

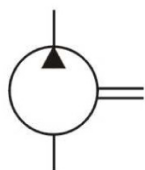
## DOUBLE FIXED DISPLACEMENT 2520V SERIES

### FEATURES

The Northman 2520V Series double 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 2520V series are from 10 GPM to 21 GPM at 1200 RPM on the shaft end and from 2 to 14 GPM at 1200 RPM on the cover end. 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

**2520** **V** - **14** - **A** - **9** - **1** - **CC** - **\*\*** - **(L)**

**1** **2** **3** **4** **5** **6** **7** **8** **9**

#### **1 Series**

**2520:** 2520 Fixed  
Double Pump

#### **2 Design Type**

**V:** Industrial Design

#### **3 Shaft End Pump**

**Flow at 1200 RPM, 100 PSI:**  
**10, 12, 14, 17, 21**

#### **4 Ports**

**A:** Inlet - 2.5" SAE, 4-Bolt Flange  
Shaft End Outlet -  
1" SAE, 4-Bolt Flange  
Cover End Outlet -  
0.75" SAE, 4-Bolt Flange

#### **5 Cover End Pump**

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

#### **6 Shaft**

**1:** 7/8" Dia., 0.187 Sq. St. Key  
**11:** 13 Tooth Spline  
**86:** 1" Dia., 0.250 Sq. St. Key

#### **7 Port Orientation**

**(Viewed from Cover End)**

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

#### **7 Port Orientation (Cont.)**

**(Viewed from Cover End)**

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

#### **8 Design Number**

#### **9 Shaft Rotation**

**(Viewed from Shaft End)**

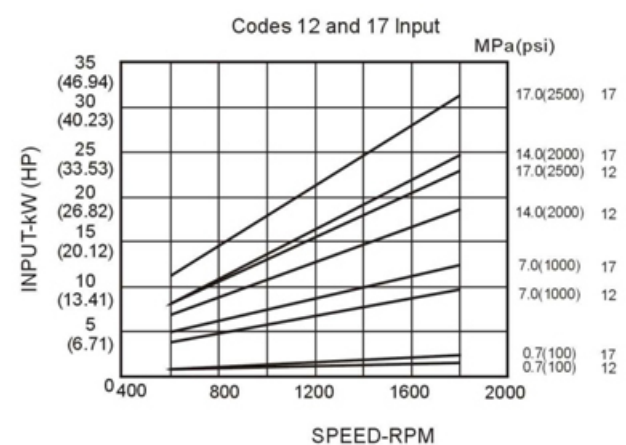
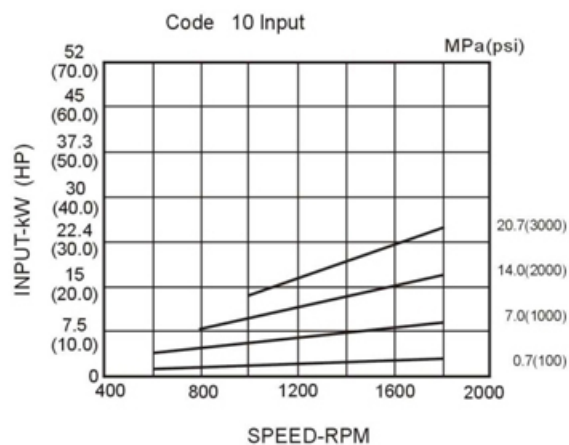
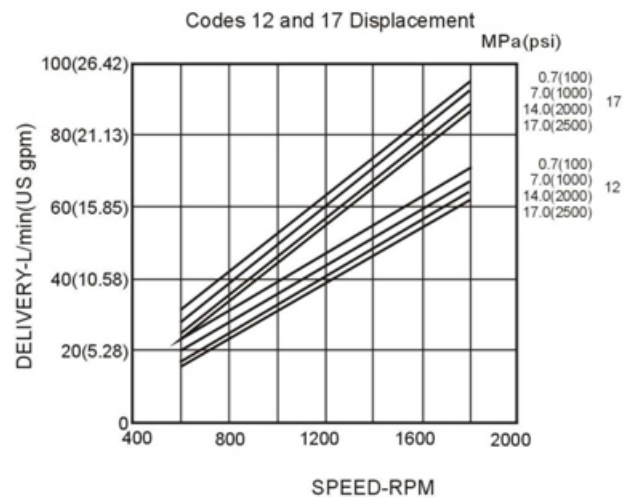
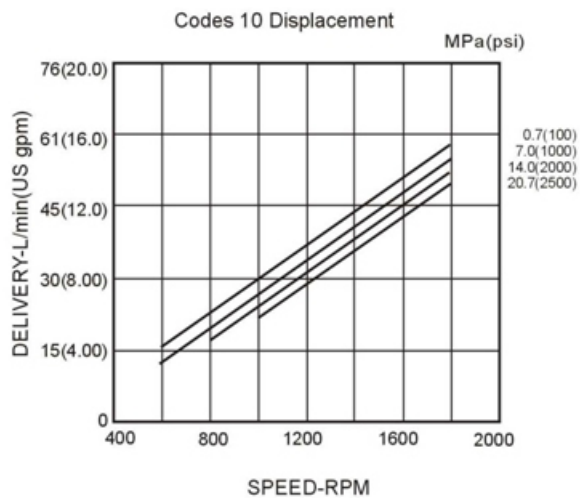
**No Code:** Right Hand (CW)

**L:** Left Hand (CCW)

# DOUBLE FIXED DISPLACEMENT 2520V SERIES

## PERFORMANCE CURVES

2520V Double Pump  
SAE 10W Fluid at 120°F.  
Pump Inlet at 0" hg.



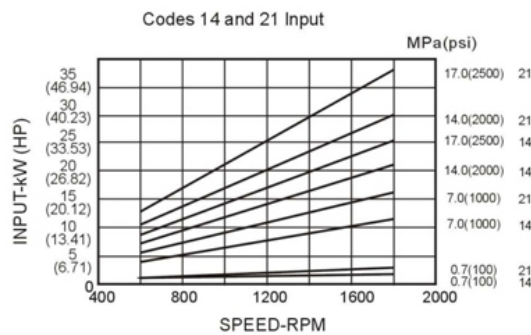
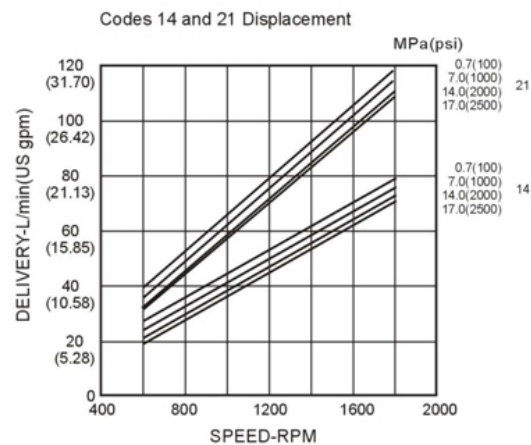
# DOUBLE FIXED DISPLACEMENT 2520V SERIES

## PERFORMANCE CURVES

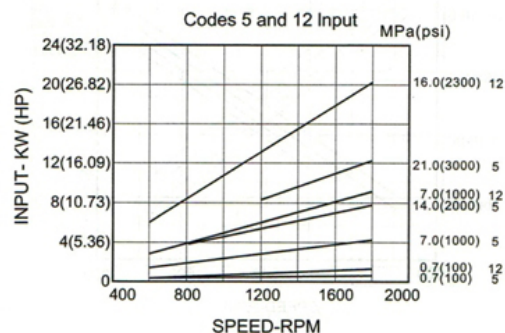
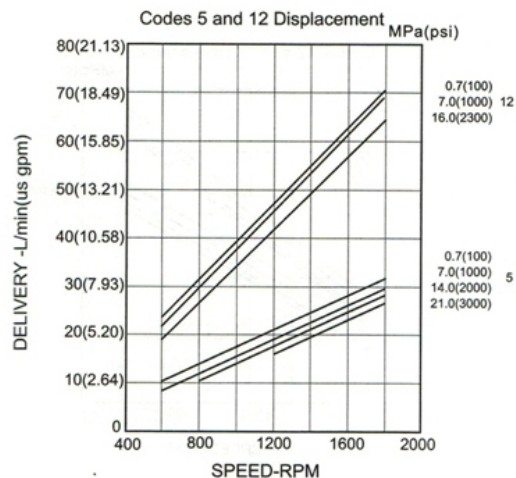
2520V Double Pump

SAE 10W Fluid at 120°F.

Pump Inlet at 0" hg.



20V Cover End Pump



## DOUBLE FIXED DISPLACEMENT 2520V SERIES

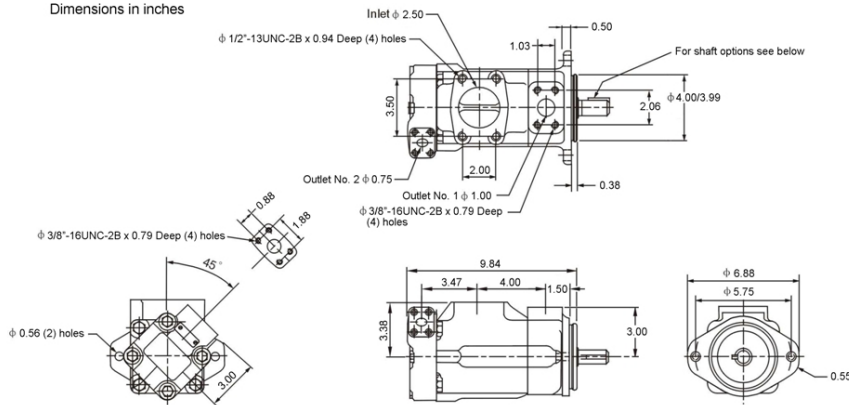
### SPECIFICATIONS

Shaft End Pump	Flow Code GPM @ 1200 RPM & 100 PSI	Displacement in <sup>3</sup> /r (cm <sup>3</sup> /r)	Max. Pressure PSI (BAR)
P/N Example 2520V- <u>17</u> -A-9-1-CC-20 ("17" = Shaft End Pump)	10	1.98 (32.5)	2500 (172)
	12	2.44 (40)	
	14	2.62 (43)	
	17	3.36 (55)	
	21	4.09 (67)	
Cover End Pump	Flow Code GPM @ 1200 RPM & 100 PSI	Displacement in <sup>3</sup> /r (cm <sup>3</sup> /r)	Max. Pressure PSI (BAR)
P/N Example 2520V-17-A- <u>9</u> -1-CC-20 ("9" = Cover End Pump)	2	0.46 (7.5)	2000 (138)
	5	1.04 (17)	3000 (207)
	8	1.67 (27)	
	9	1.85 (30)	
	11	2.22 (36)	
	12	2.47 (40)	2300 (159)
	14	2.78 (45)	2000 (138)

### DIMENSIONS

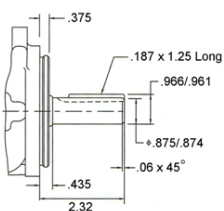
#### 2520V Double Pump - Dimensions in Inches

2520V Dimensions  
Dimensions in inches

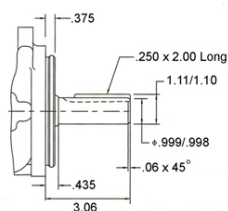


2520V Shafts  
Dimensions in inches

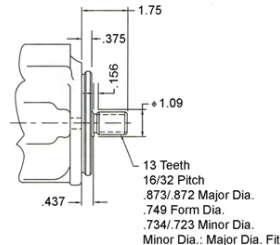
#1 Straight Shaft



#6 Straight Shaft



#11 Splined Shaft



## DOUBLE FIXED DISPLACEMENT 2520VQ SERIES

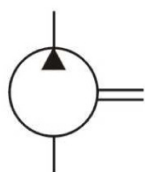
### FEATURES

The Northman 2520VQ Series double 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 2520VQ series are from 10 GPM to 21 GPM at 1200 RPM on the shaft end and from 2 to 14 GPM at 1200 RPM on the cover end. 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

**2520 VQ - 14 - A - 9 - 1 - CC - \*\* - (L)**

**1 2 3 4 5 6 7 8 9**

#### 1 Series

**2520:** 2520 Fixed  
Double Pump

#### 2 Design Type

**VQ:** Mobile Design

#### 3 Shaft End Pump

**Flow at 1200 RPM, 100 PSI:**  
**10, 12, 14, 17, 21**

#### 4 Ports

**A:** Inlet - 2.5" SAE, 4-Bolt Flange  
Shaft End Outlet -  
1" SAE, 4-Bolt Flange  
Cover End Outlet -  
0.75" SAE, 4-Bolt Flange

#### 5 Cover End Pump

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

#### 6 Shaft

**1:** 7/8" Dia., 0.187 Sq. St. Key  
**11:** 13 Tooth Spline  
**86:** 1" Dia., 0.250 Sq. St. Key

#### 7 Port Orientation

**(Viewed from Cover End)**  
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

#### 7 Port Orientation (Cont.)

**(Viewed from Cover End)**  
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

#### 8 Design Number

#### 9 Shaft Rotation

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



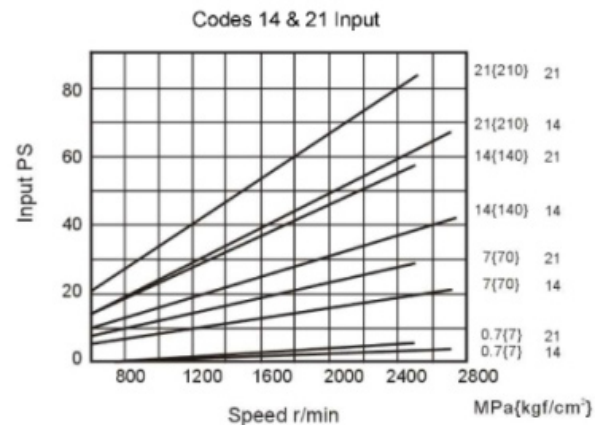
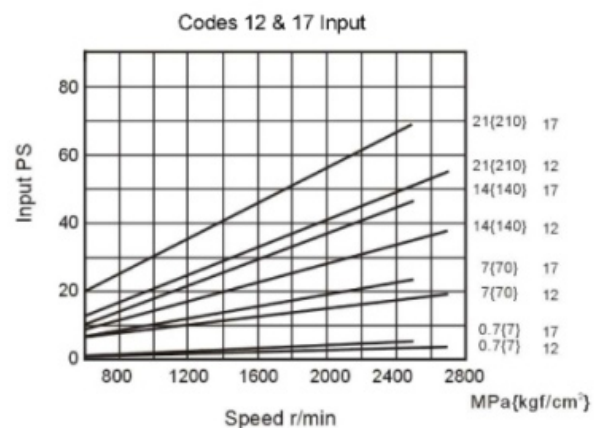
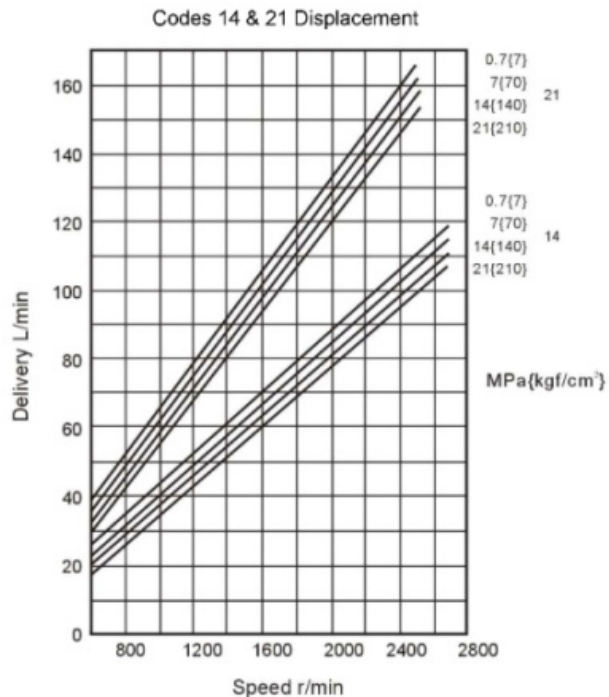
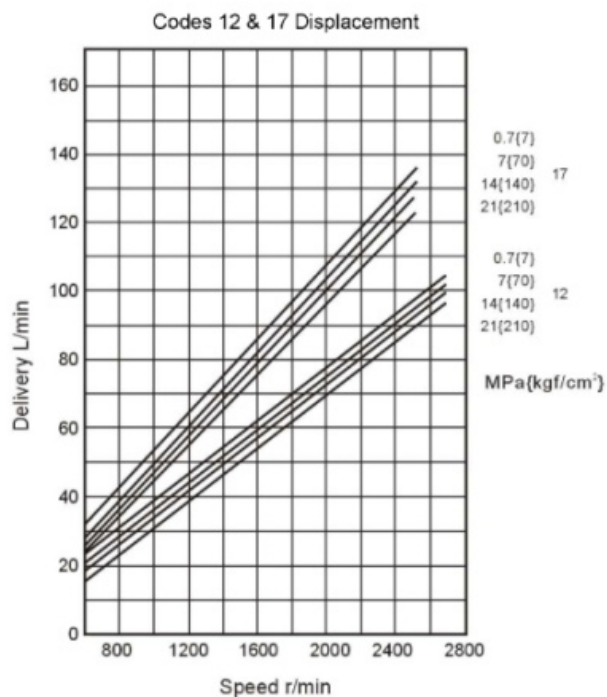
# DOUBLE FIXED DISPLACEMENT 2520VQ SERIES

## PERFORMANCE CURVES

2520VQ Double Pump

SAE 10W Fluid at 120°F.

Pump Inlet at 0" hg.



# DOUBLE FIXED DISPLACEMENT 2520VQ SERIES

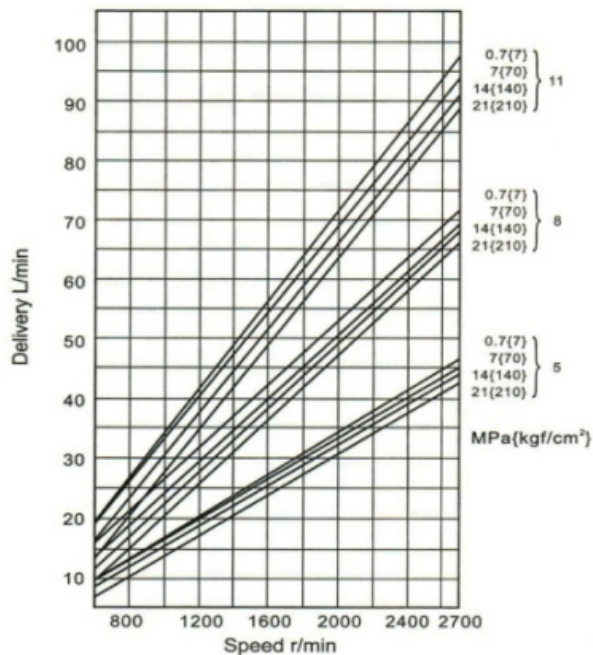
## PERFORMANCE CURVES

2520VQ Double Pump

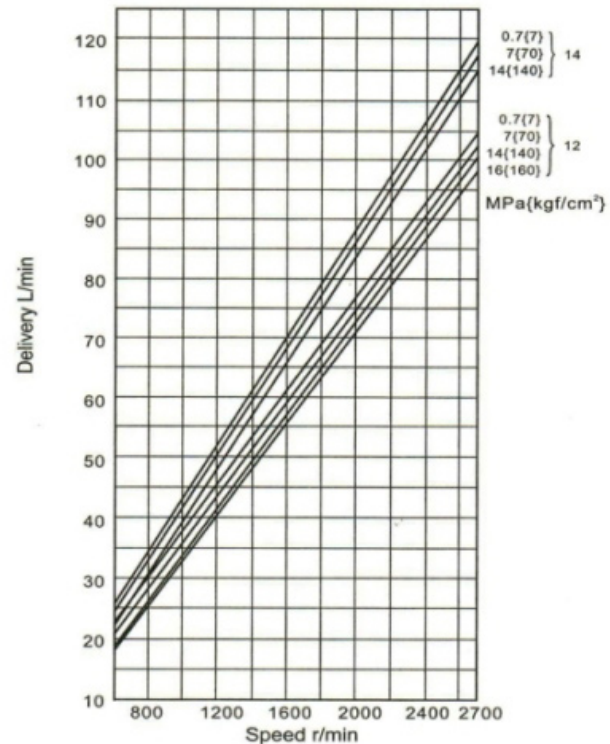
SAE 10W Fluid at 120°F.

Pump Inlet at 0" hg.

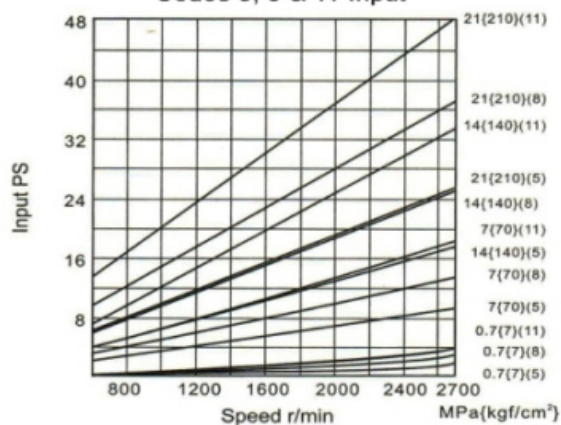
Codes 5, 8 & 11 Displacement



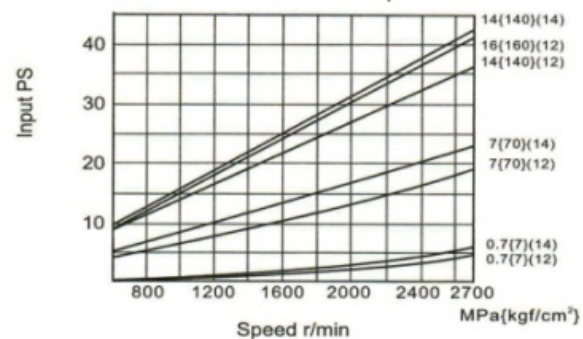
Codes 12 & 14 Displacement



Codes 5, 8 & 11 Input



Codes 12 & 14 Input



# DOUBLE FIXED DISPLACEMENT 2520VQ SERIES

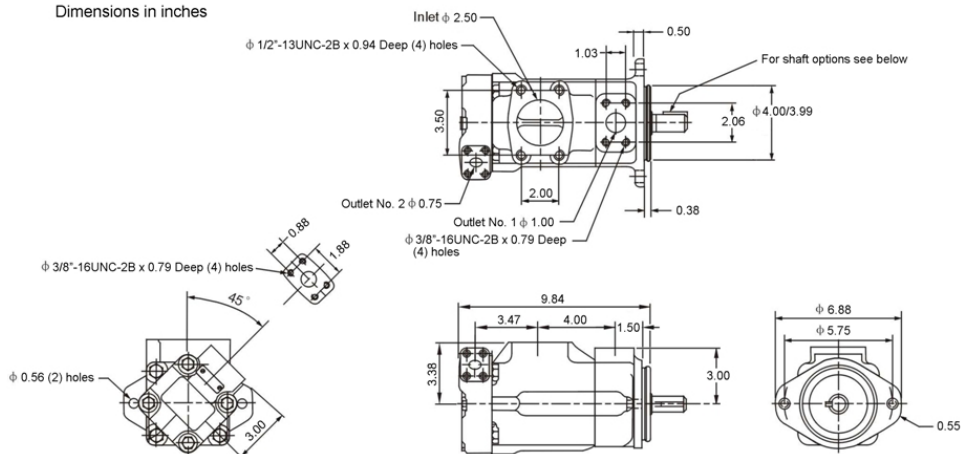
## SPECIFICATIONS

Shaft End Pump	Flow Code GPM @ 1200 RPM & 100 PSI	Displacement in <sup>3</sup> /r (cm <sup>3</sup> /r)	Max. Speed RPM	Max. Pressure PSI (BAR)
P/N Example 2520VQ- <u>17</u> -A-9-1-CC-20 ("17" = Shaft End Pump)	10	1.98 (32.5)	2700	3000 (210)
	12	2.34 (38.3)		
	14	2.64 (43.3)		
	17	3.20 (52.5)	2500	
	21	3.97 (65.0)		
Cover End Pump	Flow Code GPM @ 1200 RPM & 100 PSI	Displacement in <sup>3</sup> /r (cm <sup>3</sup> /r)	Max. Speed RPM	Max. Pressure PSI (BAR)
P/N Example 2520VQ-17-A- <u>9</u> -1-CC-20 ("9" = Cover End Pump)	2	0.43 (7)	2700	3000 (207)
	5	1.10 (18)		
	8	1.67 (27)		
	9	1.85 (30)		
	11	2.22 (36)		
	12	2.47 (40)		2300 (159)
	14	2.78 (45)		2000 (138)

## DIMENSIONS

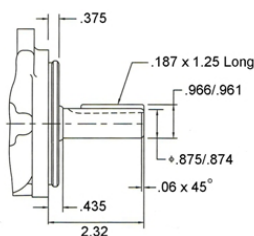
### 2520VQ Double Pump - Dimensions in Inches

2520VQ Dimensions  
Dimensions in inches

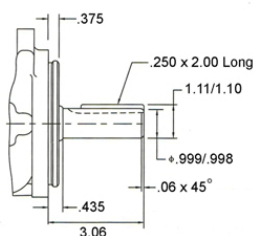


2520VQ Shafts  
Dimensions in inches

#1 Straight Shaft



#86 Straight Shaft



#11 Splined Shaft

