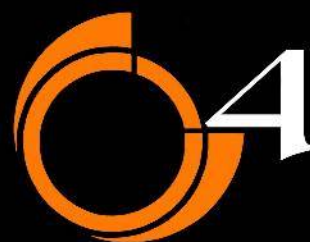


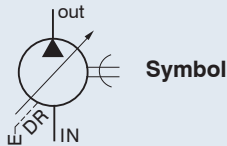


BOMBAS HIDRÁULICAS DE PALETAS DE DESPLAZAMIENTO VARIABLE

HI HYDROME



VARIABLE DISPLACEMENT VANE PUMP



VP-F8, 12, 15, 20



A

How to order

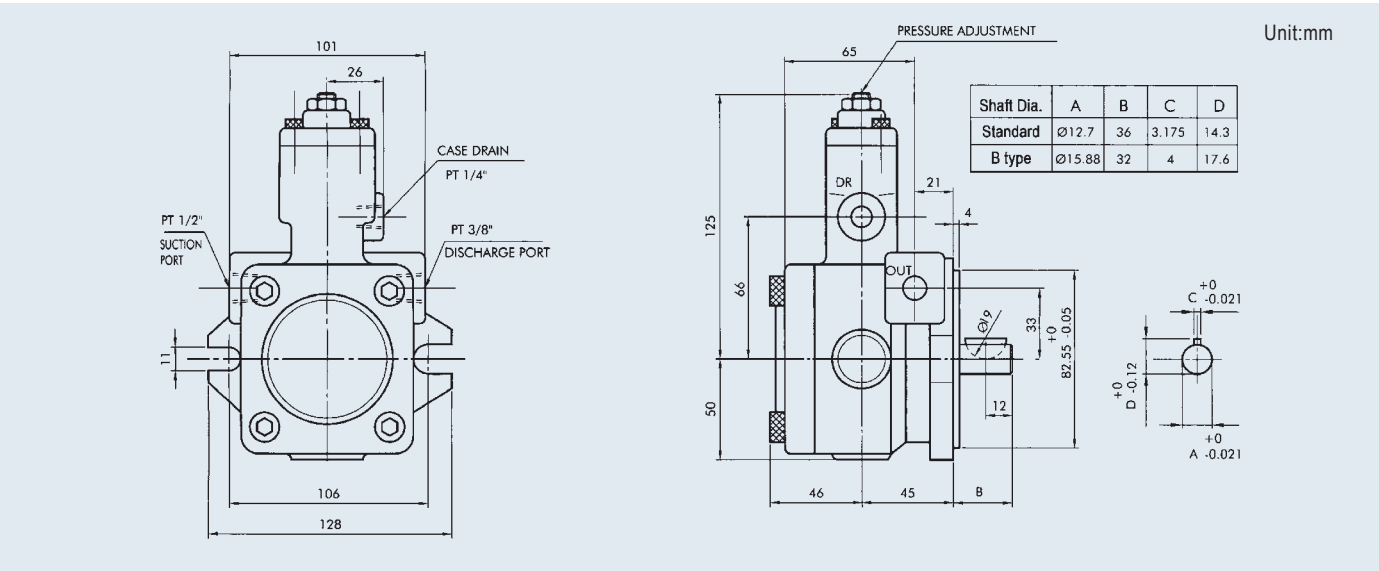
VP - F 15 - A ✖ - ✖

1	2	3	4	5	6
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				

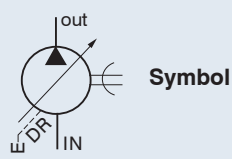
Specifications

Model	No-Load Displacement lpm At 1800 rpm	Pressure Adj. Range (bar)	Rated Speed (rpm)		Max. Pressure (bar)	Weight (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

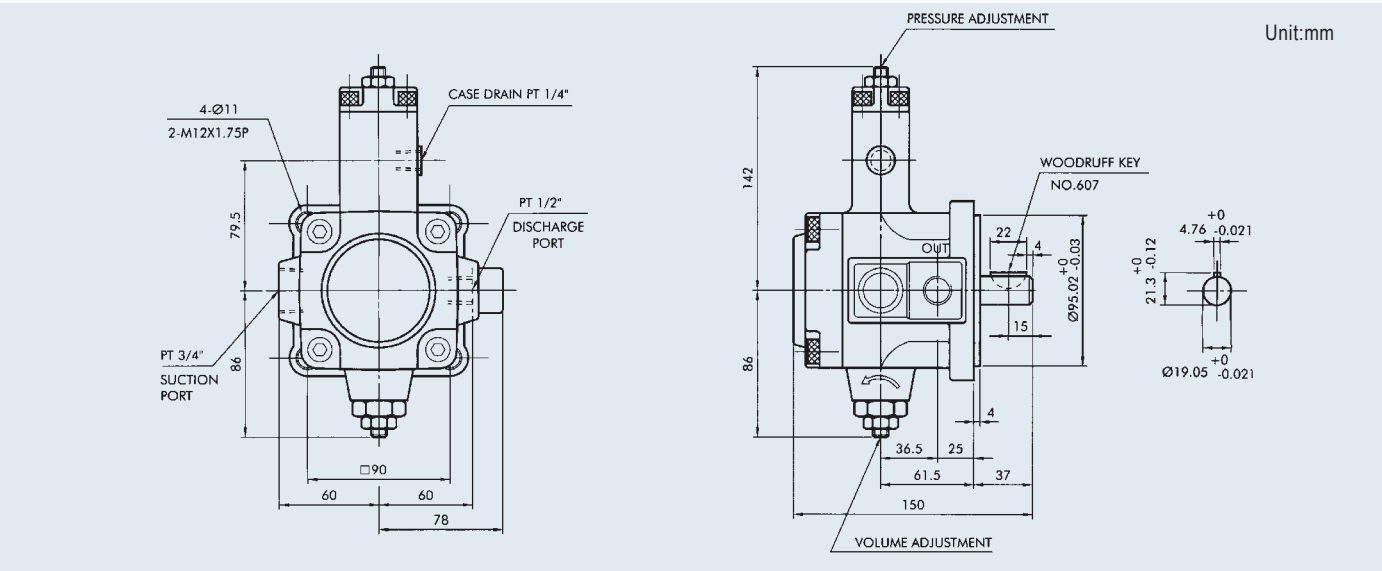
VP - F 30 - A ✖

	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 lpm At 1800 rpm	Pressure Adj. Range (bar)	Rated Speed (rpm)		Max. Pressure (bar)	Weight (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

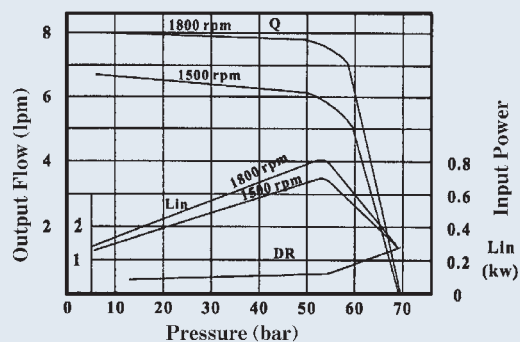
Dimensions



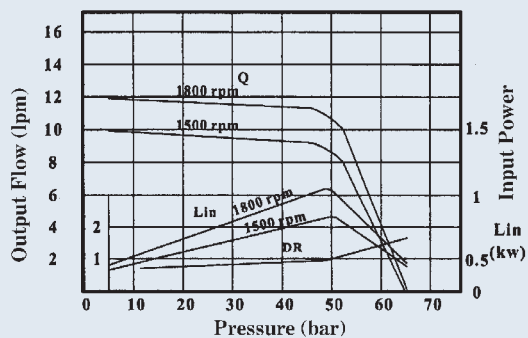
VARIABLE DISPLACEMENT VANE PUMP

Performance curves

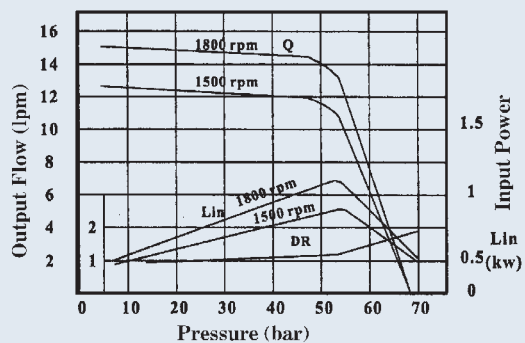
VP-F8



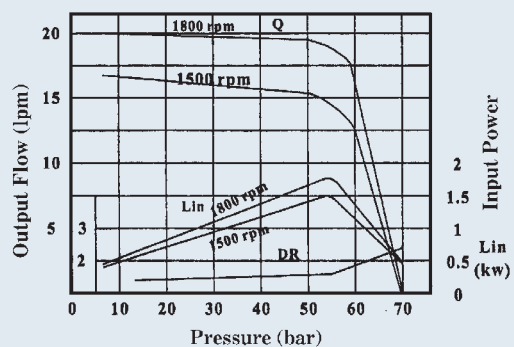
VP-F12



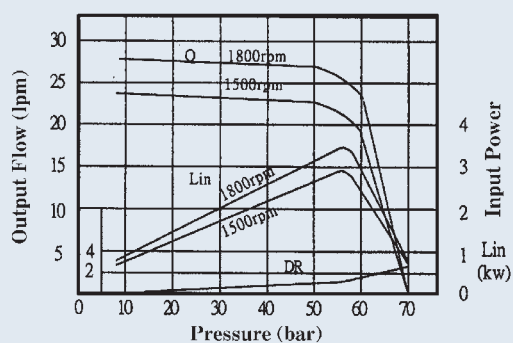
VP-F15



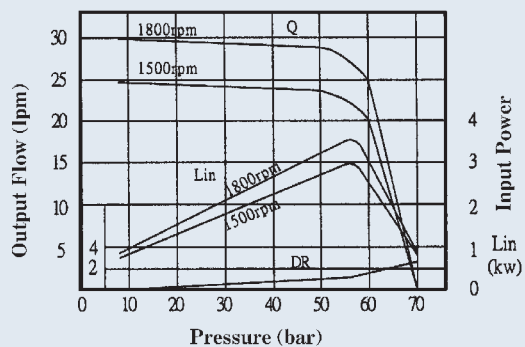
VP-F20



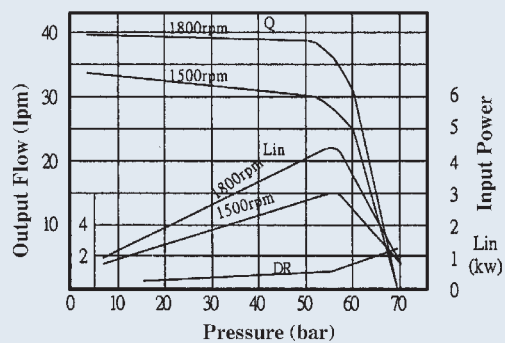
VP-F26



VP-F30

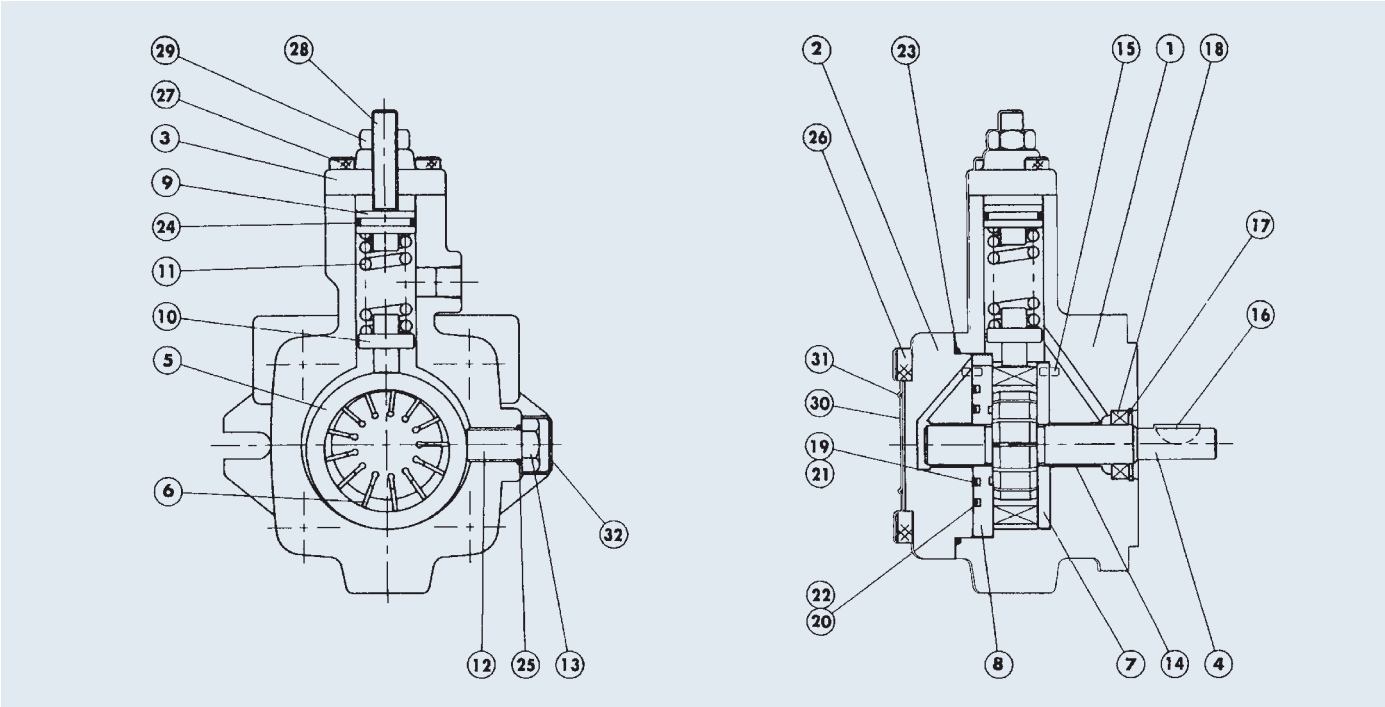


VP-F40



VARIABLE DISPLACEMENT VANE PUMP

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

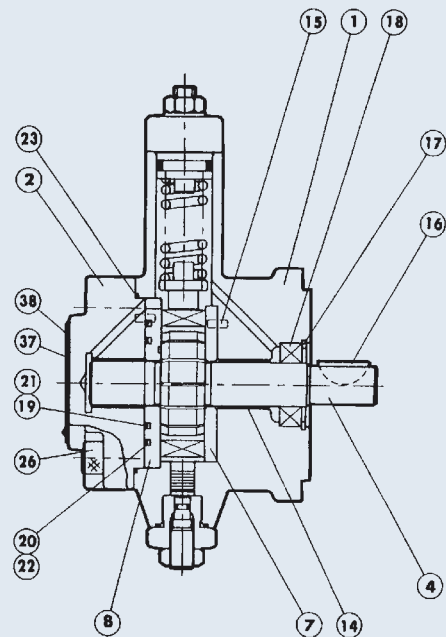
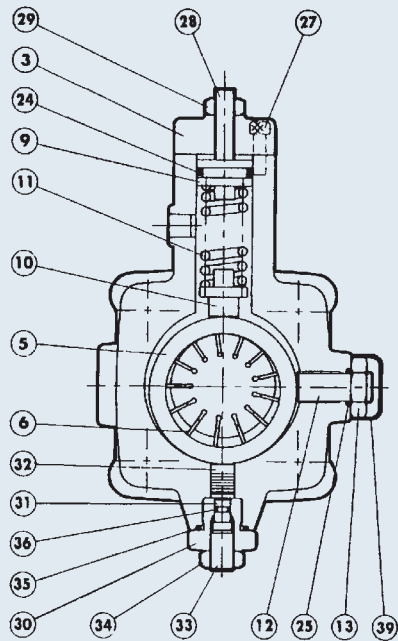


Parts list

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

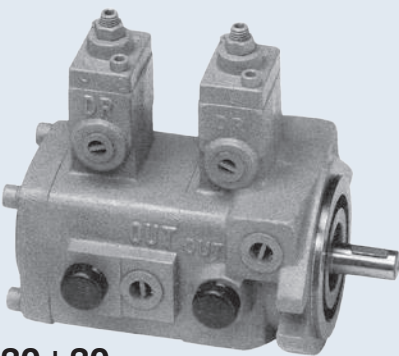
VP-F23, 26, 30, 40 cross section drawing



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	Vanes	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



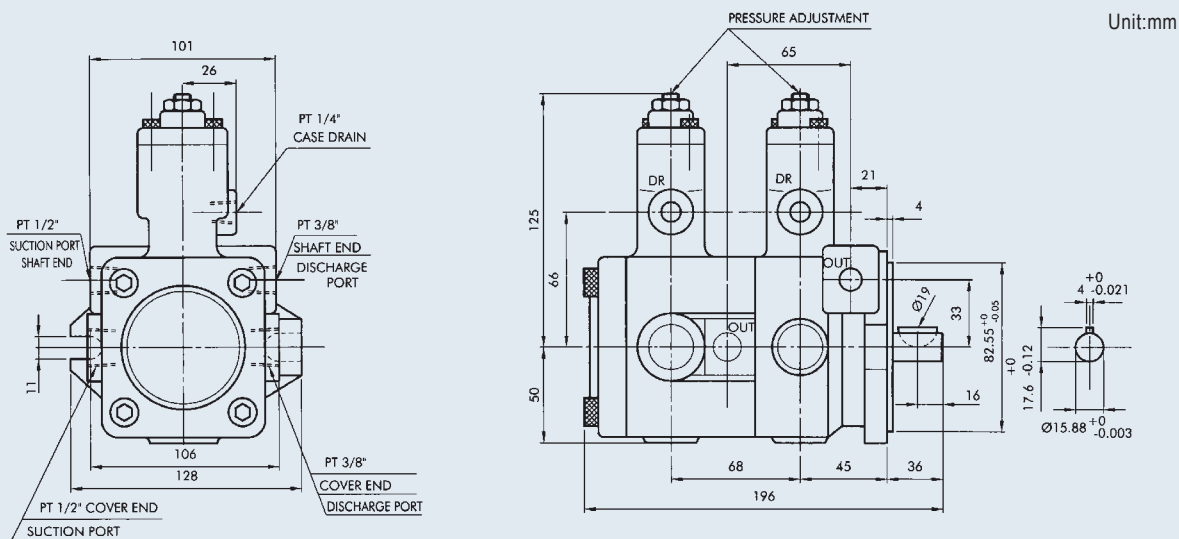
DVP-F12+12 ,F15+15 ,F20+20

How to order

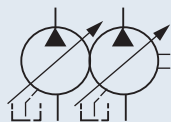
DVP - F 1515 - A 1A1

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 (As general rule low pressure pump is placed at the cover side and high pressure pump at the shaft side).			

Dimensions

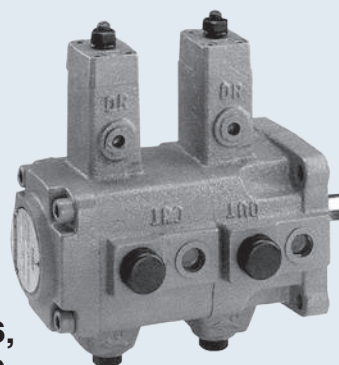


VARIABLE DISPLACEMENT DOUBLE VANE PUMP



Symbol

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



A

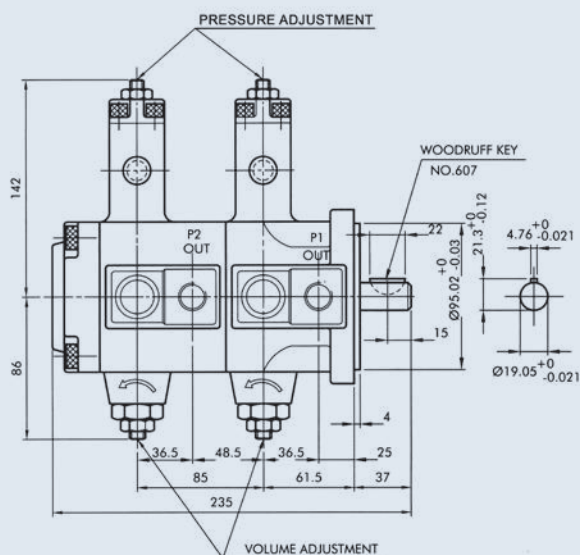
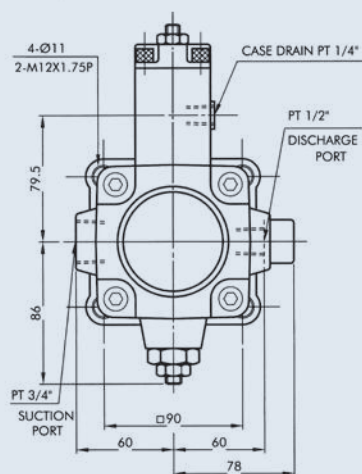
How to order

DVP - F 3030 - A 1A1

1 2 3 4 5

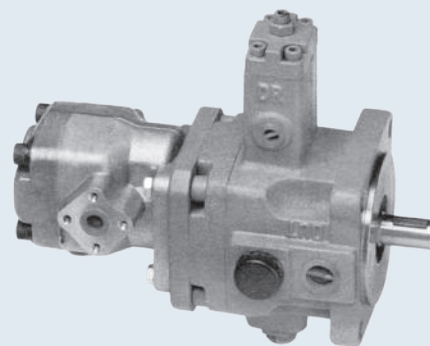
- 1 Variable double vane pump: weight: 16 kgs
- 2 Flange mounting type
- 3 Displacement
- 4 Sharp cut-off type
- 5 Pressure adjusting range 1: 3-20 bar 2: 15-55 bar 3: 30-70 bar
(As general rule low pressure pump is placed at the cover side and high pressure pump at the shaft side).

Dimensions



Unit:mm

Symbol



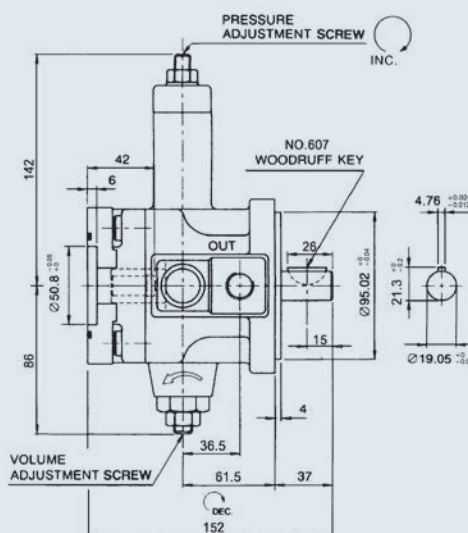
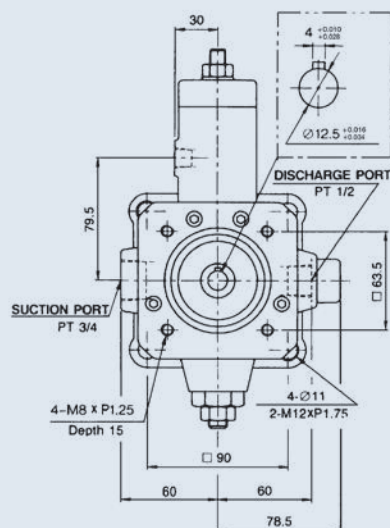
VPG-F23 (26, 30, 40)+HGP-2A

A

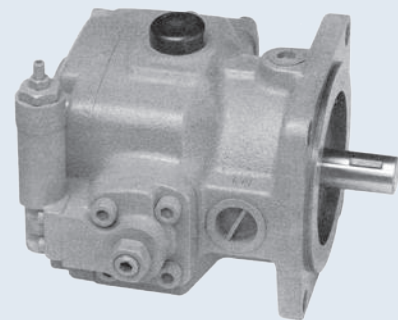
1	2	3	4	5	6
---	---	---	---	---	---

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 lpm At 1800 rpm	Pressure Adj. Range (bar)	Rated Speed (rpm)		Max. Pressure (bar)	Weight (kg)
			Max.	Min.		
VP5-F20	20	2: 15~35 3: 20~70 4: 50~105 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

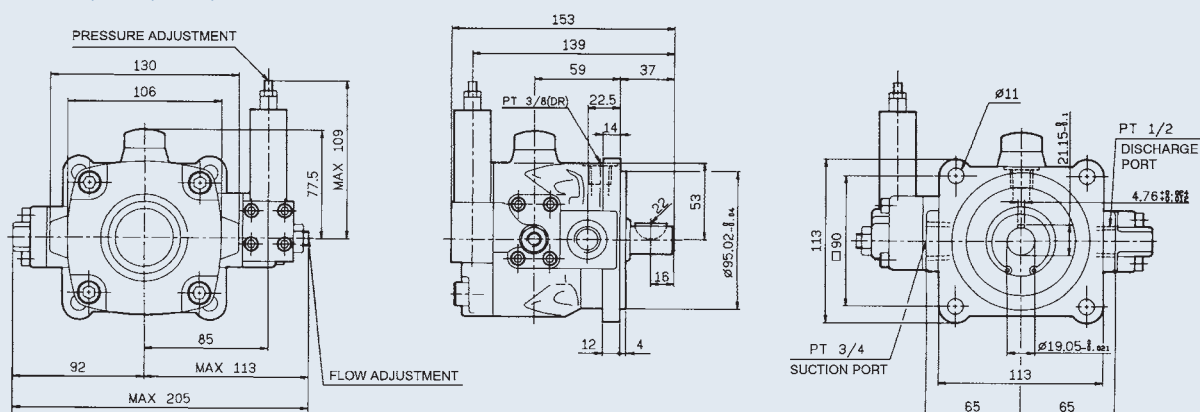
FEATURES:

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.

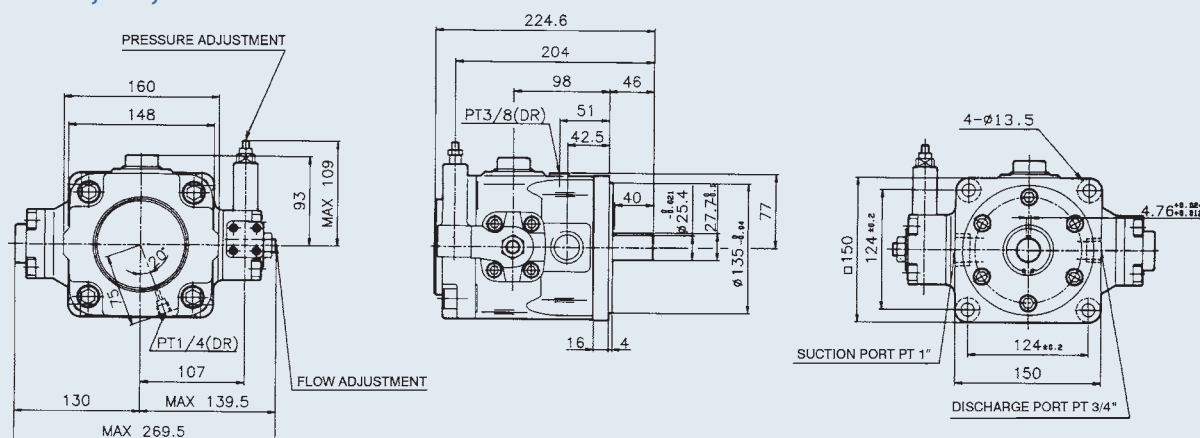
Dimensions

Unit:mm

VP5-F20, 25, 30, 40



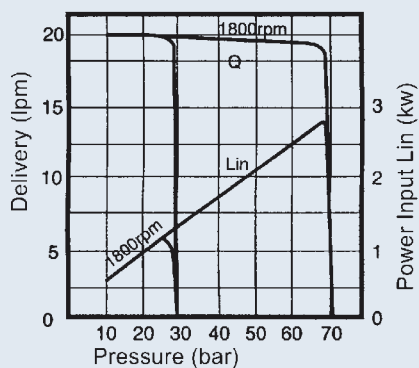
VP5-F54, 70, 86



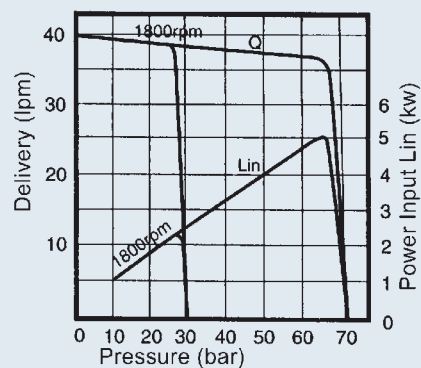
HIGH PRESSURE VARIABLE DISPLACEMENT VANE PUMP

Performance curves

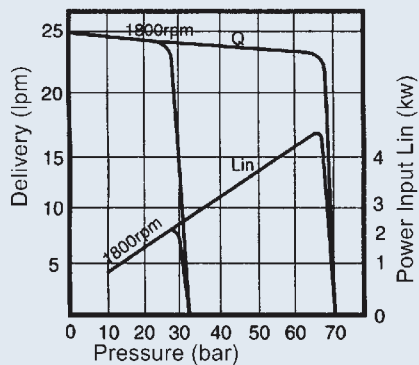
VP5-F20



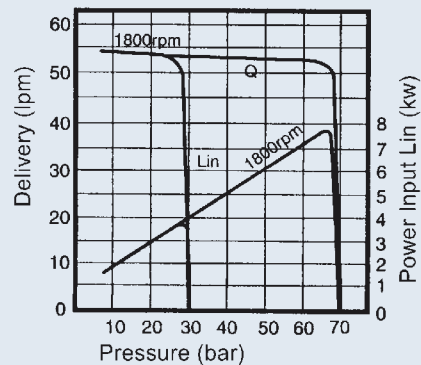
VP5-F40



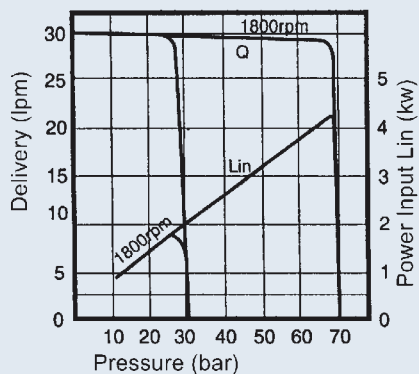
VP5-F25



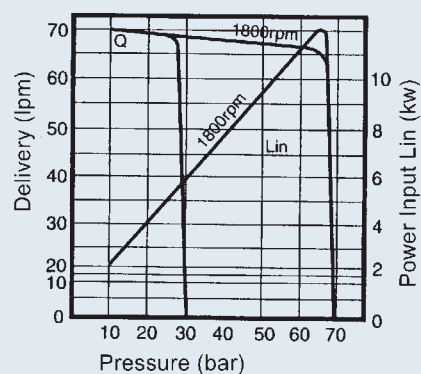
VP5-F54



VP5-F30

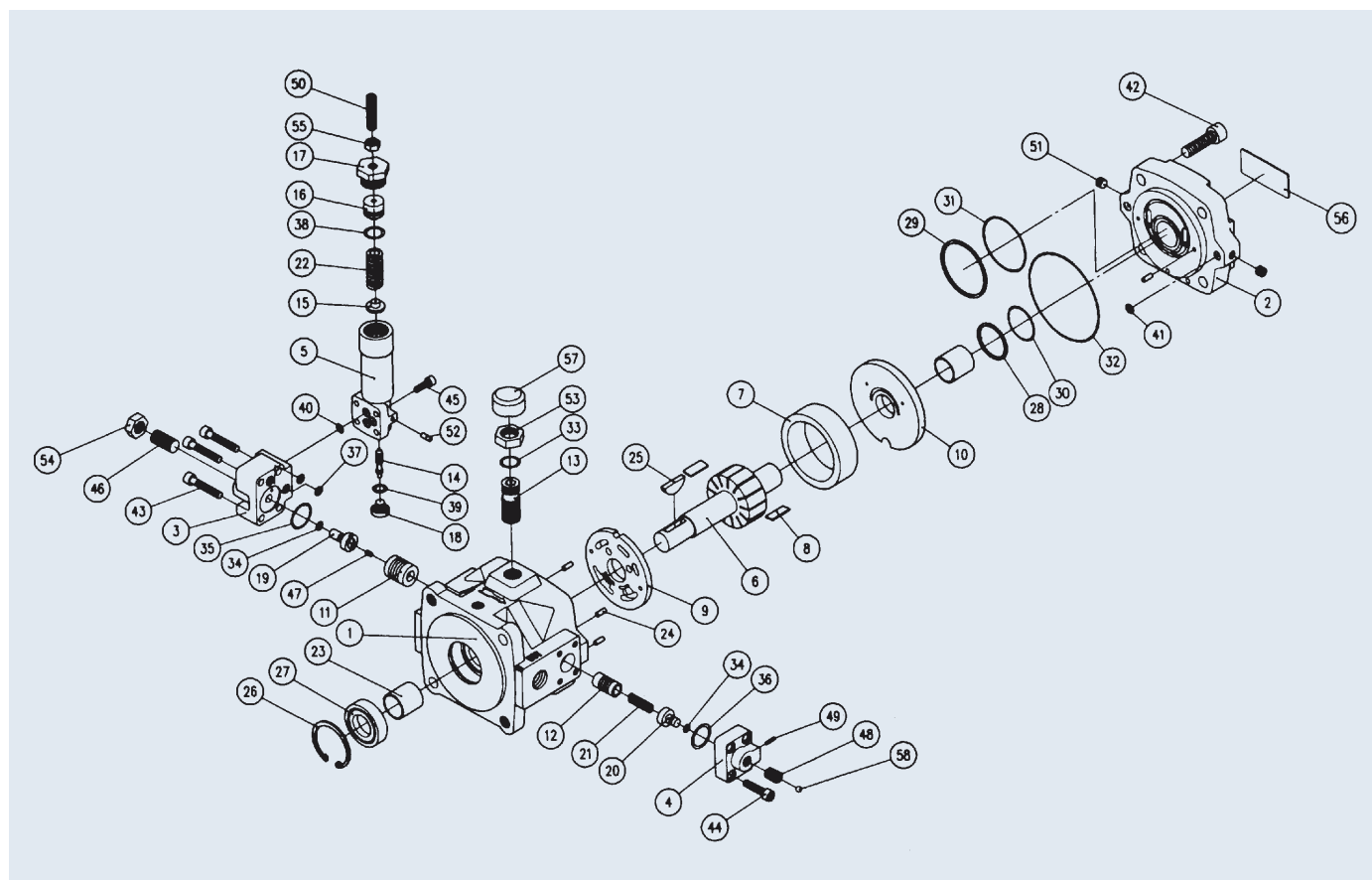


VP5-F70



HIGH PRESSURE VARIABLE DISPLACEMENT VANE PUMP

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



Parts list

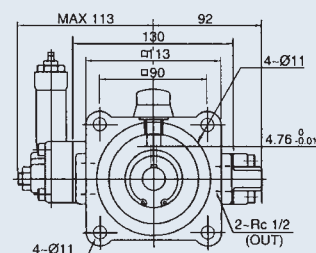
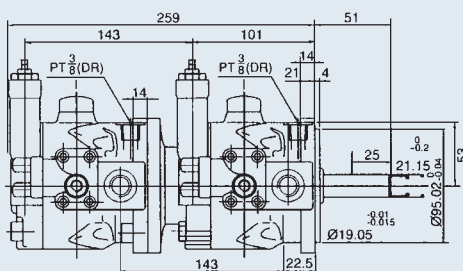
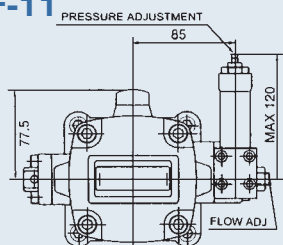
Item No.	Description	Item No.	Description	Item No.	Description	Item No.	Description
1	Pump Body	16	Spring Retainer	31	O-Ring	46	Socket Set Screw
2	Back Cover	17	Screw	32	O-Ring	47	Socket Set Screw
3	Cover	18	plug	33	O-Ring	48	Socket Set Screw
4	Side Cover	19	Piston	34	O-Ring	49	Socket Set Screw
5	Body	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	Vaness	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	

A

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

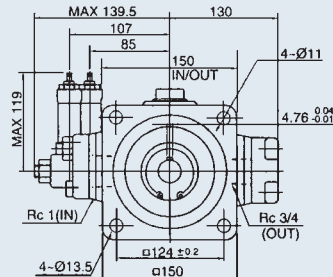
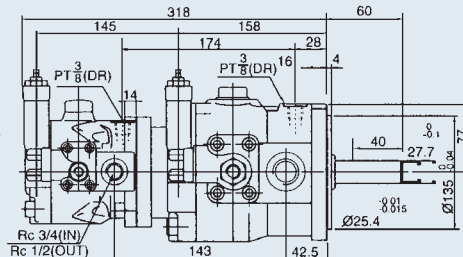
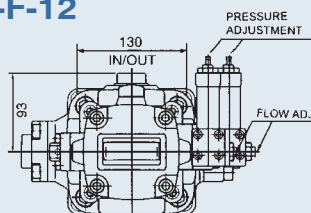
1	Model				
2	Flange mounting type				
3	Series number	1: 20, 25, 30, 40 lpm	2: 54, 70, 86 lpm		
4	Cover side pump delivery lpm				
5	Shaft end pump delivery lpm				
6	Cover side pump control type A: Sharp cut-off type				
7	Cover side pump pressure adjusting range	2: 15-35 bar	3: 20-70 bar	4: 50-105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

VP5-F-11

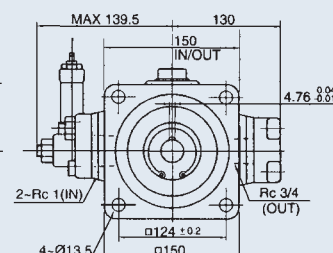
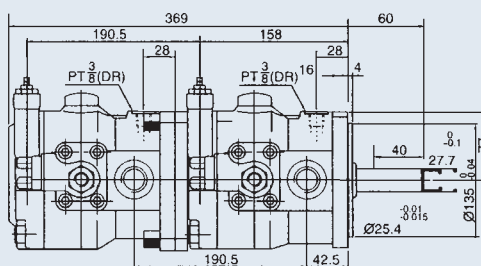
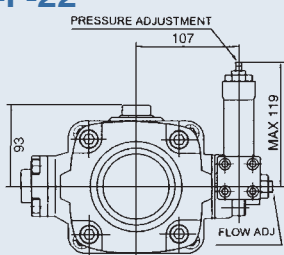


Unit:mm

VP5-F-12



VP5-F-22





MEXICO BRANCH OFFICE

Roberto Diaz No. 401
Ciudad Industrial
Aguascalientes, Ags.
México
20290

4ManPro@4ManPro.com
(449) 171 3420
www.4ManPro.com/SPA/



USA BRANCH OFFICE

Pennzoil Place
700 Milam
Suite 1300
Houston, Tx, USA
77002

4ManPro-USA@4ManPro.com
+1 (832) 871 5022
www.4ManPro.com/ENG/

*Elements For
Manufacturing Processes*

HYDROME