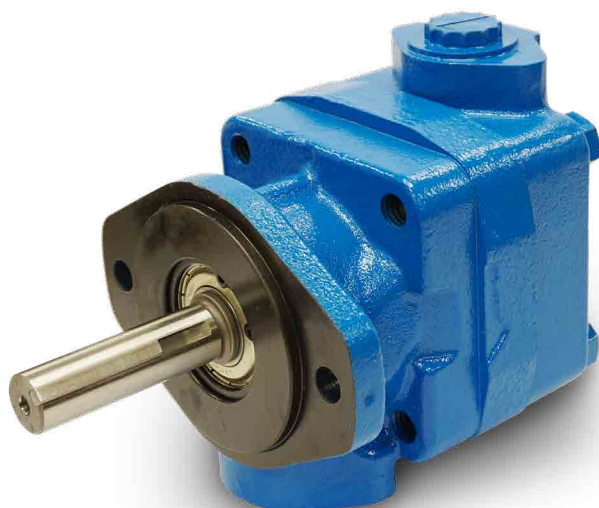
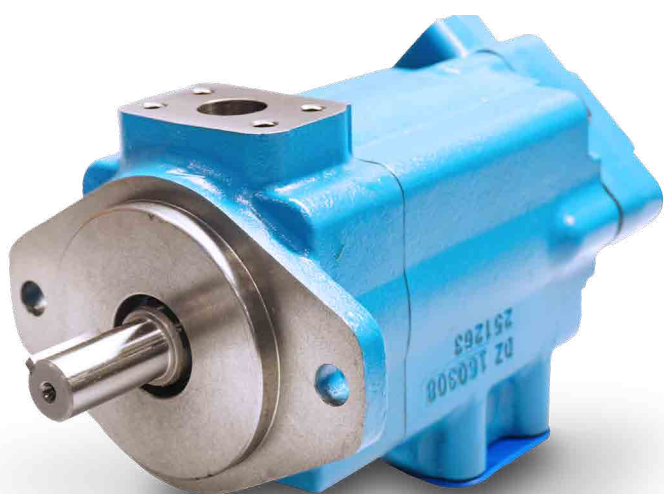




QHTM POMPES / PUMPS

VANNES / VANE

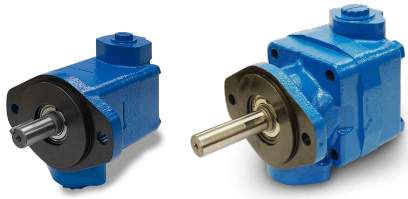
VICKERS® STYLE



[**www.QuebecHydraulique.com**](http://www.QuebecHydraulique.com)TM



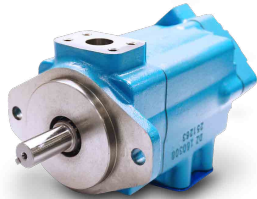
SELECTION LIENS RAPIDES / QUICK LINKS



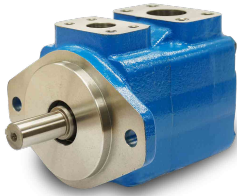
QHV10 & QHV20 - Single Pump



QH**VQ - Single Pump



QH****VQ - Double Pump



QH**V - Single Pump



QH**V - Double Pump



QH**V Series Cartridge

QH**VQ Series Cartridge



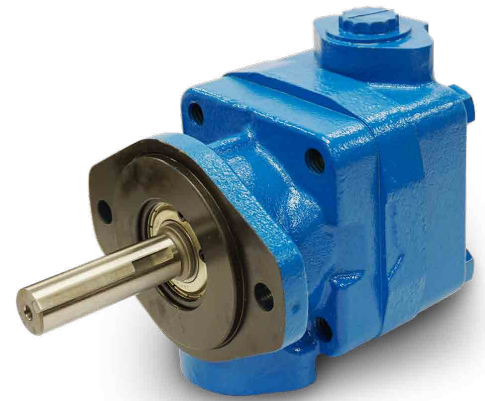
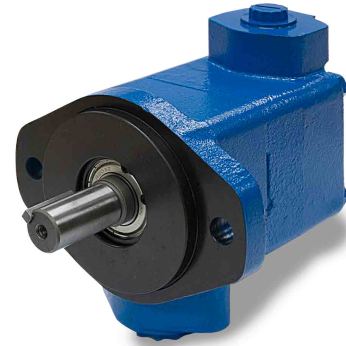
QHV10 QHV20

VANE PUMPS SINGLE



Features

The QHV10 & QHV20 series single vane pumps are excellent for medium to low pressure mobile and industrial applications. The hydraulic balancing structure and design provides more stable performance and a longer life span by minimizing the pressure on the stator from the vane. This is achieved by incorporating diametrically opposed inlet and outlet pressure chambers. The 12 vane system provides low amplitude flow pulsation for quiet operation, ideal for industrial applications. Different outlet position options allow flexibility in various applications.



Technical Data - Operating Specifications

Model Series	Delivery (gpm) at 1200 r/min 7 bar (100 psi)	Displacement		Max Speed r/min	Max Pressure		Weight kg (lbs)
		cm ³ /rev	in ³ /rev		bar	psi	
QHV10	1	3.3	0.20	4800	172	2500	4.5 - 6.8 (10 - 15)
	2	6.6	0.40	4500	172	2500	
	3	9.8	0.60	4000	172	2500	
	4	13.1	0.80	3400	172	2500	
	5	16.4	1.00	3200	172	2500	
	6	19.5	1.19	3000	152	2200	
	7	22.8	1.39	2800	138	2000	
QHV20	6	19.5	1.19	3400	172	2500	7.3 - 8.2 (16 - 18)
	7	22.8	1.39	3000	172	2500	
	8	26.6	1.62	2800	172	2500	
	9	29.7	1.81	2800	172	2500	
	10	30.0	1.83	2800	172	2500	
	11	36.4	2.22	2500	172	2500	
	12	39.0	2.38	2400	152	2200	
	13	42.5	2.59	2400	152	2200	



QHV10 QHV20

VANE PUMPS SINGLE



Ordering Information

QHV10	-	P	1	P	1	C	20	R	3
1	2	3	4	5	6	7	8	9	10

1. Model Series

QHV10
QHV20

2. Mounting

Omit	2 Bolt Flange (Standard)
------	--------------------------

3. Inlet Port Connection

	QHV10	QHV20
P	1" NPT	1-1/4" NPT
S	1-5/16-12 UN-2B	1-5/8-12 UN-2B

4. Displacement (gpm)

At 1200 rpm & 100 psi

QHV10	QHV20
1	6
2	7
3	8
4	9
5	10
6	11
7	12
	13

5. Outlet Port Connections

	QHV10	QHV20
P	1/2" NPT	3/4" NPT
S	3/4-16 UNF-2B	1-1/16-12 UN-2B

6. Shaft Type

1	Straight Keyed (Standard)
11	9 Tooth Splined for QHV10 Series 11 Tooth Splined for QHV20 Series

7. Outlet Port Position

(Viewed from the cover end of the pump)

A	Opposite Inlet
B	90° CCW from Inlet
C	Inline With Inlet (Standard)
D	90° CW from Inlet

8. Design Number

10	QHV20 series
20	QHV10 series

9. Rotation

(View from shaft end of Pump)

R	Right Hand Rotation
L	Left Hand Rotation

10. Seals

3	Viton (Standard)
OMIT	Nitrile



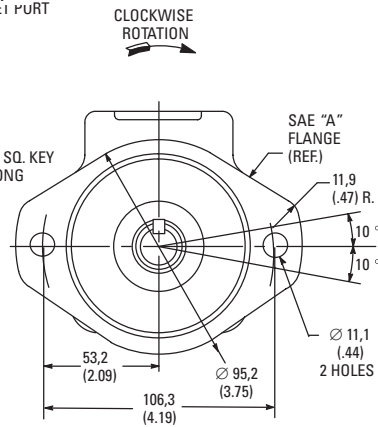
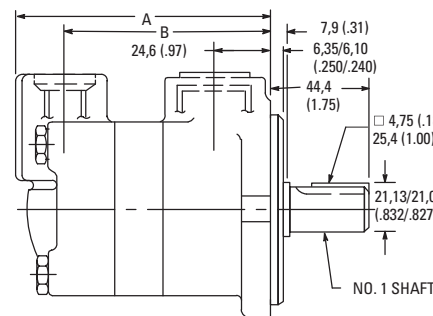
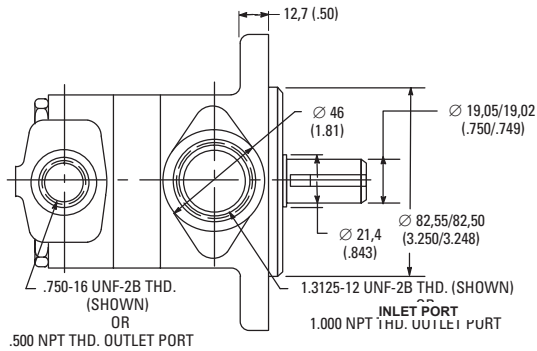
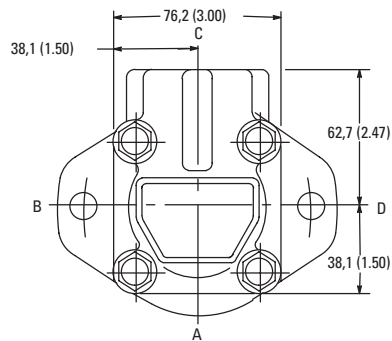
QHV10 QHV20

VANE PUMPS SINGLE

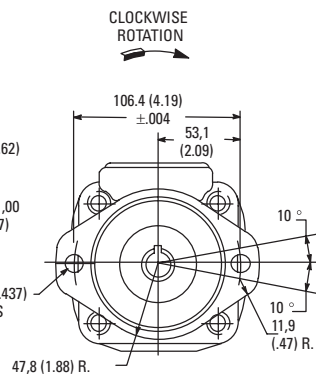
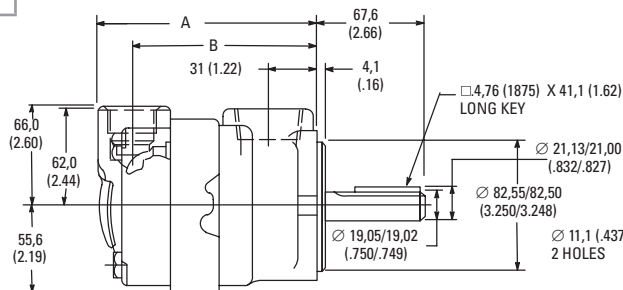
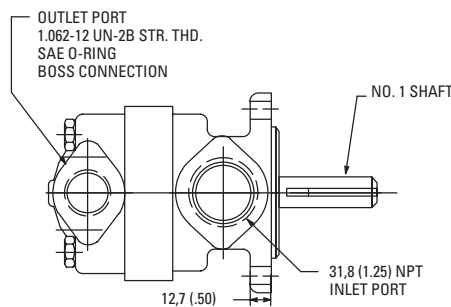
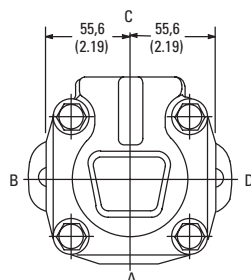


DIMENSIONS

QHV10				
Delivery at 1200 rpm & 100 psi	Dimensions			
	A		B	
	mm	in	mm	in
1 USgpm	115.6	4.55	91.9	3.62
2 USgpm	115.6	4.55	91.9	3.62
3 USgpm	115.6	4.55	91.9	3.62
4 USgpm	121.9	4.80	98.3	3.87
5 USgpm	121.9	4.80	98.3	3.87
6 USgpm	127.0	5.00	103.4	4.07
7 USgpm	127.0	5.00	103.4	4.07



QHV20				
Delivery at 1200 rpm & 100 psi	Dimensions			
	A		B	
	mm	in	mm	in
6 USgpm	125.2	4.93	102.1	4.02
7 USgpm	131.6	5.18	108.4	4.27
8 USgpm	131.6	5.18	108.4	4.27
9 USgpm	131.6	5.18	108.4	4.27
10 USgpm	136.6	5.38	113.5	4.47
11 USgpm	136.6	5.38	113.5	4.47
12 USgpm	140.2	5.52	117.1	4.61
13 USgpm	140.2	5.52	117.1	4.61



Dimensions in millimeters (inches)



QHV10 QHV20

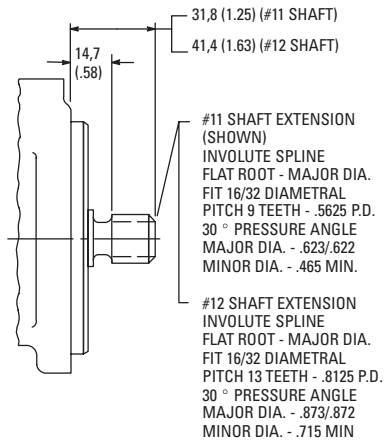
VANE PUMPS SINGLE

Shaft Dimensions



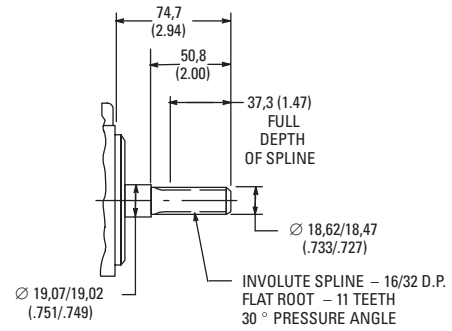
QHV10 Series

#11 - Splined Shaft



QHV20 Series

#11 - Splined Shaft



Dimensions in millimeters (inches)



QH**VQ

VANE PUMPS SINGLE



Features

The QH**VQ fixed displacement single pumps have an integral hydraulic balancing vane design for high pressure operation, long service life and a low noise level. They are perfect for mobile applications, for their compact design and ease of service.



Technical Data - Operating Specifications

Model Series	Delivery (gpm) at 1200 r/min 7 bar (100 psi)	Displacement		Min Speed r/min	Max Speed r/min	Max Pressure		Weight kg (lbs)
		cm ³ /rev	in ³ /rev			bar	psi	
QH20VQ	2	7	0.43	600	2700	210	3000	11.8 (26)
	3	10	0.61	600	2700	210	3000	
	4	13	0.79	600	2700	210	3000	
	5	18.0	1.10	600	2700	210	3000	
	6	19	1.16	600	2700	210	3000	
	7	22	1.40	600	2700	210	3000	
	8	27.4	1.67	600	2700	210	3000	
	11	36.4	2.22	600	2700	210	3000	
	12	39.5	2.41	600	2700	160	2300	
	14	45.9	2.80	600	2700	140	2000	
QH25VQ	10	32.0	1.95	600	2700	210	3000	14.5 (32)
	12	40.2	2.45	600	2700	210	3000	
	14	45.4	2.77	600	2700	210	3000	
	15	47.0	2.89	600	2500	210	3000	
	17	55.2	3.37	600	2500	210	3000	
	19	60	3.66	600	2500	210	3000	
	21	67.5	4.12	600	2500	210	3000	
	25	79.2	4.83	600	2500	210	3000	
QH35VQ	21	67	4.13	600	2500	210	3000	22.7 (50)
	25	81	4.94	600	2500	210	3000	
	30	97.7	5.96	600	2500	210	3000	
	32	101	6.16	600	2500	210	3000	
	35	112.8	6.88	600	2400	210	3000	
	38	121.6	7.42	600	2400	210	3000	
QH45VQ	42	138.7	8.46	600	2200	175	2400	34.1 (75)
	45	143.0	8.72	600	2200	175	2200	
	50	162.3	9.70	600	2200	175	2200	
	57	181	11.05	600	2200	175	2200	
	60	193.4	11.80	600	2200	175	2200	
	66	210	12.81	600	2200	175	2200	
	75	237	14.46	600	2200	140	2000	



QH**VQ

VANE PUMPS SINGLE



Ordering Information

QH20VQ	2	A	F	1	C	22	R	-
1	2	3	4	5	6	7	8	9

1. Model Series

QH20VQ
QH25VQ
QH35VQ
QH45VQ

5. Shaft Type

1	Straight Keyed (Standard)
11	Splined QH25VQ, QH35VQ, QH45VQ Only)
86	Straight keyed, heavy duty QH25VQ, QH5VQ, QH5VQ Only)
151	Splined QH20VQ Only)

2. Pump Displacement (gpm)

At 1200 RPM, 100 PSI

QH20VQ	QH25VQ	QH35VQ	QH45VQ
2	10	21	42
3	12	25	45
4	14	30	50
5	15	32	57
6	17	35	60
7	19	38	66
8	21	45	75
9	25		
10			
11			
12			
14			

6. Outlet Port Position

(Viewed from the cover end of the pump)

A	Opposite Inlet port
B	90° CCW From Inlet
C	Inline With Inlet (Standard)
D	90° CW From Inlet

7. Design Number

20	QH25VQ, QH35VQ, QH45VQ
30	QH20VQ

8. Rotation

R	Right Hand Rotation
L	Left Hand Rotation

3. Port Connection

A	SAE 4 - Bolt Flange (Inlet & Outlet)
---	--------------------------------------

9. Seals

Omit	Nitrile (Standard)
3	Viton

4. Mounting & Shaft Seal Assembly

F	Foot mount with single shaft seal
Omit	Flange mount with single shaft seal

PUMPS / POMES



QH**VQ

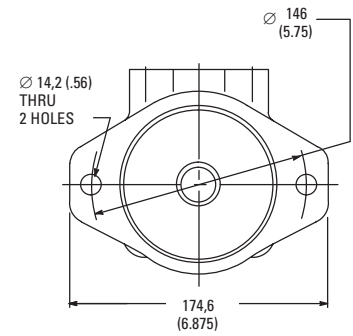
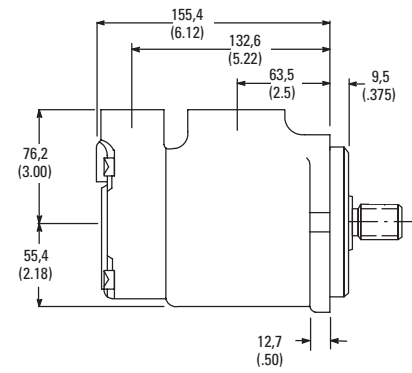
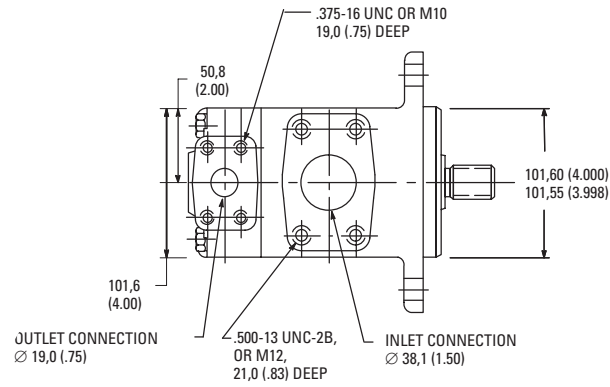
VANE PUMPS SINGLE



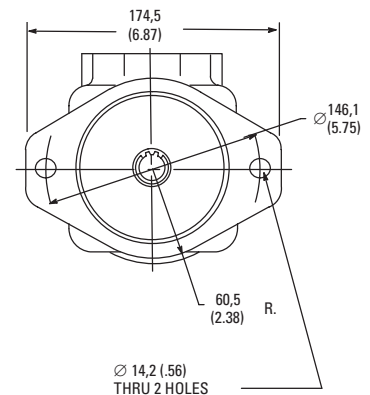
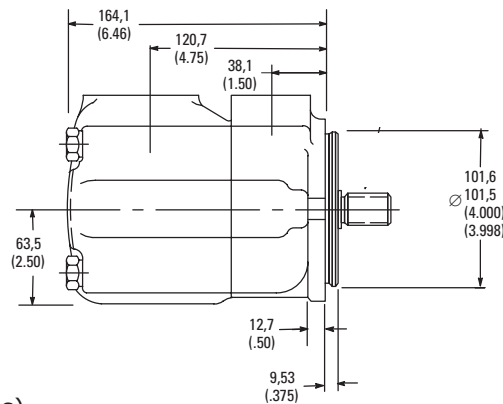
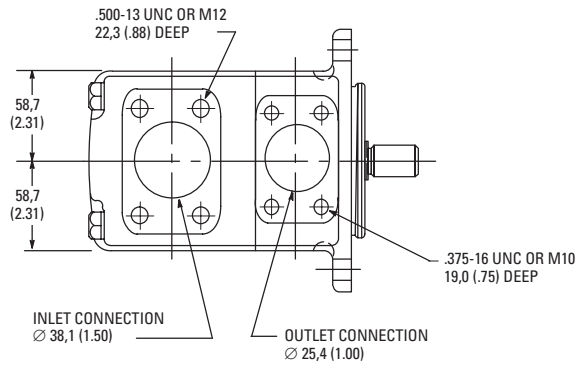
PUMPS / POMES

Installation Dimensions

QH20VQ



QH25VQ



Dimensions in millimeters (inches)



QH**VQ

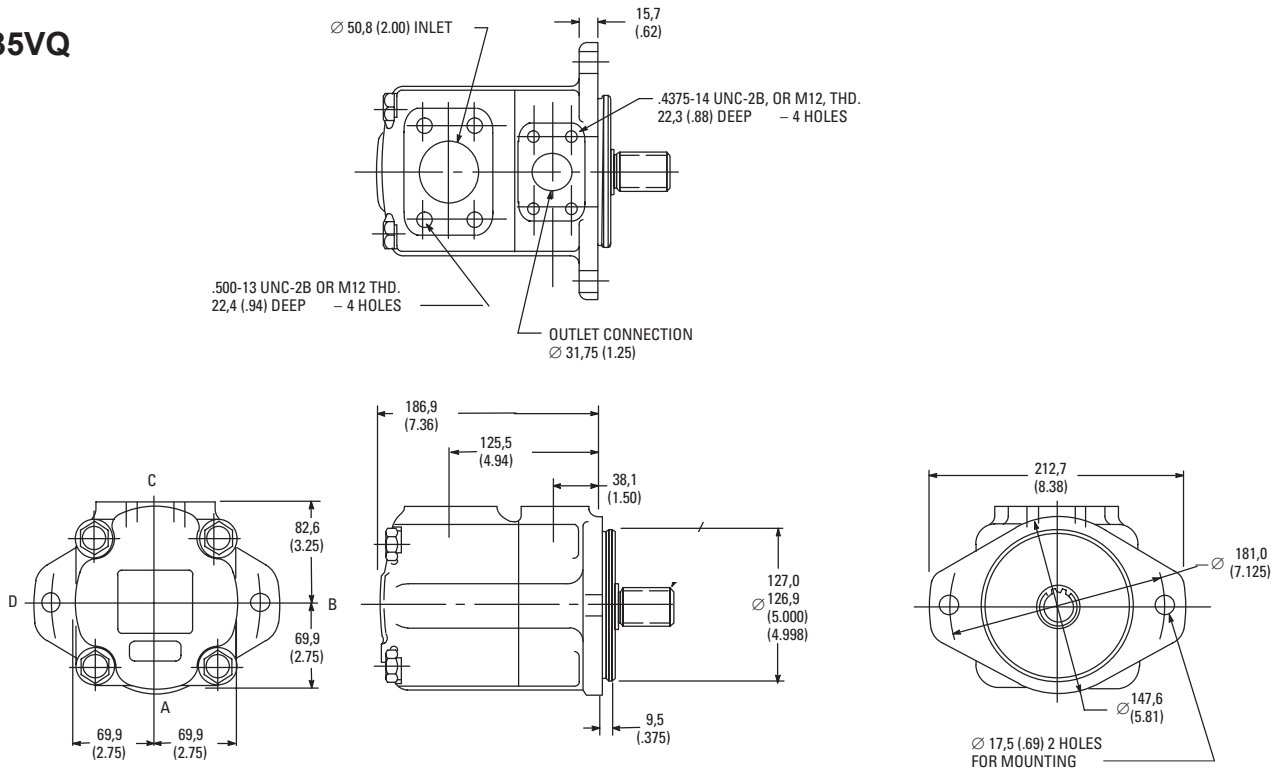
VANE PUMPS SINGLE

Installation Dimensions

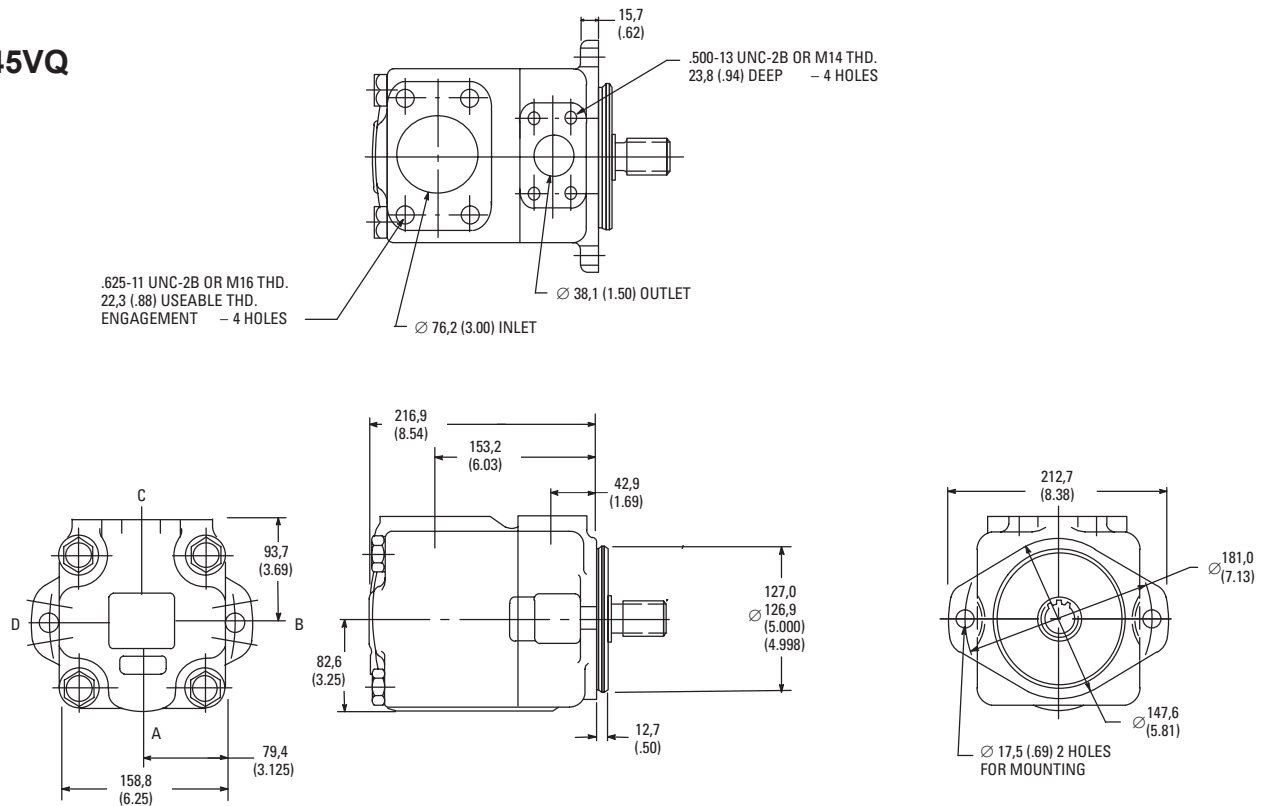


PUMPS / POMES

QH35VQ



QH45VQ



Dimensions in millimeters (inches)



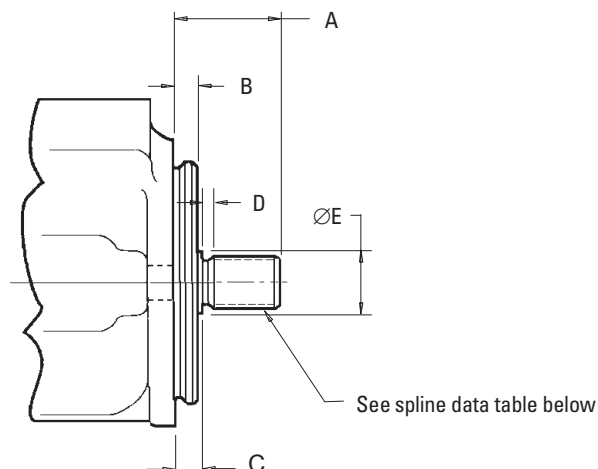
QHVQ**
VANE PUMPS SINGLE



PUMPS / POMES

Shaft Dimensions

Splined Shafts



Dimensions in millimeters (inches)

Shaft Dimensions

Model	Shaft Code	A		B		C		D		E		Spline Data
		in	mm	in	mm	in	mm	in	mm	in	mm	
QH20VQ	151	1.62	44.1	0.375	9.53	0.468	11.9	0.16	4.1	1.09	27.8	A
QH25VQ	11	1.75	44.5	0.375	9.53	0.437	11.1	0.16	4.1	1.09	27.8	A
QH35VQ	11	2.31	58.7	0.375	9.53	0.437	11.1	0.25	6.4	1.38	35.1	D
QH45VQ	11	2.44	61.9	0.500	12.70	0.565	14.3	0.38	9.7	1.56	39.6	D

Spline Data Table - Involute splines from above chart

Model	Number of Teeth	Pitch	Major Diameter		Former Diameter		Minor Diameter		Minor Diameter
			in	mm	in	mm	in	mm	
A	13	16/32	0.873 0.872	22.17 22.15	0.749	19.03	0.733 0.722	18.63 18.35	Major diameter fit
D	14	12/24	1.248 1.247	31.70 31.67	1.071	27.20	1.062 1.049	26.99 26.64	Major diameter fit



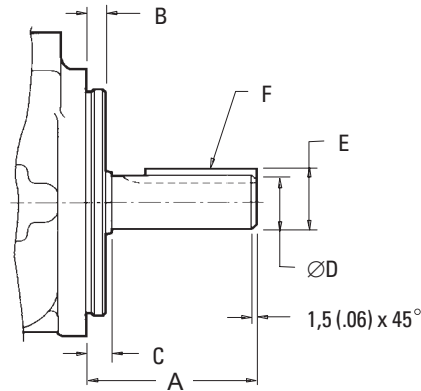
QHVQ**
VANE PUMPS SINGLE



PUMPS / POMES

Shaft Dimensions

Straight Key Shafts



Dimensions in millimeters (inches)

Shaft Dimensions

Model	Shaft Code	A		B		C		ØD		E		F key width x length	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
QH20VQ	1	2.31	58.7	0.375	9.53	0.476	12.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32
QH25VQ	1	2.31	58.7	0.375	9.53	0.435	11.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32
	86	3.06	77.7	0.375	9.53	0.435	11.1	0.999 0.998	25.37 25.35	1.11 1.10	28.3 28.1	0.250 x 2.00	6.36 x 50.8
QH35VQ	1	2.88	73.2	0.375	9.53	0.435	11.1	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.50	7.94 x 38.1
	86	3.38	85.9	0.375	9.53	0.435	11.1	1.374 1.373	34.90 34.87	1.52 1.51	38.6 38.3	0.313 x 2.13	7.94 x 54.0
QH45VQ	1	2.44	62.0	0.500	12.70	0.560	14.22	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.12	7.94x 28.5
	86	3.44	87.4	0.500	12.70	0.560	14.22	1.499 1.498	38.07 38.05	1.67 1.66	42.4 42.1	0.376 x 2.00	9.54 x 50.8

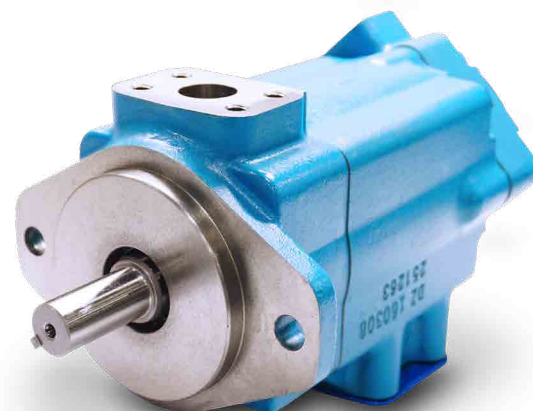


QH****VQ VANE PUMPS DOUBLE



Features

QH™ Series QH****VQ fixed displacement double pumps have an integral hydraulic balancing vane design for high pressure operation, long service life and a low noise level. They are perfect for mobile applications, for their compact design and ease of service.



Technical Data - Operating Specifications

Model Series	Delivery (gpm) at 1200 r/min 7 bar (100 psi)	Displacement		Max Speed	Max Pressure		Typical delivery at max speed & pressure		Typical input at max. speed & pressure		Delivery (gpm) at 1200 r/min 7 bar (100 psi)	Displacement		Max	Max		Weight kg (lb)
		cm³/rev	in³/rev		bar	psi	L/min	gpm	kW	hp		cm³/r	in³/r		bar	psi	
QH2520VQ	12	40.2	2.45	2700	210	3000	88.5	23	41.0	55	5	18.0	1.10	2700	210	3000	20.5 (45)
	14	45.5	2.77	2700	210	3000	103.8	27	46.6	62.5	8	27.4	1.67	2700	210	3000	
	17	55.2	3.37	2500	210	3000	119.2	31	51.8	69.5	11	36.4	2.22	2700	210	3000	
	21	67.7	4.12	2500	210	3000	146.2	38	61.9	83	12	39.5	2.41	2700	160	2300	
											14	45.9	2.80	2700	140	2000	
QH3520VQ	25	81.6	4.98	2500	210	3000	173.1	45	75.3	101	5	18.0	1.10	2500	210	3000	34.0 (75)
	30	97.7	5.96	2500	210	3000	211.5	55	87.7	117.5	8	27.4	1.67	2500	210	3000	
	35	112.8	6.88	2400	210	3000	230.8	60	98.5	132	11	36.4	2.22	2500	210	3000	
	38	121.6	7.42	2400	210	3000	250.0	65	104.4	140	12	39.5	2.41	2500	160	2300	
											14	45.9	2.80	2500	140	2000	
QH3525VQ	25	87.6	4.98	2500	210	3000	173.1	45	75.3	101	12	40.2	2.45	2500	210	3000	34.5 (76)
	30	97.7	5.96	2500	210	3000	211.5	55	87.7	117.5	14	45.4	2.77	2500	210	3000	
	35	112.8	6.88	2400	210	3000	230.8	60	98.5	132	17	55.2	3.37	2500	210	3000	
	38	121.6	7.42	2400	210	3000	250.0	65	104.4	140	21	67.5	4.12	2500	210	3000	
QH4520VQ	42	138.7	8.46	2200	175	2500	255.8	66.5	91.4	122.5	5	18.0	1.10	2200	210	3000	43.0 (94)
	50	162.3	9.90	2200	175	2500	303.8	79	105.2	141	8	27.4	1.67	2200	210	3000	
	60	193.4	11.80	2200	175	2500	369.2	96	126.8	170	11	36.4	2.22	2200	210	3000	
											12	39.5	2.41	2200	160	2300	
											14	45.9	2.80	2200	140	2000	
QH4525VQ	42	138.7	8.46	2200	175	2500	255.8	66.5	91.4	122.5	12	40.2	2.45	2200	210	3000	46.0 (101)
	50	162.3	9.90	2200	175	2500	303.8	79	105.2	141	14	45.4	2.77	2200	210	3000	
	60	193.4	11.80	2200	175	2500	369.2	96	126.8	170	17	55.2	2.37	2200	210	3000	
											21	67.5	4.12	2200	210	3000	
QH4535VQ	42	138.7	8.46	2200	175	2500	255.8	66.5	91.4	122.5	25	81.6	4.98	2200	210	3000	53.6 (118)
	50	162.3	9.90	2200	175	2500	303.8	79	105.2	141	30	97.7	5.96	2200	210	3000	
	60	193.4	11.80	2200	175	2500	369.2	96	126.8	170	35	112.8	6.88	2200	210	3000	
											38	121.6	7.42	2200	210	3000	



QH****VQ

VANE PUMPS DOUBLE



Ordering Information

QH2520VQ	12	A	5	1	AA	20	R	-
1	2	3	4	5	6	7	8	9

1. Model Series	
QH2520VQ	QH4520VQ
QH3520VQ	QH4525VQ
QH3525VQ	QH4535VQ

2. Displacement - Shaft End Pump			
At 1200 RPM, 7 Bar (100 psi)			
Size	gpm	cm ³ /rev	in ³ /rev
2520VQ	12	40.2	2.45
	14	45.4	2.77
	17	55.2	3.37
	21	67.5	4.12
35**VQ	25	81.6	4.98
	30	97.7	5.96
	35	112.8	6.88
	38	121.6	7.42
45**VQ	42	138.7	8.46
	50	162.3	9.90
	60	193.4	11.80

3. Port Connection	
A	SAE 4-bolt flg (Inlet, Outlet No.1 & No. 2)

4. Displacement - Cover End Pump			
At 1200 RPM, 7 Bar (100 psi)			
Size	gpm	cm ³ /rev	in ³ /rev
**20VQ	5	18.0	1.10
	8	27.4	1.67
	11	36.4	2.22
	12	39.5	2.41
	14	45.9	2.80
**25VQ	12	40.2	2.45
	14	45.4	2.77
	17	55.2	3.37
	21	67.5	4.12
4535VQ	25	81.6	4.98
	30	97.7	5.96
	35	112.8	6.88
	38	121.6	7.42

5. Shaft Type	
1	Straight Keyed (Standard)
11	Splined
86	Straight keyed, heavy duty

6. Port Orientation (All series except QH4535VQ)	
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

Series QH4535VQ	
With No.1 outlet opposite inlet:	
AA	No. 2 opposite inlet
AB	No. 2 opposite 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° 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

7. Design Number	
20	Standard

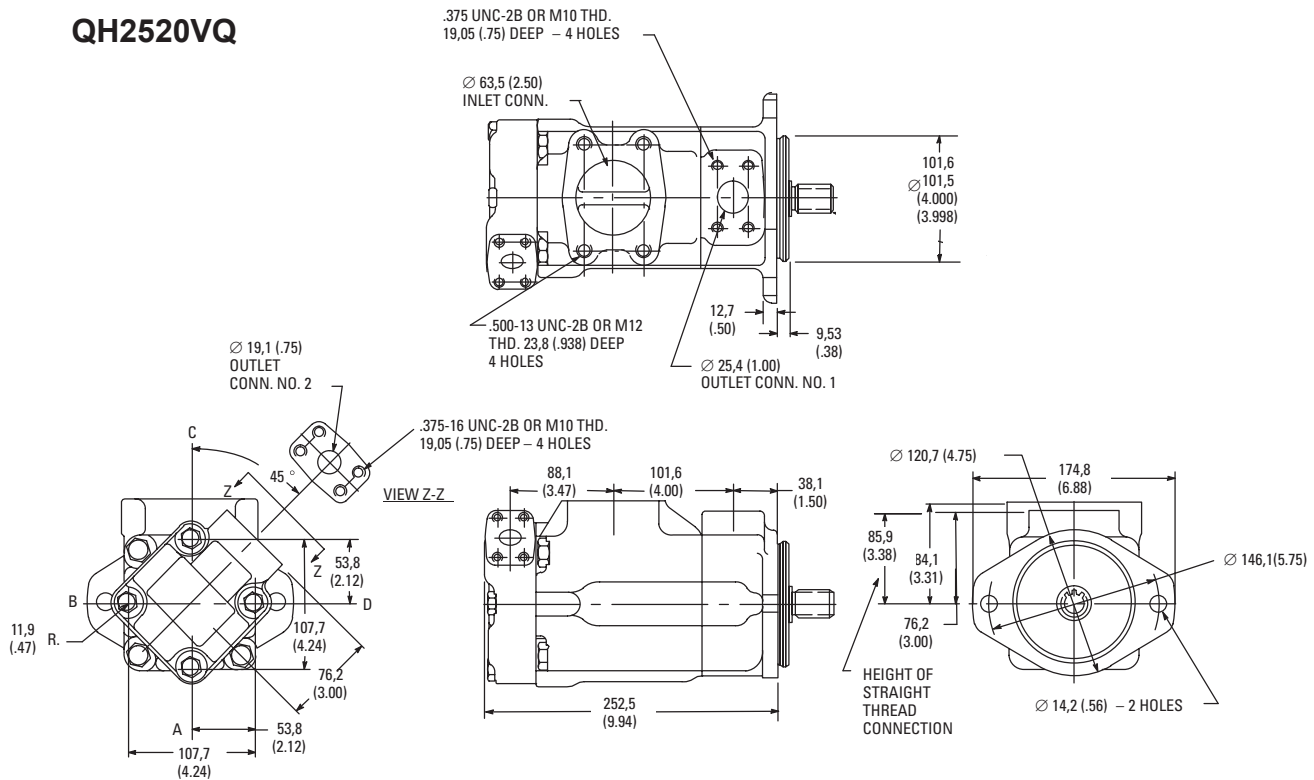
8. Shaft Rotation (View from shaft end of pump)	
R	Right Hand Rotation
L	Left Hand Rotation

9. Seals	
Omit	Nitrile (Standard)
3	Viton

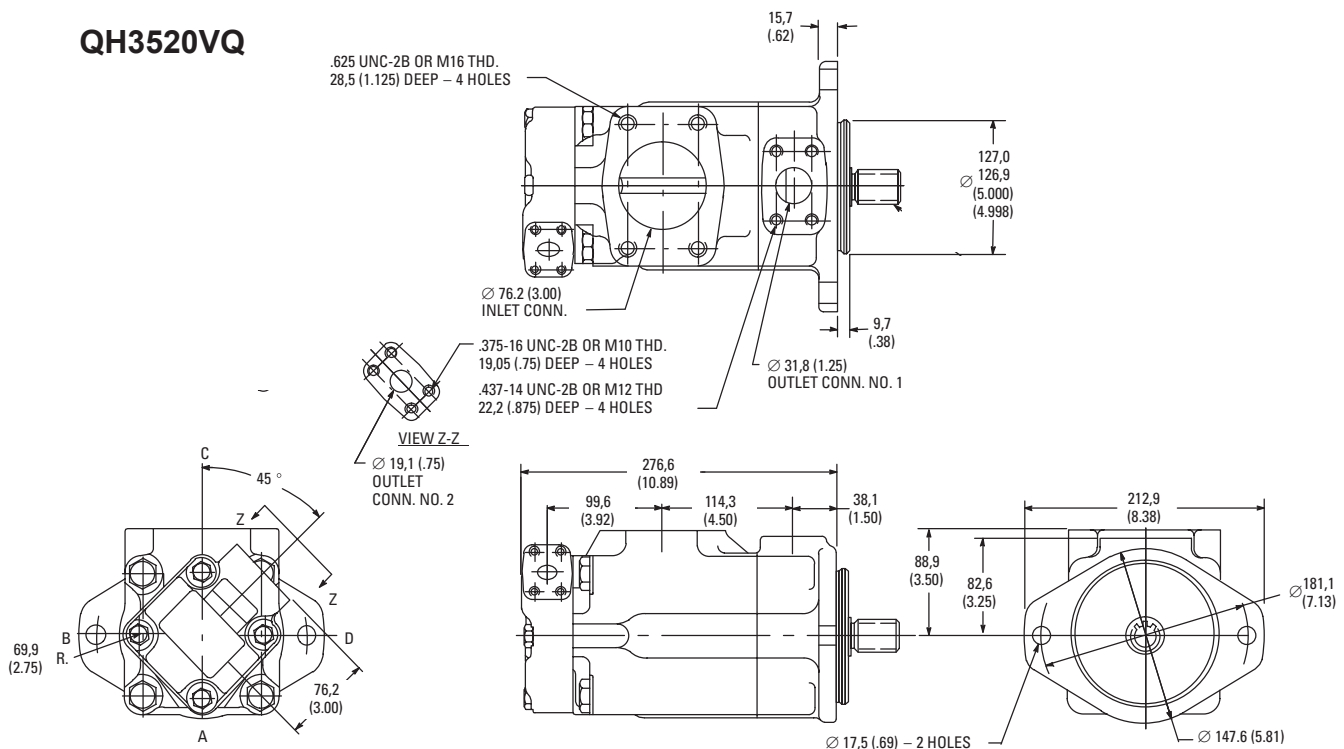
*Viewed from cover end of pump

Installation Dimensions

QH2520VQ



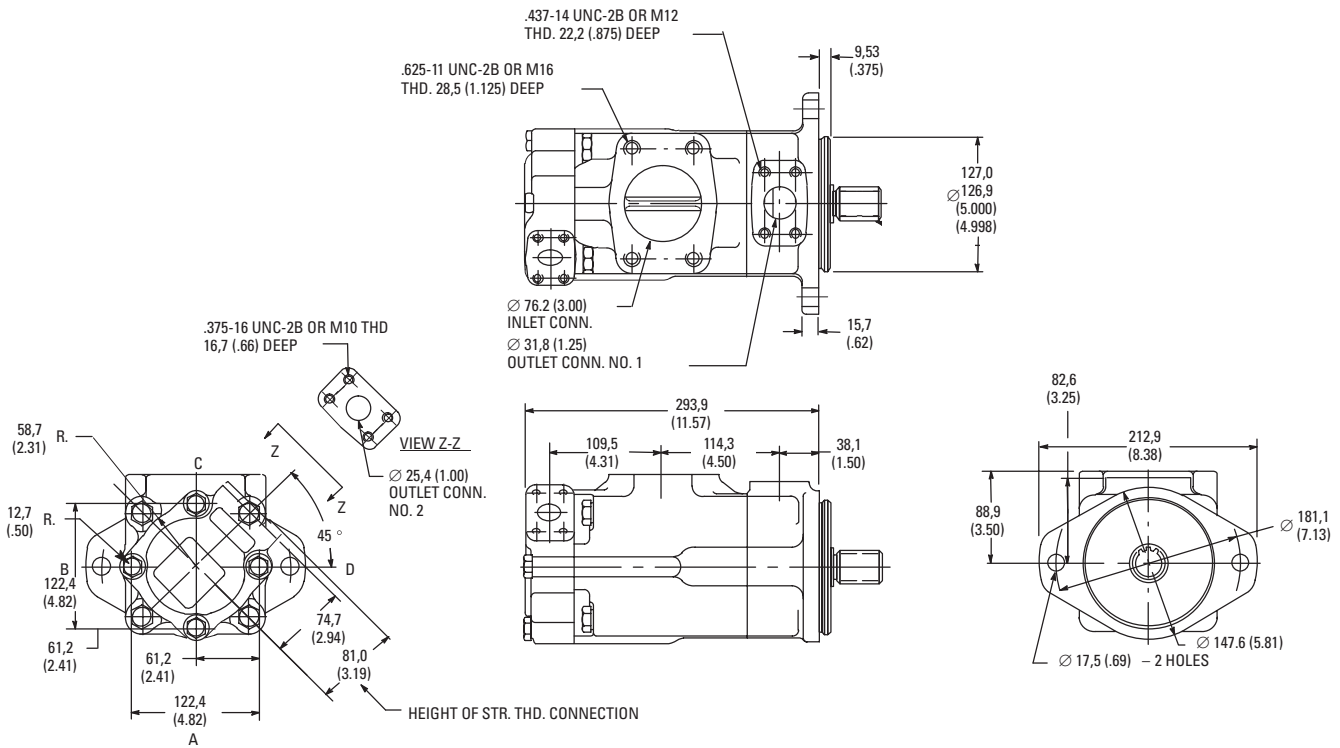
QH3520VQ



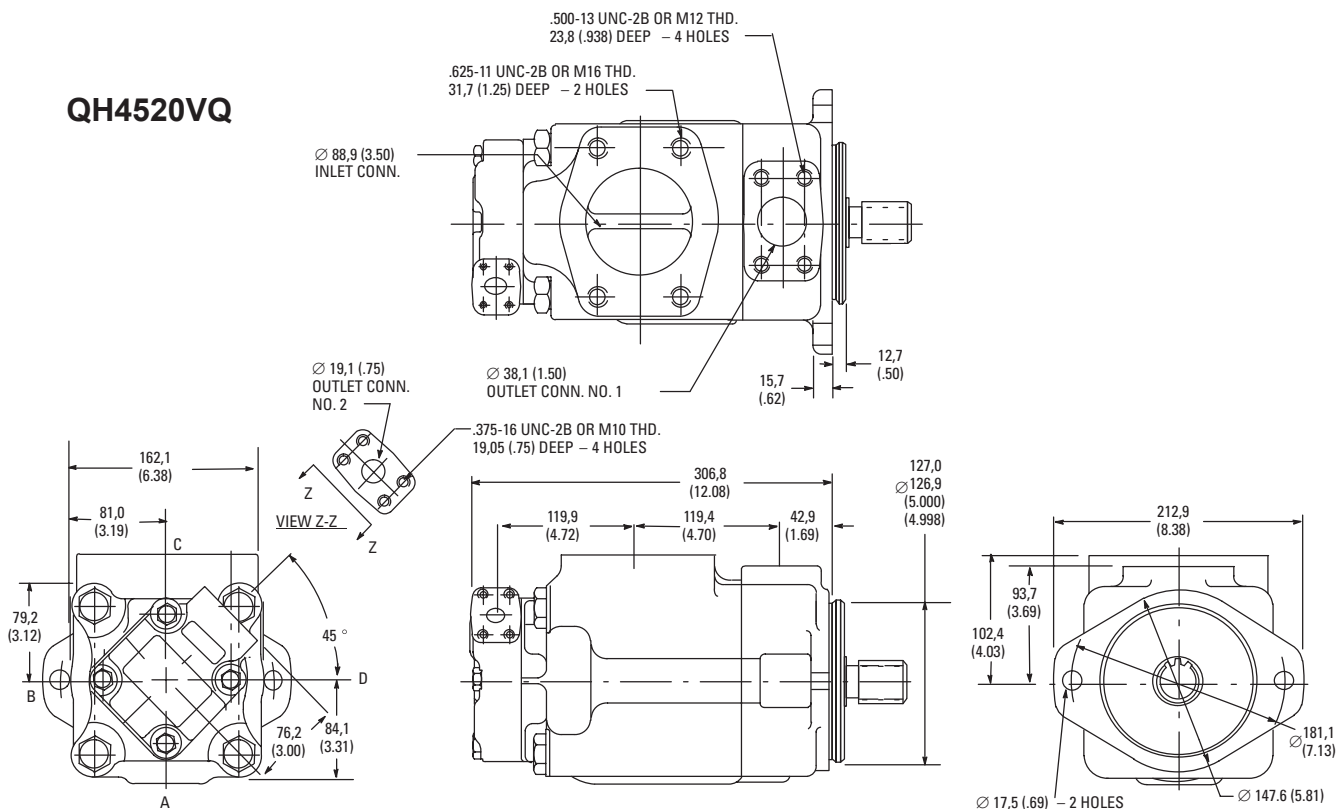
Dimensions in millimeters (inches)

Installation Dimensions

QH3525VQ



QH4520VQ



Dimensions in millimeters (inches)



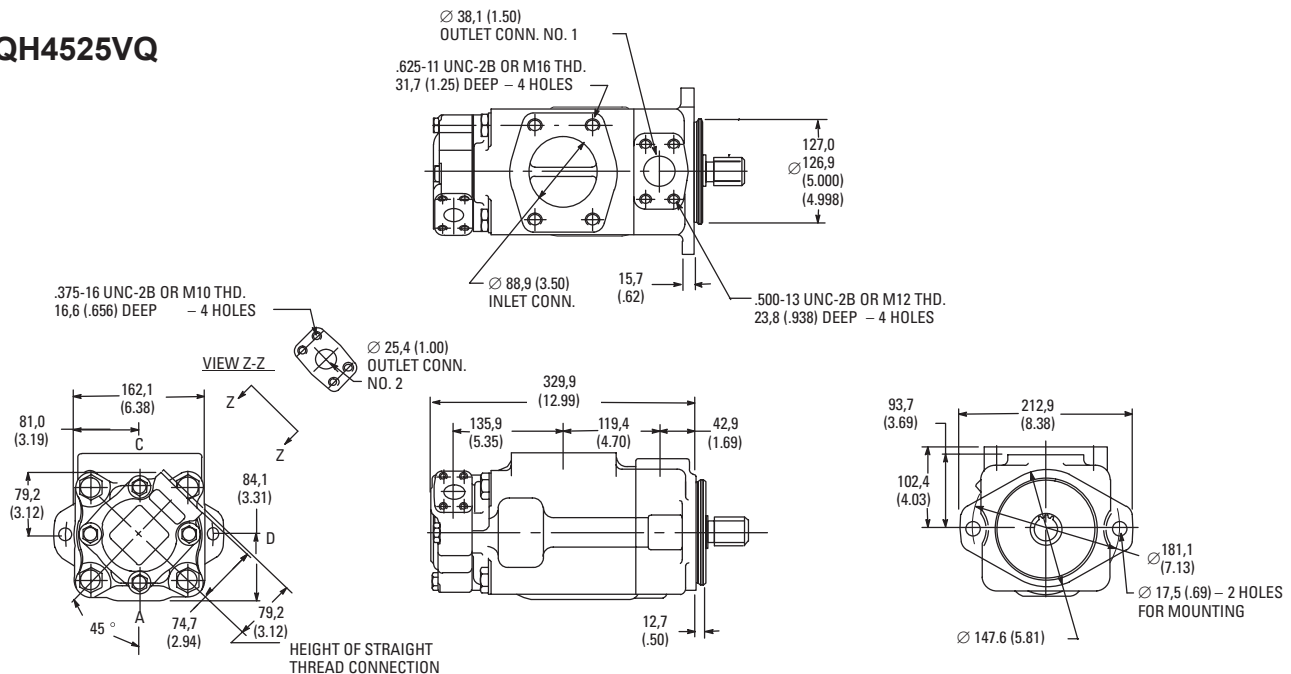
QH****VQ VANE PUMPS DOUBLE



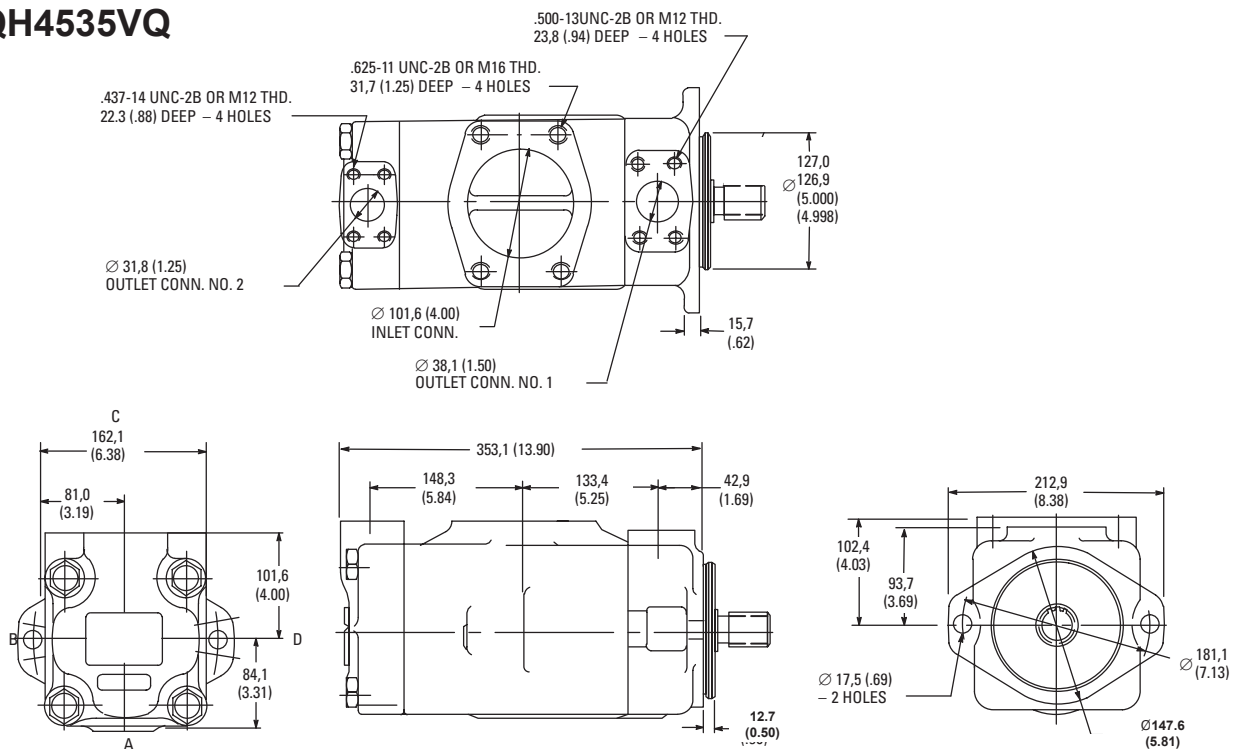
Installation Dimensions

4-BOLT PORT CONNECTION PADS ARE

QH4525VQ



QH4535VQ



Dimensions in millimeters (inches)



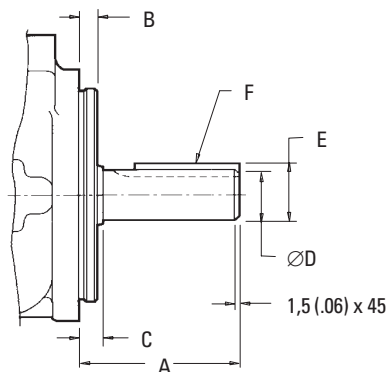
QH**VQ**
VANE PUMPS DOUBLE



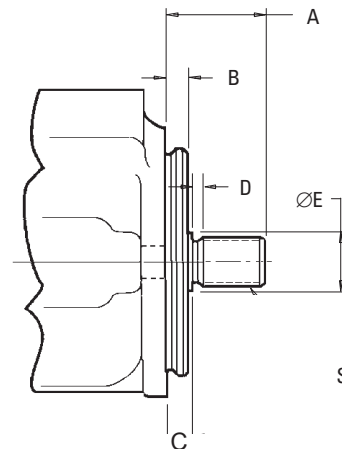
PUMPS / POMES

Shaft Dimensions

Straight Key Shafts



Splined Shafts



See spline data table below.

Shaft Dimensions

Model	Shaft Code	A		B		C		ØD		E		F key width x length	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
QH2520VQ	1	2.31	58.7	0.375	9.53	0.435	11.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32.0
	86	3.06	77.7	0.375	9.53	0.435	11.1	0.999 0.998	25.37 25.35	1.11 1.10	28.3 28.1	0.250 x 2.00	6.36 x 50.8
QH3520VQ QH3525VQ	1	2.88	73.2	0.375	9.53	0.435	11.1	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.50	7.94 x 38.1
	86	3.38	85.9	0.375	9.53	0.435	11.1	1.374 1.373	34.90 34.87	1.52 1.51	38.6 38.3	0.313 x 2.13	7.94 x 54.0
QH4520VQ QH4525VQ QH4535VQ	1	2.44	62.0	0.500	12.70	0.560	14.22	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.12	7.94 x 28.5
	86	3.44	87.4	0.500	12.70	0.560	14.22	1.499 1.498	38.07 38.05	1.67 1.66	42.4 42.1	0.376 x 2.00	9.54 x 50.8

Splined Shaft Dimension

Model	Shaft Code	A		B		C		D		E		Spline Data
		in	mm	in	mm	in	mm	in	mm	in	mm	
QH2520VQ	11	1.75	44.5	0.375	9.53	0.437	11.1	0.16	3.9	1.09	27.8	A
QH35**VQ	11	1.75	44.5	0.375	9.53	0.437	11.1	0.25	6.35	1.38	35.1	C
QH45**VQ	11	2.44	61.9	0.500	12.7	0.563	14.3	0.38	9.7	1.56	39.6	C

Spline Data Table - Involute splines from above chart

Model	Number of Teeth	Pitch	Major Diameter		Former Diameter		Minor Diameter		Minor Diameter
			in	mm	in	mm	in	mm	
A	13	16/32	0.873 0.872	22.17 22.15	0.749	19.03	0.733 0.722	18.63 18.35	Major diameter fit
C	14	12/24	1.248 1.247	31.70 31.67	1.071	27.20	1.062 1.049	26.99 26.64	Major diameter fit



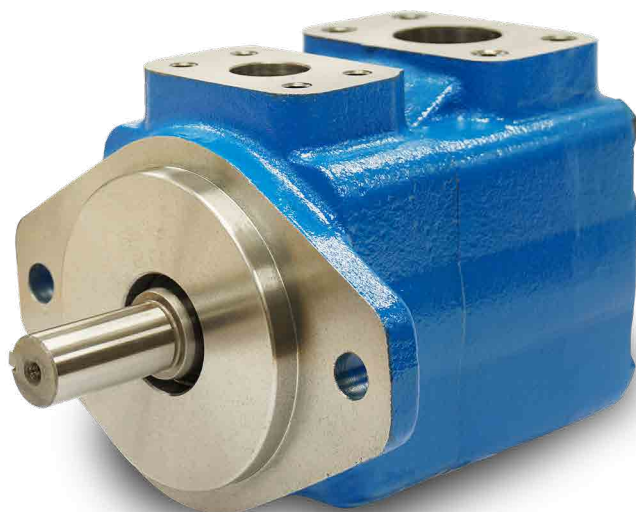
QH**V VANE PUMPS SINGLE



PUMPS / POMES

Features

The QH**V series single vane pumps are excellent for medium to low pressure mobile and industrial applications. The hydraulic balancing structure and intravane design provides more stable performance and a longer life span by minimizing the pressure on the stator from the vane. This is achieved by incorporating diametrically opposed inlet and outlet pressure chambers. The 12 vane system provides low amplitude flow pulsation for quiet operation, ideal for industrial applications. Four different outlet position options allow flexibility in various applications. The AVP's cartridge is independent from the drive shaft, which allows for easy servicing without having to remove the pump from its mount.



Operational Specifications

Model	Code	Using anti-wear oil or phosphate ester fluid*			Using water-oil emulsions*			Using water glycol fluid*		
		bar	psi	Max / Min rpm	bar	psi	Max / Min rpm	bar	psi	Max /Min rpm
QH20V	2	138	2000	1800 / 600	69	1000	1200 / 600	138	2000	1500 / 600
QH20V	5,8,9,11	207	3000	1800 / 600	69	1000	1200 / 600	159	2300	1500 / 600
QH20V	12	159	2300	1800 / 600	69	1000	1200 / 600	138	2000	1500 / 600
QH20V	14	138	2000	1800 / 600	69	1000	1200 / 600	138	2000	1500 / 600
QH25V	10,12,14,17,19,21	172	2500	1800 / 600	69	1000	1500 / 600	159	2300	1500 / 600
QH35V	25,30,35,38	172	2500	1800 / 600	69	1000	1500 / 600	159	2300	1500 / 600
QH35V	45	138	2000	1800 / 600	69	1000	1500 / 600	138	2300	1500 / 600
QH45V	42,45,50,60	172	2500	1800 / 600	69	1000	1500 / 600	159	2300	1500 / 600
QH45V	75	138	2000	1800 / 600	69	1000	1500 / 600	138	2000	1500 / 600

*Outlet pressure



QH**V

VANE PUMPS SINGLE

Ordering Information



QH25V	10	A	1	C	22	L	-
1	2	3	4	5	6	7	8

1. Model Series

QH20V
QH25V
QH35V
QH45V

2. Displacement (gpm) At 1200 RPM, 100 PSI

QH20V	QH25V	QH35V	QH45V
2	10	21	42
3	12	25	45
4	14	30	50
5	15	32	57
6	17	35	60
7	19	38	66
8	21	45	75
9	25		
10			
11			
12			
14			

3. Port Connection

A	SAE 4 - Bolt Flange
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4. Shaft Type

1	Straight Keyed (Standard)
11	Splined (Not offered for QH20V model)
86	Straight Keyed (Heavy Duty) (Not offered for QH20V model)
151	Splined (QH20V Only)

5. Outlet Port Position (Viewed from the cover end of the pump)

A	Opposite Inlet
B	90° CCW From Inlet
C	Inline With Inlet (Standard)
D	90° CW From Inlet

6. Design Number

22	Standard
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7. Rotation

R	Right Hand Rotation
L	Left Hand Rotation

8. Seals

Omit	Nitrile (Standard)
3	Viton

PUMPS / POMES



QH**V

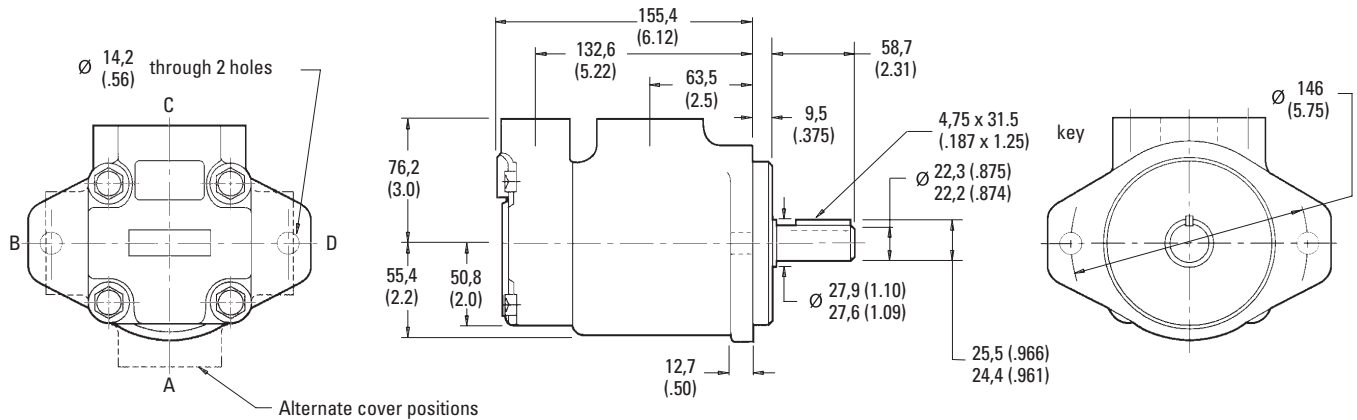
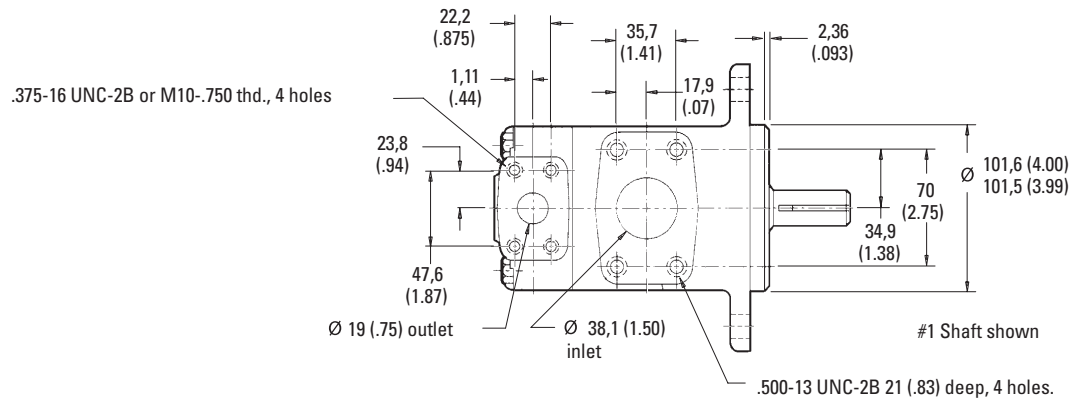
VANE PUMPS SINGLE



PUMPS / POMES

Installation Dimensions

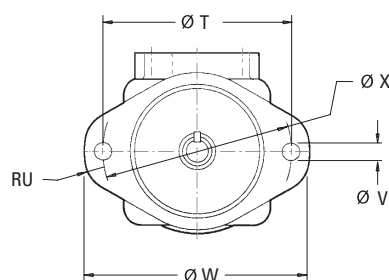
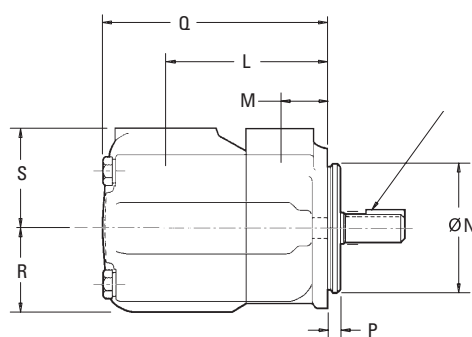
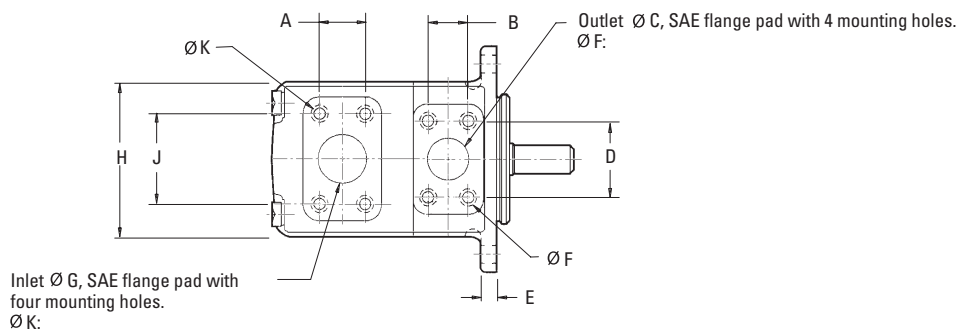
QH20V



Dimensions in millimeters (inches)

Installation Dimensions

QH25V, QH35V, QH45V



Model	ØF x full thread depth, 4 holes	ØK x full thread depth, 4 holes
QH25V	3/8"-16 UNC-2B x 19 (0.75) deep	1/2"-13 UNC-2B x 23.8 (0.94) deep
QH35V	7/16-14 UNC-2B x 22.3 (0.88) deep	1/2-13 UNC-2B x 22.3 (0.88) deep
QH45V	1/2"-13 UNC-2B x 23.8 (0.94) deep	5/8"-11 UNC-2B x 25.4 (1.18) deep

Model	A	B	C	D	E	G	H	J	L	L	M	N	P
QH25V	35.7	26.2	25.4	52.4	12.7	38.1	118	69.9	121	149	38.1	101.6	9.53
	(1.41)	(1.03)	(1.00)	(2.06)	(0.50)	(1.50)	(4.62)	(2.75)	(4.76)	(5.88)	(1.50)	101.5 (3.99)	(0.385)
QH35V	42.9	30.2	31.8	58.7	16	50.8	140	77.8	125.5	133.4	38.1	127.0 (5.00)	9.53
	(1.69)	(1.19)	(1.25)	(2.31)	(0.63)	(2.00)	(5.50)	(3.06)	(4.94)	(5.25)	(1.50)	126.9 (4.99)	(0.38)
QH45V	61.9	35.7	38.1	69.9	16	76.2	159	106.4	153	164	43	127.0 (5.00)	12.7
	(2.43)	(1.41)	(1.50)	(2.75)	(0.63)	(3.00)	(6.25)	(4.19)	(6.03)	(6.44)	(1.69)	126.9 (4.99)	(0.50)

Model	Q	R	S	T	RU	ØV	W	ØX
QH25V	162.1	63.5	76.2	146	14	14.2	175	121
	(6.38)	(2.50)	(3.00)	(5.75)	(0.55)	(0.56)	(6.88)	(4.76)
QH35V	185	69.9	82.6	181	16	17.5	213	148
	(7.28)	(2.75)	(3.25)	(7.13)	(0.63)	(0.69)	(8.38)	(5.83)
QH45V	216	82.6	93.7	181	16	17.5	213	148
	(8.50)	(3.25)	(3.69)	(7.13)	(0.63)	(0.69)	(8.38)	(5.83)

Dimensions in millimeters (inches)



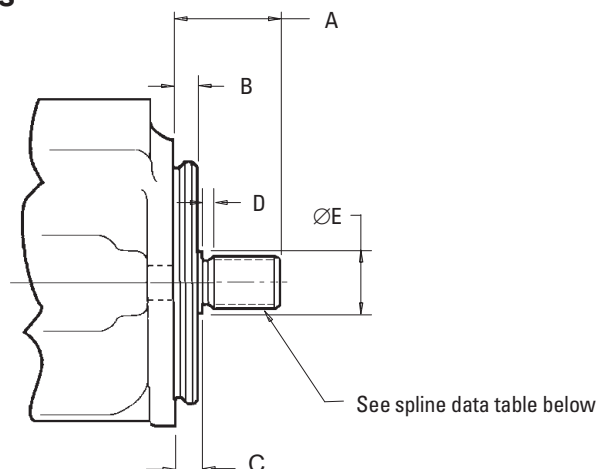
QHV**
VANE PUMPS SINGLE



PUMPS / POMES

Shaft Dimensions

Splined Shafts



Dimensions in millimeters (inches)

Shaft Dimensions

Model	Shaft Code	A		B		C		D		E		Spline Data
		in	mm	in	mm	in	mm	in	mm	in	mm	
QH20V	151	1.62	44.1	0.375	9.53	0.468	11.9	0.16	4.1	1.09	27.8	A
QH25V	11	1.75	44.5	0.375	9.53	0.437	11.1	0.16	4.1	1.09	27.8	A
QH35V	11	2.31	58.7	0.375	9.53	0.437	11.1	0.25	6.4	1.38	35.1	D
QH45V	11	2.44	61.9	0.500	12.70	0.565	14.3	0.38	9.7	1.56	39.6	D

Spline Data Table - Involute splines from above chart

Model	Number of Teeth	Pitch	Major Diameter		Former Diameter		Minor Diameter		Minor Diameter
			in	mm	in	mm	in	mm	
A	13	16/32	0.873 0.872	22.17 22.15	0.749	19.03	0.733 0.722	18.63 18.35	Major diameter fit
D	14	12/24	1.248 1.247	31.70 31.67	1.071	27.20	1.062 1.049	26.99 26.64	Major diameter fit



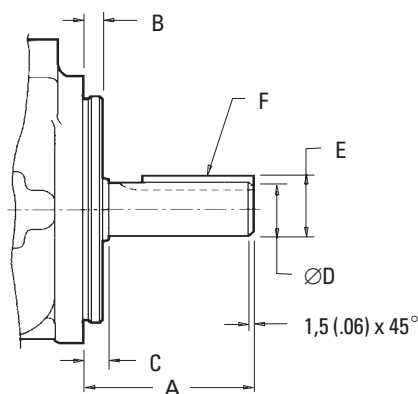
QHV**
VANE PUMPS SINGLE



PUMPS / POMES

Shaft Dimensions

Straight Key Shafts



Dimensions in millimeters (inches)

Shaft Dimensions

Model	Shaft Code	A		B		C		ØD		E		F key width x length	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
QH20V	1	2.31	58.7	0.375	9.53	0.476	12.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32.0
QH25V	1	2.31	58.7	0.375	9.53	0.435	11.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32.0
	86	3.06	77.7	0.375	9.53	0.435	11.1	0.999 0.998	25.37 25.35	1.11 1.10	28.3 28.1	0.250 x 2.00	6.36 x 50.8
QH35V	1	2.88	73.2	0.375	9.53	0.435	11.1	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.50	7.94 x 38.1
	86	3.38	85.9	0.375	9.53	0.435	11.1	1.374 1.373	34.90 34.87	1.52 1.51	38.6 38.3	0.313 x 2.13	7.94 x 54.0
QH45V	1	2.44	62.0	0.500	12.70	0.560	14.22	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.12	7.94x 28.5
	86	3.44	87.4	0.500	12.70	0.560	14.22	1.499 1.498	38.07 38.05	1.67 1.66	42.4 42.1	0.376 x 2.00	9.54 x 50.8



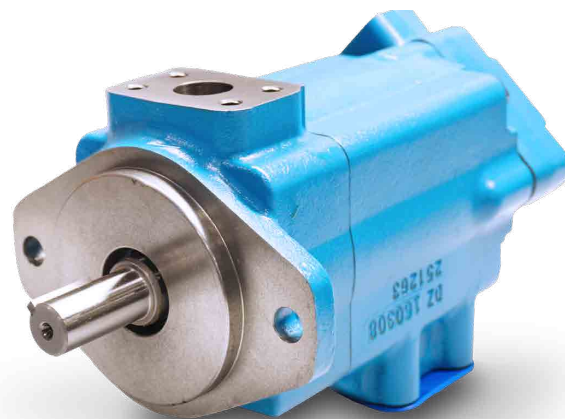
QH****V VANE PUMPS DOUBLE



PUMPS / POMES

Features

The QH****V series double vane pumps are excellent for medium to low pressure mobile and industrial applications. The hydraulic balancing structure and intravane design provides more stable performance and a longer life span by minimizing the pressure on the stator from the vane. This is achieved by incorporating diametrically opposed inlet and outlet pressure chambers. The 12 vane system provides low amplitude flow pulsation for quiet operation, ideal for industrial applications. Four different outlet position options allow flexibility in various applications.



Operational Specifications

Model	Code	Using anti-wear oil or phoshate ester fluid*		Using water-in-oil emulsions*		Using water glycol fluid*	
		bar	psi	bar	psi	bar	psi
QH**20V	10	159	2300	69	1000	159	2300
QH**20V	14	138	2000	69	1000	138	2000
QH25**V	10,12,14,15, 17, 19, 21,25	172	2500	69	1000	159	2300
QH**25V	12,14,17,21	172	2500	69	1000	159	2300
QH5**V	21,25,30,32,35,38,45	172	2500	69	1000	159	2300
QH**35V	25,30,35,38	172	2500	69	1000	159	2300
QH45**V	42,45,50,5760	172	2500	69	1000	159	2300

*Outlet pressure

Speed (rpm)

Model	Using anit-wear oil or phosphate ester fluid	Using water-in-oil emulsions	Using water glycol fluid
QH**20V	1800	1500	600
QH25**V	1800	1500	600
QH**25V	1800	1500	600
QH35**V	1800	1500	600
QH**35V	1800	1500	600
QH45**V	1800	1500	600



QH****V

VANE PUMPS DOUBLE



PUMPS / POMES

Ordering Information

QH2520V	10	A	5	1	AA	22	R	-
1	2	3	4	5	6	7	8	9

1. Model Series

QH2520V	QH4520V
QH3520V	QH4525V
QH3525V	QH4535V

2. Shaft End Pump (gpm)
At 1200 RPM, 100 PSI

25**V	35**V	45**V
10	21	42
12	25	45
14	30	50
15	32	57
17	35	60
19	38	66
21	45	75
25		

3. Port Connection

A	SAE 4 - Bolt Flange
---	---------------------

4. Shaft End Displacement
(GPM) @1200 RPM, 100 PSI

**20V	**25V	**35V
2	10	21
3	12	25
4	14	30
5	15	32
6	17	35
7	19	38
8	21	45
9	25	
10		
11		
12		
14		

5. Shaft Type

1	Straight Keyed (Standard)
11	Splined
86	Straight keyed, heavy duty

6. Port Orientation*

(All series except QH4535V)

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

Series QH4535V

AA	No. 2 opposite inlet
AB	No. 2 opposite 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° 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

7. Design Number

22	Standard
----	----------

8. Rotation

View from shaft end of pump

R	Right Hand Rotation
L	Left Hand Rotation

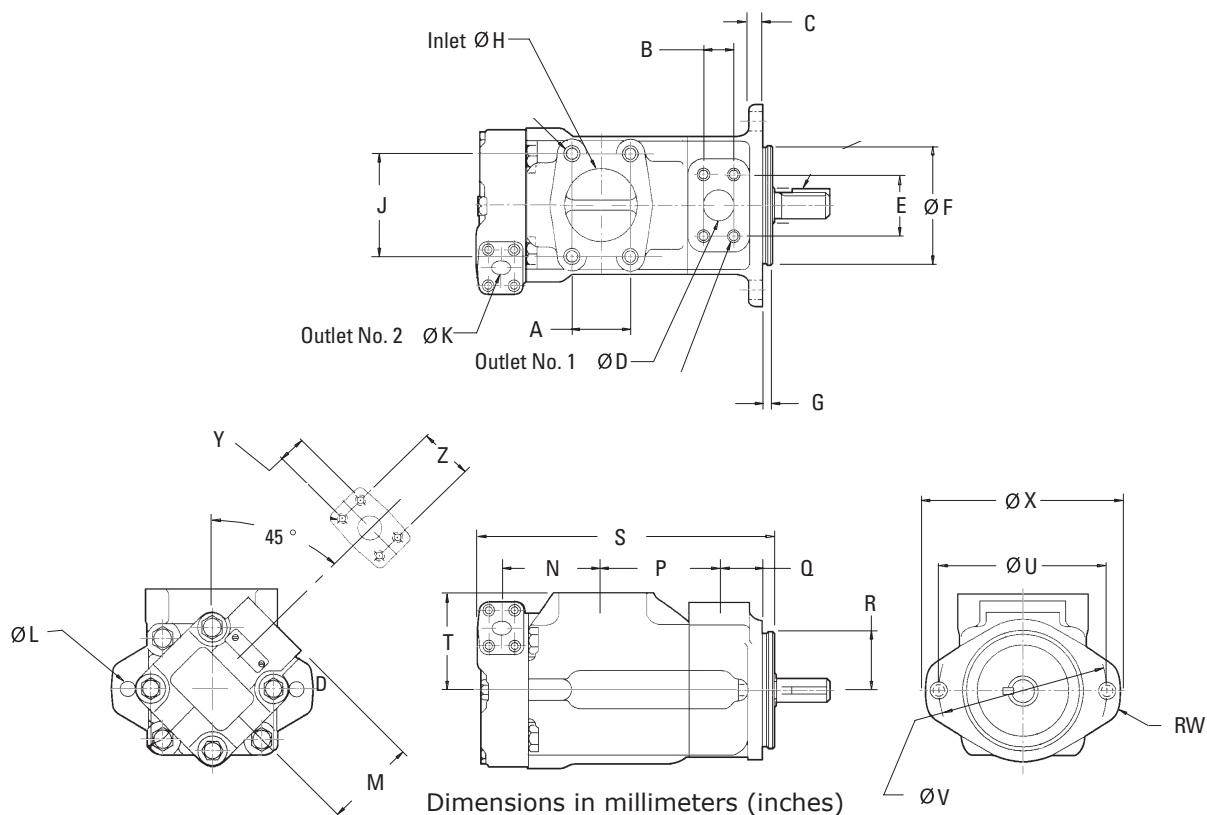
9. Seals

Omit	Nitrile (Standard)
3	Viton

*Viewed from cover end of pump

Installation Dimensions

QH2520V , QH3520V , QH3525V, QH4520V , QH4520V



Model	A	B	C	D	E	F	G	H	J	K	L	M	N
QH2520V	50.8	26.2	12.7	25.4	52.4	101.6 (4.0)	9.53	63.5	88.9	19.1	14.2	76.2	88.1
	2.00)	(1.03)	(0.50)	(1.00)	(2.06)	101.5 (3.9)	(0.38)	(2.50)	(3.50)	(0.75)	(0.56)	(3.00)	(3.47)
QH3520V	62	30.1	15.9	31.7	58.7	127 (5.00)	9.53	76.2	106.3	19.1	17.5	76.2	99.6
	2.44)	(1.19)	(0.62)	(1.25)	(2.31)	126 (4.99)	(0.38)	(3.00)	(4.19)	(1.00)	(0.69)	(2.94)	(4.31)
QH3525V	62	30.1	15.9	31.7	58.7	127 (5.00)	9.53	76.2	106.3	25.4	17.5	74.7	109.5
	(2.44)	(1.19)	(0.62)	(1.25)	(2.31)	126 (4.99)	(0.38)	(3.00)	(4.19)	(1.00)	(0.69)	(2.94)	(4.31)
QH4520V	69.9	35.7	15.9	38.1	69.9	127 (5.00)	12.7	88.9	120.6	25.4	17.5	74.7	136
	2.75)	(1.41)	(0.62)	(1.50)	(2.75)	126 (4.99)	(0.50)	(3.50)	(4.75)	(1.00)	(0.69)	(2.94)	(5.35)
QH4525V	69.9	35.7	15.9	38.1	69.9	127 (5.00)	12.7	88.9	120.6	25.4	17.5	74.7	136
	(2.75)	(1.41)	(0.62)	(1.50)	(2.75)	126 (4.99)	(0.50)	(3.50)	(4.75)	(1.00)	(0.69)	(2.94)	(5.35)

Model	P	Q	R	S	T	U	V	RW	X	Y	Z
QH2520V	101.6	38.1	76.2	250	85.3	146.1	175	14	174.7	22.2	47.6
	(6.38)	(2.50)	(3.00)	(9.81)	(3.38)	(5.75)	(6.88)	(0.55)	(6.88)	(0.88)	(1.88)
QH3520V	114.3	38.1	82.6	273.3	88.9	181	148	16	213	22.2	47.6
	(4.5)	(1.50)	(3.25)	(10.8)	(3.50)	(7.13)	(5.83)	(0.63)	(8.38)	(0.88)	(1.88)
QH3525V	114.3	38.1	82.6	287.3	88.9	181	148	16	213	26.2	52.4
	(4.50)	(1.50)	(3.25)	(9.81)	(3.50)	(7.13)	(5.83)	(0.63)	(8.38)	(1.03)	(2.06)
QH4520V	119.4	42.9	93.7	303.5	102.4	181	148	16	213	22.2	47.6
	(4.70)	(1.69)	(3.69)	(11.95)	(4.03)	(7.13)	(5.83)	(0.63)	(8.38)	(0.88)	(1.88)
QH4525V	119.4	42.9	93.7	325	102.4	181	148	16	213	26.2	52.4
	(4.70)	(1.69)	(3.69)	(12.8)	(4.03)	(7.13)	(5.83)	(0.63)	(8.38)	(1.03)	(2.06)



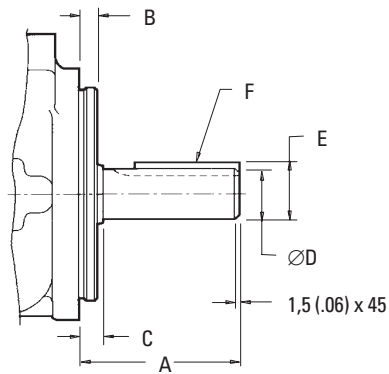
QH**V**
VANE PUMPS DOUBLE



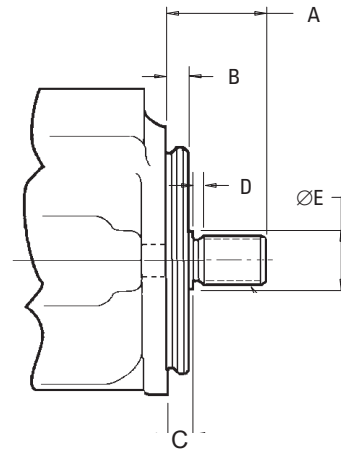
PUMPS / POMES

Shaft Dimensions

Straight Key Shafts



Splined Shafts



Shaft Dimensions

Model	Shaft Code	A		B		C		ØD		E		F key width x length	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
QH2520V	1	2.31	58.7	0.375	9.53	0.435	11.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32
	86	3.06	77.7	0.375	9.53	0.435	11.1	0.999 0.998	25.37 25.35	1.11 1.10	28.3 28.1	0.250 x 2.00	6.36 x 50.8
QH3520V QH3525V	1	2.88	73.2	0.375	9.53	0.435	11.1	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.50	7.94 x 38.1
	86	3.38	85.9	0.375	9.53	0.435	11.1	1.374 1.373	34.90 34.87	1.52 1.51	38.6 38.3	0.312 x 2.13	7.92 x 54
QH4520V QH4525V QH4535V	1	2.44	62.0	0.500	12.7	0.560	14.22	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.312 x 1.12	7.94x 28.5
	86	3.44	87.4	0.500	12.7	0.560	14.22	1.499 1.498	38.07 38.05	1.67 1.66	42.4 42.1	0.375 x 2.00	9.54 x 50.8

Splined Shaft Dimension

Model	Shaft Code	A		B		C		D		E		Spline Data
		in	mm	in	mm	in	mm	in	mm	in	mm	
QH2520V	11	1.75	44.5	0.375	9.53	0.437	11.1	0.16	3.9	1.09	27.8	A
QH35**V	11	1.75	44.5	0.375	9.53	0.437	11.1	0.25	6.35	1.38	35.1	C
QH45**V	11	2.44	61.9	0.500	12.7	0.563	14.3	0.38	9.7	1.56	39.6	C

Spline Data Table - Involute splines from above chart

Model	Number of Teeth	Pitch	Major Diameter		Former Diameter		Minor Diameter		Minor Diameter
			in	mm	in	mm	in	mm	
A	13	16/32	0.873 / 0.872	22.17 / 22.15	0.749	19.03	0.733/ 0.722	18.63 / 18.35	Major diameter fit
C	14	12/24	1.248 / 1.247	31.70 / 31.67	1.071	27.2	1.062 / 1.049	26.99 / 26.64	Major diameter fit

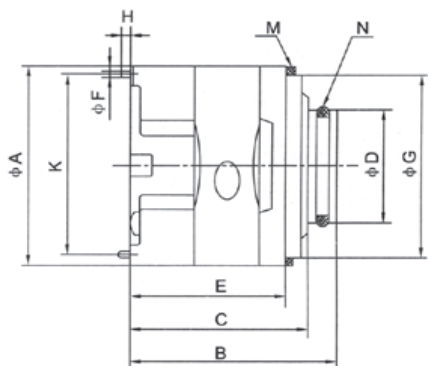


QH**V

VANE PUMPS CARTRIDGE



Dimensions



Dimensions in millimeters



Model	ØA	B	C	ØD	E	ØF	ØG	H	K	M (Gasket)	M (O-ring)
QH20V	82.55	81.5	70.1	47	61.5	4.8	76.2	7	73.6	82.76 x 76.26 x 3.5	40 x 3.55
QH25V	96.8	98.8	87	52.2	71.2	4.8	90.5	7	88.19	97 x 91 x 3.5	44 x 3.53
QH35V	114.3	117.7	105	72.2	90.3	6.4	108	8	103.94	114.5 x 108.5 x 3.5	63.09 x 3.53
QH45V	133.35	141.1	129.6	80.2	105.5	6.4	127	8	123.8	133.6 x 127.6 x 6.5	71 x 3.55

Model	Inside spline tooth outline parameter of rotor				
	Number of teeth	Pitch	Pressure Angle	Major Diameter	Minor Diameter
QH20V	30	48/96	45°	16.617	15.56
QH25V	40	48/96	45°	21.90	20.86
QH35V	37	40/80	45°	24.38	23.10
QH45V	14	12/24	30°	32.59	27.60

Ordering Code

PC	QH20V	4	L
1	2	3	4

1. Cartridge type	
PC	Cartridge kit for single pump, double pump, shaft end
PCT	Cartridge kit for double pump cover end

2. Series	
QH20V	
QH25V	
QH35V	
QH45V	

3. Flow	
QH20V	2,3,4,5,6,7,8,9,10,11,12,14
QH25V	10,12,14,15,17,19,21,25
QH35V	21,25,30,32,35,38,45
QH45V	42,45,50,57, 60, 66,75

4. Rotation (View from shaft end of pump)	
L	Left hand for counter clockwise
R	Right hand for clockwise

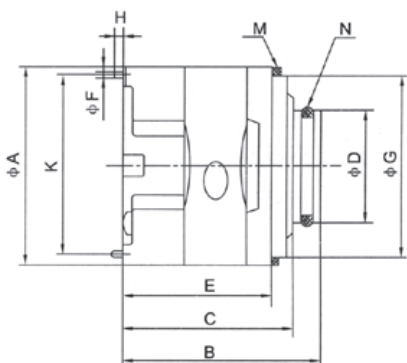


QH**VQ VANE PUMPS CARTRIDGE



PUMPS / POMES

Dimensions



Model	ØA	B	C	ØD	E	ØF	ØG	H	K	M (Gasket)	M (O-ring)
QH20VQ	82.55	81.5	70.1	47.2	61.5	4.8	76.2	7	73.6	82.76 x 76.26 x 3.5	40 x 3.55
QH25VQ	96.8	98.8	87	52.2	71.2	4.8	90.5	7	88.19	97 x 91 x 3.5	44 x 3.53
QH35VQ	114.3	117.7	105	72.2	90.3	6.4	108	7	103.94	114.5 x 108.5 x 3.5	63.09 x 3.53
QH45VQ	133.35	141.1	129.6	80.2	105.5	6.4	127	11	123.8	133.6 x 127.6 x 6.5	71 x 3.55

Model	Inside spline tooth outline parameter of rotor				
	Number of teeth	Pitch	Pressure Angle	Major Diameter	Minor Diameter
QH20VQ	30	48/96	45°	16.617	15.56
QH25VQ	40	48/96	45°	21.90	20.86
QH35VQ	37	40/80	45°	24.38	23.10
QH45VQ	14	12/24	30°	32.59	27.60

Dimensions in millimeters

Ordering Code

PC	QH20VQ	4	L
1	2	3	4

1. Cartridge type	
PC	Cartridge kit for single pump, double pump, shaft end
PCT	Cartridge kit for double pump cover end

2. Series
QH20VQ
QH25VQ
QH35VQ
QH45VQ

3. Flow	
QH20VQ	2,3,4,5,6,7,8,9,10,11,12,14
QH25VQ	10,12,14,15,17,19,21,25
QH35VQ	21,25,30,32,35,38,45
QH45VQ	42,45,50,57, 60, 66,75

3. Rotation (View from shaft end of pump)	
L	Left hand for counter clockwise
R	Right hand for clockwise