

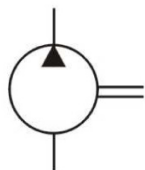
SINGLE FIXED DISPLACEMENT INDUSTRIAL DESIGN 20V SERIES



FEATURES

The Northman 20V Series pump is a fixed displacement, hydraulic balanced vane pump. This high performance intravane pump for industrial applications features high pressure capability with 12 vanes for low noise. The available flow ratings for the 20V series are from 2 GPM to 14 GPM at 1200 RPM. Viton seals are standard. Standard rotation is right-hand (clockwise), with left-hand rotation (counterclockwise) available ("L" option). The flange mounting is the SAE "B" two-bolt standard. The outlet port may be oriented in any one of four positions.

SYMBOL



MODEL CODE

20 **V** - **12** - **A** - **1** - **C** - ****** - **(L)**

1

2

3

4

5

6

7

8

1 Series

20: 20 Series Fixed Vane Pump

2 Design Type

V: Industrial Design

3 GPM

Flow at 1200 RPM, 100 PSI:
2, 5, 8, 9, 11, 12, 14

4 Ports

A: Inlet – 1.50" SAE, 4-Bolt Flange
Outlet – 3/4" SAE, 4-Bolt Flange

5 Shaft

1: 7/8" Dia., 0.187 Sq. St. Key
11: 13 Tooth Spline

6 Position of Outlet Port

(Viewed from Cover End)

A: Opposite Inlet
B: 90° CCW from Inlet
C: Inline with Inlet
D: 90° CW from Inlet

7 Design Number

8 Shaft Rotation

(Viewed from Shaft End)
No Code: Right Hand (CW)
L: Left Hand (CCW)

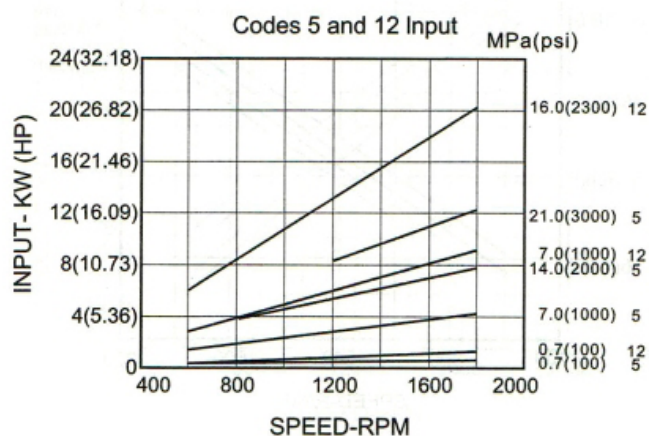
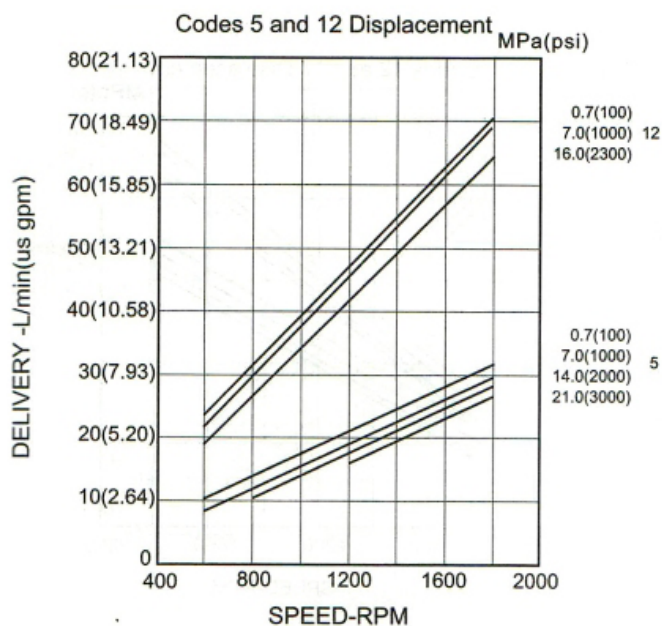
SINGLE FIXED DISPLACEMENT INDUSTRIAL DESIGN 20V SERIES

PERFORMANCE CURVES

20V Single Pump (Ring Size – 5 & 12 GPM)

SAE 10W Fluid at 120°F

Pump Inlet at 0" Hg.



SPECIFICATIONS

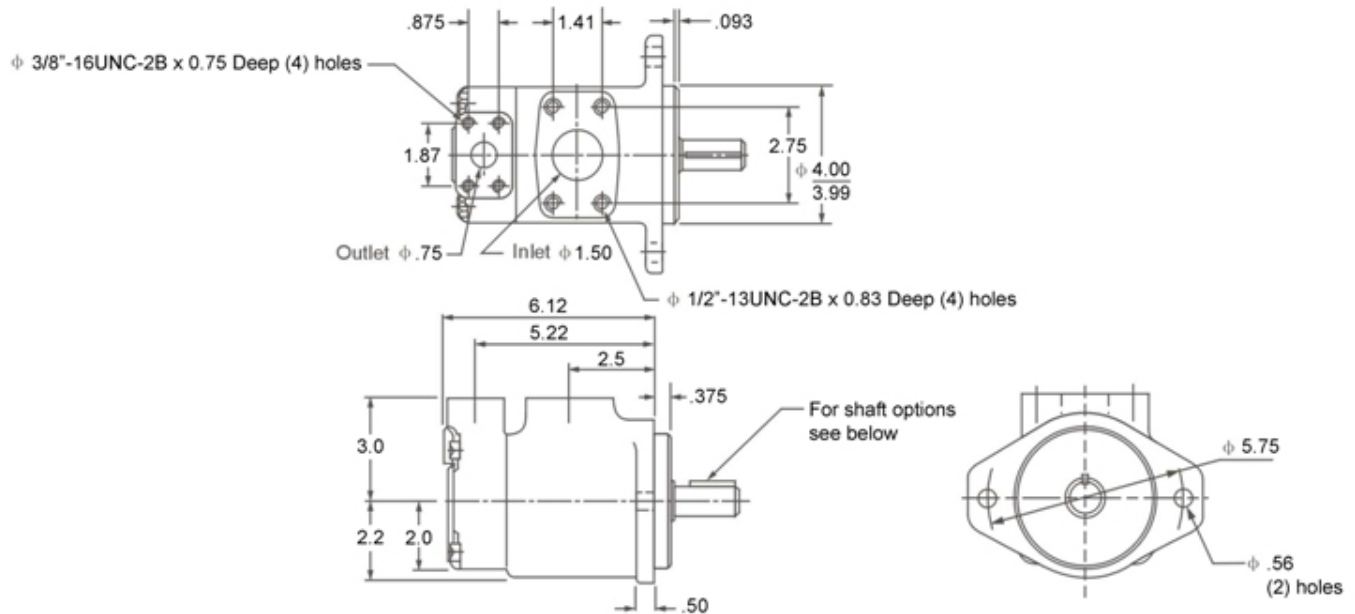
Based on Petroleum Oil: 120°F (49°C), Viscosity 150 SUS at 100°F (38°C), 0 Inlet PSI

Model	Flow Code GPM @ 1200 RPM & 100 PSI	Displacement in³/r (cm³/r)	Max. Speed RPM	Max. Pressure PSI (BAR)	Weight Lbs (kg)
20V	2	0.46 (7.5)	1800	2000 (138)	26.0 (11.8)
	5	1.04 (17)		3000(207)	
	8	1.67 (27)			
	9	1.85 (30)			
	11	2.22 (36)			
	12	2.47 (40)			
	14	2.78 (45)		2000 (138)	

SINGLE FIXED DISPLACEMENT 20V SERIES

DIMENSIONS

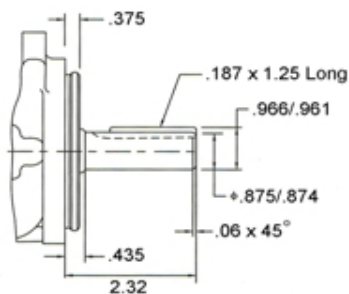
20V Single Pump - Dimensions in Inches



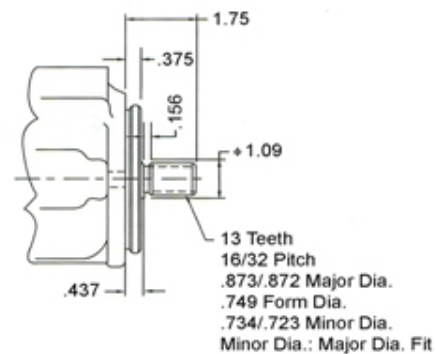
20V Shafts

Dimensions in inches

#1 Straight Shaft



#11 Splined Shaft



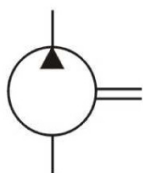
SINGLE FIXED DISPLACEMENT 20VQ SERIES



FEATURES

The Northman 20VQ Series pump is a fixed displacement, hydraulic balanced vane pump. This high performance intravane pump features the 10 vane design for the high pressure and speed requirements of mobile applications. The available flow ratings for the 20VQ series are from 2 GPM to 14 GPM at 1200 RPM. Viton seals are standard. Standard rotation is right-hand (clockwise), with left-hand rotation (counterclockwise) available ("L" option). The flange mounting is the SAE "B" two-bolt standard. The outlet port may be oriented in any one of four positions.

SYMBOL



MODEL CODE

20 VQ - 12 - A - 1 - C - ** - (L)

1 2 3 4 5 6 7 8

1 Series

20: 20 Series Fixed Vane Pump

2 Design Type

VQ: Mobile Design

3 GPM

Flow at 1200 RPM, 100 PSI:

2, 5, 8, 9, 11, 12, 14

4 Ports

A: Inlet – 1.50" SAE, 4-Bolt Flange
Outlet – 3/4" SAE, 4-Bolt Flange

5 Shaft

1: 7/8" Dia., 0.187 Sq. St. Key

11: 13 Tooth Spline

6 Position of Outlet Port

(Viewed from Cover End)

A: Opposite Inlet

B: 90° CCW from Inlet

C: Inline with Inlet

D: 90° CW from Inlet

7 Design Number

8 Shaft Rotation

(Viewed from Shaft End)

No Code: Right Hand (CW)

L: Left Hand (CCW)

SINGLE FIXED DISPLACEMENT 20VQ SERIES

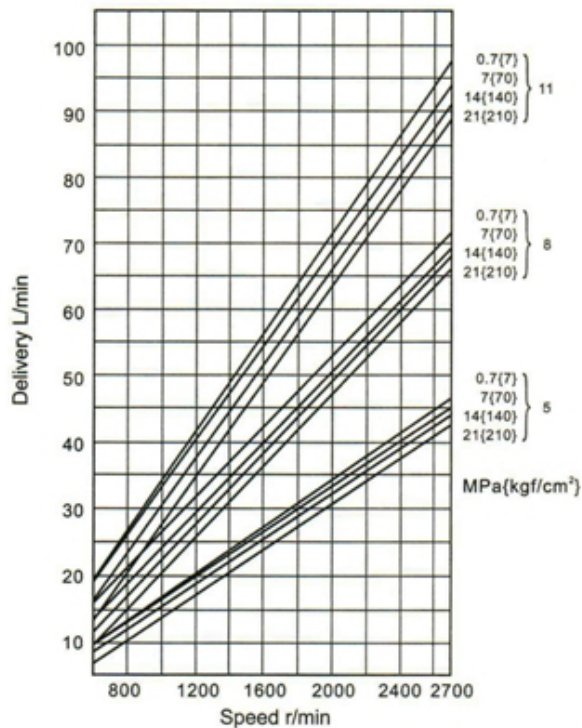
PERFORMANCE CURVES

20VQ Single Pump

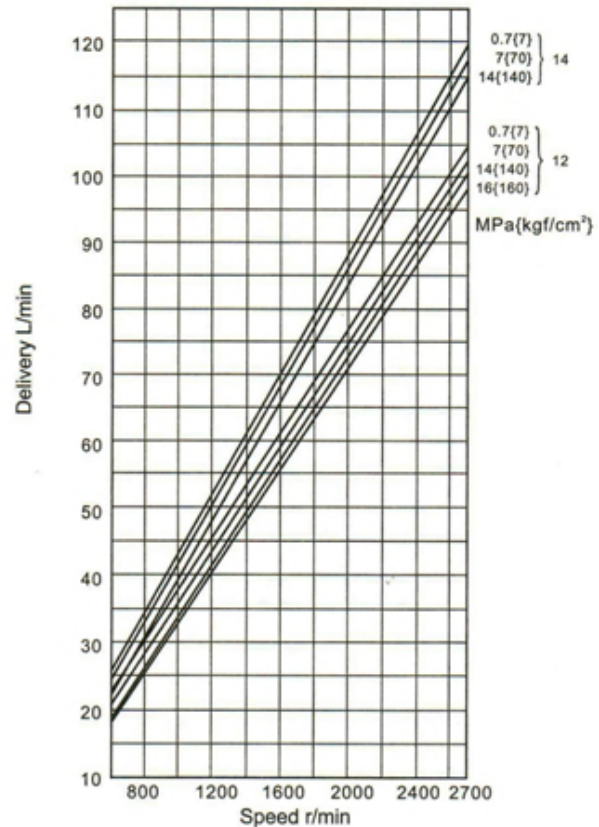
SAE 10W Fluid at 120°F

Pump Inlet at 0" Hg.

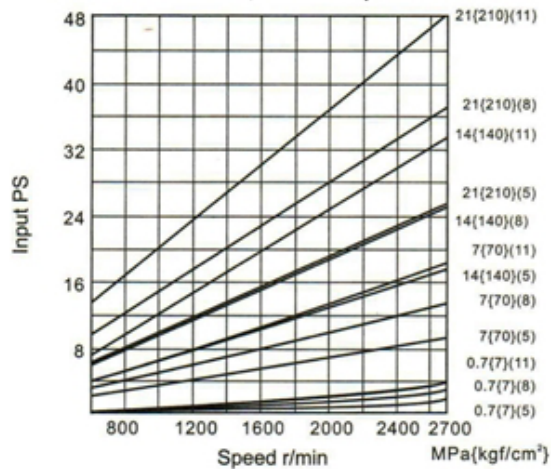
Codes 5, 8 & 11 Displacement



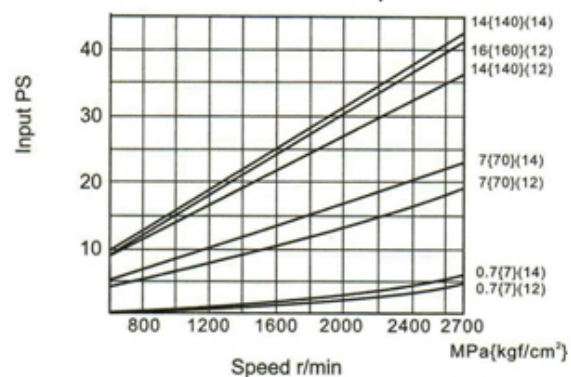
Codes 12 & 14 Displacement



Codes 5, 8 & 11 Input



Codes 12 & 14 Input



SINGLE FIXED DISPLACEMENT 20VQ SERIES

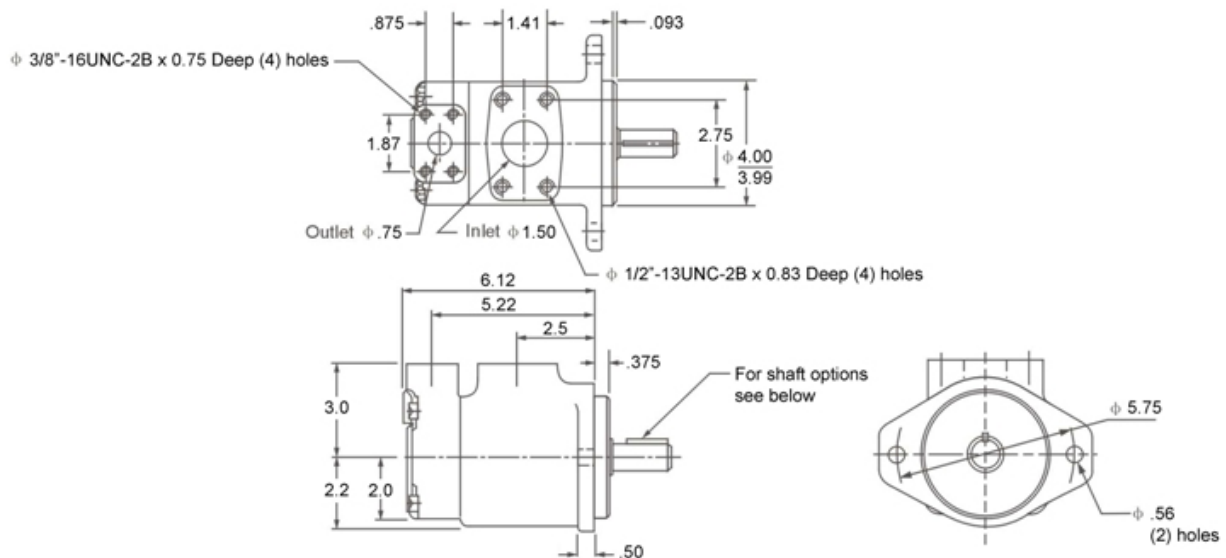
SPECIFICATIONS

Based on Petroleum Oil: 120°F (49°C), Viscosity 150 SUS at 100°F (38°C), 0 Inlet PSI

Model	Flow Code GPM @ 1200 RPM & 100 PSI	Displacement in³/r (cm³/r)	Max. Speed RPM	Max. Pressure PSI (BAR)	Weight Lbs (kg)
20VQ	2	0.43 (7)	2700	3000 (207)	26.0 (11.8)
	5	1.10 (18)			
	8	1.67 (27)			
	9	1.85 (30)			
	11	2.22 (36)		2300(159)	
	12	2.47 (40)			
	14	2.78 (45)			

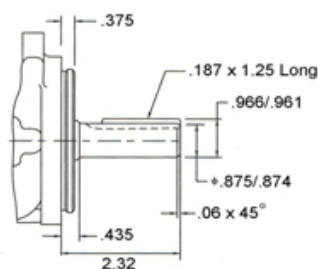
DIMENSIONS

20VQ Single Pump - Dimensions in Inches



20VQ Shafts Dimensions in inches

#1 Straight Shaft



#11 Splined Shaft

