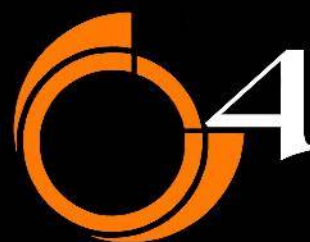




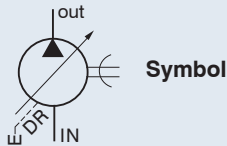
# VARIABLE DISPLACANCE HYDRAULIC VANE PUMPS

HI HYDROME





# VARIABLE DISPLACEMENT VANE PUMP



VP-F8, 12, 15, 20



A

## How to order

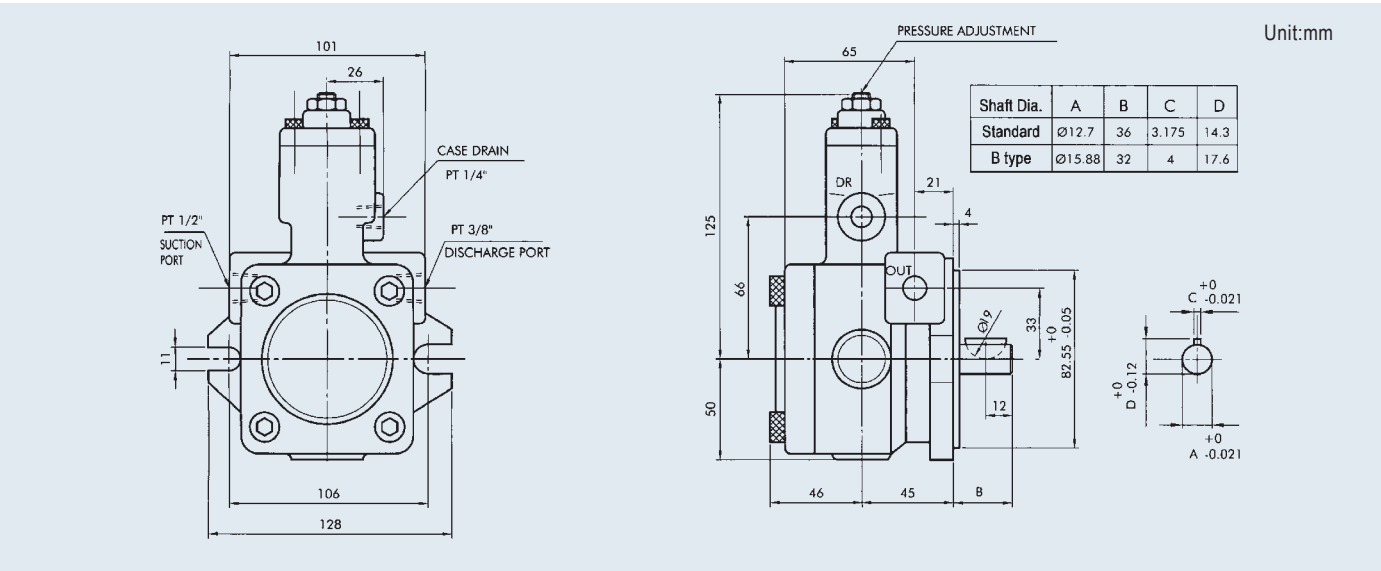
**VP - F 15 - A ✖ - ✖**

|   |                                                    |
|---|----------------------------------------------------|
| 1 | Variable pump                                      |
| 2 | F: Flange mounting type                            |
| 3 | Nominal No-Load displacement                       |
| 4 | A: Sharp cut-off type                              |
| 5 | Pressure adjusting range                           |
| 6 | Shaft diameter:   None: 12.7 (standard)   B: 15.88 |

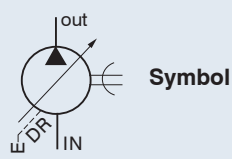
## Specifications

| Model  | No-Load Displacement<br>lpm At 1800 rpm | Pressure<br>Adj. Range (bar) | Rated Speed (rpm) |      | Max. Pressure<br>(bar) | Weight<br>(kg) |
|--------|-----------------------------------------|------------------------------|-------------------|------|------------------------|----------------|
|        |                                         |                              | Max.              | Min. |                        |                |
| VP-F8  | 8                                       | 1: 3-20                      | 1800              | 800  | 70                     | 4.8            |
| VP-F12 | 12                                      | 2: 15-55                     |                   |      |                        | 4.8            |
| VP-F15 | 15                                      | 3: 30-70                     |                   |      |                        | 5.2            |
| VP-F20 | 20                                      |                              |                   |      |                        | 5.2            |

## Dimensions



# VARIABLE DISPLACEMENT VANE PUMP



VP-F23, 26, 30, 40

## How to order

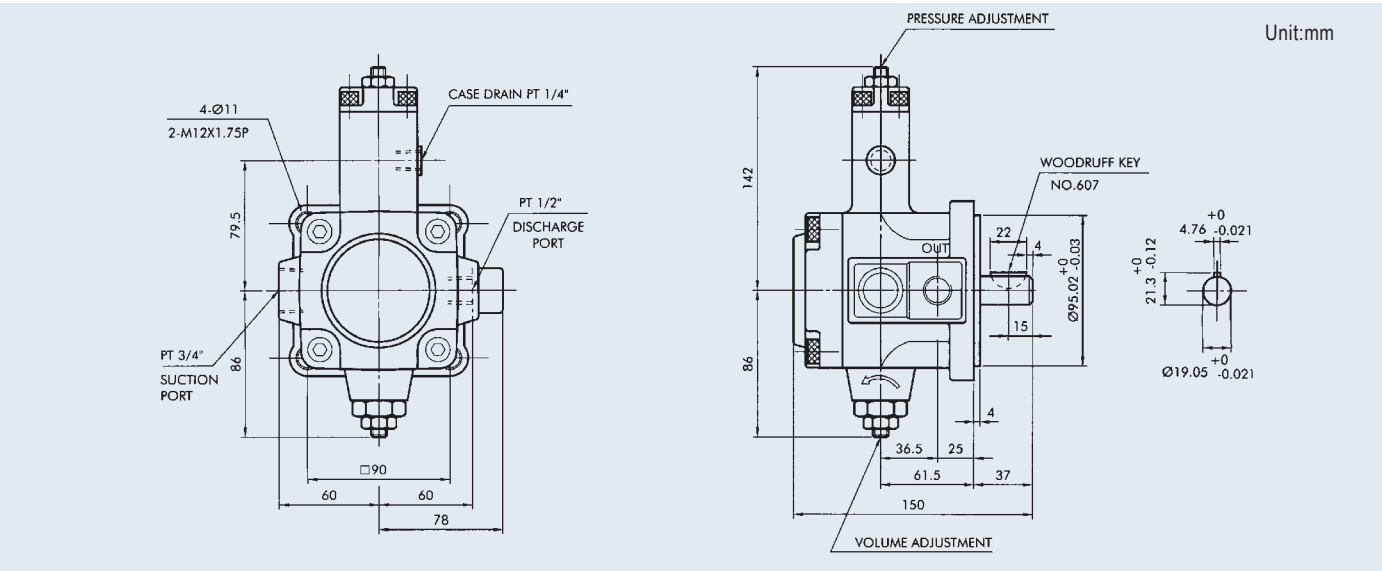
### VP - F 30 - A ✖

|   | 1                            | 2 | 3 | 4 | 5 |
|---|------------------------------|---|---|---|---|
| 1 | Variable pump                |   |   |   |   |
| 2 | F: Flange mounting type      |   |   |   |   |
| 3 | Nominal no-load displacement |   |   |   |   |
| 4 | A: Sharp cut-off type        |   |   |   |   |
| 5 | Pressure adjusting range     |   |   |   |   |

## Specifications

| Model  | No-Load Displacement<br>lpm At 1800 rpm | Pressure<br>Adj. Range (bar) | Rated Speed (rpm) |      | Max. Pressure<br>(bar) | Weight<br>(kg) |
|--------|-----------------------------------------|------------------------------|-------------------|------|------------------------|----------------|
|        |                                         |                              | Max.              | Min. |                        |                |
| VP-F23 | 23                                      | 1: 3-20                      | 1800              | 800  | 70                     | 9              |
| VP-F26 | 26                                      | 2: 15-55                     |                   |      |                        | 9              |
| VP-F30 | 30                                      | 3: 30-70                     |                   |      |                        | 9              |
| VP-F40 | 40                                      |                              |                   |      |                        | 9              |

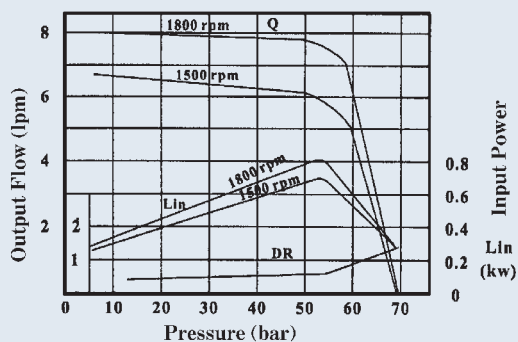
## Dimensions



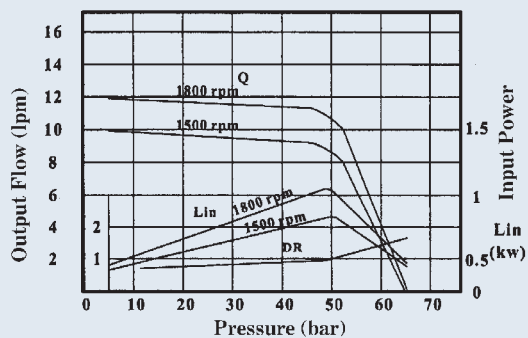
# VARIABLE DISPLACEMENT VANE PUMP

## Performance curves

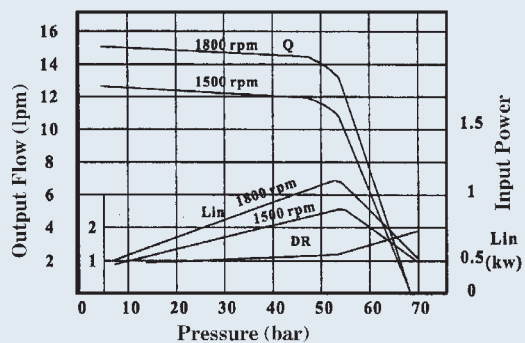
**VP-F8**



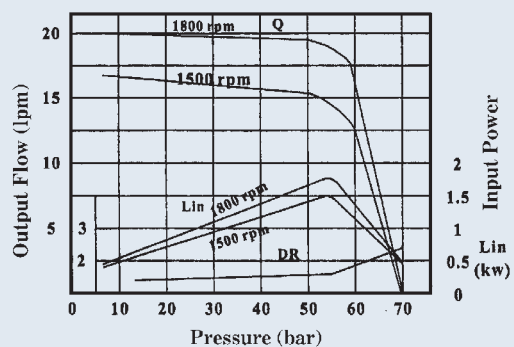
**VP-F12**



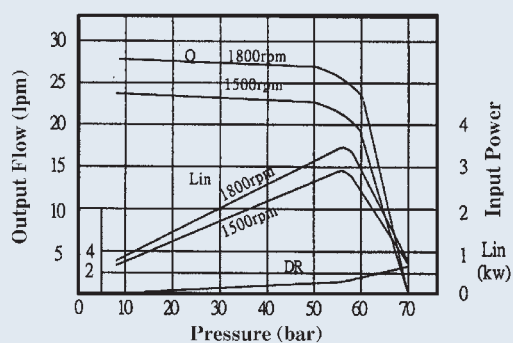
**VP-F15**



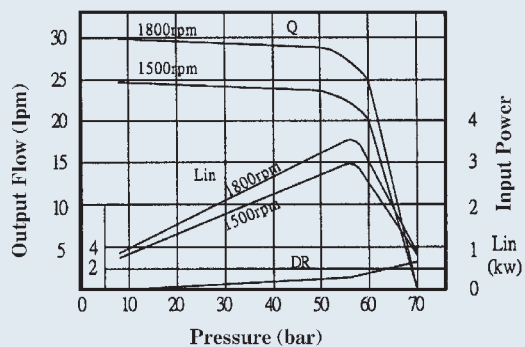
**VP-F20**



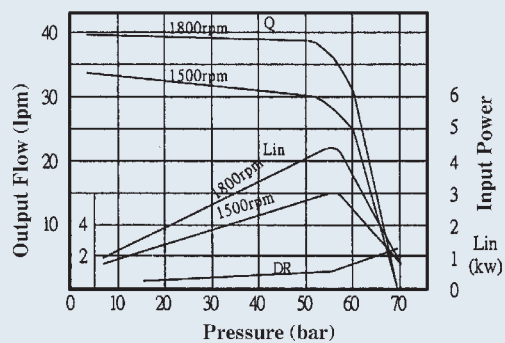
**VP-F26**



**VP-F30**

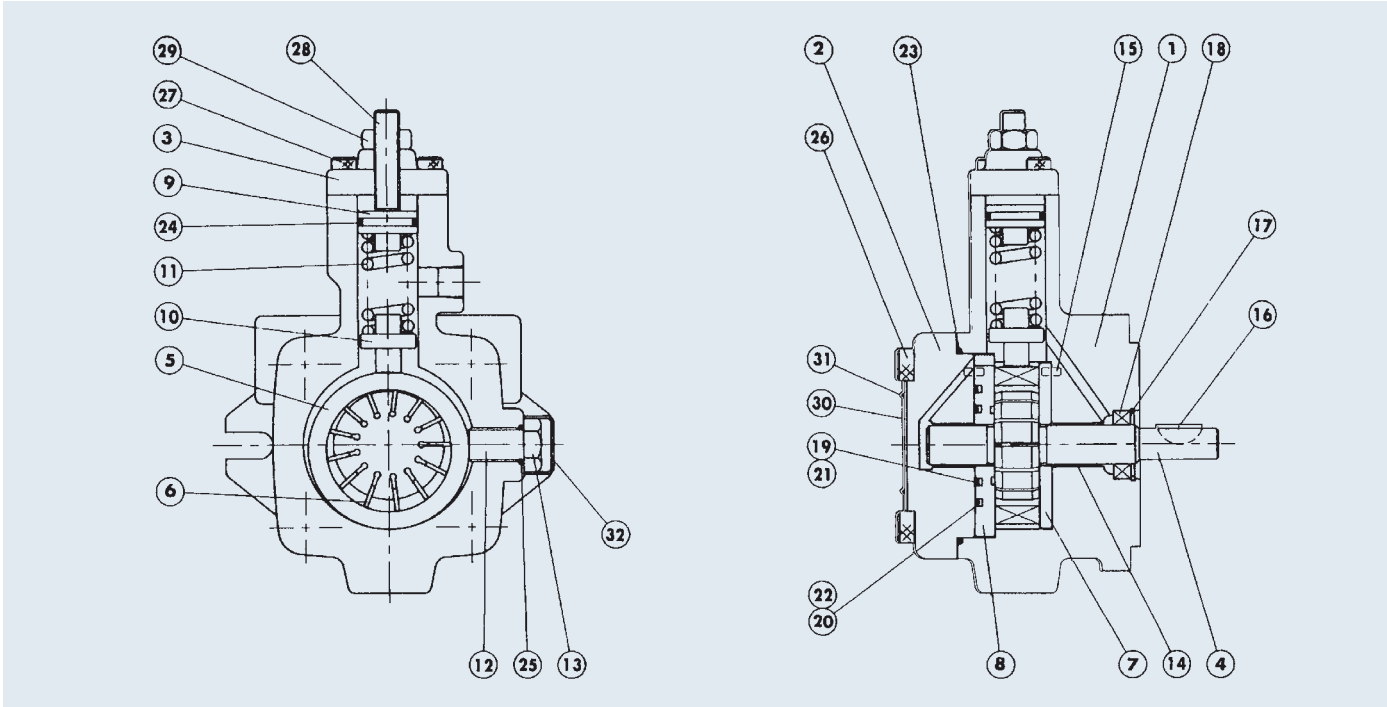


**VP-F40**



# VARIABLE DISPLACEMENT VANE PUMP

VP-F8, 12, 15, 20 cross section drawing

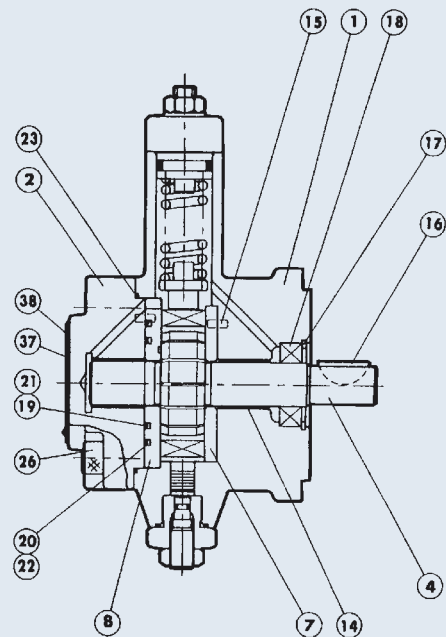
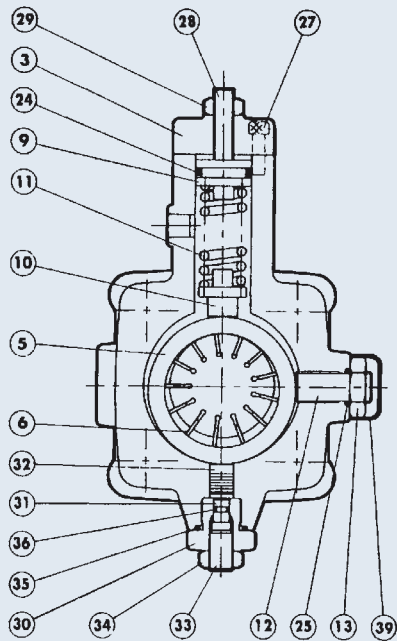


## Parts list

| Item No. | Description     | Q'ty | Specification | Item No. | Description            | Q'ty | Specification |
|----------|-----------------|------|---------------|----------|------------------------|------|---------------|
| 1        | Pump Body       | 1    |               | 17       | Retainer Ring          | 1    | R28           |
| 2        | Back Cover      | 1    |               | 18       | Shaft Seal             | 1    | TC.V 16287    |
| 3        | Cover           | 1    |               | 19       | Endless Back-up ring   | 1    |               |
| 4        | Shaft           | 1    |               | 20       | Endless Back-up ring   | 1    |               |
| 5        | Cam Ring        | 1    |               | 21       | O-Ring                 | 1    | AS 568-023    |
| 6        | Vanes           | 13   |               | 22       | O-Ring                 | 1    | AS 568-031    |
| 7        | Port Plate      | 1    |               | 23       | O-Ring                 | 1    | 1A-S75        |
| 8        | Thrust Plate    | 1    |               | 24       | O-Ring                 | 1    | 1A-P20        |
| 9        | Spring Retainer | 1    |               | 25       | O-Ring                 | 1    | 1A-P12        |
| 10       | Piston          | 1    |               | 26       | Socket Head Cap Screws | 4    | M8×25×P1.25   |
| 11       | Spring          | 1    |               | 27       | Socket Head Cap Screws | 2    | M6×20×P1.0    |
| 12       | Slide Screw     | 1    |               | 28       | Socket Set Screws      | 1    | M10×35×P1.5   |
| 13       | Hex Nut         | 1    |               | 29       | Hex Nut                | 1    | M10×P1.5      |
| 14       | Engine Bush     | 2    | DD 1615       | 30       | Name Plate             | 1    | 1             |
| 15       | Pin             | 5    | ø3×8          | 31       | Fixing Screw           | 3    | 3             |
| 16       | Woodruff Key    | 1    | No. 405       | 32       | Cap                    | 1    | 1             |

# VARIABLE DISPLACEMENT VANE PUMP

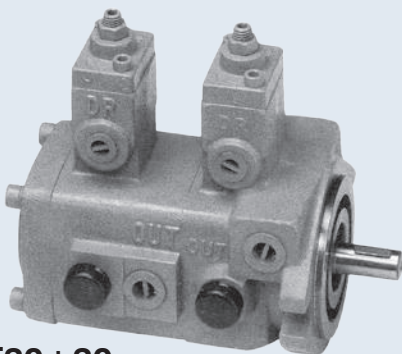
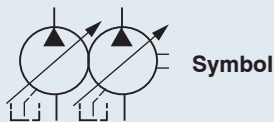
## VP-F23, 26, 30, 40 cross section drawing



## Parts list

| Item No. | Description          | Q'ty | Specification | Item No. | Description            | Q'ty | Specification |
|----------|----------------------|------|---------------|----------|------------------------|------|---------------|
| 1        | Pump Body            | 1    |               | 21       | O-Ring                 | 1    | AS 568-030    |
| 2        | Back Cover           | 1    |               | 22       | O-Ring                 | 1    | AS 568-035    |
| 3        | Cover                | 1    |               | 23       | O-Ring                 | 1    | 1A-S85        |
| 4        | Shaft                | 1    |               | 24       | O-Ring                 | 1    | 1A-P22A       |
| 5        | Cam Ring             | 1    |               | 25       | O-Ring                 | 1    | 1A-P14        |
| 6        | Vaness               | 13   |               | 26       | Socket Head Cap Screws | 4    | M10×25×P1.5   |
| 7        | Port Plate           | 1    |               | 27       | Socket Head Cap Screws | 2    | M6×20×P1.0    |
| 8        | Thrust Plate         | 1    |               | 28       | Socket Set Screws      | 1    | M10×40×P1.5   |
| 9        | Spring Retainer      | 1    |               | 29       | Hex Nut                | 1    | M10×P1.5      |
| 10       | Piston               | 1    |               | 30       | Thrust Screw           | 1    |               |
| 11       | Spring               | 1    |               | 31       | Piston                 | 1    |               |
| 12       | Slide Screw          | 1    |               | 32       | Piston                 | 1    |               |
| 13       | Hex Nut              | 1    | M16×P1.0      | 33       | Socket Set Screw       | 1    | M12×24×P1.75  |
| 14       | Engine Bush          | 2    | DD 2225       | 34       | Hex Nut                | 1    | M12×P1.75     |
| 15       | Pin                  | 5    | 4×10          | 35       | O-Ring                 | 1    | 1A-P20        |
| 16       | Woodruff Key         | 1    | No. 607       | 36       | O-Ring                 | 1    | 1A-P5         |
| 17       | Retainer Ring        | 1    | R42           | 37       | Name Plate             | 1    |               |
| 18       | Shaft Seal           | 1    | TCV 224211    | 38       | Fixing Screw           | 3    |               |
| 19       | Endless Back-up ring | 1    |               | 39       | Cap                    | 1    |               |
| 20       | Endless Back-up ring | 1    |               | 40       |                        |      |               |

# VARIABLE DISPLACEMENT DOUBLE VANE PUMP



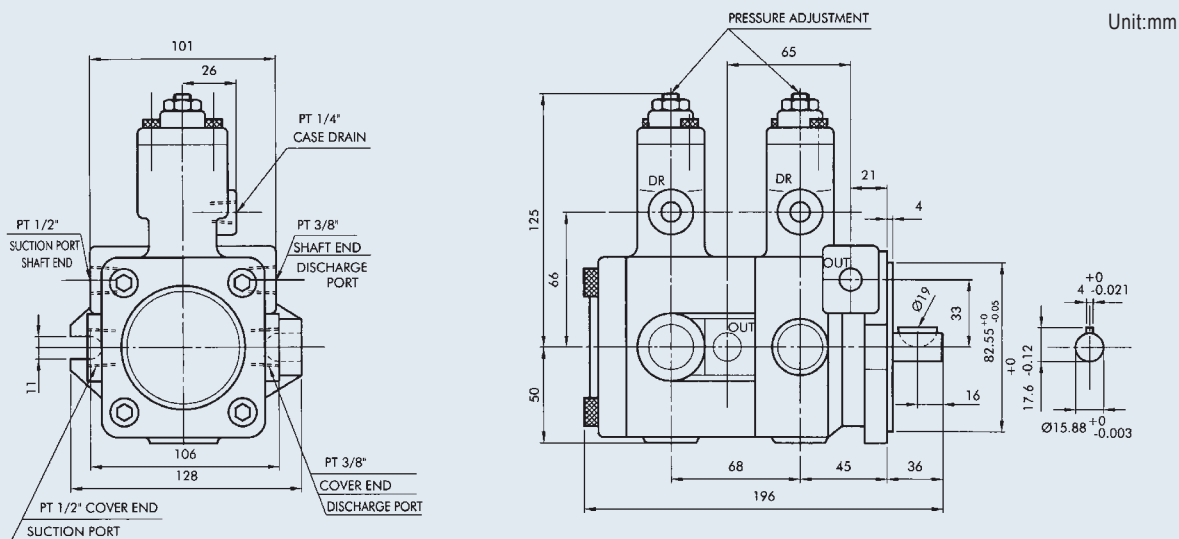
DVP-F12+12 ,F15+15 ,F20+20

## How to order

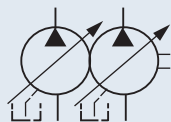
### DVP - F 1515 - A 1A1

| 1 | 2                                                                                                                                                                           | 3 | 4 | 5 |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| 1 | Variable double vane pump: weight: 9.5 kgs                                                                                                                                  |   |   |   |
| 2 | Flange mounting type                                                                                                                                                        |   |   |   |
| 3 | Displacement                                                                                                                                                                |   |   |   |
| 4 | Sharp cut-off type                                                                                                                                                          |   |   |   |
| 5 | Pressure adjusting range 1: 3-20 bar 2: 15-55 bar 3: 30-70 bar<br>(As general rule low pressure pump is placed at the cover side and high pressure pump at the shaft side). |   |   |   |

## Dimensions

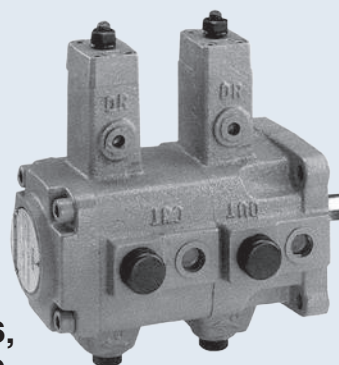


# VARIABLE DISPLACEMENT DOUBLE VANE PUMP



Symbol

**DVP-F23+23, F26+26,  
F30+30, F40+40**



A

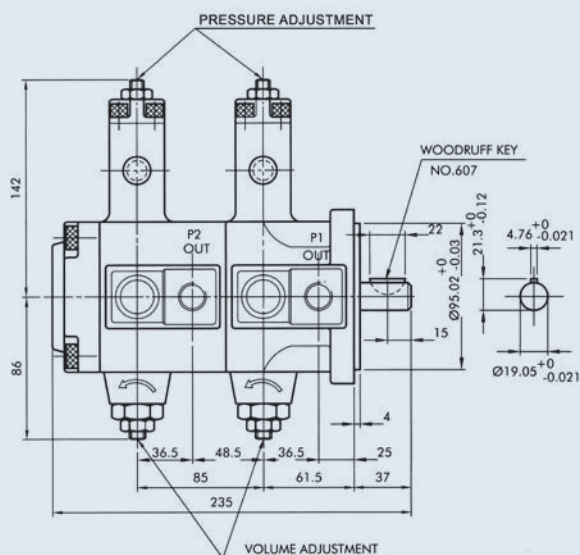
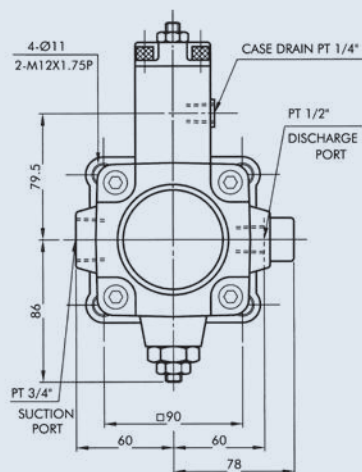
## How to order

### **DVP - F 3030 - A 1A1**

1 2 3 4 5

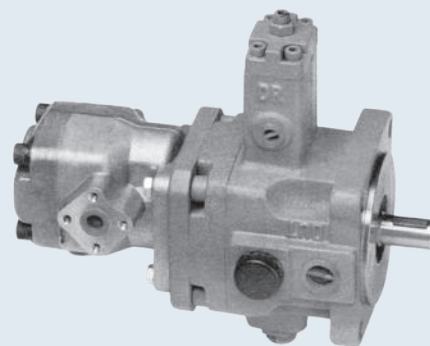
- 1 Variable double vane pump: weight: 16 kgs
- 2 Flange mounting type
- 3 Displacement
- 4 Sharp cut-off type
- 5 Pressure adjusting range 1: 3-20 bar 2: 15-55 bar 3: 30-70 bar  
(As general rule low pressure pump is placed at the cover side and high pressure pump at the shaft side).

## Dimensions



Unit:mm

**Symbol**



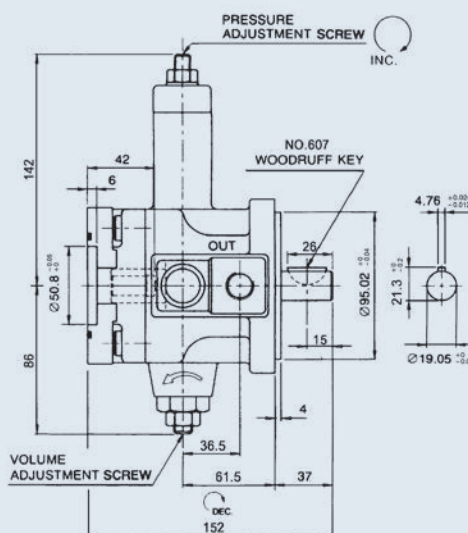
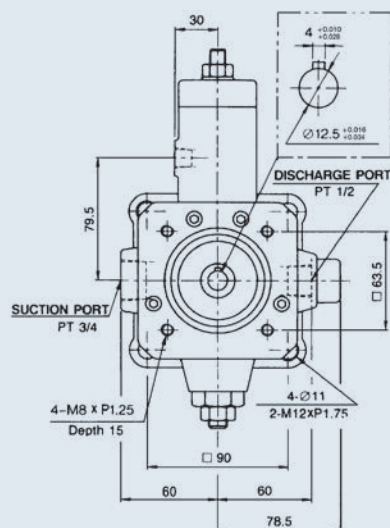
## VPG-F23 (26, 30, 40)+HGP-2A

## A

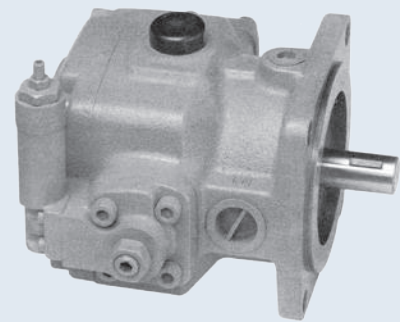
| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
|---|---|---|---|---|---|

|   |                                      |                                  |                                     |              |
|---|--------------------------------------|----------------------------------|-------------------------------------|--------------|
| 1 | Variable vane pump+gear pump         |                                  |                                     |              |
| 2 | Flange mounting type                 |                                  |                                     |              |
| 3 | Low pressure vane pump displacement: | 23: 23 lpm (6 GPM) Weight: 10 kg | 26: 26 lpm (6.8 GPM) Weight: 10 kg  |              |
|   |                                      | 30: 30 lpm (8 GPM) Weight: 10 kg | 40: 40 lpm (10.5 GPM) Weight: 10 kg |              |
| 4 | Gear pump displacement:              | 3: 3 cc/rev (see page 129)       |                                     |              |
| 5 | Sharp cut-off type                   |                                  |                                     |              |
| 6 | Pressure adjusting range             | 1: 3-20 bar                      | 2: 15-55 bar                        | 3: 30-70 bar |

## Unit:mm



# HIGH PRESSURE VARIABLE DISPLACEMENT VANE PUMP



VP5-F20, 25, 30, 40, 54, 70, 86

A

## How to order

### VP5 - F 30 - A 5

| 1 | 2                                                                                          | 3 | 4 | 5 |
|---|--------------------------------------------------------------------------------------------|---|---|---|
| 1 | High pressure variable displacemnet single vane pump                                       |   |   |   |
| 2 | Flange mounting type                                                                       |   |   |   |
| 3 | Displacement                                                                               |   |   |   |
| 4 | A: Sharp cut-off type                                                                      |   |   |   |
| 5 | Pressure adjusting range    2: 15-35 bar    3: 20-70 bar    4: 50-105 bar    5: 70-140 bar |   |   |   |

## Specifications

| Model   | No-Load Displacement<br>lpm At 1800 rpm | Pressure<br>Adj. Range (bar)                   | Rated Speed (rpm) |      | Max. Pressure<br>(bar) | Weight<br>(kg) |
|---------|-----------------------------------------|------------------------------------------------|-------------------|------|------------------------|----------------|
|         |                                         |                                                | Max.              | Min. |                        |                |
| VP5-F20 | 20                                      | 2: 15~35<br>3: 20~70<br>4: 50~105<br>5: 70~140 | 1800              | 800  | 140                    | 9.5            |
| VP5-F25 | 25                                      |                                                |                   |      |                        | 9.5            |
| VP5-F30 | 30                                      |                                                |                   |      |                        | 9.5            |
| VP5-F40 | 40                                      |                                                |                   |      |                        | 9.5            |
| VP5-F54 | 54                                      |                                                |                   |      |                        | 25             |
| VP5-F70 | 70                                      |                                                |                   |      |                        | 25             |
| VP5-F86 | 86                                      |                                                |                   |      |                        | 25             |

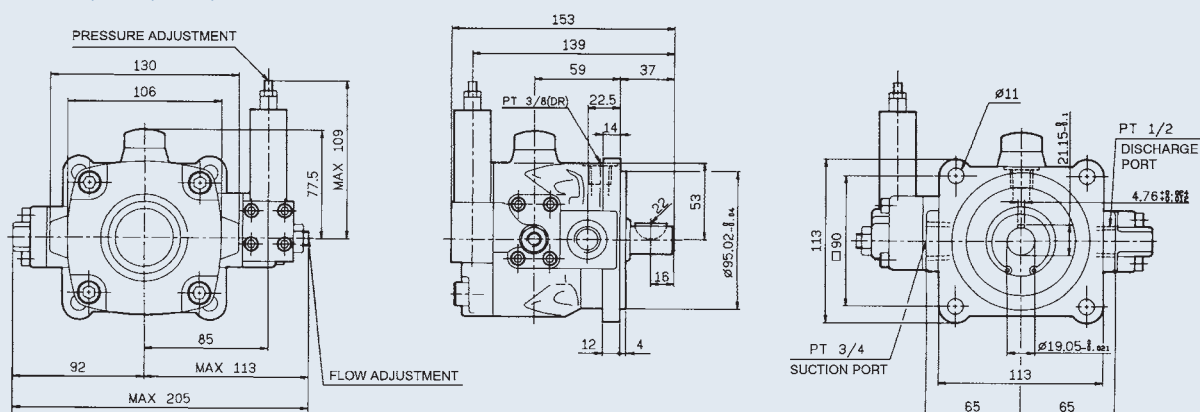
## FEATURES:

1. High efficiency and high stability even on high pressure operation.
2. Vibration free with low noise level.
3. Sensitive responses and actions to on-off and changing loads.
4. Constant output on high pressure operation.
5. High operational efficiency with hores power saving.
6. Easier control on the adjustment of the pressure and oil flow.

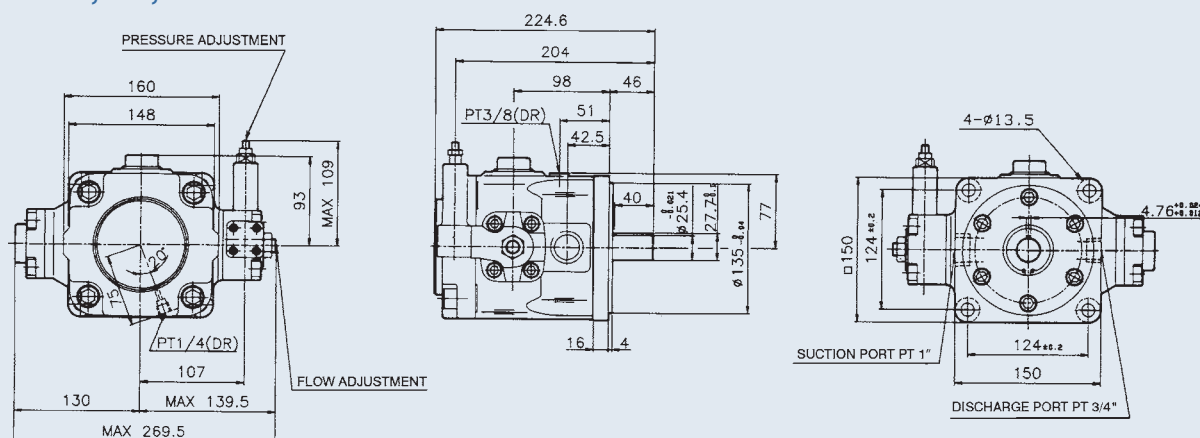
## Dimensions

Unit:mm

### VP5-F20, 25, 30, 40



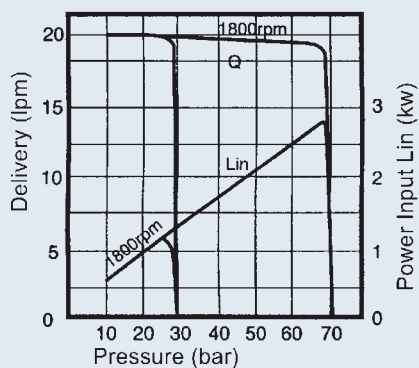
### VP5-F54, 70, 86



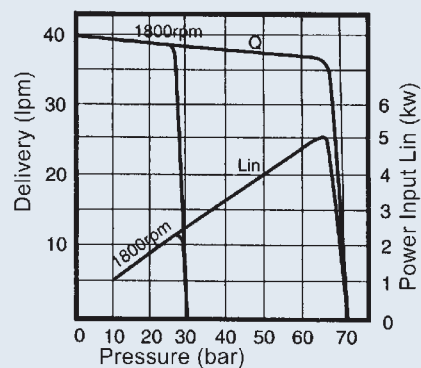
# HIGH PRESSURE VARIABLE DISPLACEMENT VANE PUMP

## Performance curves

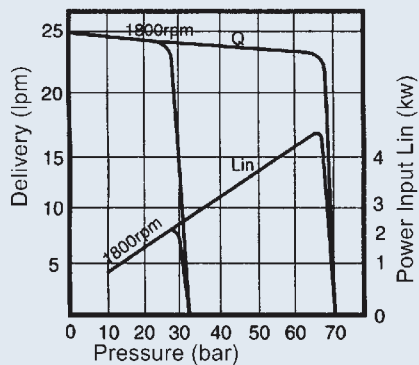
**VP5-F20**



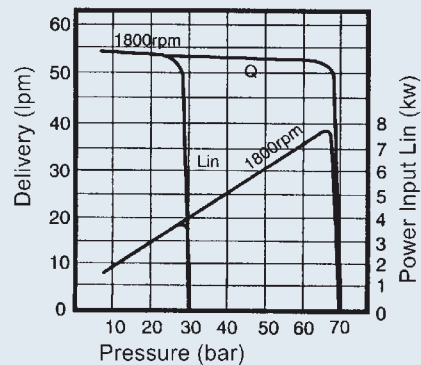
**VP5-F40**



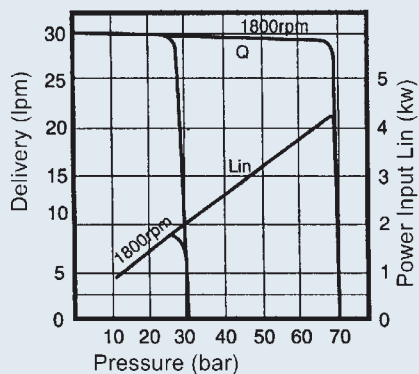
**VP5-F25**



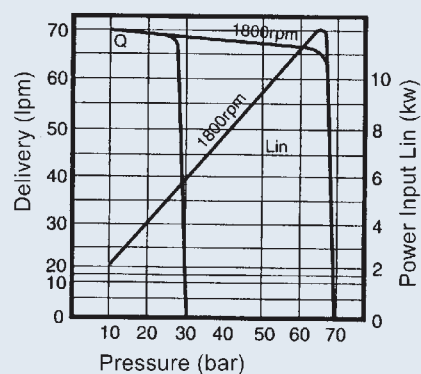
**VP5-F54**



**VP5-F30**

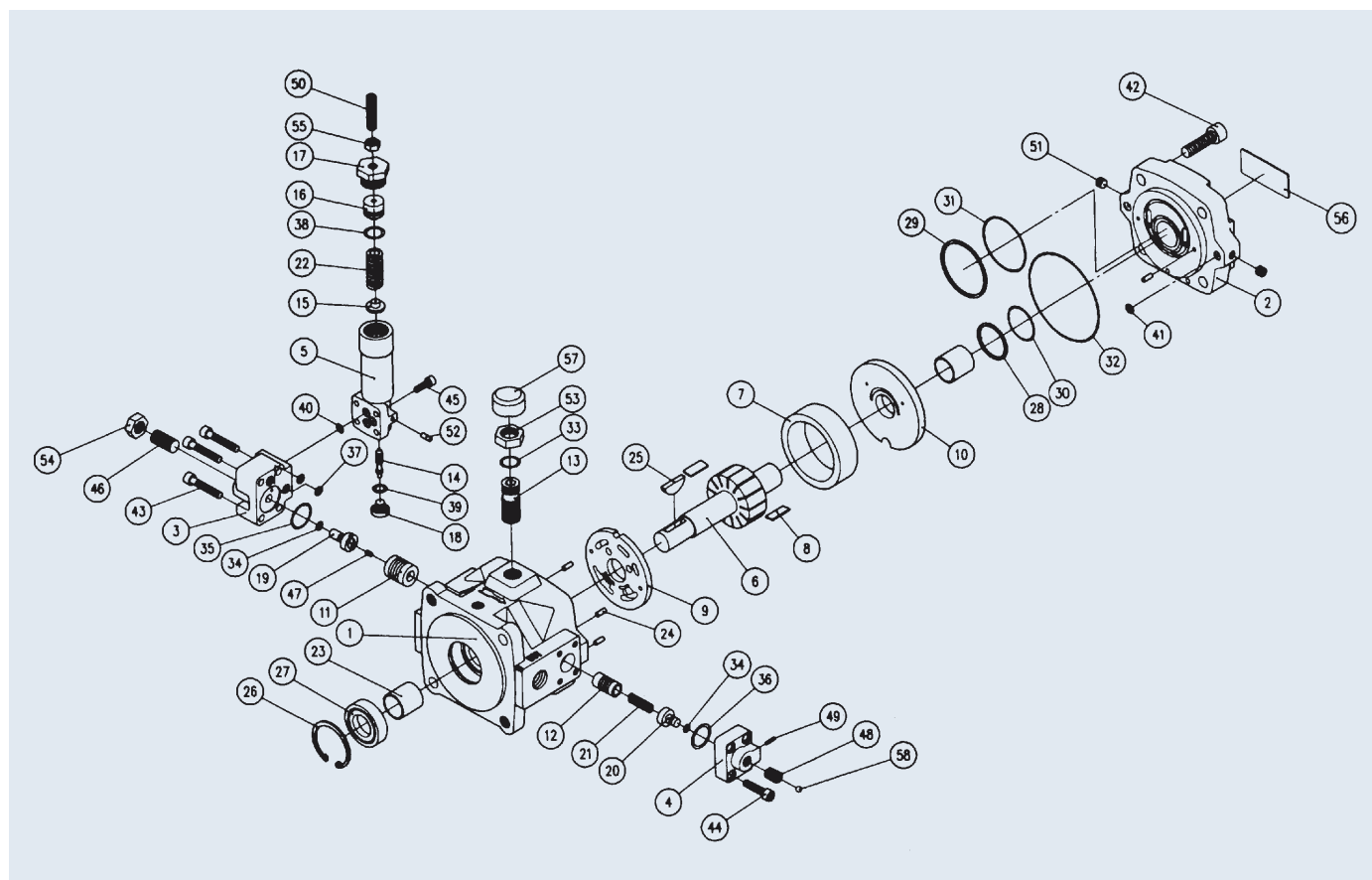


**VP5-F70**



# HIGH PRESSURE VARIABLE DISPLACEMENT VANE PUMP

## VP5-F20, 25, 30, 40, 54, 70, 86 decomposition chart



## Parts list

| Item No. | Description  | Item No. | Description          | Item No. | Description           | Item No. | Description      |
|----------|--------------|----------|----------------------|----------|-----------------------|----------|------------------|
| 1        | Pump Body    | 16       | Spring Retainer      | 31       | O-Ring                | 46       | Socket Set Screw |
| 2        | Back Cover   | 17       | Screw                | 32       | O-Ring                | 47       | Socket Set Screw |
| 3        | Cover        | 18       | plug                 | 33       | O-Ring                | 48       | Socket Set Screw |
| 4        | Side Cover   | 19       | Piston               | 34       | O-Ring                | 49       | Socket Set Screw |
| 5        | Body         | 20       | Piston               | 35       | O-Ring                | 50       | Socket Set Screw |
| 6        | Shaft        | 21       | Spring               | 36       | O-Ring                | 51       | Plug             |
| 7        | Cam Ring     | 22       | Spring               | 37       | O-Ring                | 52       | Plug             |
| 8        | Vanes        | 23       | Engine Bush          | 38       | O-Ring                | 53       | Hex Nut          |
| 9        | Port Plate   | 24       | Pin                  | 39       | O-Ring                | 54       | Hex Nut          |
| 10       | Thrust Plate | 25       | Woodruff Key         | 40       | O-Ring                | 55       | Hex Nut          |
| 11       | Piston       | 26       | Retainer Ring        | 41       | O-Ring                | 56       | Nameplate        |
| 12       | Piston       | 27       | Shaft Seal           | 42       | Socket Head Cap Screw | 57       | Cap              |
| 13       | Slide Screw  | 28       | Endless Back-up ring | 43       | Socket Head Cap Screw | 58       | Plug             |
| 14       | Spool        | 29       | Endless Back-up ring | 44       | Socket Head Cap Screw | 59       |                  |
| 15       | Holder       | 30       | O-Ring               | 45       | Socket Head Cap Screw | 60       |                  |

# HIGH PRESSURE VARIABLE DISPLACEMENT DOUBLE VANE PUMP

## How to order

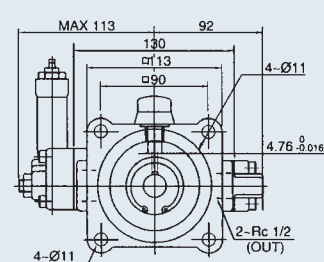
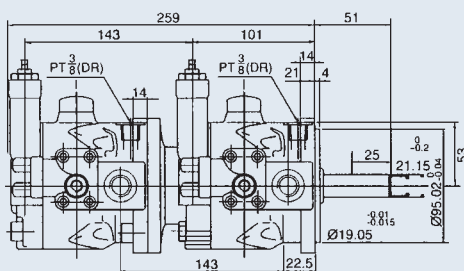
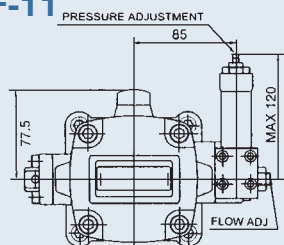
### VP5 - F - 1-2 - 30 - 70 - A - 2 - A - 2

1 2 3 4 5 6 7 8 9

|   |                                                                                                |
|---|------------------------------------------------------------------------------------------------|
| 1 | Model                                                                                          |
| 2 | Flange mounting type                                                                           |
| 3 | Series number 1: 20, 25, 30, 40 lpm 2: 54, 70, 86 lpm                                          |
| 4 | Cover side pump delivery lpm                                                                   |
| 5 | Shaft end pump delivery lpm                                                                    |
| 6 | Cover side pump control type A: Sharp cut-off type                                             |
| 7 | Cover side pump pressure adjusting range 2: 15-35 bar 3: 20-70 bar 4: 50-105 bar 5: 70-140 bar |
| 8 | Shaft end pump control type A: Sharp cut-off type                                              |
| 9 | Shaft end pump pressure adjusting range 2: 15-35 bar 3: 20-70 bar 4: 50-105 bar 5: 70-140 bar  |

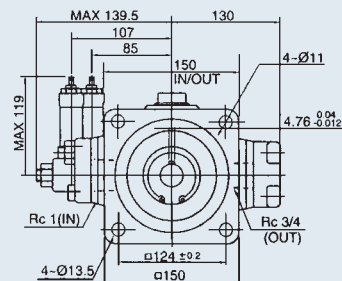
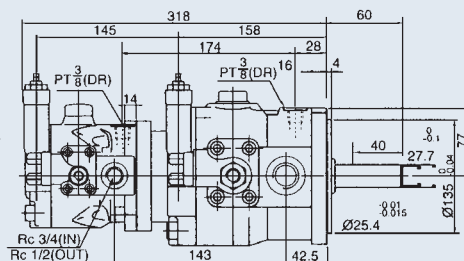
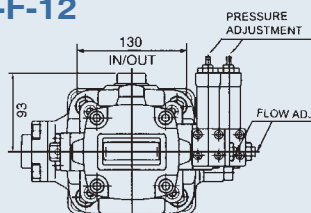
## Dimensions

### VP5-F-11

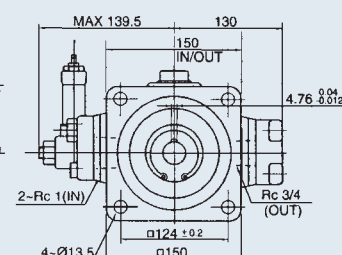
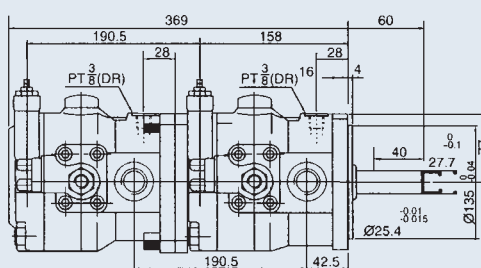
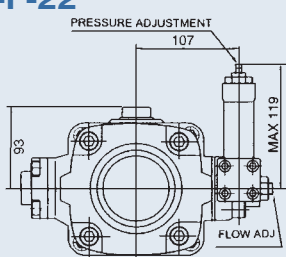


Unit:mm

### VP5-F-12



### VP5-F-22







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