

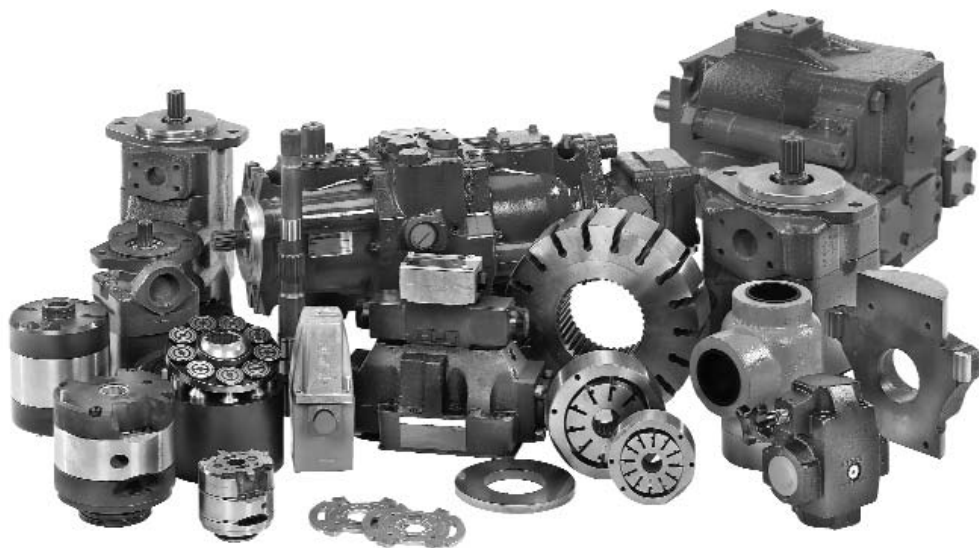
VICKERS REPLACEMENT PUMPS

Pumps



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Equipment manufacturer's names, part numbers and descriptions are used for reference purposes only. We do not imply that any part shown is the product of these manufacturers.



INTRODUCTION

Series V10, V20, V2010, and V2020 fixed displacement pumps are of "balanced vane type" construction. V10 and V20 single pumps have rated flow capacities of 1 to 7 USgpm and 6 to 13 USgpm, respectively.

Double pumps provide a single power source capable of serving two separate hydraulic circuits, or of providing greater volume through the combined delivery of

both sections. In either type of application, two pumps in a single housing result in a more compact, simple installation and can be driven through a single shaft coupling.

V2010 double pumps have capacities of 6 to 13 USgpm and 1 to 7 USgpm for their shaft-end and cover-end pumps, respectively. V2020 double pumps have capacities of 6 to 13 USgpm and 6 to 11 USgpm for their shaft-end and cover-end pumps, respectively.

All models are designed for use with oil or synthetic fire-resistant fluids. Shaft rotation is either clockwise or counterclockwise, but can be changed by changing the assembly of internal parts.

SAE 2-bolt mounting flanges are standard, and foot-mounting brackets are optional. Many electric motor manufacturers can supply drip-proof or totally enclosed, fan cooled motors with end bells on which the pumps can be mounted.

FEATURES AND BENEFITS

Enhanced Bearing Life

Internal inlet and outlet pressure chambers are diametrically opposed. As a result, pressure-induced radial loads are balanced, and bearings have to carry the external load only.

High Performance

Low vane tip/ring loading allows high pressure operation. High speeds are possible because the

inlet flow paths are designed to give uniform oil acceleration, and thus better filling characteristics, particularly at low inlet pressure.

Extended Product Life

The superior design of these pumps makes them last longer. They've proven they'll hold up in rugged applications.

Low Cost

Efficient design produces extra horsepower per dollar of pump investment, providing industry with

low pump cost per horsepower capacity.

Versatility

High flow, pressure and speed capabilities enable these pumps to meet the hydraulic circuit needs of many types of modern machinery.

Single Pump Specifications

Series	Ring Size Delivery USgpm @ 1200 r/min & 100 PSI	Displacement cm ³ /r (in ³ /r)	Maximum Speed RPM	Maximum Pressure PSI	Typical Delivery GPM at Max Speed & Pressure	Typical Input HP at Max Speed & Pressure	Weight kg (lb)
V10	1	3,3 (.20)	4800	172 (2500)	13,6 (3.6)	5.2 (7)	4,5 - 6,8 (10 - 15)
	2	6,6 (.40)	4500	172 (2500)	27,6 (7.3)	10,1 (13.6)	
	3	9,8 (.60)	4000	172 (2500)	35,6 (9.4)	13,3 (17.8)	
	4	13,1 (.80)	3400	172 (2500)	41,3 (10.9)	15,2 (20.4)	
	5	16, 4 (1.00)	3200	172 (2500)	48,5 (12.8)	17 (22.8)	
	6	19,5 (1.19)	3000	152 (2200)	55,3 (14.6)	18,3 (24.5)	
	7	22,8 (1.39)	2800	138 (2000)	60,6 (16)	17,9 (24)	
V20	6	19,5 (1.19)	3400	172 (2500)	60,9 (16.1)	21,6 (29)	7,3 - 8,2 (16 - 18)
	7	22,8 (1.39)	3000	172 (2500)	63,2 (16.7)	22 (29.5)	
	8	26,5 (1.62)	2800	172 (2500)	67 (17.7)	24,2 (32.5)	
	9	29,7 (1.81)	2800	172 (2500)	75 (19.8)	26,5 (35.5)	
	11	36,4 (2.22)	2500	172 (2500)	86,7 (22.9)	28 (37.5)	
	12	39 (2.38)	2400	152 (2200)	87,1 (23)	26,8 (36)	
	13	42, 4 (2.59)	2400	152 (2200)	98 (25.9)	29, 1 (39)	

Single Pump Model Code Breakdown

F3 **V** **10** **1** **P** **5** **S** **1** **C** **20** **L**
1 **2** **3** **4** **5** **6** **7** **8** **9** **10** **11**

- | | | | | |
|---|---|---|--|--|
| <p>1. Viton® Seals
(Omit for Standard)</p> <p>2. Vane Pump</p> <p>3. Series - 10 or 20</p> <p>4. Mounting
1 - 2-Bolt Flange, 3.25" pilot (standard)
6 - 2-Bolt Flange, 4.00" pilot (optional)</p> <p>5. Inlet Port Connections
P - 1" NPT thread (V10 only)
1 1/4" NPT thread (V20 only)
S - 1.3125-12 straight thread (V10 only)
1.625-12 straight thread (V20 only)</p> | <p>6. Ring Size
(Delivery at 1200 r/min and 100 psi)</p> <p>1 - 1 USgpm
2 - 2 USgpm
3 - 3 USgpm
4 - 4 USgpm
5 - 5 USgpm
6 - 6 USgpm
7 - 7 USgpm</p> <p>6 - 6 USgpm
7 - 7 USgpm
8 - 8 USgpm
9 - 9 USgpm
11 - 11 US gpm
12 - 12 USgpm
13 - 13 USgpm</p> | <p style="text-align: center;">V10
Series</p> <p style="text-align: center;">V20
Series</p> | <p>7. Outlet Port Connections
P - 1/2" NPT thd. (V10 only)
R - 1.1875 - 12 St. thd. (V20 only)
S - .750 - 16 St. thd. (V10 only)
1.0625 - 12 St. thd. (V20 only)</p> <p>8. Shaft
1 - Straight keyed
11 - Splined
62 - Splined (V20 only)</p> <p>9. Position of Outlet Port
(Viewed from cover end of pump)
A - Opposite inlet port
B - 90° CCW from inlet
C - In line with inlet
D - 90° CW from inlet</p> | <p>10. Design
11 - V20 series
20 - V10 series
Subject to changes.</p> <p>11. Shaft Rotation
(View from shaft end of pump)
L - Left hand (counterclockwise). Omit from right habnd.</p> |
|---|---|---|--|--|

For Shaft Options see page 250
For Pump Dimensions see page 251
For Vickers Replacement Pump Parts See Pages 507 - 510

**Single Unit Specifications
10 Vane Mobile Model**

Series	Flow in GPM at 1200 RPM & 100 PSI	Displacement Cubic Inches/Rev.	Maximum RPM	Maximum PSI	Typical Delivery GPM at Max Speed & Pressure	Typical Input HP at Max Speed & Pressure	Length In Inches	Width In Inches	Height In Inches	Weight In Pounds
25	12	2.31	2700	3000	24.6	47	6.4	4.6	5.5	32
	14	2.7	2700	3000	27.5	55				
	17	3.27	2500	3000	31.7	62				
	19	3.66	2500	3000	34.2	69				
	21	4.04	2500	3000	40.1	77				
35	21	4.04	2500	3000	38.1	77	7.3	5.5	6	50
	25	4.81	2500	3000	46.7	91				
	30	5.78	2500	3000	56.8	109				
	35	6.74	2400	3000	62.3	123				
	38	7.32	2400	3000	68	133				
45	42	8.09	2200	2500	72.7	112	8.5	6.3	6.9	75
	47	9.05	2200	2500	76.2	126				
	50	9.63	2200	2500	84.6	134				
	57	10.97	2200	2500	97.2	152				
	60	11.55	2200	2500	101.4	160				

Single Unit 12 Vane Industrial Model Code Breakdown

SVP 25 M 21 F 11 A L V
1 2 3 4 5 6 7 8 9

- | | | | |
|---|---|--|---|
| 1. Single Vane Pump | 4. Capacity Rating GPM at 1200 RPM & 100 PSI
25: 12, 14, 17 & 21
35: 21, 25, 30, 35 & 38
45: 42, 47, 50 & 60 | 6. Shafts | 8. Shaft Rotation
L - Left Hand
(Omit for Right Hand) |
| 2. Series
25, 35, 45 w/ Standard Bearing
26 w/ Heavy Duty Bearing | 5. Flange Ported (Standard) | 7. Inlet Positions (Viewed from Cover End)
A - Opposite Outlet
B - 90° CW From Outlet
C - Inline With Outlet
D - 90° CCW From Outlet | 9. Viton Seals
(Omit for Standard) |
| 3. Mobile Design | | | |

**For Shaft Options see page 250
For Pump Dimensions see page 251
For Vickers Replacement Pump Parts See Pages 507 - 510**

Tandem Unit Specifications 10 Vane Mobile Model

Series	GPM Shaft End Pump	Displacement Cubic Inches/Rev.	Max. RPM	Max. PSI	Typical Delivery GPM at Max Speed & Pressure	Typical Input HP at Max Speed & Pressure	GPM Cover End Pump	Displacement Cubic Inches/Rev.	Max. RPM	Max. PSI	Typical Delivery GPM at Max Speed & Pressure	Typical Input HP at Max Speed & Pressure	Weight In Pounds
2520	12	2.31	2700	3000	24.6	47	5	0.96	2700	3000	10.4	20	45
	14	2.7	2700	3000	27.5	55	8	1.54	2700	3000	17.1	32	
	17	3.27	2500	3000	31.7	63	9	1.73	2700	3000	19.1	35	
	19	3.66	2500	3000	34.2	69	11	2.12	2700	3000	23.1	43	
	21	4.04	2500	3000	40.1	77	12	2.31	2700	2300	25.3	36	
3520	21	4.04	2500	3000	38.1	77	5	0.96	2500	3000	9.4	18	75
	25	4.81	2500	3000	46.7	91	8	1.54	2500	3000	15.2	29	
	30	5.78	2500	3000	56.8	109	9	1.73	2500	3000	16.9	33	
	35	6.74	2400	3000	62.3	123	11	2.12	2500	3000	20.6	40	
	38	7.32	2400	3000	68	133	12	2.31	2500	2300	23.8	34	
3525	21	4.04	2500	3000	38.1	77	12	2.31	2500	3000	23.1	44	76
	25	4.81	2500	3000	46.7	91	14	2.7	2500	3000	26.1	51	
	30	5.78	2500	3000	56.8	109	17	3.27	2500	3000	31.7	62	
	35	6.74	2400	3000	62.3	123	19	3.66	2500	3000	34.2	69	
	38	7.32	2400	3000	68	133	21	4.04	2500	3000	40.1	77	
4520	42	8.09	2200	2500	72.7	112	5	0.96	2200	3000	8.6	16	94
	47	9.05	2200	2500	76.2	126	8	1.54	2200	3000	14.1	26	
	50	9.63	2200	2500	84.6	134	9	1.73	2200	3000	15.7	29	
	57	10.67	2200	2500	97.3	152	11	2.12	2200	3000	19.1	35	
	60	11.55	2200	2500	101.4	160	12	2.31	2200	2300	20.5	30	
4525	42	8.09	2200	2500	72.7	112	12	2.31	2200	3000	19.3	29	101
	47	9.05	2200	2500	76.2	126	14	2.7	2200	3000	21.8	34	
	50	9.63	2200	2500	84.6	134	17	3.27	2200	3000	27	41	
	57	10.67	2200	2500	97.3	152	19	3.66	2200	3000	29.3	46	
	60	11.55	2200	2500	101.4	160	21	4.04	2200	3000	34	50	
4535	42	8.09	2200	2500	72.7	112	21	4.04	2200	3000	32.7	67	118
	47	9.05	2200	2500	76.2	126	25	4.81	2200	3000	39.8	80	
	50	9.63	2200	2500	84.6	134	30	5.78	2200	3000	48.3	96	
	57	10.67	2200	2500	97.3	152	35	6.74	2200	3000	55.4	112	
	60	11.55	2200	2500	101.4	160	38	7.32	2200	3000	60.4	122	

Tandem Unit 10 Vane Mobile Model Code Breakdown

TVP **2520** **M** **21** **F** **12** **11** **AA** **L** **V**
1 **2** **3** **4** **5** **6** **7** **8** **9** **10**

- Tandem Vane Pump
- Series
2520, 3520, 3525, 4520, 4525
4535 w/ Standa5rd Bearing
2620 w/ Heavy Duty Bearing
- Mobile Design
- Capacity Rating
(Shaft End Pump)
GPM at 1200 RPM & 100 PSI
25: 12, 14, 17, 19 & 21
35: 21, 25, 30, 35 & 38
45: 42, 47, 50, 57 & 60
- Flange Ported (Standard)
- Capacity Rating
(Cover End Pump)
20: 5, 8, 9, 11, 12 & 14
25: 12, 14, 17, 19 & 21
35: 21, 25, 30, 35 & 38
- Shaft (See Options Page 250)
- Outlet Position (See Below)
- Shaft Rotation
L-Left Hand
(Omit for Right Hand)
- Viton Seals
(Omit for Standard Seals)

OUTLET POSITIONS Viewed from Cover End of Pump (All Series Except 4535)

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 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

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
BC - No. 2 Outlet Inline With Inlet
BD - No. 2 Outlet 90° CW From Inlet

With No. 1 Outlet Inline with Inlet
CA - No. 2 Outlet Opposite Inlet
CB - No. 2 Outlet 90° CCW From Inlet
CC - No. 2 Outlet Inline With Inlet
CD - No. 2 Outlet 90° CS From Inlet
With No. 1 Outlet 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

**Single Unit Specifications
12 Vane Industrial Model**

Series	Flow in GPM at 1200 RPM & 100 PSI	Displacement Cubic Inches/Rev.	Maximum RPM	Maximum PSI	Typical Delivery GPM at Max Speed & Pressure	Typical Input HP at Max Speed & Pressure	Weight In Pounds
25	12	2.31	1800	2500	14.4	26	32
	14	2.7	1800	2500	17	31	
	17	3.27	1800	2500	22.9	37	
	21	4.04	1800	2500	26.8	46	
35	25	4.81	1800	2500	32	55	50
	30	5.78	1800	2500	40.1	66	
	35	6.74	1800	2500	47.7	77	
	38	7.32	1800	2500	50.5	83	
45	42	8.09	1800	2500	55.7	92	75
	45	8.66	1800	2500	62.2	98	
	50	9.63	1800	2500	66.6	109	
	60	11.55	1800	2500	82.8	131	

Single Unit 10 Vane Mobile Model Code Breakdown

SVP 25 M 21 F 11 A L V
1 2 3 4 5 6 7 8 9

- 1. Single Vane Pump
- 2. Series
25, 35, 45 w/ Standard Bearing
26 w/ Heavy Duty Bearing
- 3. Industrial Design
- 4. Capacity Rating GPM at 1200 RPM & 100 PSI
25: 12, 14, 17, 19 & 21
35: 25, 30, 35 & 38
45: 42, 47, 50, 57 & 60
- 5. Flange Ported (Standard)
- 6. Shafts (See Options Page 250)
- 7. Inlet Positions (Viewed from Cover End)
A - Opposite Outlet
B - 90° CW From Outlet
C - Inline With Outlet
D - 90° CCW From Outlet
- 8. Shaft Rotation
L - Left Hand
(Omit for Right Hand)
- 9. Viton Seals
(Omit for Standard)

**For Shaft Options see page 250
For Pump Dimensions see page 251
For Vickers Replacement Pump Parts See Pages 507 - 510**

Tandem Unit Specifications 12 Vane Industrial Model

Series	GPM Shaft End Pump	Displacement Cubic Inches/Rev.	Max. RPM	Max. PSI	Typical Delivery GPM at Max Speed & Pressure	Typical Input HP at Max Speed & Pressure	GPM Cover End Pump	Displacement Cubic Inches/Rev.	Max. RPM	Max. PSI	Typical Delivery GPM at Max Speed & Pressure	Typical Input HP at Max Speed & Pressure	Weight In Pounds
2520	12	2.31	1800	2500	14.4	26	5	0.96	1800	3000	7.1	13	45
	14	2.7	1800	2500	17	31	8	1.54	1800	3000	11.3	21	
	17	3.27	1800	2500	22.9	37	11	2.12	1800	3000	13.1	29	
	21	4.04	1800	2500	26.8	46	12	2.31	1800	2500	15.6	26	
3520	25	4.81	1800	2500	32	55	5	0.96	1800	3000	7.1	13	75
	30	5.78	1800	2500	40.2	66	8	1.54	1800	3000	11.3	21	
	35	6.74	1800	2500	47.7	77	11	2.12	1800	3000	13.1	29	
	38	7.32	1800	2500	50.5	83	12	2.31	1800	2500	15.6	26	
3525	25	4.81	1800	2500	32	55	12	2.31	1800	2500	14.4	26	76
	30	5.78	1800	2500	40.2	66	14	2.7	1800	2500	17	31	
	35	6.74	1800	2500	47.7	77	17	3.27	1800	2500	22.9	37	
	38	7.32	1800	2500	50.5	83	21	4.04	1800	2500	26.8	46	
4520	42	8.09	1800	2500	55.7	101	5	0.96	1800	3000	7.1	13	94
	45	8.66	1800	2500	62.2	111	8	1.54	1800	3000	11.3	21	
	50	9.63	1800	2500	66.6	117	11	2.12	1800	3000	13.1	29	
	60	11.55	1800	2500	82.8	139	12	2.31	1800	2500	15.6	26	
4525	42	8.09	1800	2500	55.7	101	12	2.31	1800	2500	14.4	26	101
	45	8.66	1800	2500	62.2	111	14	2.7	1800	2500	17	31	
	50	9.63	1800	2500	66.6	117	17	3.27	1800	2500	22.9	37	
	60	11.55	1800	2500	82.8	139	21	4.04	1800	2500	26.8	46	
4535	42	8.09	1800	2500	55.7	101	25	4.81	1800	2500	32	55	118
	45	8.66	1800	2500	62.2	111	30	5.78	1800	2500	40.2	66	
	50	9.63	1800	2500	66.6	117	35	6.74	1800	2500	47.7	77	
	60	11.55	1800	2500	82.8	139	38	7.32	1800	2500	50.5	83	

Tandem Unit 12 Vane Industrial Model Code Breakdown

TVP **2520** **I** **21** **F** **12** **11** **AA** **L** **V**
1 **2** **3** **4** **5** **6** **7** **8** **9** **10**

- | | | | |
|--|--|---|---|
| 1. Tandem Vane Pump | 4. Capacity Rating
(Shaft End Pump)
GPM at 1200 RPM & 100 PSI
25: 12, 14, 17 & 21
35: 25, 30, 35 & 38
45: 42, 45, 50 & 60 | 5. Flange Ported (Standard) | 7. Shaft (See Options Page 250) |
| 2. Series
2520, 3520, 3525, 4520, 4525
4535 w/ Standa5rd Bearing
2620 w/ Heavy Duty Bearing | | 6. Capacity Rating
(Cover End Pump)
20: 5, 8, 11, 12 & 14
25: 12, 14, 17 & 21
35: 25, 30, 35 & 38 | 8. Outlet Position (See Below) |
| 3. Industrial Design | | | 9. Shaft Rotation
L-Left Hand
(Omit for Right Hand) |
| | | | 10. Viton Seals
(Omit for Standard Seals) |

OUTLET POSITIONS Viewed from Cover End of Pump (All Series Except 4535)

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 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

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
BC - No. 2 Outlet Inline With Inlet
BD - No. 2 Outlet 90° CW From Inlet

With No. 1 Outlet Inline with Inlet
CA - No. 2 Outlet Opposite Inlet
CB - No. 2 Outlet 90° CCW From Inlet
CC - No. 2 Outlet Inline With Inlet
CD - No. 2 Outlet 90° CS From Inlet
With No. 1 Outlet 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

**For Shaft Options see page 250
For Pump Dimensions see page 252**

Single Unit Shaft Options

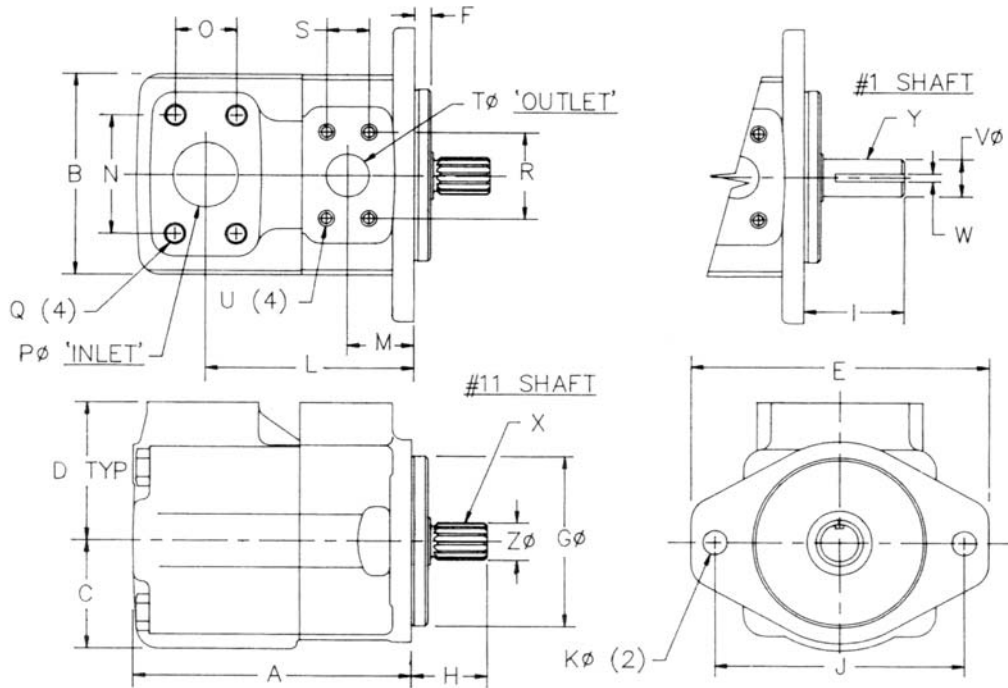
Pump Style	Code	Description	Major Diameter	Ext.
25	1	3/16 Square Keyed	0.875	2.31
	3	#15 Woodruff Key	0.875	2.44
	11	13T 16/32 Splined	0.875	1.75
	104	22T 24/48 Splined	0.946	2.41
35	1	5/16 Square Keyed	1.25	2.9
	11	14T 12/24 Splined	1.25	2.34
	19	14T 12/24 X-Long Splined	1.25	2.9
	86	5/16 Heavy Duty Square Keyed	1.375	3.4
	110	14T 12/24 Splined	1.25	2.88
45	1	5/16 Square Keyed	1.25	2.47
	11	14T 12/24 Splined	1.25	2.47
	19	14T 12/24 X-Long Splined	1.25	3.07
	86	3/8 Heavy Duty Square Keyed	1.5	3.47

Tandem Unit Shaft Options

Pump Style	Code	Description	Major Diameter	Ext.
2520	1	3/16 Square Keyed	0.875	2.31
	11	13T 16/32 Splined	0.875	1.75
	25	14T 12/24 X-Long Splined	1.25	3.06
	121	11T 16/32 Splined	0.745	2.5
	122	14T 12/24 Splined	1.248	3.06
	123	13T 16/32 Splined	0.873	1.75
3520	1	5/16 Square Keyed	1.25	2.9
	11	14T 12/24 Splined	1.25	2.33
	19	14T 12/24 X-Long Splined	1.25	3.08
	86	5/16 Heavy Duty Square Keyed	1.375	3.4
	113	14T 12/24 Splined	1.25	3.07
	114	14T 12/24 Splined	1.25	2.3
3525	1	5/16 Square Keyed	1.25	2.9
	11	14T 12/24 Splined	1.25	2.33
	19	14T 12/24 X-Long Splined	1.25	3.08
	86	5/16 Heavy Duty Square Keyed	1.375	3.4
	111	14T 12/24 Splined	1.25	2.88
	124	14T 12/24 Splined	1.25	4.13
4520	1	5/16 Square Keyed	1.25	2.47
	11	14T 12/24 Splined	1.25	2.47
	86	3/8 Heavy Duty Square Keyed	1.5	3.47
	114	14T 12/24 Splined	1.25	3.09
	115	14T 12/24 Splined	1.25	2.33
4525	1	5/16 Square Keyed	1.25	2.47
	11	14T 12/24 Splined	1.25	2.47
	19	14T 12/24 X-Long Splined	1.25	3.07
	86	3/8 Heavy Duty Square Keyed	1.5	3.47
	114	14T 12/24 Splined	1.25	3.09
	115	14T 12/24 Splined	1.25	2.33
4535	1	5/16 Square Keyed	1.25	2.47
	11	14T 12/24 Splined	1.25	2.47
	19	14T 12/24 X-Long Splined	1.25	3.07
	86	3/8 Heavy Duty Square Keyed	1.5	3.47
	114	14T 12/24 Splined	1.25	3.07
	125	14T 12/24 Splined	1.25	2.25

For Unit Specifications see page 245 - 249
For Pump Dimensions see page 251 - 252

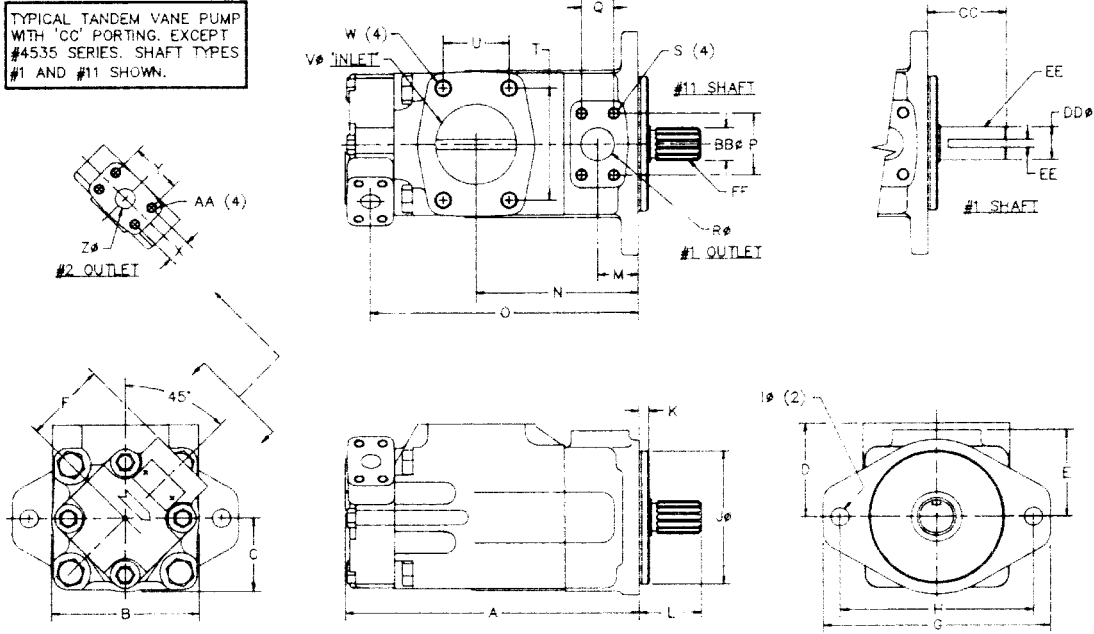
Mobile & Industrial Single Pump Dimensions



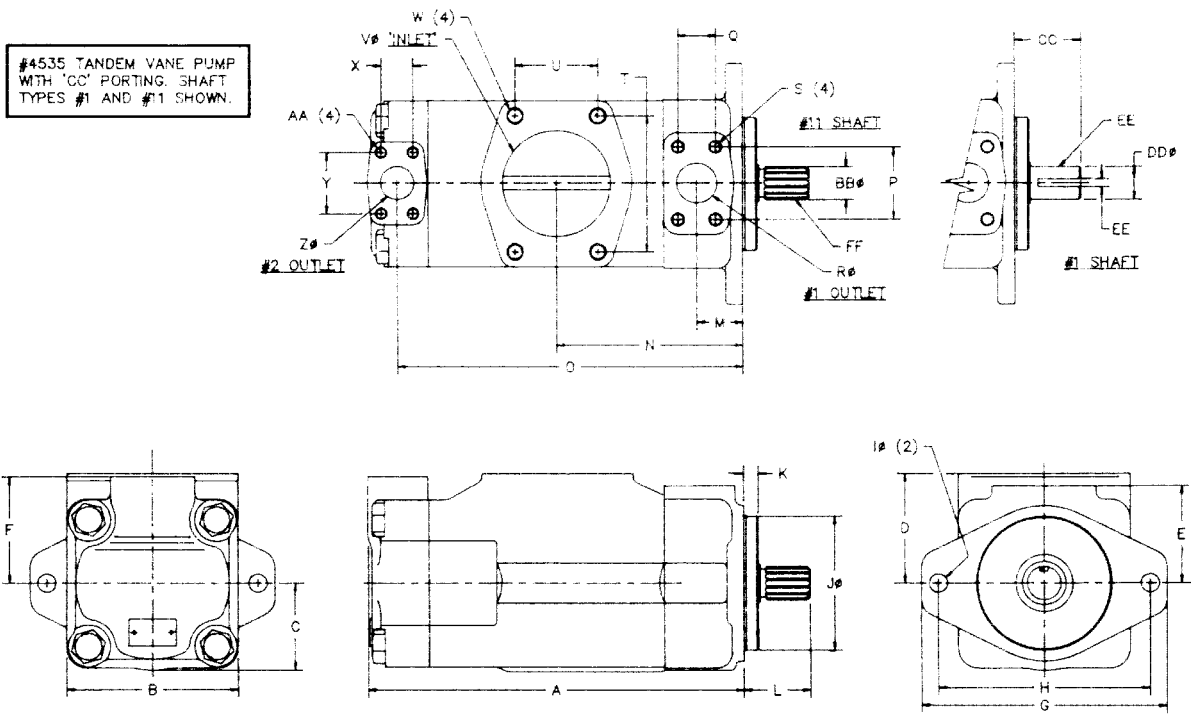
	25 SER.	35 SER.	45 SER.		25 SER.	35 SER.	45 SER.
A	6.37 (161.8)	7.09 (180.1)	8.50 (215.9)	N	2.75 (69.9)	3.062 (77.8)	4.187 (106.3)
B	4.69 (119.1)	5.53 (140.5)	6.38 (162.1)	O	1.406 (35.7)	1.687 (42.8)	2.438 (61.9)
C	2.56 (65.0)	2.90 (73.7)	3.25 (82.6)	P	1.50 (38.1)	2.00 (50.8)	3.00 (76.2)
D	3.00 (76.2)	3.25 (82.6)	3.69 (93.7)	Q	.500 - 13 2B Thd	.500 - 13 2B Thd	.687 - 11 2B Thd
E	6.88 (174.8)	8.38 (212.9)	8.38 (212.9)	R	2.062 (52.4)	2.312 (58.7)	2.750 (69.9)
F	.38 (9.7)	.38 (9.7)	.50 (12.7)	S	1.031 (26.2)	1.187 (30.1)	1.406 (35.7)
G	4.00 (101.6)	5.00 (127.0)	5.00 (127.0)	T	1.00 (25.4)	1.25 (31.8)	1.50 (38.1)
H	1.75 (44.5)	2.34 (59.4)	2.47 (62.7)	U	.375 - 16 2B Thd	.438 - 14 2B Thd	.500 - 13 2B Thd
I	2.31 (58.7)	2.90 (73.7)	2.47 (62.7)	V	.875 (22.2)	1.250 (31.9)	1.250 (31.9)
J	5.75 (146.1)	7.125 (181.0)	7.125 (181.0)	W	.188 (4.8)	.313 (8.0)	.313 (8.0)
K	.56 (14.2)	.69 (17.5)	.69 (17.5)	X	13T 16/32 Spline	14T 12/24 Spline	14T 12/24 Spline
L	4.75 (120.7)	4.94 (125.5)	6.03(153.2)	Y	Straight Keyed	Straight Keyed	Straight Keyed
M	1.50 (38.1)	1.50 (38.1)	1.69 (42.9)	Z	.875 (22.2)	1.25 (31.8)	1.25 (31.8)

Mobile & Industrial Tandem Pump Dimensions

TYPICAL TANDEM VANE PUMP WITH 'CC' PORTING. EXCEPT #4535 SERIES. SHAFT TYPES #1 AND #11 SHOWN.



#4535 TANDEM VANE PUMP WITH 'CC' PORTING. SHAFT TYPES #1 AND #11 SHOWN.



Mobile & Industrial Tandem Pump Dimensions

	2520	3520	3525	4520	4525	4535
A	9.89 (251.2)	10.9 (276.9)	11.38 (289.1)	12.06 (306.3)	12.81 (325.4)	13.84 (351.5)
B	5.125 (130.2)	5.50 (139.7)	5.81 (147.6)	6.38 (162.1)	6.38 (162.1)	6.38 (162.1)
C	2.56 (65.0)	2.91 (73.9)	2.91 (73.9)	3.31 (84.1)	3.31 (84.1)	3.31 (84.1)
D	3.31 (84.0)	3.50 (88.9)	3.50 (88.9)	4.03 (102.4)	4.03 (102.4)	4.03 (102.4)
E	3.00 (76.20)	3.25 (82.6)	3.25 (82.6)	3.69 (93.7)	3.69 (93.7)	3.69 (93.7)
F	3.00 (76.2)	3.00 (76.2)	2.94 (74.7)	3.00 (76.2)	2.94 (74.7)	4.00 (101.6)
G	6.88 (174.8)	8.38 (212.9)	8.38 (212.9)	8.38 (212.9)	8.38 (212.9)	8.38 (212.9)
H	5.750 (146.0)	7.125 (181.0)	7.125 (181.0)	7.125 (181.0)	7.125 (181.0)	7.125 (181.0)
I	.56 (14.2)	.69 (17.5)	.69 (17.5)	.69 (17.5)	.69 (17.5)	.69 (17.5)
J	4.00 (101.6)	5.00 (127.0)	5.00 (127.0)	5.00 (127.0)	5.00 (127.0)	5.00 (127.0)
K	.38 (9.6)	.38 (9.7)	.38 (9.7)	.500 (12.7)	.500 (12.7)	.50 (12.7)
L	1.75 (4.44)	2.33 (59.2)	2.33 (59.2)	2.47 (62.7)	2.47 (62.7)	2.47 (62.7)
M	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.69 (42.9)	1.69 (42.9)	1.69 (42.9)
N	5.50 (139.7)	6.00 (152.4)	6.00 (152.4)	6.39 (162.3)	6.39 (162.3)	6.94 (176.3)
O	8.97 (57.7)	9.92 (252.0)	10.31 (261.9)	11.11 (282.2)	11.74 (298.2)	12.78 (324.6)
P	2.062 (52.4)	2.312 (58.7)	2.312 (58.7)	2.75 (69.9)	2.75 (69.9)	2.75 (69.9)
Q	1.031 (26.2)	1.188 (30.2)	1.188 (30.2)	1.406 (35.7)	1.406 (35.7)	1.406 (35.7)
R	1.00 (25.4)	1.25 (31.8)	1.25 (31.8)	1.500 (38.1)	1.500 (38.1)	1.500 (38.1)
S	.375 - 16 2B Thd	.438 - 14 2B Thd	.438 - 14 2B Thd	.500 - 13 2B Thd	.500 - 13 2B Thd	.500 - 13 2B Thd
T	3.50 (88.9)	4.188 (106.4)	4.188 (106.4)	4.75 (120.7)	4.75 (120.7)	5.125 (130.2)
U	2.00 (50.8)	2.438 (61.9)	2.438 (61.9)	2.75 (69.9)	2.75 (69.9)	3.062 (77.8)
V	2.50 (63.5)	3.00 (76.2)	3.00 (76.2)	3.500 (88.9)	3.500 (88.9)	4.00 (101.6)
W	.500 - 13 2B Thd	.625 - 11 2B Thd	.625 - 11 2B Thd	.625 - 11 2B Thd	.625 - 11 2B Thd	.625 - 11 2B Thd
X	.875 (22.2)	.875 (22.2)	1.031 (26.2)	.875 (22.2)	1.031 (26.2)	1.188 (30.2)
Y	1.875 (47.6)	1.875 (47.6)	2.062 (52.4)	1.875 (47.6)	2.062 (52.4)	2.312 (58.7)
Z	.75 (19.1)	.75 (19.1)	1.00 (25.4)	.75 (19.1)	1.00 (25.4)	1.25 (31.8)
AA	.375 - 16 2B Thd	.375 - 16 2B Thd	.375 - 16 2B Thd	.375 - 16 2B Thd	.375 - 16 2B Thd	.438 - 14 2B Thd
BB	.875 (22.2)	1.25 (31.8)	1.250 (31.8)	1.25 (31.8)	1.250 (31.8)	1.250 (31.8)
CC	2.31 (58.7)	2.90 (73.7)	2.90 (73.7)	12.47 (62.7)	2.47 (62.7)	2.47 (62.7)
DD	.875 (22.2)	1.25 (31.8)	1.250 (31.8)	1.25 (31.8)	1.250 (31.8)	1.250 (31.75)
EE	.313 Straight Keyed	.313 Straight Keyed	.313 Straight Keyed	.313 Straight Keyed	.313 Straight Keyed	.313 Straight Keyed
FF	13T 16/32 Spline	14T 12/24 Spline	14T 12/24 Spline	14T 12/24 Spline	14T 12/24 Spline	14T 12/24 Spline

Equipment manufacturer's names, part numbers and descriptions are used for reference purposes only. We do not imply that any part shown is the product of these manufacturers.