

Care in Application

Power Unit Circuit

In variable displacement vane Pump systems , the close circuit is recommended.

Sharp Characteristics and Quick Response

Quick response is displayed in both off-on control of operation , due to use special design "BIAS PISTON". Stable and accurate operation can be attained in an instant.

Low Noise Level (even in the high pressure range)

The noise level(dB)is very low , even in the high pressure dut to used of "JOURNAL BEARING" , special setting and shape modification of the suction and delivery ports.

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 series with many new mechanisms of our new design.

Sturdy Structure for Durable Life

High durability is assured by the sturdy construction based on our rich experience and know how as well as strict selection of materials and high precision machining.

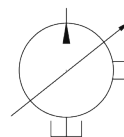
Stable and highly efficient performance is possible even under severe operating conditions.

Shaft Rotation

Clockwise rotation viewed from the shaft end is standard.

Fluids Permissible

When working pressure lower than 70 bar , Hydraulic oil with a viscosity from 30 ~ 50(cst) (VG32) at 40°C is recommended.



SYMBOL

Drain Pipe

External drain control type. Drain connection must be piped directly to tank and back pressure must not exceed 0.3 bar.

Oil Temperature Range

Oil temperature range should be from 15°C~ 60°C during running operation and should be more than 7°C at starting.

Alignment and Installation of Pumps

In case the pump is connected to an electric motor , limit the defection of the alignment between the shafts to 0.05 mm TIR , and angle ± 1 degree.

Be sured the electric motor direction is accordingly with the pump's shaft before starting.

Suction Port min. Pressure

Suction port minimum working pressure is ± 0.03 bar.

Pressure Adjustment

The pressure will be increased with the pressure adjusting screw is turned clockwise and will be reduced when the adjusting screw is turned counter-clockwise.

Cautions for Starting

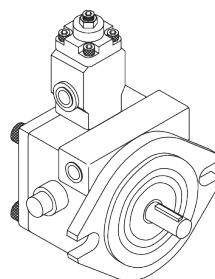
When the pump is to be operated for the first time , place the pump delivery side in NO-Load condition and repeat starting and stopping of the motor for several times to eject the air from inside of the pump and piping. If keep on 10 minutes operation will be much better.

WINMAN Variable Single Features & Ordering Code

VPKCF8
VPKCF12
VPKCF15
VPKCF20



SYMBOL


FEATURES

Model	Operating Pressure (Kgf / cm ²)		Rated Speed (rpm)		Net Weight
			MAX	MIN	
VPKCF8	A1: 5-18	A2:15-35	1800	800	4.8Kg
	A3:30-55	A4:50-70			
VPKCF12	A1: 5-18	A2:15-35	1800	800	4.8Kg
	A3:30-55	A4:50-70			
VPKCF15	A1: 5-18	A2:15-35	1800	800	5.2Kg
	A3:30-55	A4:50-70			
VPKCF20	A1: 5-18	A2:15-35	1800	800	5.2Kg
	A3:30-55	A4:50-70			

ORDERING CODE

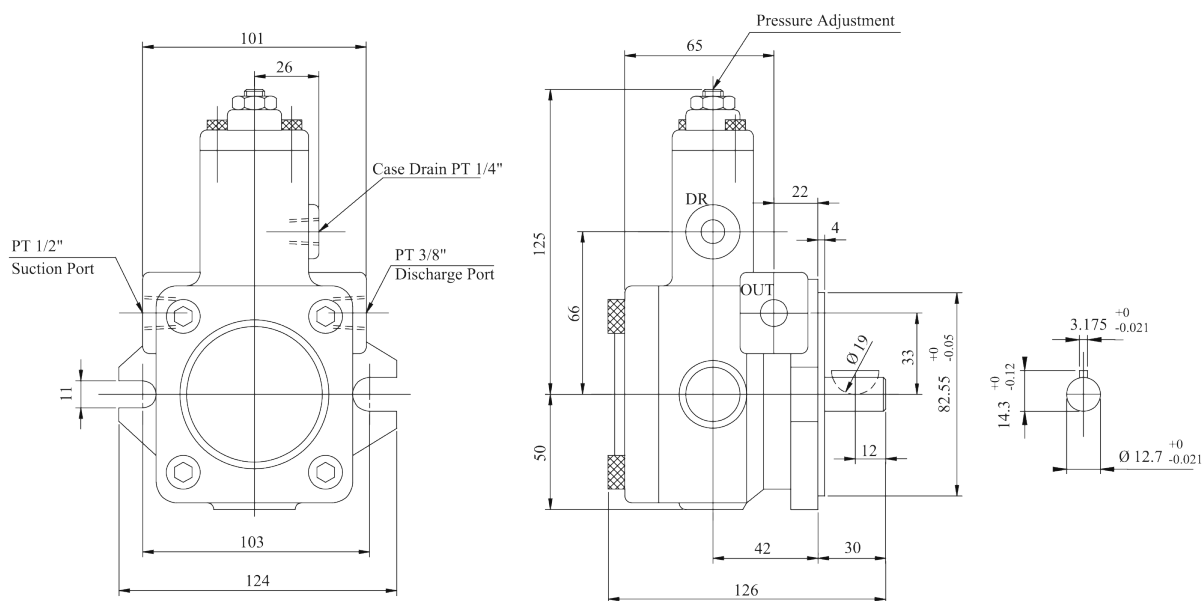
VPKC-F*A*-01-A

① ②③ ④ ⑤ ⑥

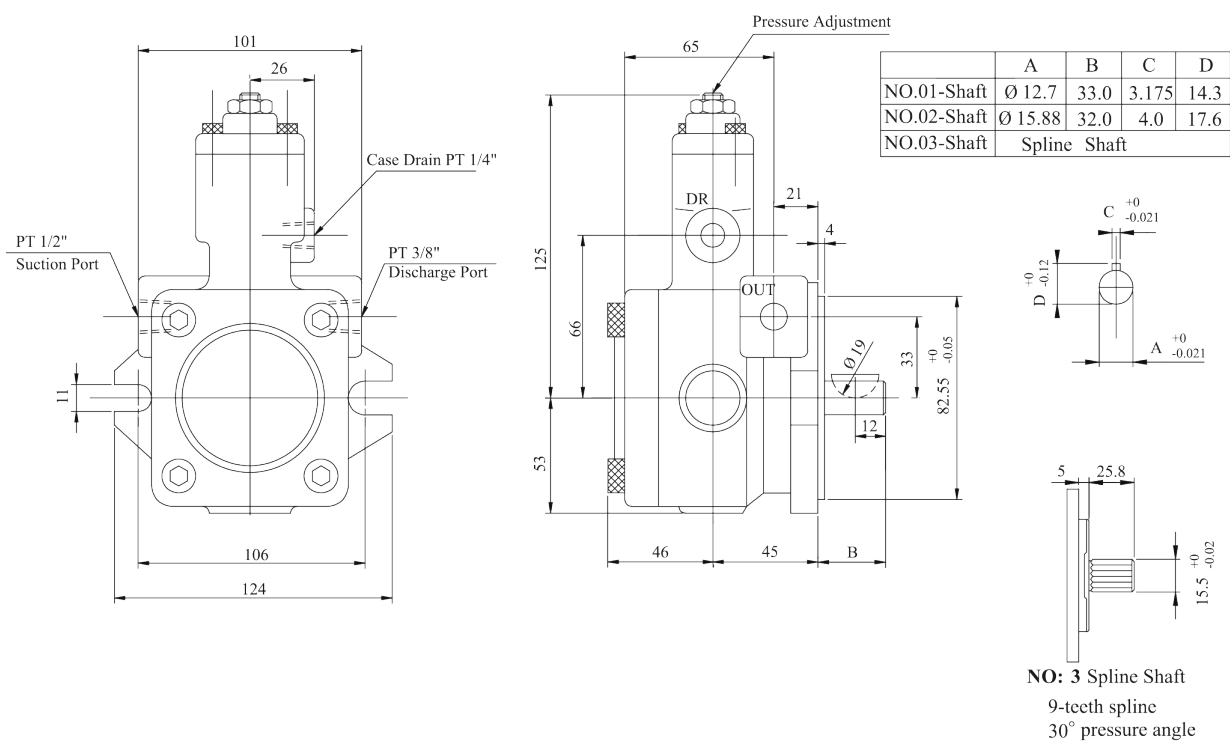
- ①—— Series Number
- ②—— Flange Type
- ③—— Output Flow at 1800rpm
8,12,15,20 (ℓ /min)
- ④—— Pressure Adjusting Range
1:5-18 2:15-35 (Kgf/cm²)
3:30-55 4:50-70
- ⑤—— Shaft Type
01:No.01 Shaft
02:No.02 Shaft
- ⑥—— Type of Suction Port & Discharge Port
A or No Marking: PT
B: NPT
C: SAE
D: BSP

WINMAN Variable Single Pump Dimensional Drawing

VPKCF12

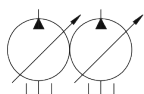


VPKCF20

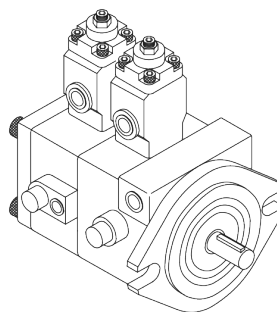


WINMAN Variable Double Pump Ordering Code

VPKCCF12.12
VPKCCF15.15
VPKCCF20.20



SYMBOL



ORDERING CODE

VPKCC- FA*A*-01-A**

① ②③④ ⑤ ⑥ ⑦ ⑧

Net Weight:9.5Kg

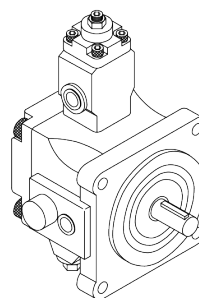
- ①—— Series Number
Double Pump
- ②—— Flange Type
- ③—— Output Flow
Shaft End Pump at 1800rpm
12,15,20 (ℓ /min)
- ④—— Output Flow
Cover End Pump at 1800rpm
12,15,20 (ℓ /min)
- ⑤—— Pressure Range
of Shaft End Pump (P1)
1:5-18 2:15-35
3:30-55 4:50-70 (Kgf/cm²)
- ⑥—— Pressure Range
of Cover End Pump (P2)
1:5-18 2:15-35
3:30-55 4:50-70 (Kgf/cm²)
- ⑦—— Shaft Type
- ⑧—— Type of Suction Port & Discharge Port
A or No Marking: PT
B: NPT
C: SAE
D: BSP

WINMAN Variable Single Pump Features & Ordering Code

VPKCF23
VPKCF26
VPKCF30
VPKCF40



SYMBOL


FEATURES

Model	Operating Pressure (Kg _f / cm ²)		Rated Speed (rpm)		Net Weight
			MAX	MIN	
VPKCF23	A1: 5-18 A3:30-55	A2:15-35 A4:50-70	1800	800	9.0Kg
VPKCF26	A1: 5-18 A3:30-55	A2:15-35 A4:50-70	1800	800	9.0Kg
VPKCF30	A1: 5-18 A3:30-55	A2:15-35 A4:50-70	1800	800	9.0Kg
VPKCF40	A1: 5-18 A3:30-55	A2:15-35 A4:50-70	1800	800	9.0Kg

ORDERING CODE

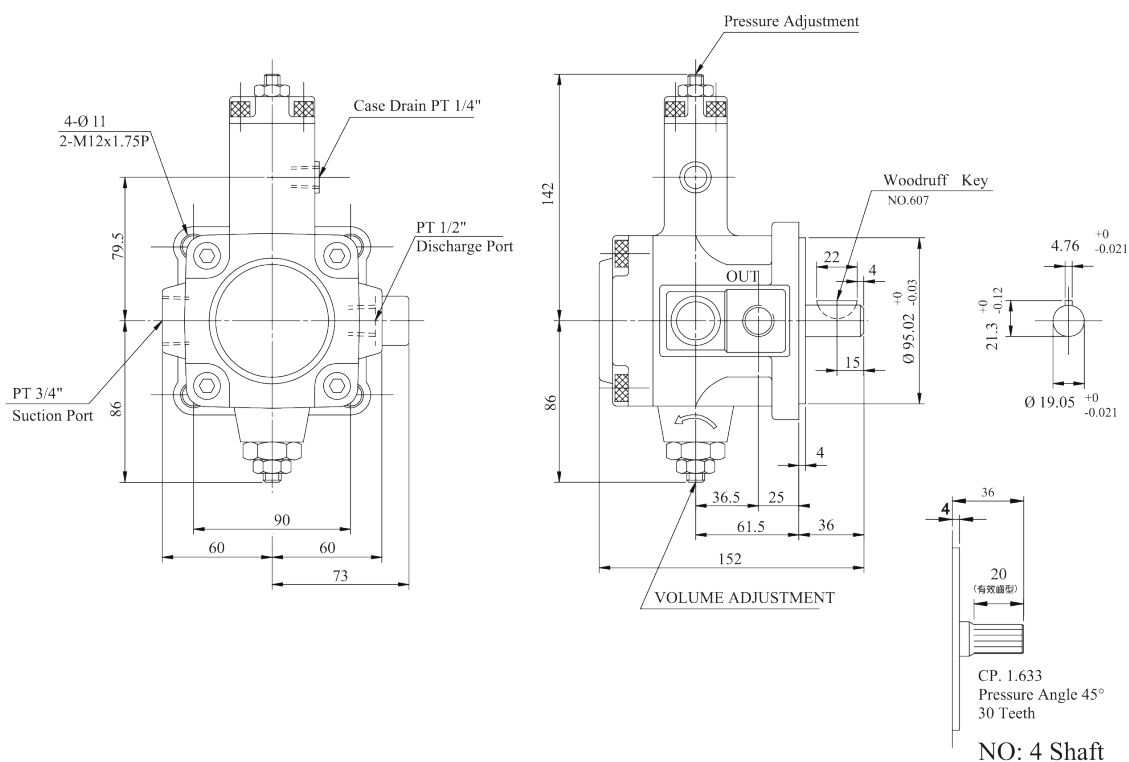
VPKC-F*A*-01-A

① ②③ ④ ⑤ ⑥

- ①—— Series Number
- ②—— Flange Type
- ③—— Output Flow at 1800rpm
23,26,30,40 (ℓ /min)
- ④—— Pressure Adjusting Range
1:5-18 2:15-35
3:30-55 4:50-70 (Kg_f/cm²)
- ⑤—— Shaft Type
- ⑥—— Type of Suction Port & Discharge Port Type
A or No Marking: PT
B: NPT
C: SAE
D: BSP

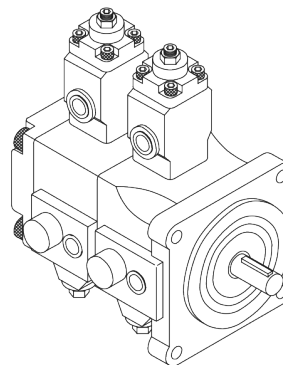
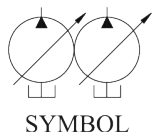
WINMAN Variable Single Pump Dimensional Drawing

VPKCF30



WINMAN Variable Double Pump Ordering Code

VPKCCF23.23
VPKCCF26.26
VPKCCF30.30
VPKCCF40.40



ORDERING CODE

VPKCC- FA*A*-01-A**

Net Weight:16Kg

①

②③④

⑤

⑥

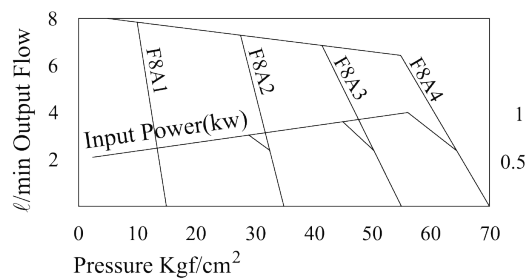
⑦

⑧

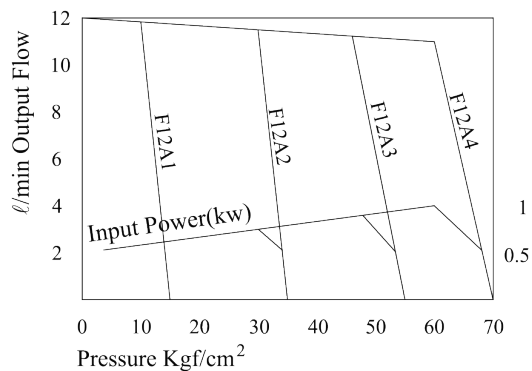
- ①—— Series Number
Double Pump
- ②—— Flange Type
- ③—— Output Flow
Shaft End Pump at 1800rpm
23,26,30,40 (ℓ /min)
- ④—— Output Flow
Cover End Pump at 1800rpm
23,26,30,40 (ℓ /min)
- ⑤—— Pressure Range
of Shaft End Pump (P1)
1:5-18 2:15-35
3:30-55 4:50-70 (Kg_f/cm²)
- ⑥—— Pressure Range
of Cover End Pump (P2)
1:5-18 2:15-35
3:30-55 4:50-70 (Kg_f/cm²)
- ⑦—— Shaft Type
- ⑧—— Type of Suction Port & Discharge Port
A or No Marking: PT
B: NPT
C: SAE
D: BSP

WINMAN Variable Displacement Vane Pump Typical Performance Characteristics

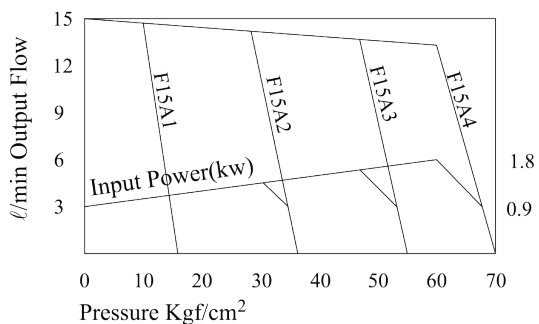
VPKCF8



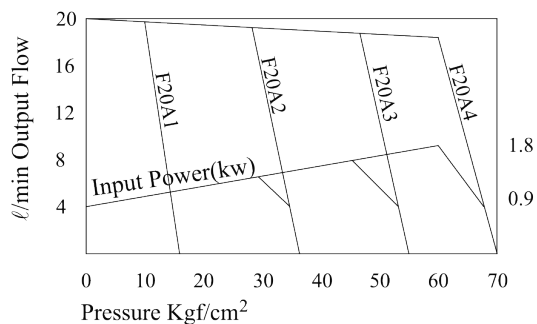
VPKCF12



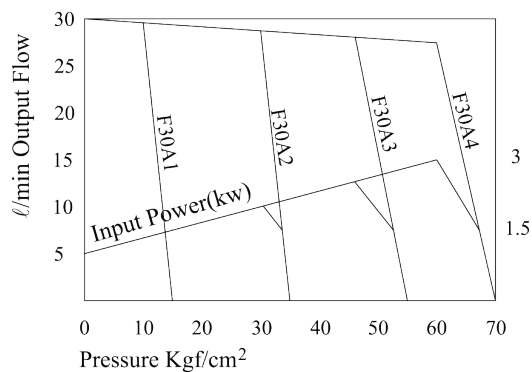
VPKCF15



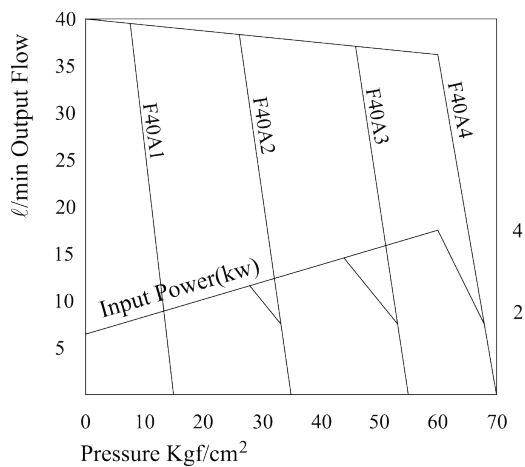
VPKCF20

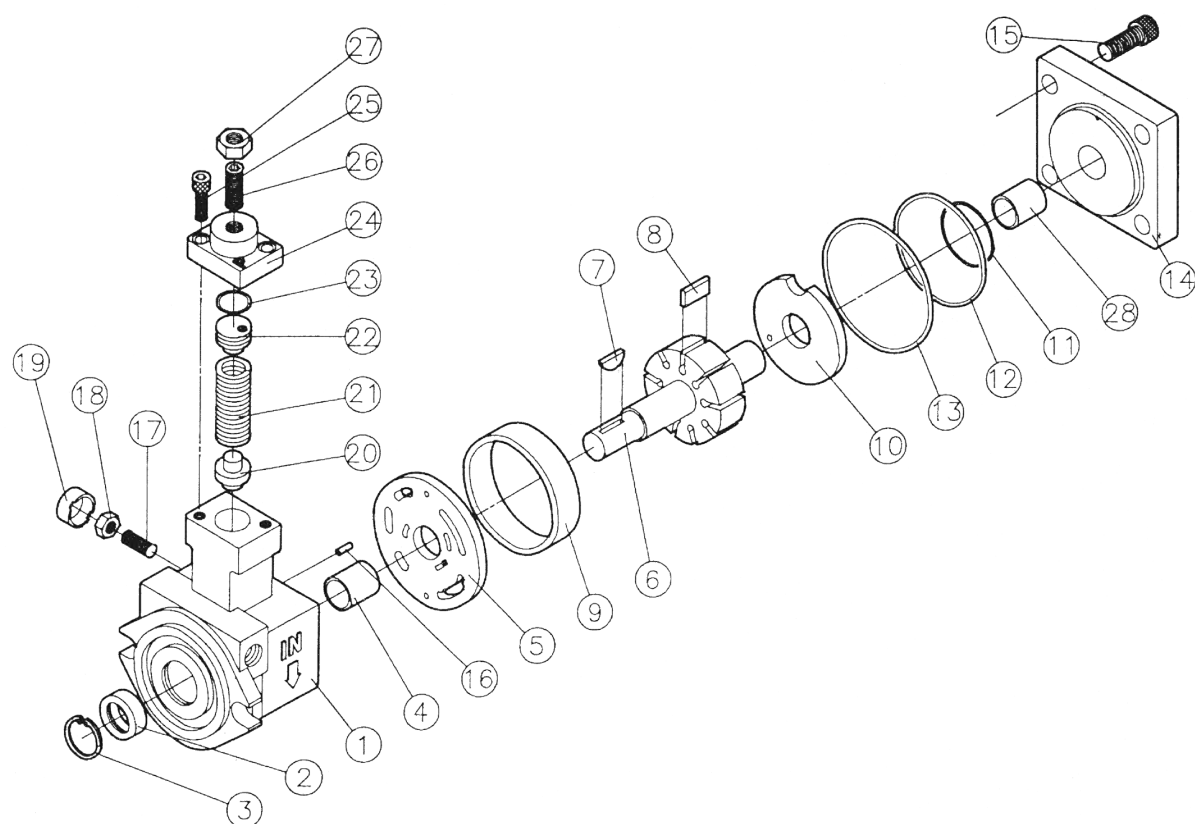


VPKCF30



VPKCF40



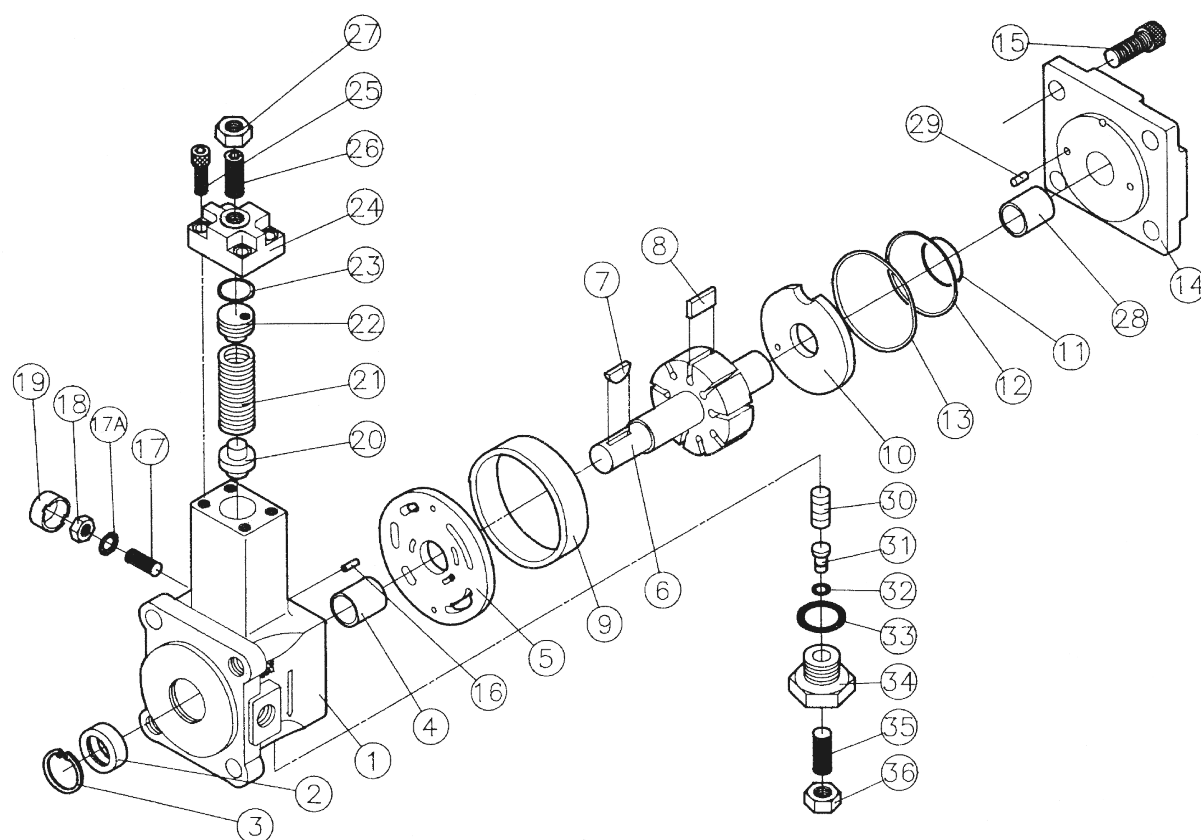


VPKC (F8, F12, F15, F20)

NO.1 Housing	NO.17 O - Ring + Slide Screw
NO.2 Seal	NO.18 Nut
NO.3 Retainer Ring	NO.19 Protect Cover
NO.4 Engine Bush	NO.20 Piston
NO.5 Port Plate A	NO.21 Spring
NO.6 Rotor	NO.22 Spring Retainer
NO.7 Woodruff Key	NO.23 O - Ring
NO.8 Vanes	NO.24 Cover
NO.9 Cam Ring	NO.25 Socket Head Cap-Screw
NO.10 Port Plate B	NO.26 Socket Set Screw
NO.11 O - Ring	NO.27 Nut
NO.12 O - Ring	
NO.13 O - Ring	
NO.14 Cover	
NO.15 Cap-Screw	
NO.16 Lock Pin	

WINMAN VPKC Series Single Pump Decomposition Chart

VPKC (F23, F26, F30, F40)



VPKC Single Pump Parts List

VPKC (F8, F12, F15, F20)

- | | |
|--------------------|-----------------------------|
| No.1 Housing | No.19 Cap |
| No.2 Seal | No.20 Piston |
| No.3 Retainer Ring | No.21 Spring |
| No.4 Engine Bush | No.22 Spring Retainer |
| No.5 Port Plate A | No.23 O-Ring |
| No.6 Rotor | No.24 Cover |
| No.7 Woodruff Key | No.25 Socket Head Cap-Screw |
| No.8 Vanes | No.26 Socket Set Screw |
| No.9 Cam Ring | No.27 Nut |
| No.10 Port Plate B | No.28 Engine Bush |
| No.11 O-Ring | No.29 Lock Pin |
| No.12 O-Ring | No.30 Piston |
| No.13 O-Ring | No.31 Piston |
| No.14 Cover | No.32 O-Ring |
| No.15 Cap-Screw | No.33 O-Ring |
| No.16 Lock Pin | No.34 Thrust Screw |
| No.17 Slide Screw | No.35 Socket Set Screw |
| No.17A O-Ring | No.36 Nut |
| No.18 Nut | |