



Bell Hydromatics

Variable Displacement Vane Pumps

VP5F – Single Pumps



Ordering Code

VP5F	-A		5		-50
Series No.	Outlet Flow (lpm) at 3.5 bar, 1800 rpm		Operating Pressure range (bar)		Design No.
VP5 Flange Mounting	Code	Outlet Flow (lpm)	Code	Pressure Range	50:PT(Rc) 5080:PF(G) 5090:NPT
	A	30 lpm	2	15 ~ 35 bar	
	B	40 lpm	3	20 ~ 70 bar	
	Factory Setting Qmax.		4	50 ~ 105 bar	
			5	70 ~ 140 bar	
		Factory Setting Pmin.			

Operating Data

High Efficiency Operation With High Pressure.

Under the conditions of pressure 140 bar, the 5 pump is stable and highly efficient. Due to our improvement designs "THREE POINT RING" support systems.

No Vibration And Quiet.

The cam ring is specifically designed to have a special curve so the noise level (dB) is very low, even in the high pressure operations.

Sharp Characteristics And Quick Response.

Quick response displayed in both "ON-OFF" control of operation, due to use special design "BIAS PISTON" stable and accurate operation can be attained in an instant.

Stable Flow.

Due to use new design "PRESSURE BALANCE MECHANISM" the output flow pressure control systems, the output flow is very stable even in the high pressure ranges.

Energy Saving Type.

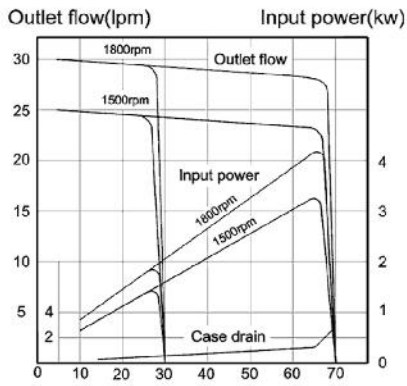
Power loss has been reduced further by application of our highly advanced precision machining technology to assure the same high efficiency performance. As the "VP5" series with many new mechanisms of our improvement designs. And the power loss at the "dead head" has been reduced by a large degree.

Easy Testing And Maintenance.

Pressure adjusting screw, and the volume adjusting screw were located at the same side, and ensure easy testing at a glance.

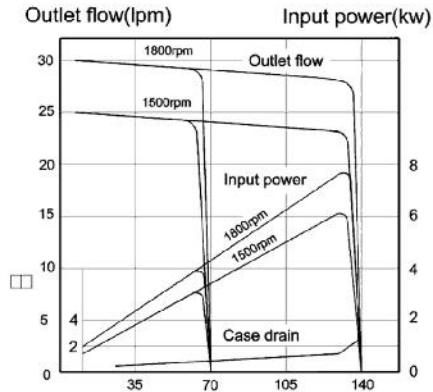
Performance Curves

VP5F-A3-50



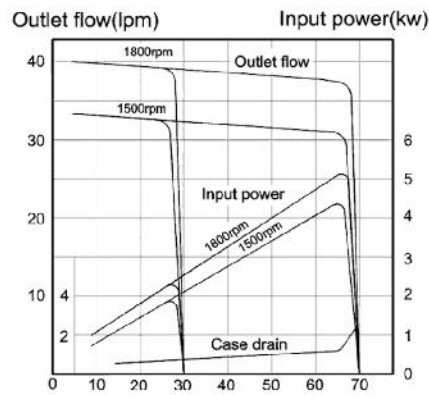
Case drain (lpm) Outlet pressure (bar)

VP5F-A5-50

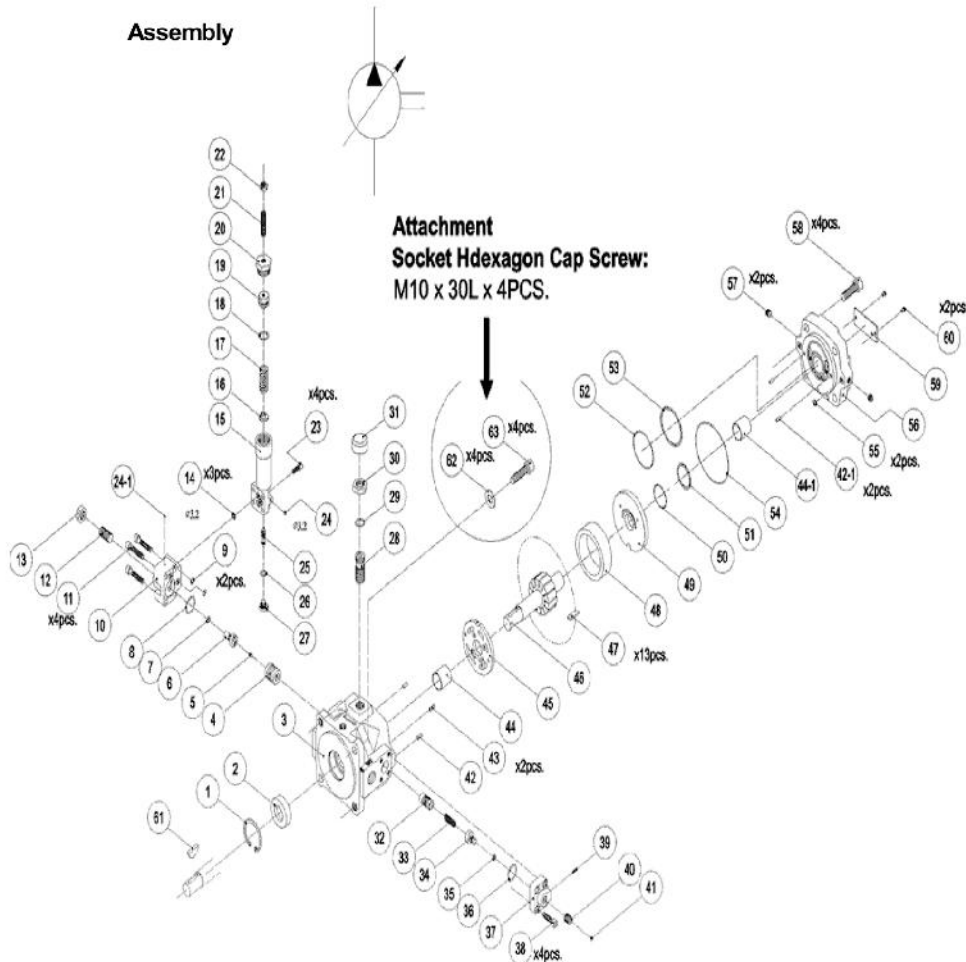


Case drain (lpm) Outlet pressure (bar)

VP5F-B3-50



Assembly



Parts List:

No.	Part Name	Specification	Quantity	No.	Part Name	Specification	Quantity
1	Retainer Ring	R42	1	33	Spring		1
2	Shaft Seal	TCV 224211	1	34	Piston		1
3	Pump Body		1	35	O-Ring	1A-P5	1
4	Piston		1	36	O-Ring	1A-P55	1
5	Socket Set Screw	M4xP0.7x5L	1	37	Cover		1
6	Piston		1	38	Socket Head Cap Screw	M6xP1.0x25L	4
7	O-Ring	1A-P5	1	39	Socket Set Screw	M5xPO.8x10L	1
8	O-Ring	1A-P20	1	40	Socket Set Screw	M10xp1.5x12L	1
9	O-Ring	1A-P6	2	41	Plug		1
10	Cover		1	42	Spring Pin	ø4×10	1
11	Socket Head Cap Screw	M6xP1.0x35L	4	42-1	Spring Pin	ø4×10	2
12	Socket Set Screw	M12xP1.75x25L	1	43	Straight Pin	ø4×10	2
13	Hexagon Nut	M12xP1.75	1	44	English Bush	DIADO(Japan)DD2225	1
14	O-Ring	1A-P6	3	44-1	English Bush	DIADO(Japan)DD2225	1
15	Body		1	45	Port Plate		1
16	Hold		1	46	Rotorshaft		1
17	Spring		1	47	Vanes		13
18	O-Ring	1A-P14	1	48	Cam Ring		2
19	Spring Retainer		1	49	Thrust Plate		1
20	Screw		1	50	O-Ring	AS568-026	1
21	Socket Set Screw	M8xP1.25x35L	1	51	Endless Back-up Ring		1
22	Hexagon Nut	M8xP1.25	1	52	O-Ring	AS568-034	1
23	Socket Set Screw	M5xPO.8x25L	4	53	Endless Back-up Ring		1
24	Plug		1	52	O-Ring	1A-S85	1
25	Spool		1	55	O-Ring	1A-P6	2
26	O-Ring	1A-P10	1	56	Cover		1
27	Plug		1	57	Plug	1/16"	2
28	Slide Screw		1	58	Socket Head Cap Screw	M10xP1.5x35L	4
29	O-Ring	1A-P14	1	59	Name Plate		1
30	Hexagon Nut	M16xP1.0	1	60	Fixing Screw		2
31	Cap		1	61	Woodruff Key	NO. 608	1
32	Piston		1	62	Spring Washer	M10	4
				63	Socket Head Cap Screw	M10xP1.5x30L	4

Dimensions

VPF5-* *-50

