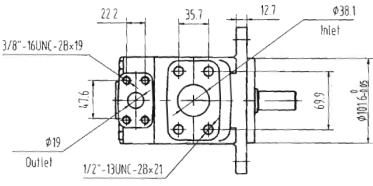
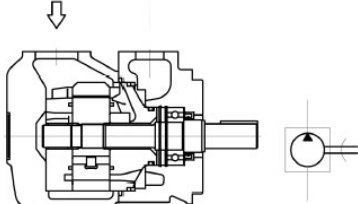


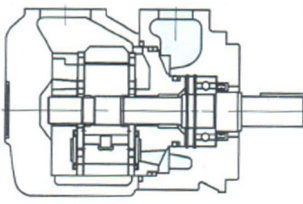
23 vane pumps

Vane Pumps Prices	Sec23:2
Shaft and Cartridge Prices	Sec23:4
Seal Kit Prices	Sec23:5
Single Pump–Dimensions	Sec23:5
Single Pump–Model Code	Sec23:6
Vane Pumps–Technical Info	Sec23:7
Double Pump Ordering Code	Sec23:8
Double Pump Dimensions	Sec23:9
Vane Pumps–Porting	Sec23:10
Vane Pumps–Performance Characteristics	Sec23:11

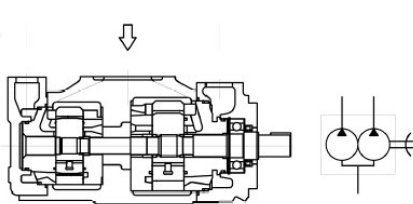
Vane Pumps

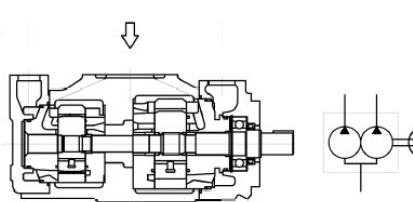
Single pumps	Part number	Description	Displacement (gallons)	Retail price R
	20VQ05A1C	Single pump	5	
	20VQ06A1C	Single pump	6	
	20VQ07A1C	Single pump	7	
	20VQ08A1C	Single pump	8	
	20VQ09A1C	Single pump	9	
	20VQ10A1C	Single pump	10	
	20VQ11A1C	Single pump	11	
	20VQ12A1C	Single pump	12	
	20VQ14A1C	Single pump	14	

Single pumps	Part number	Description	Displacement (gallons)	Retail price R
	25VQ10A1C	Single pump	10	
	25VQ12A1C	Single pump	12	
	25VQ14A1C	Single pump	14	
	25VQ17A1C	Single pump	17	
	25VQ21A1C	Single pump	21	
	35VQ25A1C	Single pump	25	
	35VQ30A1C	Single pump	30	
	35VQ32A1C	Single pump	32	
	35VQ35A1C	Single pump	35	
	35VQ38A1	Single pump	38	

Single pumps	Part number	Description	Displacement (gallons)	Retail price R
	S45VQ42A1C	Single pump	42	
	S45VQ45A1C	Single pump	45	
	S45VQ50A1C	Single pump	50	
	S45VQ57A1C	Single pump	57	
	S45VQ60A1C	Single pump	60	
	S45VQ66A1C	Single pump	66	
	S45VQ75A1C	Single pump	75	

Vane Pumps

Double pumps	Part number	Description	Displacement (gallons)		Retail price R
	2520QVQ1206A1AA	Double Pump	12	6	
	2520QVQ1208A1AA	Double Pump	12	8	
	2520QVQ1406A1AA	Double Pump	14	6	
	2520QVQ1408A1AA	Double Pump	14	8	
	2520QVQ1410A1AA	Double Pump	14	10	
	2520QVQ1706A1AA	Double Pump	17	6	
	2520QVQ1708A1AA	Double Pump	17	8	
	2520QVQ1710A1AA	Double Pump	17	10	
	2520QVQ1712A1AA	Double Pump	17	12	
	2520QVQ2106A1AA	Double Pump	21	6	
	2520QVQ2108A1AA	Double Pump	21	8	
	2520QVQ2110A1AA	Double Pump	21	10	
	2520QVQ2112A1AA	Double Pump	21	12	
	2520QVQ2114A1AA	Double Pump	21	14	
	3525VQ2514A1AA	Double Pump	25	14	
	3525VQ2517A1AA	Double Pump	25	17	
	3525VQ2521A1AA	Double Pump	25	21	
	3525VQ3014A1AA	Double Pump	30	14	
	3525VQ3017A1AA	Double Pump	30	17	
	3525VQ3021A1AA	Double Pump	30	21	
	3525VQ3217A1AA	Double Pump	32	17	
	3525VQ3221A1AA	Double Pump	32	21	
	3525VQ3525A1AA	Double Pump	35	25	
	3525VQ3530A1AA	Double Pump	35	30	
	3525VQ3817A1AA	Double Pump	38	17	
	3525VQ3821A1AA	Double Pump	38	21	

Double pumps	Part number	Description	Displacement (gallons)		Retail price R
	S453SVQ4525A1AA	Double pump	45	25	
	S4535VQ4535A1AA	Double pump	45	35	
	S4535VQ5025A1AA	Double pump	50	25	
	S453SVQ5030A1AA	Double pump	50	30	
	S453SVQ5035A1AA	Double pump	50	35	
	S4535VQ6025A1AA	Double pump	60	25	
	S4535VQ6035A1AA	Double pump	60	35	
	S4535VQ6038A1AA	Double pump	60	38	
	S4535VQ7030A1AA	Double pump	70	30	
	S4535VQ7038A1AA	Double pump	70	38	

Shafts and Cartridges

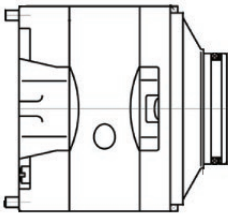
keyed shafts

Part number	Description	Retail price R
KSH20VQ	Keyed shaft for single pump	
KSH25VQ	Keyed shaft for single pump	
KSH35VQ	Keyed shaft for single pump	
KSH45VQ	Keyed shaft for single pump	
KSH2520VQ	Keyed shaft for double pump	
KSH3525VQ	Keyed shaft for double pump	
KSH4535VQ	Keyed shaft for double pump	

splined shafts

Part number	Description	Retail price R
SSH20VQ	splined shaft for single pump	
SSH25VQ	splined shaft for single pump	
SSH35VQ	splined shaft for single pump	
SSH45VQ	splined shaft for single pump	
SSH2520VQ	splined shaft for double pump	
SSH3525VQ	splined shaft for double pump	
SSH4535VQ	splined shaft for double pump	

cartridge kits

	Part number	Description	Displacement (gallons)	Retail price R
	PCK20VQ05	Cartridge kit for 20VQ	5	
	PCK20VQ06	Cartridge kit for 20VQ	6	
	PCK20VQ07	Cartridge kit for 20VQ	7	
	PCK20VQ08	Cartridge kit for 20VQ	8	
	PCK20VQ09	Cartridge kit for 20VQ	9	
	PCK20VQ10	Cartridge kit for 20VQ	10	
	PCK20VQ12	Cartridge kit for 20VQ	12	
	PCK20VQ14	Cartridge kit for 20VQ	14	
	PCK25VQ10	Cartridge kit for 25VQ	10	
	PCK25VQ12	Cartridge kit for 25VQ	12	
	PCK25VQ14	Cartridge kit for 25VQ	14	
	PCK25VQ17	Cartridge kit for 25VQ	17	
	PCK25VQ21	Cartridge kit for 25VQ	21	
	PCK35VQ25	Cartridge kit for 35VQ	25	
	PCK35VQ30	Cartridge kit for 35VQ	30	
	PCK35VQ32	Cartridge kit for 35VQ	32	
	PCK35VQ35	Cartridge kit for 35VQ	35	
	PCK35VQ38	Cartridge kit for 35VQ	38	
	PCK45VQ42	Cartridge kit for 45VQ	42	
	PCK45VQ45	Cartridge kit for 45VQ	45	
	PCK45VQ50	Cartridge kit for 45VQ	50	
	PCK45VQ57	Cartridge kit for 45VQ	57	
	PCK45VQ60	Cartridge kit for 45VQ	60	
	PCK45VQ66	Cartridge kit for 45VQ	66	
	PCK45VQ75	Cartridge kit for 45VQ	75	

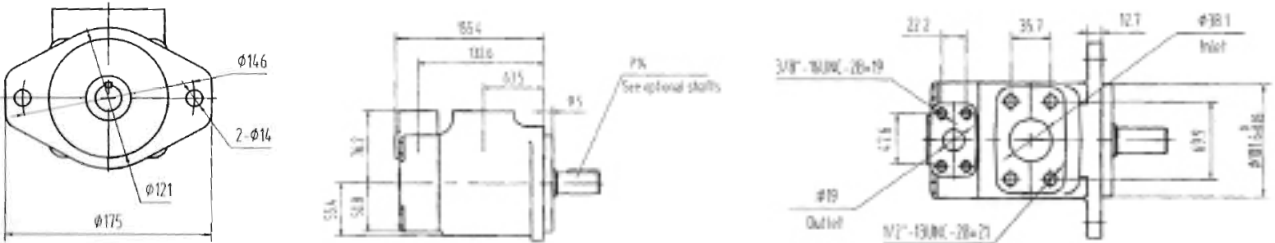
Seal Kits

seal kits

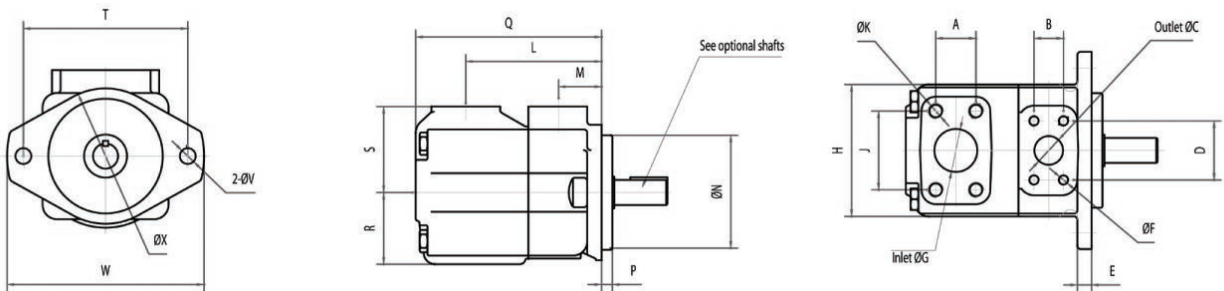
Part number	Description	Retail price R
SKT20VQ	seal kit for 20VQ pump	
SKT25VQ	seal kit for 25VQ pump	
SKT35VQ	seal kit for 35VQ pump	
SKT45VQ	seal kit for 45VQ pump	
SKT2520VQ	seal kit for 2520VQ pump	
SKT3525VQ	seal kit for 3525VQ pump	
SKT4535V	seal kit for 4535VQ pump	

Single Pump Dimensions

S20VQ



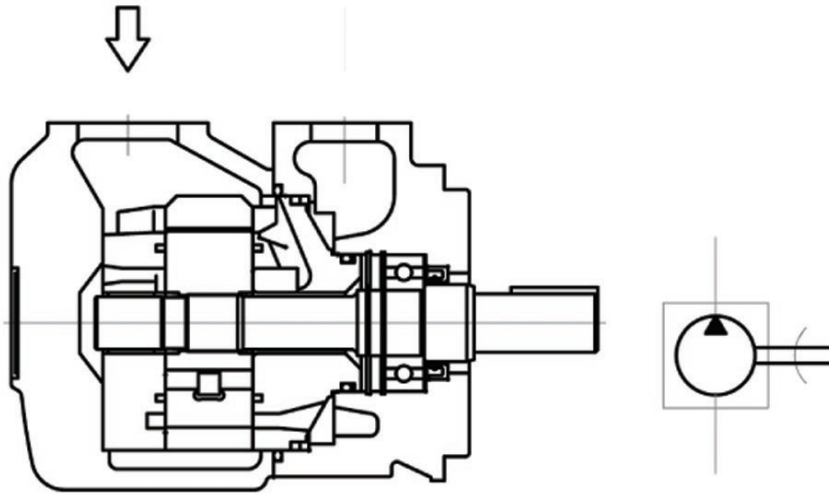
S25VQ, S35VQ, S45VQ



Part Number	A	B	ØC	D	E	ØG	H	J	L	M	N	P	Q	R
S25V	35.7	26.2	25.4	52.4	12.7	38.1	118	69.9	121	38.1	101.60	101.55	9.53	63.5
S35V	42.9	30.2	31.8	58.7	16	50.8	140	77.8	125.5	38.1	127.00	126.95	9.53	69.9
S45V	61.9	35.7	38.1	69.9	16	76.2	159	106.4	153	43	127.00	126.95	12.7	82.6

Part Number	S	T	RU	ØV	W	ØX	ØF x Full thread depth 4holes	ØF x Full thread depth 4holes
S25VQ	76.2	146	14	14.2	175	121	3/8" - 16UNC - 2B X 19	1/2" - 13UNC - 2B x 22.3
S35VQ	82.6	181	16	17.5	213	148	14UNC - 2B X 22.3	1/2" - 13UNC - 2B X 22.3
S45VQ	93.7	181	16	17.5	213	148	1/2" - 13UNC - 2B X 23.8	5/8" - 11UNC - 2B X 25.4

Single Pump-Model Code



(F3) - S25V 21 A-1 A 22 R

1 2 3 4 5 6 7 8

1. F3- Viton seal (Omit if not required)
2. Series designation
3. Flow code. Flow(USgpm) at 1200 rpm and 6.9 bar
4. Port connections A-SAE 4-bolt flange
5. Shaft type
6. Outlet positions (Viewed from cover end of pump)
A-Opposite inlet port
7. Design number
8. Rotation (Viewed from shaft end of pump)
R-Right hand for clockwise, omit
L-Left hand for counterclockwise

Part Number	Str key	HD str key	Spline
S20V	1	86	151
S25V	1	86	11
S35V	1	86	11
S45V	1	86	11

Series	USgpm	Geometric displacement ml/r(in ³ /r)	
S20V	2	7(0.43)	
	3	10(0.61)	
	4	13(0.79)	
	5	16.5(1.10)	
	6	19(1.16)	
	7	22(1.34)	
	8	27(1.67)	
	9	30(1.85)	
	10	31.5(1.92)	
	11	35(2.14)	
	12	40(2.47)	
	14	45(2.78)	
	S25V	10	32(1.95)
		12	38(2.32)
14		43(2.65)	
17		54(3.30)	
19		60(3.66)	
S35V	21	67(4.13)	
	25	81(4.94)	
	30	95(5.80)	
	32	101(6.16)	
	35	109(6.65)	
S45V	38	119(7.26)	
	42	134(8.17)	
	45	143(8.72)	
	50	159(9.70)	
	57	181(11.05)	
	60	189(11.53)	
66	210(12.81)		
75	237(14.46)		

Vane Pumps–Technical Info

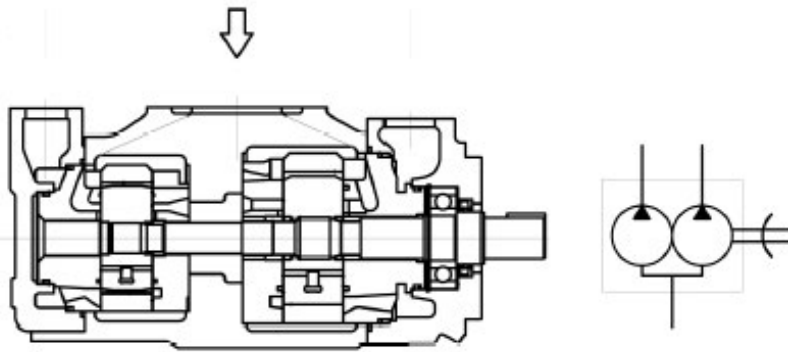
SV SV series – low noise vane pumps

INTRA-VANE PUMP FOR INDUSTRY APPLICATION (TECHNICAL DATA)

Series designation	Code (USgpm)	Geometric displacement ml/r(in ³ /r)	With antiwear hydraulic oil or phosphat ester fluid		With water glycol fluid		With water-oil emulsions		Min speed (rpm)
			Max. operating pressure (MPa)	Max. speed (rpm)	Max. operating pressure (MPa)	Max. speed (rpm)	Max. operating pressure (MPa)	Max. speed (rpm)	
S20V S**20V	2	7.5(0.46)	14	1800	14	1500	7	1200	600
	3	10(0.61)							
	4	13(0.79)							
	5	16.5(1.01)	21						
	6	19(1.16)							
	7	23(1.40)							
	8	27(1.67)	16						
	9	30(1.85)							
	10	32(1.98)							
	11	36(2.20)	14						
	12	40(2.44)							
	14	45(2.78)							
S25V S25**V S**25V	10	32.5(1.98)	17.5	1800	16	1500	7	1200	600
	12	39(2.38)							
	14	45(2.78)							
	15	47(2.89)							
	17	55(3.36)							
	19	60(3.66)							
21	67(4.13)								
S35V S35**V S**35V	21	67(4.13)	17.5	1800	16	1500	7	1200	600
	25	81(4.94)							
	30	97(5.91)							
	32	101(6.16)							
	35	112(6.83)							
	38	121(7.37)							

Flow(USgpm)at1200rpm and0.7MPa

Double Pump–Ordering Code



1. F3– Biton Seal (omit if not required)
2. Series designation
3. Flow–shaft end pump. Flow(USgpm) at 1200 rpm and 6.9 bar
4. Flow–cover end pump. Flow(USgpm) at 1200 rpm and 6.9 bar
5. Port connections A–SAE 4-bolt flange
6. Shaft key (see table below)

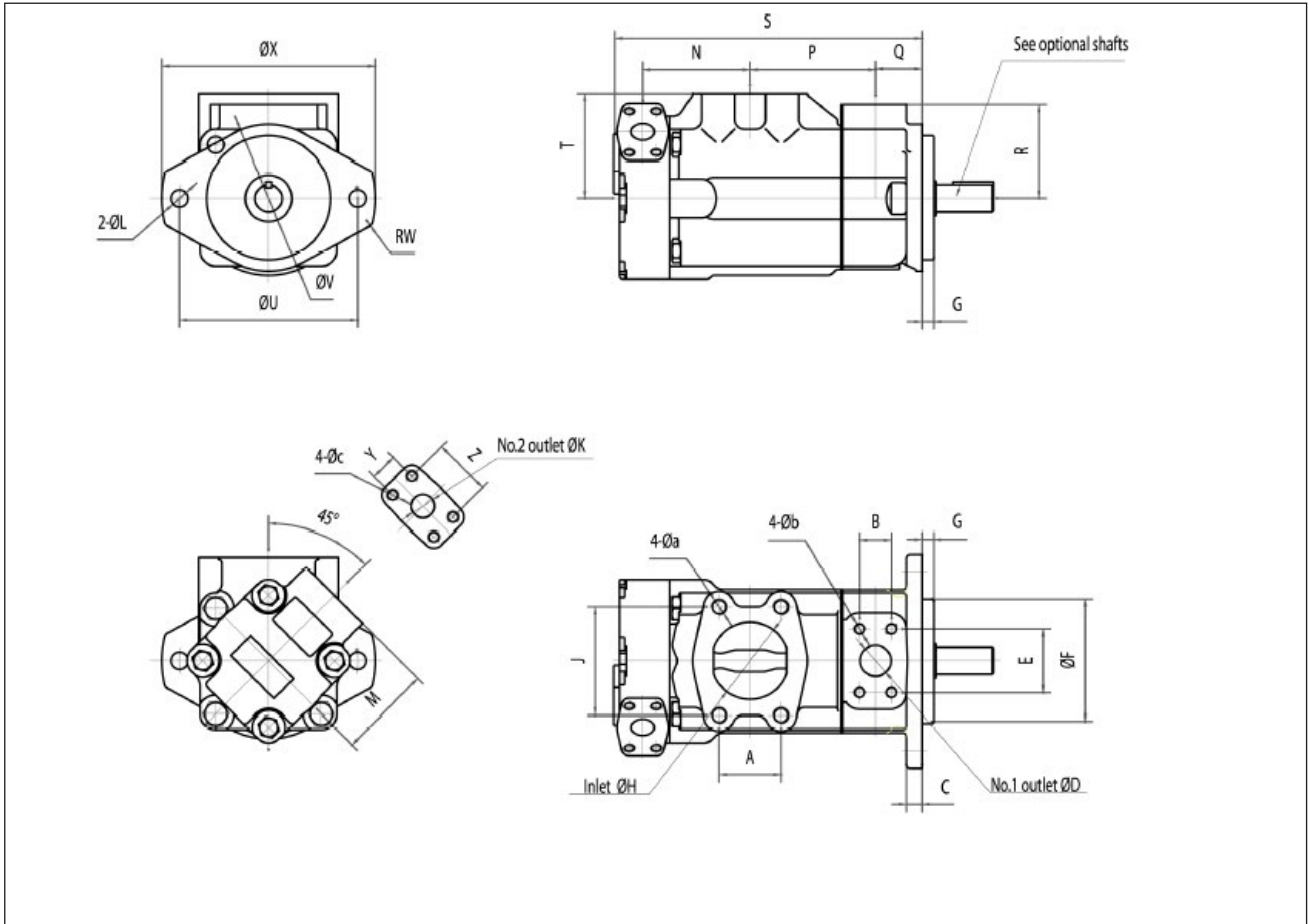
(F3) - S2520 * * A - 1 A 22 R
 1 2 3 4 5 6 7 8 9

Str key	HD str key	Spline
1	86	

Series	USgpm	ml/r(in ³ /r) Geometric displacement
S25**VQ	10	32.5(1.98)
	12	39(2.38)
	14	45(2.78)
	15	47(2.89)
	17	55(3.36)
	19	60(3.66)
	21	67(4.13)
S35**VQ	21	67(4.13)
	25	81(4.94)
	30	95(5.91)
	32	101(6.16)
	35	112(6.85)
	38	121(7.37)
S35**VQ	42	138(8.41)
	45	147(8.95)
	50	162(9.85)
	57	181(11.05)
	60	193(11.75)
	66	212(12.93)
S45**VQ	42	134(8.17)
	45	143(8.72)
	50	159(9.70)
	57	181(11.05)
	60	189(11.53)
	66	210(12.81)
75	237(14.46)	

Series	USgpm	ml/r(in ³ /r) Geometric displacement
S**20V	2	7.5(0.46)
	3	10(0.61)
	4	13(0.79)
	5	16.5(1.01)
	6	19(1.16)
	7	23(1.40)
	8	27(1.67)
	9	30(1.85)
	10	32(1.98)
	11	36(2.20)
	12	40(2.44)
	12	40(2.44)
	14	45(2.78)
	S**25VQ	10
12		39(2.38)
14		45(2.78)
15		47(2.89)
17		55(3.36)
19		60(3.66)
21		67(4.13)
S**35VQ	21	67(4.13)
	25	81(4.94)
	30	97(5.91)
	32	101(6.16)
	35	112(6.83)
	38	121(7.37)

Double Pump-Dimensions

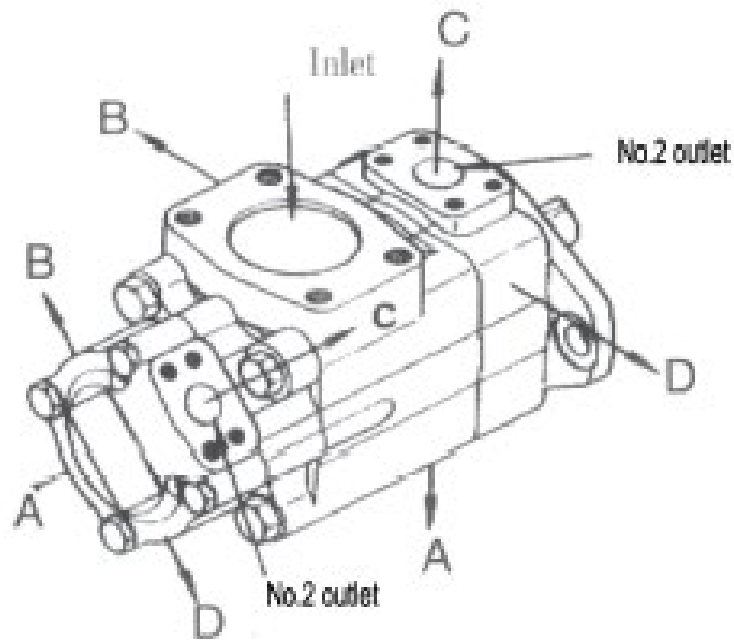


Part Number	$\varnothing a$ x Full thread depth 4holes	$\varnothing b$ x Full thread depth 4holes	$\varnothing c$ x Full thread depth 4holes
S2520V	1/2" - 13UNC - 2B x 23.8	3/8" - 16UNC - 2B x 19.0	3/8" - 16UNC - 2B x 19.0
S3520V	5/8" - 11UNC - 2B x 30.0	7/16" - 14UNC - 2B x 22.3	3/8" - 16UNC - 2B x 19.0
S3525V	5/8" - 11UNC - 2B x 30.0	7/16" - 14UNC - 2B x 22.3	3/8" - 16UNC - 2B x 19.0
S4520V	5/8" - 11UNC - 2B x 30.0	1/2" - 13UNC - 2B x 23.8	3/8" - 16UNC - 2B x 19.0
S4525V	5/8" - 11UNC - 2B x 30.0	1/2" - 13UNC - 2B x 23.8	3/8" - 16UNC - 2B x 19.0
S4535V	5/8" - 11UNC - 2B x 30.0	1/2" - 13UNC - 2B x 23.8	7/16" - 14UNC - 2B x 30.0

Part Number	A	B	C	$\varnothing D$	E	$\varnothing F$	G	$\varnothing H$	J	$\varnothing K$	$\varnothing L$	M	N
S2520VQ	50.8	26.2	13	25.4	52.4	101.60/101.55	9.5	63.5	89	19.1	14.2	76.2	88.1
S3520VQ	62	30.1	15.9	31.7	58.7	127.00/126.95	9.5	76.2	106.3	19.1	17.5	76.2	99.6
S3525VQ	62	30.1	15.9	31.7	58.7	127.00/126.95	9.5	76.2	106.3	25.4	17.5	74.7	109.5
S4520VQ	69.9	35.7	15.9	38.1	69.9	127.00/126.95	12.7	88.9	120.6	19.1	17.5	76.2	102
S4525VQ	69.9	35.7	15.9	38.1	69.9	127.00/126.95	12.7	88.9	120.6	25.4	17.5	74.7	136
S4535VQ	77.8	35.7	16	38.1	69.9	127.00/126.95	12.7	101.6	130.2	25.4	18	74.7	148.3

Part Number	P	Q	R	S	T	$\varnothing U$	$\varnothing V$	RW	$\varnothing X$	Y	Z
S2520V	101.6	38.1	76.2	250	85.3	146.1	120.7	14	174.7	22.2	47.6
S3520V	114.3	38.1	82.6	273.3	88.9	181	148	16	213	22.2	47.6
S3525V	114.3	38.1	82.6	287.3	88.9	181	148	16	213	26.2	52.4
S4520V	119.4	42.9	93.7	303.5	102.4	181	148	16	213	22.2	47.6
S4525V	119.4	42.9	93.7	325	104.4	181	148	16	213	26.2	52.4
S4535V	133.3	42.9	93.7	353	102.4	181	148	18	213	30.2	58.7

Vane Pumps-Porting



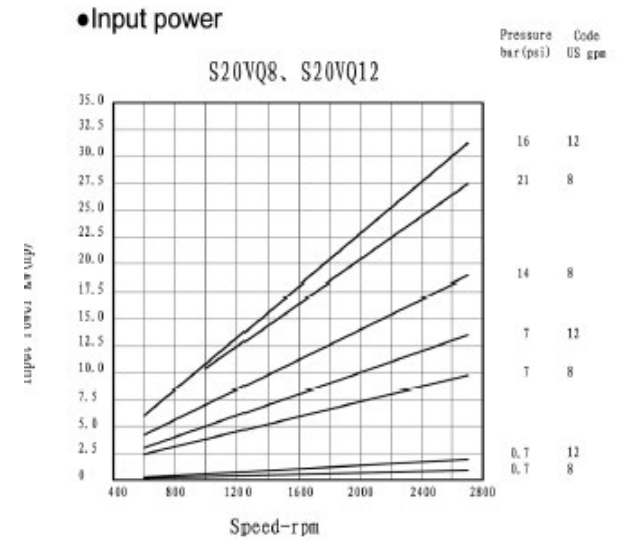
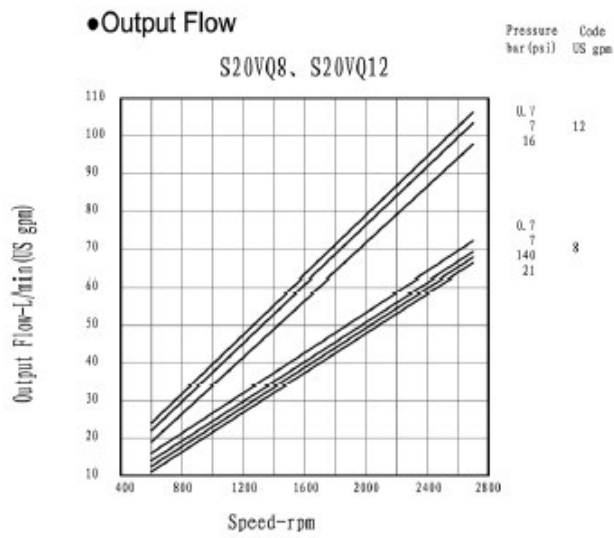
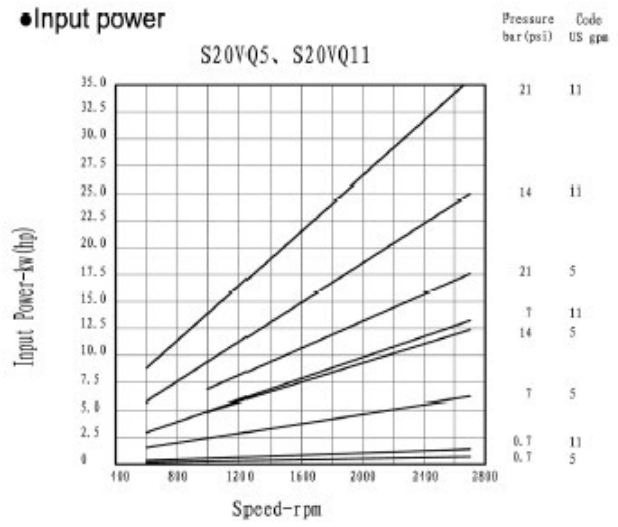
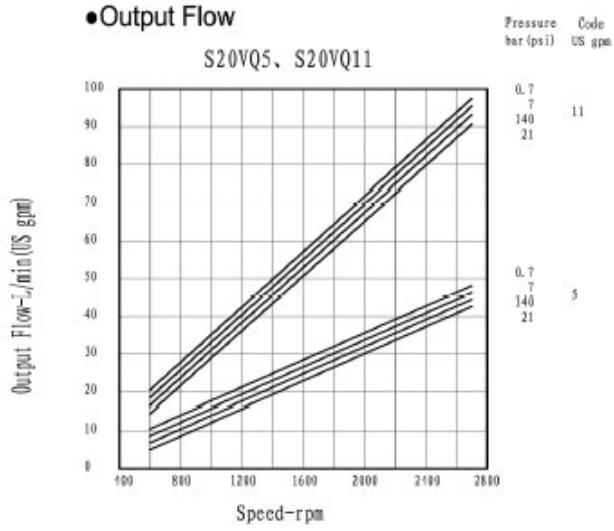
Outlet port position		All series except S4535V	S453V
No. 1 outlet opposite inlet	AA	No. 2 outlet 135° CCW from inlet	No 2 outlet opposite inlet
	AB	No. 2 outlet 45° CCW from inlet	No 2 outlet 90° CCW from inlet
	AC	No. 2 outlet 45° CW from inlet	No 2 outlet inlin with inlet
	AD	No. 2 outlet 135° CW from 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 inlin 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 inlin 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 inlin with inlet
	DD	No. 2 outlet 135° CW from inlet	No 2 outlet 90° CW from inlet

- 8 Design number
- 9 Rotation (Viewed from shaft end of pump)
- R Right hand for clockwise, omit
- L Left hand for counterclockwise

Vane Pumps-Performance Characteristics

output flow and input power performance characteristics

Output flows at 50°C (120° F), 26 cst (128 SUS), 0 psi intet.

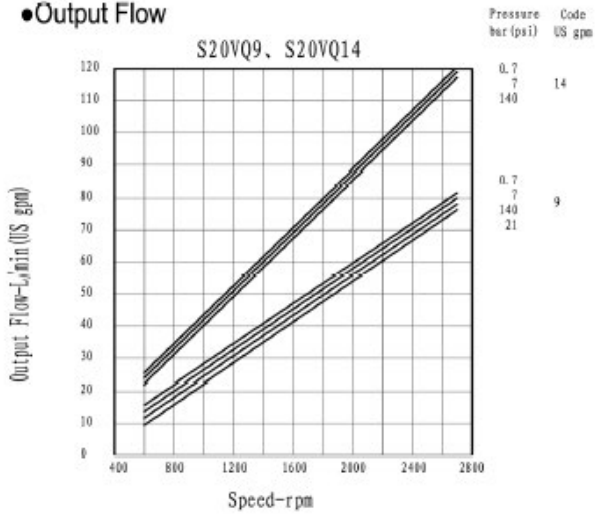


Vane Pumps-Performance Characteristics

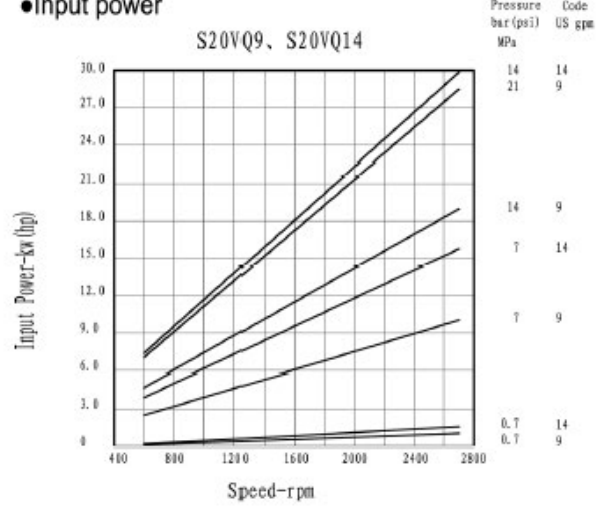
output flow and input power performance characteristics

Output flows at 50°C (120° F), 26 cst (128 SUS), 0 psi inlet.

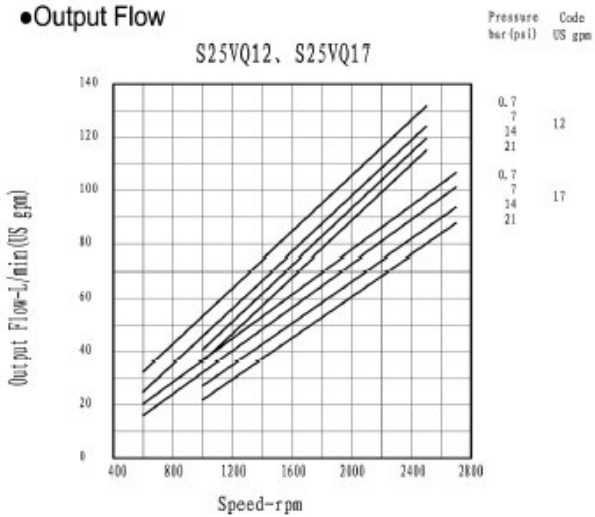
● Output Flow



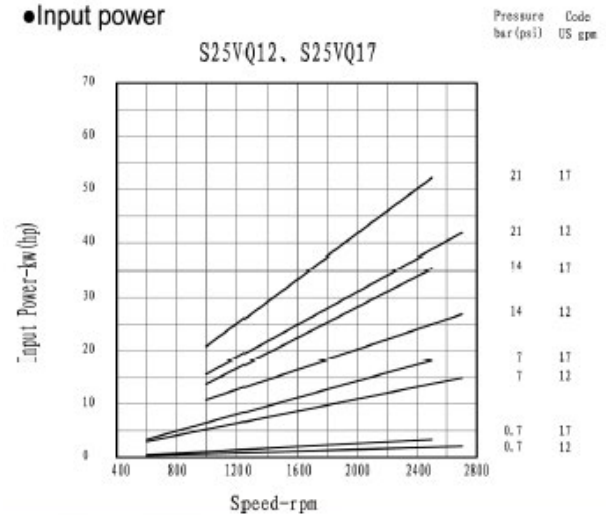
● Input power



● Output Flow

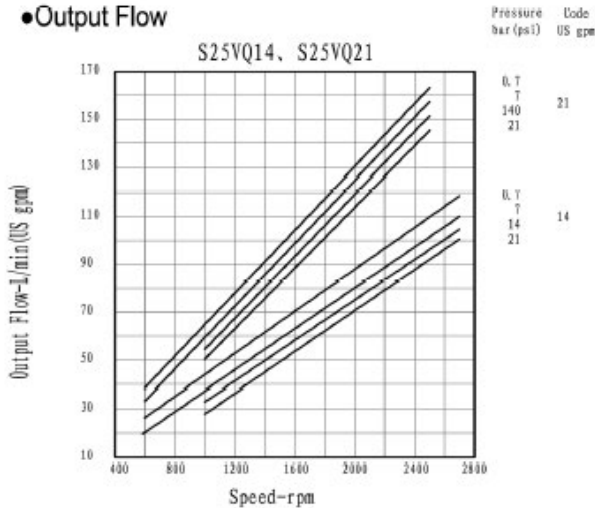


● Input power

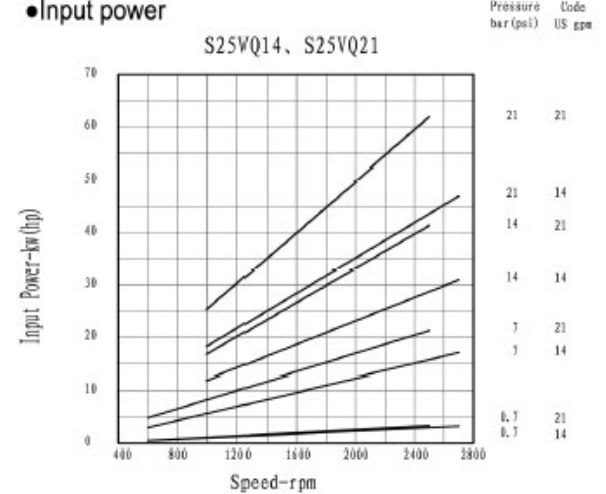


Output flows at 50°C (120° F), 26 cst (128 SUS), 0 psi inlet.

● Output Flow



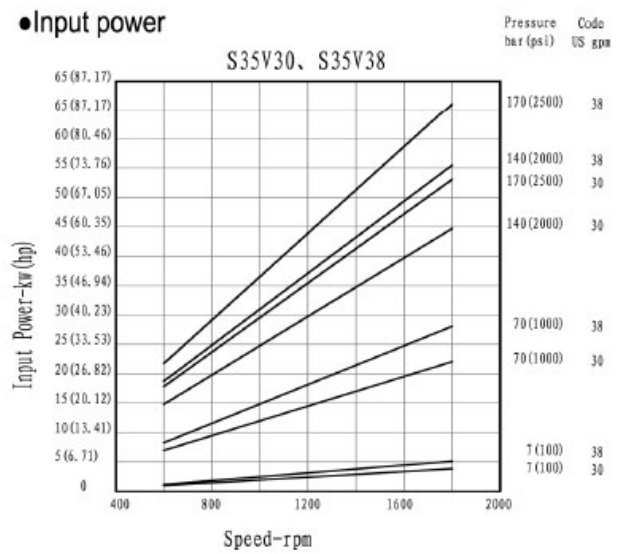
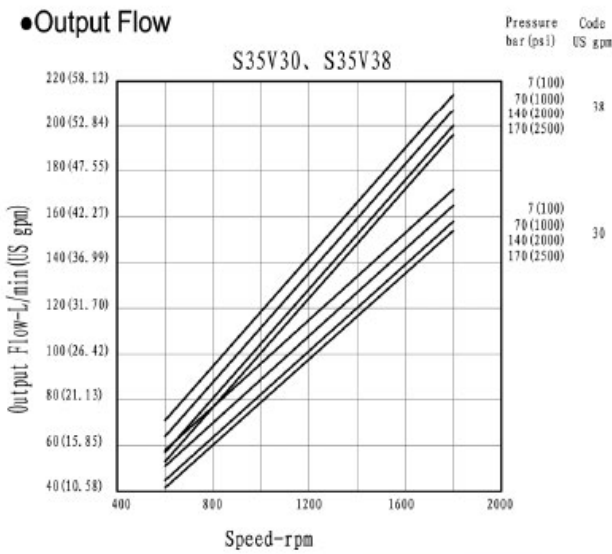
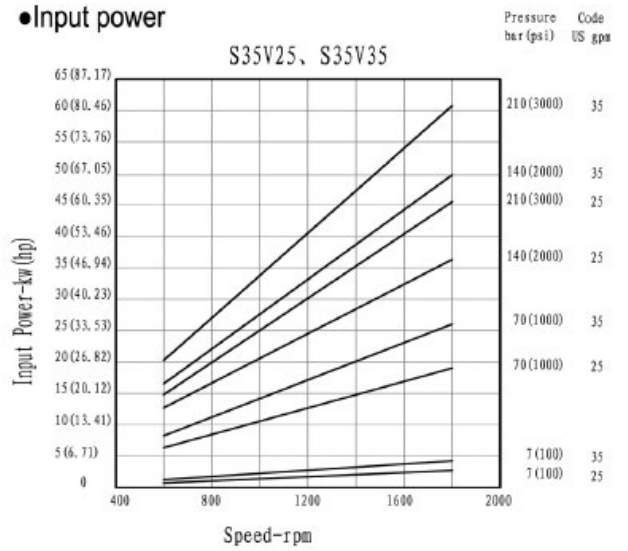
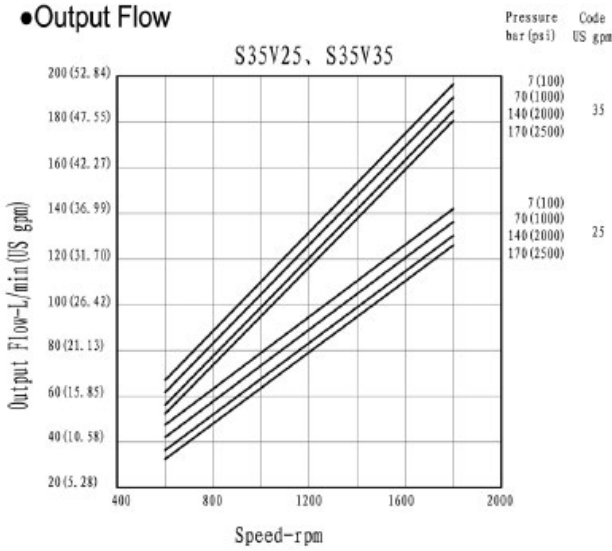
● Input power



Vane Pumps-Performance Characteristics

output flow and input power performance characteristics

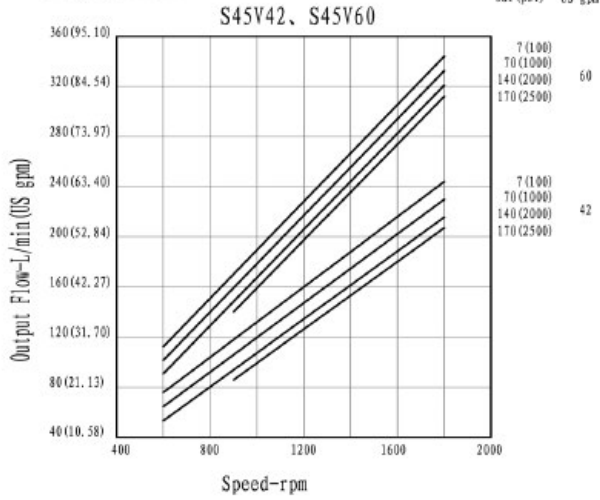
Output flows at 50°C(120° F), 26 cst(128 SUS), 0 psi inlet.



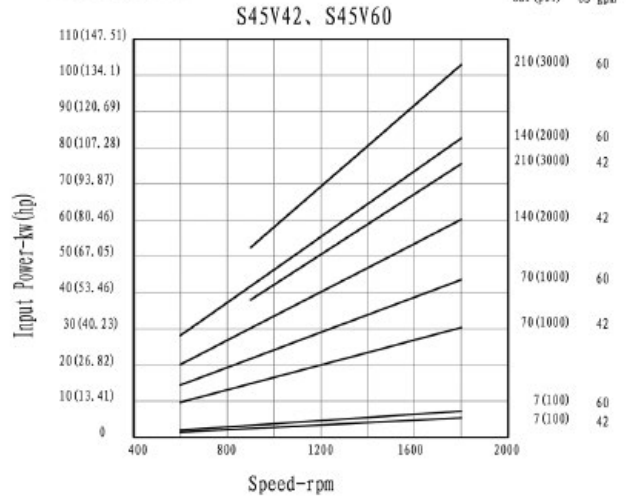
Vane Pumps-Performance Characteristics

Output flows at 50°C (120° F), 26 cst (128 SUS), 0 psi inlet.

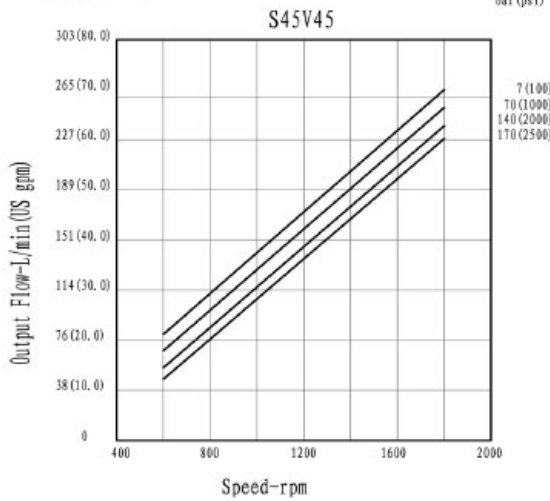
● Output Flow



● Input power



● Output Flow



● Input power

