VHO/VQ Single, Double & Triple Vane Pumps

- Series Available: 20, 25, 30, 35, 45, 50
- For Mobile and Industrial Use
- Cartridge Kits Available for All Sizes
- Same Day Shipments

www.FluiDyneFP.com
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, but rather we partner with them. FluiDyne supports the channels of distribution that contribute to our partners’ success.

Our strength is our people. We focus on personal development and a long term commitment to our staff. We recognize that 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, Marketing, Management, Manufacturing, Quality and Shipping all work together to serve our customers. We believe in treating everyone inside and outside the company with professionalism and respect.

Application and technical support for our products is easily accessible, 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 in assembly, modifications and testing. Our product leaves the factory fast (often the same day) and it leaves correctly, tested and documented. If there is a mistake, we work hard to make it right, quickly and fairly.

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

- 18 month warranty
- Blind drop shipments
- Custom proprietary software allows immediate and accurate technical support, quoting, order entry and bill of material information
- 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 and modified products
- Multiple test stands which allow for quick 100% testing of all units shipped

www.FluiDyneFP.com
### Single Pump Model Code Breakdown

#### (F3) 25V(Q) (S) 21 A F 1 C * L

**Viton Seals**  
Omit if not required.

**Series**  
- 20V(Q)  
- 30V(Q)  
- 25V(Q)  
- 35V(Q)  
- 45V(Q)  
- 50V

**Pilot Designation**  
- S - SAE per ISO 3019/1  
  Omit for standard pilot.  
  Not available in the 50V

**Rated Capacity**  
at 1200 rpm, 100 psi, (in3/r)

**20V(Q)**  
- 2 gpm (0.39)  
- 5 gpm (1.10)  
- 6 gpm (1.19)  
- 8 gpm (1.67)  
- 10 gpm (2.01)  
- 12 gpm (2.41)  
- 14 gpm (2.80)

**25V(Q)**  
- 10 gpm (2.01)  
- 12 gpm (2.41)  
- 14 gpm (2.80)  
- 21 gpm (4.12)  
- 25 gpm (4.98)  
- 30 gpm (5.96)

**35V(Q)**  
- 21 gpm (4.12)  
- 25 gpm (4.98)  
- 30 gpm (5.96)

**45V(Q)**  
- 42 gpm (8.46)  
- 45 gpm (8.89)  
- 47 gpm (9.33)  
- 50 gpm (9.90)  
- 57 gpm (11.33)  
- 60 gpm (11.80)

**50V(Q)**  
- 72 gpm (14.21)  
- 85 gpm (16.78)  
- 100 gpm (19.80)  
- 109 gpm (21.54)

**Port Connections**  
- A - SAE 4 Bolt Inlet & Outlet  
- B - SAE Straight Thread Inlet & Outlet  
- C - SAE 4 Bolt Inlet SAE Straight Thread Outlet

**Mounting**  
- S - Flange mount with double shaft seal  
- F - Foot mount with single shaft seal (except 50V)  
  Omit for flange mount with single shaft seal.

**Shaft Rotation**  
(Viewed from shaft end)  
- R - Right hand  
- L - Left hand

**Design Series 11-50V**  
- 11 - 50V  
- 20 - VQ  
- 21 - VQ w/ double shaft seal  
- 22 - V  
- 30 - 20VQ

**Outlet Position**  
(Viewed from cover end)  
- A - Outlet Opposite from Inlet  
- B - Outlet 90 CCW from Inlet  
- C - Outlet in line with Inlet  
- D - Outlet 90 CW from Inlet

**Shaft Type**  
- 1 - Straight Keyed (Standard)  
- 86 - H.D. Straight Keyed  
- 11 - SAE Splined  
- 151 - SAE splined (20VQ only)  
- 297 - Splined (VQ)  
  Other types available upon request

*Heavy Duty Bearing Units and 50V Suffix 130/132 are Available - contact us!

www.FluiDyneFP.com
# Double Pump Model Code Breakdown

## Viton Seals
Omit if not required.

## Series
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2520V(Q)</td>
<td></td>
</tr>
<tr>
<td>3520V(Q)</td>
<td></td>
</tr>
<tr>
<td>3525V(Q)</td>
<td></td>
</tr>
<tr>
<td>4520V(Q)</td>
<td></td>
</tr>
<tr>
<td>4525V(Q)</td>
<td></td>
</tr>
<tr>
<td>4535V(Q)</td>
<td></td>
</tr>
</tbody>
</table>

## Shaft End Pump Capacity
Rated Capacity at 1200 rpm, 100 psi (in³/r)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>25V(Q)</td>
<td></td>
</tr>
<tr>
<td>35V(Q)</td>
<td></td>
</tr>
<tr>
<td>45V(Q)</td>
<td></td>
</tr>
</tbody>
</table>

### Viton Seals
Omit if not required.

### Series
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2520V(Q)</td>
<td></td>
</tr>
<tr>
<td>3520V(Q)</td>
<td></td>
</tr>
<tr>
<td>3525V(Q)</td>
<td></td>
</tr>
<tr>
<td>4520V(Q)</td>
<td></td>
</tr>
<tr>
<td>4525V(Q)</td>
<td></td>
</tr>
<tr>
<td>4535V(Q)</td>
<td></td>
</tr>
</tbody>
</table>

### SAE Port Connections
<table>
<thead>
<tr>
<th>Code</th>
<th>Inlet</th>
<th>Out. #1</th>
<th>Out. #2</th>
<th>Pump Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4-bolt flg.</td>
<td>4-bolt flg.</td>
<td>4-bolt flg.</td>
<td>All</td>
</tr>
<tr>
<td>C</td>
<td>4-bolt flg.</td>
<td>SAE st. thd.</td>
<td>SAE st. thd.</td>
<td>2520V(Q)</td>
</tr>
<tr>
<td>E</td>
<td>4-bolt flg.</td>
<td>4-bolt flg.</td>
<td>SAE st. thd.</td>
<td>Except 4535V</td>
</tr>
</tbody>
</table>

### Outlet Positions
(Viewed from cover end of pump)

**All Series expect 4535V**

**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 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

**Series 4535V**

**With No. 1 Outlet Opposite Inlet:**
- AA- No. 2 Outlet Opposite Inlet
- AB- No. 2 Outlet 90 CCW from Inlet
- AC- No. 2 Outlet Inline with Inlet
- AD- No. 2 Outlet 90 CW from Inlet

**With No. 1 Outlet 90 CCW from Inlet:**
- BA- No. 2 Outlet Opposite Inlet
- BB- No. 2 Outlet 90 CCW from Inlet
- CC- No. 2 Outlet Inline with Inlet
- DD- No. 2 Outlet 90 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 Inline with Inlet
- CD- No. 2 Outlet 135 CW from Inlet

**With No. 1 Outlet 90 CW from Inlet:**
- DA- No. 2 Outlet Opposite Inlet
- DB- No. 2 Outlet 90 CCW from Inlet
- DC- No. 2 Outlet Inline with Inlet
- DD- No. 2 Outlet 90 CW from Inlet

### Mounting
- S - Flange mount with double shaft seal
- F - Foot mount

Omit for flange mount with single shaft seal.

### Shaft Type*

1. Straight Keyed (Standard)
2. H.D. Straight Key (except 2520V(Q))
3. SAE Splined
4. Splined (VQS)

*Other types available upon request

All SAE Piloted

* Heavy Duty Bearing Units are Available

Contact us!
Triple Pump Model Code Breakdown

Series
2520V(Q)
3520V(Q)
3525V(Q)
4525V(Q)
4535V(Q)

SAE Mounting
S - SAE mounting per J 744 101-2

Single Pump Series
Cover end pump of triple pump

Cover Options for V10 Pump
S - Standard cover
F - Integral flow control & relief valve
P - Integral priority valve & relief

SAE Rated Flow, Shaft-End Pump
Rate Flow at 1200 r/min, 100 psi (in3/r)
2520V(Q)
10 gpm (2.01) 17 gpm (3.37)
12 gpm (2.41) 19 gpm (3.89)
14 gpm (2.80) 21 gpm (4.12)
3525V(Q)
21 gpm (4.12) 35 gpm (6.88)
25 gpm (4.98) 38 gpm (7.42)
30 gpm (5.96)
4535V(Q)
42 gpm (8.46) 50 gpm (9.90)
45 gpm (8.89) 57 gpm (11.33)
47 gpm (9.33) 60 gpm (11.80)

Double Pump Port Connections
A - All SAE 4-bolt flange
C - SAE 4-bolt flanged inlet, SAE threaded outlet

SAE Rated Flow, Center Pump
Rate Flow at 1200 r/min, 100 psi (in3/r)
**20V(Q)
2 gpm (.39) 9 gpm (1.81)
5 gpm (1.10) 11 gpm (2.22)
6 gpm (1.19) 12 gpm (2.41)
8 gpm (1.67) 14 gpm (2.80)
**25V(Q)
10 gpm (2.01) 17 gpm (3.37)
12 gpm (2.41) 19 gpm (3.89)
14 gpm (2.80) 21 gpm (4.12)
**35V(Q)
21 gpm (4.12) 35 gpm (6.88)
25 gpm (4.98) 38 gpm (7.42)
30 gpm (5.96)

No. 3 Outlet Port Connection
Standard Cover
S - .750-16 straight thread flow ctrl cover V10
T - .750-16 straight thread, control port and tank port V10F
K - .563-18 straight thread, primary port and tank port .750-16 straight thread secondary port V10P

Shaft Rotation
R - Right hand
L - Left hand

Relief Valve Setting, V10F & V10P
A - 17 bar (250 psi)
B - 35 bar (500 psi)
C - 52 bar (750 psi)
D - 70 bar (1000 psi)
E - 86 bar (1250 psi)
F - 100 bar (1500 psi)
G - 121 bar (1750 psi)
H - 140 bar (2000 psi)
J - 155 bar (2250 psi)
K - 175 bar (2500 psi)

Controlled Flow Rate, V10F & V10P
3 gpm (.60) 4 gpm (.80) 5 gpm (1.00) 6 gpm (1.19) 7 gpm (1.39)

No. 1, 2 & 3 Outlet Port Position
Refer to table 2

Splined Shaft
297 - All series
298 - All series
77 - 2520VQSV10 only

Shaft Seal
S - Double seal
Blank - Single seal

SAE Rated Flow, Cover End Pump
Rate Flow at 1200 r/min, 100 psi (in3/r)
V10
1 gpm (.20) 5 gpm (1.00)
2 gpm (.40) 6 gpm (1.19)
3 gpm (.60) 7 gpm (1.39)
4 gpm (.80)

Table 2: Outlet Position Code
<table>
<thead>
<tr>
<th>Position Viewed from Cover End</th>
<th>No. 1 Outlet</th>
<th>No. 2 Outlet</th>
<th>No. 3 Outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opposite inlet</td>
<td>A</td>
<td>A (4535 only)</td>
<td>A</td>
</tr>
<tr>
<td>135° CCW from inlet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90° CCW from inlet</td>
<td>B</td>
<td>B (4535V only)</td>
<td>B</td>
</tr>
<tr>
<td>45° CCW from inlet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inline with inlet</td>
<td>C</td>
<td>C (4535 only)</td>
<td>C</td>
</tr>
<tr>
<td>45° CW from inlet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90° CW from inlet</td>
<td>D</td>
<td>D (4535 only)</td>
<td>D</td>
</tr>
<tr>
<td>135° CW from inlet</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FluiDyne supports the distributors providing local knowledge and assistance to fluid power customers.

Our people provide extensive support:

- Engineering Expertise
- Decoding special part numbers
- Identification of parts within units
- Advice on component repair and assembly
- Component failure analysis
- 18 month warranty
- New application component selection
- Same day shipment

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Email: sales@FluiDyneFP.com

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06/2019