	PTFE	PU	NBR
數 量 內徑	2	1 $\phi, \phi.w$ mm	$\phi, \phi.w$ 1 mm +Backup ring	1	2	1	2	$\phi, \phi.w$ 2 mm +Backup ring	1
$\phi 50$ $\frac{A}{B}$	G-25	28-36-6 35.5-43.5-6	28-41-13 35.5-51.5-13	28-2.5 35.5-2.5	G-45 G-55	P-20	50-2.5	50-40-8.5	G□-50
$\phi 63$ $\frac{A}{B}$	G-25	35.5-43.5-6 45-53-6.5	35.5-51.5-13 45-61-16	35.5-2.5 45-2.5	G-65	P-22	63-2.5	63-53-8.5	G-58
$\phi 80$ $\frac{A}{B}$	G-30	45-53-6.5 56-64-6.5	45-61-16 56-72-16	45-2.5 56-2.5	G-75	G-35	80-2.5	80-60-13	G-75
$\phi 100$ $\frac{A}{B}$	G-30	56-64-6.5 71-81-8	56-72-16 71-91-16	56-2.5 71-2.5	G-95	G-45	100-2.5	100-80-16	G-95
$\phi 125$ $\frac{A}{B}$	G-35	71-81-8 90-100-8	71-91-16 90-110-16	71-2.5 90-2.5	G-115	G-60	125-2.5	125-105-16	G-120
$\phi 140$ $\frac{A}{B}$	G-35	80-90-8 100-110-8	80-100-16 100-120-16	80-2.5 100-2.5	G-125	G-65	140-2.5	140-120-19	G-135
$\phi 160$ $\frac{A}{B}$	G-35	90-100-8 112-122-8	90-110-16 112-132-19	90-2.5 112-2.5	G-135	G-75	160-2.5	160-135-24	G-150
$\phi 180$ $\frac{A}{B}$	G-40	100-110-8 125-138-9.5	100-120-33.5 125-150-33.5	—	—	G-85	180-2.5	180-155-24	G170
$\phi 200$ $\frac{A}{B}$	G-50	112-122-8 140-153-9.5	112-132-38 140-165-45.5	—	—	G-95	200-2.5	200-175-24	G-190
$\phi 224$ $\frac{A}{B}$	G-50	125-138-9.5 160-174-9.5	125-150-45.5 160-185-45.5	—	—	G-105	224-2.5	224-199-24	G-210
$\phi 250$ $\frac{A}{B}$	G-60	140-153-9.5 180-194-9.5	140-165-45.5 180-205-45.5	—	—	G-120	250-2.5	250-225-24	G-240