Vane Pumps & Parts
For Vickers V10/V10F, V20, V20F/NF, V2010, V2020*

- 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 of Units or Parts Orders

www.FluiDyneFP.com
V10 Model Code

(F3) - V10 - (P) - * * * * - * * (X) - (X) * * * L

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

2 Vane Pump

3 Series 10

4 Pump cover options
F – Flow control cover
P – Priority valve cover
Omitted – Standard cover

5 Mounting
1 – 2 Bolt flange (SAE "A" size)
2 – Foot bracket at 12 O’Clock
(Viewed from shaft end)
23 – Foot bracket at 3 O’Clock
26 – Foot bracket at 6 O’Clock
29 – Foot bracket at 9 O’Clock

6 Inlet port connections
F – 1.156 DIS. port
H – 1” O.D. tube connection
K – 1 5/16-12 UN 2B thread
P – 1” NPT thread
S – 1 5/16-12 straight thread
T – 1 3/16-12 straight thread

7 SAE rated ring capacity USGPM (1200 RPM – 100 PSI)
1 – 1 USgpm
2 – 2 USgpm
3 – 3 USgpm
4 – 4 USgpm
5 – 5 USgpm
6 – 6 USgpm
7 – 7 USgpm

8 Outlet port connections
V10 standard cover
K – 1 5/16-12 UN 2B thread
P – 1” NPT thread
S – 1 5/16-12 straight thread
T – 1 3/16-12 straight thread

V10F Flow control cover
Pressure
P – 3/4-16 straight thread
T – 3/4-16 straight thread

Tank
P – 1/2” NPT thread
T – 3/4-16 straight thread

V10P Priority valve cover
Primary outlet
K – 9/16-18 straight thread
Secondary outlet
K – 3/4-16 straight thread
Tank
K – 9/16-18 straight thread

9 Shaft types
1 – Straight –keyed
3 – Threaded
4 – Threaded
6 – Straight stub –keyed
11 – Spline – 9 tooth
12 – Spline – 13 tooth
27 – Tang
34 – Threaded
38 – Spline – 13 tooth

10 Pressure port positions
(Viewed from cover end)
A – Opposite inlet
B – 90° CCW from inlet
C – Inline with inlet
D – 90° CCW from inlet

11 Flow rate in USGPM through orifice in cover
1 – 1 USGPM (V10P)
2 – 2 USGPM (V10F)

12 Pressure setting , V10F & V10P
(Omit for standard cover)

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

13 Design & Modification

14 Special feature suffix

15 Rotation
(Viewed from shaft end of pump)
L – Left hand for counterclockwise

V10F and V20NF pumps also available - Contact Customer Service
(F3) – V 20 (*) – * * * * – (S) ** (*) (*) – ** – (L)

1 Special seals
F3 – For mineral oil & fire resistant fluids (Omit if not required)

2 Vane pump

3 Series designation

4 Cover type
F – Flow control cover
P – Priority valve cover
Omit – Standard cover

5 Mounting
1 – Flange, 2 bolt SAE A size
2 – Foot bracket at 12 o’clock, viewed from shaft end (11 & 12 designs only)
3 – Power takeoff (11 & 12 designs only)
4 – Face type
5 – Flange, 2 bolt SAE B size
23 – Foot bracket at 3 o’clock (11 & 12 designs only)
26 – Foot bracket at 6 o’clock (11 & 12 designs only)
29 – Foot bracket at 9 o’clock (11 & 12 designs only)

6 Inlet port connection
D – 1.312-12 UN-2B thread
(22 design only)
E – 1.5 inch dia. 2-bolt flange
F – 1.156 inch dia. 2-bolt flange
P – 1-1/4" NPTF
R – 1" NPTF
S – 1.625-12 UN-2B thread

7 Ring capacity
(Rated capacity (USgpm) at 1200 rpm, 6.9 bar (100 psi)
5 - 5 USgpm 9 – 9 USgpm
(22 design only) 10 – 10 USgpm
6 – 6 USgpm 11 – 11 USgpm
7 – 7 USgpm 12 – 12 USgpm
8 – 8 USgpm 13 – 13 USgpm

8 Outlet port connection(s)

<table>
<thead>
<tr>
<th>Code</th>
<th>Std. cover</th>
<th>Flow control cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>F .687 dia. (11 &amp; 12 designs only)</td>
<td>Pressure</td>
<td>Tank</td>
</tr>
<tr>
<td>P 3/4 NPT Thd. (11 &amp; 12 designs only)</td>
<td>.750 – 16 St.Thd.</td>
<td>1/2 NPT Thd.</td>
</tr>
<tr>
<td>S 1.062–12 St.Thd. (11 &amp; 12 designs only)</td>
<td>.750 – 16 St.Thd.</td>
<td>1.062–12 St.Thd.</td>
</tr>
<tr>
<td>T</td>
<td></td>
<td>.750 – 16 St.Thd.</td>
</tr>
</tbody>
</table>

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 – Straight, keyed
3 – Threaded
6 – Straight stub, keyed
11 – Splined
15 – Splined
38 – Splined
62 – Splined

11 Outlet or primary outlet port positions
(Viewed from cover end of pump)
A – Opposite inlet
B – 90° CCW from inlet
C – In line with inlet
D – 90° CW from inlet

12 Flow rate (V20F & V20P)
(Through orifice in cover)
2 – 2 USgpm 8 – 8 USgpm
2.5 – 2.5 USgpm 9 – 9 USgpm
(11 & 12 designs only) (22 design only)
3 – 3 USgpm 10 – 10 USgpm
4 – 4 USgpm (22 design only)
5 – 5 USgpm (22 design only)
6 – 6 USgpm (22 design only)
7 – 7 USgpm (22 design only)

13 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

14 Design
11 – V20, V20F & V20P
12 – V20P
22 – V20F

15 Rotation
(Viewed from shaft end of pump)
L – Left hand (counterclockwise)
Omit – Right hand (clockwise)
(F3) - V 2010 * - * (*) F * S * S - 1 ** - 12 (L)

1 Special seals
2 Vane pump
3 Series designation
4 Cover type
   F – Flow control cover
   P – Priority valve cover
   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.
8 Ring capacity (Shaft end)
   (Rated capacity (USgpm) at 1200 rpm, 6.9 bar (100 psi)
   7 – 7 USgpm
   8 – 8 USgpm
   9 – 9 USgpm
9 No. 1 outlet port (Shaft end)
   S – 1.062 – 12 UN–2B thread
10 Ring capacity (Cover end)
   (Rated capacity (USgpm) at 1200 rpm, 6.9 bar (100 psi)
   1 – 1 USgpm
   2 – 2 USgpm
   3 – 3 USgpm
   4 – 4 USgpm
11 No. 2 outlet port (Cover end)

<table>
<thead>
<tr>
<th>Code</th>
<th>Std. cover</th>
<th>Flow control cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>1/2</td>
<td>3/4–16</td>
</tr>
<tr>
<td></td>
<td>NPT Thd.</td>
<td>St.Thd.</td>
</tr>
<tr>
<td>R</td>
<td>1.062–12</td>
<td>__________</td>
</tr>
<tr>
<td></td>
<td>ST.Thd.</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>3/4–16</td>
<td>__________</td>
</tr>
<tr>
<td></td>
<td>ST.Thd.</td>
<td></td>
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<tr>
<td>T</td>
<td>__________</td>
<td>3/4–16</td>
</tr>
<tr>
<td></td>
<td>__________</td>
<td>St.Thd.</td>
</tr>
</tbody>
</table>
12 Shaft type
   1 – Straight thread
   3 – Threaded
   11 – Splined
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 135° 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
15 Rotation
   (Viewed from shaft end of pump)
   L – Left hand (counterclockwise)
   Omit – Right hand (clockwise)
**FluiDyne Vane Pumps**

- **V2020 model code**

(F3) - V 2020 - (*) * (*) F * S * S - 1 ** * * - 20 (L)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>7</th>
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<th>12</th>
<th>13</th>
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<th>15</th>
<th>16</th>
<th>17</th>
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<tbody>
<tr>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
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</tbody>
</table>

**Viton Seals**

(Omit if not required.)

**Vane Pump**

**Series**

**Cover Type**

- **F** – Flow control cover
- **P** – Priority valve cover
  Omit for standard cover.

**Mounting**

- **F** – Flange
- **P** – Foot bracket

**Foot Bracket**

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

- **P** – Inlet port at 3 o’clock
- **6** – Inlet port at 6 o’clock
- **9** – Inlet port at 9 o’clock
  Omitted for flange mounting.

**Inlet Port**

- **F** - 4-bolt flange

**Ring Capacity - Shaft End**

(USgpm at 1200 rpm and 100 psi)

- **7** - 7 USgpm
- **8** - 8 USgpm
- **9** - 9 USgpm
- **11** - 11 USgpm
- **12** - 12 USgpm
- **13** - 13 USgpm

**No. 1 Outlet Port (Shaft End)**

- **S** – 1.062-12 UN-28 thread

**Ring Capacity - Cover End**

(USgpm at 1200 rpm and 100 psi)

- **6** - 6 USgpm
- **7** - 7 USgpm
- **8** - 8 USgpm
- **9** - 9 USgpm
- **11** - 11 USgpm

**No. 2 Outlet Port Connections**

(See table below.)

**Shaft Type**

- **Straight thread**

**Outlet Positions**

(Facing cover end of pump)

<table>
<thead>
<tr>
<th>Outlet #1</th>
<th>Outlet #2</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>Opposite inlet</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>90° CCW from inlet</td>
</tr>
<tr>
<td>C</td>
<td>C</td>
<td>Inline with inlet</td>
</tr>
<tr>
<td>D</td>
<td>D</td>
<td>90° CW from inlet</td>
</tr>
</tbody>
</table>

Any combination of outlet positions may be used. See model code unit (i.e. V2020G***AD-20).

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

**Flow Rate**

(Thru orifice in cover USgpm)

**Pressure Setting**

- **C** - 750
- **D** - 1000
- **E** - 1250
- **F** - 1500
- **G** - 1750
- **H** - 2000
- **J** - 2250
- **K** - 2500

**Design**

**Rotation**

(Viewed from shaft end)

- **L** - Left hand (CCW rotation)
  Omitted for right hand rotation.

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Outlet No. 2 Port Connections (Cover End)

<table>
<thead>
<tr>
<th>Code</th>
<th>Std. Cover</th>
<th>Flow Control Cover</th>
<th>Priority Valve Cover</th>
<th>Primary Outlet</th>
<th>Secondary Outlet</th>
<th>Tank</th>
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</thead>
<tbody>
<tr>
<td>P</td>
<td>-</td>
<td>.750-16 St. thd.</td>
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<td>.500 NPT thd.</td>
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<td>.750-16 St. thd.</td>
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<td>-</td>
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<td></td>
<td>St. thd.</td>
<td>.1.062-12 St. thd.</td>
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<td></td>
<td>-</td>
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<td>T</td>
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<td>.750-16 St. thd.</td>
<td>-</td>
<td>.750-16 St. thd.</td>
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<td>.750-16 St. thd.</td>
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<td>.875-14 St. thd.</td>
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<td>.750-16 St. thd.</td>
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**FluiDyne Vane Pumps**

www.FluiDyneFP.com
Our people provide extensive support:

- Engineering expertise
- Decoding special part number
- Identification of parts within units
- Advise on component repair and assembly
- Component failure analysis
- Massive local stock
- New application component selection
- Same day shipment
- 18 month warranty

Our people make the difference!