

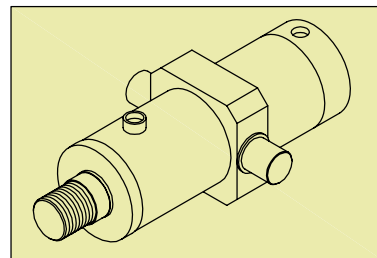
HC5系列油壓缸 HC5 Series Hydraulic Cylinders

車輛等特殊用途 Specially employed in the vehicle

- * HC5形油壓缸以無繫柱螺桿,圓形且後蓋以焊接式為準,適用於車輛,停車場或專用機械上等,在嚴酷之環境中使用,振動,衝擊和瞬間極限壓力等均安全,且據有多種固定形式的強力油壓缸
- * 加工精度,表面處理,油封材料等各零件之設計均朝向,特殊用途為基準的高性能油壓缸
- * Owing to the HC5 hyd cylinders there are being with no reinforced screwbolt, round profile structure and cylinder cap welded. Especially suited for vehicle parking system and special purpose machinery etc., Because, those are employed at strictly environmental condition and with vibration resistan, impulse resistant & anti-instantaneous burst pressure are very effectively furthermore, there are also being with much mountings and a powerful hyd cylinders.
- * The processing accuracy, surface treatment & oil sealer's material etc., selecting & manufacturing are all emphasised in special applications.

規範 Specifications

項目 Item	型式 Model	HC5系列 HC5 Series
缸管內徑 Cylinder Bore	mm	ø40,ø50,ø60,ø63,ø70,ø80 ø90,ø100,ø110,ø125
固定座形式 Mounting		FA,FB,FD,TC,CA,CD
使用壓力 Operating Pressure		140 kgf/cm ²
測試壓力 Testing pressure		210 kgf/cm ²
最低作動壓力 Min. Operating Pres.		3 kgf/cm ²
適用作動油 Fluid		一般礦物性作動油 Mineral oil
最高使用速度 Max. Operating Speed		500 mm/sec
最低使用速度 Min. Operating Speed		10 mm/sec
使用溫度範圍 Range of Ambient Temperoutre		-10°C~+80°C
推桿前端形式 Rod End Type		A TYPE & B TYPE
最大行程 Max. Stroke		參考彎曲強度低值 (DRAW)



* 活塞桿前端形式 Rod End Type

略圖 Configuration	
TYPE A	TYPE B

* 行程容許差 Tolerance of Stroke

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

* 固定座形式 Mounting

記號 Symbol	名稱 Description	略圖 Configuration	記號 Symbol	名稱 Description	略圖 Configuration
FA	前蓋端法蘭形 Flange at cylinder head		TC	中間固定支撐形 Centre Trunnion mounting	
FB	後蓋端法蘭形 Flange at cylinder cap		CA	山形座(1山形) Plaie clevis at cylinder cap	
FD	後蓋端長方形法蘭形 Rectangular flange at cylinder cap		CD	後蓋端圓筒形 Tube clevis at cylinder cap	

HC5

訂購內容索引 Ordering Index :

180 HC5 CA 100 55 100 B A E U

使用壓力 180 kgf/cm²
Max. Operating Pres.

HC5:系列
HC5:Series Number

固定座形式 Mounting
FA, FB, FD, TC, CA, CD

缸管內徑 Cylinder Bore mm
ø40, ø50, ø60, ø63, ø70,
ø80, ø90, ø100, ø110, ø125

活塞桿徑 Rod Dia mm
ø22.4 ø30, ø35, ø40, ø45
ø50, ø55, ø65, ø70,

衝程 Stroke mm
要考慮最大容許衝程
Max. Permissible stroke

U-活塞用U型油封
T-活塞用T型油封
U-Piston seal for mode U
T-Piston seal for mode T

特殊附件-TYPE-A

E:活塞桿前端另類螺紋形

K:附固定螺帽 L:附I接頭,BAI
Optionals-TYPE-A

E:Rod end with other threading
K:With locking nut L:With I adapter
BAI

出入口之方向 Port Position
A:標準 B:右 A:Standard
B:Right or Left

活塞桿前端形式 Rod End Type
Type-A Type-B

特殊附件記載於件欄 例如:EK

* The optional attachment is recorded an L item such as EK.

* 技術參數 Technical Data :

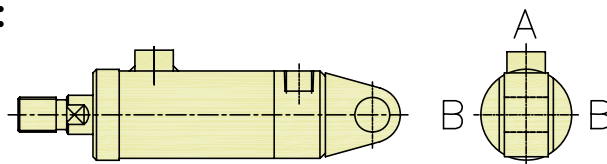
缸管內徑 Cylinder Bore mm	活塞桿徑 Rod Dia. mm	動 作 Action	有效面積 Effective Area cm ²	出 力 Output Power kgf					流量10L/分 之速度 Flow Rate at Speed 10L/min mm/sec	速度10mm/秒 之流量 Speed at Flow Rate 10mm/sec L/min
				10 kgf/cm ²	30 kgf/cm ²	70 kgf/cm ²	105 kgf/cm ²	140 kgf/cm ²		
40	22.4	推力 Extend	12.6	126	377	879	1319	1758	132	0.8
		拉力 Retract	8.6	86	259	603	905	1207	193	0.5
50	30	推力 Extend	19.6	196	589	1374	2061	2748	85	1.2
		拉力 Retract	12.6	126	377	879	1319	1758	132	0.8
60	30	推力 Extend	28.3	283	848	1978	2967	3956	59	1.7
		拉力 Retract	21.2	212	636	1484	2225	2967	79	1.3
63	35	推力 Extend	31.2	312	935	2181	3271	4362	53	1.9
		拉力 Retract	21.5	215	646	1508	2262	3016	77	1.3
70	40	推力 Extend	38.5	385	1154	2693	4039	5385	43	2.3
		拉力 Retract	25.9	259	777	1813	2720	3627	64	1.6
80	45	推力 Extend	50.3	503	1507	3517	5275	7034	33	3.0
		拉力 Retract	34.3	343	1030	2404	3606	4808	49	2.1
90	50	推力 Extend	63.6	636	1908	4451	6676	8902	26	3.8
		拉力 Retract	44.0	440	1319	3077	4616	6154	38	2.6
100	55	推力 Extend	78.5	785	2355	5495	8243	10990	21	4.7
		拉力 Retract	54.8	548	1643	3833	5749	7666	30	3.3
110	65	推力 Extend	95.0	950	2850	6649	9973	13298	18	5.7
		拉力 Retract	61.8	618	1855	4327	6491	8655	27	3.7
125	70	推力 Extend	122.7	1227	3680	8586	12879	17172	14	7.4
		拉力 Retract	84.2	842	2526	5893	8840	11787	20	5.0

HC5

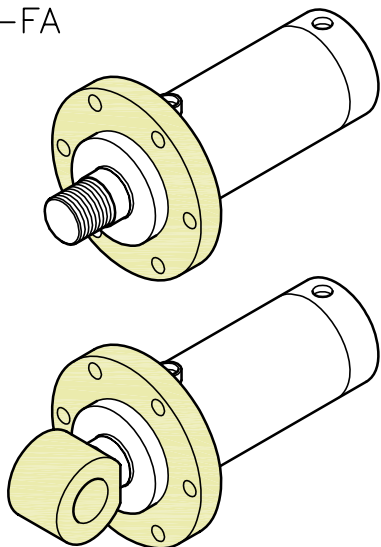
* 出入油孔方向 Oil Posit Position:

油孔方向分 ① ② —標準方向為 ①

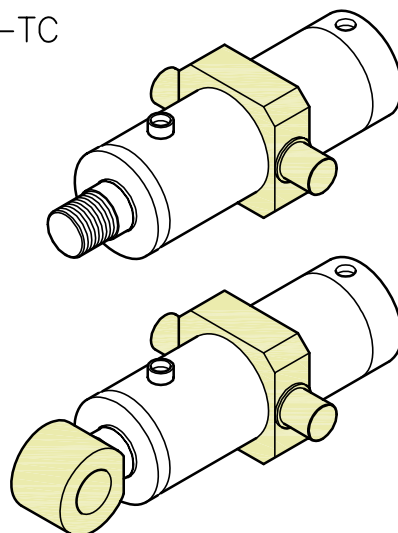
The port position is divided into(A)(B)
But the is at standard(A)



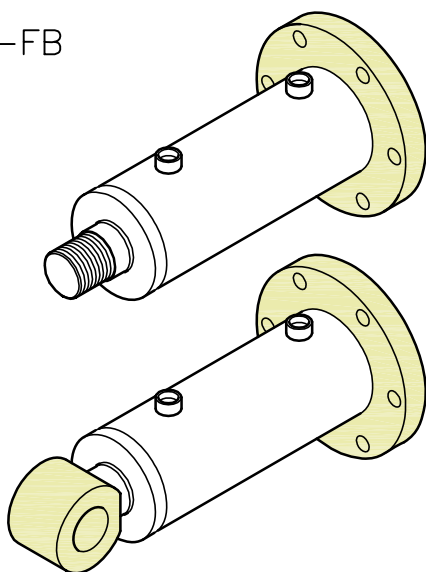
HC5-FA



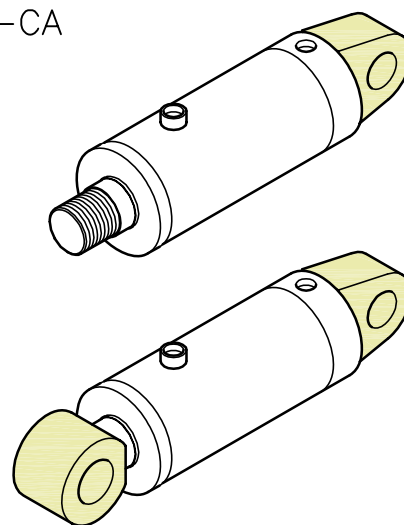
HC5-TC



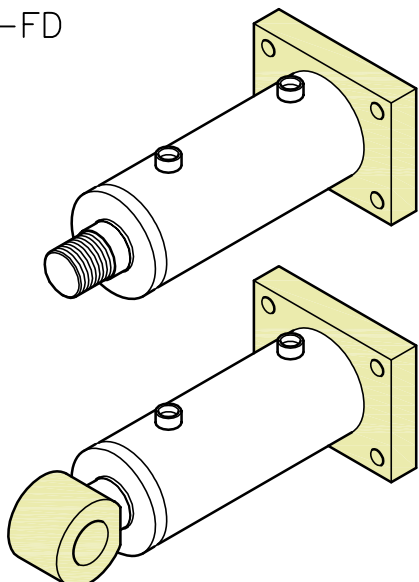
HC5-FB



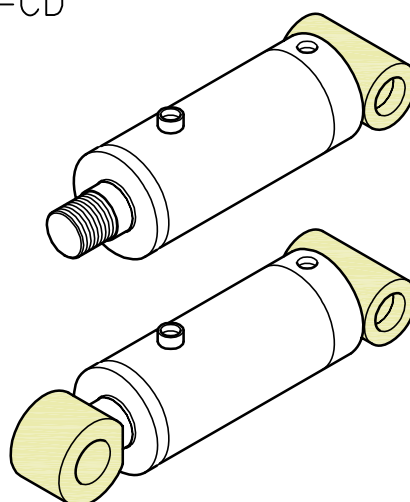
HC5-CA



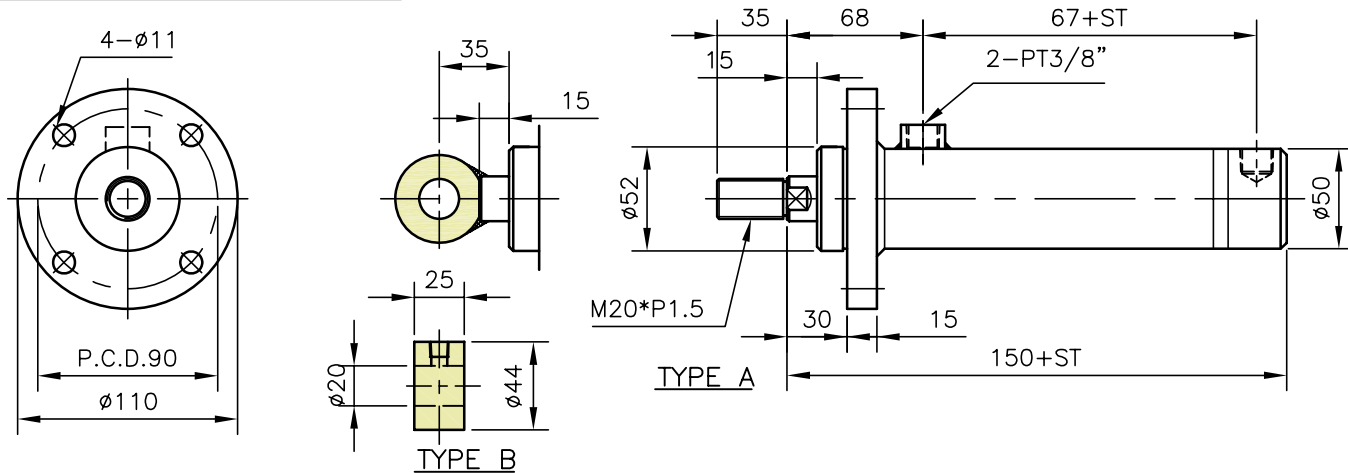
HC5-FD



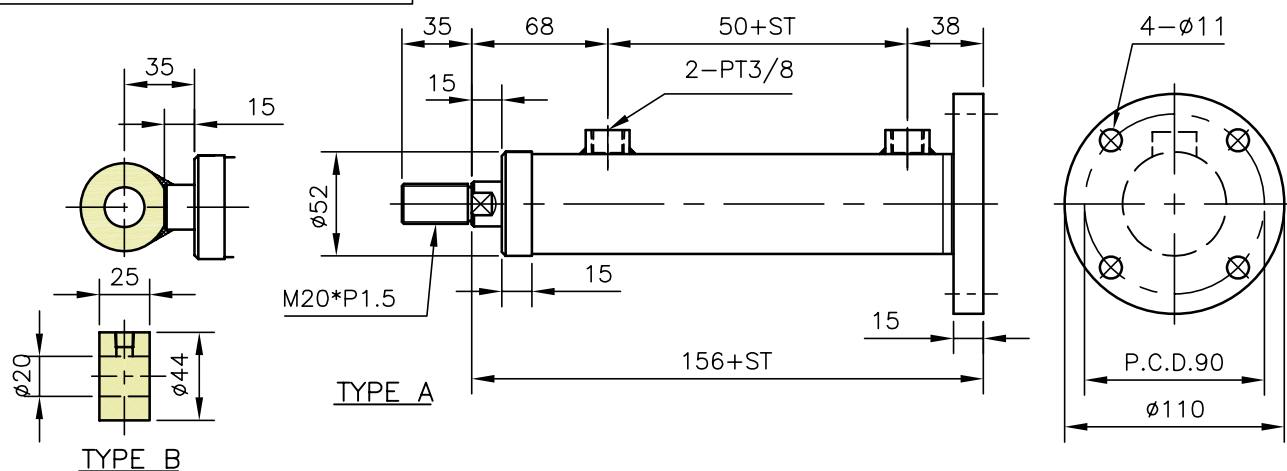
HC5-CD



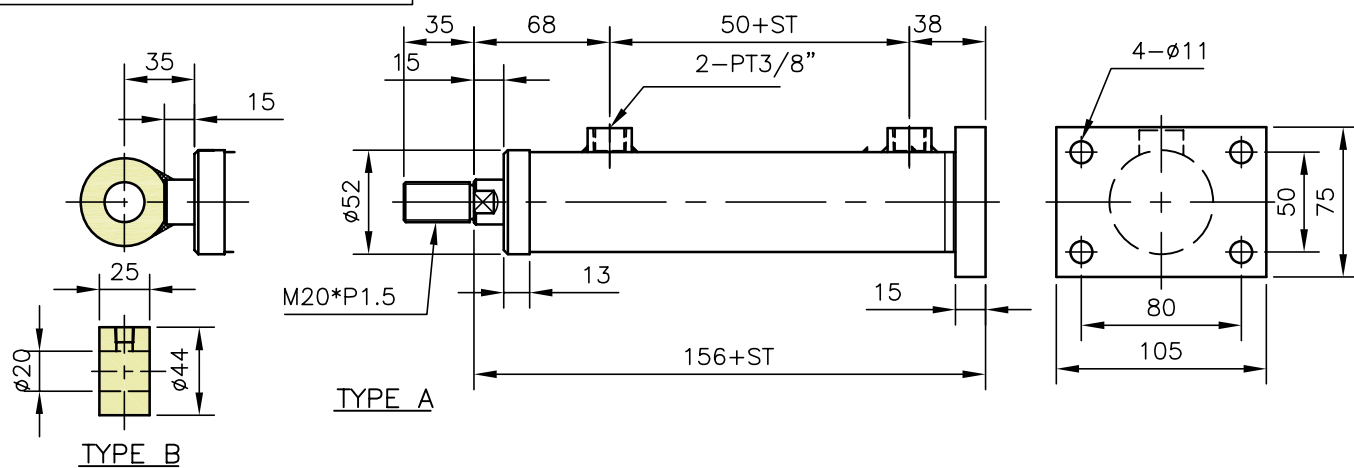
HC5-FA $\phi 40/\phi 22.4$



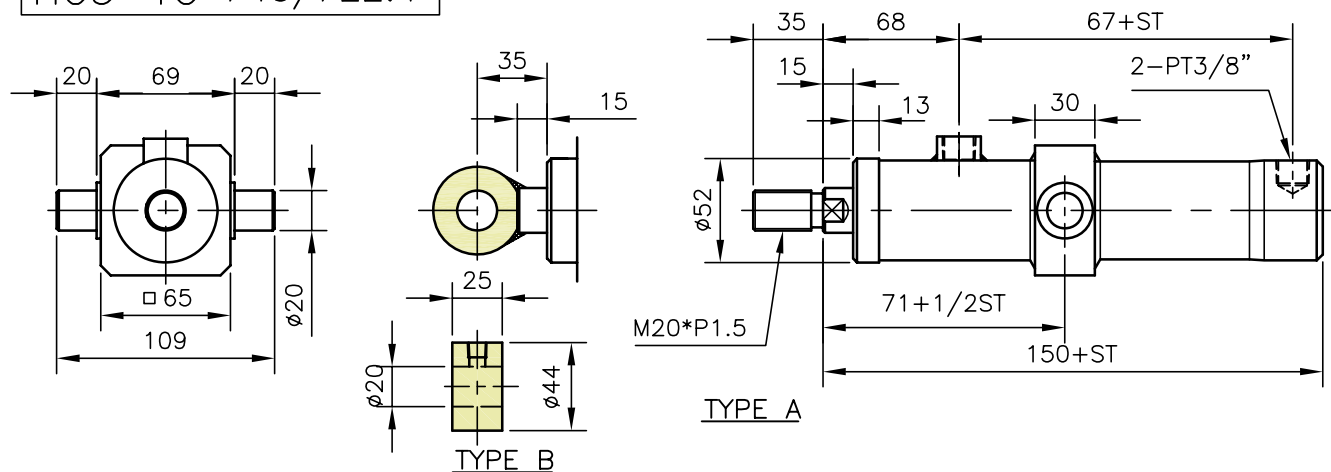
HC5-FB $\phi 40/\phi 22.4$



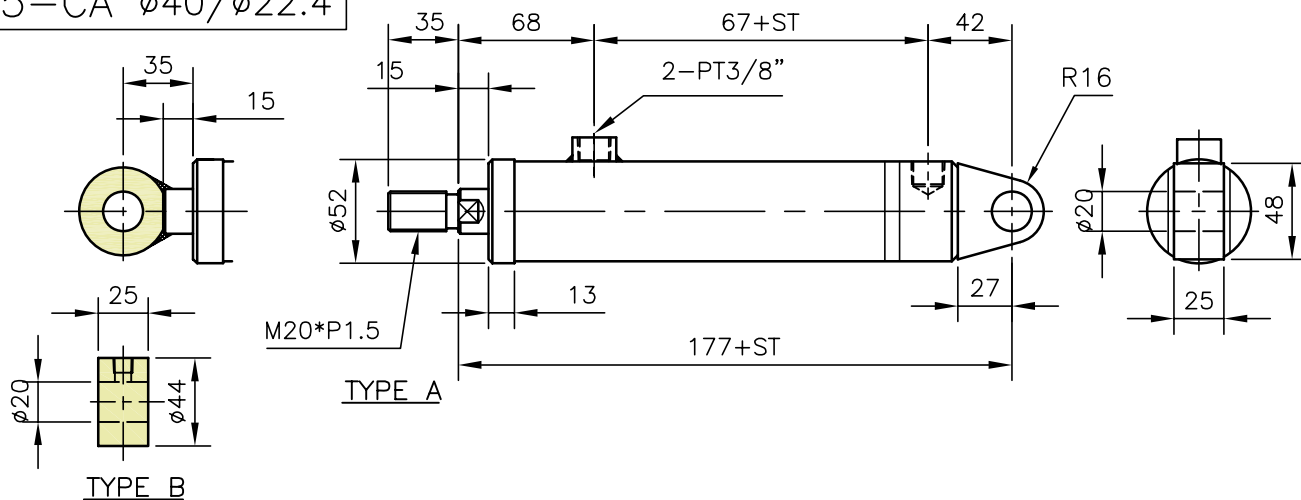
HC5-FD $\phi 40/\phi 22.4$



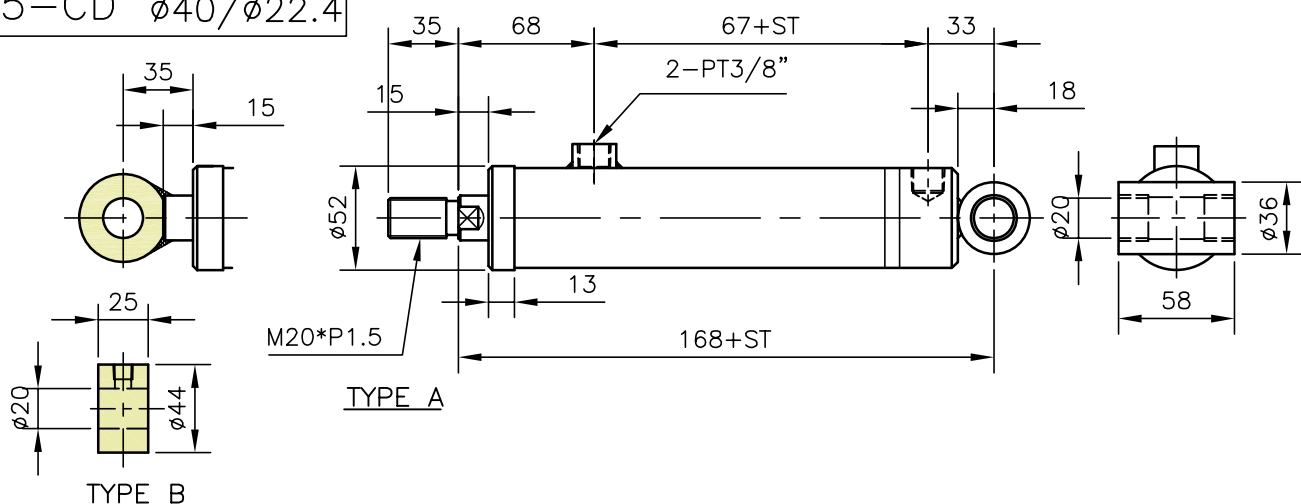
HC5-TC $\phi 40/\phi 22.4$



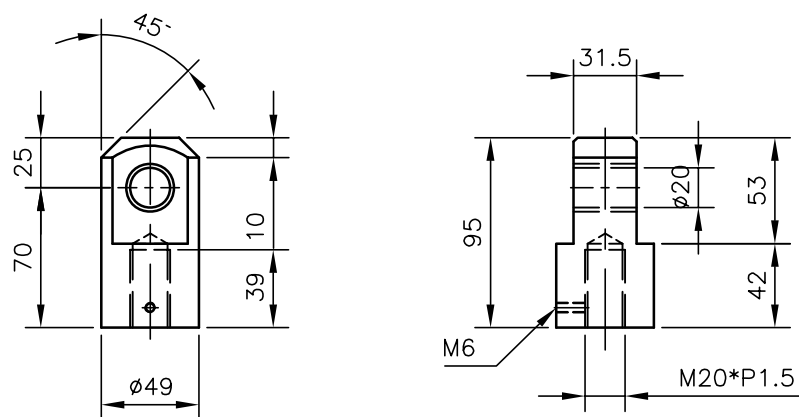
HC5-CA $\phi 40/\phi 22.4$



HC5-CD $\phi 40/\phi 22.4$



HC5- $\phi 40$ -I接頭



油壓缸大概重量計算

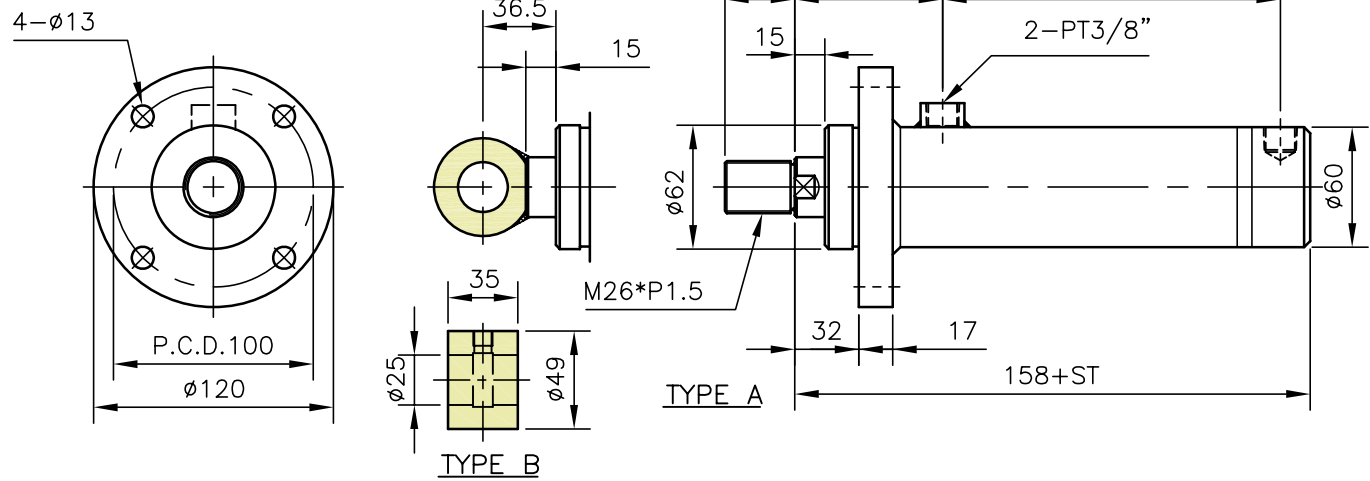
Estimated weight of hyd.

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

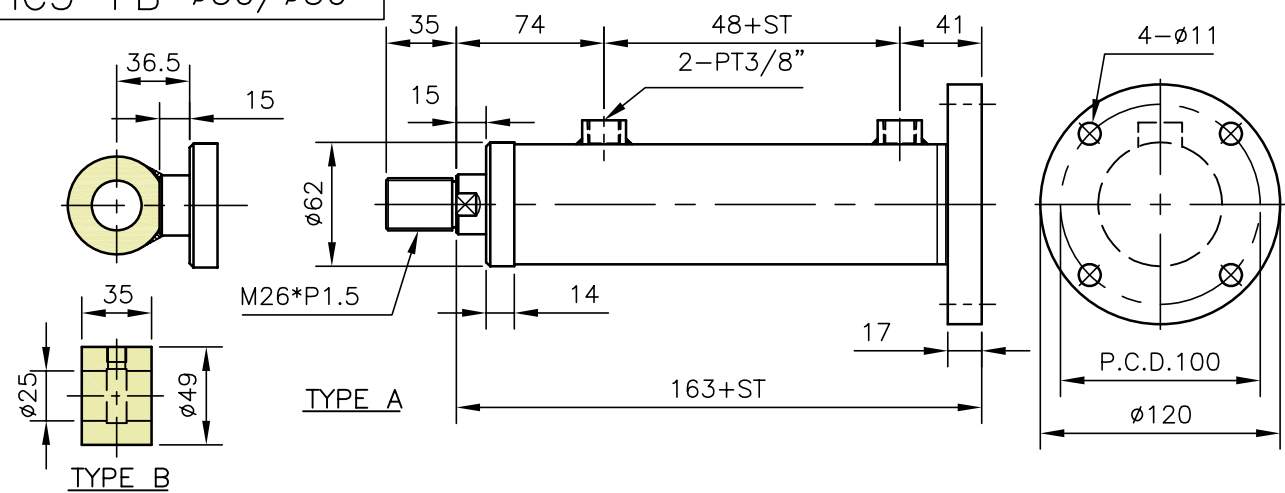
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 3.2 + (0.9 * 2) \\ &= 5.0 \text{ kg} \end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	3.2	3.5	0.9
FB	3.1	3.4	
FD	2.9	3.2	
TC	2.8	3.1	
CA	2.5	2.8	
CD	2.5	2.8	

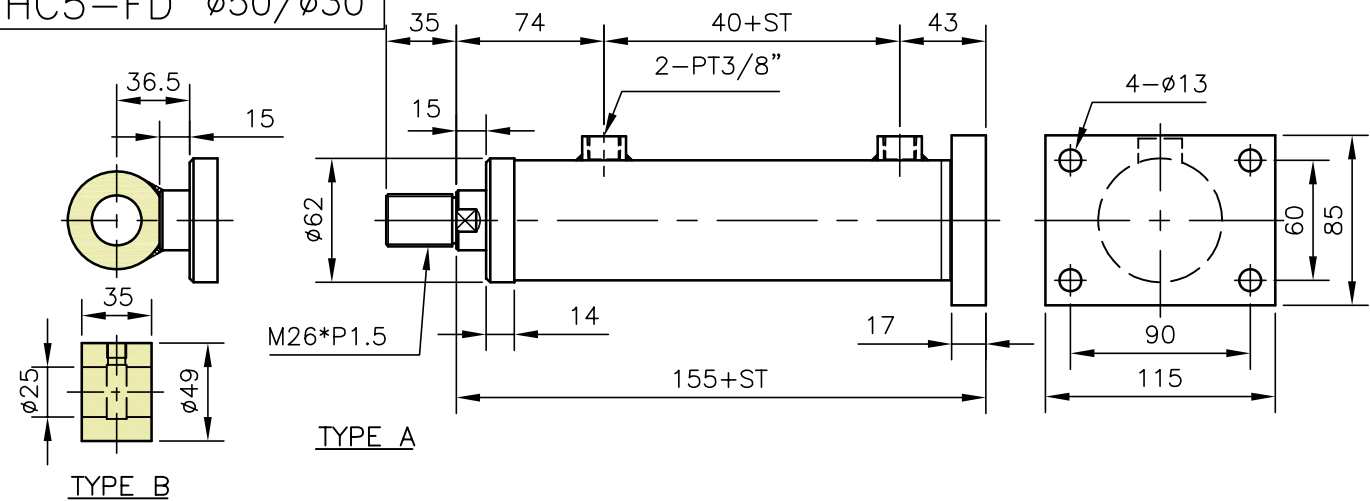
HC5-FA $\phi 50/\phi 30$



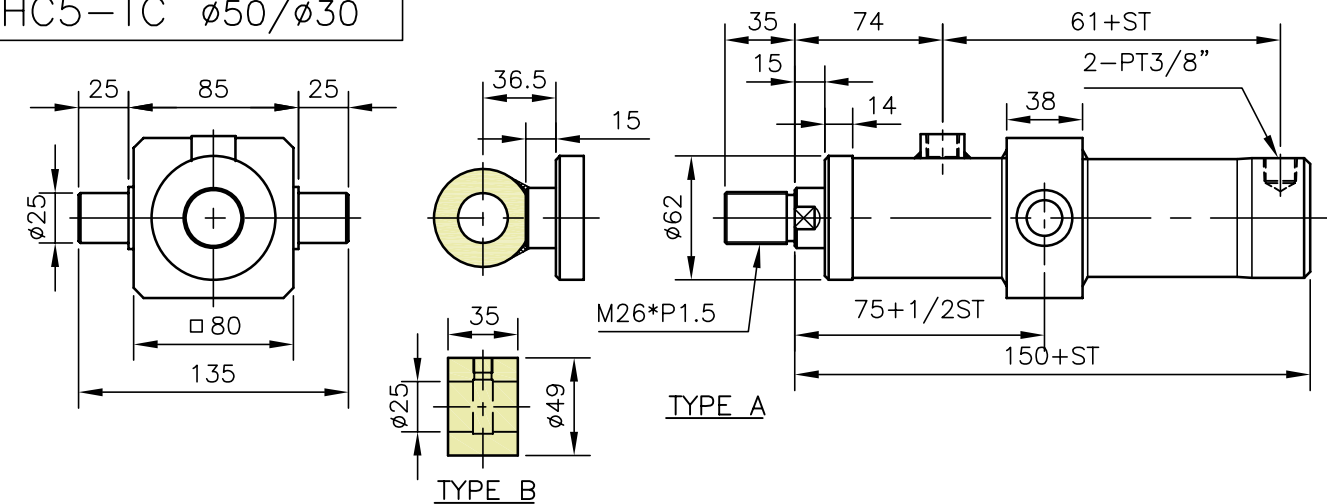
HC5-FB $\phi 50/\phi 30$



HC5-FD $\phi 50/\phi 30$



HC5-TC $\phi 50/\phi 30$



Technical drawing of a 2-PT3/8 inch hydraulic cylinder, Type A. The drawing includes a side view, a front view, and a detail view of the mounting bracket.

Dimensions:

- Side View:**
 - Total length: 177+ST mm
 - Mounting bracket length: 35 mm
 - Mounting bracket thickness: 15 mm
 - Distance from mounting bracket to cylinder body: 74 mm
 - Cylinder body length: 69+ST mm
 - Distance from cylinder body to flange: 34 mm
 - Flange thickness: 19 mm
 - Port size: 2-PT3/8"
- Front View:**
 - Main body diameter: $\varnothing 62$ mm
 - Flange diameter: $\varnothing 38$ mm
 - Flange width: 68 mm
- Detail View (Type B):**
 - Mounting bracket diameter: $\varnothing 49$ mm
 - Mounting bracket thickness: 15 mm
 - Mounting bracket width: 35 mm
 - Mounting bracket hole diameter: $\varnothing 25$ mm

Other Labels:

- TYPE A**: Label for the main cylinder assembly.
- TYPE B**: Label for the mounting bracket detail.
- M26*P1.5**: Thread specification for the mounting bracket.
- 14**: Dimension for the distance from the mounting bracket to the cylinder body.

Technical drawing of a mechanical part, showing front and side views with dimensions.

Front View (Left):

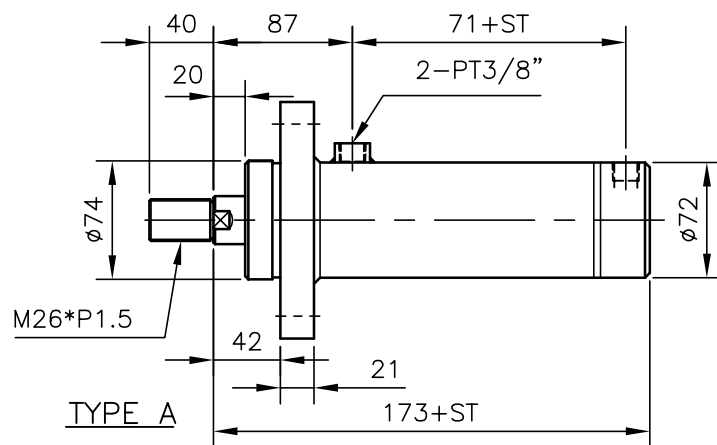
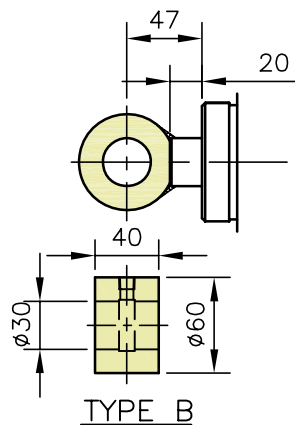
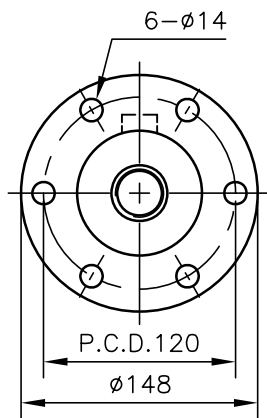
- Overall height: 115
- Top section height: 35
- Top section width: $\phi 62$
- Top section angle: 45°
- Bottom section height: 50
- Bottom section width: 15

Side View (Right):

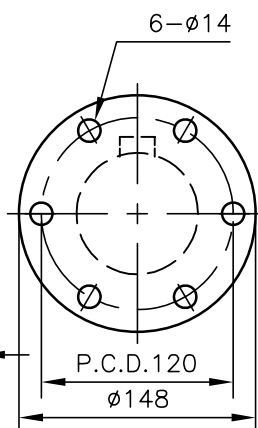
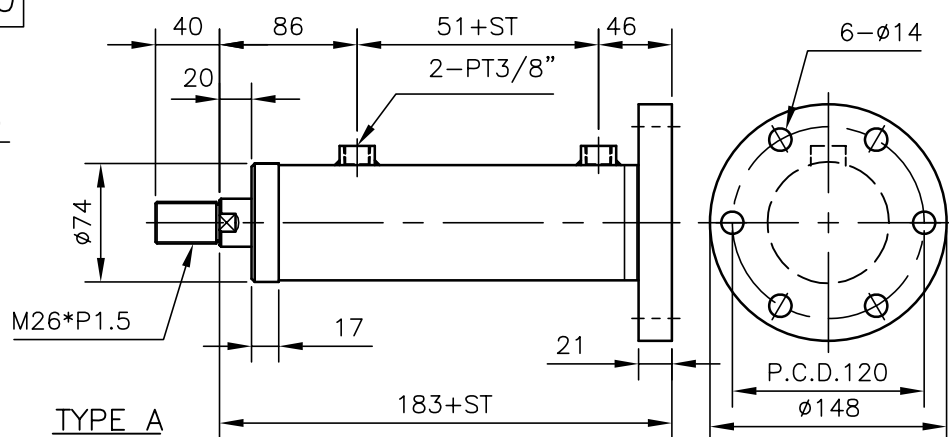
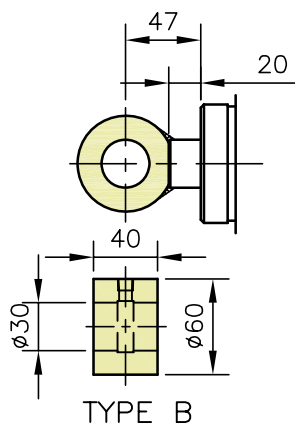
- Overall height: 150
- Top section width: 40
- Top section height: 78
- Top section hole diameter: $\phi 30$
- Bottom section height: 72
- Bottom section width: M26*P1.5

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	5.0	5.3	1.3
FB	5.3	5.6	
FD	4.7	5.0	
TC	5.0	5.3	
CA	4.5	4.8	
CD	4.4	4.7	

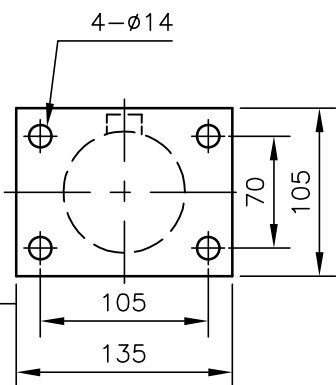
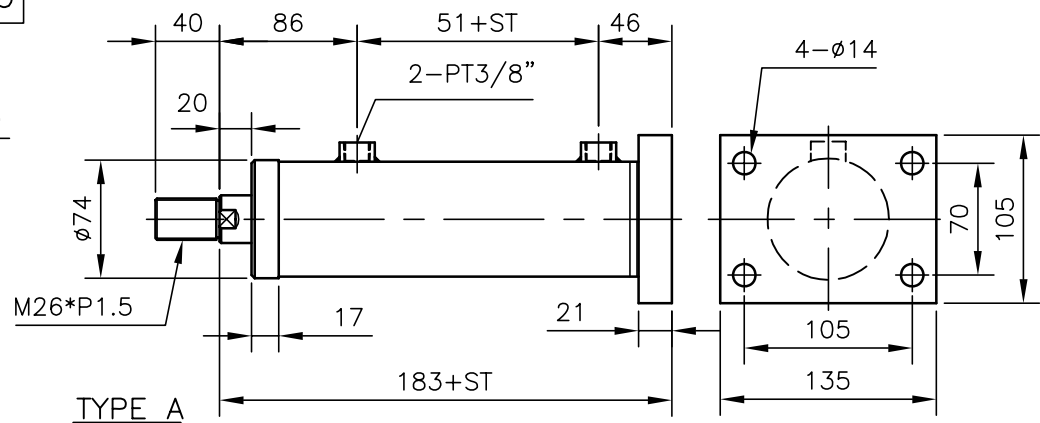
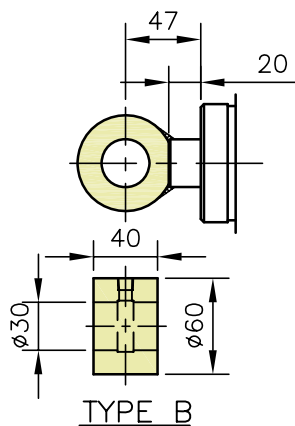
HC5-FA $\phi 60/\phi 30$



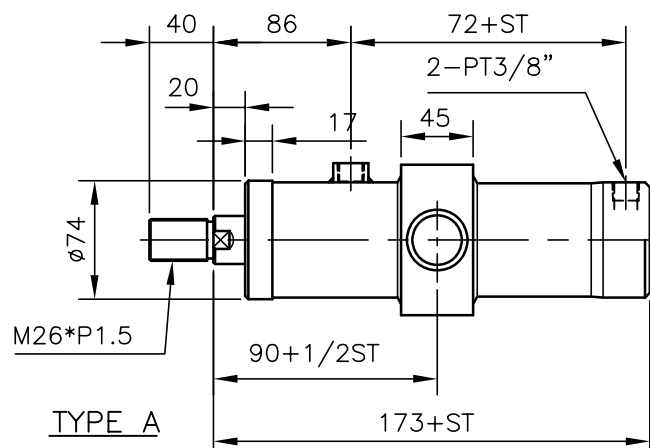
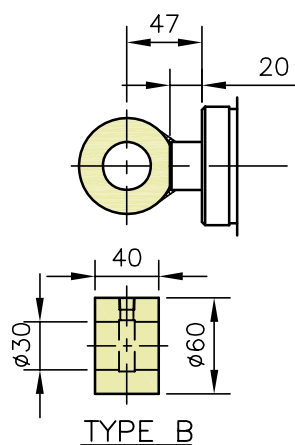
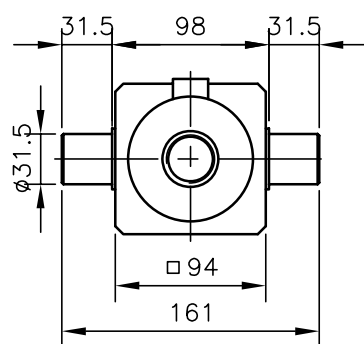
HC5-FB $\phi 60/\phi 30$

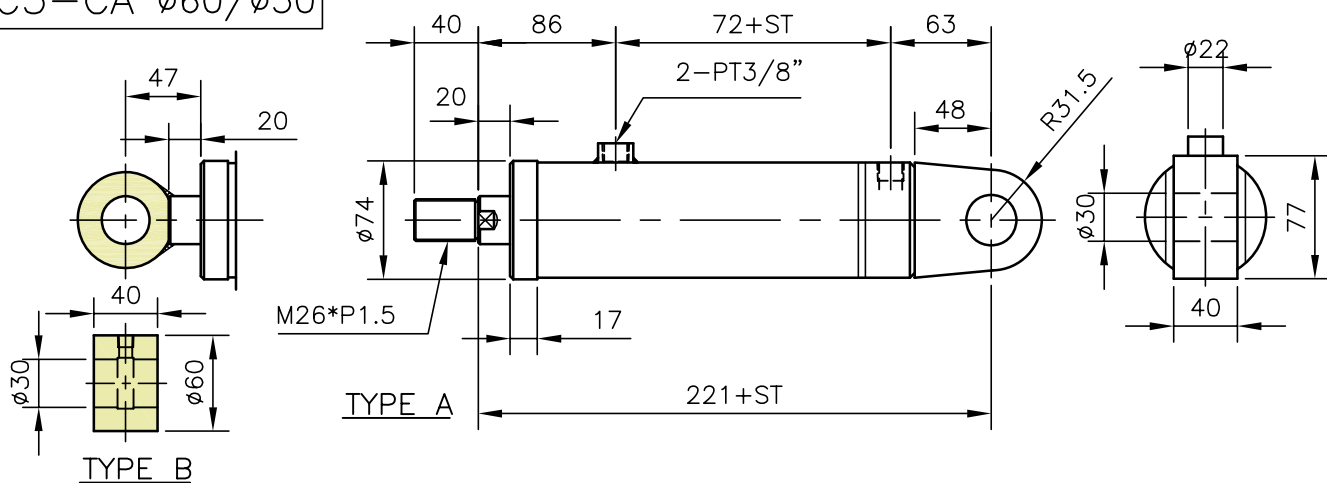


HC5-FD $\phi 60/\phi 30$

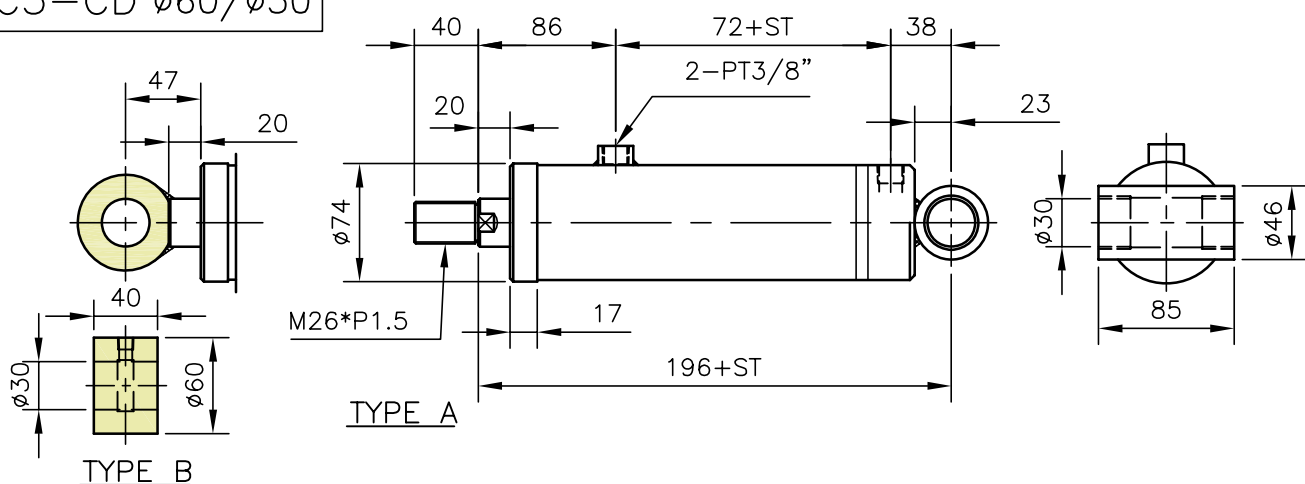
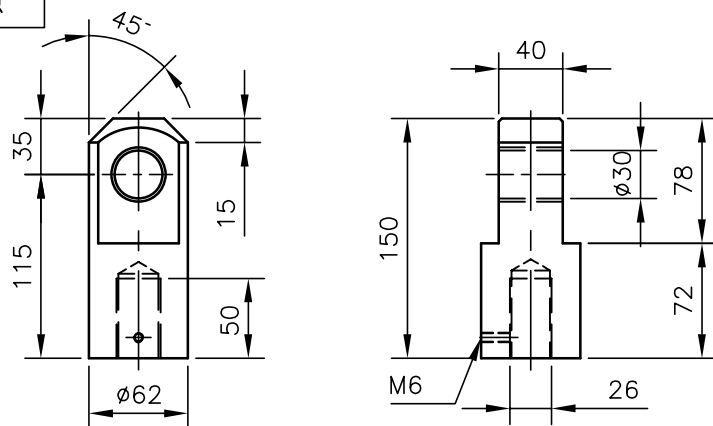


HC5-TC $\phi 60/\phi 30$



HC5-CA $\varnothing 60/\varnothing 30$ 

HC5-CD $\phi 60/\phi 30$

HC5- ϕ 60-|接頭

weigh=2.7kg

油壓缸大概重量計算

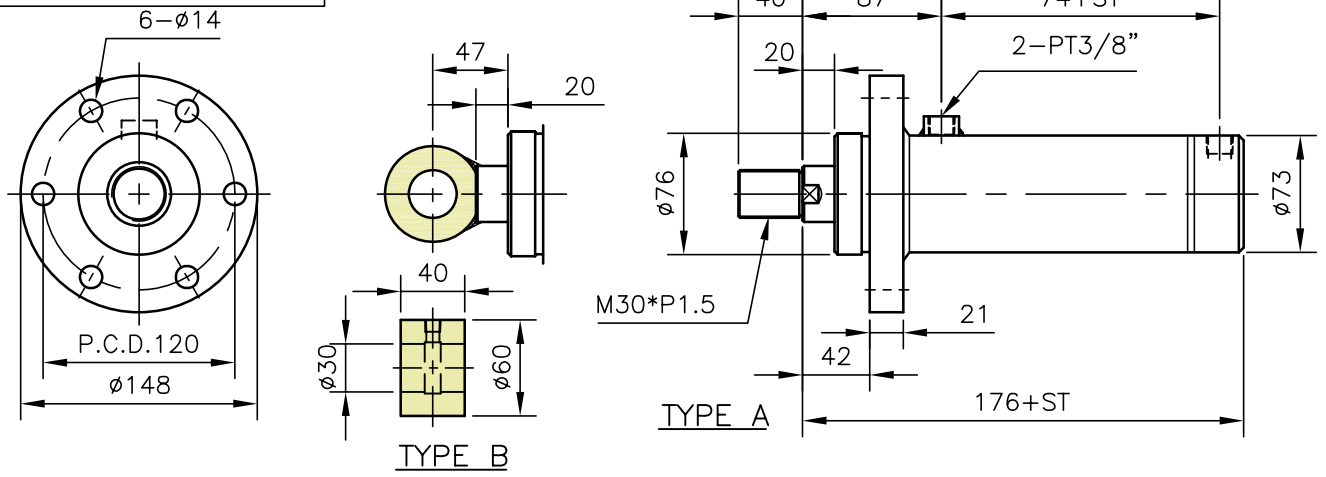
Estimated weight of hyd.

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

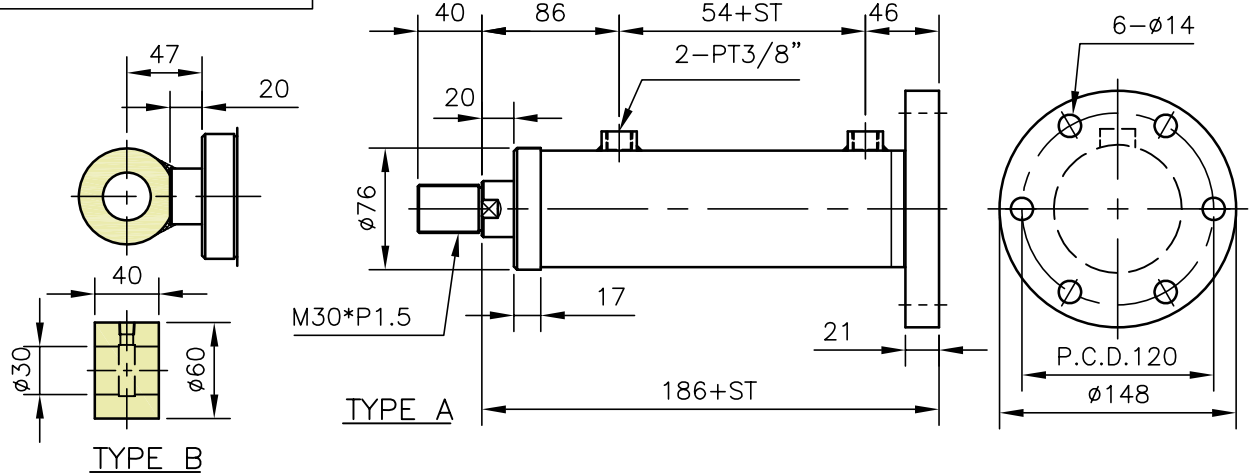
$$\begin{aligned}\text{weight} &= W1 + (W2 * ST) \\ &= 7.5 + (1.5 * 2) \\ &= 10.5 \text{ kg}\end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	7.5	8.0	1.5
FB	7.0	7.5	
FD	7.4	7.9	
TC	7.5	8.0	
CA	6.6	7.1	
CD	5.9	6.4	

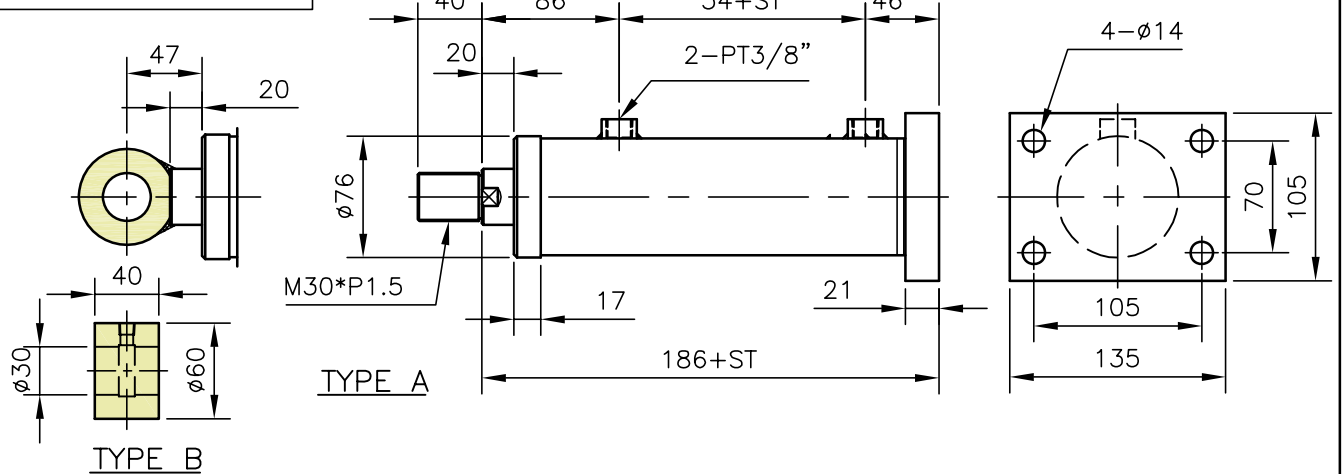
HC5-FA $\phi 63/\phi 35$



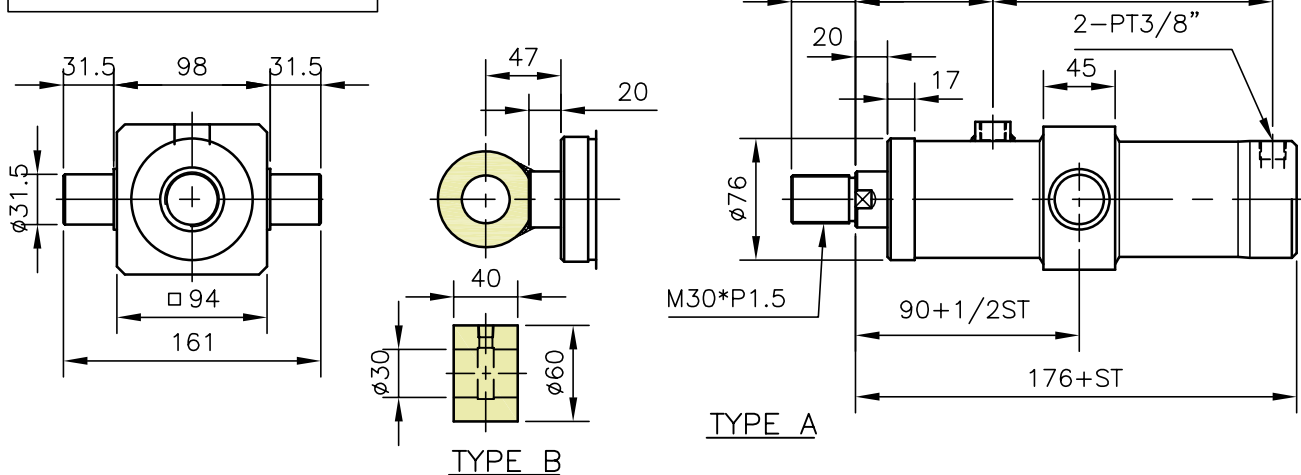
HC5-FB $\phi 63/\phi 35$



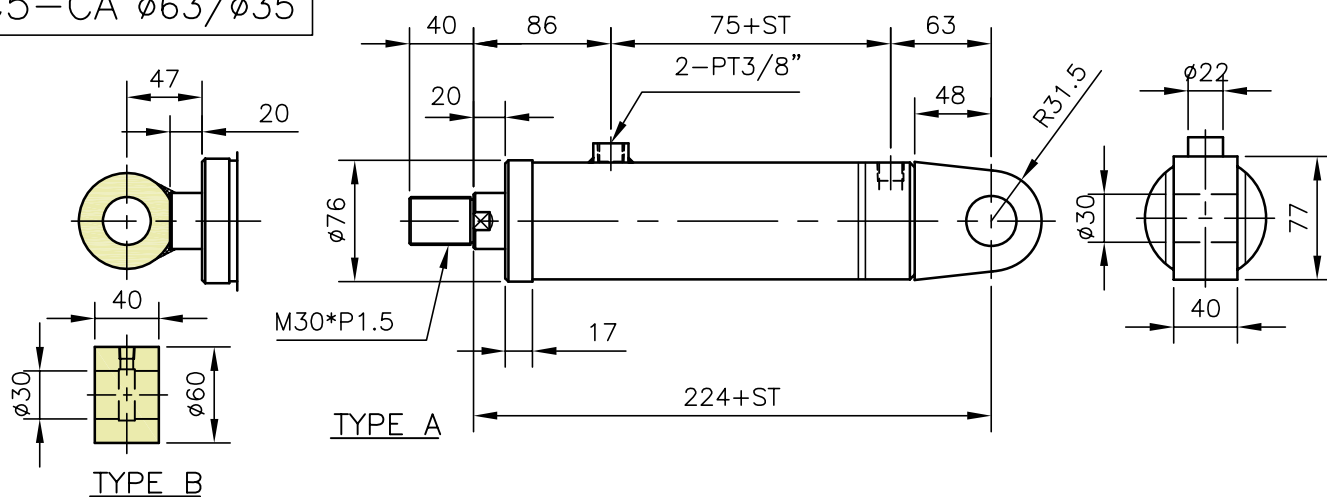
HC5-FD $\phi 63/\phi 35$



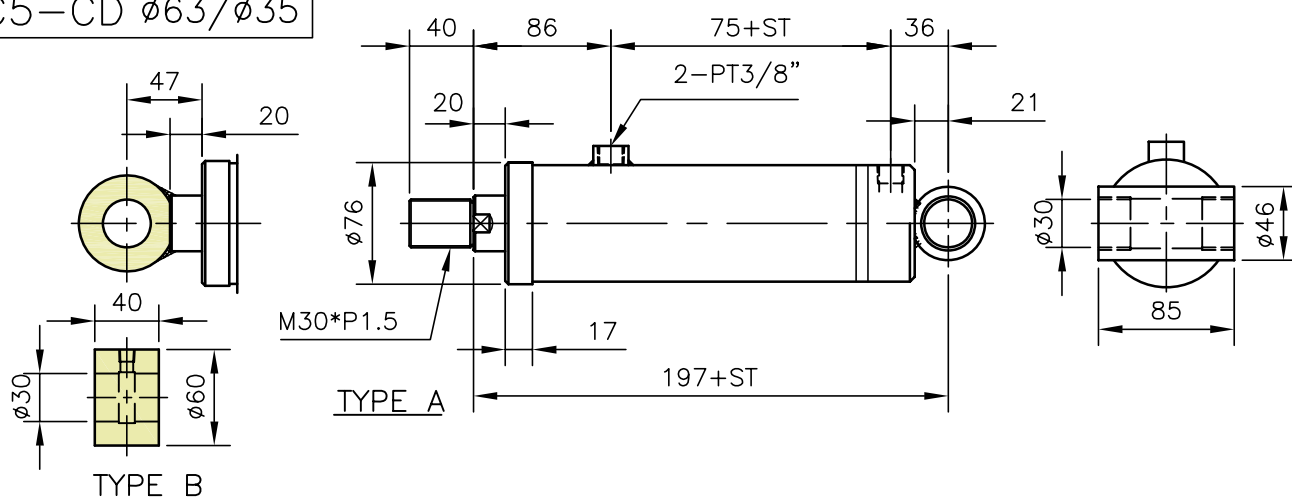
HC5-TC $\phi 63/\phi 35$



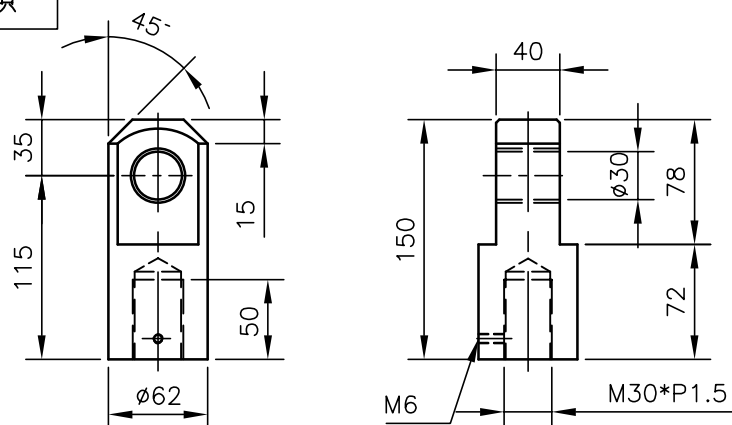
HC5-CA $\phi 63/\phi 35$



HC5-CD $\phi 63/\phi 35$



HC5- $\phi 63$ -I 接頭



weigh=2.6kg

油壓缸大概重量計算

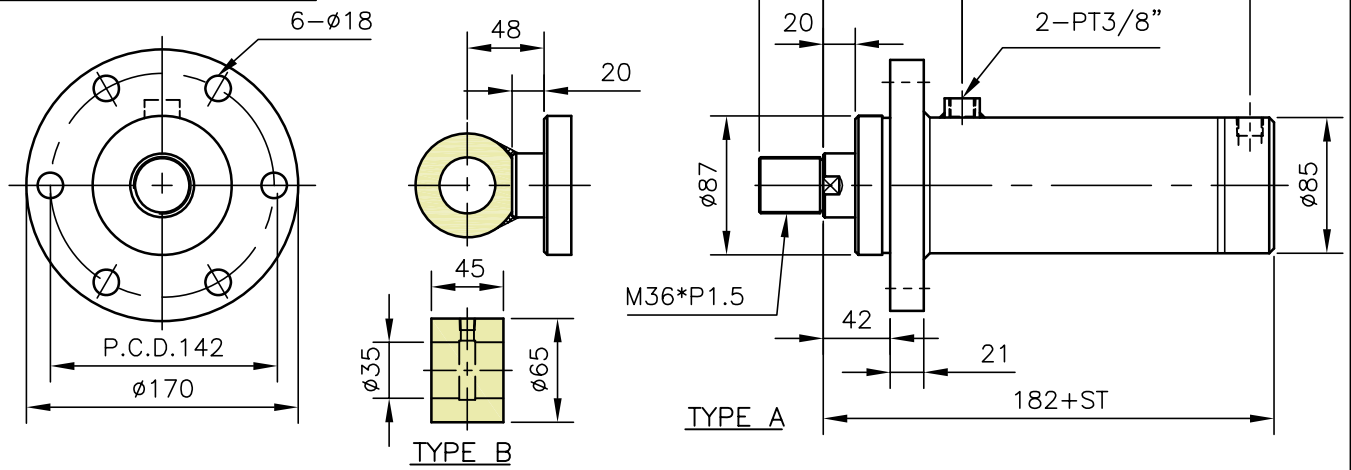
Estimated weight of hyd.

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

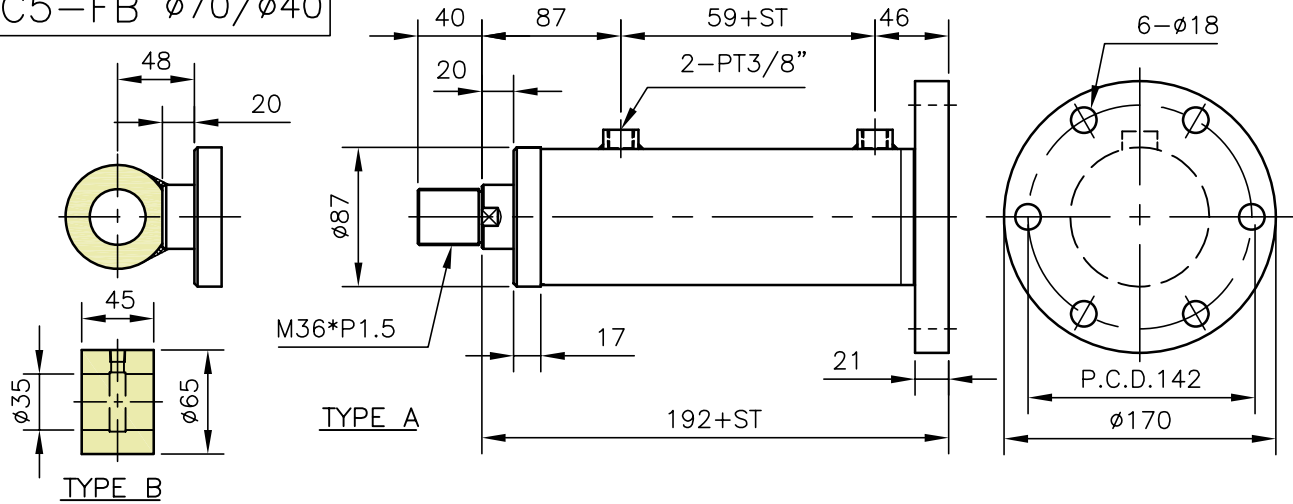
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 8.3 + (1.9 * 2) \\ &= 12.1 \text{ kg} \end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	8.3	8.8	1.9
FB	8.2	8.7	
FD	7.7	8.2	
TC	8.1	8.6	
CA	7.4	7.9	
CD	6.7	7.2	

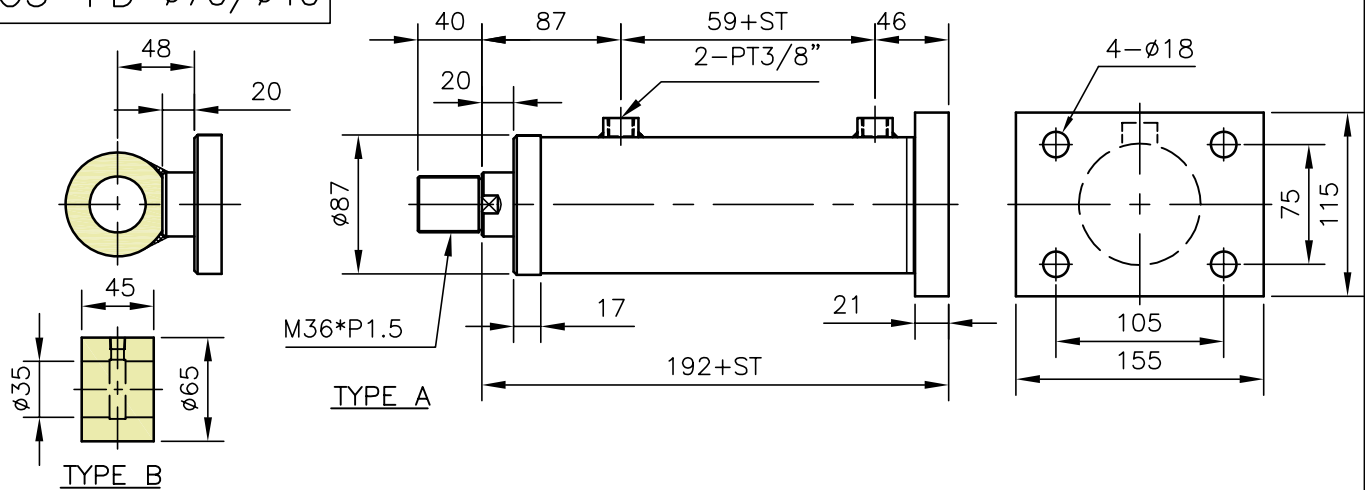
HC5-FA $\phi 70/\phi 40$



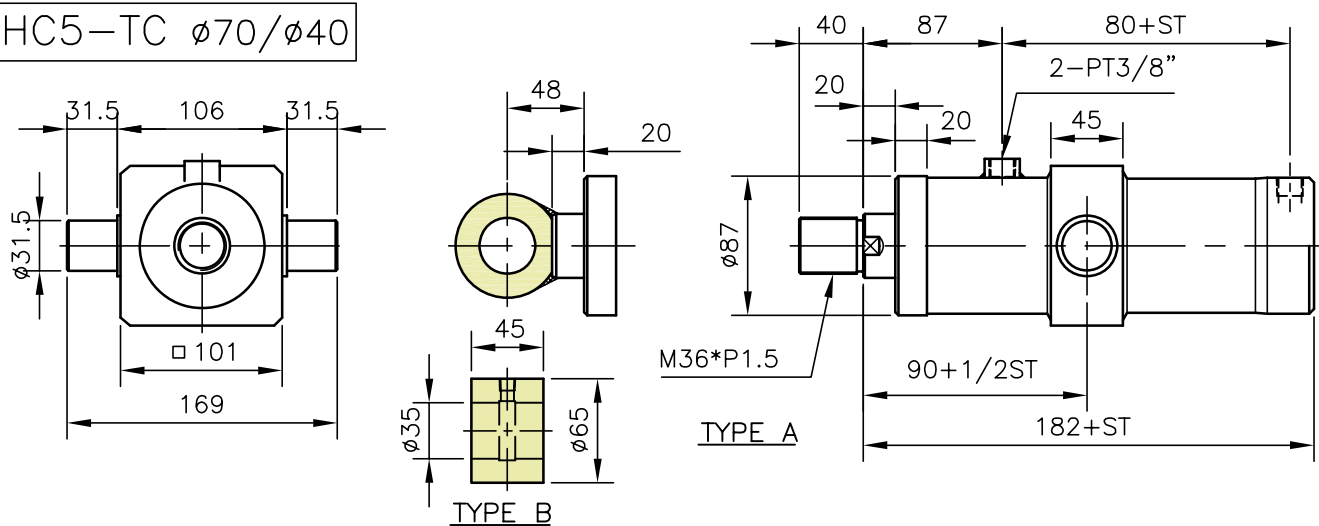
HC5-FB $\phi 70/\phi 40$

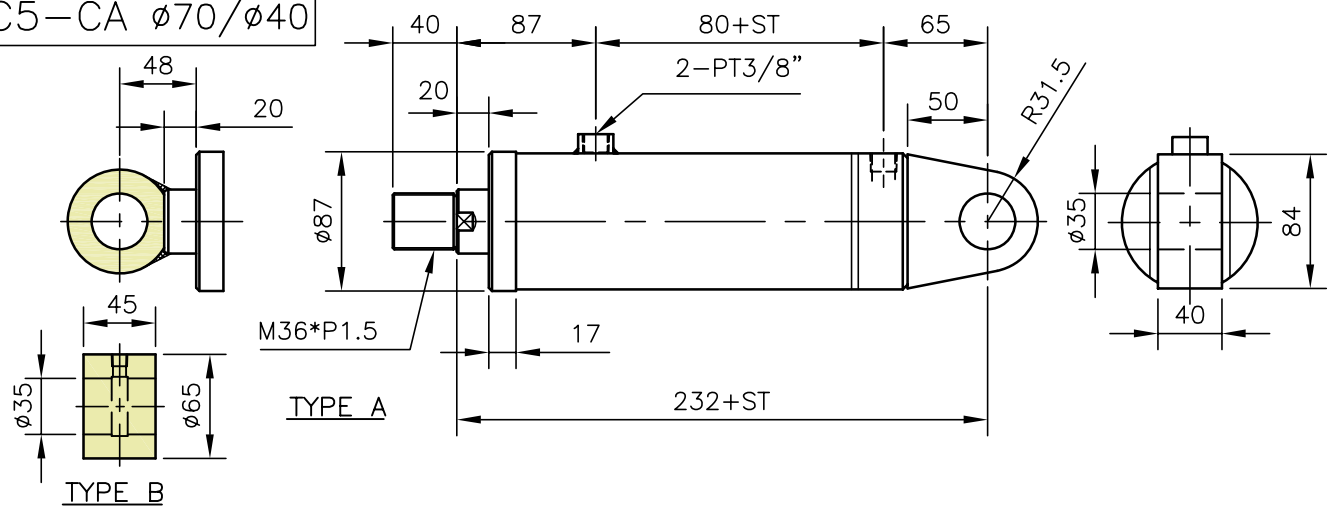


HC5-FD $\phi 70/\phi 40$

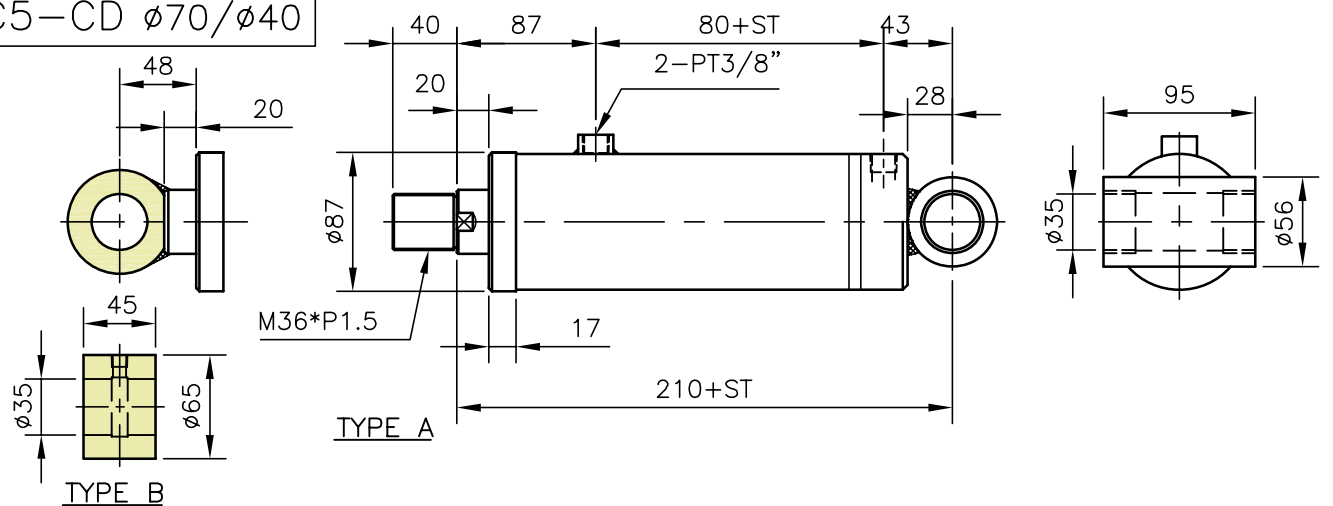
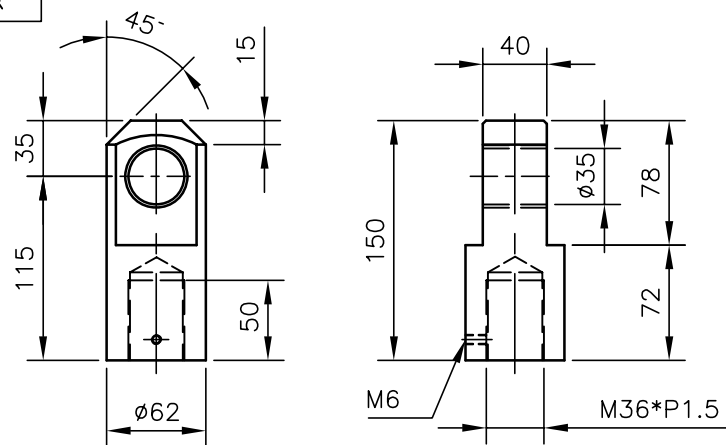


HC5-TC $\phi 70/\phi 40$



HC5-CA $\phi 70/\phi 40$ 

HC5-CD $\phi 70/\phi 40$

HC5- ϕ 70-1接頭

weigh=2.4kg

油壓缸大概重量計算

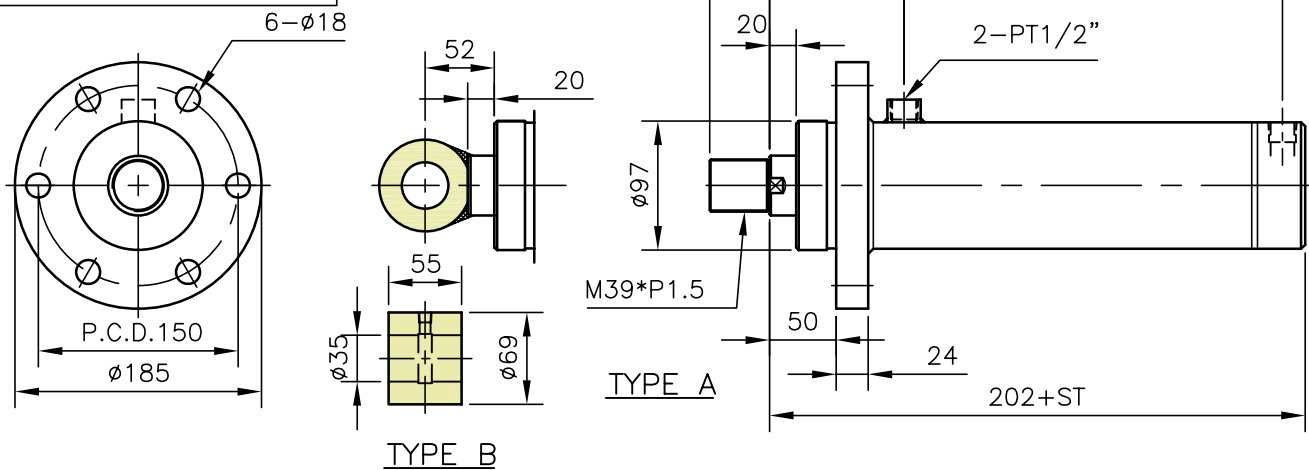
Estimated weight of hyd.

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

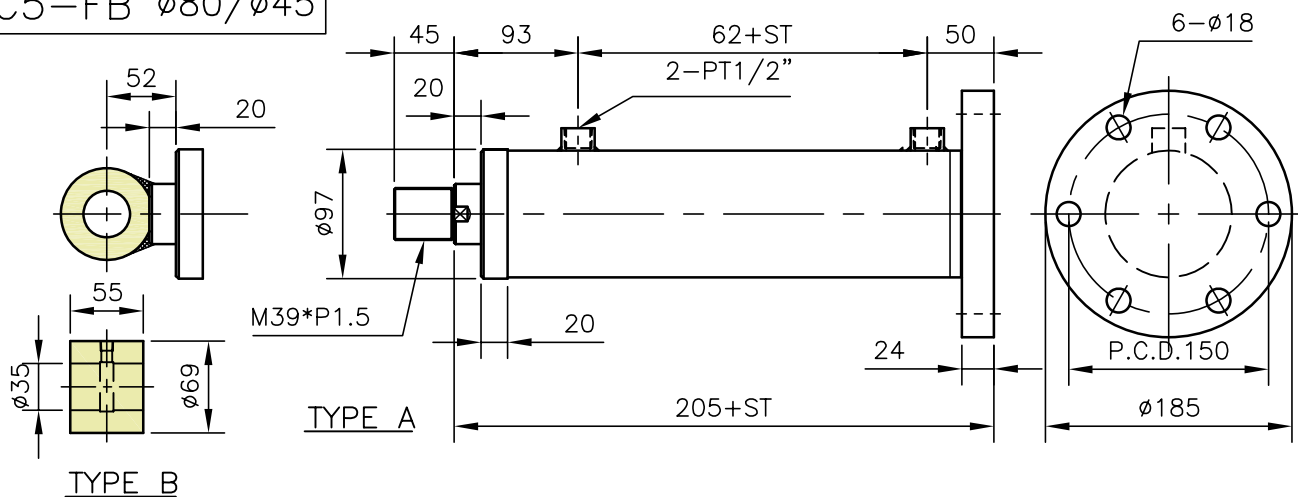
$$\begin{aligned}\text{weight} &= W1 + (W2 * ST) \\ &= 10.7 + (2.5 * 2) \\ &= 15.7 \text{ kg}\end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	10.7	11.1	2.5
FB	10.7	11.1	
FD	9.9	10.3	
TC	9.9	10.3	
CA	9.6	10.0	
CD	8.9	9.3	

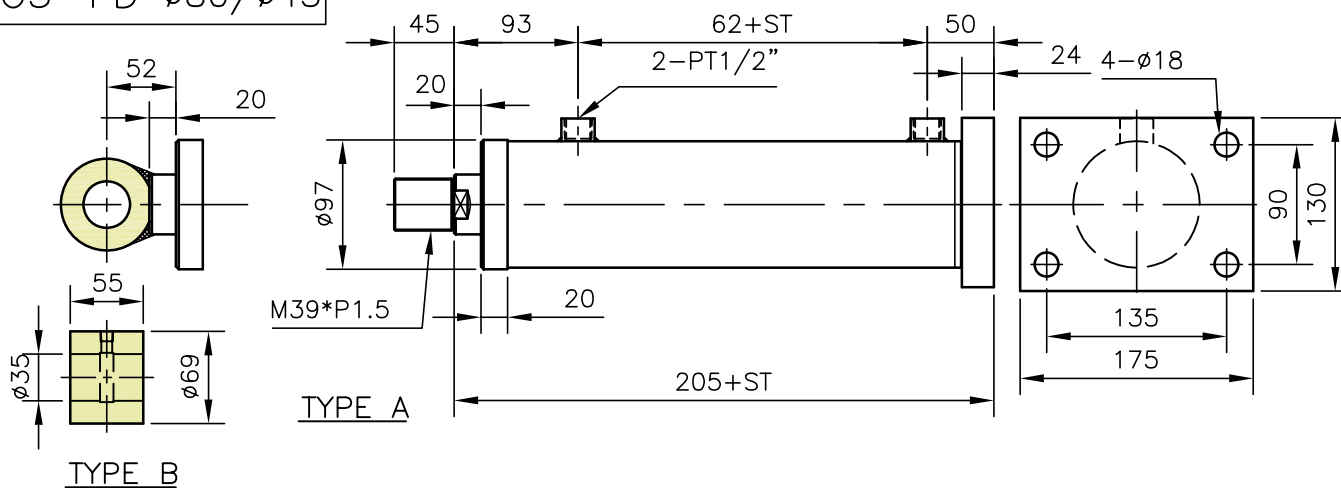
HC5-FA $\phi 80/\phi 45$



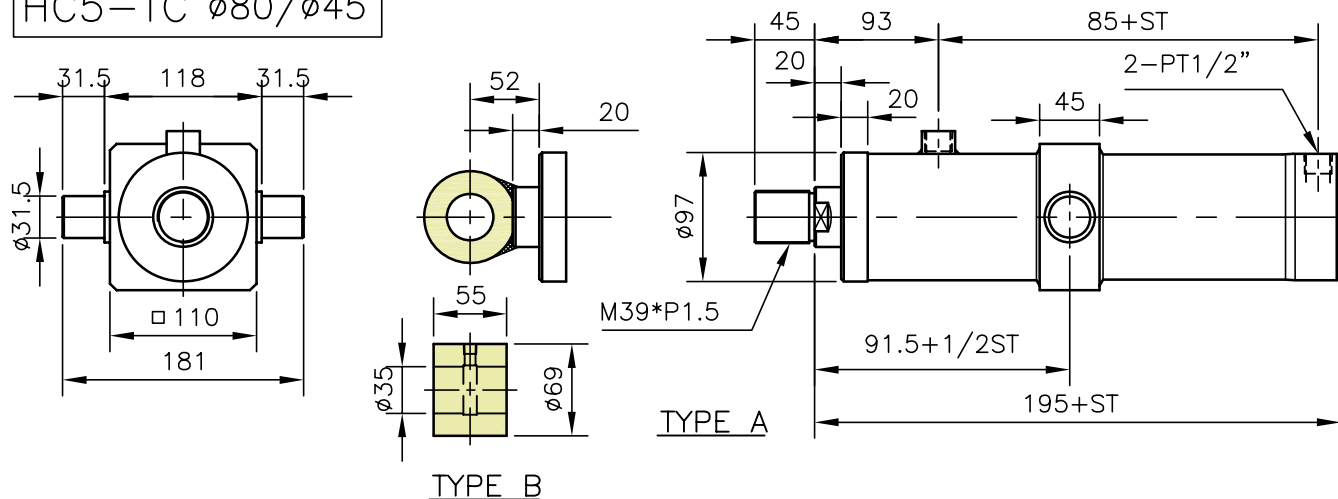
HC5-FB $\phi 80/\phi 45$

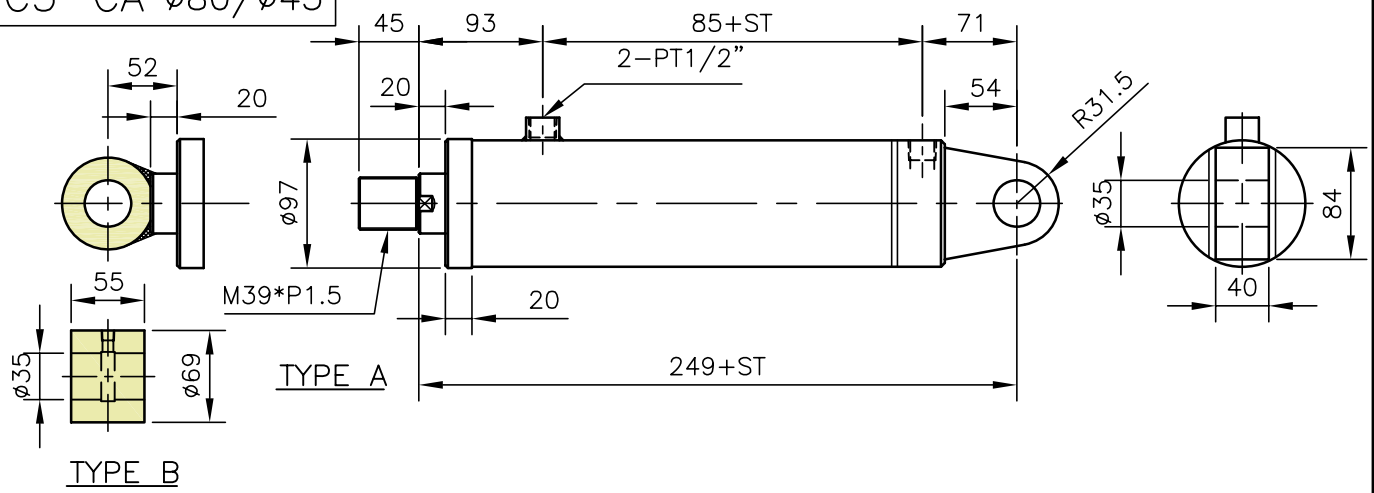
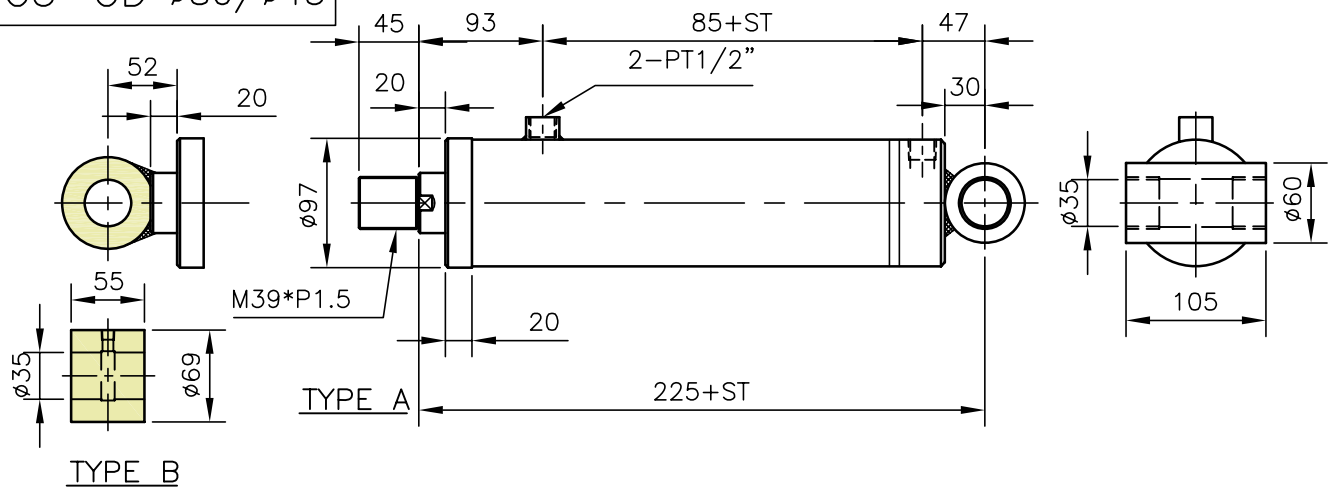
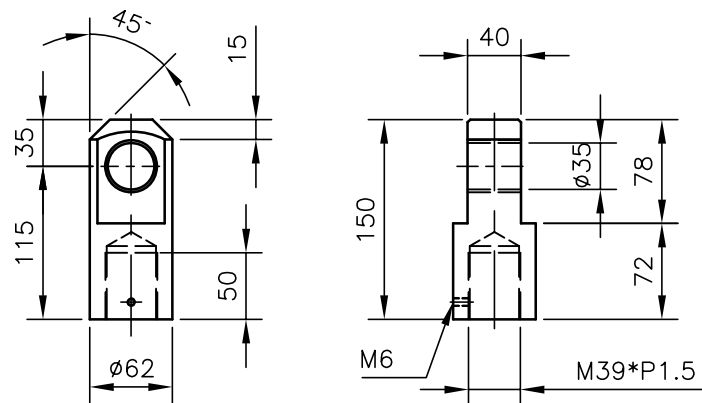


HC5-FD $\phi 80/\phi 45$



HC5-TC $\phi 80/\phi 45$



HC5-CA $\phi 80/\phi 45$ HC5-CD $\phi 80/\phi 45$ HC5- ϕ 80-|接頭

weigh=2.4kg

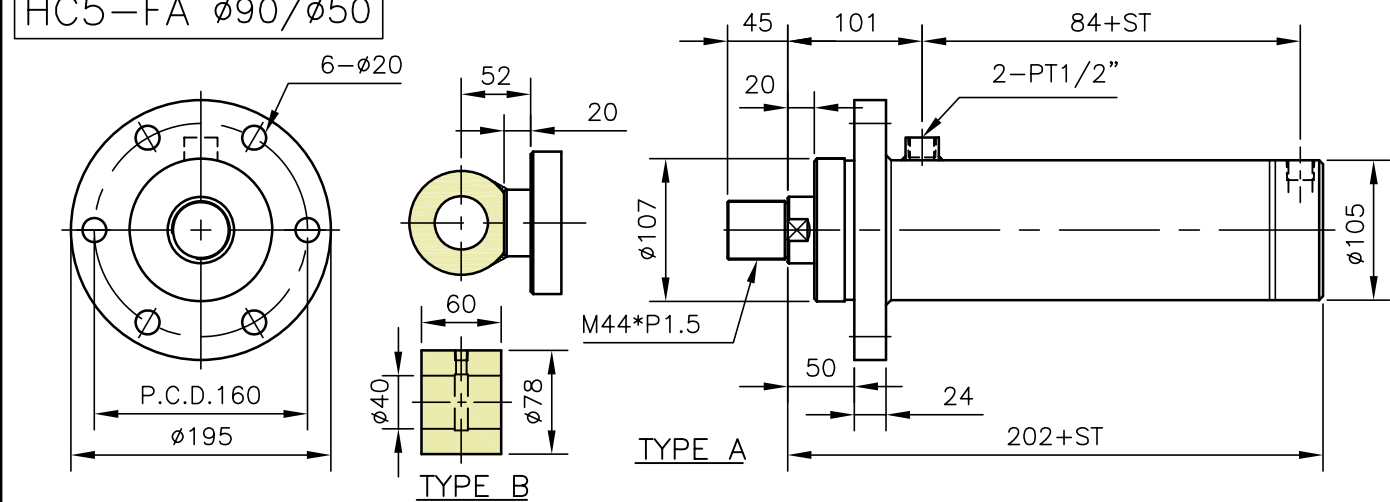
油壓缸大蓋重量計算
Estimated weight of hyd.

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

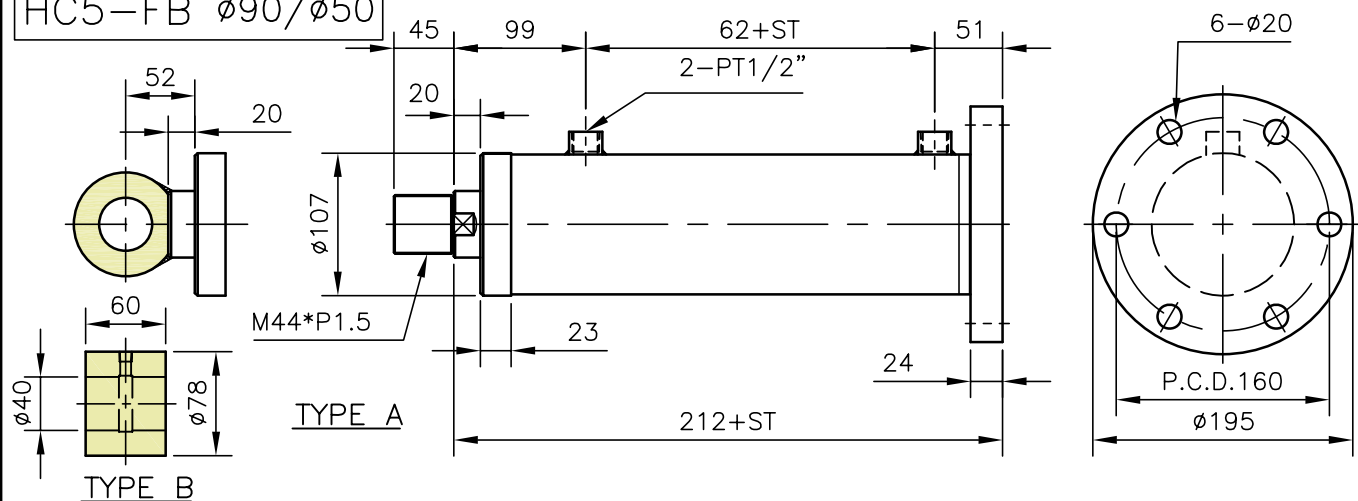
$$\begin{aligned}\text{weight} &= W1 + (W2 * ST) \\ &= 15.0 + (2.8 * 2) \\ &= 20.6 \text{ kg}\end{aligned}$$

	W1 (kg)		W2
	Type A	Type B	(kg/100mm)
FA	15.0	15.7	2.8
FB	14.4	15.1	
FD	13.8	14.5	
TC	13.2	13.9	
CA	12.9	13.6	
CD	12.5	13.2	

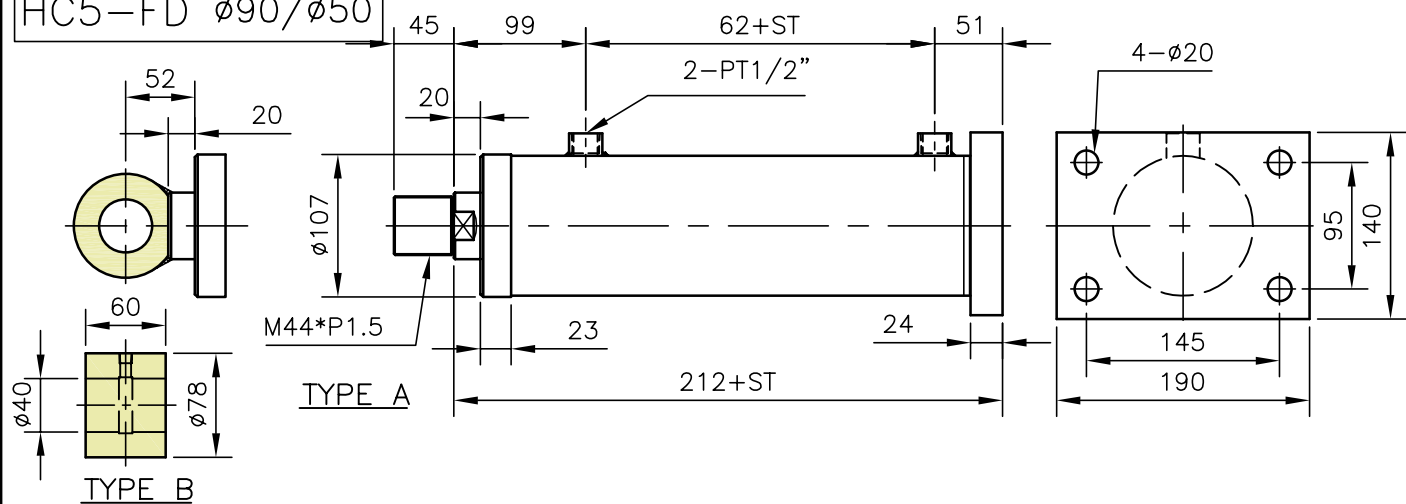
HC5-FA $\phi 90/\phi 50$



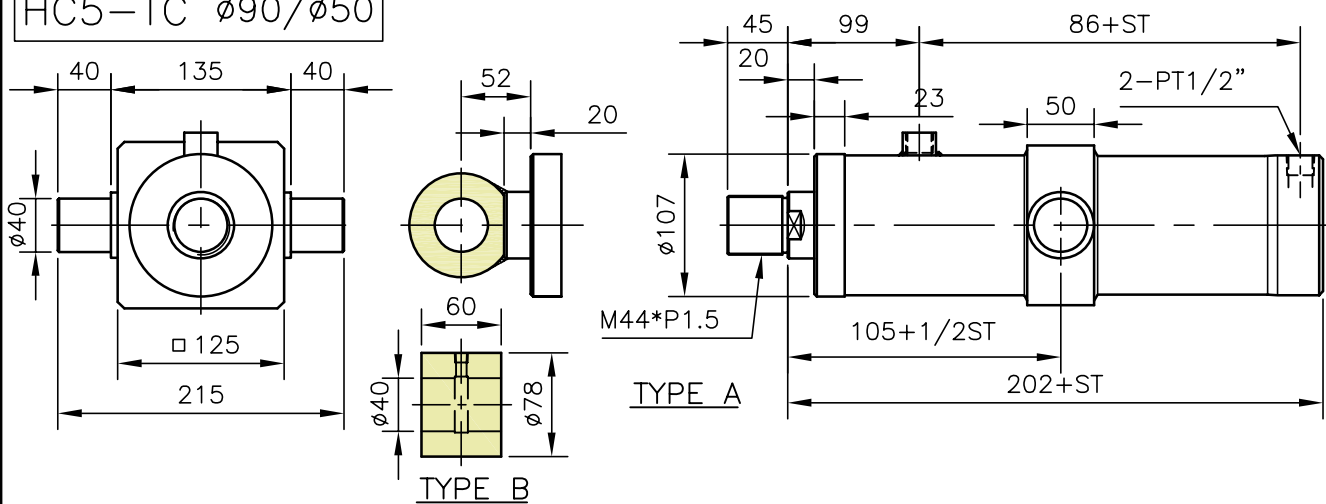
HC5-FB $\phi 90/\phi 50$



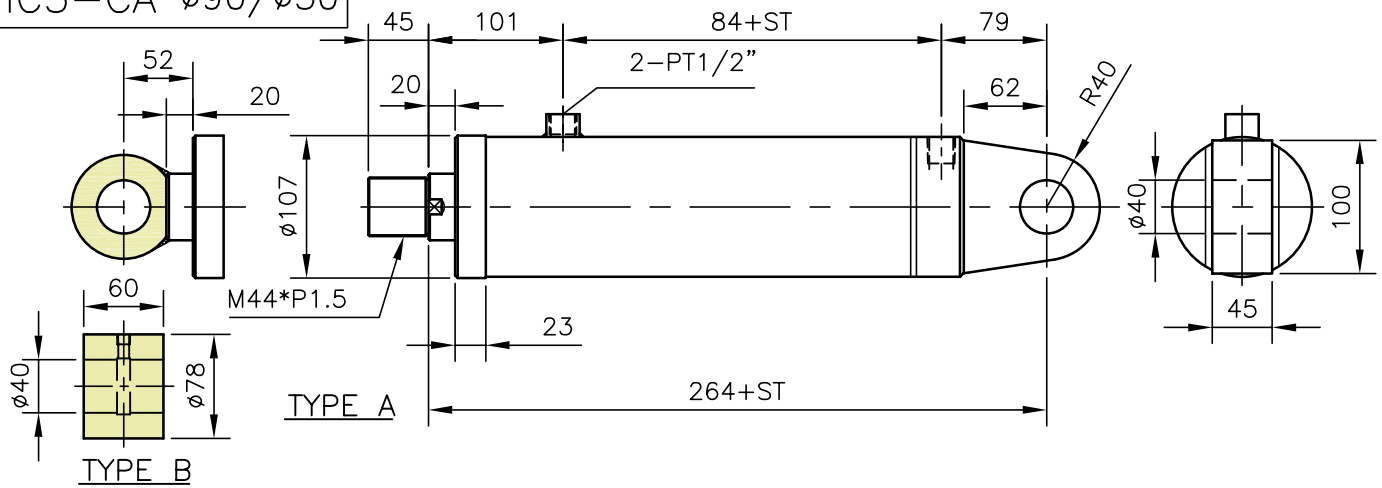
HC5-FD $\phi 90/\phi 50$



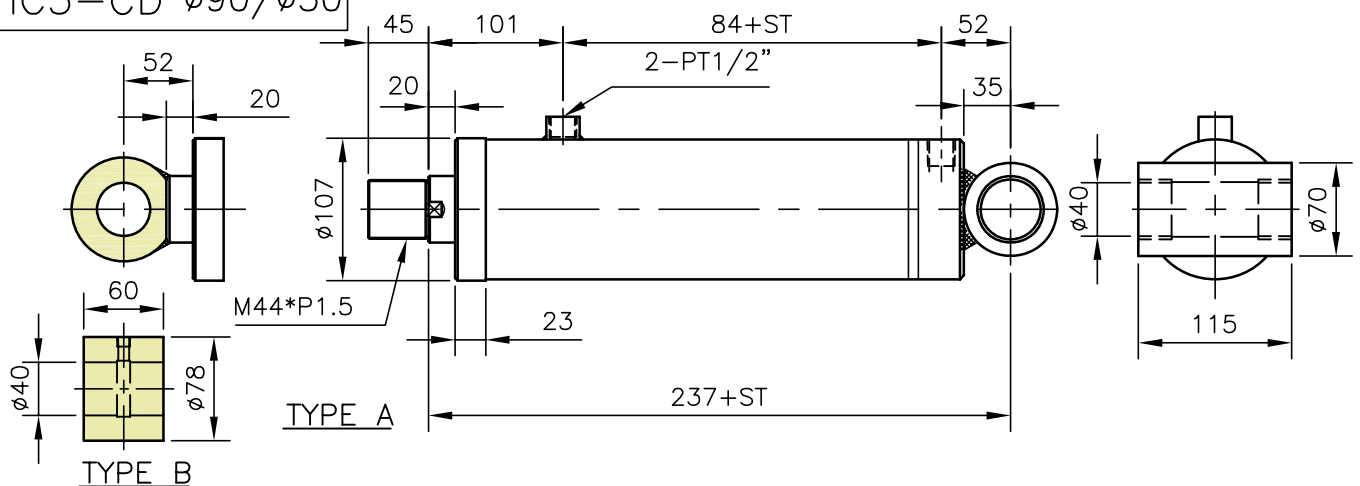
HC5-TC $\phi 90/\phi 50$



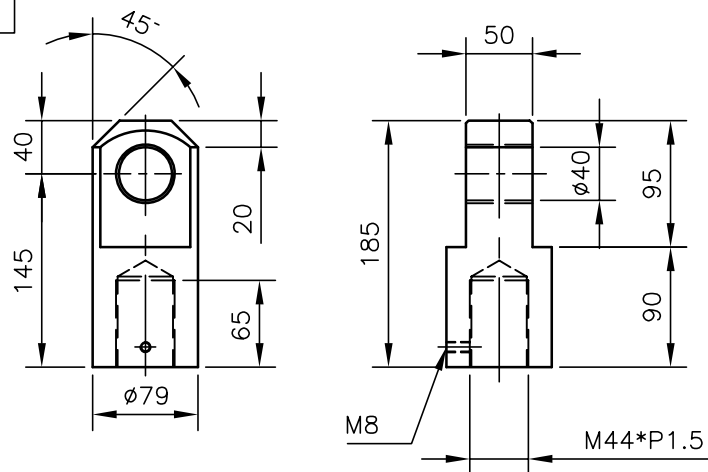
HC5-CA $\phi 90/\phi 50$



HC5-CD $\phi 90/\phi 50$



HC5- $\phi 90$ -I 接頭



weigh=4.4kg

油壓缸大概重量計算

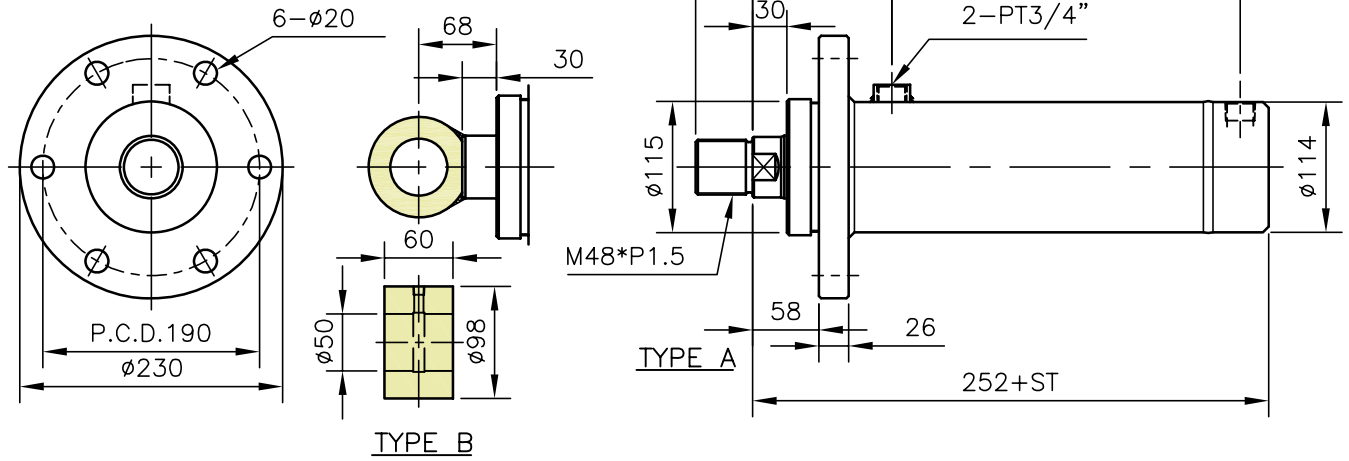
Estimated weight of hyd.

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

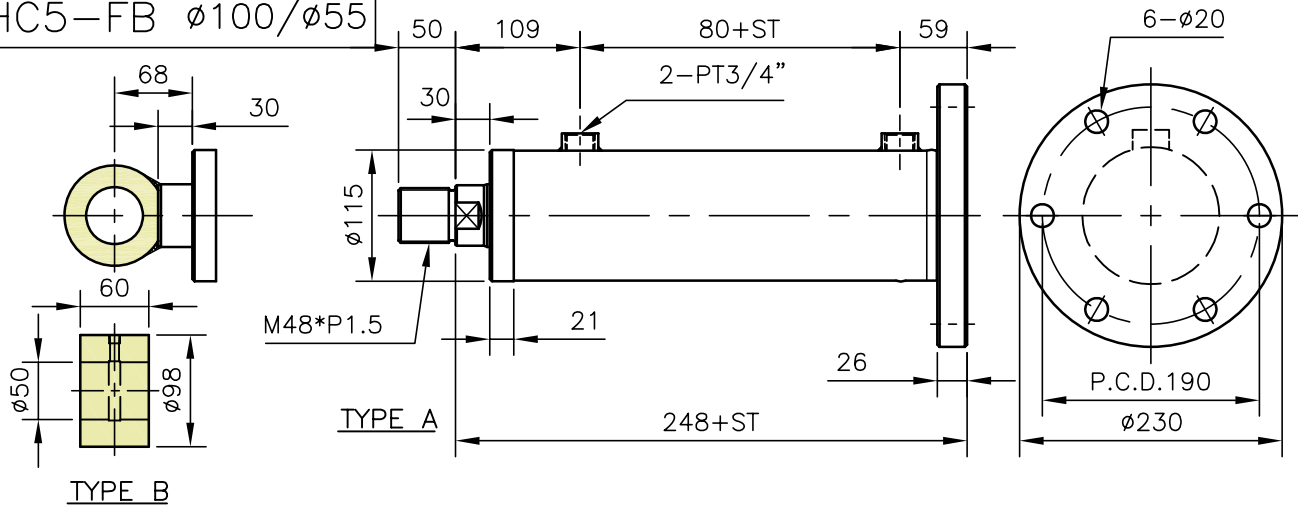
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 21.0 + (3.3 * 2) \\ &= 27.6 \text{ kg} \end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	21.0	22.1	3.3
FB	20.8	21.9	
FD	20.4	21.5	
TC	20.3	21.4	
CA	20.0	21.1	
CD	19.4	20.5	

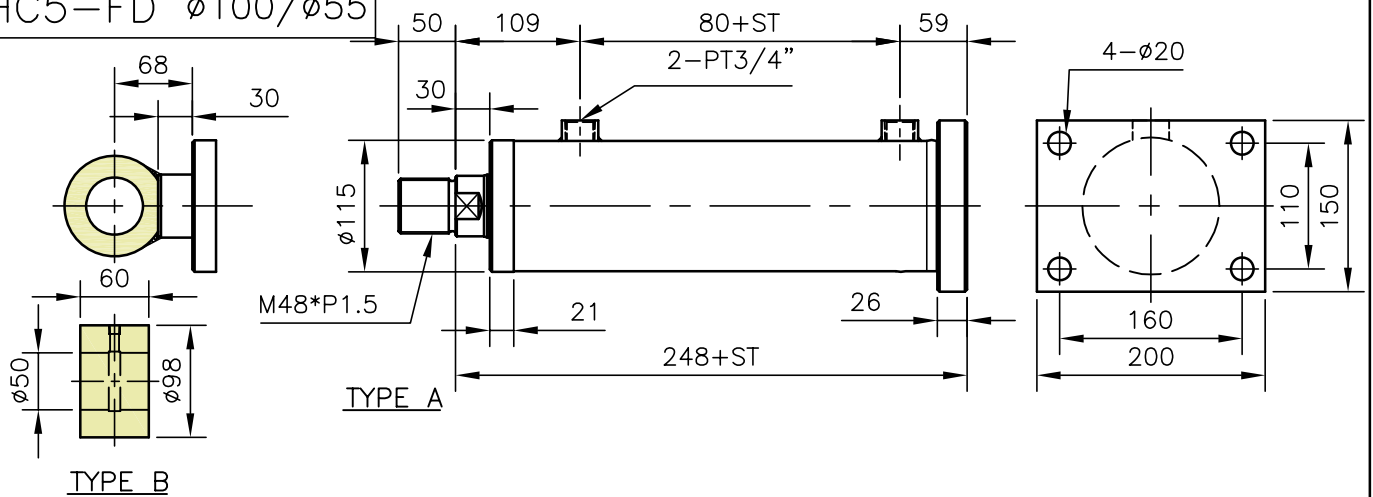
HC5-FA $\phi 100/\phi 55$



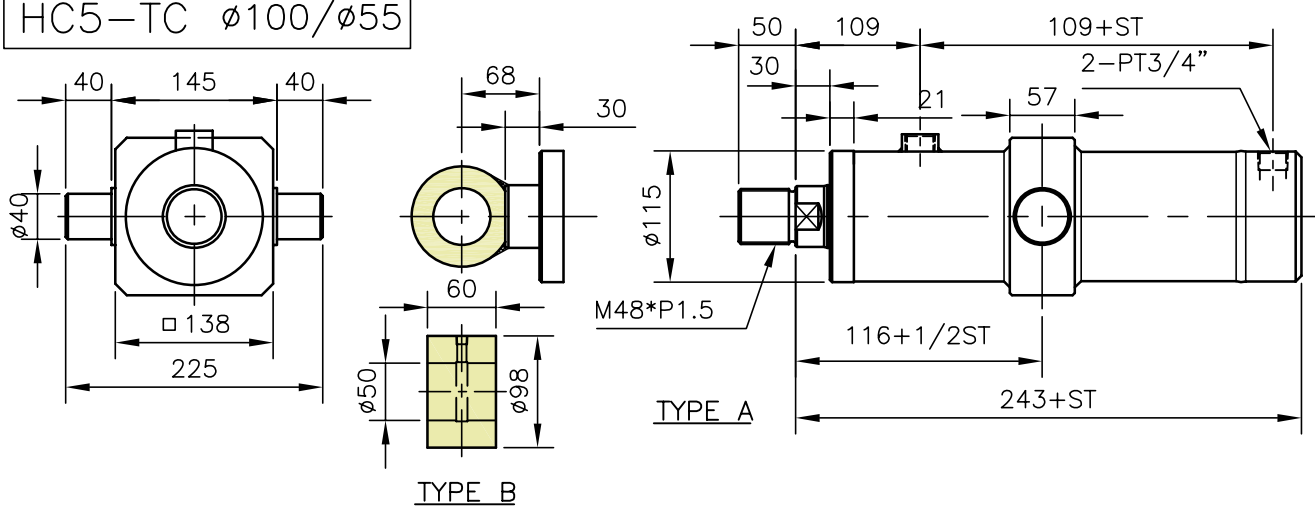
HC5-FB $\phi 100/\phi 55$



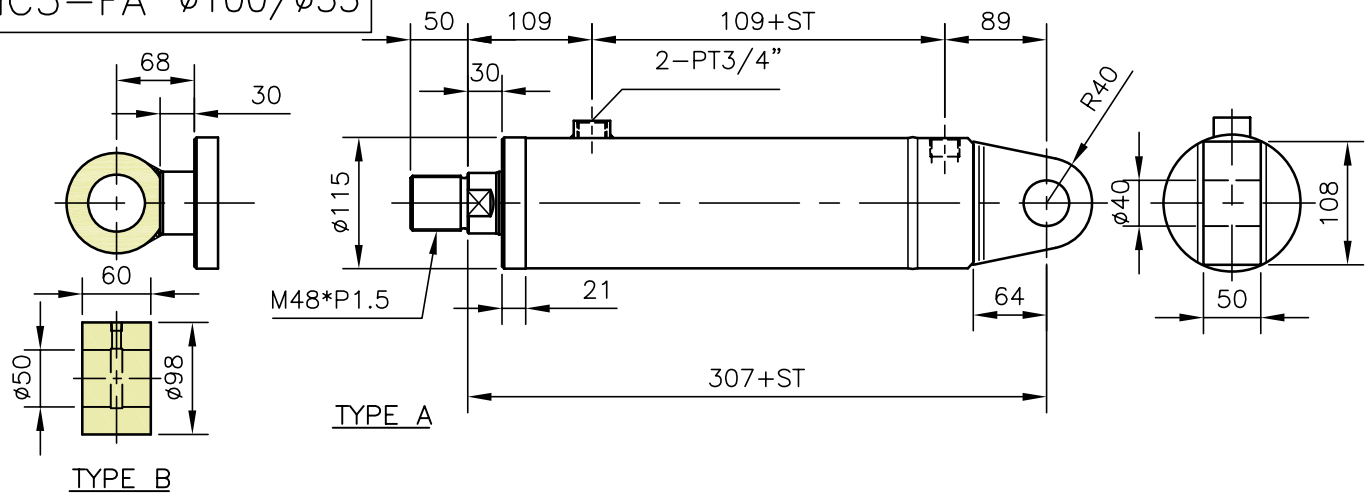
HC5-FD $\phi 100/\phi 55$



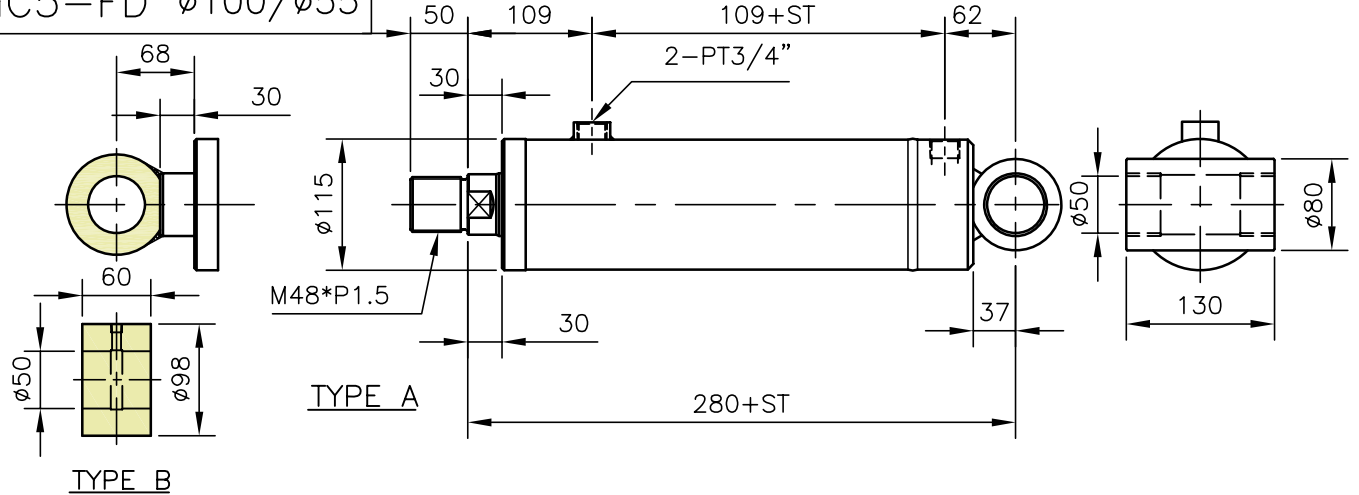
HC5-TC $\phi 100/\phi 55$



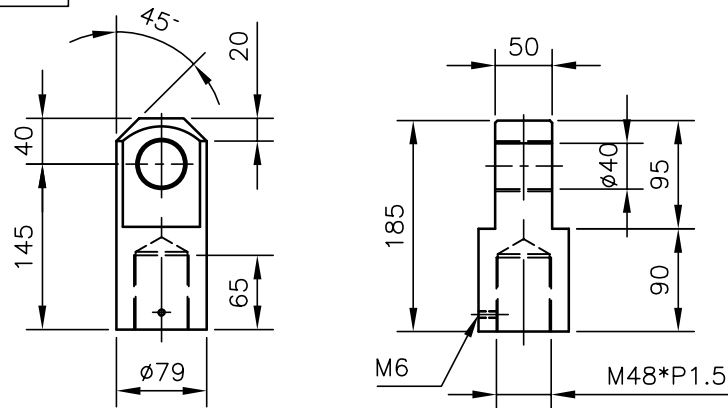
HC5-FA $\phi 100/\phi 55$



HC5-FD $\phi 100/\phi 55$



HC5- $\phi 100$ -I接頭



weigh=4.2kg

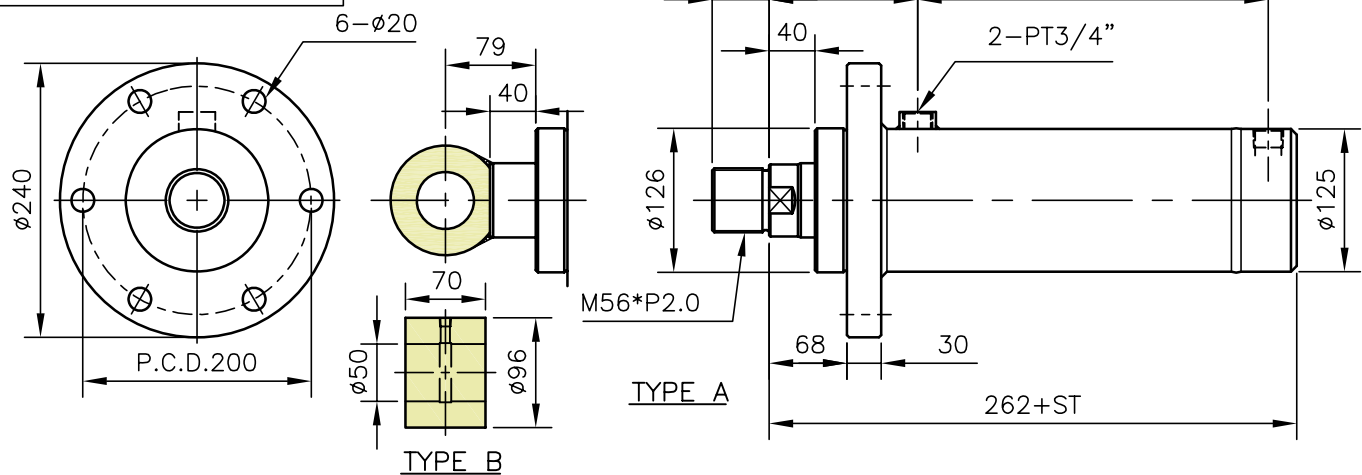
油壓缸大蓋重量計算
Estimated weight of hyd.

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

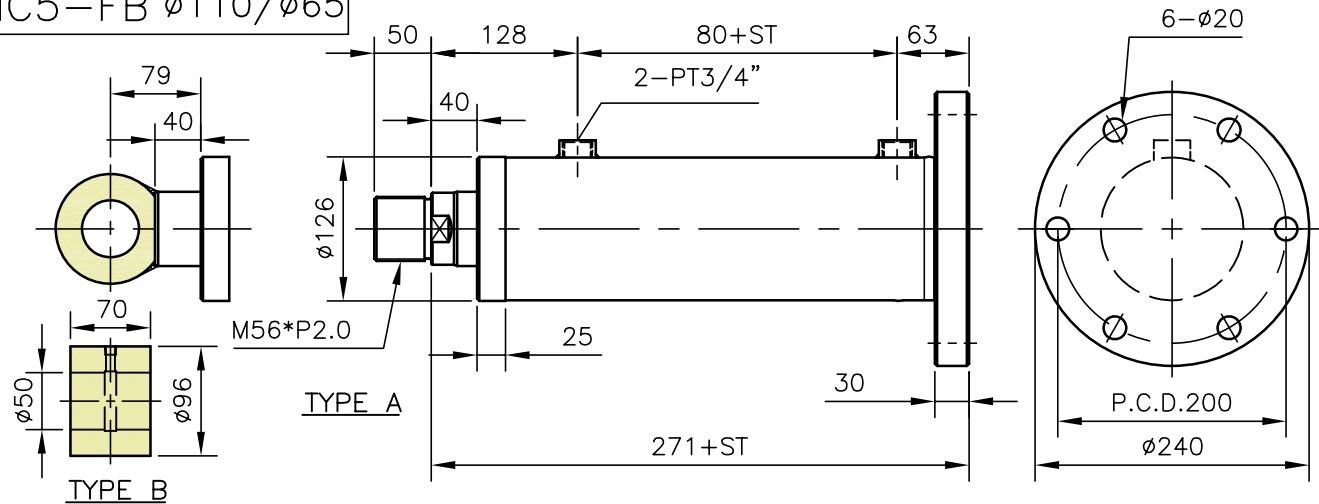
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 26.7 + (4.5 * 2) \\ &= 35.7 \text{ kg} \end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	26.7	27.9	4.5
FB	25.8	27.0	
FD	23.5	24.7	
TC	24.4	25.6	
CA	23.1	24.3	
CD	23.0	24.2	

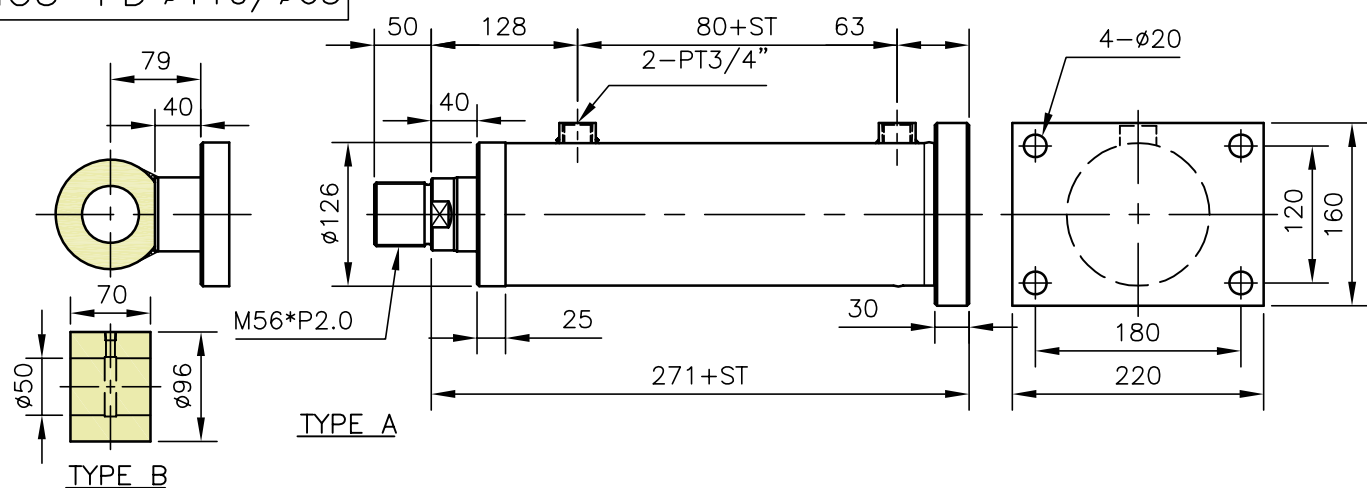
HC5-FA $\phi 110/\phi 65$



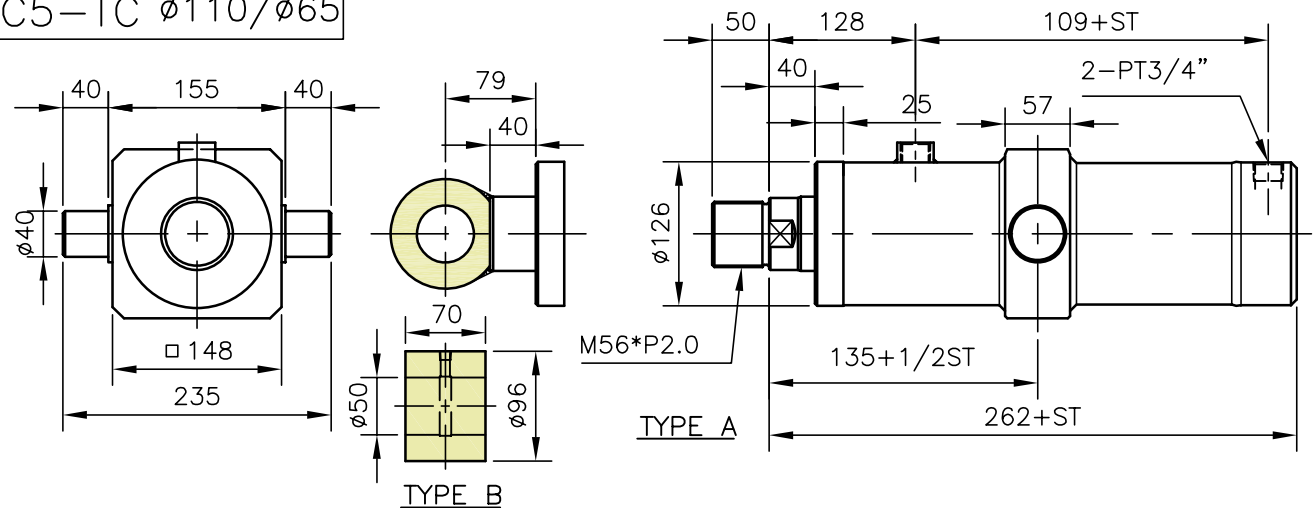
HC5-FB $\phi 110/\phi 65$



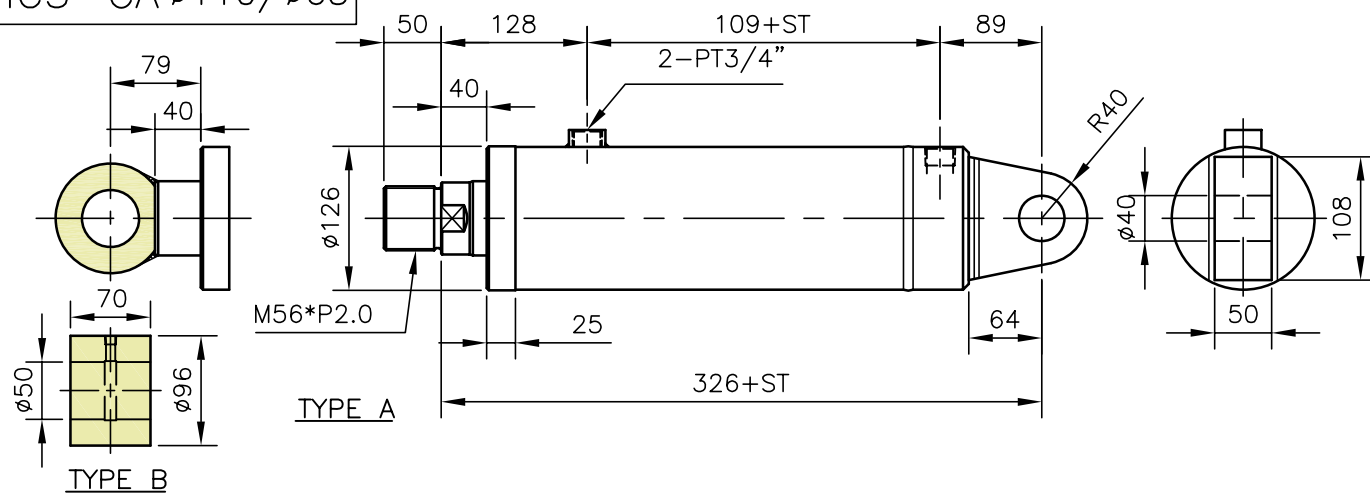
HC5-FD $\phi 110/\phi 65$



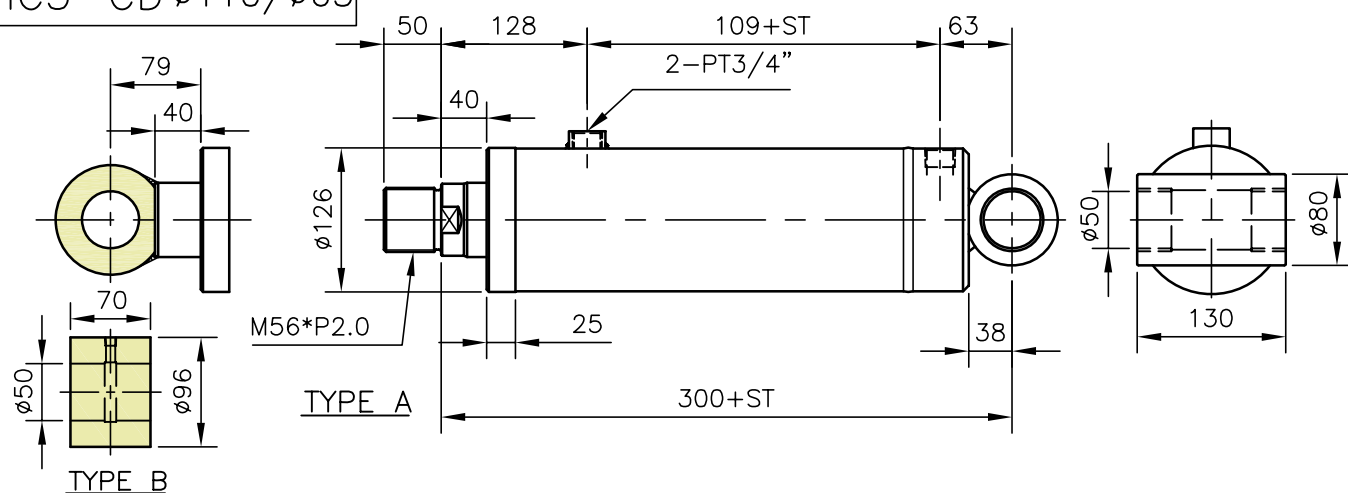
HC5-TC $\phi 110/\phi 65$



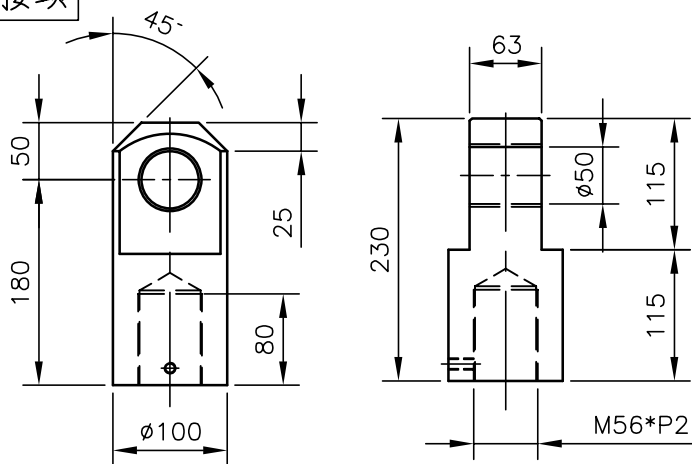
HC5-CA $\phi 110/\phi 65$



HC5-CD $\phi 110/\phi 65$



HC5- $\phi 110$ -I 接頭



weigh=9.8kg

油壓缸大概重量計算

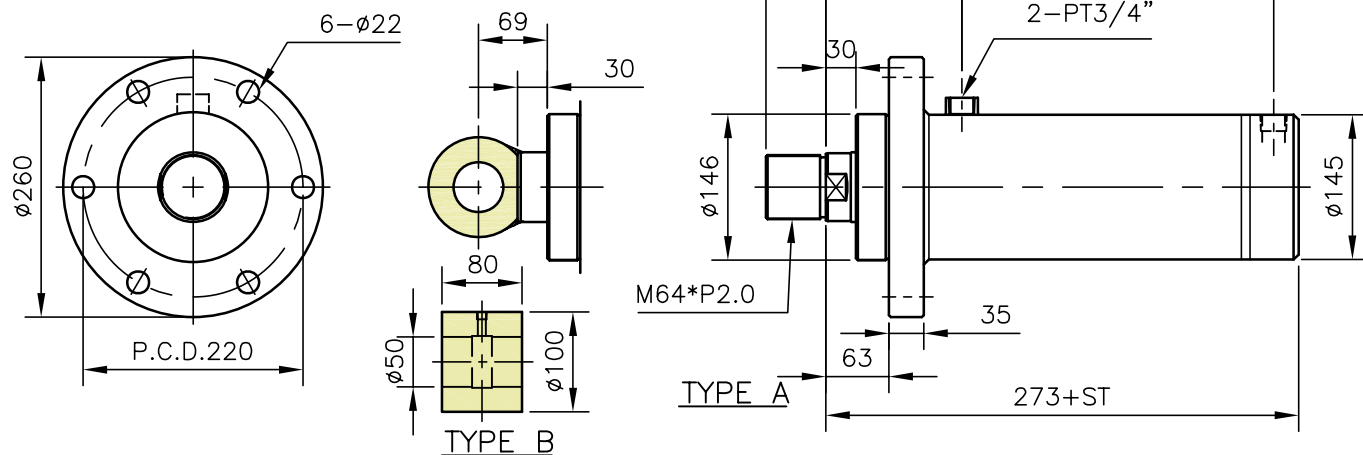
Estimated weight of hyd.

EXP : FA , ST=200mm , Type A

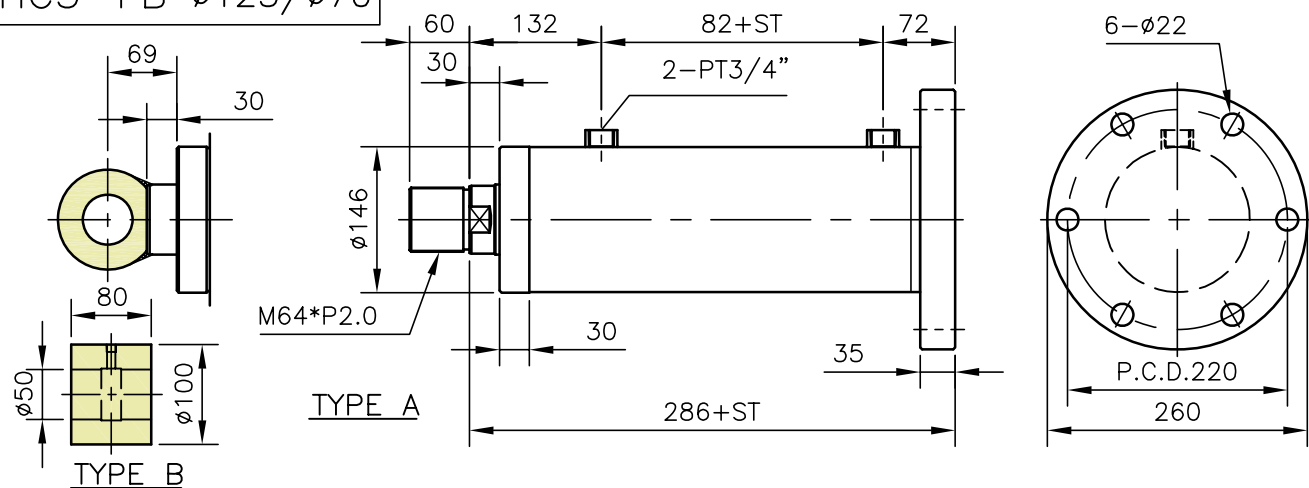
$$\begin{aligned} \text{weigh} &= W1 + (W2 * ST) \\ &= 32.2 + (5.6 * 2) \\ &= 43.4 \text{ kg} \end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	32.2	34.1	5.6
FB	32.8	34.7	
FD	30.4	32.3	
TC	29.5	31.4	
CA	27.9	29.8	
CD	27.7	29.6	

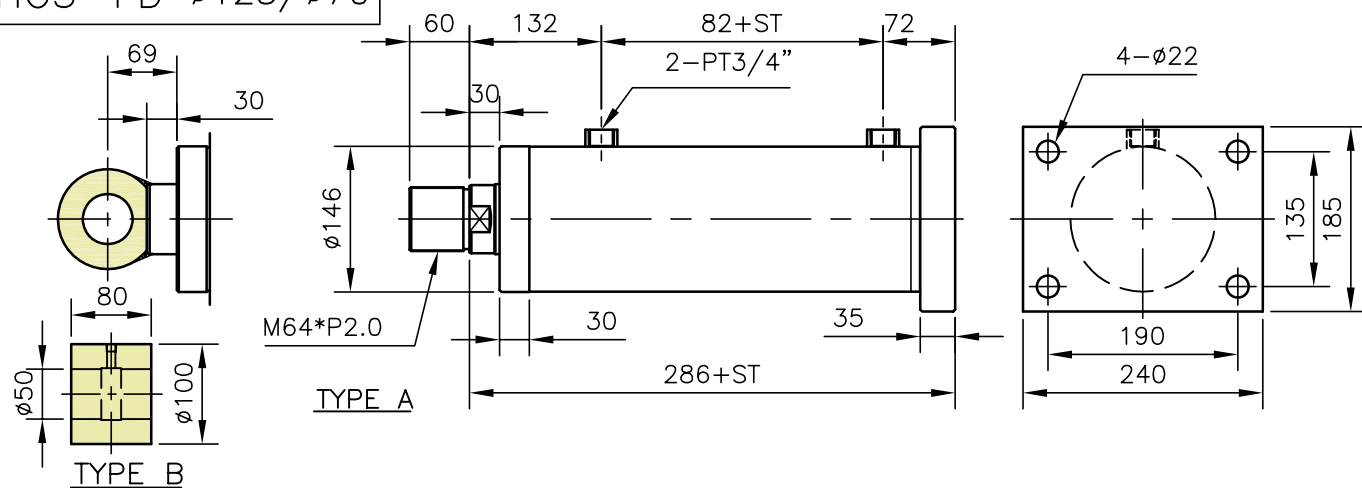
HC5-FA $\phi 125/\phi 70$



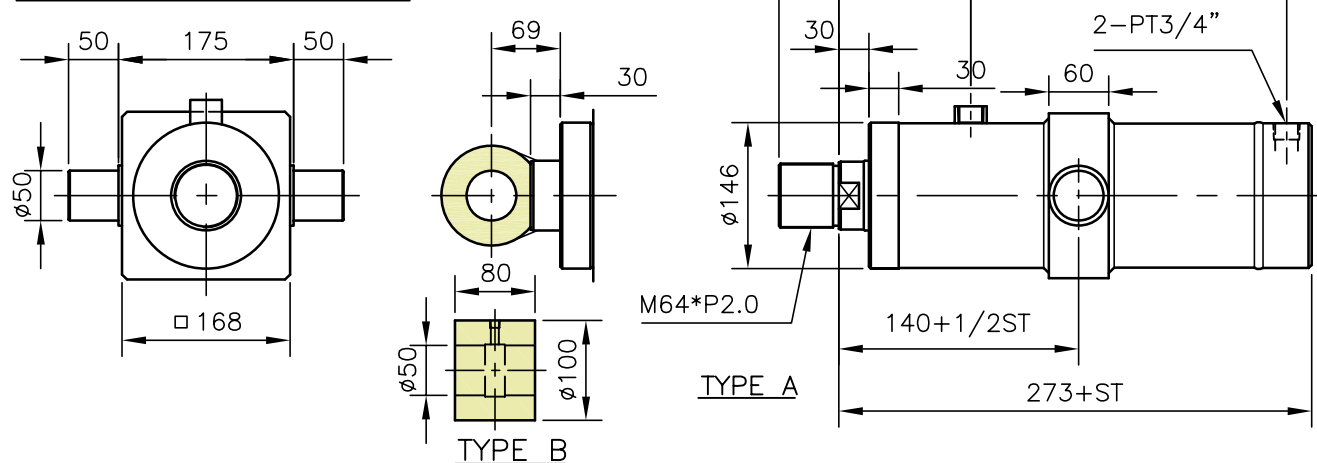
HC5-FB $\phi 125/\phi 70$



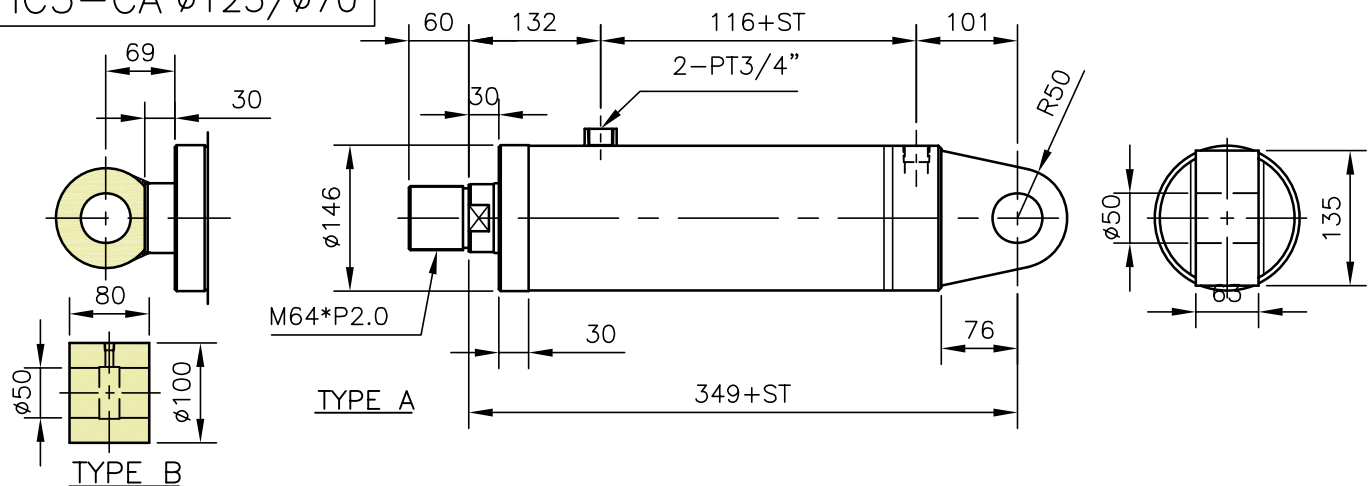
HC5-FD $\phi 125/\phi 70$



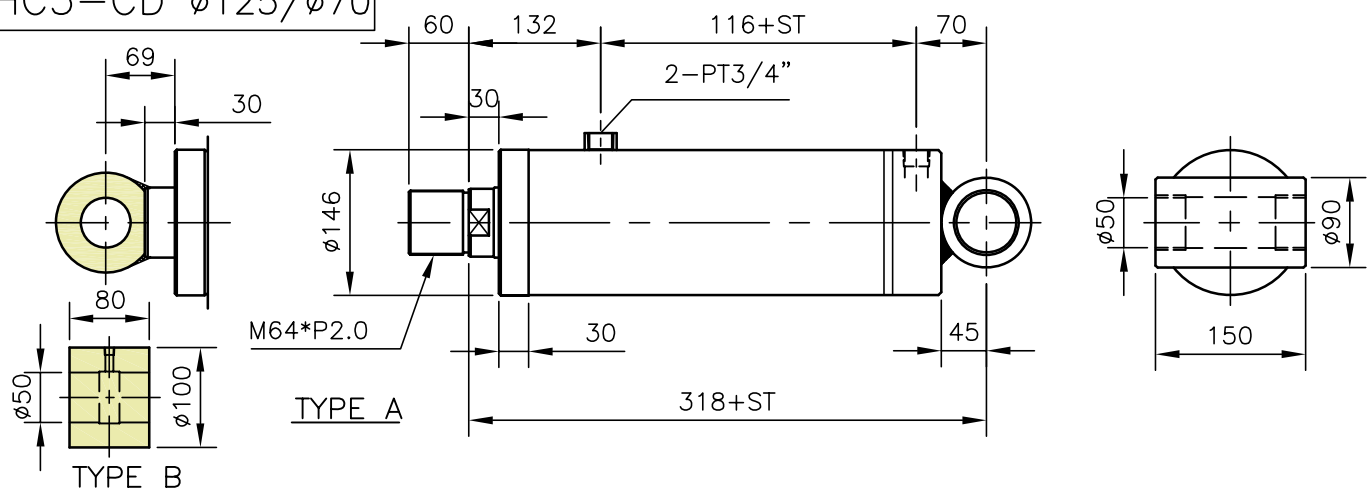
HC5-TC $\phi 125/\phi 70$



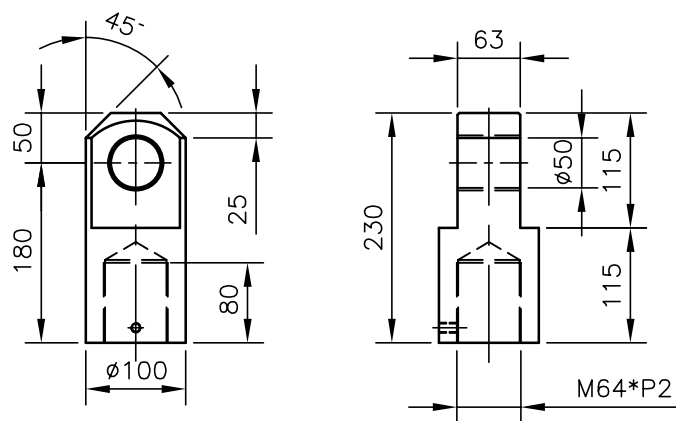
HC5-CA $\phi 125/\phi 70$



HC5-CD $\phi 125/\phi 70$



HC5- $\phi 125$ -I接頭



weigh=9.3kg

油壓缸大概重量計算

Estimated weight of hyd.

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

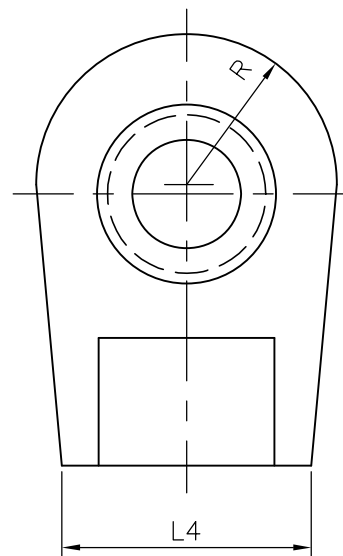
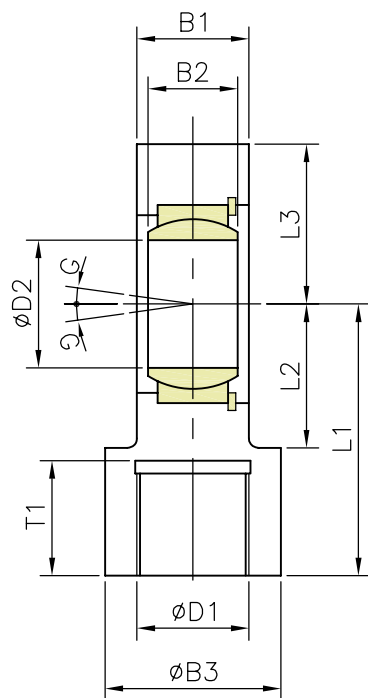
$$\begin{aligned} \text{weight} &= W1 + (W2 * ST) \\ &= 42.3 + (6.3 * 2) \\ &= 54.9 \text{ kg} \end{aligned}$$

	W1 (kg)		W2 (kg/100mm)
	Type A	Type B	
FA	42.3	44.4	6.3
FB	42.3	44.4	
FD	40.1	42.2	
TC	39.1	41.2	
CA	38.1	40.2	
CD	37.0	39.1	

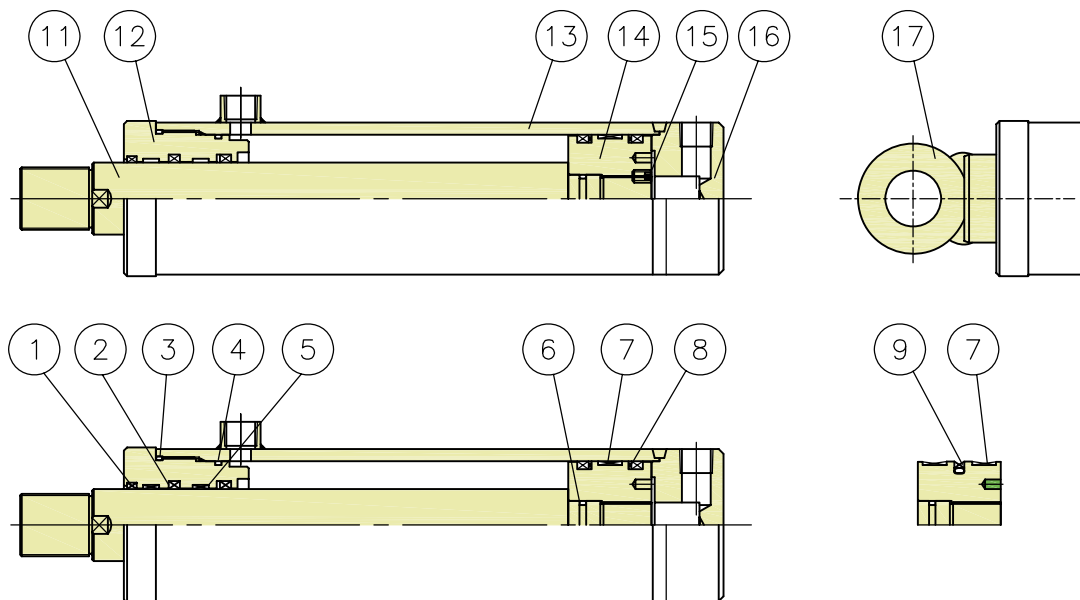
接頭 Clevis Head— BAI

前端球面軸承接頭— BAI

Spherical Rod End Type— BAI



Piston Dia.	B1 ⁰ ₋₀₂	B2	B3	D1	øD2	L1	L2	L3	L4	R	T1	G	Weigh(kg)
40	19	16 ⁰ _{-0.12}	25	M 20*1.5	20 ⁰ _{-0.01}	50	25	30	48	28	17	9°	0,43
50	23	20 ⁰ _{-0.12}	28	M 26*1.5	25 ⁰ _{-0.01}	50	25	30	48	28	17	7°	0,48
60	28	22 ⁰ _{-0.12}	34	M 26*1.5	30 ⁰ _{-0.01}	60	30	34	54	32	23	6°	0,74
63	28	22 ⁰ _{-0.12}	34	M 30*1.5	30 ⁰ _{-0.012}	60	30	34	54	32	23	6°	0,74
70	30	25 ⁰ _{-0.12}	44	M 36*1.5	35 ⁰ _{-0.012}	70	38	42	66	39	29	6°	1,2
80	30	25 ⁰ _{-0.12}	44	M 39*1.5	35 ⁰ _{-0.012}	70	38	42	66	39	29	6°	1,2
90	35	28 ⁰ _{-0.12}	55	M 44*1.5	40 ⁰ _{-0.012}	85	45	50	78	47	36	7°	2,0
100	40	35 ⁰ _{-0.12}	70	M 48*1.5	50 ⁰ _{-0.015}	105	55	58	90	58	46	6°	3,8
110	40	35 ⁰ _{-0.12}	70	M 56*2.0	50 ⁰ _{-0.015}	105	55	58	90	58	46	6°	3,8
125	50	44 ⁰ _{-0.15}	87	M 64*2.0	60 ⁰ _{-0.015}	130	65	70	118	65	59	6°	5,4



零件名稱及材質表 Parts Description & Material List:

NO	名 稱Description.	材 質 Material.	Q'TY	NO	名 稱Description.	材 質 Material.	Q'TY
11	活塞桿 Piston Rod	機械構造用碳鋼 Carbon Steel for Mechanical Structure	1	15		Carbon Steel for Mechanical Structure	1
12	前蓋 Head	一般構造用軋鋼 Rolled Steel for General Structure	1	16		Rolled Steel for General Structure	1
13	上	Carbon Steel Pipe for Mechanical Structure.	1	17	Clevis head	一般構造用軋鋼 Rolled Steel for General Structure	1
14		Rolled Steel for General Structure	1				

油封規格表 Specifications of Oil Seal:

NO	1	2	3	4	5	6	7	8	9
名 稱	防塵油封 Dust Seal	軸心油封 Rod Seal	O型環 O Ring	O型環 O Ring	耐磨片 Wear Ring	O型環 O Ring	耐磨片 Wear Ring	活塞油封 Piston Seal	活塞用T型油封 Piston seal for mode T
材質	PU	PU	NBR	NBR	PTFE	NBR	PTFE	PU	PTFE+NBR
數 量	1	1	1	1	2	1	1	2	1
內徑	ø,ø.w mm	ø,ø.w mm						ø,ø.w mm	ø,ø.w mm
ø40	22.4-30.4-6	22.4-30-5	G-40	G-35	22.4-2.5	P-12	40-2.5	40-30-6	40-29-4.2
ø50				G-45		P-16	50-2.5	50-40-6	50-39-4.2
ø60	30-38-6.5	30-40-6	G-60	G-55	30-2.5	P-18	60-2.5	60-50-6	60-49-4.2
ø63				G-58		P-18	63-2.5	63-53-6	63-52-4.2
ø70	40-48-6.5	40-50-6	G-70	G-65	40-2.5	P-22	70-2.5	70-60-6	70-59-4.2
ø80				G-75		G-25	80-2.5	80-70-6	80-64.5-6.3
ø90	50-58-6.5	50-60-6	G-90	G-85	50-2.5	G-30	90-2.5	90-80-6	90-74.5-6.3
ø100	55-63-6.5	55-65-6	G-100	G-95	55-2.5	G-35	100-2.5	100-85-9	100-84.5-6.3
ø110	65-73-6.5	65-75-6	G-110	G-105	65-2.5	G-45	110-2.5	110-95-9	110-94.5-6.3
ø125	70-80-8	70-80-6	G-125	G-120	70-2.5	G-45	125-2.5	125-112-9	125-109.5-6.3