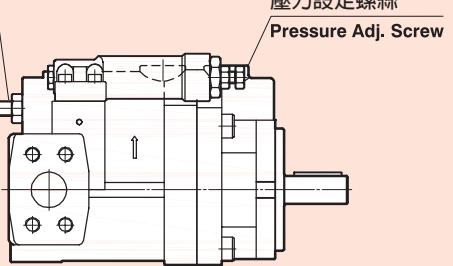
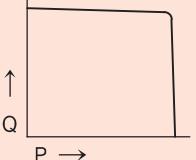
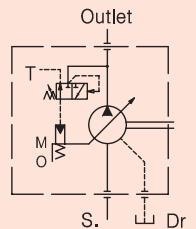
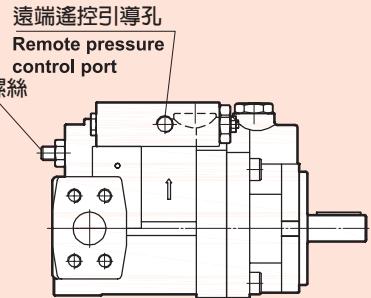
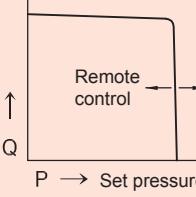
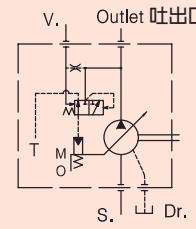


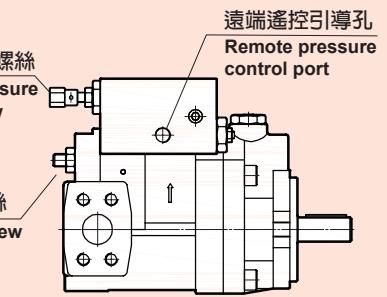
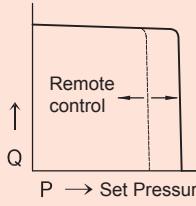
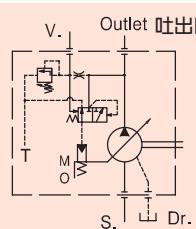
OMAX

標準功能 Standard Type

代號 Code	A	特性曲線 Characteristics Curves	油壓記號 Hydraulic Circuit
外型圖 External View	 <p>流量設定螺絲 Flow Adj. Screw</p> <p>壓力設定螺絲 Pressure Adj. Screw</p>		
說明 Description	<p>壓力補償控制型</p> <ul style="list-style-type: none"> 當油泵的輸出壓力接近設定壓力時，則油泵的流量自動減少到最小流量，保持設定的壓力。 設定壓力用手動調整。 	<p>Pressure Compensating Type (Manual)</p> <ul style="list-style-type: none"> When the pressure reaches the set value with the compensator, the flow reduces to the minimum automatically while the pump maintains the set pressure. The pressure and flow are controlled manually. 	

選擇功能 Option Type

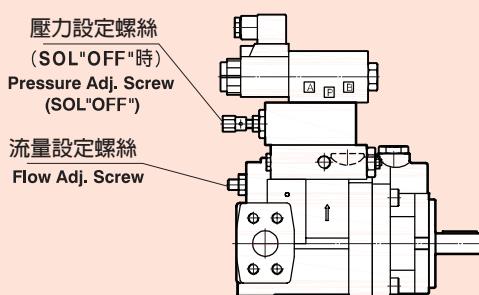
代號 Code	B	特性曲線 Characteristics Curves	油壓記號 Hydraulic Circuit
外型圖 External View	 <p>遠端遙控引導孔 Remote pressure control port</p> <p>壓力上限設定螺絲 Flow Adj. Screw</p>		
說明 Description	<p>遠端遙控引導型</p> <ul style="list-style-type: none"> 搭配外部裝設的遙控壓力閥進行壓力控制，或多段壓力閥配合使用。 全截流壓力是受到外部遙控壓力閥的壓力控制。 	<p>Remote Pressure Control Type</p> <ul style="list-style-type: none"> The pressure can be controlled by using the remote relief valve or the multisage pressure control valve. The discharge pressure can be adjusted by using the remote relief valve. 	

代號 Code	BH	特性曲線 Characteristics Curves	油壓記號 Hydraulic Circuit
外型圖 External View	 <p>壓力上限設定螺絲 The upper pressure limit Adj. Screw</p> <p>遠端遙控引導孔 Remote pressure control port</p> <p>流量設定螺絲 Flow Adj. Screw</p>		
說明 Description	<p>遠端遙控引導型附高壓保護型</p> <ul style="list-style-type: none"> 搭配外部裝設的遙控壓力閥進行壓力控制，或多段壓力閥配合使用。 全截流壓力是受到外部遙控壓力閥的壓力控制，但是油泵有可調整的最高壓力保護裝置。 	<p>Remote Pressure Control & Manual Pressure Type</p> <ul style="list-style-type: none"> The pressure can be controlled by using the remote relief valve or the multisage pressure control valve. The pump combines remote relief valve and pressure compensator which can adjust set pressure manually. 	

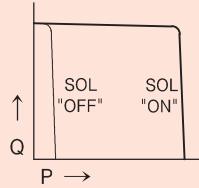
代號 Code

D

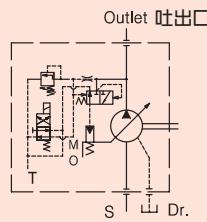
外型圖 External View



特性曲線 Characteristics Curves



油壓記號 Hydraulic Circuit



說明 Description

電磁低壓卸載型

- 透過泵浦上安裝的電磁方向閥的換向，可作低壓卸載的功能和切換成壓力控制的功能形式使用。
- 適用於系統壓待機時間較長的情況，搭配此功能可減少能源的浪費。

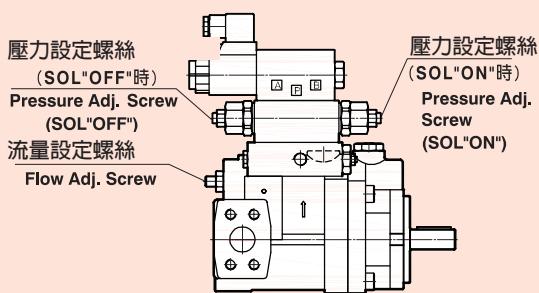
Solenoid Cut-off Control Type

- The pump can be switched to unloading type and pressure control type by using the solenoid valve.
- If the system has longer standby time, using this type of pump can minimize the consumption of energy.

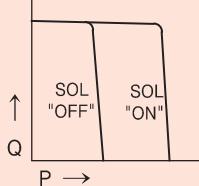
代號 Code

E

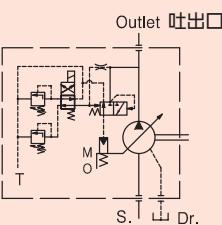
外型圖 External View



特性曲線 Characteristics Curves



油壓記號 Hydraulic Circuit



說明 Description

電磁兩段壓力控制型

- 透過泵浦上安裝的電磁方向閥的換向，可變化兩段不同的壓力，高壓力和低壓力的控制形式。
- 高低兩段壓力的搭配，使電機的負荷和油溫都在最佳範圍使用。

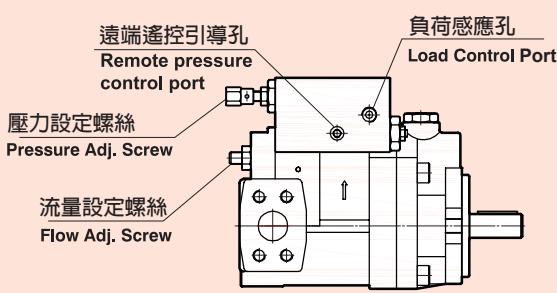
Solenoid Two Pressure Control Type

- The pump can be switched to high pressure type and low pressure type by using the solenoid valve.
- This type of control is suitable for an application where the output power of the actuator has to be controlled in two different load pressures.

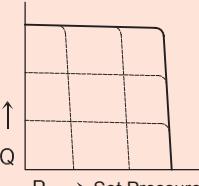
代號 Code

HL

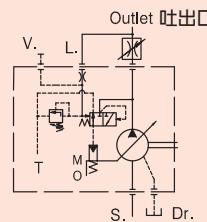
外型圖 External View



特性曲線 Characteristics Curves



油壓記號 Hydraulic Circuit



說明 Description

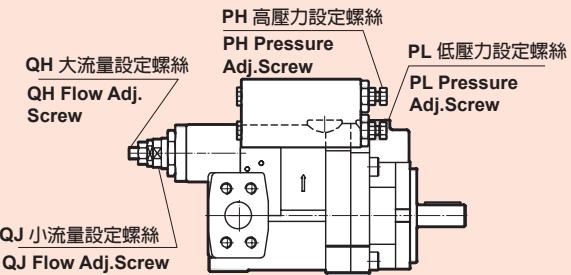
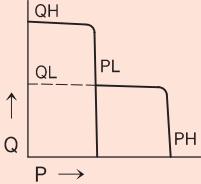
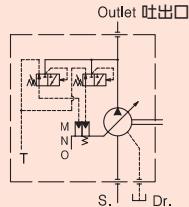
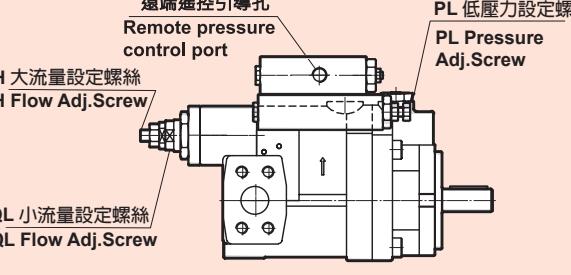
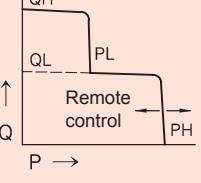
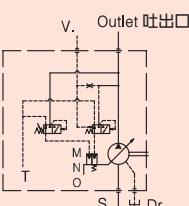
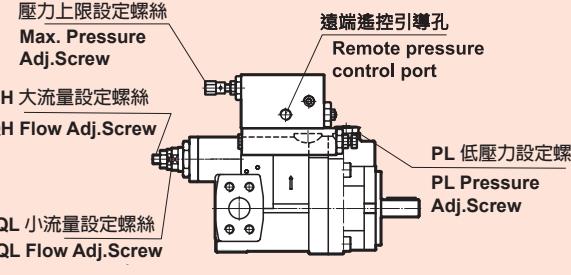
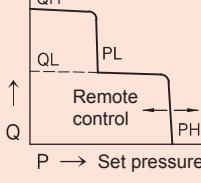
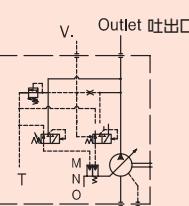
負荷感應控制型

- 當出口端在通過流量控制閥後，利用負荷感應孔回授的壓差，自動地控制泵浦的斜板角度，配合所需求流量的輸出。
- 這是一種省能源的控制方式，他供給負荷所需的最低流量和壓力。

Load Sensing Control Type

- This regulator, in addition to the pressure adjustment, allows the pump flow rate control, according to the Δp pressure drop measured on either side of a throttle valve installed on the user line.
- The connection pipe between the L port and the flow line downstream the valve must always be made. Set pressure can be adjusted manually.

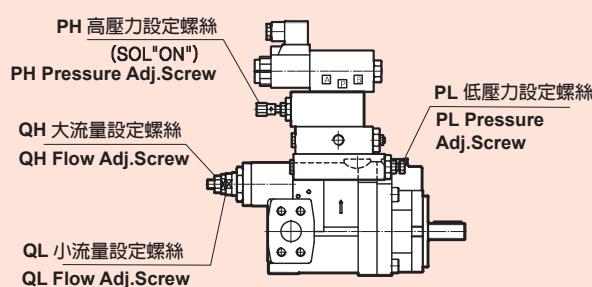
選擇功能 Option Type

代號 Code	C-A	特性曲線 Characteristics Curves	油壓記號 Hydraulic Circuit
外型圖 External View	 <p>QH 大流量設定螺絲 QH Flow Adj. Screw PH 高壓力設定螺絲 PH Pressure Adj.Screw PL 低壓力設定螺絲 PL Pressure Adj.Screw QJ 小流量設定螺絲 QJ Flow Adj.Screw</p>		
說明 Description	<p>內控式兩壓兩流控制型</p> <ul style="list-style-type: none"> • 泵浦在低壓力時為大流量，高壓力時為小流量的兩壓兩流控制功能。 • 當系統壓力負荷增高，超過 PL 的壓力設定值以上時，泵浦自動轉變為 QL 值的小流量，系統壓力下降到 PL 壓力值以下時，自動轉變為大流量。 	<p>2 - Pressure 2 - Flow Control Type</p> <ul style="list-style-type: none"> • When the pressure increases to exceed the set pressure (PL), the pump flow rate automatically changes to low flow rate (QL). On the contrary, when the pressure decreases to lower the set pressure (PL), the pump flow rate automatically changes to high flow rate (QH). 	
代號 Code	C-B	特性曲線 Characteristics Curves	油壓記號 Hydraulic Circuit
外型圖 External View	 <p>遠端遙控引導孔 Remote pressure control port QH 大流量設定螺絲 QH Flow Adj.Screw QL 小流量設定螺絲 QL Flow Adj.Screw PL 低壓力設定螺絲 PL Pressure Adj.Screw</p>		
說明 Description	<p>兩壓兩流高壓側壓力外控型</p> <ul style="list-style-type: none"> • 當系統壓力負荷增高，超過 PL 的壓力設定值以上時，泵浦自動轉變為 QL 值的小流量，系統壓力下降到 PL 壓力值以下時，自動轉變為大流量。 • 高壓側 PH 的壓力設定是受外部遙控引導閥的壓力所控制。 	<p>2 - Pressure 2 - Flow Remote Control PH Pressure Type</p> <ul style="list-style-type: none"> • The pump can be obtained high flow rate when pump is in the low pressure stage. On the contrary, the pump can also be obtained low flow rate when pump is in the high pressure stage. • The high pressure (PH) can be controlled by using the remote relief valve. 	
代號 Code	C-BH	特性曲線 Characteristics Curves	油壓記號 Hydraulic Circuit
外型圖 External View	 <p>壓力上限設定螺絲 Max. Pressure Adj.Screw QH 大流量設定螺絲 QH Flow Adj.Screw QL 小流量設定螺絲 QL Flow Adj.Screw 遠端遙控引導孔 Remote pressure control port PL 低壓力設定螺絲 PL Pressure Adj.Screw</p>		
說明 Description	<p>兩壓兩流壓力外控型附高壓保護</p> <ul style="list-style-type: none"> • 兩壓兩流的控制功能，系統壓力超過 PL 的壓力設定值以上時，泵浦自動轉變為 QL 值的小流量。 • 高壓側 PH 的壓力設定是受外部遙控引導閥的壓力所控制，但是油泵有可調整的壓力上限保護。 	<p>2 - Pressure 2 - Flow Remote Control PH Pressure & Manual Pressure Type</p> <ul style="list-style-type: none"> • This type is a two pressure-two flow control. The high pressure (PH) can be controlled by using a remote relief valve. • The pump combines remote relief valve and pressure compensator which can adjust set pressure manually. 	

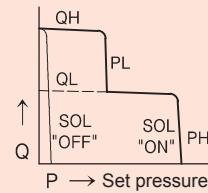
代號 Code

C-D

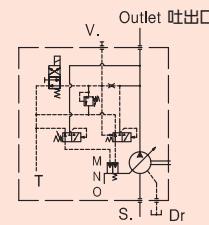
外型圖 External View



特性曲線 Characteristics Curves



油壓記號 Hydraulic Circuit



說明 Description

兩壓兩流附電磁低壓卸載型

- 兩壓兩流的控制功能，系統壓力超過 PL 的壓力設定值以上時，泵浦自動轉變為 QL 值的小流量。
- 高壓側 PH 壓力是由泵浦上安裝的電磁方向閥的換向，來轉變低壓卸載或是高壓力的型式使用。

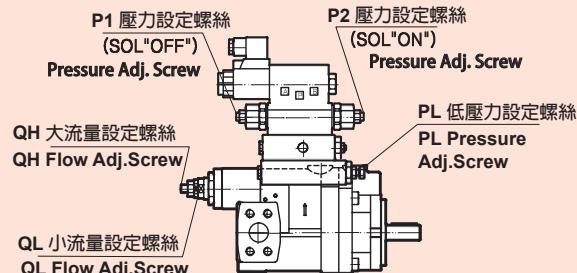
2 - Pressure 2 - Flow Solenoid Cut-off Control PH Two Pressure Type

- This type is a two-pressure two-flow control.
- The high pressure (PH) can be obtained by switching solenoid valve to pressure one (P1) and pressure two (P2).

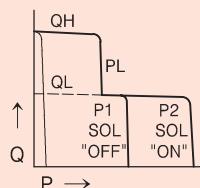
代號 Code

C-E

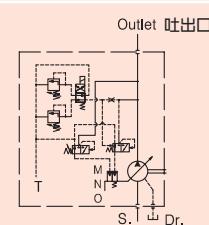
外型圖 External View



特性曲線 Characteristics Curves



油壓記號 Hydraulic Circuit



說明 Description

兩壓兩流附電磁兩段壓力控制型

- 兩壓兩流的控制功能，系統壓力超過 PL 的壓力設定值以上時，泵浦自動轉變為 QL 值的小流量。
- 高壓側 PH 值是由泵浦上安裝的電磁方向閥的換向，來變化兩段不同的壓力，P1 壓力和 P2 壓力的控制形式。

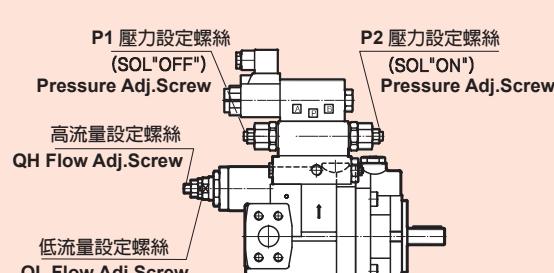
2 - Pressure 2 - Flow Solenoid Control PH Two Pressure Type

- This type is a two pressure-two flow control.
- The high pressure (PH) can be obtained by switching solenoid valve to pressure one (P1) and pressure two (P2).

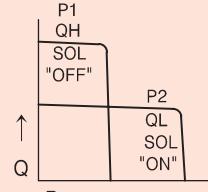
代號 Code

CL-H

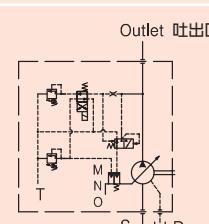
外型圖 External View



特性曲線 Characteristics Curves



油壓記號 Hydraulic Circuit



說明 Description

電磁控制兩壓兩流型

- 是由泵浦上安裝的電磁方向閥的換向，來轉換成低壓大流量或是高壓小流量的變化控制。
- 一個泵可做兩個泵的大小流量轉換，可降低電機的負荷，因而可使用小功率的電機。

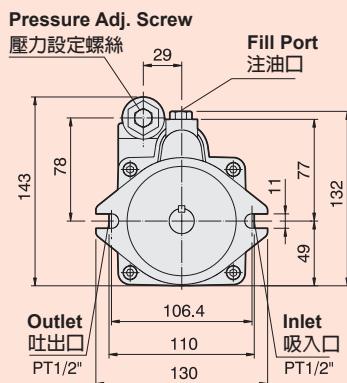
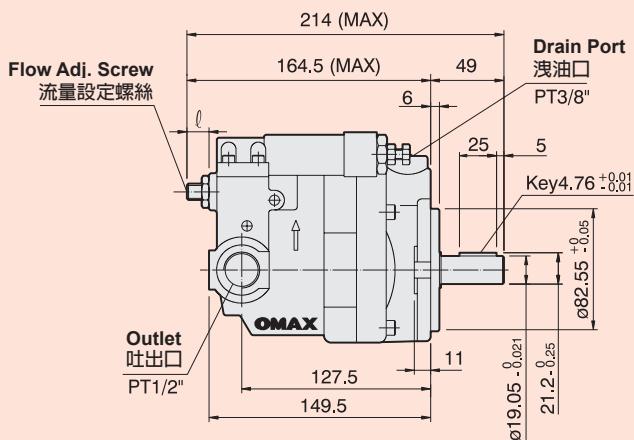
Solenoid Cut-off Control 2 - Pressure 2 - Flow Type

- The pump can be switched to high flow rate with low pressure type (QH,P1) and low flow rate with high pressure type (QL,P2) by using the solenoid valve.

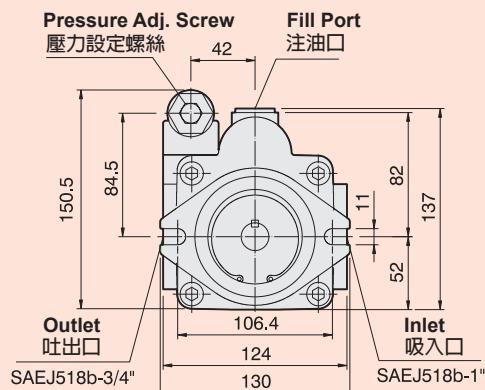
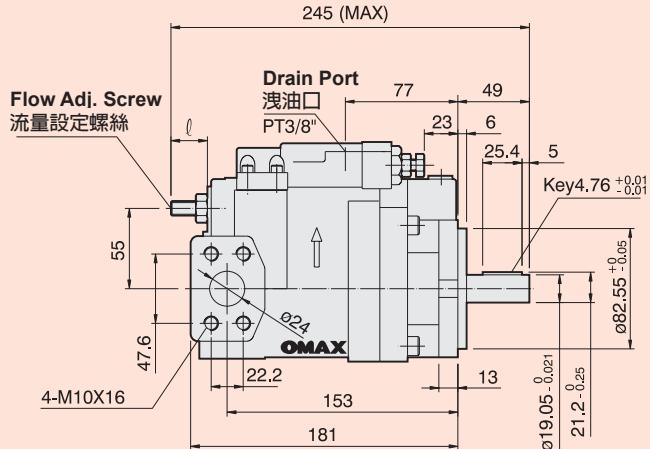
壓力補償控制型 Pressure Compensating Type

MODEL 型號	Volume cm ³ / rev	Delivery at no load ℓ / min				Max. setting pressure	Drive speed min ⁻¹		Mass kg	
		1000 min ⁻¹	1200 min ⁻¹	1500 min ⁻¹	1800 min ⁻¹		Min.	Max.		
P08-A*-F-R-01	8.0	8.0	9.6	12.0	14.4	255 bar	300	2000	9	
P16-A*-F-R-01	16.5	16.5	19.8	24.7	29.7		300	2000	13	
P22-A*-F-R-01	22.0	22.0	26.4	33.0	39.6		300	2000	13	
P36-A*-F-R-01	36.0	36.0	43.2	54.0	64.8		300	2000	24	
P46-A*-F-R-01	46.0	46.0	55.2	69.0	82.8		300	2000	24	
P70-A*-F-R-01	70.0	70.0	84.0	105.0	126.0		300	1800	43	
P100-A*-F-R-01	100.0	100.0	120.0	150.0	180.0		300	1800	62	
P16	-A3		-F		-R		(-S)			
P series piston pump (cm ³ / rev)	A*: Standard Type pressure range		Monuting		Rotation		Shaft Options			
P08 (8.0)	A0: 15~45 bar A1: 20~75 bar A2: 25~150 bar A3: 30~255 bar	F: Flange Mounting L: Foot Mounting	R: CW (standard) L: CCW (option)	K: Straight Key (Code Omitied) S: SAE Spline P08-SAE-9T P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T P70-SAE-14T P100-SAE-17T	K: Straight Key (Code Omitied) S: SAE Spline P08-SAE-9T P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T P70-SAE-14T P100-SAE-17T					
P16 (16.5)										
P22 (22.0)										
P36 (36.0)										
P46 (46.0)										
P70 (70.0)	A2: 25~150 bar A3: 30~255 bar A4: 30~286 bar	F: Flange Mounting	R: CW (standard)	K: Straight Key (Code Omitied) S: SAE Spline P08-SAE-9T P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T P70-SAE-14T P100-SAE-17T	K: Straight Key (Code Omitied) S: SAE Spline P08-SAE-9T P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T P70-SAE-14T P100-SAE-17T					
P100 (100.0)										

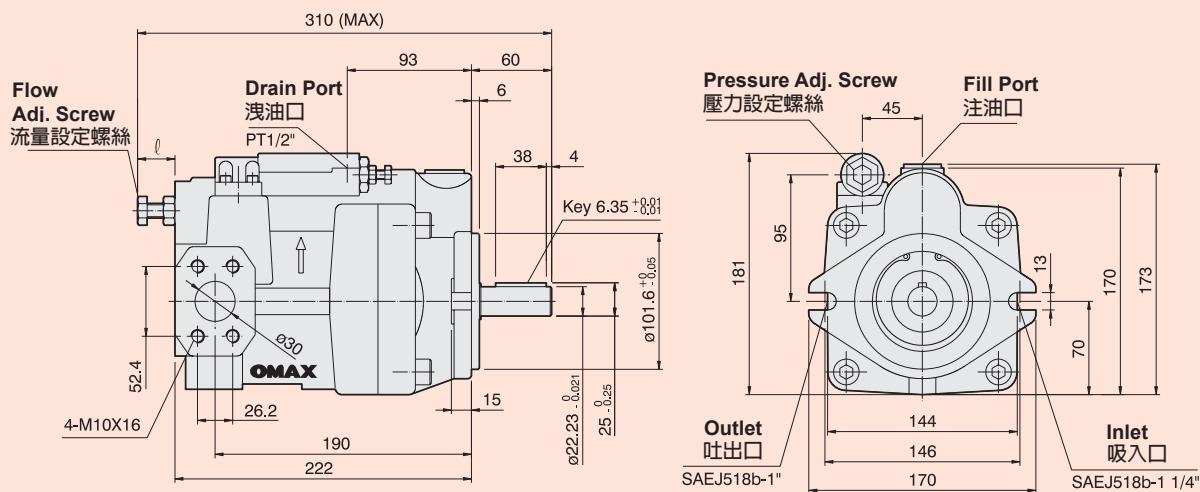
P08 - A - TYPE



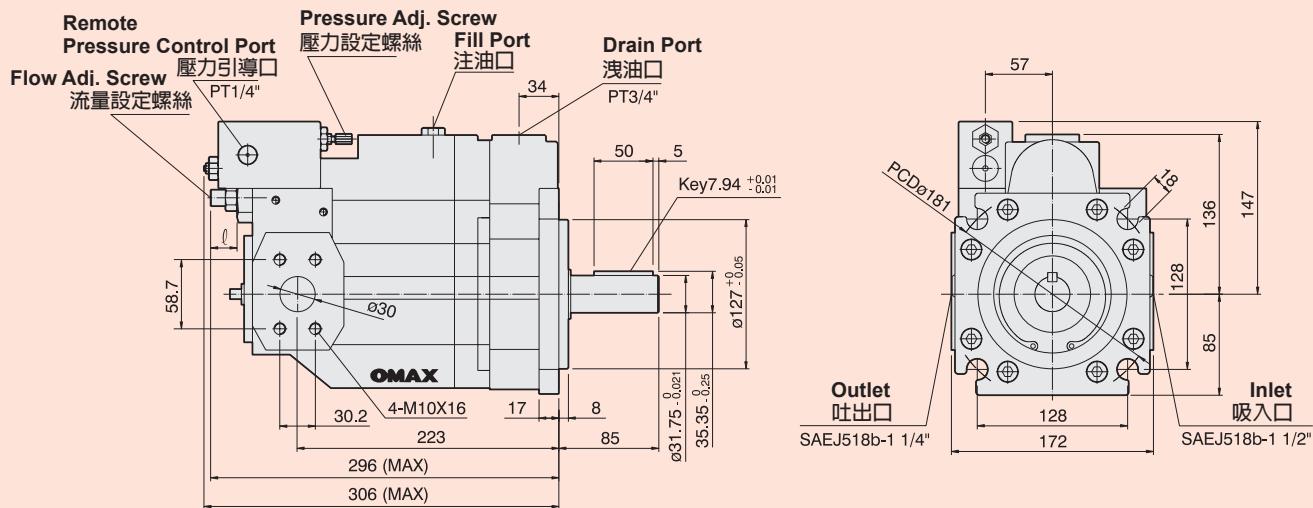
P16 / P22 - A - TYPE



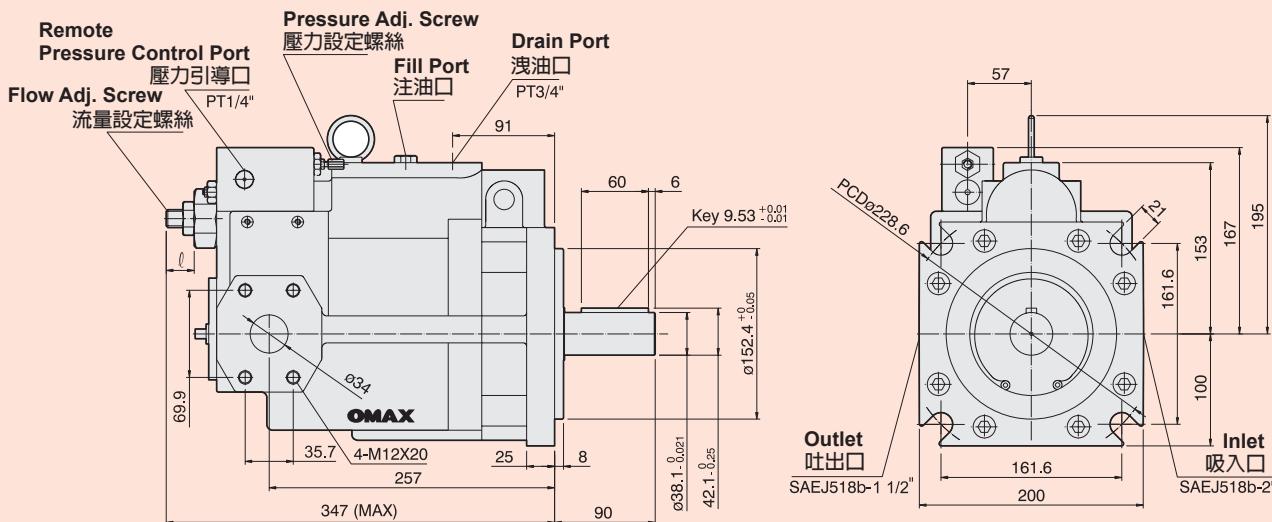
P36 / P46 - A - TYPE



P70 - A - TYPE



P100 - A - TYPE

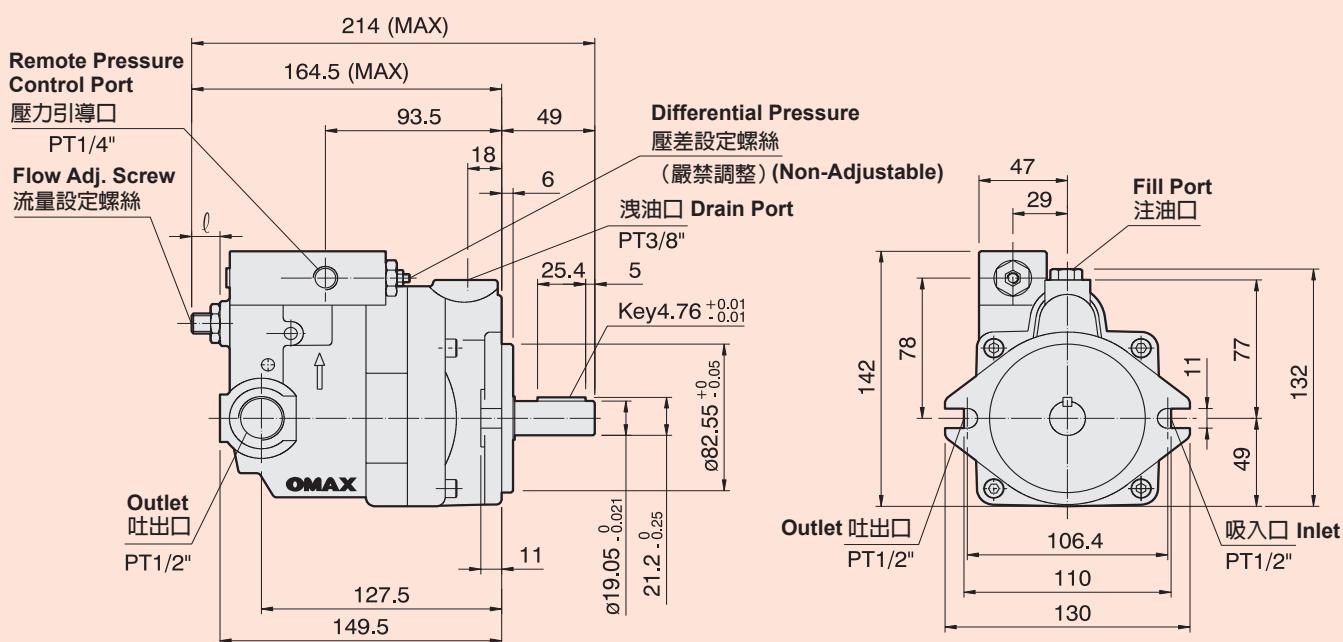




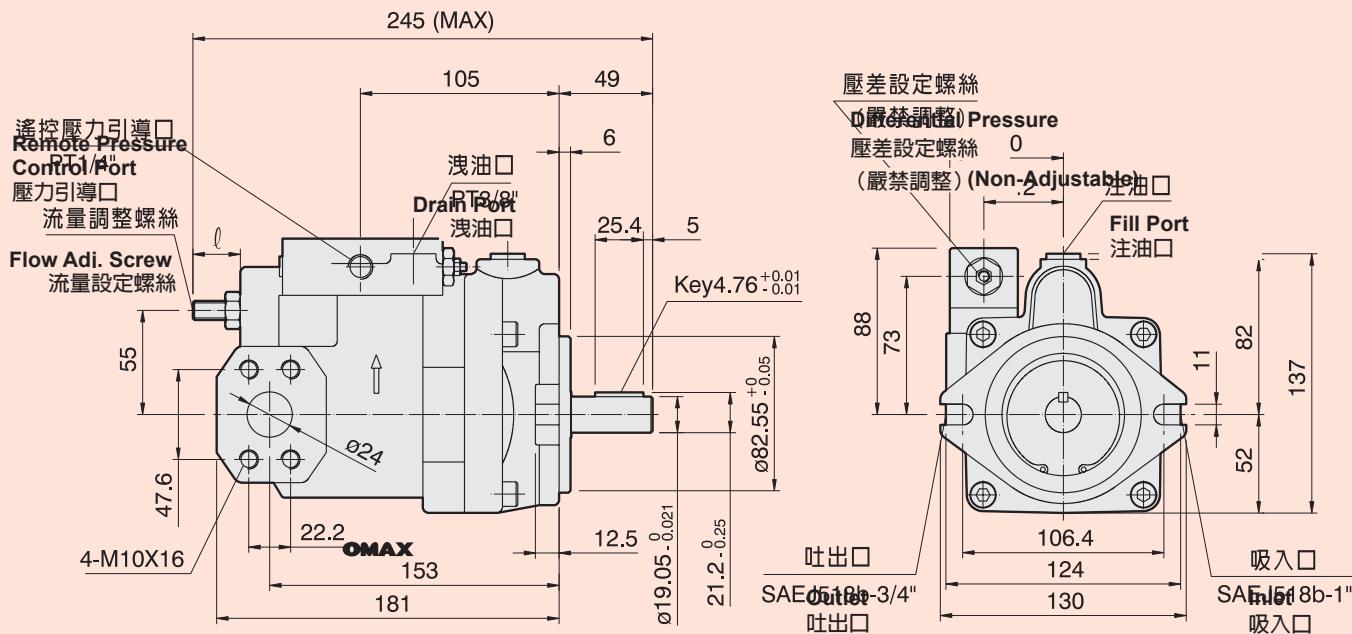
遠端遙控引導型 Remote Pressure Control Type

P16	-B3	-F	-R	(-S)
P Series Piston Pump (cm ³ / rev)	Pressure Range	Monuting	Rotation	Shaft Options
P08 (8.0)	B3: Pressure is controlled by the remote control valve	F: Flange Mounting L: Foot Mounting	R: CW (standard)	K: Straight Key (Code Omited) S: SAE Spline P08-SAE-9T P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T
P16 (16.0)				
P22 (22.0)				
P36 (36.0)				
P46 (46.0)				

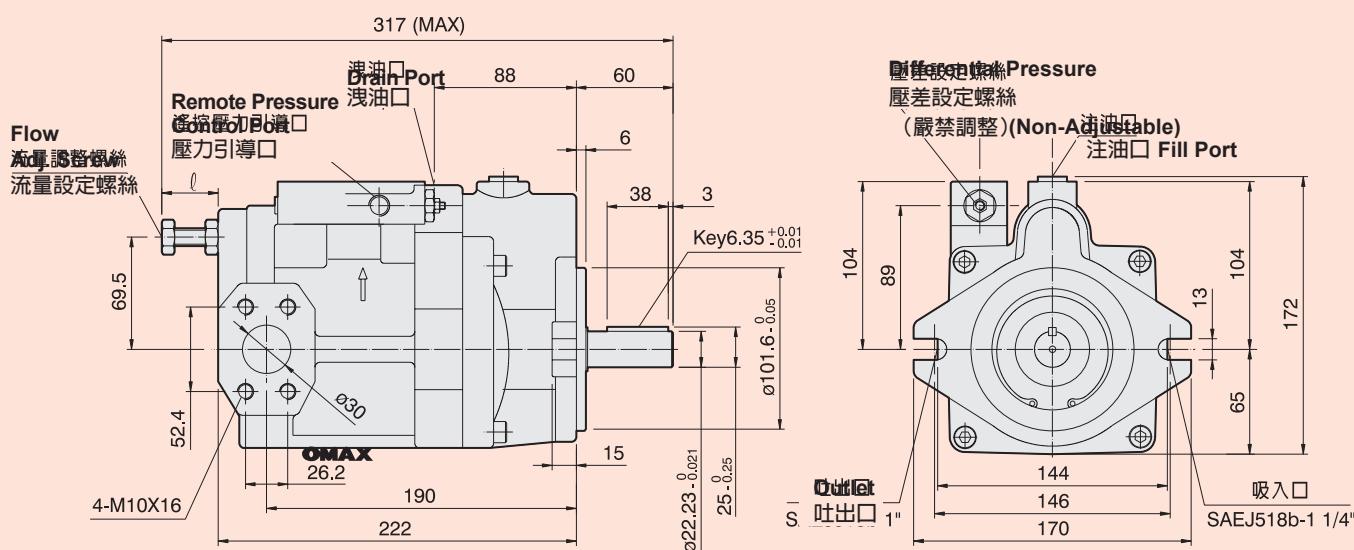
P08 - B - TYPE



P16 - B - TYPE / P22 - B - TYPE



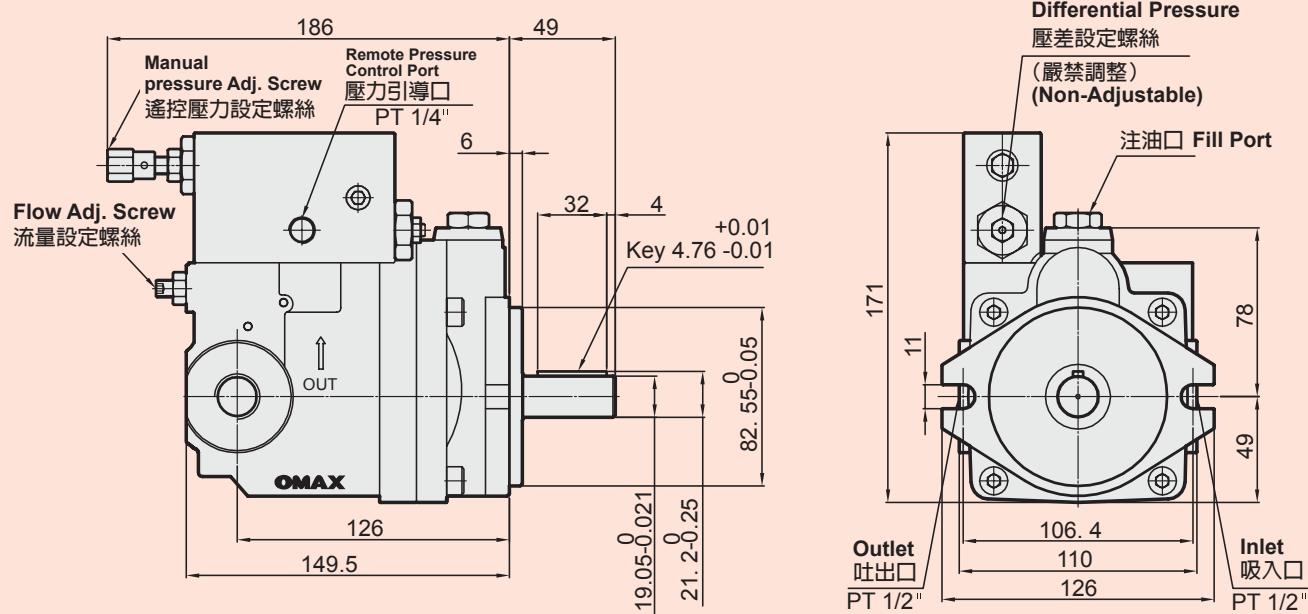
P36 - B - TYPE / P46 - B - TYPE



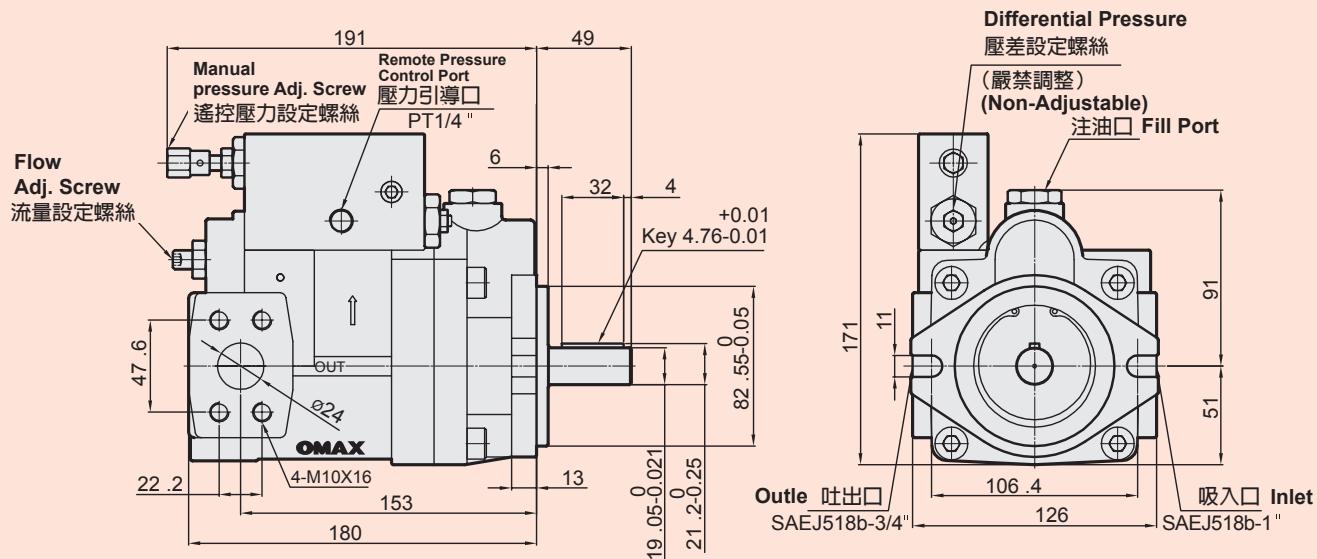
► 遠端遙控引導型附高壓保護
**Remote Pressure Control Type &
 Manual Pressure Type**

P16	-BH3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	Manual Pressure range	Monuting	Rotation	Shaft Options
P08 (8.0)	BH1: 20~75 bar BH2: 25~150 bar BH3: 30~255 bar	F: Flange Mounting L: Foot Mounting	R: CW (standard)	K: Straight Key (Code Omited) S: SAE Spline P08-SAE-9T P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T
P16 (16.0)				
P22 (22.0)				
P36 (36.0)				
P46 (46.0)				

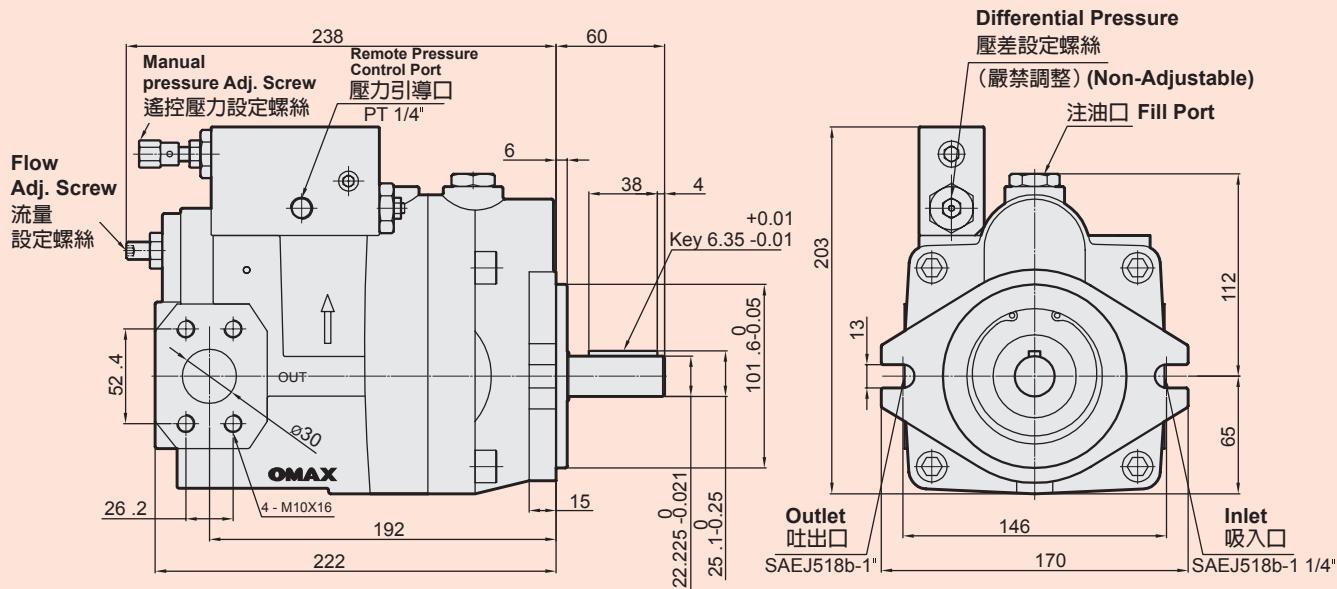
P08 - BH - TYPE



P16 - BH - TYPE / P22 - BH - TYPE



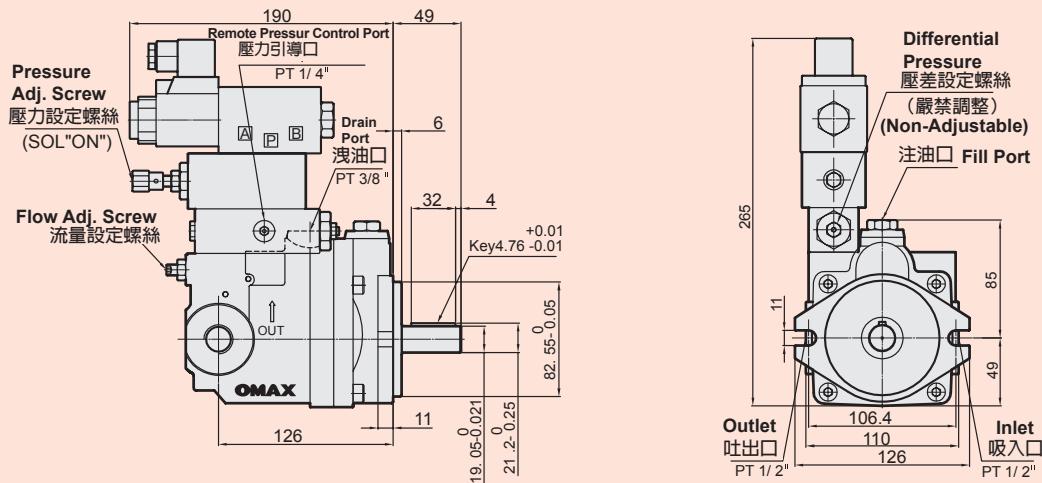
P36 - BH - TYPE / P46 - BH - TYPE



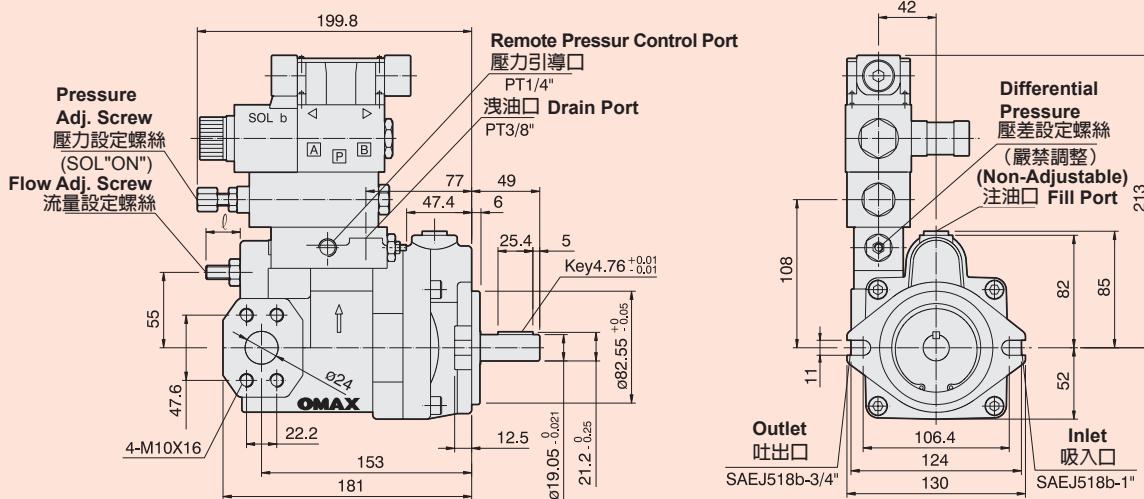
電磁低壓卸載型
Solenoid Cut-off Control Type

P16	-D3	-F	-R	(S)
P series piston pump (cm ³ / rev)	Pressure range (SOL "ON")	Monuting	Rotation	Shaft Options
P08 (8.0)	D1: 20~75 bar	F: Flange Mounting	R: CW (standard)	K: Straight Key (Code Omitted)
P16 (16.0)	D2: 25~150 bar	L: Foot Mounting		S: SAE Spline
P22 (22.0)	D3: 30~225 bar			P08-SAE-9T
P36 (36.0)				P16-SAE-9T
P46 (46.0)				P22-SAE-9T
P70 (70.0)	D2: 25~150 bar	F: Flange Mounting	P36-SAE-13T	
P100 (100.0)	D3: 30~225 bar		P46-SAE-13T	
	D4: 30~286 bar		P70-SAE-14T	
			P100-SAE-17T	

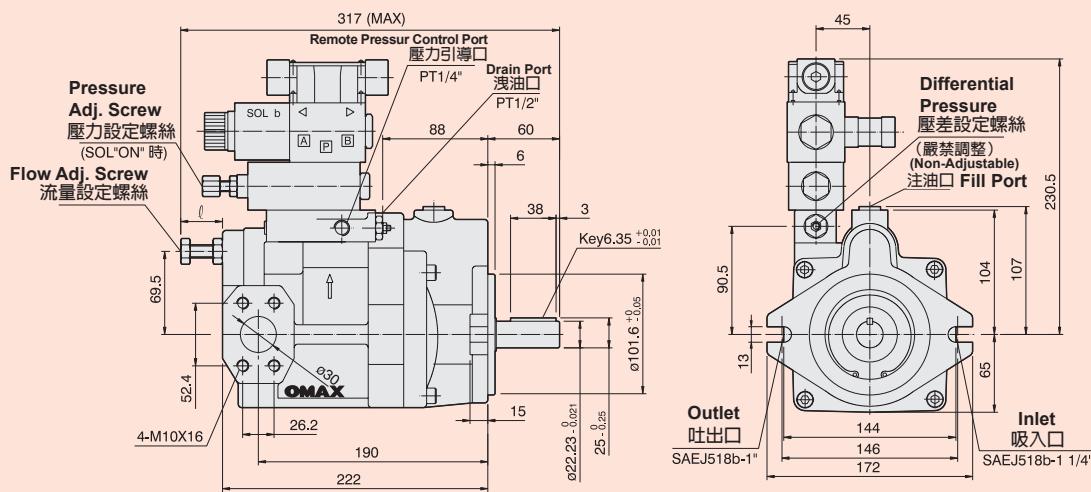
P08 - D - TYPE



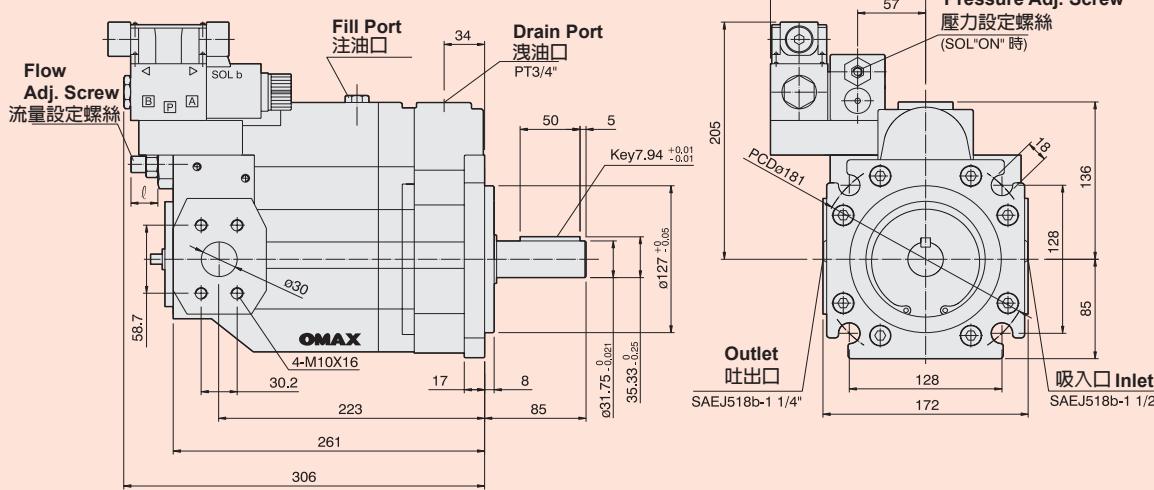
P16 - D - TYPE / P22 - D - TYPE



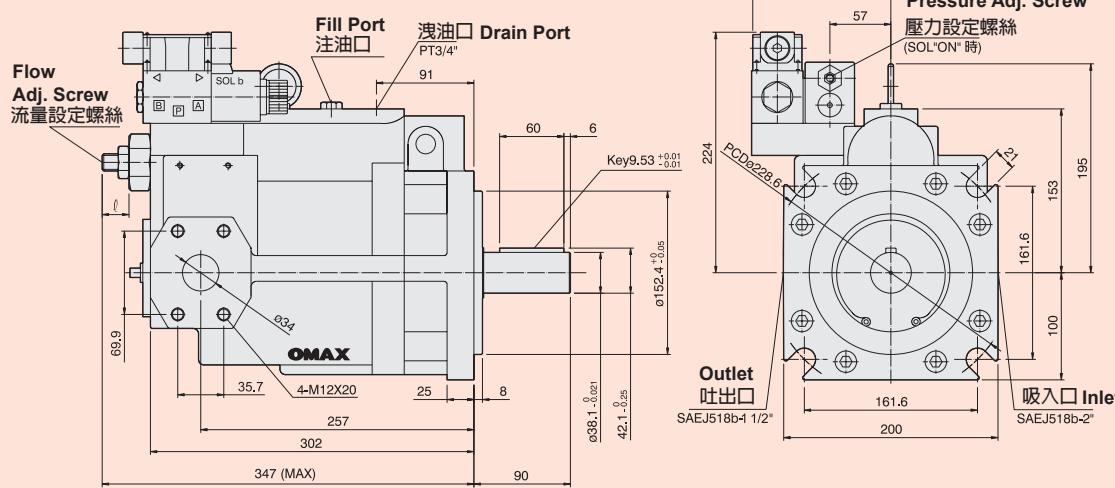
P36 - D - TYPE / P46 - D - TYPE



P70 - D - TYPE



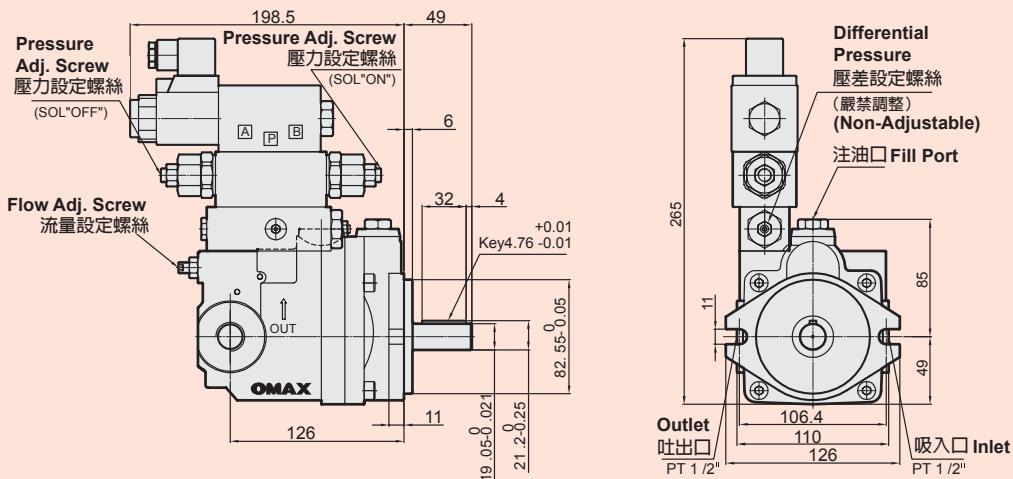
P100 - D - TYPE



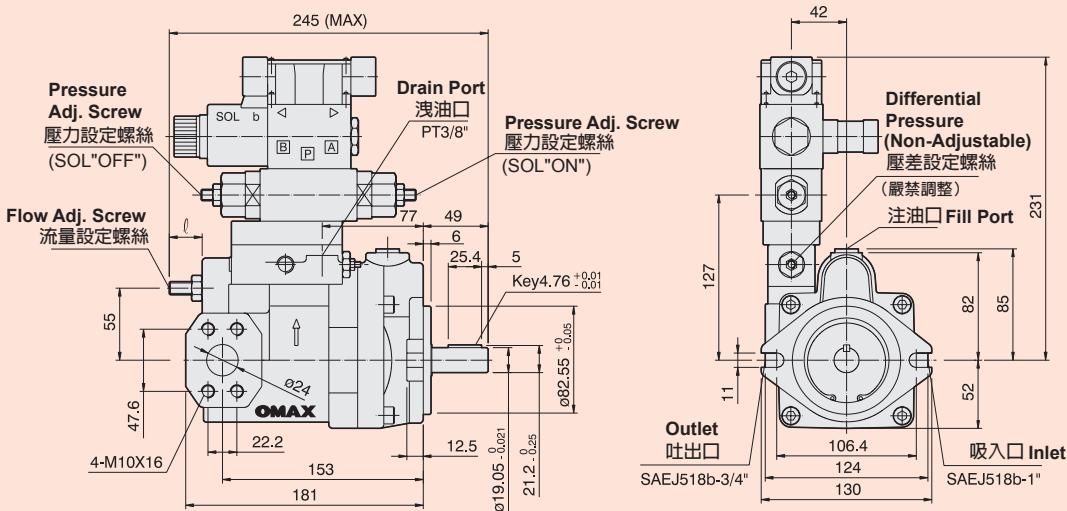
電磁兩段壓力控制型 Solenoid Two Pressure Control Type

P16	-E3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	Pressure range (SOL "ON")	Monuting	Rotation	Shaft Options
P08 (8.0)	E1: 20~75 bar	F: Flange Mounting	R: CW (standard)	K: Straight Key (Code Omited)
P16 (16.0)	E2: 25~145 bar	L: Foot Mounting		S: SAE Spline
P22 (22.0)	E3: 30~215 bar			P08-SAE-9T
P36 (36.0)				P16-SAE-9T
P46 (46.0)				P22-SAE-9T
P70 (70.0)	E2: 25~145 bar	F: Flange Mounting		P36-SAE-13T
P100 (100.0)	E3: 30~215 bar			P46-SAE-13T
				P70-SAE-14T
				P100-SAE-17T

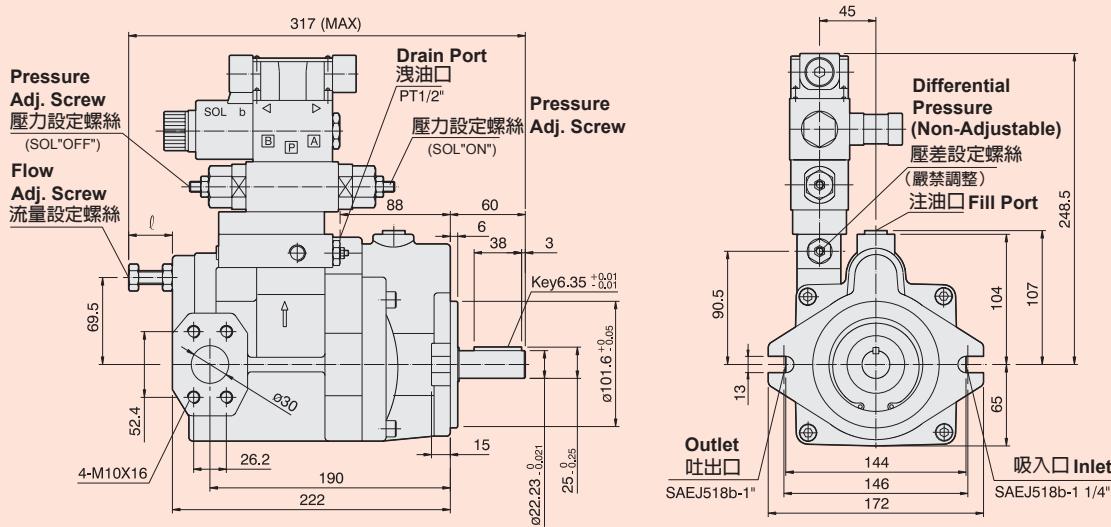
P08 - E - TYPE



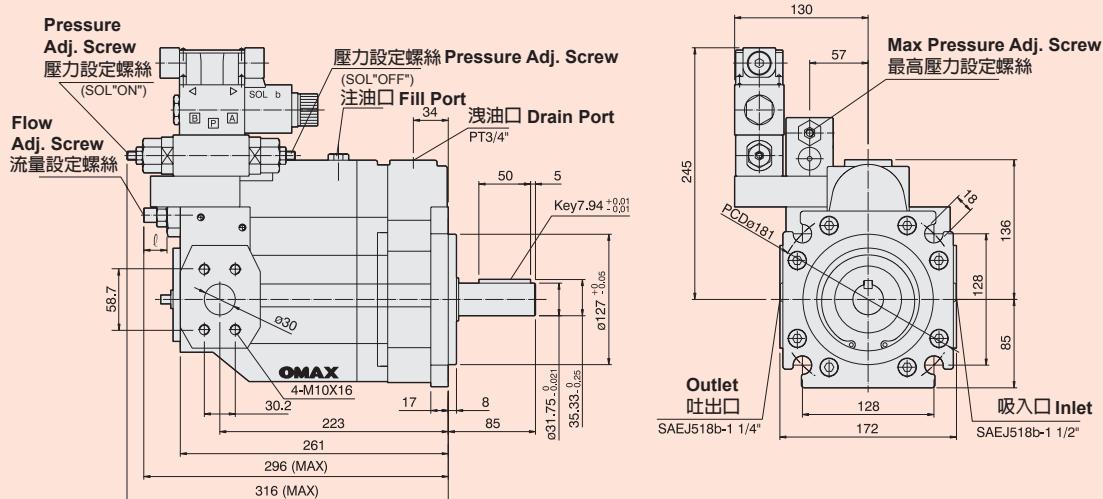
P16 - E - TYPE / P22 - E - TYPE



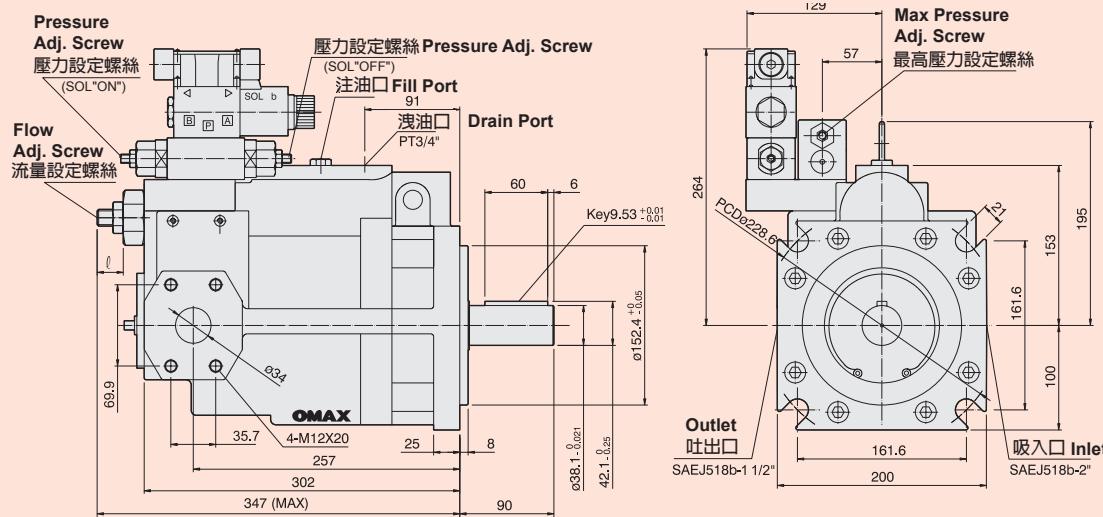
P36 - E - TYPE / P46 - E - TYPE



P70 - E - TYPE



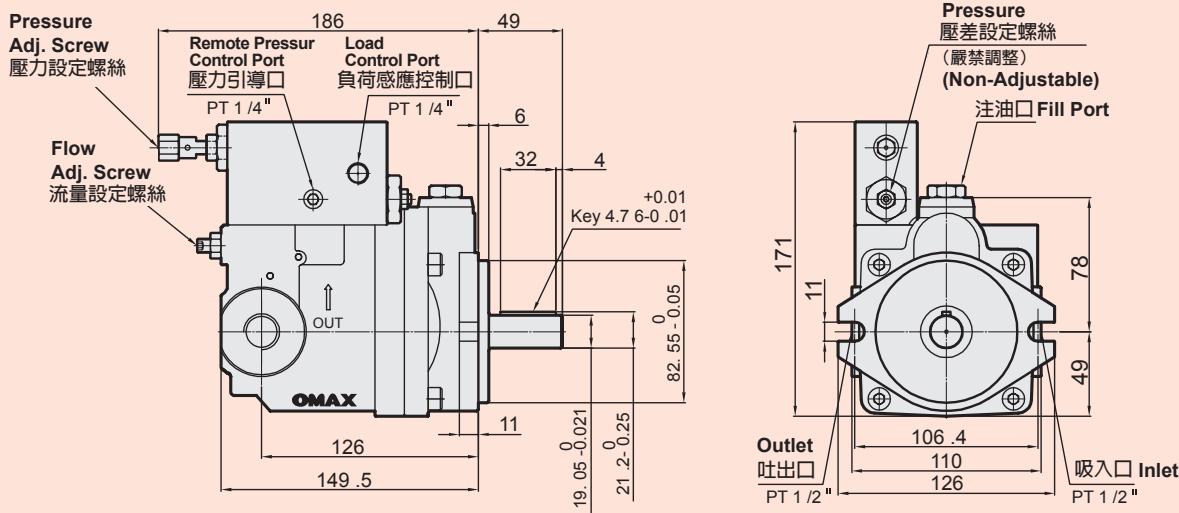
P100 - E - TYPE



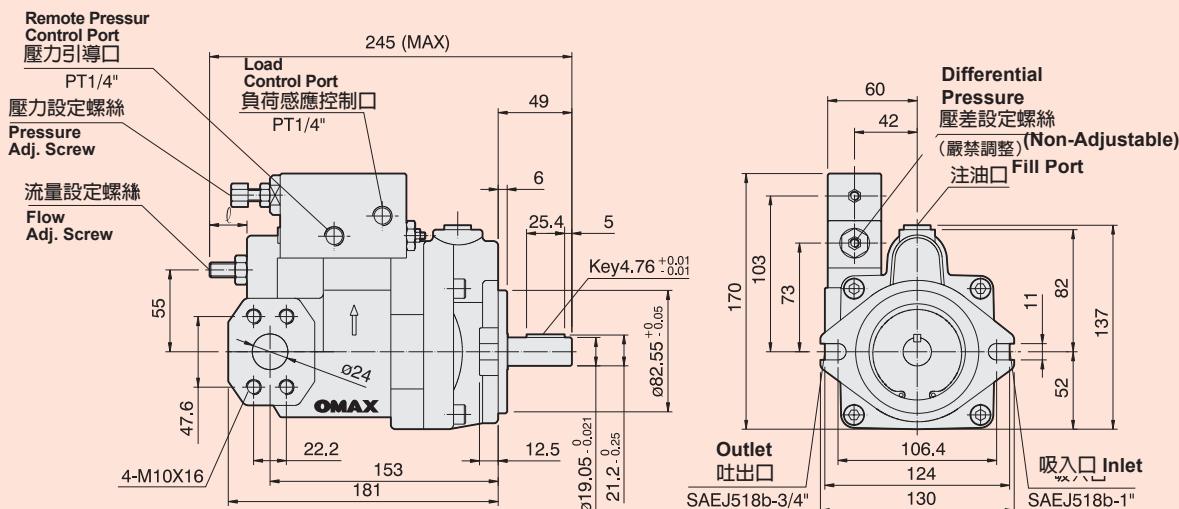
► 負荷感應控制型 Load Sensing Control Type

P16	-HL3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	Pressure range	Monuting	Rotation	Shaft Options
P08 (8.0)				K: Straight Key (Code Omited) S: SAE Spline
P16 (16.0)	HL1: 20~75 bar HL2: 25~145 bar HL3: 30~215 bar	F: Flange Mounting L: Foot Mounting	R: CW (standard)	P08-SAE-9T P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T P70-SAE-14T P100-SAE-17T
P22 (22.0)				
P36 (36.0)				
P46 (46.0)				
P70 (70.0)	HL2: 25~145 bar HL3: 30~215 bar HL4: 30~286 bar	F: Flange Mounting		
P100 (100.0)				

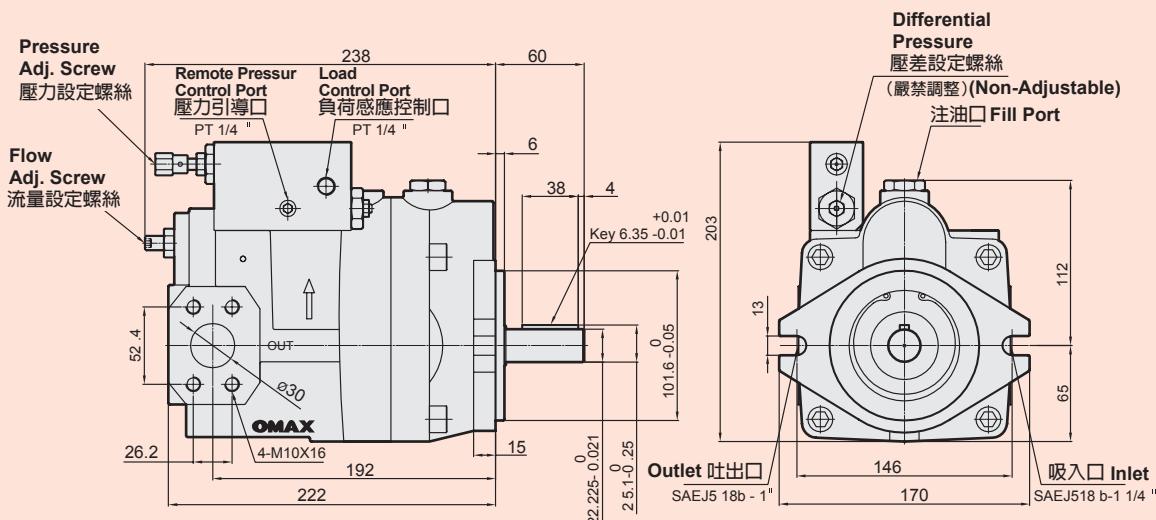
P08 - HL - TYPE



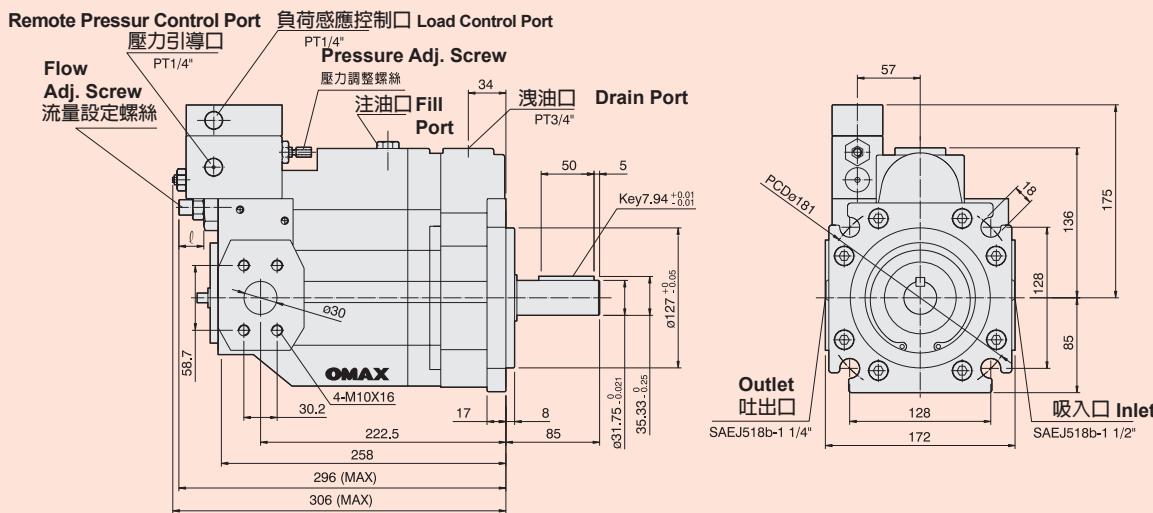
P16 - HL - TYPE / P22 - HL - TYPE



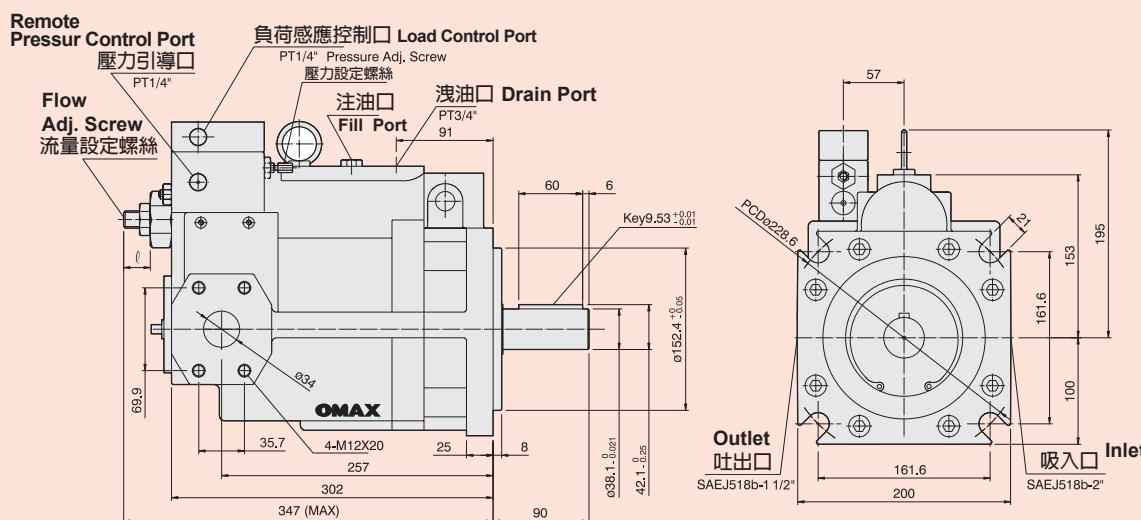
P36 - HL - TYPE / P46 - HL - TYPE



P70 - HL - TYPE



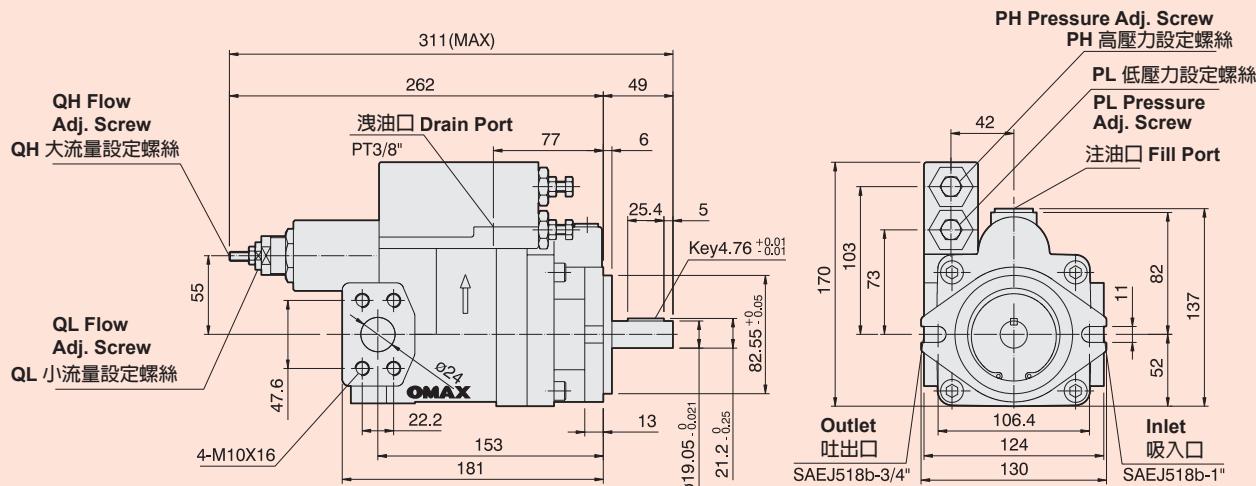
P100 - HL - TYPE



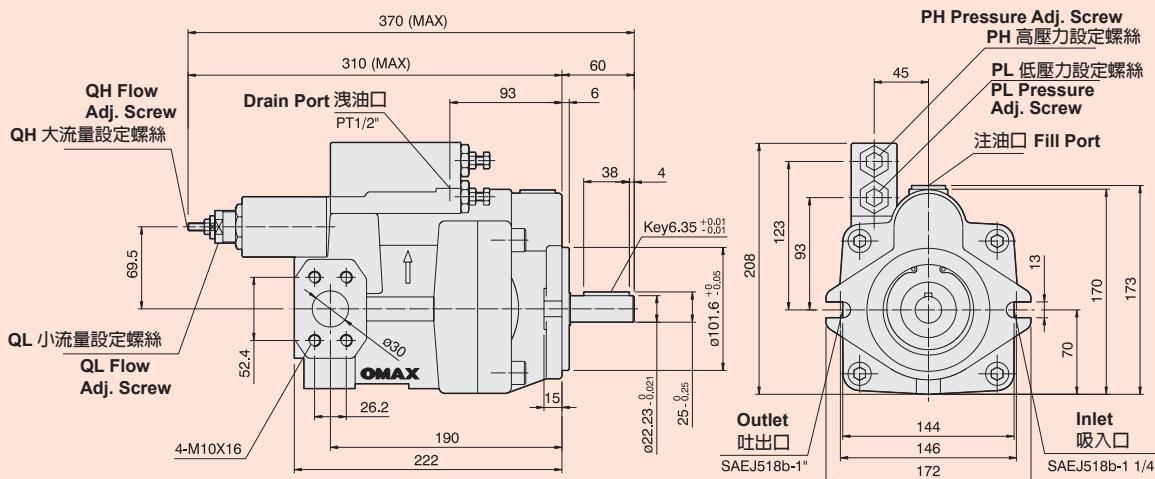
► 内控式兩壓兩流控制型 2 - Pressure 2 - Flow Control Type

P16	-C1	-A3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	PL Pressure range	PH pressure range	Monuting	Rotation	Shaft Options
P16 (16.0)	C0: 15~45 bar	A2: 25~150 bar	F: Flange Mounting	R: CW (standard)	K: Straight Key (Code Omited)
P22 (22.0)	C1: 20~75 bar	A3: 30~255 bar	L: Foot Mounting		S: SAE Spline
P36 (36.0)	C2: 25~150 bar				P16-SAE-9T
P46 (46.0)					P22-SAE-9T
P70 (70.0)	C1: 20~75 bar	A2: 25~150 bar	F: Flange Mounting		P36-SAE-13T
P100 (100.0)	C2: 25~150 bar	A3: 30~255 bar			P46-SAE-13T
		A4: 30~280 bar			P70-SAE-14T
					P100-SAE-17T

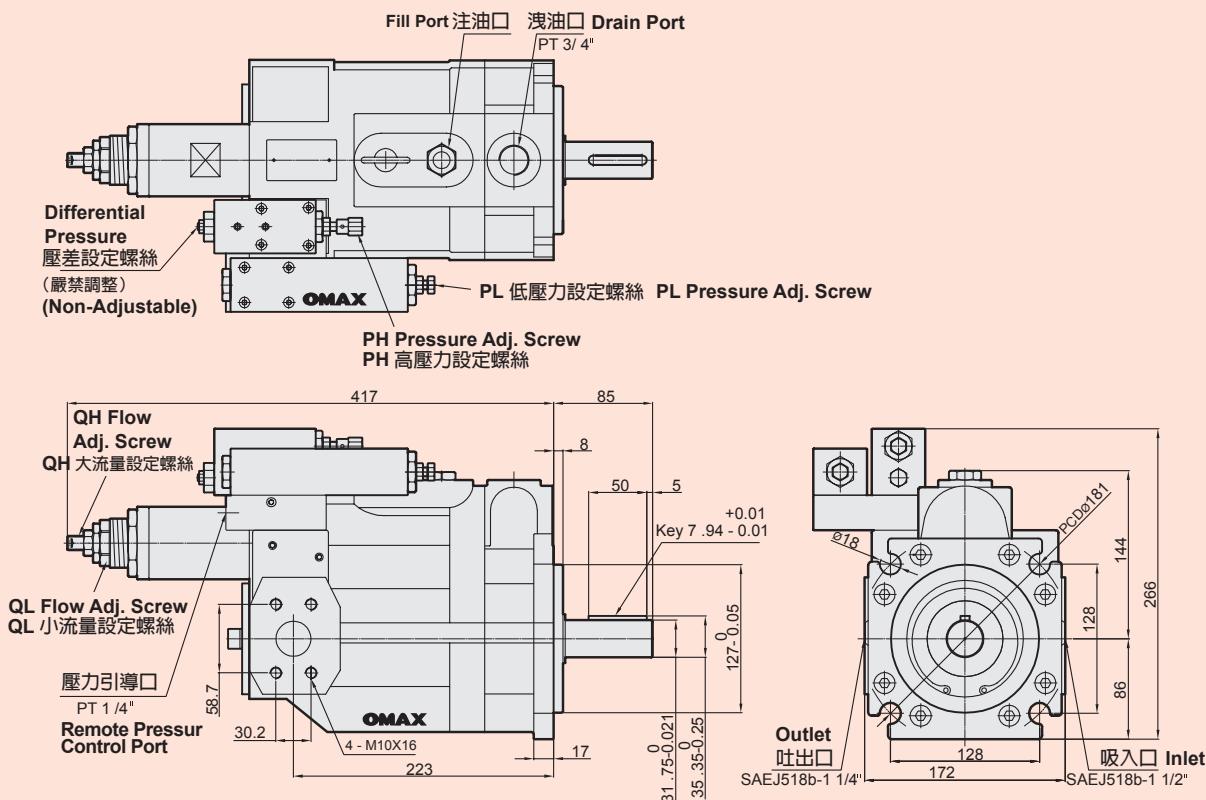
P16 - C - A - TYPE / P22 - C - A - TYPE



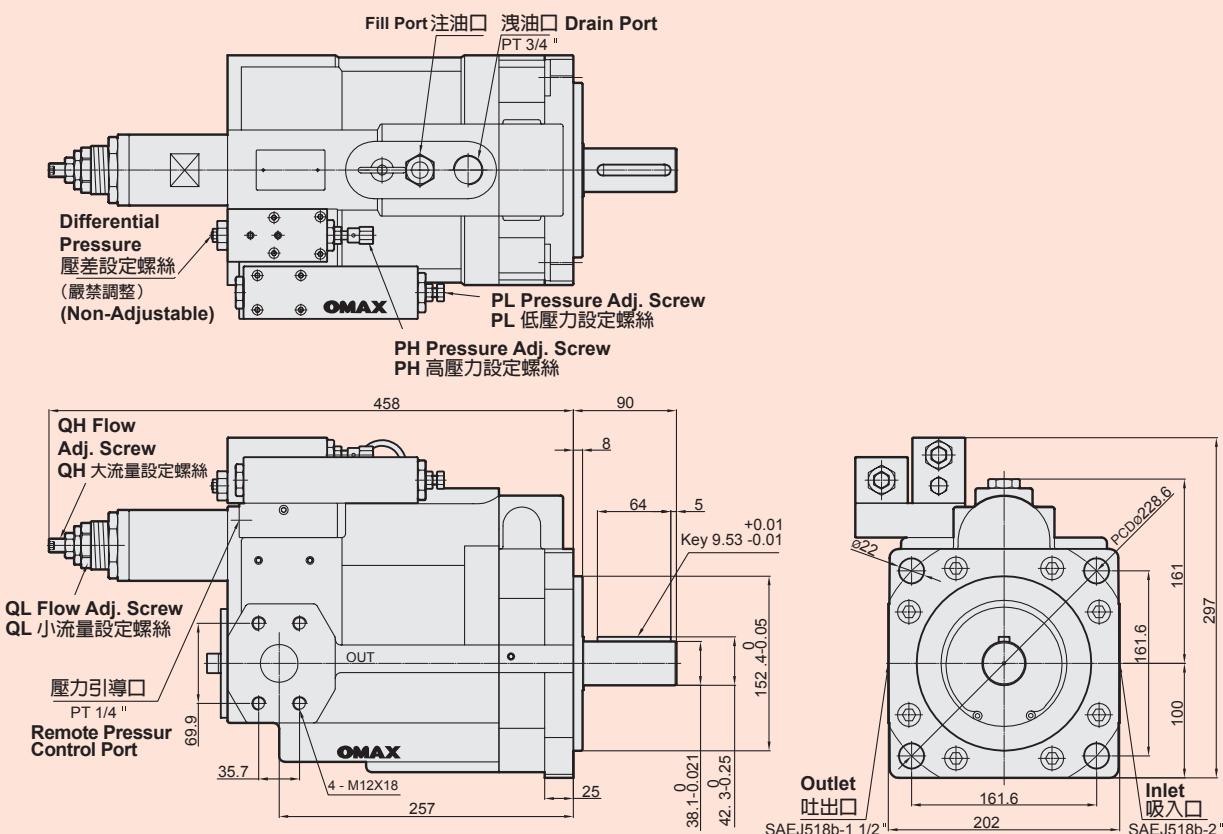
P36 - C - A - TYPE / P46 - C - A - TYPE



P70 - C - A - TYPE



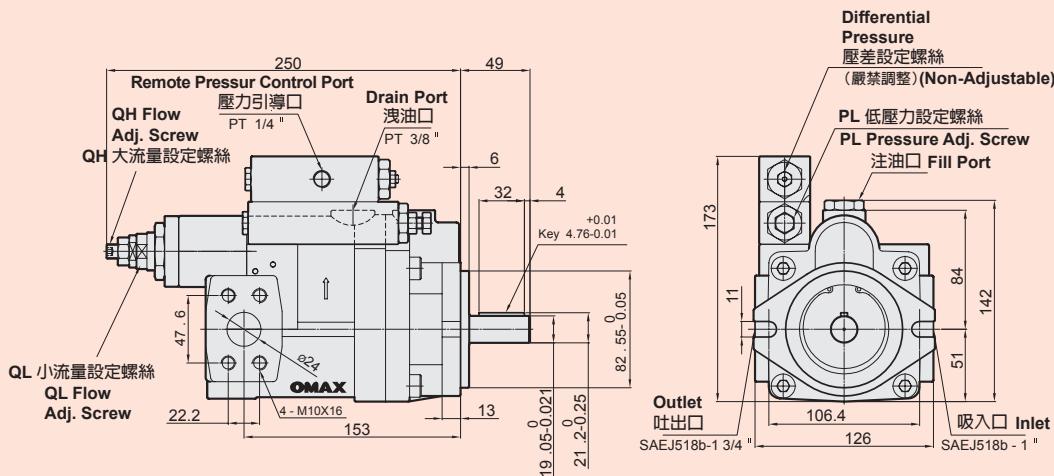
P100 - C - A - TYPE



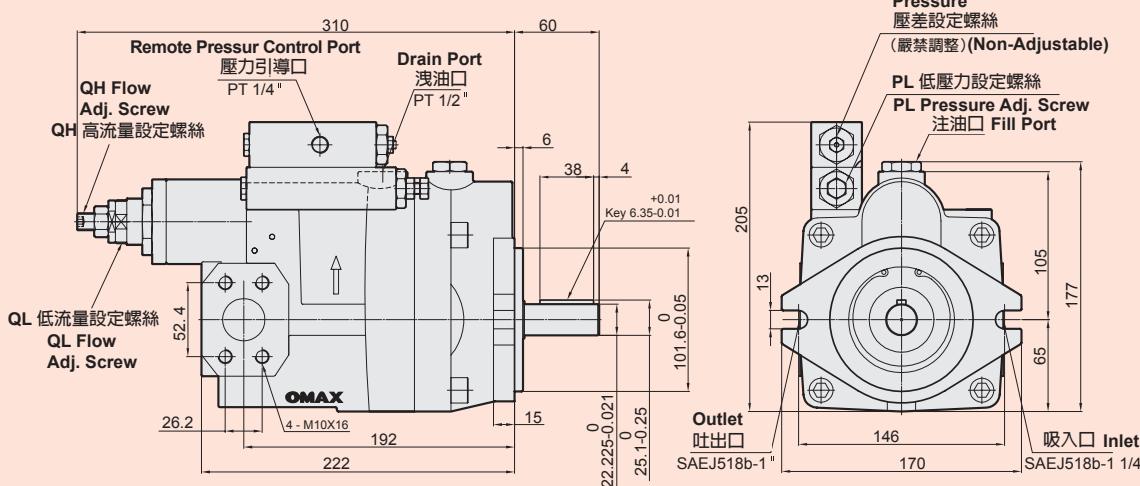
兩壓兩流高壓側壓力外控型
2-Pressure 2-Flow Remote Control
PH Pressure Type

P16	-C1	-B3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	PL Pressure range	PH pressure range	Monuting	Rotation	Shaft Options
P16 (16.0)					K: Straight Key (Code Omited) S: SAE Spline
P22 (22.0)	C0: 15~45 bar C1: 20~75 bar C2: 25~150 bar	B3: Remote Control Setting Pressure	F: Flange Mounting L: Foot Mounting	R: CW (standard)	P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T
P36 (36.0)					
P46 (46.0)					

P16 - C - B - TYPE / P22 - C - B - TYPE



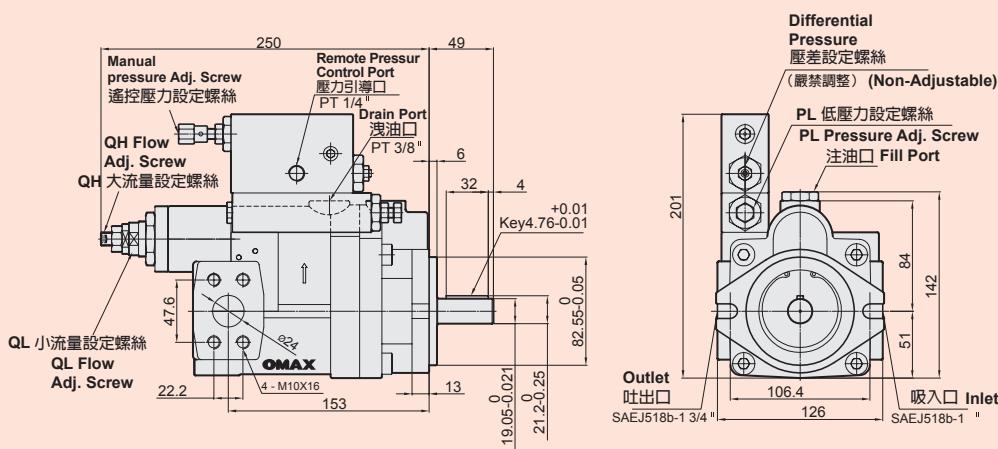
P36 - C - B - TYPE / P46 - C - B - TYPE



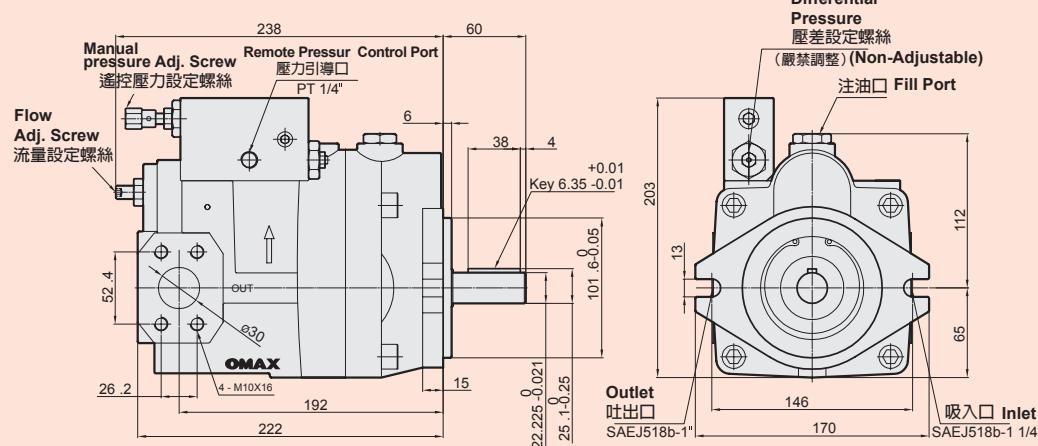
► 兩壓兩流壓力外控型附高壓保護
**2-Pressure 2-Flow Remote Control
PH Pressure Type & Manual Pressure Type**

P16	-C1	-BH3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	PL Pressure range	Manual pressure range	Monuting	Rotation	Shaft Options
P16 (16.0)					K: Straight Key (Code Omited) S: SAE Spline P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T
P22 (22.0)	C0: 15~45 bar C1: 20~75 bar C2: 25~150 bar	BH1: 20~75 bar BH2: 25~150 bar BH3: 30~255 bar	F: Flange Mounting L: Foot Mounting	R: CW (standard)	
P36 (36.0)					
P46 (46.0)					

P16 - C - BH - TYPE / P22 - C - BH - TYPE



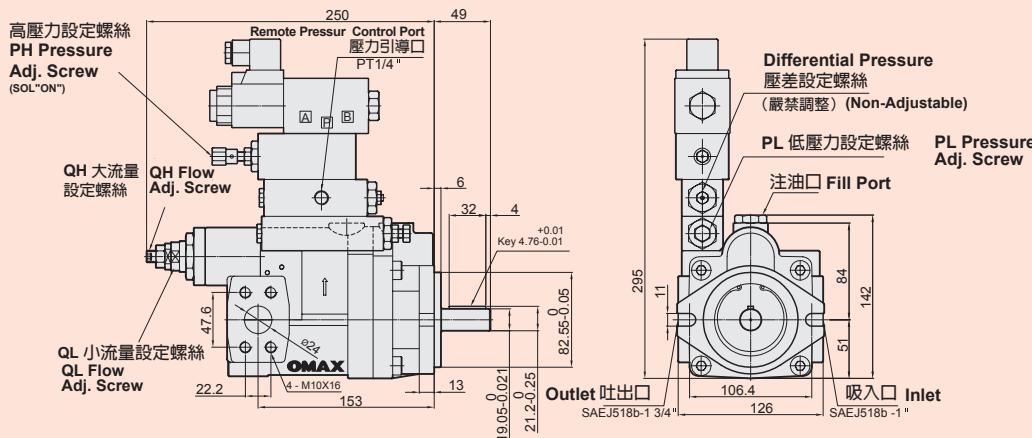
P36 - C - BH - TYPE / P46 - C - BH - TYPE



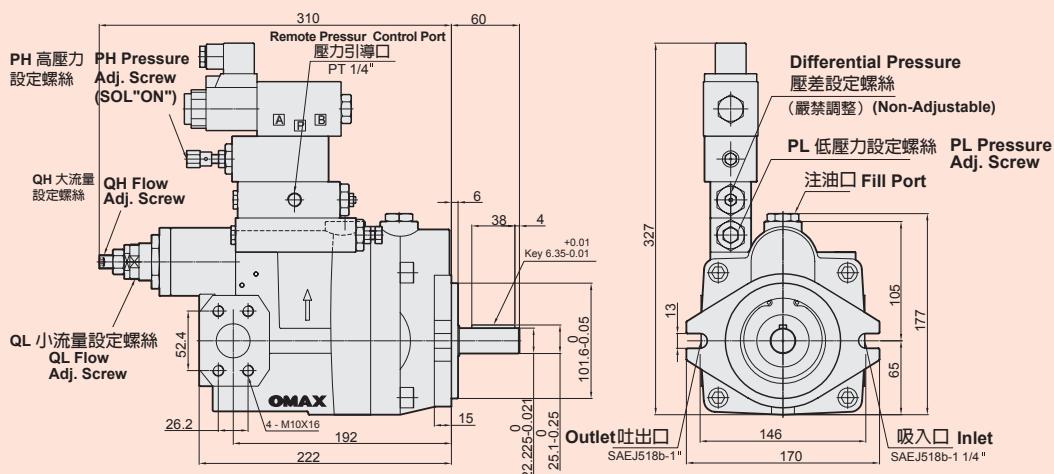
**兩壓兩流附電磁低壓卸載型
2-Pressure 2-Flow Solenoid Cut-off
Control PH Pressure Type**

P16	-C1	-D3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	PL Pressure range	SOL "ON" pressure range	Monuting	Rotation	Shaft Options
P16 (16.0)					K: Straight Key (Code Omited) S: SAE Spline
P22 (22.0)	C0: 15~45 bar C1: 20~75 bar C2: 25~150 bar	D2: 25~150 bar D3: 30~255 bar	F: Flange Mounting L: Foot Mounting	R: CW (standard)	P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T P70-SAE-14T P100-SAE-17T
P36 (36.0)					
P46 (46.0)					
P70 (70.0)	C1: 20~75 bar C2: 25~150 bar	D2: 25~150 bar D3: 30~255 bar D4: 30~280 bar	F: Flange Mounting		
P100 (100.0)					

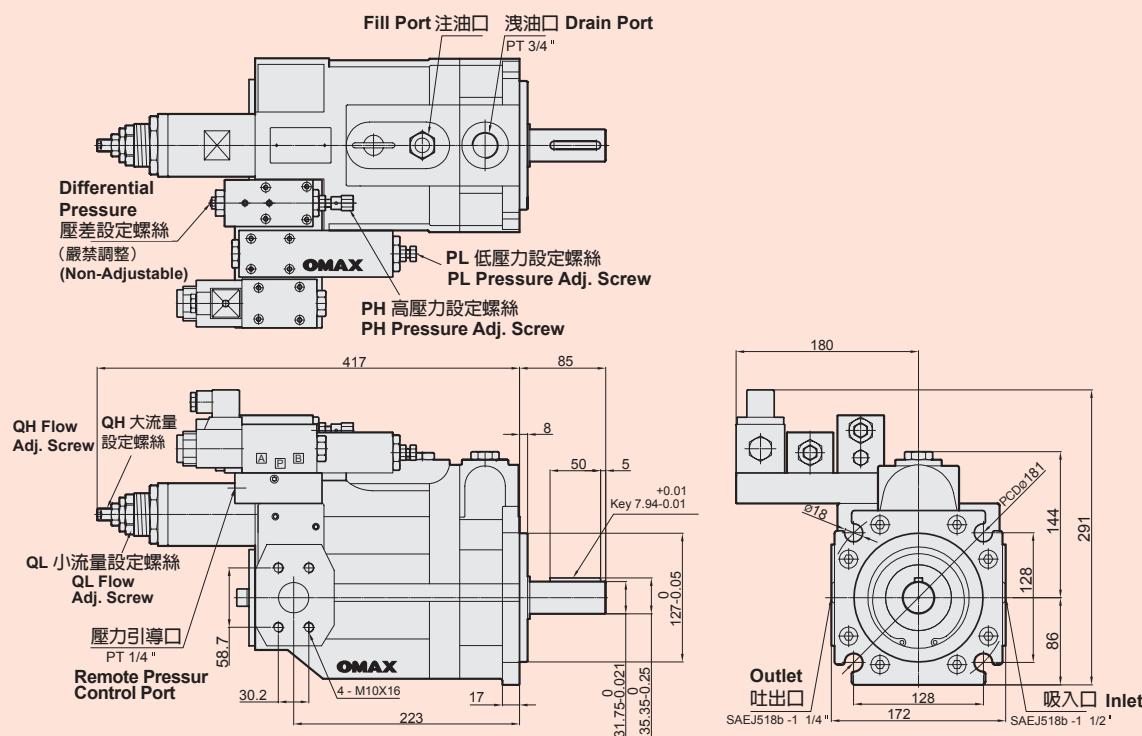
P16 - C - D - TYPE / P22 - C - D - TYPE



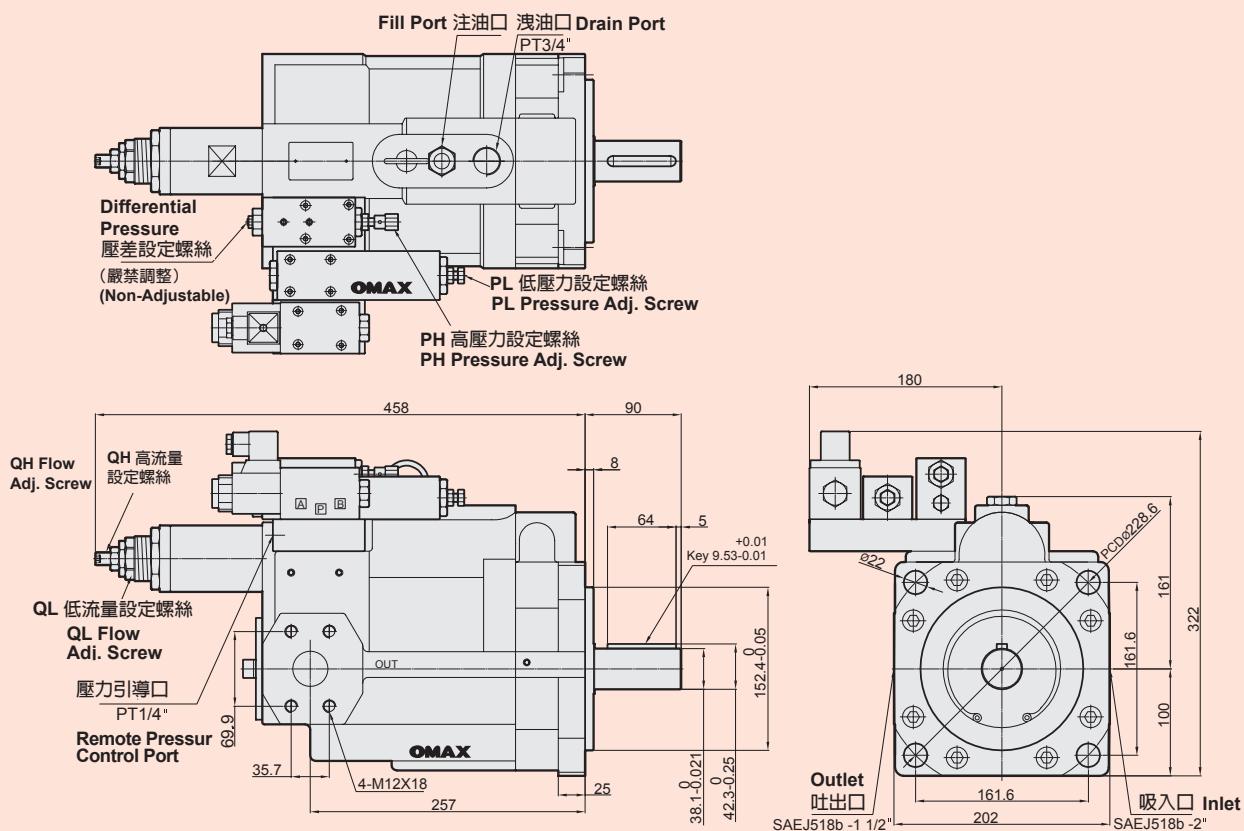
P36 - C - D - TYPE / P46 - C - D - TYPE



P70 - C - D - TYPE



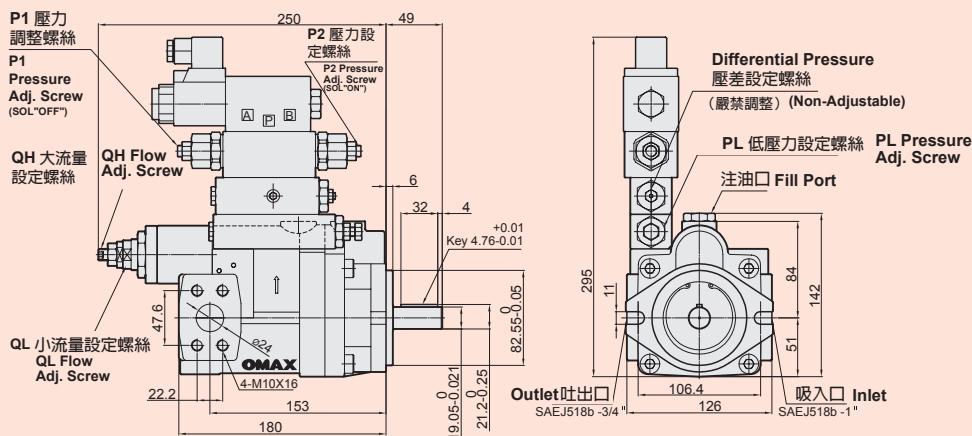
P100 - C - D - TYPE



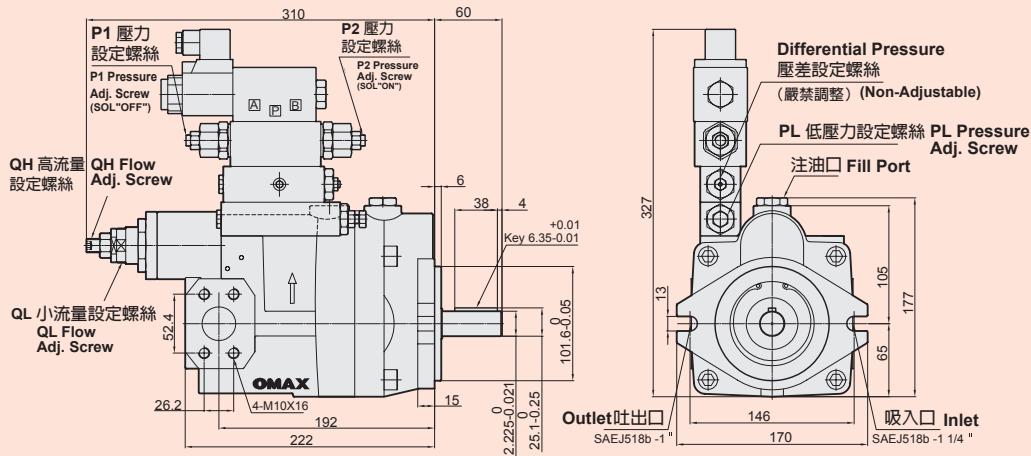
**兩壓兩流附電磁兩段壓控制型
2-Pressure 2-Flow Solenoid Control
PH Two Pressure Type**

P16	-C1	-E3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	PL Pressure range	SOL "OFF" pressure range	Monuting	Rotation	Shaft Options
P16 (16.0)					K: Straight Key (Code Omited) S: SAE Spline
P22 (22.0)	C0: 15~45 bar C1: 20~75 bar C2: 25~150 bar		F: Flange Mounting L: Foot Mounting	R: CW (standard)	P16-SAE-9T P22-SAE-9T P36-SAE-13T P46-SAE-13T P70-SAE-14T P100-SAE-17T
P36 (36.0)		P1: 25~145 bar P2: 25~215 bar			
P46 (46.0)					
P70 (70.0)	C1: 20~75 bar C2: 25~150 bar		F: Flange Mounting		
P100 (100.0)					

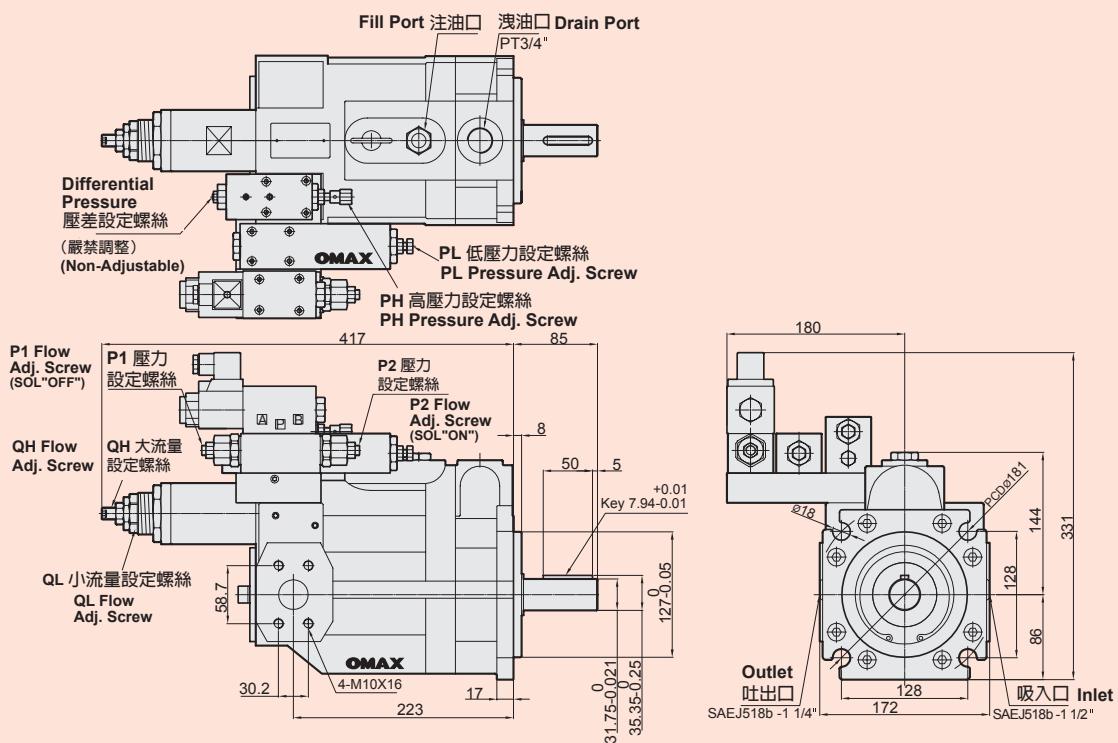
P16 - C - E - TYPE / P22 - C - E - TYPE



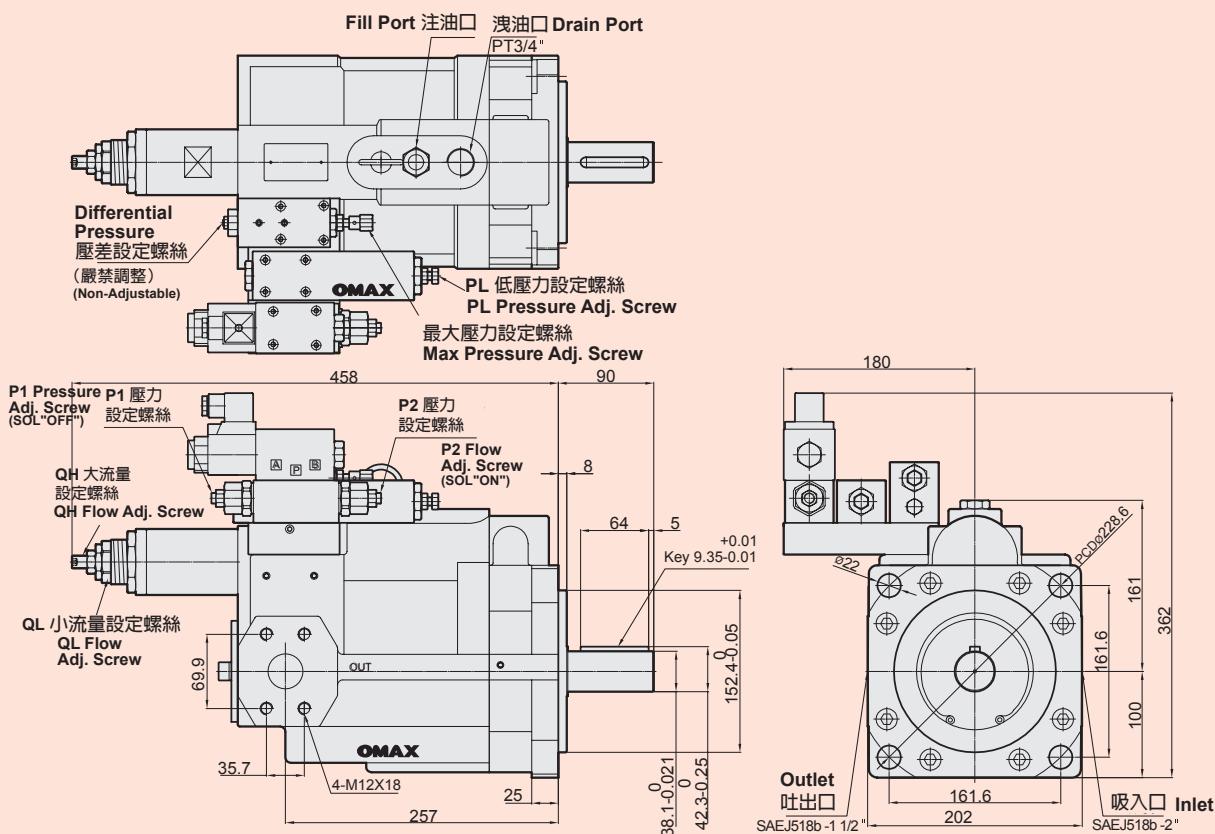
P36 - C - E - TYPE / P46 - C - E - TYPE



P70 - C - E - TYPE



P100 - C - E - TYPE



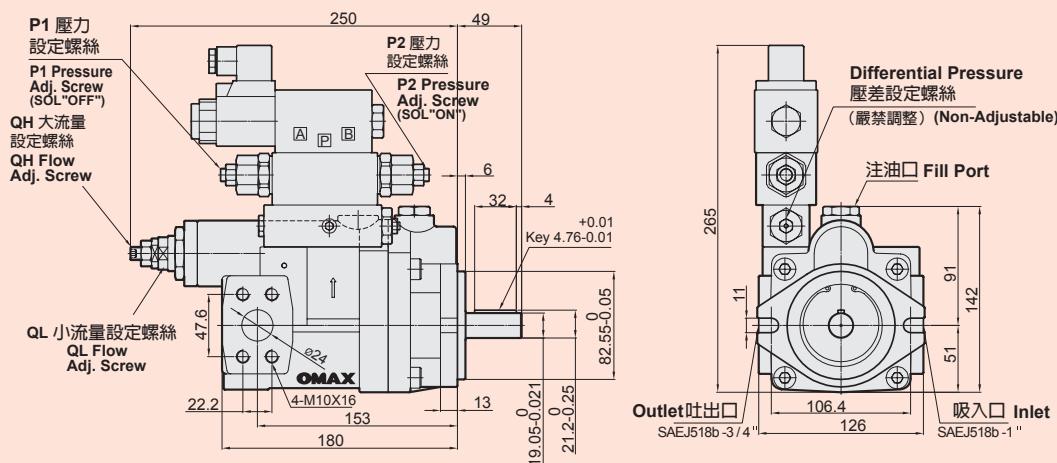


電磁控制兩壓兩流型

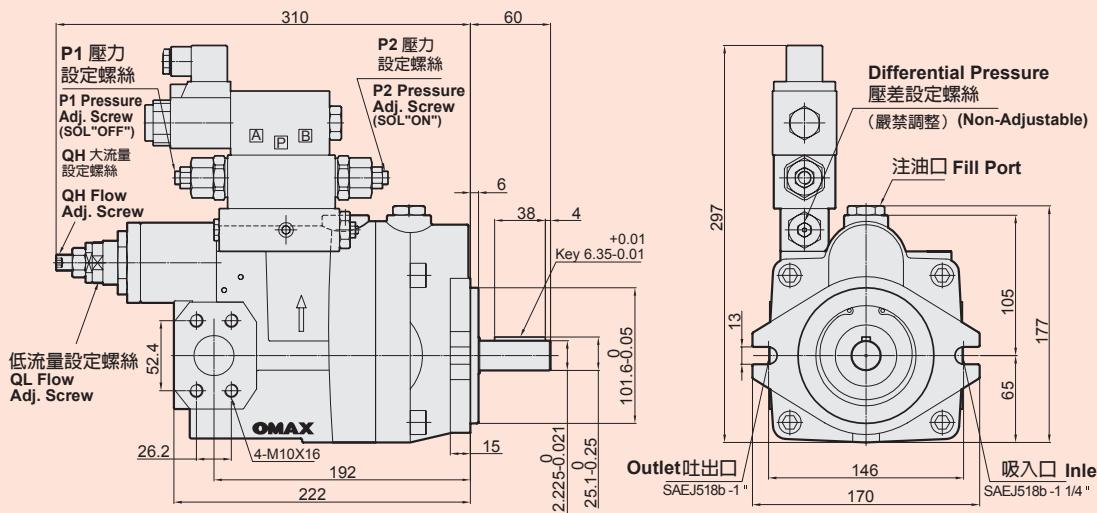
Solenoid Cut-off Control 2-Pressure 2-Flow Type

P16	-CL1	-H3	-F	-R	(-S)
P series piston pump (cm ³ / rev)	SOL"OFF" pressure range	SOL"ON" pressure range	Monuting	Rotation	Shaft Options
P16 (16.0)			F: Flange Mounting L: Foot Mounting		K: Straight Key (Code Omited) S: SAE Spline
P22 (22.0)				R: CW (standard)	P16-SAE-9T P22-SAE-9T
P36 (36.0)		H1: 25~145 bar			P36-SAE-13T
P46 (46.0)	CL1: 20~75 bar CL2: 25~145 bar	H2: 30~215 bar			P46-SAE-13T
P70 (70.0)			F: Flange Mounting		P70-SAE-14T
P100 (100.0)					P100-SAE-17T

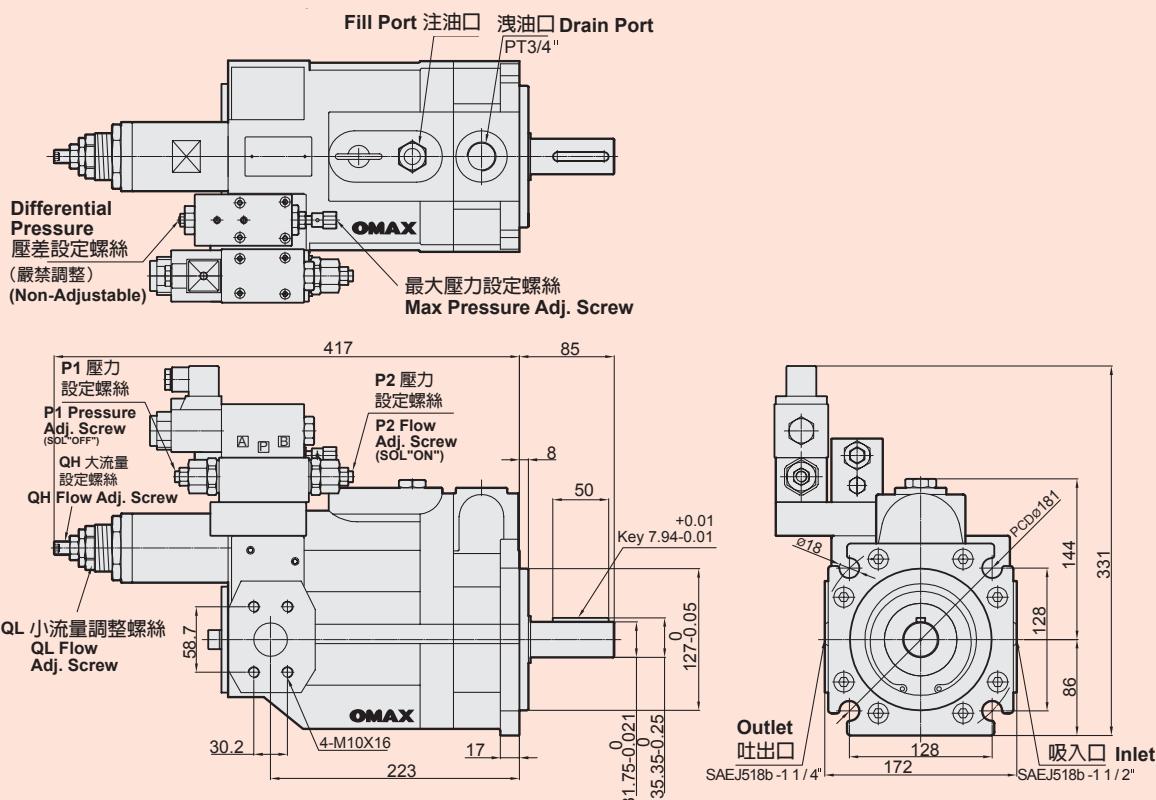
P16 - CL - H - TYPE / P22 - CL - H - TYPE



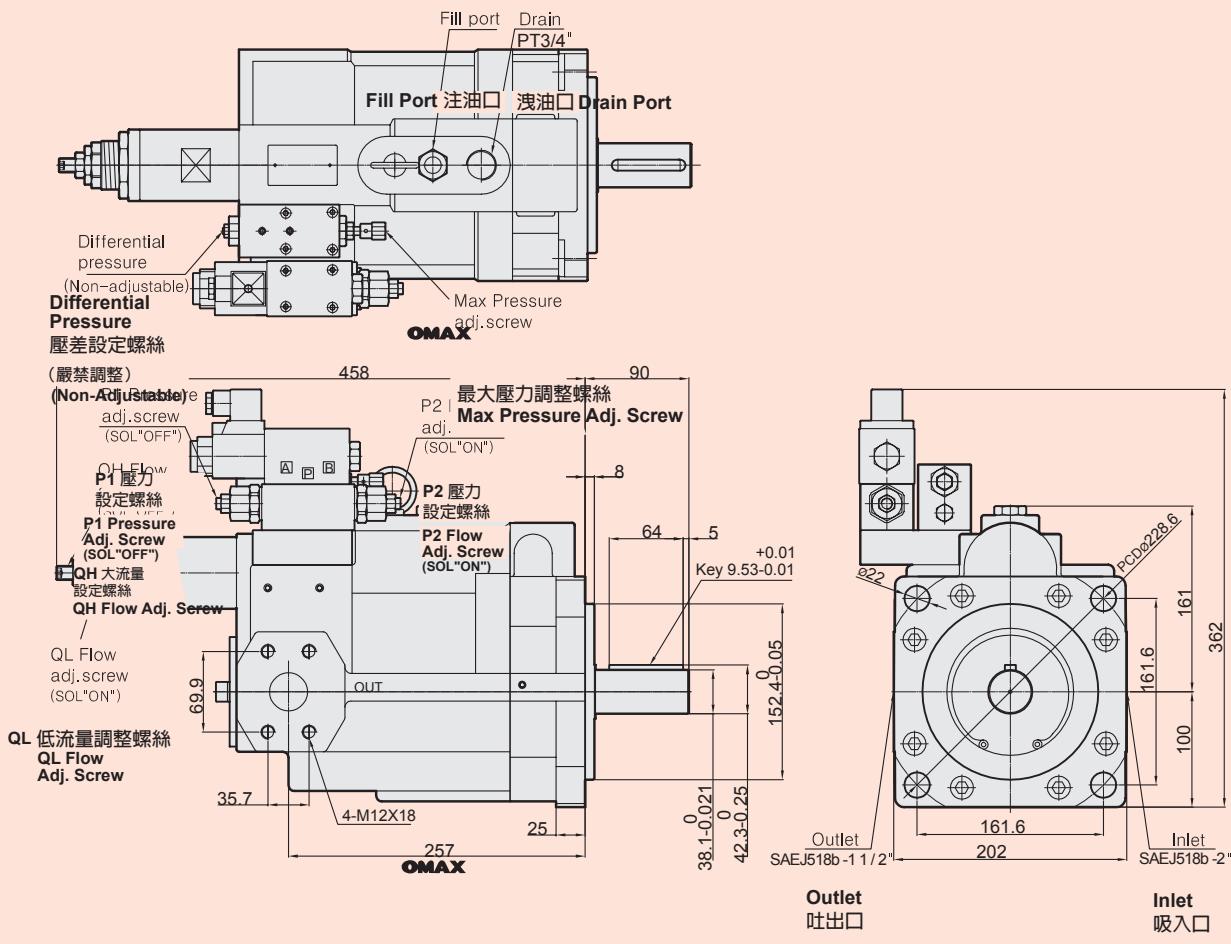
P36 - CL - H - TYPE / P46 - CL - H - TYPE



P70 - CL - H - TYPE



P100 - CL - H - TYPE



驅動軸側泵浦型式規格
Shaft End Pump Model

PP 36 - A 3 - F - R - 2A

1	2	3	4	5	6	7
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- 1 兩連型式可變容量柱塞泵浦
Variable Volume Piston Pump-Double Pump
- 2 驅動軸側泵浦理論吐出容量 (參考形式搭配表)
Geometric Displacement Shaft End Pump
(Ref Model Number)
- 3 控制功能方式選擇 Control Options
 - A : 壓力補償控制型
Pressure Compensating Type
 - B : 壓力引導式遙控型
Remote Pressure Control Type
 - D : 電磁低壓卸載型
Solenoid Cut-off Control Type
 - E : 電磁二段壓力控制型
Two Pressure Cut-off Control Type
 - HL : 負荷感應控制型
Load Sensing Control Type
- 4 壓力調整範圍 Pressure Adjusting Range
 - 1 : 20~73 kg/cm²
 - 2 : 30~150 kg/cm²
 - 3 : 30~255 kg/cm²
- 5 安裝方式 Mounting
 - F : 法蘭式 L : 腳座式
Flange Mounting Foot Mounting
- 6 迴轉方式 Rotation
 - R : 順時針方向 L : 逆時針方向
Clockwise (Viewed From Shadt End)
- 7 通軸軸心型式 Thru-Drive
 - 2A : SAE A Ø 82.55 2B : SAE B Ø 101.6
(PP70+ P36/46, PP100+ P36/46)

後蓋側泵浦型式規格
Cover End Pump Model

P16 - A3 - S

1	2	3
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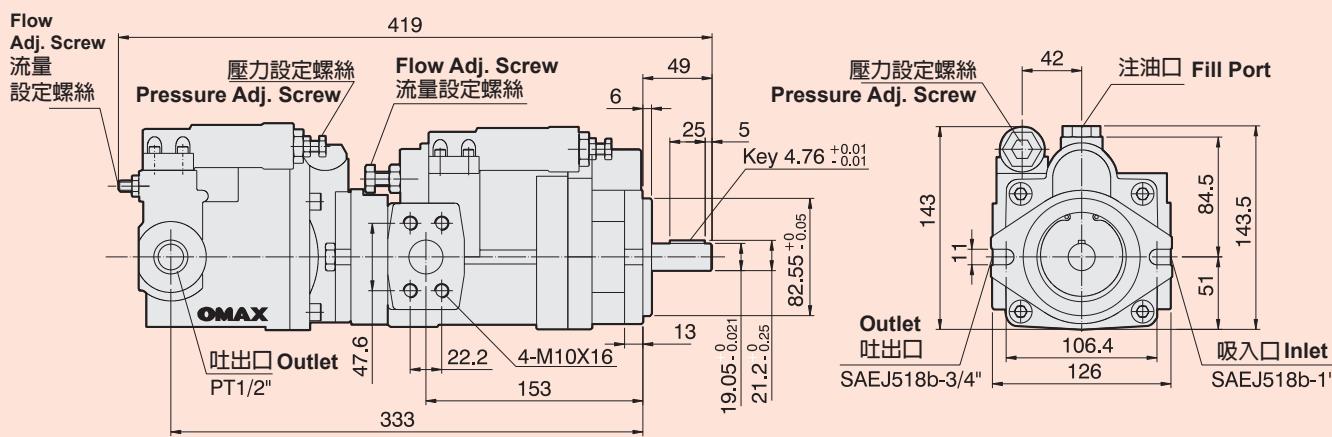
- 1 可變容量柱塞泵浦 (後蓋側泵浦)
Variable Volume Piston Pump (Cover End)
- 2 後蓋軸側泵浦理論吐出容量 (參考形式搭配表)
Geometric Displacement Cover End Pump
(Ref Model Number)
- 3 控制功能方式選擇 Control Options
 - A : 壓力補償控制型
Pressure Compensating Type
 - B : 壓力引導式遙控型
Remote Pressure Control Type
 - D : 電磁低壓卸載型
Solenoid Cut-off Control Type
 - E : 電磁二段壓力控制型
Two Pressure Cut-off Control Type
 - HL : 負荷感應控制型
Load Sensing Control Type
- 4 壓力調整範圍 Pressure Adjusting Range
 - 1 : 20~75 kg/cm²
 - 2 : 30~150 kg/cm²
 - 3 : 30~255 kg/cm²
- 5 後蓋側泵浦軸心型式 Type of Shaft
 - S : SAE A 花鍵軸 K : 帶鍵直軸
SAE A Spline Cylindric, key
(PP70+ P36/46, PP100+ P36/46)

型式搭配 Model Number

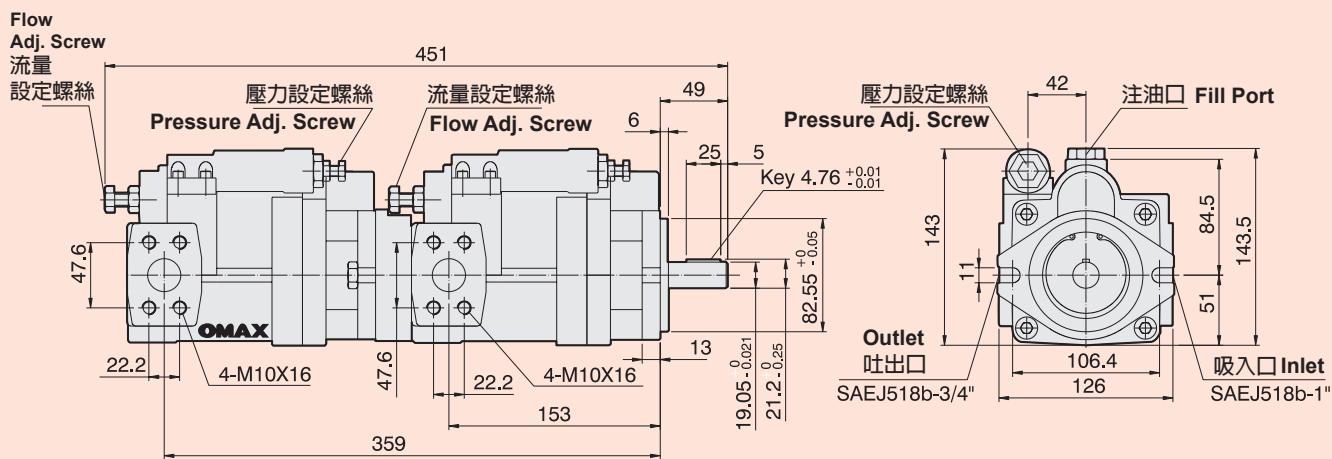
Shaft End Pump

		驅動軸側泵浦	PP16	PP22	PP36	PP46	PP70	PP100
		後蓋側泵浦						
Cover End Pump	P08		●	●	●	●	●	●
	P16			●	●	●	●	●
	P22			●	●	●	●	●
	P36						●	●
	P46						●	●

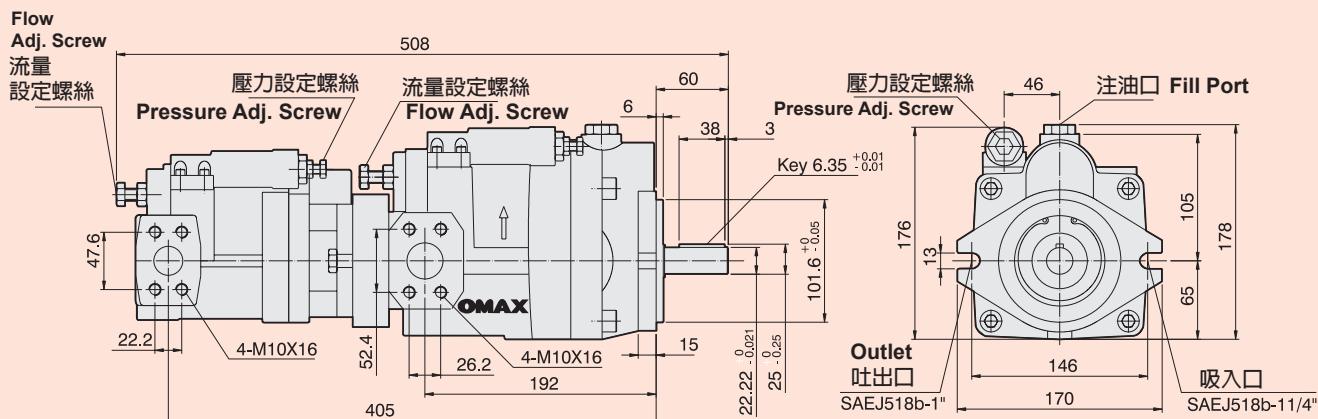
PP16 / 22 - A * - F - R - 2A + P08 - A * - S



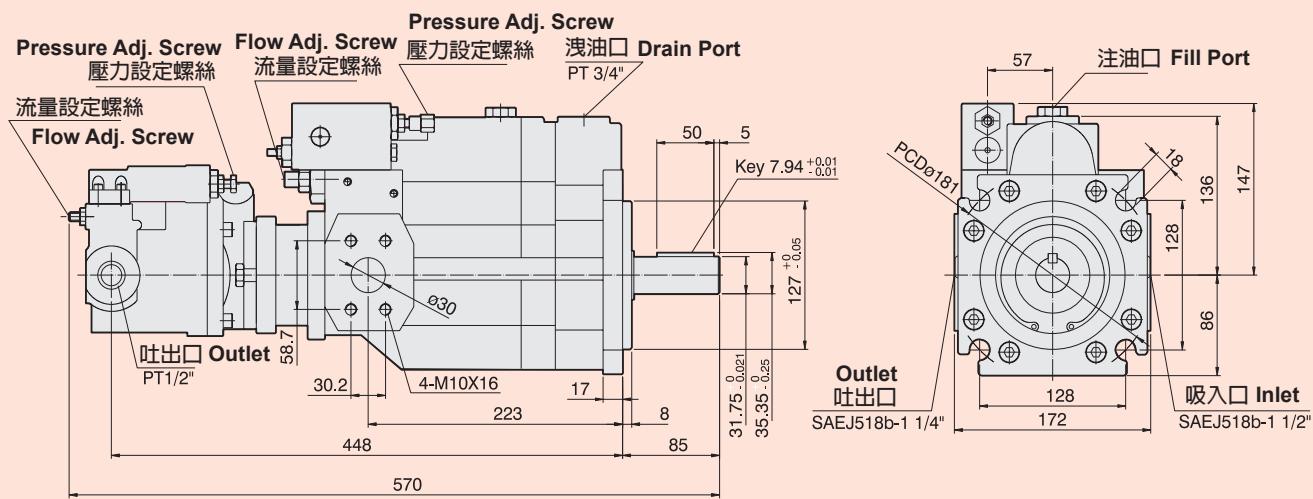
PP16 / 22 - A * - F - R - 2A + P16 / 22 - A * - S



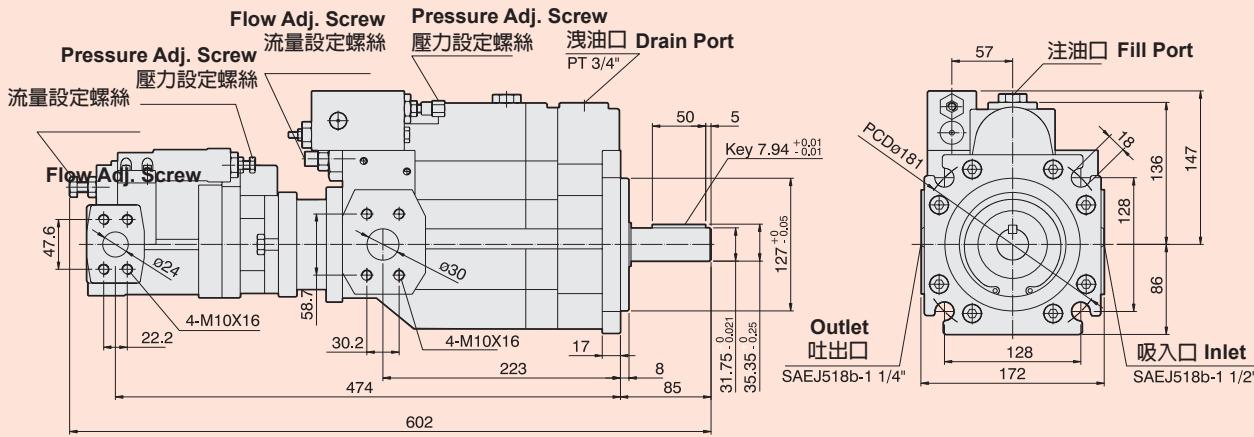
PP36 / 46 - A * - F - R - 2A + P16 / 22 - A * - S



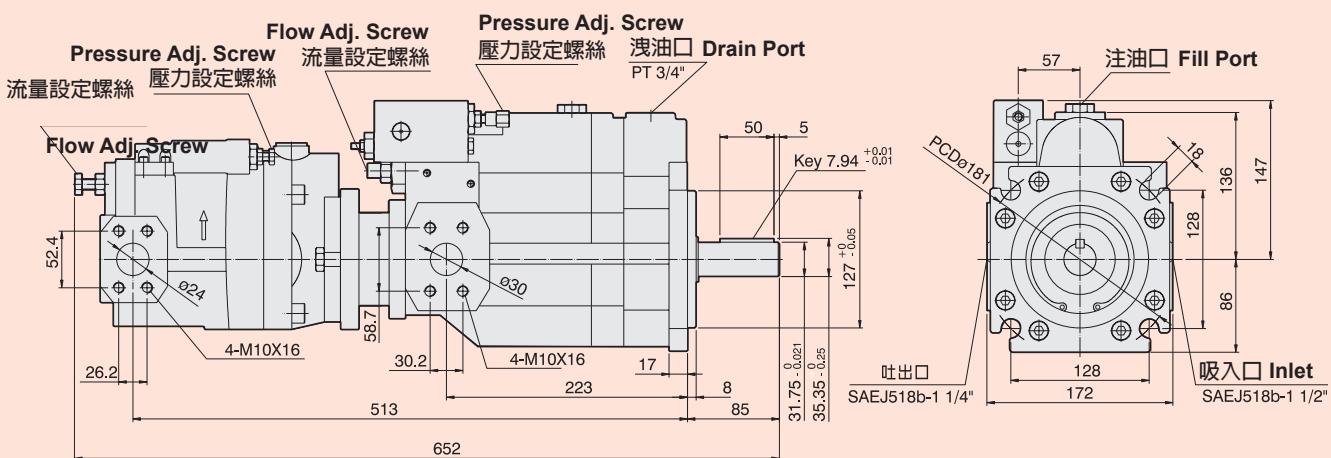
PP70 - A* - F - R - 2A + P08 - A* - S



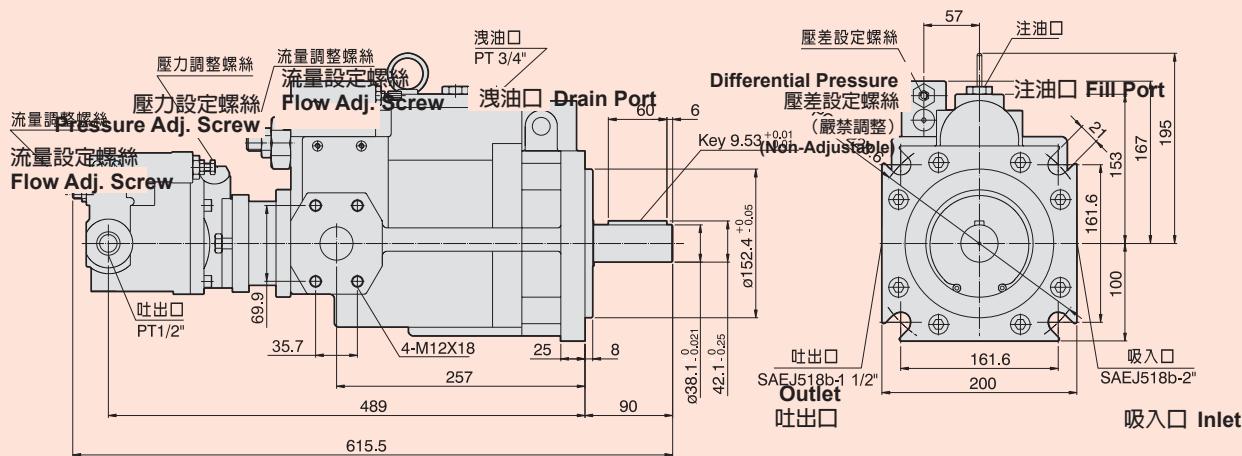
PP70 - A * - F - R - 2A + P16 / 22 - A * - S



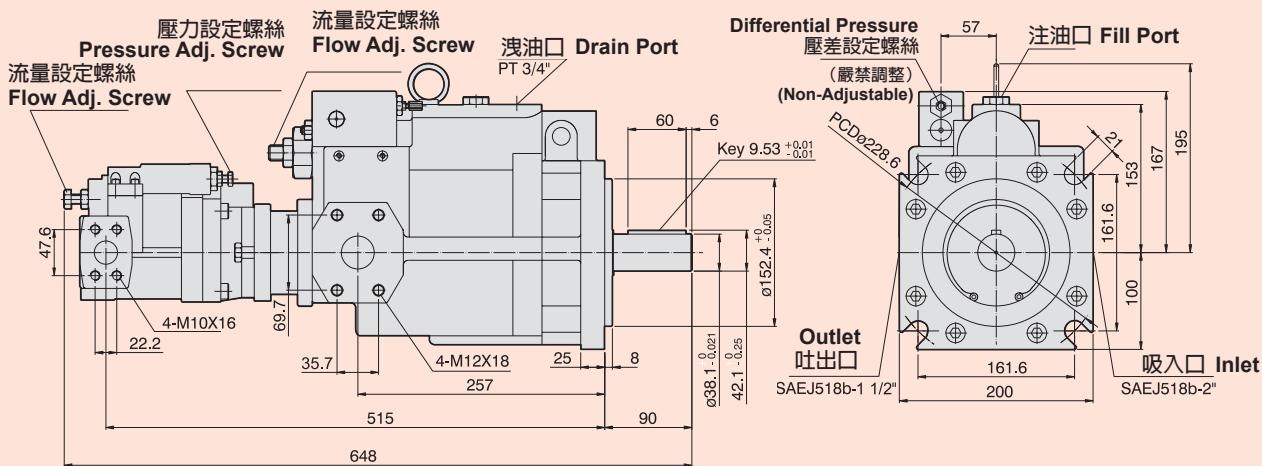
PP70 - A * - F - R - 2A + P36 / 46 - A * - K



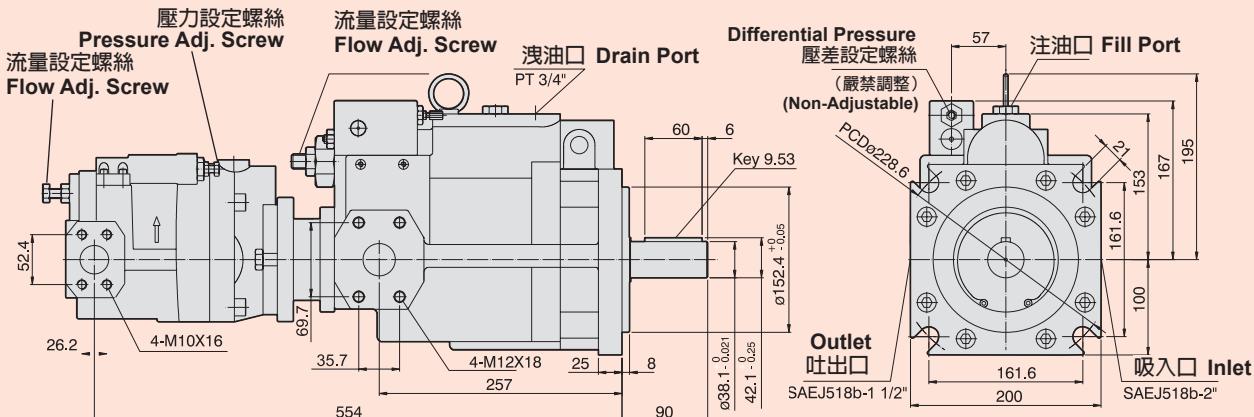
PP100 - A* - F - R - 2A + P08 - A* - S



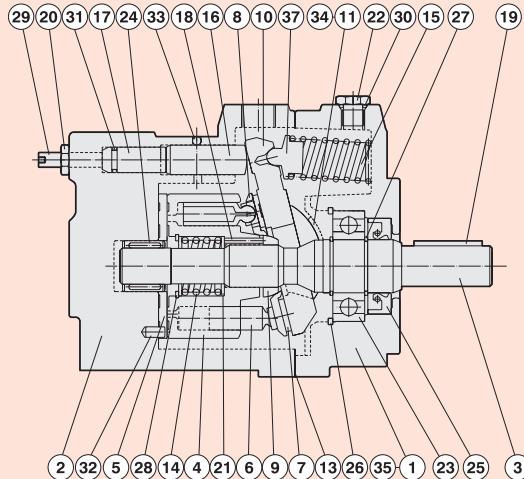
PP100 - A* - F - R - 2A + P16 / 22 - A* - S



PP100 - A* - F - R - 2B + P36 / 46 - A* - K

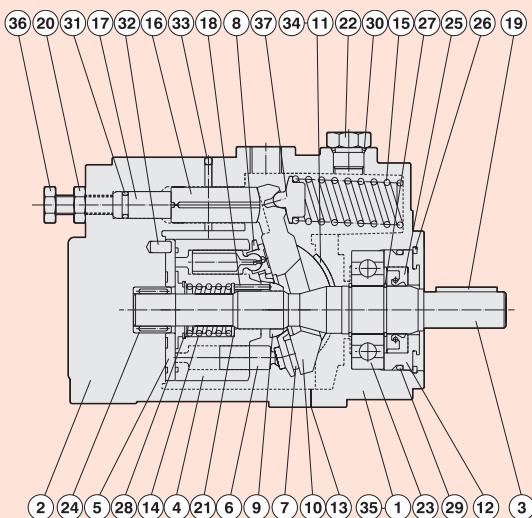


 **剖面構造圖**
Cross Section Drawing
P08 - TYPE



編號 Part No.	部位名稱 Part Name	型號規格 Size	數量 Q'ty
13	墊片 Gasket	—	1
23	滾珠軸承 Ball Bearing	62 05	1
24	針狀軸承 Ball Bearing	TA 1720	1
25	油封 Oil Seal	TCN 25 4511	1
30	O型環 O-ring	P11	1
31	O型環 O-ring	P9	1

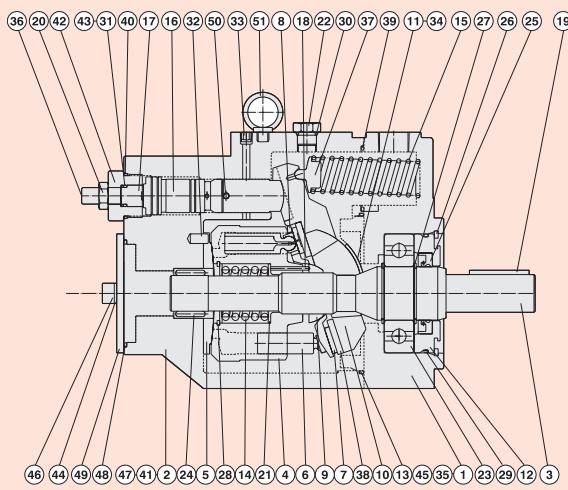
 **剖面構造圖**
Cross Section Drawing
PP70 - A* - F - R - 2A + P16 / 22 - A* - S



編號 Part NO.	部位名稱 Part Name	P16/22-TYPE	P36/46-TYPE	數量 Q'ty
		型號規格 Size	型號規格 Size	
13	墊片 Gasket	—	—	1
23	滾珠軸承 Ball Bearing	63 05	63 06	1
24	針狀軸承 Ball Bearing	TA 1720	TA 2025	1
25	油封 Oil Seal	TCN 25 4511	TCN 30 5011	1
29	O型環 O-ring	G58	G70	1
30	O型環 O-ring	P11	P14	1
31	O型環 O-ring	P9	P14	1

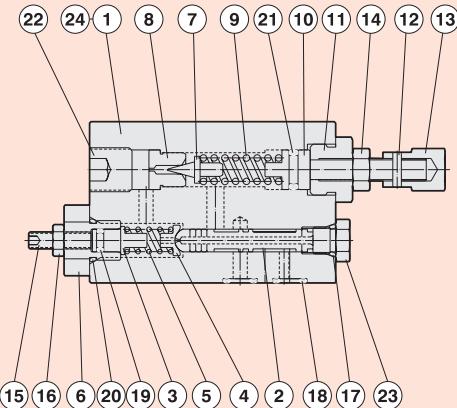
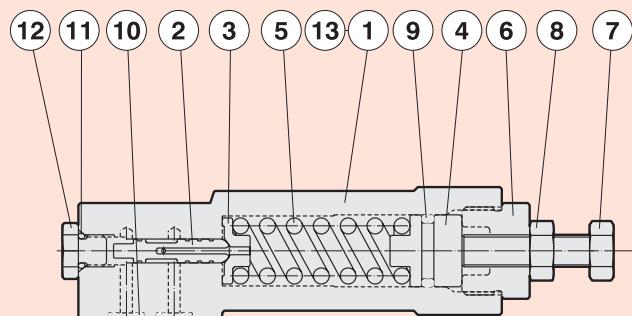
編號 Part NO.	部位名稱 Part Name	編號 Part NO.	部位名稱 Part Name	編號 Part NO.	部位名稱 Part Name
1	本體 Body	17	墊片 Gasket	34	扣環 Snap Ring
2	外殼 Case	18	彈簧 Spring	35	扣環 Snap Ring
3	軸心 Shaft	19	彈簧 Spring	36	扣環 Snap Ring
4	缸體 Cylinder Barrel	20	調流軸 Control Piston	37	O型環 O-Ring
5	閥片 Valve Plate	21	導柱 Guide	38	O型環 O-Ring
6	柱塞 Piston	22	滾針 Needle	39	O型環 O-Ring
7	滑靴 Shoe	23	半圓鍵 Key	40	定位梢 Pin
8	滑靴板 Shoe Holder	24	螺帽 Nut	41	膨脹塞頭 Expander Plug
9	半圓座 Barrel Holder	25	墊圈 Retainer	42	螺絲 Machine Screw
10	搖桿板 Swash Plate	26	注油螺栓 Plug	43	螺絲 Machine Screw
11	止推軸承 Thrust Bush	27	滾珠軸承 Ball Bearing	44	流量調整螺絲 Flow Adj. Screw
12	油封座 Seal Holder	28	針狀軸承 Needle Bearing	45	彈簧座 Spring Holder
-	-	29	油封 Oilseal	-	-

 剖面構造圖
Cross Section Drawing
P16 / 22 / 36 / 46 - TYPE



編號 Part NO.	部位名稱 Part Name	P16/22-TYPE	P36/46-TYPE	數量 Q'ty
		型號規格 Size	型號規格 Size	
13	墊片 Gasket	G130	G155	1
23	滾珠軸承 Ball Bearing	63 09	63 10	1
24	針狀軸承 Ball Bearing	RNA 6905	TA 35 48 30	1
25	油封 Oil Seal	TCN 45 68 21	TCN 50 72 21	1
29	O型環 O-ring	G95	G105	1
30	O型環 O-ring	P14	P14	1
31	O型環 O-ring	P14	P16	1
39	O型環 O-ring	G50	G50	1
40	O型環 O-ring	P34	P36	1
41	O型環 O-ring	P9	P9	1
48	O型環 O-ring	G85	G85	1

 剖面構造圖
Cross Section Drawing
P16 / 22 / 36 / 46 - TYPE



編號 Part No.	部位名稱 Part Name	型號規格 Size	數量 Q'ty
9	O型環 O-ring	P14	1
10	O型環 O-ring	P6	3
11	O型環 O-ring	P6	1

編號 Part No.	部位名稱 Part Name	型號規格 Size	數量 Q'ty
17	O型環 O-ring	P8	1
18	O型環 O-ring	P9	3
19	O型環 O-ring	P5	1
20	O型環 O-ring	P12	1
21	O型環 O-ring	P10A	1

安裝泵浦時注意事項 NOTES ON PUMP INSTALLATION

- 泵浦的壓力及迴轉數應在規格範圍使用。
- 選用品質符合 ISO 標準之液壓油，其黏度範圍應在 20~400 mm²/s，而通常以耐磨耗性 ISO VG32~68 為較佳。
- 使用液壓油溫度範圍為 5~60°C，液壓油溫度在 0°C 以下的場合液壓油應先加熱，在低轉速、低壓力的啓動直到由溫上升到 5°C 始可正式運作。
- 吸入口壓力當在最大吐出流量時，應在 -0.3kg/cm³ 以上，流速在 2m/sec 以内使用。
- 泵浦軸心、驅動軸心之中心線誤差不得大於 0.05 mm 間隙角度應在 1° 以内。
請在吸入口端加裝濾油網其網目應在 150 mesh 以下，過濾角度應在 100 μm，如需增長泵浦壽命可加裝磁性過濾器或過濾值在 20μm 以下之濾油器。(140 kg/cm³ 以上高壓使用時，建議過濾值在 10 μm 以下最適當)。
- 液壓油應避免金屬粉、水等異物滲入而劣化油質，造成泵浦壽命減短，應充份注意油質，其汙染度在 NAS10 級以下。
- The fluid recommended for use in the pumps should be good quality petroleum fluid (ISO VG32~68). Viscosity of the fluid is range from 20 to 400 mm²/sec.
- Hydraulic fluid contamination will shorten life of a pump. Please maintain hydraulic fluid quality during the operation and keep the degree of contamination within NAS class10.
- The suction port must be installed at least a 100 μm (150 mesh) reservoir type strainer and the return line must have a line type strainer of under 10 μm.
- To avoid any deformation and residual stress, employ a flexible coupling whenever possible. The shafts will accept a maximum misalignment of 0.1 mm (0.004 inch). The eccentric angle should be within 1°. The maximum permissible misangular should be less than 0.2°.
- The pump suction pressure must keep from -0.3 bar to 0.3 bar and suction port flow velocity must be less than 2 m/sec. For connecting pipes to the suction port, the diameter of the pipes must be same or larger than pipe flange.
- The excess loading to the pump may cause irregular noisy when using steel tube to connect inlet port and outlet port. To avoid excess loading, please use a robbery tube.
- The inlet tube and inlet strainer should be beneath the position of inlet port when installing the pump higher than the fluid in the tank. The position of inlet strainer and the end of drainpipe should be isolated to prevent air in fluid.

洩油口配管注意事項 NOTICES FOR TUBING AT OIL DRAIN PORT

1. 泵浦洩油口應朝上。洩油管必須直接引導到油箱，洩油管不得連接於任何其他回油管，洩油管的末端必須低於油箱中的最低液面，並盡量遠離泵浦吸入口。
 2. 卸油口壓力其背壓力應低於 1 kg/cm³，洩油管長度和內徑規格如表：
1. Table below shows recommended drain piping size.
 2. The drain port should be side up.
 The drainpipe must connect to oil tank.
 The position of drainpipe should be lower than the fluid in the tank and far away from inlet strainer.
 3. The backpressure and surge pressure of drain port should be less than 1 bar and 5 bar.

**洩油口配管規格
RECOMMENDED DRAIN PIPING SIZE**

型 式 Model	P08	P16, P22	P36, P46	P70	P100
配管・接頭 Pipe Connection Size	3/8" 以上 More Than 3/8"	3/8" 以上 More Than 3/8"	1/2" 以上 More Than 1/2"	3/4" 以上 More Than 3/4"	3/4" 以上 More Than 3/4"
配管內徑 Pipe Inner Dia.	Ø8.5 以上 More Than Ø8.5	Ø8.5 以上 More Than Ø8.5	Ø12 以上 More Than Ø12	Ø19 以上 More Than Ø19	Ø19 以上 More Than Ø19
配管長度 Pipe Length	1 米以內 Less Than 1M				

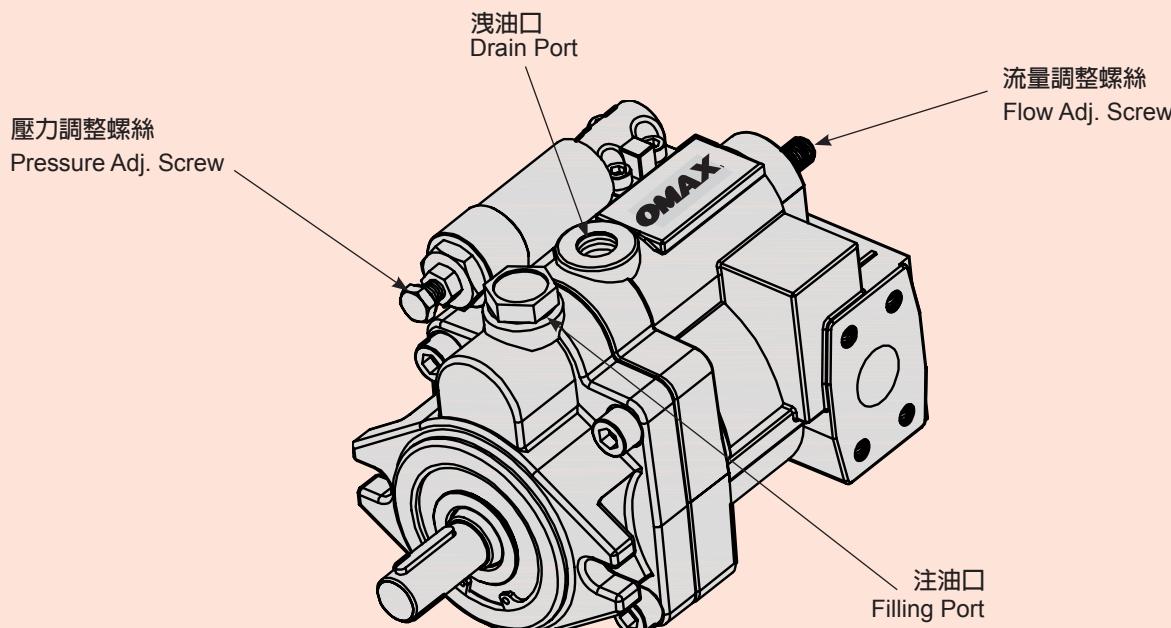
啓動泵浦時應注意事項 NOTICES WHEN STARTING PUMP

- 確定泵浦運轉方向。
- 泵浦啓動前先在泵浦注油口注油，使泵浦本體內充滿清潔液壓油。注油量如表格。
- 泵浦內部及系統管路內如有氣體混入，會產生異常的噪音及震動過大，開始啓動泵浦時應在吐出口測，在低壓力無負荷之操作下把氣體排出。
- 如啓動時系通內難以排除空氣，建議加裝空氣釋放閥。
- Before starting the pump, you need to fill appropriate hydraulic fluid into the pump body and check hydraulic fluid for cleanliness. Table below shows hydraulic fluid case capacity.
- The pump rotation should be same direction indicated by arrow.
- Trapped gas in the interior pump and piping will cause irregular noise and vibration. Please exhaust the gas without any load before starting the pump.

液壓油注入量 HYDRAULIC FLUID CASE CAPACITY					
型 式 MODEL	P08	P16, P22	P36, P46	P70	P100
注入量 (cm ³) AMOUNT (cm ³)	220	300	650	1000	1800

壓力、流量的調節 SETTING THE PRESSURE AND FLOW RATE

- 泵浦出廠時，流量值被設定為最大值，而壓力則被設定為最小值，如需重新設定，其調整如下：
- 壓力調整：壓力調整螺絲順時針轉時為壓力上昇。
- 流量調整：流量調整螺絲順時針轉時為流量減少。
- The flow rate is set at maximum and the pressure is set at minimum at the factory. We recommend follow the following procedure to adjust the pressure and the flow rate.
- Pressure adjustment : Turn the adjusting screw clockwise to increase pressure.
- Flow rate adjustment : Turn the adjusting screw clockwise to decrease the flow rate.

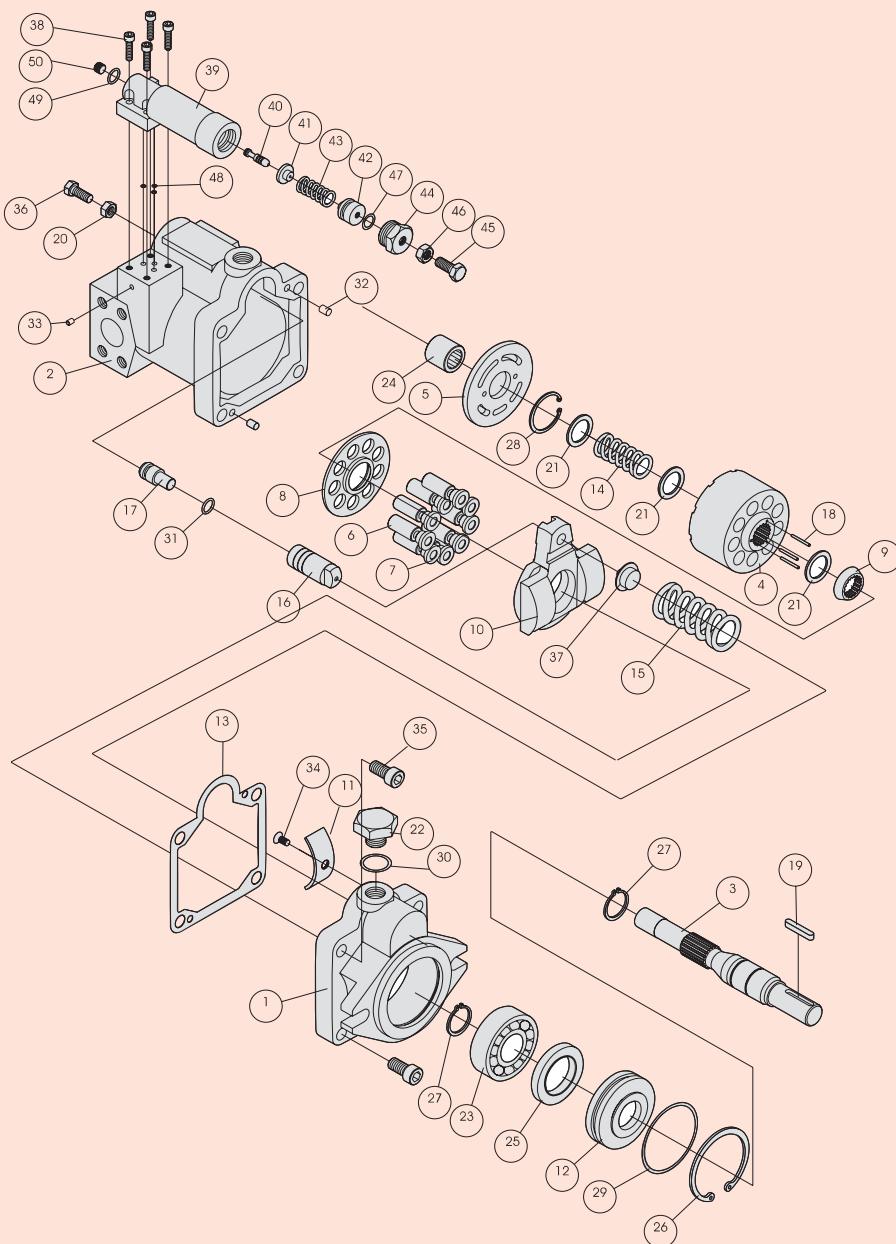


► DECOMPOSITION CHART

分解圖

内部分解圖

Decomposition Chart



編號 Part NO.	部位名稱 Part Name	編號 Part NO.	部位名稱 Part Name	編號 Part NO.	部位名稱 Part Name
1	本體 Body	18	滾針 Needle	35	螺絲 Machine Screw
2	外殼 Case	19	半圓鍵 Key	36	流量調整螺絲 Flow Adj. Screw
3	軸心 Shaft	20	螺帽 Nut	37	彈簧座 Spring Holder
4	缸體 Cylinder Barrel	21	墊圈 Retainer	38	螺絲 Machine Screw
5	閥片 Valve Plate	22	注油螺栓 Plug	39	本體 Body
6	柱塞 Piston	23	滾珠軸承 Ball Bearing	40	滑動軸心 Spool
7	滑靴 Shoe	24	針狀軸承 Needle Bearing	41	支座 Holder
8	滑靴板 Shoe Holder	25	油封 Oil Seal	42	柱塞 Plunger
9	半圓座 Barrel Holder	26	扣環 Snap Ring	43	彈簧 Spring
10	搖抬板 Swash Plate	27	扣環 Snap Ring	44	固定螺栓 Retainer
11	止推軸承 Thrust Bush	28	扣環 Snap Ring	45	壓力調整螺絲 Pressure Adj.Screw
12	油封座 Seal Holder	29	O型環 O-Ring	46	螺帽 Nut
13	墊片 Gasket	30	O型環 O-Ring	47	O型環 O-Ring
14	彈簧 Spring	31	O型環 O-Ring	48	O型環 O-Ring
15	彈簧 Spring	32	定位梢 Pin	49	O型環 O-Ring
16	調流軸 Control Piston	33	塞頭 Expander Plug	50	止推螺絲 Plug
17	導柱 Guide	34	螺絲 Machine Screw	-	-

MEMO