

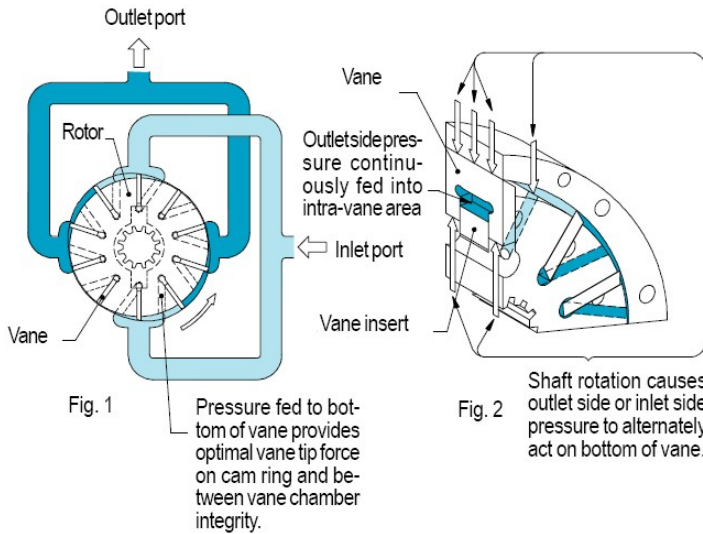


Hydraulic Eaton Vickers V Vane Pump

V series of single and double vane pump

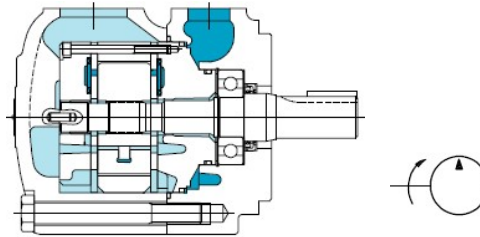
www.hydpump.com

Intra-vane Mechanism



Features

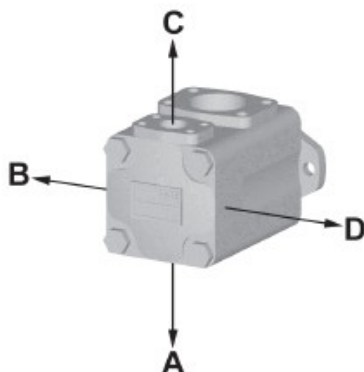
- Eaton Vickers V and VQ series are fixed displacement and balanced type hydraulic vane pumps. Available in both 12 vanes design for industrial application with quiet operating and 10 vanes design for mobile application with higher pressure and wider range of speed. They are widely used in hydraulic systems for machine-tools, presses, die casting machine, engineering, plastic injection molding and other machineries.
- Its interchangeable with original Vickers hydraulic pump of the same model.
- The inlet or outlet ports can be rotated through increments of 90° in relation to each other, providing application flexibility and easy installation.
- With the cartridge independent of the shaft, allowing for easy change of flow capacity and field servicing without removing the pump from its mounting.
- For the vane pump cartridge kit of VQ Series, the flexible plates are inserted between the support plates and the rotor. The flexible plates are assembled with the bronze facing towards the rotor to improve cold start capability and compensate thermal expansion in the rotor. This makes VQ Series particularly suited for mobile application.



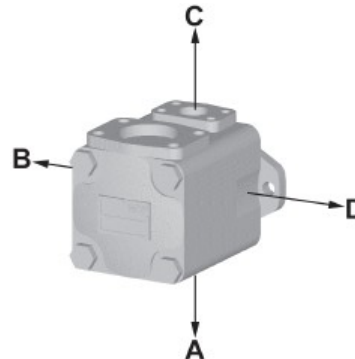
Single vane pump ordering code:

25	VQ	21	A	- 1	A	22	L	V
Model: 20,25, 35, 45	Series: V=industrial VQ=mobile	Displacement code	Port connections: A=SAE 4-bolt flange	Shaft type: 1=straight keyed 86=heavy duty keyed 11, 151=splined	Outlet port position: A=opposite inlet port B= -90° CCW from inlet C=inline with inlet D= -90° CW from inlet	Design number	Rotation: Viewed from shaft end R=clockwise (blank) L=anti-clockwise	Seal: Blank=buna V=viton

Port Positions for 20V/VQ:



Port Positions for 25V/VQ, 35 V/VQ, 45 V/VQ:

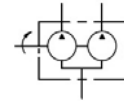
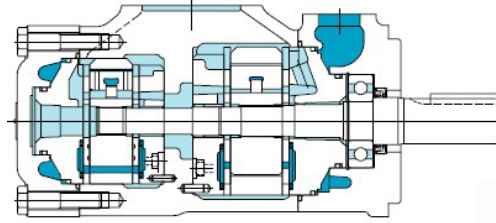



Specifications
Single Pump V Series

Series	Displacement code	Geometric displacement (ml/r)	Anti-Wear Mineral Oil		Weight (KG)
			Max. speed (rpm)	Max. pressure (MPa)	
20V vane pump	5	17	1800	21	12
	8	27			
	9	30			
	10	33		16	
	11	36			
	12	40			
	14	45			
25V vane pump	10	33	1800	17.5	14.8
	12	40			
	14	45			
	17	55			
	19	60			
	21	67			
35V vane pump	21	67	1800	17.5	22.7
	25	81			
	30	97			
	35	112			
	38	121			
45V vane pump	42	138	1800	17.5	34.1
	45	147			
	50	162			
	57	180			
	60	193			

Specifications
Single Pump VQ Series

Series	Displacement code	Geometric displacement (ml/r)	Anti-Wear Mineral Oil		Weight (KG)
			Max. speed (rpm)	Max. pressure (MPa)	
20VQ vane pump	5	18	2700	21	12
	8	27			
	9	30			
	11	36		16	
	12	40			
	14	45			
25VQ vane pump	10	33	2700	21	14.8
	12	40			
	14	45			
	17	55	2500		
	19	60			
	21	67			
35VQ vane pump	21	67	2500	21	22.7
	25	81			
	30	97	2400		
	35	112			
	38	121			
45VQ vane pump	42	138	2200	17.5	34.1
	45	147			
	50	162			
	57	180			
	60	193			



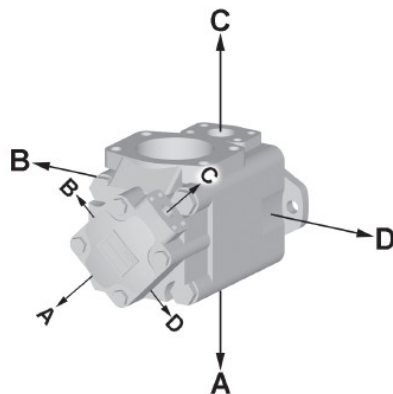
Double vane pump ordering code:

3525	V	38	A	21	- 1	AA	22	L	V
Model: 2520, 3520, 4520, 3525, 4525, 4535	Series: V=industrial VQ=mobile	Displacement code of shaft end pump	Port connections: A=SAE 4-bolt flange	Displacement code of cover end pump	Shaft type: 1=standard keyed 86=heavy duty keyed 11=splined	Outlet position* see below marked	Design number	Rotation: Viewed from shaft end R=clockwise (blank) L=anti-clockwise	Seal: Blank=buna V=viton

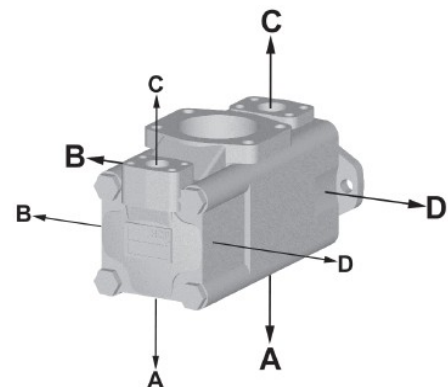
*Outlet position:

Viewed from cover end		All series except 4535VQ	4535VQ
No.1 outlet opposite inlet	AA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	AB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	AC	No.2 outlet 45° CW from inlet	No.2 outlet inline with inlet
	AD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet
No.1 outlet 90° CCW from inlet	BA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	BB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	BC	No.2 outlet 45° CW from inlet	No.2 outlet inline with inlet
	BD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet
No.1 outlet inline with inlet	CA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	CB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	CC	No.2 outlet 45° CW from inlet	No.2 outlet inline with inlet
	CD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet
No.1 outlet 90° CW from inlet	DA	No.2 outlet 135° CCW from inlet	No.2 outlet opposite inlet
	DB	No.2 outlet 45° CCW from inlet	No.2 outlet 90° CCW from inlet
	DC	No.2 outlet 45° CW from inlet	No.2 outlet inline with inlet
	DD	No.2 outlet 135° CW from inlet	No.2 outlet 90° CW from inlet

**Port Positions for 2520V/VQ, 3520 V/VQ, 4520 V/VQ,
3525 V/VQ, 4525 V/VQ**



Port Positions for 4535 V/VQ





Specifications

Double Pump V Series

Series	Displacement code of shaft end pump	Displacement code of cover end pump
2520V vane pump	10, 12, 14, 17, 19, 21	5, 8, 9, 10, 11, 12, 14
2525V vane pump	10, 12, 14, 17, 19, 21	10, 12, 14, 17, 19, 21
3520V vane pump	21, 25, 30, 35, 38	5, 8, 9, 10, 11, 12, 14
3525V vane pump	21, 25, 30, 35, 38	10, 12, 14, 17, 19, 21
4520V vane pump	42, 45, 50, 57, 60, 66, 75	5, 8, 9, 10, 11, 12, 14
4525V vane pump	42, 45, 50, 57, 60, 66, 75	10, 12, 14, 17, 19, 21
4535V vane pump	42, 45, 50, 57, 60, 66, 75	21, 25, 30, 35, 38

Specifications

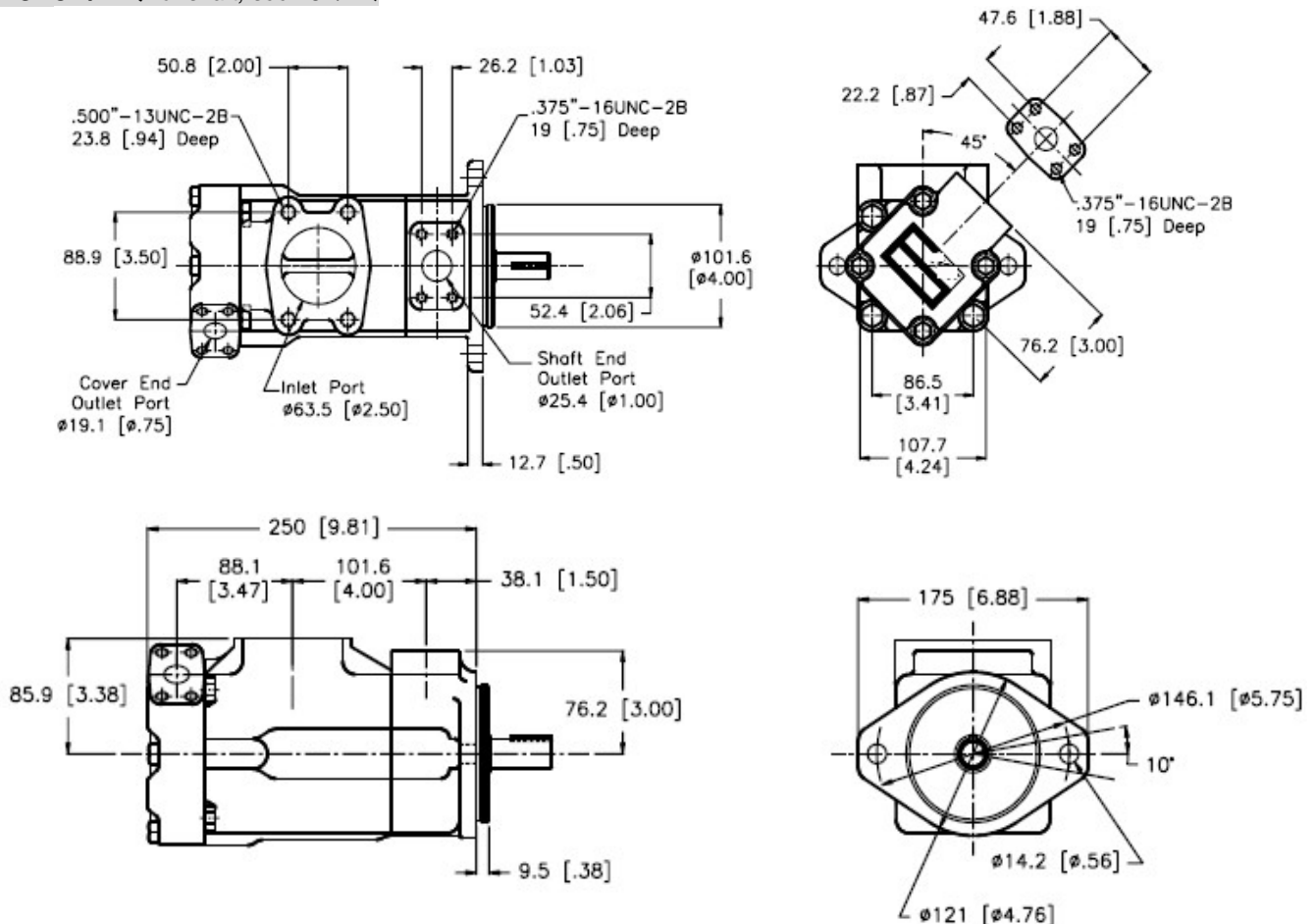
Double Pump VQ Series

Series	Displacement code of shaft end pump	Displacement code of cover end pump
2520VQ vane pump	10, 12, 14, 17, 19, 21	5, 8, 9, 11, 12, 14
2525VQ vane pump	10, 12, 14, 17, 19, 21	10, 12, 14, 17, 19, 21
3520VQ vane pump	21, 25, 30, 35, 38	5, 8, 9, 11, 12, 14
3525VQ vane pump	21, 25, 30, 35, 38	10, 12, 14, 17, 19, 21
4520VQ vane pump	42, 45, 50, 57, 60	5, 8, 9, 11, 12, 14
4525VQ vane pump	42, 45, 50, 57, 60	10, 12, 14, 17, 19, 21
4535VQ vane pump	42, 45, 50, 57, 60	21, 25, 30, 35, 38

Installation Dimensions mm (inch)

Double Pump

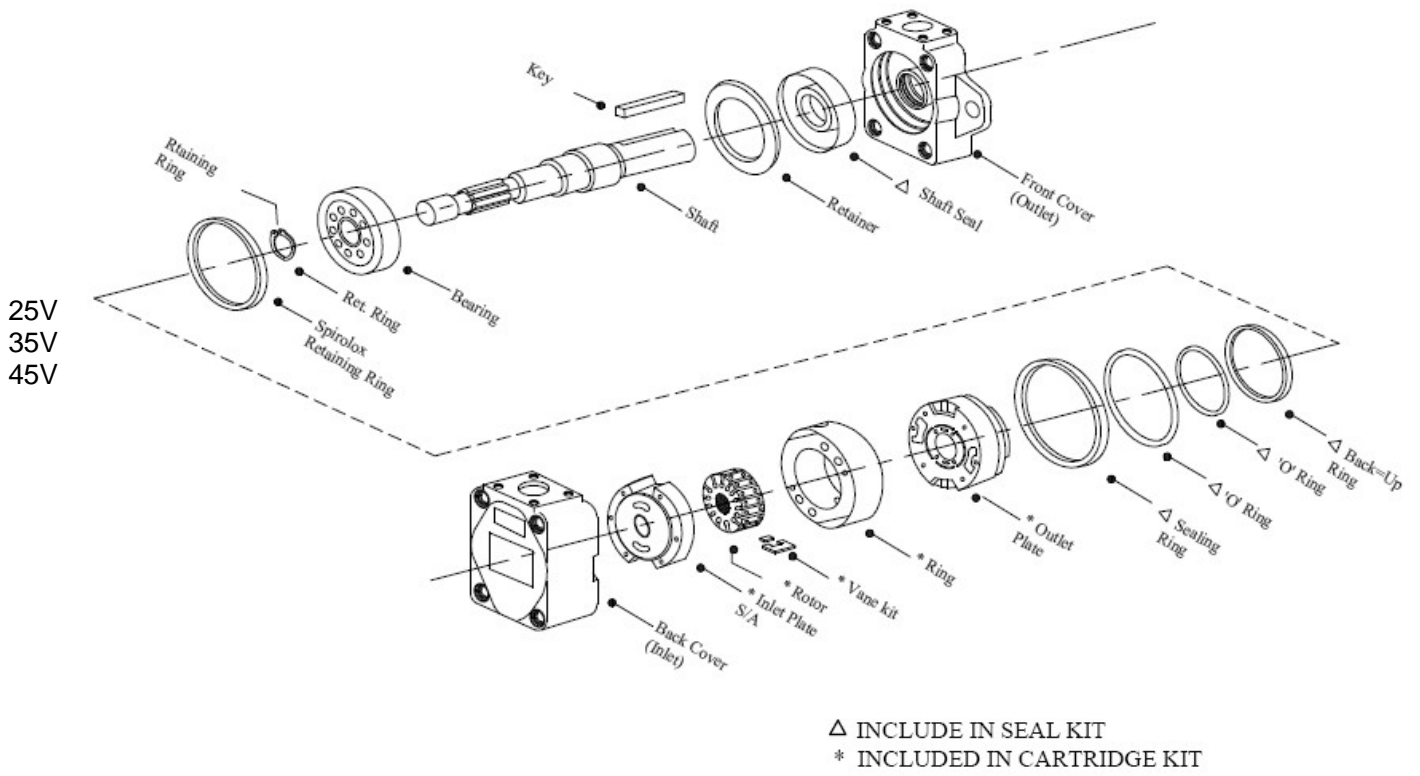
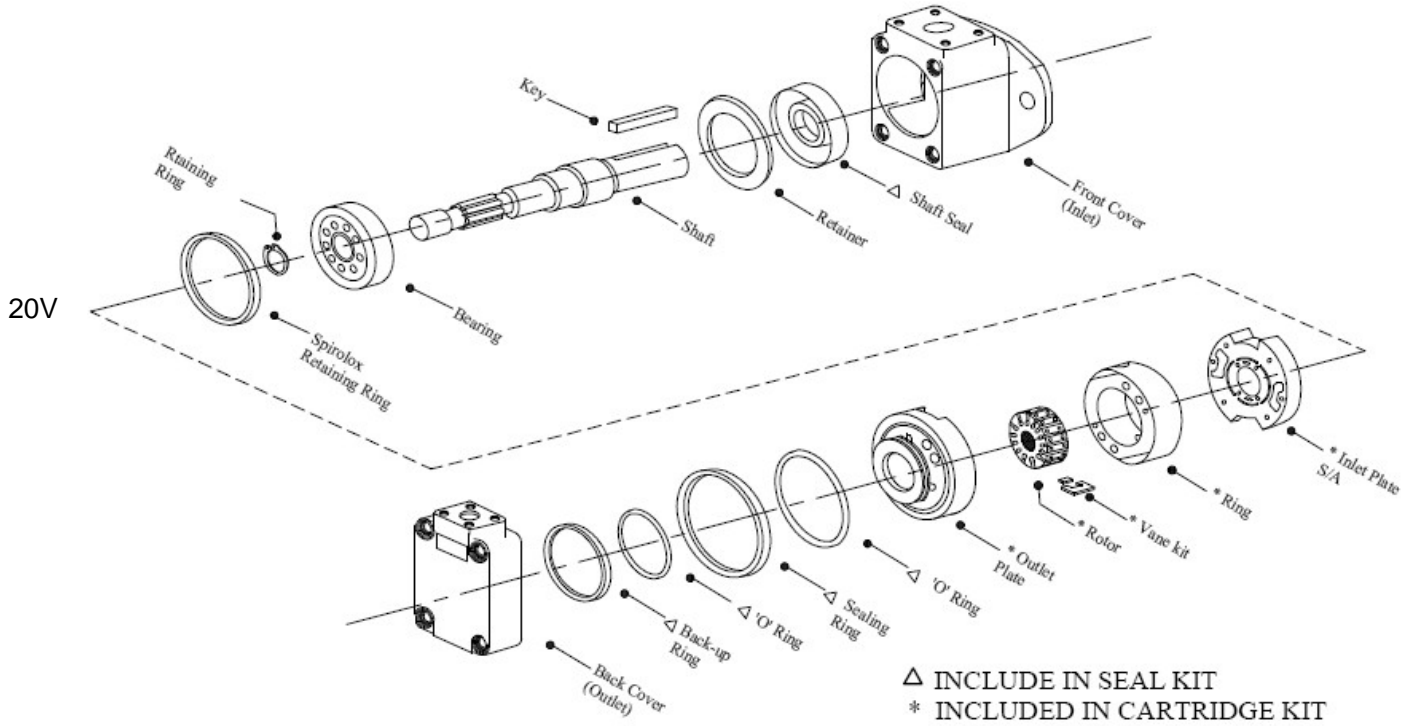
2520V/VQ for shaft, see 25V/VQ





Parts information

Victory Pump Manufacturing

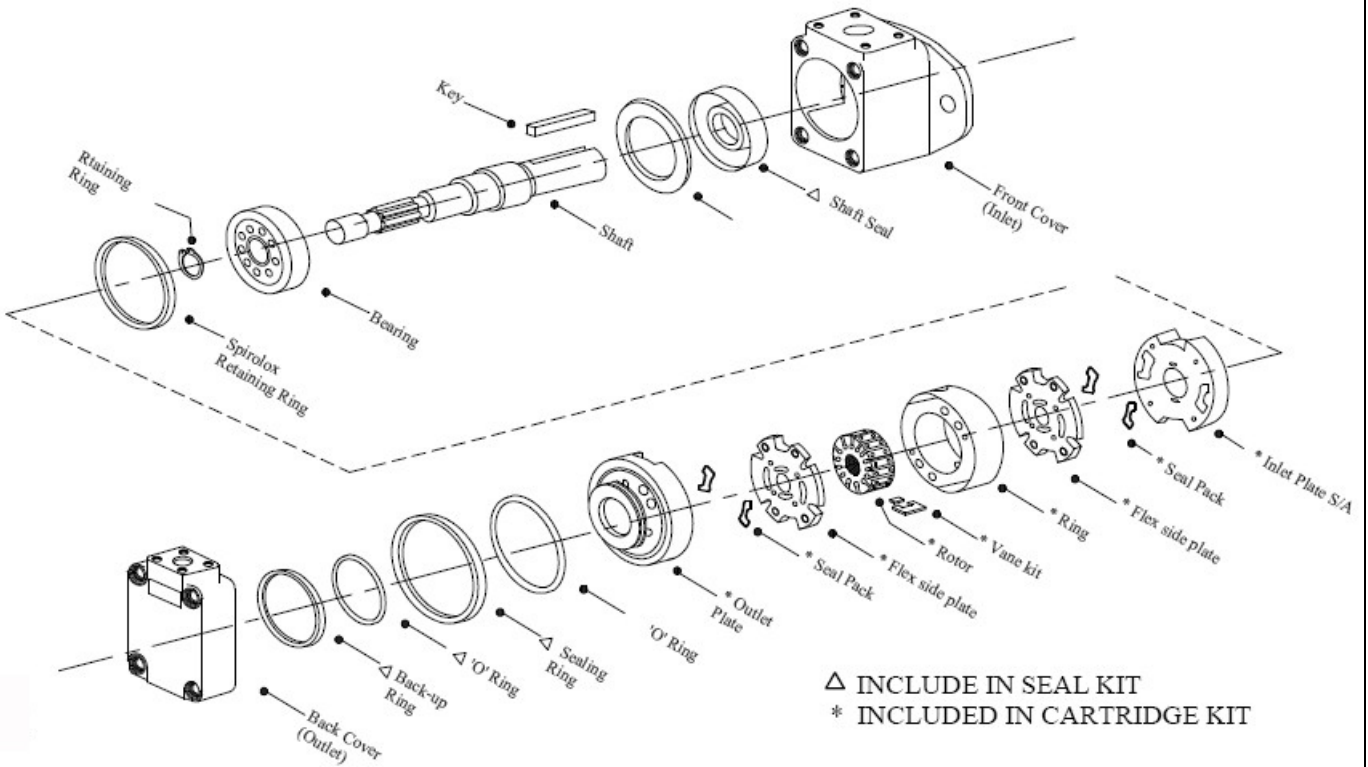




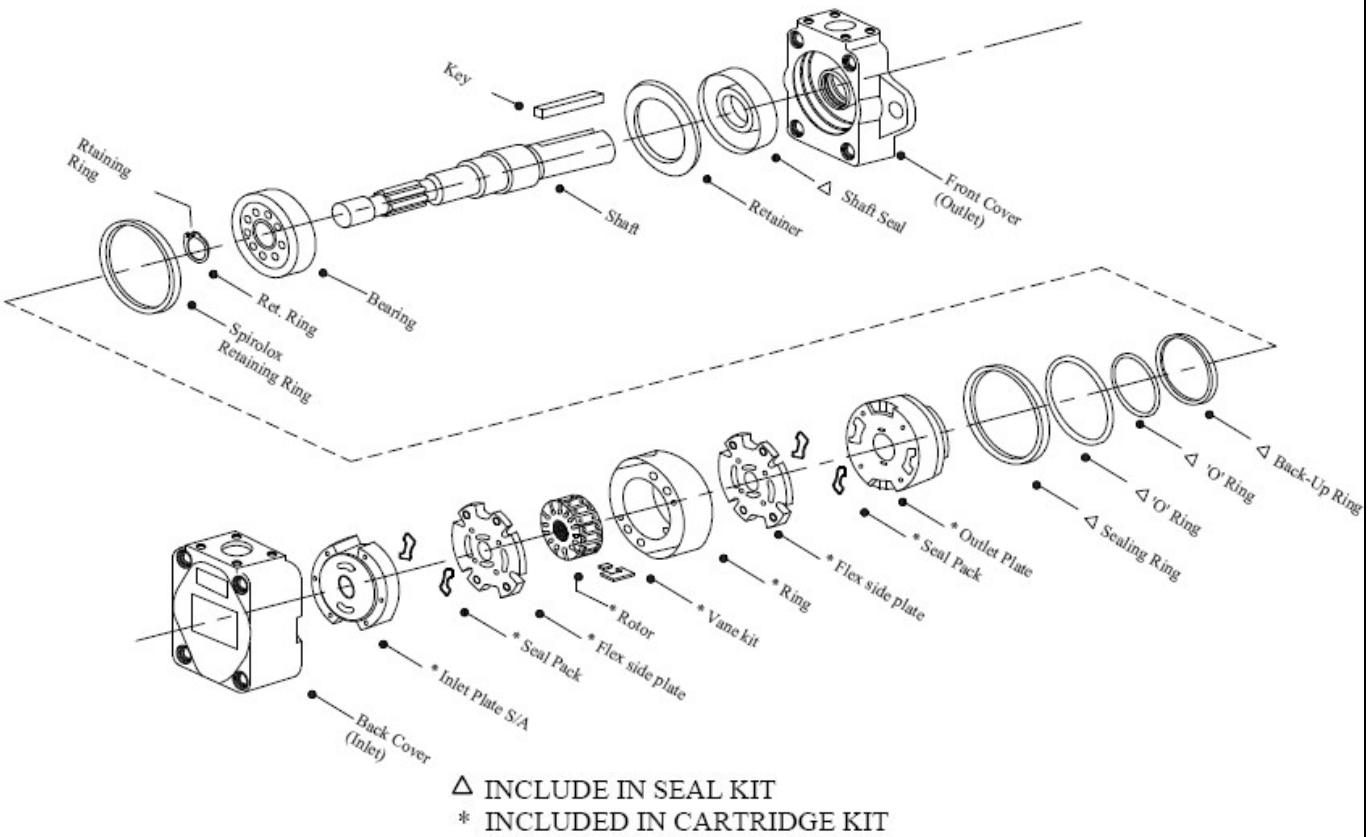
Parts information

Victory Pump Manufacturing

20VQ



25VQ
30VQ
35VQ
45VQ



Vickers Vane pump	Displacement	A=opposite inlet port	B=- 90° CCW from inlet	C=inline with inlet	D=- 90° CW from inlet
20V single vane pump	5 GPM	20V5A1A22R	20V5A1B22R	20V5A1C22R	20V5A1D22R
	8 GPM	20V8A1A22R	20V8A1B22R	20V8A1C22R	20V8A1D22R
	9 GPM	20V9A1A22R	20V9A1B22R	20V9A1C22R	20V9A1D22R
	11 GPM	20V11A1A22R	20V11A1B22R	20V11A1C22R	20V11A1D22R
	12 GPM	20V12A1A22R	20V12A1B22R	20V12A1C22R	20V12A1D22R
	14 GPM	20V14A1A22R	20V14A1B22R	20V14A1C22R	20V14A1D22R
25V single vane pump	10 GPM	25V10A1A22R	25V10A1B22R	25V10A1C22R	25V10A1D22R
	12 GPM	25V12A1A22R	25V12A1B22R	25V12A1C22R	25V12A1D22R
	14 GPM	25V14A1A22R	25V14A1B22R	25V14A1C22R	25V14A1D22R
	17 GPM	25V17A1A22R	25V17A1B22R	25V17A1C22R	25V17A1D22R
	19 GPM	25V19A1A22R	25V19A1B22R	25V19A1C22R	25V19A1D22R
	21 GPM	25V21A1A22R	25V21A1B22R	25V21A1C22R	25V21A1D22R
35V single vane pump	21 GPM	35V21A1A22R	35V21A1B22R	35V21A1C22R	35V21A1D22R
	25 GPM	35V25A1A22R	35V25A1B22R	35V25A1C22R	35V25A1D22R
	30 GPM	35V30A1A22R	35V30A1B22R	35V30A1C22R	35V30A1D22R
	35 GPM	35V35A1A22R	35V35A1B22R	35V35A1C22R	35V35A1D22R
45V single vane pump	38 GPM	35V38A1A22R	35V38A1B22R	35V38A1C22R	35V38A1D22R
	42 GPM	45V42A1A22R	45V42A1B22R	45V42A1A22R	45V42A1D22R
	45 GPM	45V45A1A22R	45V45A1B22R	45V45A1A22R	45V45A1D22R
	50 GPM	45V50A1A22R	45V50A1B22R	45V50A1A22R	45V50A1D22R
	57 GPM	45V57A1A22R	45V57A1B22R	45V57A1A22R	45V57A1D22R
	60 GPM	45V60A1A22R	45V60A1B22R	45V60A1A22R	45V60A1D22R
Vickers Vane pump	Displacement	A=opposite inlet port	B=- 90° CCW from inlet	C=inline with inlet	D=- 90° CW from inlet
2520V double vane pump	Front and rear 5, 8, 9, 11, 12, 14, 17, 19, 21	2520V10A51CC22R	2520V12A51CC22R	2520V14A51CC22R	2520V17A51CC22R
		2520V10A81CC22R	2520V12A81CC22R	2520V14A81CC22R	2520V17A81CC22R
		2520V10A91CC22R	2520V12A91CC22R	2520V14A91CC22R	2520V17A91CC22R
		2520V10A111CC22R	2520V12A111CC22R	2520V14A111CC22R	2520V17A111CC22R
		2520V10A121CC22R	2520V12A121CC22R	2520V14A121CC22R	2520V17A121CC22R
		2520V10A141CC22R	2520V12A141CC22R	2520V14A141CC22R	2520V17A141CC22R
3520V double vane pump	Front and rear 5, 8, 9, 11, 12, 14, 21, 25, 30, 35, 38	3520V25A51CC22R	3520V30A51CC22R	3520V35A51CC22R	3520V38A51CC22R
		3520V25A81CC22R	3520V30A81CC22R	3520V35A81CC22R	3520V38A81CC22R
		3520V25A91CC22R	3520V30A91CC22R	3520V35A91CC22R	3520V38A91CC22R
		3520V25A111CC22R	3520V30A111CC22R	3520V35A111CC22R	3520V38A111CC22R
		3520V25A121CC22R	3520V30A121CC22R	3520V35A121CC22R	3520V38A121CC22R
		3520V25A141CC22R	3520V30A141CC22R	3520V35A141CC22R	3520V38A141CC22R
3525V double vane pump	Front and rear 10, 12, 14, 17, 19, 21, 25, 30, 35, 38	3525V25A101CC22R	3525V25A121CC22R	3525V25A141CC22R	3525V25A171CC22R
		3525V30A101CC22R	3525V30A121CC22R	3525V30A141CC22R	3525V30A171CC22R
		3525V35A101CC22R	3525V35A121CC22R	3525V35A141CC22R	3525V35A171CC22R
		3525V38A101CC22R	3525V38A121CC22R	3525V38A141CC22R	3525V38A171CC22R
4520V double vane pump	Front and rear 5, 8, 9, 11, 12, 14, 42, 45, 50, 57, 60	4520V42A51AA22R	4520V45A51AA22R	4520V50A51AA22R	4520V60A51AA22R
		4520V42A81AA22R	4520V45A81AA22R	4520V50A81AA22R	4520V60A81AA22R
		4520V42A91AA22R	4520V45A91AA22R	4520V50A91AA22R	4520V60A91AA22R
		4520V42A111AA22R	4520V45A111AA22R	4520V50A111AA22R	4520V60A111AA22R
		4520V42A121AA22R	4520V45A121AA22R	4520V50A121AA22R	4520V60A121AA22R
		4520V42A141AA22R	4520V45A141AA22R	4520V50A141AA22R	4520V60A141AA22R
4535V double vane pump	Front and rear 21, 25, 30, 35, 38, 42, 45, 50, 57, 60	4535V42A251AA22R	4535V45A251AA22R	4535V50A251AA22R	4535V60A251AA22R
		4535V42A301AA22R	4535V45A301AA22R	4535V50A301AA22R	4535V60A301AA22R
		4535V42A351AA22R	4535V45A351AA22R	4535V50A351AA22R	4535V60A351AA22R
		4535V42A381AA22R	4535V45A381AA22R	4535V50A381AA22R	4535V60A381AA22R

Details Vickers vane pump				
2520V17A11182AA20	3520V38A811AB20	2520V21A51AA20L	4525V60A171CB20	2520V12A51CC20
3520V35A1486CC20L	3525V35A171AA20	2520V21A51AB20	26V14A1C20	2520V14A1411AA20L
2520V17A886AA20	3525V35A171AA20L	2520V21A51AB20	4520V50A1111CC20	2520V17A81AA20
2520V19A811CC20	3525V35A171CC20	2520V21A51CB20L	4525V42A211CC20	2520V17A81AA20L
4525V42A1286AA20	25V12A11A20	2520V21A51CC20	4520V60A886AA20	2520V17A81BD20
2520V21A14182BB20	25V12A11A20L	2520V21A51DD20L	4520V60A886DD20	2520V17A81CB20
2520V21A14182BB20L	25V12A11B20L	2520V21A81AA20	4535V42A351CC20	2520V17A81CB20L
2520V12A1186AA20	25V12A11C20	2520V21A81AA20L	4520V50A511CC20	2520V17A81CC20
3525V38A1911CC20L	25V12A11C20L	2520V21A81AB20L	3525V38A141CC20L	2520V17A811AA20
2520V14A21BA20	4525V60A2111CC20	2520V21A81CB20	3520V25A141AA20L	2520V17A811AA20L
2520V14A21CC20	4525V50A121CC20	2520V21A81CB20L	3520V35A81AA20	2520V17A811BB20
2520V14A21DD20	3520V38A511AB20	2520V21A81CC20	3520V38A121CC20	2520V17A811BD20
2520V12A211CB20	4520V42A811CC20	2520V21A81CC20L	4520V60A121CC20	2520V17A811CC20
2520V14A1186AA20	2520V12A121CB20L	2520V21A81DC20	31V24A1C20	2520V17A811CC20L
2520V14A1186CC20	2520V14A1211BA20	2520V21A81DC20L	4525V42A171CC20	2520V17A811CD20
4535V60A3086CC20334	2520V14A1211CC20	2520V21A111AA20	20V11A151A30	2520V17A811CD20L
4535V60A3086CC20334L	2520V17A121CC20	2520V21A111BC20	2520V21A11182AA20	2520V17A1125AA20L
2520V21A586AA20	2520V17A121CC20L	2520V21A111CB20L	2520V21A11182BB20	2520V17A141AA20
2520V21A586AC20	2520V21A121AA20	2520V21A111CC20	2520V21A11182BB20L	2520V17A141AA20L

2520V12A21BA20	2520V21A121CC20	2520V21A111CC20L	2520V21A11182CB20	2520V17A141CC20
2520V14A886CC20	2520V17A111AA20L	2520V21A111CD20	4535V50A3086CC20	2520V17A141CC20L
25V21A1A20	2520V17A111BD20L	2520V21A1211AA20	4535V50A3086DD20	2520V17A141DB20L
25V21A1A20L	2520V17A111CC20	2520V21A1211DC20R	4535V60A3586AA20	2520V17A141DC20L
25V21A1B20	2520V17A111CC20L	2520V21A1211DC20L	4535V60A3586CC20	2520V17A1411AA20
25V21A1C20	2520V17A111DC20	2520V21A141AA20	3525V35A1286AA20	2520V17A1411AA20L
25V21A1C20L	2520V17A111DD20	2520V21A141AA20L	3525V35A1286CC20	2520V17A1411BA20
25V21A1D20L	2520V17A1211CC20	2520V21A141CC20	4535V42A2586AA20	2520V17A1411CC20
45V60A86A20	2520V12A1111AA20	2520V21A141CC20L	3520V25A1486AA20L	2520V17A1411CC20L
45V60A86C20	2520V12A1111AA20L	3525V25A211AA20	3520V25A1486CC20	2520V21A51AA20
45V60A86C20L	2520V12A1111CC20	3525V25A211AA20L	3520V30A1286AD20	4525V50A211AA20
35V38A86A20	2520V12A811AA20	3525V25A211AB20L	3520V30A1286CC20	4525V50A211CC20
35V30A86A20	2520V12A811CB20	3525V25A211CC20	3520V30A1186AD20	4535V60A381AA20
35V30A86C20	2520V12A811CC20	3525V25A2119AA20L	3525V30A1719BA20	4535V60A381AA20L
35V25A86A20	30V24A11C20	3525V30A2111AA20	20V8A1A30	4535V60A381CC20
3520V38A1486CC20L	2520V12A111CC20	3525V30A2111AD20	20V8A1A30L	4535V60A251CC20
25V17A1A20	2520V17A511AA20	3525V30A2111CC20	20V8A1C30	4525V60A211AA20
25V17A1A20L	2520V17A511BB20	3525V30A2111CC20L	20V8A1C30L	4525V60A211AA20L
25V17A1A20L	25V14C11B12L	3525V35A2111AA20	3525V30A1711BB30L	4525V60A211CC20
25V17A1B20	3525V38A2111AA20	3525V35A2111AA20L	3520V25A1286AA20	4535V50A3811CC20L
25V17A1C20	3525V38A2111BB20	3525V35A2111AD20	3520V25A1286CC20	4520V42A51AA20
25V17A1C20L	3525V38A2111CC20	3525V35A2111CB20	3520V25A1286CC20	4525V50A2186CC20
25V17A1D20L	3520V38A1411CB20L	3525V35A2111CC20	4535V50A2586CC20	3525V38A171AA20
25V14A1A20	3520V30A141AD20L	3525V38A1211AA20	3520V38A1186CC20	3525V38A171AA20L
25V14A1A20L	3520V30A141BB20L	3525V38A1211CC20L	3520V38A1186CC20L	3525V38A171CC20
25V14A1C20	3520V30A141CC20	3525V38A211AA20L	3520V30A1119CC20	3520V35A11-1BA20
25V14A1C20L	3520V38A81CC20	3525V38A211AB20L	3520V35A1119CC20	3520V25A511DC20
25V14A1D20	3520V38A81CD20	3525V38A211BA20L	4520V60A811AA20	4525V50A211AA20
25V12A1A20	2520V14A811AA20	3525V38A211CC20	4520V60A811CC20	4525V50A211BB20
25V12A1A20L	3525V30A211AA20L	3525V38A211CC20L	2520V14A111AA20L	4525V50A211CC20
25V12A1C20	3525V38A211AB20	2520V14A51AA20	3525V30A1711BB20	4525V60A121CC20
25V12A1C20L	3525V30A211CB20L	2520V14A51CC20	3525V30A1711CC20	3520V30A1211AA20
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45V50A11A20	3525V25A141CC20	45V42A86C20	2520V21A91AB20L	2520V12A81AA20L
45V50A11C20	3520V30A511AA20	45V50A1A20	2520V21A91CC20	2520V12A81CC20
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45V60A11B20	2520V14A121CC20	45V50A1C20L	4535V50A3511CC20	2520V14A141AB20
45V60A11B20L	3525V25A1411CC20	45V60A1A20	3520V30A121CC20L	2520V14A141AB20L
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25V14A11A20L	3525V30A171CC20	3520V38A1111AB20L	4535V60A3886CC20	2520V21A811BB20
25V14A11B20L	26V17A1C20	3520V38A1111CB20	3520V35A121AA20	2520V21A811CC20
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