

# Vane Pumps & Parts

V10/V10F/NF/P V20/V20F/NF/P V2010\*, V2020\*F/NF/P

- Standards and Specials including Caterpillar Pumps
- Available in Industrial Version, Single & Double Units
- Left and Right Hand Rotations, Variety of Shafts Available
- Same Day Shipment



## **Our People Make the Difference**

**Our promise at FluiDyne** is to provide the fluid power industry with high quality, fully tested and technically supported hydraulic pumps, motors and valves. We understand and value the local service and support provided by repair shops, resellers and distributors to the OEM's and users of fluid power applications. We do not compete with our customers; rather we work with our channels as partners in their success and to advance the technology of fluid power.

Our strength is our people. We focus on personal development and a long term commitment to our staff. We recognize knowledgeable people are a valuable part of the service a business organization provides. We stress a commitment to learning and customer support at every level of the FluiDyne organization. Accounting, Customer

Service, Engineering, Inventory, Management, Manufacturing, Quality and Shipping all work together to serve our customer. We believe in treating everyone inside and outside the company with professionalism and respect.

Application and technical support for our products is easy access, and we pride ourselves in not having a switchboard or phone tree. The person, who picks up the phone, helps the customer. We like it simple, we like it direct. Our inventory is extensive and our people are skilled at assembly, modifications and testing.

Our product leaves the factory fast (often the same day) and it leaves correct, tested and documented. If there is a mistake, we work hard to make it right, quickly and fairly.

Please call or email to learn more about FluiDyne. Our products and people make us special.

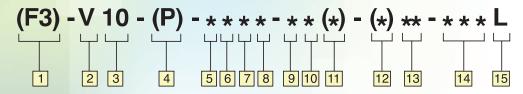
- 18 month warranty
- Blind drop shipments
- Custom proprietary software allows immediate & accurate technical support, quoting, order entry & bill of material information
- End customer protection
- Extensive Michigan inventory
- ISO Certified 9001:2008
- New FluiDyne and remanufactured products
- Outstanding customer service
- Performance you have come to expect
- Same day shipments
- Standard & modified products
- Multiple test stands which allow for quick 100% testing of all units shipped











## Special seals

F3 - Special "O"Rings & seals for mineral oil & fire resistant fluid

#### Vane Pump

#### 3 Series 10

#### 4 Pump Cover Options

Flow control cover

P - Priority valve cover

NF - Flow control cover & relief with internal drain

Omitted - Standard cover

## Mounting

1 – 2 Bolt flange (SAE "A" size)

2 - Foot bracket at 12 O'Clock\*

23 - Foot bracket at 3 O'Clock\*

26 - Foot bracket at 6 O'Clock\*

29 - Foot bracket at 9 O'Clock\*

\*(Viewed from shaft end)

#### 6 Inlet Port Connections

P - 1" NPT thread

 $S - 1-\frac{5}{16}$ "-12 straight thread

T - 1-3/16"-12 straight thread

B - G1" BSPP straight thread

#### SAE Rated Ring Capacity gpm (1200 rpm - 100 psi)

| <b>1</b> – 1 gpm | <b>5</b> – 5 gpm |
|------------------|------------------|
| <b>2</b> – 2 gpm | <b>6</b> – 6 gpm |
| <b>3</b> – 3 gpm | <b>7</b> – 7 gpm |
| <b>4</b> – 4 gpm |                  |

#### 8 Outlet Port Connections

#### V10 Standard Cover

P - 1/2" NPT thread

 $R - 1^{-1}/_{16}$ " -12 straight thread

**S** – 3/4" –16 straight thread

**B** – G <sup>1</sup>/2" BSPP straight thread

 $Y = \frac{7}{8}$ " – 14 straight thread

#### **V10F Flow Control Cover**

| Pressure                        | Tank                                      |
|---------------------------------|---|
| $P - \frac{3}{4}$ "-16 St. Thd. | <sup>1</sup> / <sub>2</sub> " NPT Thd.    |
| T - $\frac{3}{4}$ "-16 St. Thd. | <sup>3</sup> / <sub>4</sub> "–16 St. Thd. |

#### V10NF

| Pressure                        | Tank |
|---------------------------------|------|
| $T - \frac{3}{4}$ "-16 St. Thd. |      |

#### **V10P Priority Valve Cover**

| Primary<br>Outlet                            | Secondary<br>Outlet              | Tank                              |
|--|----------------------------------|-----------------------------------|
| <b>K</b> – <sup>9</sup> / <sub>16</sub> "–18 | <sup>3</sup> / <sub>4</sub> "–16 | <sup>9</sup> / <sub>16</sub> "–18 |
| St. Thd.                                     | St. Thd.                         | St. Thd.                          |

#### 9 Shaft Types

1  $-\frac{3}{4}$ " Straight–keyed, 1.75" ext. 3  $-\frac{5}{8}$ " Thd, Str. with woodruff key

11 - Spline-9 tooth

12 - Spline-13 tooth

38 - Spline-11 tooth

\*Additional Shafts Available

#### 10 Pressure Port Positions (Viewed from cover end)

A - Opposite inlet

**B** –  $90^{\circ}$  CCW from inlet

C - Inline with inlet

D - 90° CW from inlet

### 11 Flow Rate in gpm Through Orifice in Cover

1 - 1 gpm (V10P) **5** – 5 gpm 2 - 2 gpm (V10F) 6 - 6 gpm 3 - 3 gpm**7** – 7 gpm **4** – 4 gpm

#### 12 Pressure Setting ,V10F/NF & V10P (Omit for standard cover)

| Code   | Code  |
|--|---|
| <b>A</b> – 250 psi<br><b>B</b> – 500 psi<br><b>C</b> – 750 psi<br><b>D</b> – 1000 psi<br><b>E</b> – 1250 psi | <b>F</b> – 1500 psi<br><b>G</b> – 1750 psi<br><b>H</b> – 2000 psi<br><b>J</b> – 2250 psi<br><b>K</b> – 2500 psi |
|  |   |

0 – Defined by Special Suffix

#### 13 Design & Modification

#### 14 Special Feature Suffix

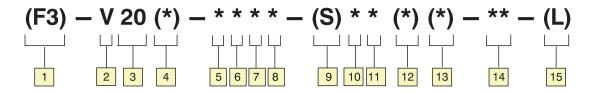
## 15 Rotation

(Viewed from shaft end of pump)

R - Right hand for clockwise

L - Left hand for counterclockwise





## 1 Special Seals

F3 - For mineral oil & fire resistant fluids (Omit if not required)

### 2 Vane Pump

## 3 Series Designation

### 4 Cover Type

Flow control cover

P - Priority valve cover

NF - Flow control cover & relief w/ internal drain

Omitted-Standard cover

### 5 Mounting

1 – Flange, 2 bolt SAE A size

2 - Foot bracket at 12 o'clock\*

6 - Flange, 2 bolt SAE B size

23 - Foot bracket at 3 o'clock\*

26 - Foot bracket at 6 o'clock\*

29 - Foot bracket at 9 o'clock\*

\*(Viewed from shaft end)

 $B - G1-\frac{1}{4}$ " BSPP St. Thd.

 $D - 1 - \frac{5}{16}$ " - 12 UN-2B thread

 $E - 1-\frac{1}{2}$  dia. 2 bolt flange  $P - 1-\frac{1}{4}$  NPT

**R** - 1" NPT

 $S - 1-\frac{5}{8}$ "-12 straight thread

# 6 Inlet Port Connection

## 7 Ring Capacity

(Rated capacity (gpm) at 1200 rpm, 6.9 bar (100 psi)

**5** – 5 gpm

**9** – 9 gpm

6-6 gpm

**10** – 10 gpm

**7** – 7 gpm

**11** – 11 gpm

8 - 8 gpm

**12** – 12 gpm

13 - 13 gpm

## 8 Outlet Port Connect(s)

| Code | Std. cover                                   | Flow control cover                           |  |
|------|--|--|--|
| Code | Sta. Cover                                   | Pressure                                     | Tank   |
| F    | F 1-1/16"2 bolt flange  P 3/4" NPT Thd.      |  |  |
| Р    |  |  | 1/2"<br>NPT Thd.                                 |
| S    | s 1-1/ <sub>16</sub> "-12<br>St. Thd.        | <sup>3</sup> / <sub>4</sub> "–16<br>St. Thd. | 1- <sup>1</sup> / <sub>16</sub> "–12<br>St. Thd. |
| т    |  | <sup>3</sup> / <sub>4</sub> "–16<br>St. Thd. | <sup>3</sup> / <sub>4</sub> "–16<br>St. Thd.     |
| В    | G <sup>3</sup> / <sub>4</sub> "<br>St. Thd.  |  |  |
| Υ    | <sup>7</sup> / <sub>8</sub> "–14<br>St. Thd. |  |  |

#### **Priority Valve Cover**

| Code | Primary outlet | Secondary outlet | Tank     |
|------|----------------|------------------|----------|
| Т    | 3/4"-16        | 7/8"-14          | 3/4" -16 |
|      | St.Thd.        | St.Thd.          | St.Thd.  |

#### 9 Shaft Seal Type

S – Double lip seal and open bearings (22 design only)

Omit - Single lip seal and sealed bearings

#### 10 Shaft Type

1 – 3/4" Straight, keyed 2.66" ext.

3 - 15/16" Thd., Str. with woodruff key

11 - Spline 11 tooth, 2.94" ext.

38 - Spline 11 tooth, 1.25" ext.

62 - Spline 9 tooth, 1.25" ext.

#### **Outlet or Primary Outlet Port Positions**

(Viewed from cover end of pump)

A - Opposite inlet

B - 90° CCW from inlet

C - Inline with inlet

D - 90° CW from inlet

## Flow Rate (V20F & V20P)

(Through orifice in cover)

2 gpm

8 - 8 gpm

**2.5** – 2.5 gpm

**9** −9 gpm

3 - 3 gpm

**10** – 10 gpm

4 gpm

**11** – 11 gpm **12** – 12 gpm

 5 gpm – 6 gpm

7 gpm

## | Pressure Setting (V20F & V20P)

A - 250 psi F - 1500 psi

**B** - 500 psi G-1750 psi

**C** – 750 psi **H** – 2000 psi

**D** - 1000 psi **J** - 2250 psi

**E** – 1250 psi K - 2500 psi

0 – Defined by Special Suffix

#### 14 Design

11 - V20, V20F & V20P

12 - V20P

22 - V20F, V20NF

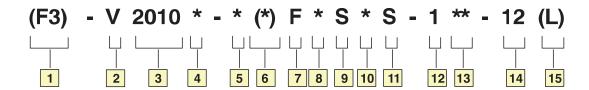
### 15 Rotation

(Viewed from shaft end of pump)

R - Right hand (clockwise)

L – Left hand (counterclockwise)

## V2010 model code



## 1 Special Seals

## 2 Vane Pump

## 3 Series Designation

### 4 Cover Type

F - Flow control cover

P – Priority valve cover

NF – Flow control cover & relief with internal drain

Omit - Standard cover

#### 5 Mounting

1 - Flange, 2 bolt SAE B size

2 - Foot bracket

6 - Flange, 2 bolt SAE A size

#### 6 Foot Bracket

(Mounting position with respect to inlet port when viewed from shaft end. No code required for inlet port at 12 o'clock)

3 – Inlet port at 3 o'clock

6 - Inlet port at 6 o'clock

9 - Inlet port at 9 o'clock

Omitted for flange mounting

#### 7 Inlet Port

**F** – 4 bolt flange, 1.500 dia.

# Ring Capacity (Shaft End) (Rated capacity (gpm) at

(Rated capacity (gpm) at 1200 rpm, 6.9 bar (100 psi)

5 -5 gpm 6 -6 gpm 7 -7 gpm 8 -8 gpm 10 -10 gpm 11 - 11 gpm 12 - 12 gpm 13 - 13 gpm

9 - 9 gpm

## 9 No. 1 Outlet Port (Shaft End)

**S** - 1-1/16"-12 UN 2B thread

## 10 Ring Capacity (Cover End)

(Rated capacity (gpm) at 1200 rpm, 6.9 bar (100 psi)

1 - 1 gpm 5 - 5 gpm 2 - 2 gpm 6 - 6 gpm 3 - 3 gpm 7 - 7 gpm 4 - 4 gpm

## 11 No. 2 Outlet Port (Cover End)

| Cor | Code            | Std. cover | Flow control cover |          |
|-----|-----------------|------------|--------------------|----------|
|     | Code            | Sta. cover | Pressure           | Tank     |
|     | P 1/2" NPT Thd. | 3/4"–16    | 1/2"               |          |
|     |                 | NPT Thd.   | St.Thd.            | NPT Thd. |
| -   | R               | 1-1/16"–12 |                    |          |
|     |                 | St.Thd.    |                    |          |
|     | S               | 3/4"-16    |                    |          |
|     |                 | St.Thd.    |                    |          |
|     | T*              |            | 3/4"–16            | 3/4"–16  |
|     |                 |            | St.Thd.            | St.Thd.  |

\*NF only available with T pressure port

#### **V2010P Priority Cover**

| Code | Primary outlet | Secondary outlet | Tank     |
|------|----------------|------------------|----------|
| K    | 9/16"-18       | 3/4"-16          | 9/16"-18 |
|      | St.Thd.        | St.Thd.          | St.Thd.  |

## 13 Outlet Port Orientation

(Viewed from cover end of pump)

#### With no. 1 outlet opposite inlet

AA – No. 2 outlet 135° CCW from inlet

**AB** – No. 2 outlet 45° CCW from inlet **AC** – No. 2 outlet 45° CW from inlet

**AD** – No. 2 outlet 45° CW from inlet

#### With no. 1 outlet 90° CCW from inlet

BA - No. 2 outlet 135° CCW from inlet

BB - No. 2 outlet 45° CCW from inlet

BC - No. 2 outlet 45° CW from inlet

BD - No. 2 outlet 135° CW from inlet

#### With no. 1 outlet inline with inlet

CA - No. 2 outlet 135° CCW from inlet

CB - No. 2 outlet 45° CCW from inlet

**CC** – No. 2 outlet 45° CW from inlet

CD - No. 2 outlet 135° CW from inlet

#### With no. 1 outlet 90° CW from inlet

DA - No. 2 outlet 135° CCW from inlet

DB - No. 2 outlet 45° CCW from inlet

DC - No. 2 outlet 45° CW from inlet

DD - No. 2 outlet 135° CW from inlet

#### 14 Design 10 – 19

## 15 Rotation

(Viewed from shaft end of pump)

R - Right hand (clockwise)

L - Left hand (counterclockwise)

## 12 Shaft Type

1 - 1" Str., keyed 2.31" ext.
3 - 7/8" thd., Str. with woodruff key

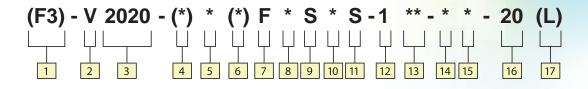
11 - Splined 13 tooth



FluiDyne Vane Pumps



## 2020 model code



#### 1 Viton Seals

(Omit if not required.)

### Vane Pump

### Series Designation

## 4 Cover Type

- F Flow control cover
- P Priority valve cover
- NF Flow control cover & relief with internal drain

Omit - Standard cover

## Mounting

- 1 2 Bolt SAE "B"
- 2 Foot bracket
- 6 2 Bolt SAE "A"

#### 6 Foot Bracket

Mounting position with respect to inlet port when viewed from shaft end. No code required for inlet port at 12 o'clock.

Outlet No. 2 Port Connections (Cover End)

**Pressure** 

3/4"-16

St. thd.

3/4"-16

St. thd.

3/4"-16

St. thd.

Flow Control Cover

Tank

1/2"

NPT thd.

1-1/16"-12

St. thd

3/4"-16

St. thd.

- 3 Inlet port at 3 o'clock
- 6 Inlet port at 6 o'clock
- 9 Inlet port at 9 o'clock

Std.

Cover

1-1/16"-12

\*NF only available in T port

St. thd.

Code

Р

S

Т

Omitted for flange mounting.

#### 7 Inlet Port

F - 4-bolt flange 2.00" dia.

### 8 Ring Capacity - Shaft End

(gpm at 1200 rpm and 100 psi)

- **5** 5 gpm
- 10 10 gpm 11 - 11 gpm
- 6 6 gpm **7** - 7 gpm
- 12 12 gpm
- 8 8 gpm
- 13 13 gpm
- 9 9 gpm

## 9 No. 1 Outlet Port (Shaft End)

S - 1-1/16"-12 UN-2B thread

## 10 Ring Capacity - Cover End

(gpm at 1200 rpm and 100 psi)

- **5** 5 gpm
- **10** 10 gpm
- 6 gpm
- **11** 11 gpm
- **7** 7 gpm 8 - 8 gpm
- 12 12 gpm 13 - 13 gpm
- **9** 9 gpm

**Primary** 

Outlet

3/4"-16

St. thd.

#### 11 No. 2 Outlet Port Connections

**Priority Valve Cover** 

Secondary

Outlet

7/8"-14

St. thd.

(See table below.)

## 12 Shaft Type

- 1 1" Straight keyed, 2.31" ext.
- $3 \frac{7}{8}$  Thd., Str. with woodruff key
- 11 Spline 13 tooth

### 13 Outlet Positions

(Facing cover end of pump)

| Outlet<br>#1 | Outlet<br>#2 | Position           |
|--------------|--------------|--------------------|
| Α            | Α            | Opposite inlet     |
| В            | В            | 90° CCW from inlet |
| С            | С            | Inline with inlet  |
| D            | D            | 90° CW from inlet  |

Any combination of outlet positions may be used. See model code unit (i.e. V2020P\*\*\*AD-20).

- A Opposite inlet (Outlet #1)
- D 90 CCW from inlet (Outlet #2)

#### 14 Flow Rate

(Thru orifice in cover gpm)

- 1 1 gpm
- 2 2 gpm
- 3 3 gpm
- 4 4 gpm
- 6 6 gpm 8 - 8 gpm

## 15 Pressure Setting

(Relief setting psi)

- C 750
- **D** 1000
- E 1250
- F 1500
- **G** 1750

Tank

3/4"-16

St. thd.

- **H** 2000
- **J** 2250
- **K** 2500

## 16 Design 20 - 39

#### 17 Rotation

(Viewed from shaft end)

- **R** Right hand (CW rotation)
- L Left hand (CCW rotation)



FluiDyne Vane Pumps

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**Veljan** 

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20, 25, 30, 35, 40, 45 (V/VQ)

2520, 2521, 3520, 3525, 4520, 4525, 4535 (V/VQ)

Cart Kits available for all sizes

\*Caterpillar part numbered pumps also available

### **Round Pumps**

- V104/5, V108/9, V110/1, V124/5, V128/9, V134/5
- V144/5, V148/9, V350/3/6, V360/1/2, V368/9/70
- VC108, 138, 148 Combination Pumps

### **Square Pumps**

- V10F, V10NF, V10P, V20F, V20NF, V20P
- V10, V20, V2010, V2020

## DENISON

- Single T6, T7
- Double T6, T67, T7
- Triple T6, T67, T7
- PV6, 10, 15, 20, 29
- M4C, M4D, M4E

## **DUMP PUMPS**

**C101/102** 

**Directional Valves** 

▲ DG17S/V 03, 05

D03 – DG4V3, 4WE6

Flange Mounted Valves

D05 - DG4S401, 4WE10

DG5V5, DG5S4, 4WEH10, 4WEH16

D08 - DG5S4, DG5S8, 4WEH25

R5V/R5S/RSU: 06, 08, 10, 12

**VALVES** 

## **OILGEAR**

- PVW (W) (H) 04, 06, 10, 11, 15, 20, 25, 34, 45, 60
- PVW (J) 11, 14, 22, 25, 34,46, 64, 76, 98, 130

#### Motors

- MHT 32, 50, 70, 90, 150, 250, 330, 440 500, 660, 750, 1000
- 25M, 26M, 35M, 36M, 45M, 46M, 50M
- M2-210

## **Piston Pumps**

- PVH 57, 74, 98, 131, 141
- PVE 12, 19, 21, 27, 35, 47, 62
- PVB 5, 6, 10, 15, 20, 29, 45, 45A, 90\*
- PVQ 10, 13, 20, 32
  - PVM 18, 20, 45, 50, 57, 63, 74, 81, 98, 106, 131, 141

### **Transmissions**

TA15, 19, 1919, 19V, 21

## VELJAN

- Single T6, T7
- Double T6, T67, T7
- Triple T6, T67, T7
- Drive Train T6\*R
- M4C, M4D, M4E
- МЗВ
- TXB1

**Check Valves** 

4CT, 4CG

CG5

## RACINE/BOSCH

- PSV 10, 15, 20, 25, 40
- PSV 80, 100
  - PVF. PVQ. PVR
  - PVK, PVT, PVS
  - VPV
- H20, H80

## REXROTH

- A10V(S)018
- A10V(S)028, 45, 71, 100, 140
- A4V(S)071, 125, 180, 250

## **CHAR-LYNN**

- H SERIES (101-)
- S SERIES (103-)
- 2000, 4000 (104-, 109-)
- 6000, 10,000 (112-, 119-)
- J SERIES (129-)

#### **INTERCHANGES WITH:**

**EATON** SAUER-DANFOSS WHITE PARKER/ROSS/TRW CHARLYNN

## **Pressure Controls**

X (C) G OR T 03, 06, 10

## Valves and Stacks

D03-5-7-8

#### **Relief Valves**

DT8P1

CT/CG/CS/CF 03, 06, 10

#### Stack Modules

DGM Staks, Flow Control, Reliefs, Checks, Pressure Controls

#### **Needle Valves**

### **FILTERS**

FluiDyne has a full range of replacement filters elements and filter housings for:

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Hvdac

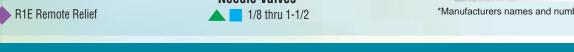
Hvcon

Schroeder

**Vickers** 

Parker

\*Manufacturers names and numbers are for reference only











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