

# Variable Displacement Vane Pumps

VP5F series

PVF series

VD/SVD series

TPF series

PVF



**PVF series**

**PVF-8(12)-\*\* -10**



**PVF series**

**PVF-15(20)-\*\* -10**



**PVF series**

**PVF-30(40)-\*\* -11**



**Single Pump  
Splined Shafts  
Series**

## PVF Model Code - Single Pumps

PVF	-12			-70		-10	S
Frame size	Outlet flow (at 3.5 bar, 1800 r/min)			Operating pressure range		Design	Shafts code
	Code	Outlet flow (Geometric displ.) L/min (cm <sup>3</sup> /rev)		Code	Pressure range (bar)		
PVF Flange mounting	8	8	(5)	20	8~20	10	Omit: Woodruff key  S: Splined shafts
	12	12	(7)	35	15~35		
	15	15	(8)		55		
	20	20	(12)	70			
	30	30	(16)		11 (PVF-30/40)		
	40	40	(22)				
Factory setting <b>Q</b> max.				Factory setting <b>P</b> min.			

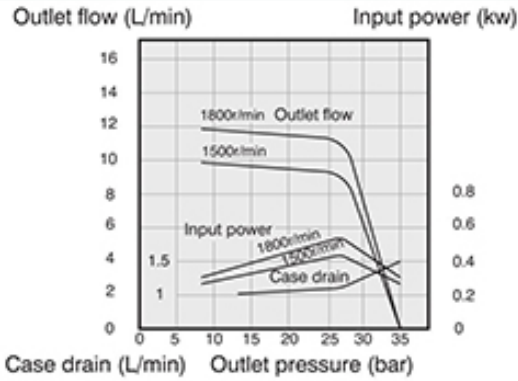
PVF Pumps Speed Limits	Frame size	Weight
Minimum speed : 800 r/min Maximum speed : 1800 r/min	PVF - 8(12) - ** - 10	5 kg
	PVF - 15(20) - ** - 10	6 kg
	PVF - 30 - ** - 11	9 kg
	PVF - 40 - ** - 11	9 kg

# PVF series

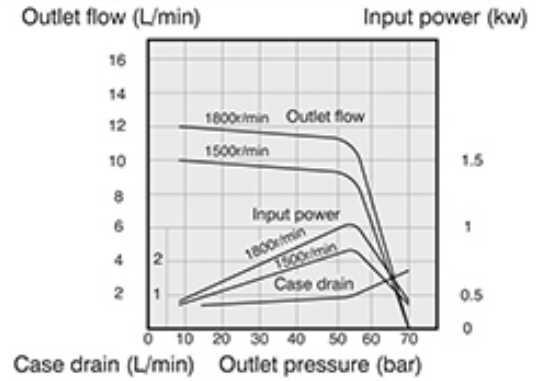
## PVF Series Pumps Curve

Suitable Viscosity: ISO VG32

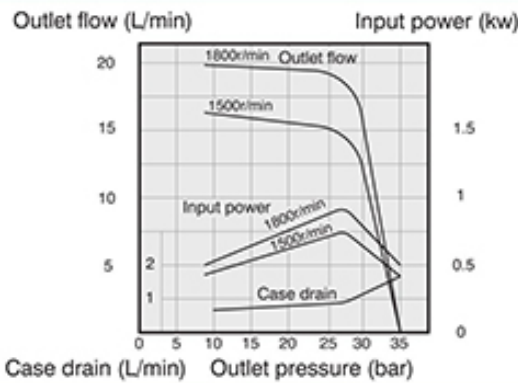
**PVF-12-35-10**



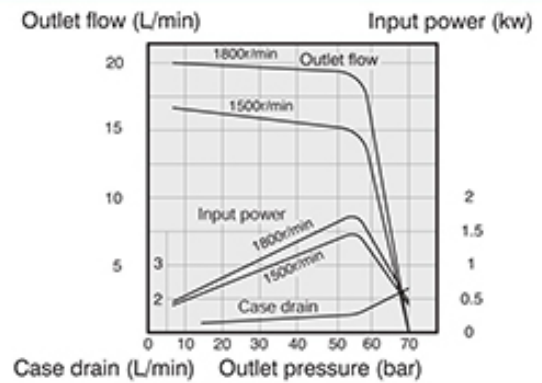
**PVF-12-70-10**



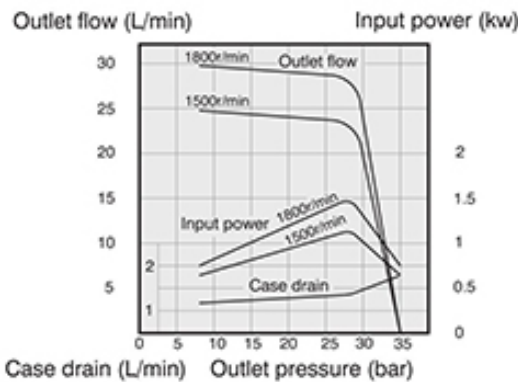
**PVF-20-35-10**



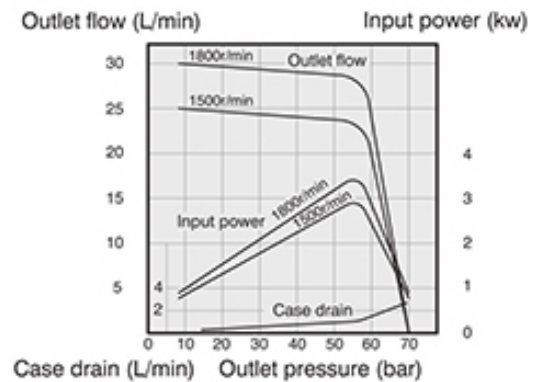
**PVF-20-70-10**



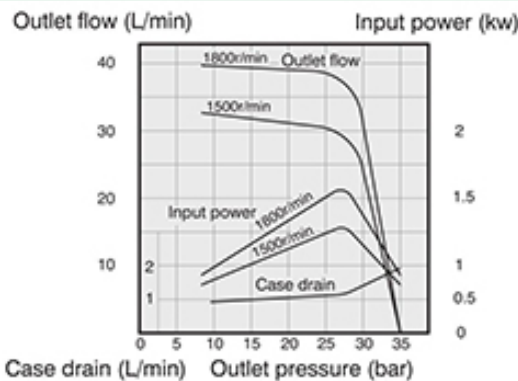
**PVF-30-35-11**



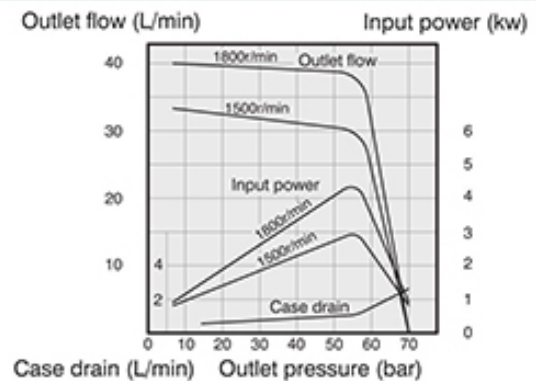
**PVF-30-70-11**



**PVF-40-35-11**



**PVF-40-70-11**



# Variable Displacement Vane Pumps

VP5F series

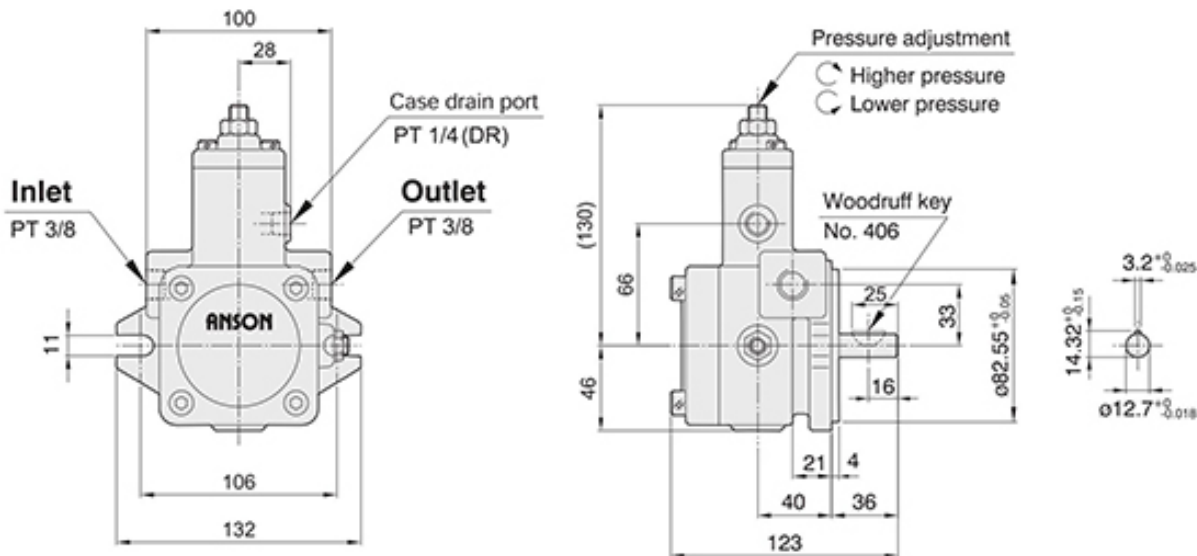
PVF series

VD/SVD series

TPF series

**PVF-8(12) - ※※-10**

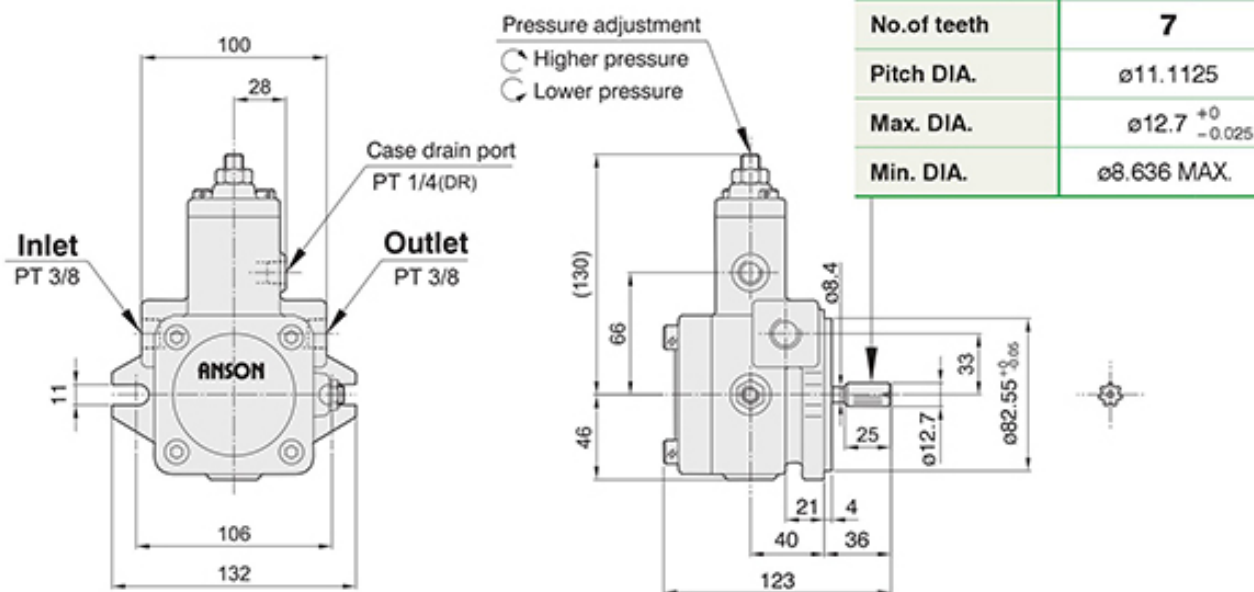
**Woodruff Key**



Note: Above type, without flow adjustment equipment.

**PVF-8(12) - ※※-10S**

**Splined Shafts**

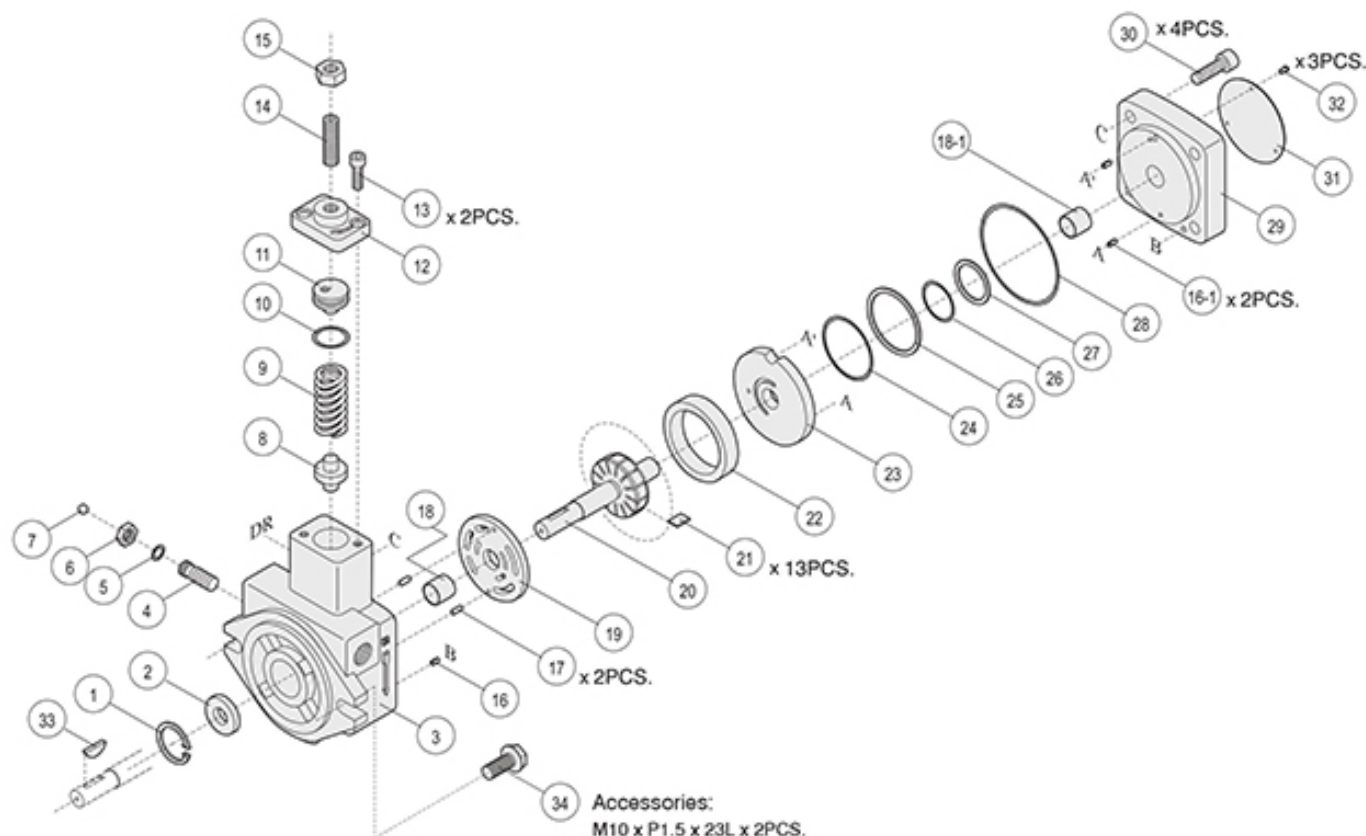


Note: Above type, without flow adjustment equipment.

# PVF series

PVF-8(12) - ※※-10

Woodruff Key Assembly



## PVF-8(12)-※※-10 Parts List

NO.	Description	Specification	Qty	NO.	Description	Specification	Qty
1	Retainer Ring	R28	1	19	Port Plate		1
2	Shaft Seal	TC 14 28 7	1	20	Rotorshaft		1
3	Pump Body		1	21	Vanes		13
4	Thrust screw		1	22	Cam Ring		1
5	O-Ring	1A-P8	1	23	Thrust Plate		1
6	Hexagon Nut		1	24	O-Ring	A5568-031	1
7	Plastic Plug		1	25	Endless Back-up Ring		1
8	Piston		1	26	O-Ring	A5568-023	1
9	Spring		1	27	Endless Back-up Ring		1
10	O-Ring	1A-P20	1	28	O-Ring	1A-S71	1
11	Spring Retainer		1	29	Cover		1
12	Cover		1	30	Skt. HD. Cap Scr.	M8 x P1.25 x 30L	4
13	Skt. HD. Cap Scr.	M6 x P1.0 x 20L	2	31	Name Plate		1
14	Socket Set Screw	M10 x P1.5 x 35L	1	32	Fixing Screw		3
15	Hexagon Nut	M10 x P1.5	1	33	Woodruff Key	NO.406	1
16	Spring Pin	ø3 x 8	1	34	Hexagon Screw	M10 x P1.5 x 23L	2
16-1	Spring Pin	ø3 x 8	2				
17	Straight Pin	ø3 x 8	2				
18	Engine Bush	1415	1				
18-1	Engine Bush	1415	1				

※ 34 are Accessories.

# Variable Displacement Vane Pumps

**ANSON**<sup>®</sup>  
HYDRAULICS

VP5F series

PVF series

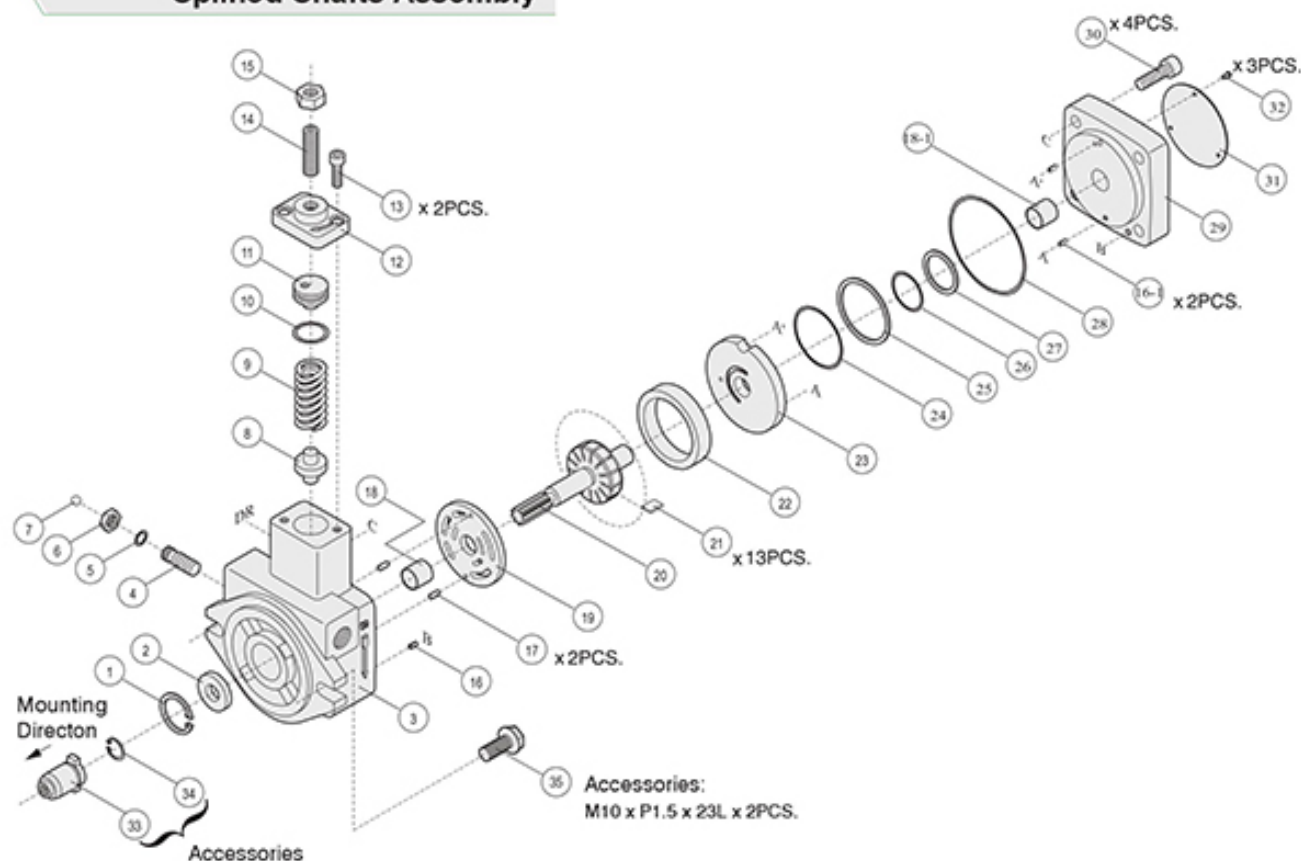
VD/SVD series

TPF series

PVF

**PVF-8(12) - ※※-10S**

**Splined Shafts Assembly**



## PVF-8(12)-※※-10S Parts List

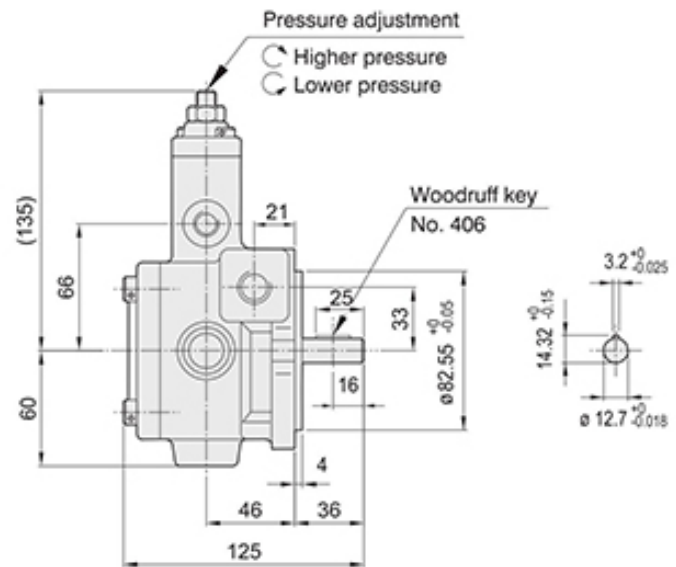
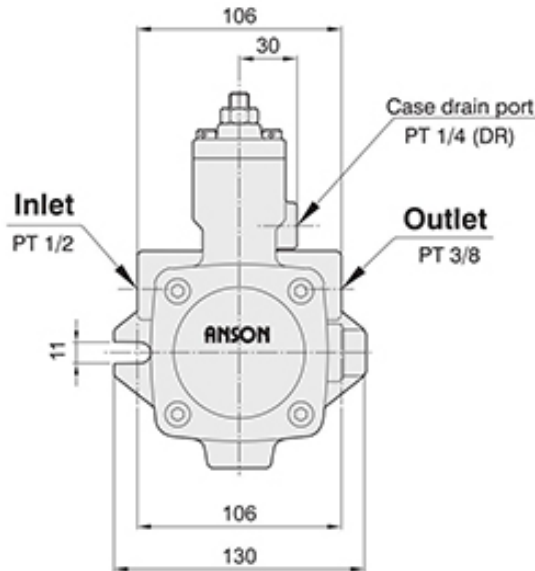
NO.	Description	Specification	Qty	NO.	Description	Specification	Qty
1	Retainer Ring	R28	1	19	Port Plate		1
2	Shaft Seal	TC 14 28 7	1	20	Rotorshaft		1
3	Pump Body		1	21	Vanes		13
4	Thrust screw		1	22	Cam Ring		1
5	O-Ring	1A-P8	1	23	Thrust Plate		1
6	Hexagon Nut		1	24	O-Ring	AS568-031	1
7	Plastic Plug		1	25	Endless Back-up Ring		1
8	Piston		1	26	O-Ring	AS568-023	1
9	Spring		1	27	Endless Back-up Ring		1
10	O-Ring	1A-P20	1	28	O-Ring	1A-S71	1
11	Spring Retainer		1	29	Cover		1
12	Cover		1	30	Skt. HD. Cap Scr.	M8×P1.25×30L	4
13	Skt. HD. Cap Scr.	M6×P1.0×20L	2	31	Name Plate		1
14	Socket Set Screw	M10×P1.5×35L	1	32	Fixing Screw		3
15	Hexagon Nut	M10×P1.5	1	33	Coupling (Hexagon Nut)	(M10×P1.5)	1
16	Spring Pin	ø3×8	1	34	Retainer Ring	IRTV 20	1
16-1	Spring Pin	ø3×8	2	35	Hexagon Screw	M10×P1.5×23L	2
17	Straight Pin	ø3×8	2				
18	Engine Bush	1415	1				
18-1	Engine Bush	1415	1				

※ 33-35 are Accessories.

# PVF series

## PVF-15(20) - ※※-10

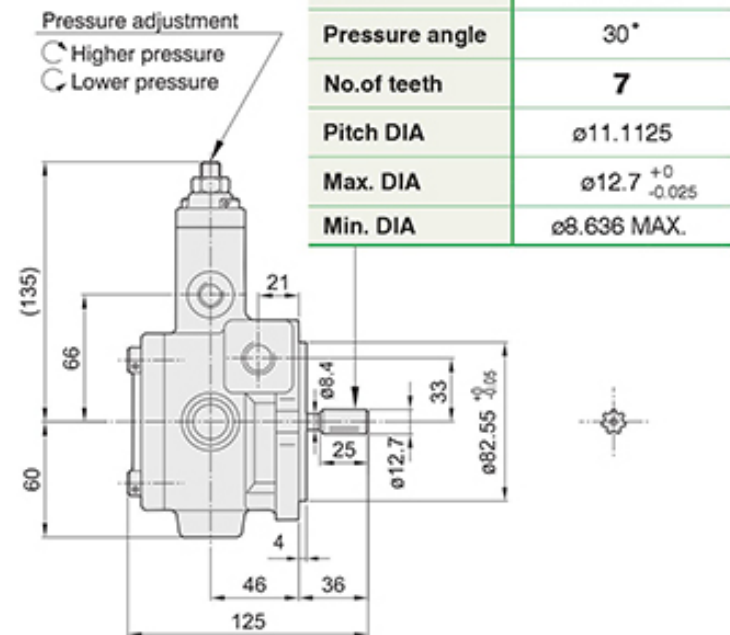
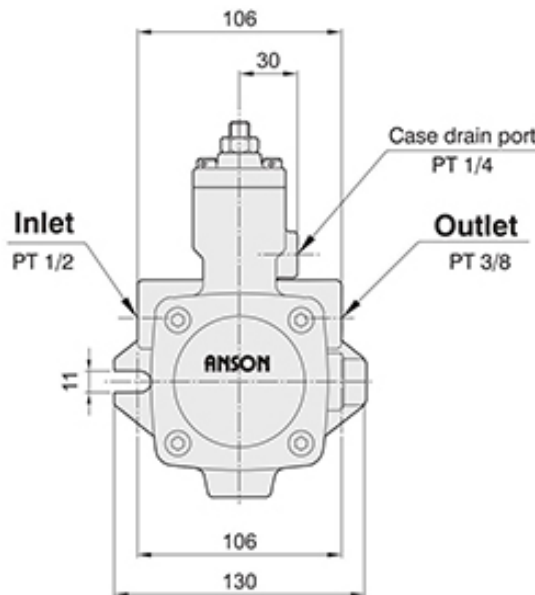
### Woodruff Key



Note: Above type, without flow adjustment equipment.

## PVF-15(20) - ※※-10S

### Splined Shafts



Note: Above type, without flow adjustment equipment.

# Variable Displacement Vane Pumps

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VP5F series

PVF series

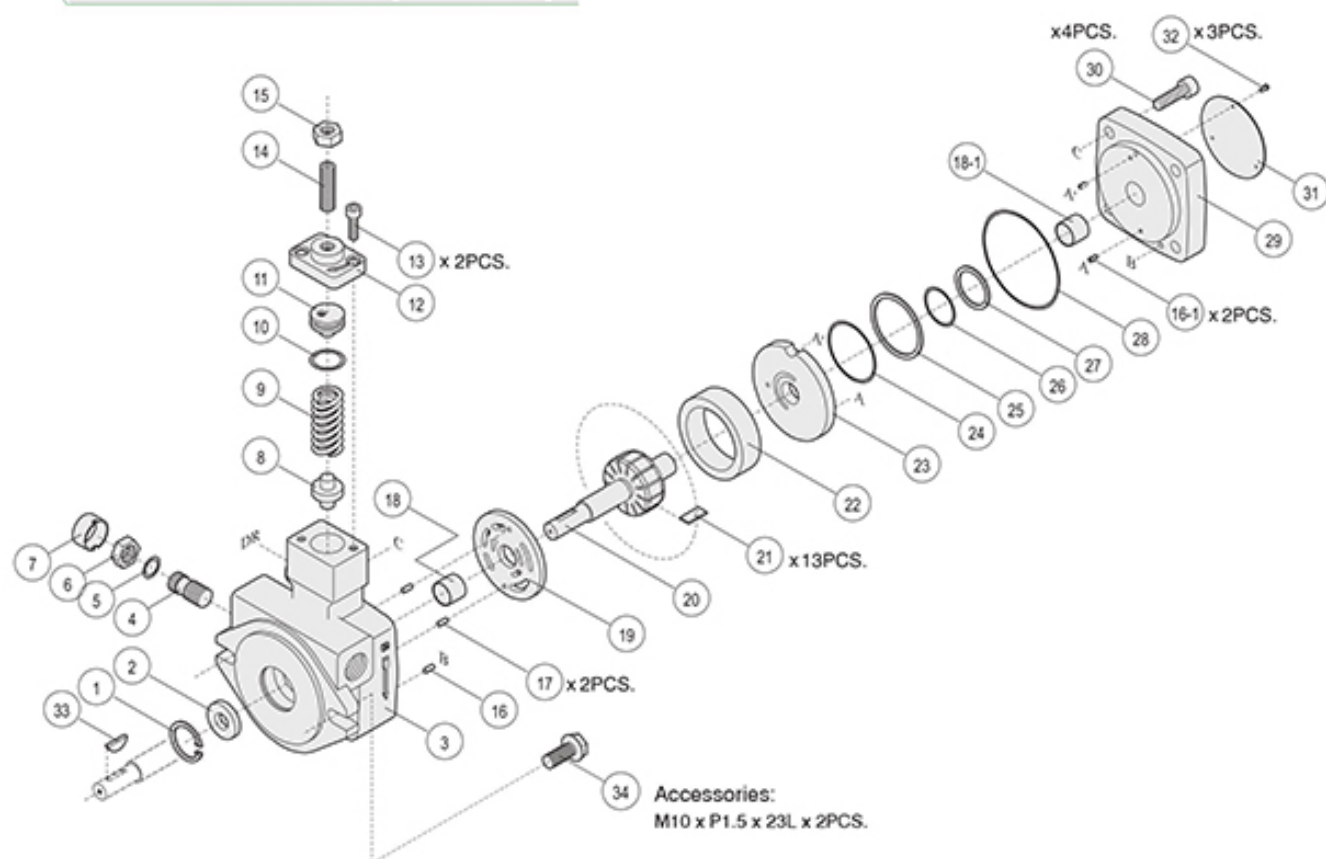
VD/SVD series

TPF series

PVF

**PVF-15(20) - ※※-10**

**Woodruff Key Assembly**



## PVF-15(20)-※※-10 Parts List

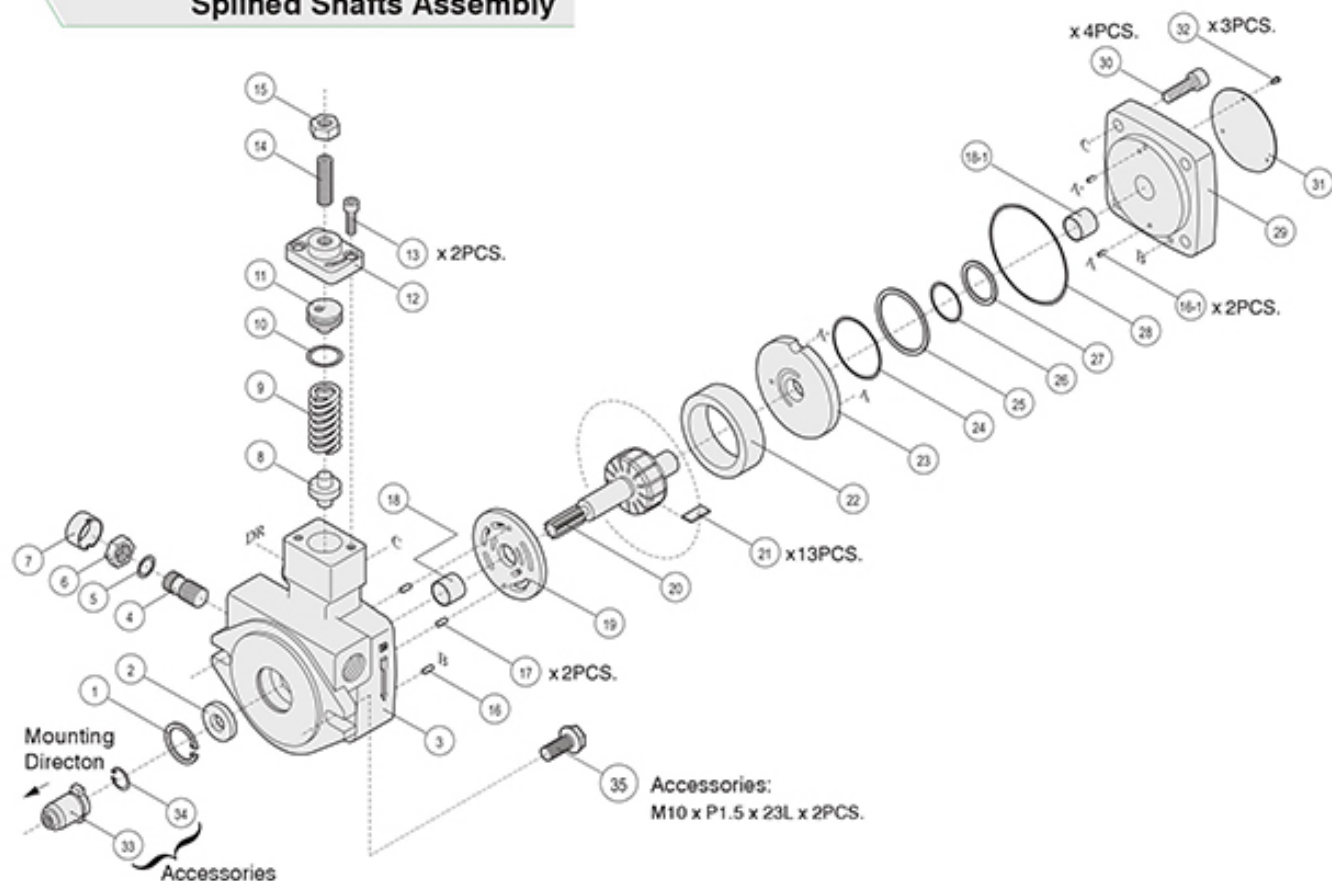
NO.	Description	Specification	Q'ty	NO.	Description	Specification	Q'ty
1	Retainer Ring	R28	1	19	Port Plate		1
2	Shaft Seal	TC 16 28 7	1	20	Rotorshaft		1
3	Pump Body		1	21	Vanes		13
4	Thrust screw		1	22	Cam Ring		1
5	O-Ring	1A-P12	1	23	Thrust Plate		1
6	Hexagon Nut		1	24	O-Ring	AS568-031	1
7	Cap		1	25	Endless Back-up Ring		1
8	Piston		1	26	O-Ring	AS568-023	1
9	Spring		1	27	Endless Back-up Ring		1
10	O-Ring	1A-P20	1	28	O-Ring	1A-S75	1
11	Spring Retainer		1	29	Cover		1
12	Cover		1	30	Skt. HD. Cap Scr.	M8 x P1.25 x 30L	4
13	Skt. HD. Cap Scr.	M6 x P1.0 x 20L	2	31	Name Plate		1
14	Socket Set Screw	M10 x P1.5 x 35L	1	32	Fixing Screw		3
15	Hexagon Nut	M10 x P1.5	1	33	Woodruff Key	NO.406	1
16	Spring Pin	ø3 x 8	1	34	Hexagon Screw	M10 x P1.5 x 23L	2
16-1	Spring Pin	ø3 x 8	2				
17	Straight Pin	ø3 x 8	2				
18	Engine Bush	1615	1				
18-1	Engine Bush	1615	1				

※ 34 are Accessories.

# PVF series

**PVF-15(20) - ※※-10S**

**Spined Shafts Assembly**



## PVF-15(20)-※※-10S Parts List

NO.	Description	Specification	Qty	NO.	Description	Specification	Qty
1	Retainer Ring	R28	1	19	Port Plate		1
2	Shaft Seal	TC 16 28 7	1	20	Rotorshaft		1
3	Pump Body		1	21	Vanes		13
4	Thrust screw		1	22	Cam Ring		1
5	O-Ring	1A-P12	1	23	Thrust Plate		1
6	Hexagon Nut		1	24	O-Ring	A5568-031	1
7	Cap		1	25	Endless Back-up Ring		1
8	Piston		1	26	O-Ring	A5568-023	1
9	Spring		1	27	Endless Back-up Ring		1
10	O-Ring	1A-P20	1	28	O-Ring	1A-S75	1
11	Spring Retainer		1	29	Cover		1
12	Cover		1	30	Skt. HD. Cap Scr.	M8×P1.25×30L	4
13	Skt. HD. Cap Scr.	M6×P1.0×20L	2	31	Name Plate		1
14	Socket Set Screw	M10×P1.5×35L	1	32	Fixing Screw		3
15	Hexagon Nut	M10×P1.5	1	33	Coupling (Hexagon Nut)	(M10×P1.5)	1
16	Spring Pin	ø3×8	1	34	Retainer Ring	IRTY20	1
16-1	Spring Pin	ø3×8	2	35	Hexagon Screw	M10×P1.5×23L	2
17	Straight Pin	ø3×8	2				
18	Engine Bush	1615	1				
18-1	Engine Bush	1615	1				

③ 33-35 are Accessories.

# Variable Displacement Vane Pumps

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HYDRAULICS

VP5F series

PVF series

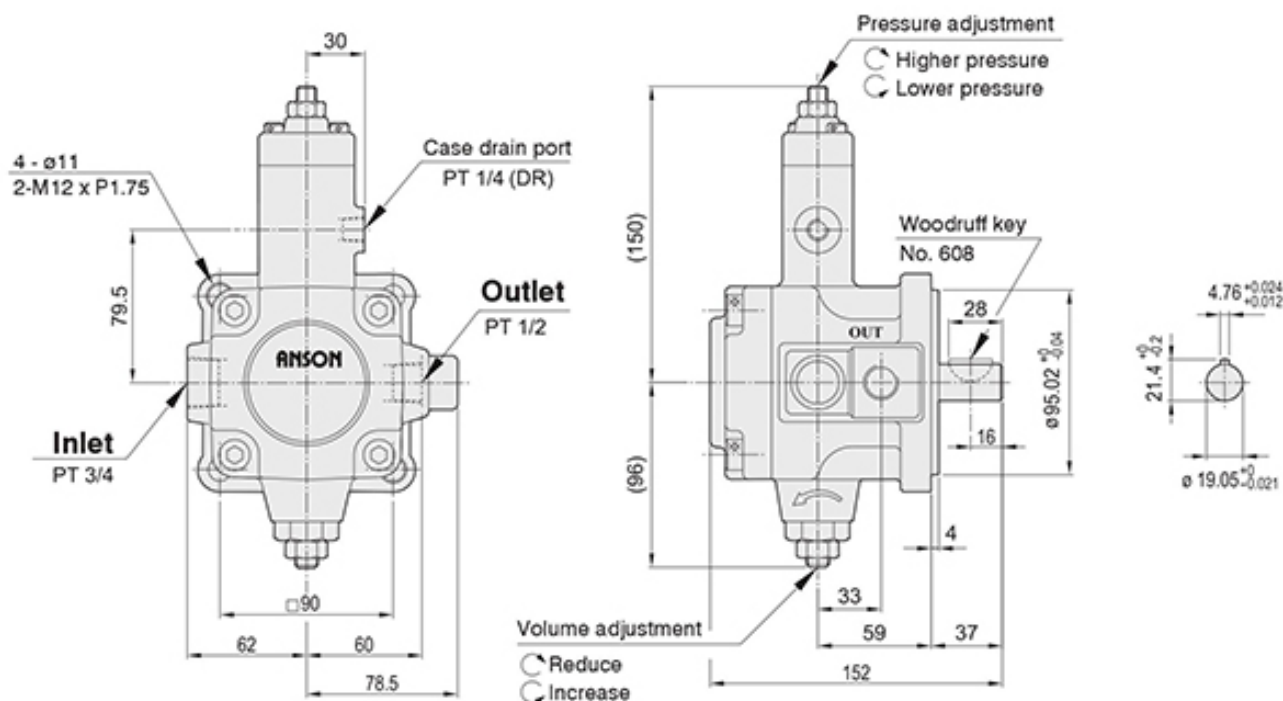
VD/SVD series

TPF series

PVF

**PVF-30(40) - ※※-11**

**Woodruff Key**

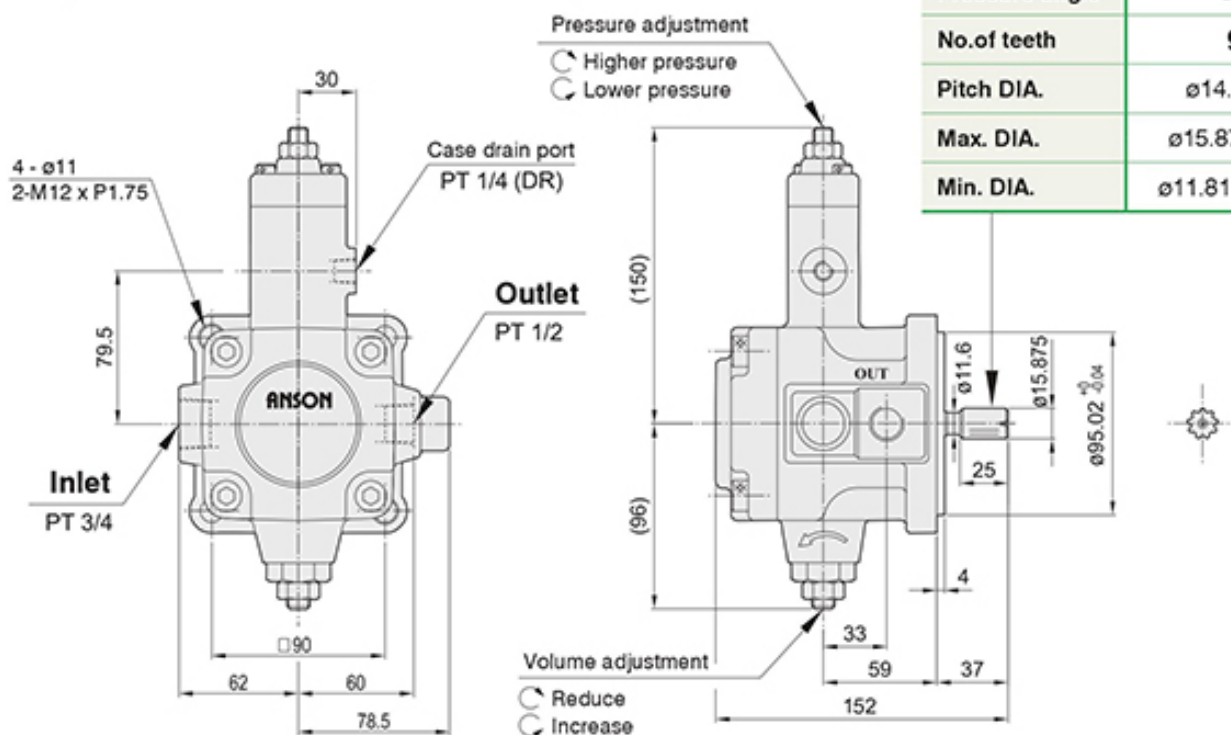


**PVF-30(40) - ※※-11S**

**Splined Shafts**

ANSI B92.1 CLASS 5

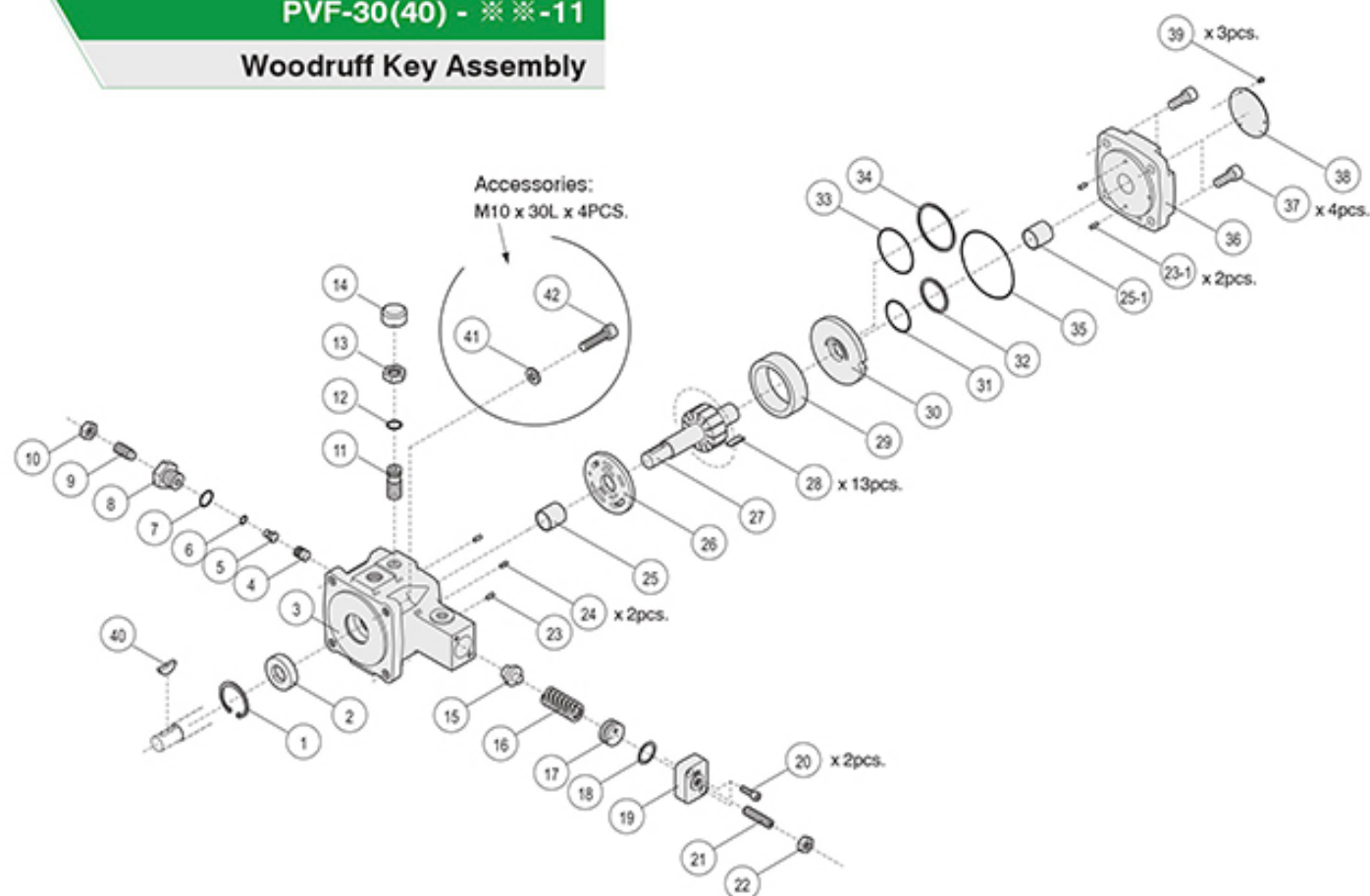
Module	D.P.16/32
Pressure angle	30°
No. of teeth	<b>9</b>
Pitch DIA.	ø14.2875
Max. DIA.	ø15.875 <sup>+0</sup> / <sub>-0.05</sub>
Min. DIA.	ø11.811 MAX.



# PVF series

PVF-30(40) - ※※-11

Woodruff Key Assembly



## PVF-30(40)-※※-11 Parts List

NO.	Description	Specification	Qty	NO.	Description	Specification	Qty
1	Retainer Ring	R42	1	23-1	Spring Pin	ø4×10	2
2	Shaft Seal	TC 22 42 11	1	24	Straight Pin	ø4×10	2
3	Pump Body		1	25	Engine Bush	2225	1
4	Piston (B)		1	25-1	Engine Bush	2225	1
5	Piston (A)		1	26	Port Plate		1
6	O-Ring	1A-P5	1	27	Rotorshaft		1
7	O-Ring	1A-P22	1	28	Vanes		13
8	Thrust Screw		1	29	Cam Ring		1
9	Socket Set Screw	M12×P1.75×25L	1	30	Thrust Plate		1
10	Hexagon Nut	M12×P1.75	1	31	O-Ring	A5568-030	1
11	Slide Screw		1	32	Endless Back-up Ring		1
12	O-Ring	1A-P14	1	33	O-Ring	A5568-035	1
13	Hexagon Nut	M16×P1.0	1	34	Endless Back-up Ring		1
14	Cap		1	35	O-Ring	1A-S85	1
15	Piston		1	36	Cover		1
16	Spring		1	37	Skt. HD. Cap Scr.	M10×P1.5×25L	4
17	Spring Retainer		1	38	Name Plate		1
18	O-Ring	1A-P22A	1	39	Fixing Screw		3
19	Cover		1	40	Woodruff Key	NO.608	1
20	Skt. HD. Cap Scr.	M6×P1.0×20L	2	41	Spring Washer	M10	4
21	Socket Set Screw	M10×P1.5×35L	1	42	Skt. HD. Cap Scr.	M10×P1.5×30L	4
22	Hexagon Nut	M10×P1.5	1				
23	Spring Pin	ø4×10	1				

※ 41-42 are Accessories.

# Variable Displacement Vane Pumps

**ANSON**<sup>®</sup>  
HYDRAULICS

VP5F series

PVF series

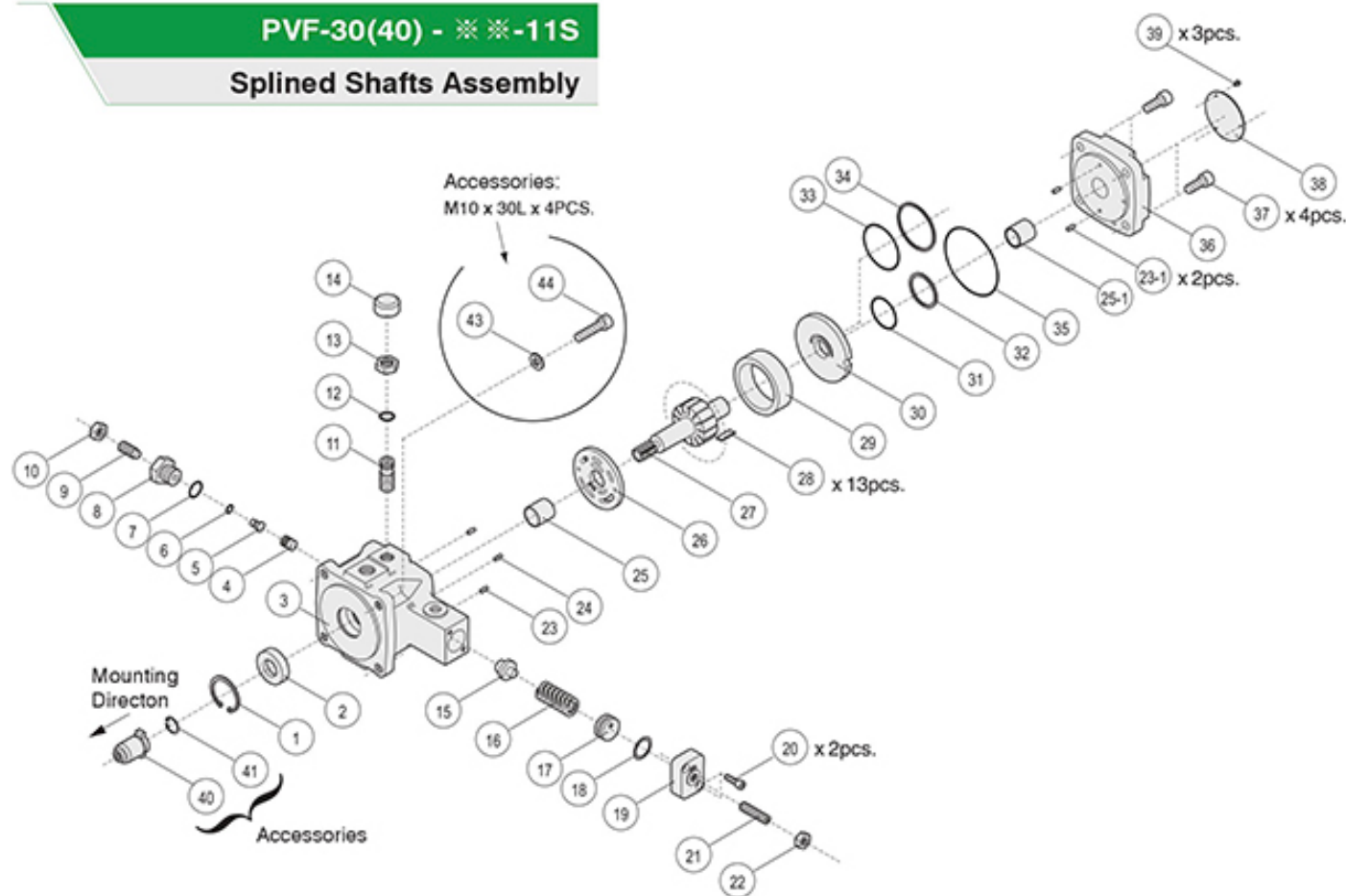
VD/SVD series

TPF series

PVF

**PVF-30(40) - ※※-11S**

**Splined Shafts Assembly**



## PVF-30(40)-※※-11S Parts List

NO.	Description	Specification	Qty	NO.	Description	Specification	Qty
1	Retainer Ring	R42	1	24	Straight Pin	ø4×10	2
2	Shaft Seal	TC 22 42 11	1	25	Engine Bush	2225	1
3	Pump Body		1	25-1	Engine Bush	2225	1
4	Piston (B)		1	26	Port Plate		1
5	Piston (A)		1	27	Rotorshaft		1
6	O-Ring	1A-P5	1	28	Vanes		13
7	O-Ring	1A-P22	1	29	Cam Ring		1
8	Thrust Screw		1	30	Thrust Plate		1
9	Socket Set Screw	M12×P1.75×25L	1	31	O-Ring	AS568-030	1
10	Hexagon Nut	M12×P1.75	1	32	Endless Back-up Ring		1
11	Slide Screw		1	33	O-Ring	AS568-035	1
12	O-Ring	1A-P14	1	34	Endless Back-up Ring		1
13	Hexagon Nut	M16×P1.0	1	35	O-Ring	1A-S95	1
14	Cap		1	36	Cover		1
15	Piston		1	37	Skt. HD. Cap Scr.	M10×P1.5×25L	4
16	Spring		1	38	Name Plate		1
17	Spring Retainer		1	39	Fixing Screw		3
18	O-Ring	1A-P22A	1	40	Coupling (Hexagon Nut)	(M10×P1.5)	1
19	Cover		1	41	Retainer Ring	IRTW 24	1
20	Skt. HD. Cap Scr.	M6×P1.0×20L	2	42	Spring Washer	M10	4
21	Socket Set Screw	M10×P1.5×35L	1	43	Skt. HD. Cap Scr.	M10×P1.5×30L	4
22	Hexagon Nut	M10×P1.5	1				
23	Spring Pin	ø4×10	1				
23-1	Spring Pin	ø4×10	2				

※ 40--43 are Accessories.