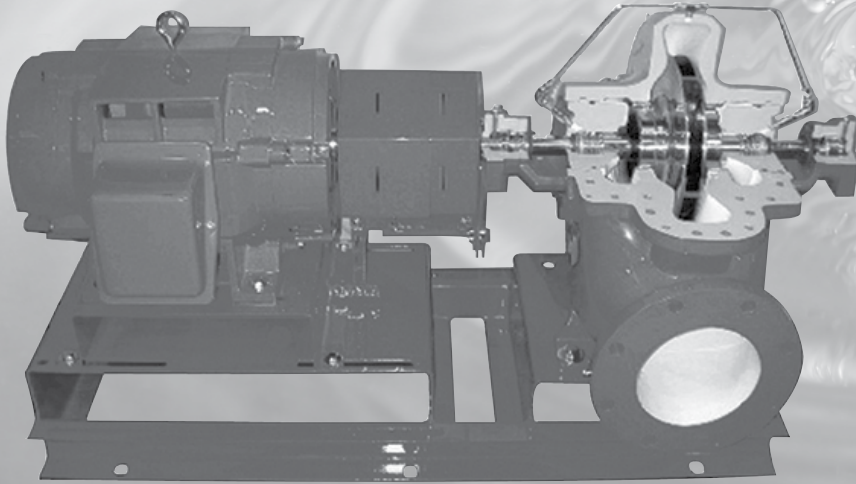


G&L Pumps

**CURVES**  
GL-561 R1



# Series A-C 8100 50 Hz

HORIZONTAL SPLIT CASE BASE MOUNTED - DOUBLE SUCTION PUMP  
PERFORMANCE CURVES

**xylem**  
Let's Solve Water

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### USEFUL PUMP FORMULAS

$$\text{Pressure (PSI)} = \frac{\text{Head (feet)} \times \text{Specific Gravity}}{2.31}$$

$$\text{Horsepower (water)} = \frac{\text{GPM} \times \text{Head (feet)} \times \text{Specific Gravity}}{3960}$$

$$\text{Head (feet)} = \frac{\text{Pressure (PSI)} \times 2.31}{\text{Specific Gravity}}$$

$$\text{Efficiency (pump)} = \frac{\text{Horsepower (water)}}{\text{Horsepower (brake)}} \times 100 \text{ per cent}$$

$$\text{Vacuum (in. of mercury)} = \frac{\text{Dynamic Suction Lift (feet)} \times .883}{\text{Specific Gravity}}$$

$$\text{NPSH (available)} = \text{Positive Factors} - \text{Negative Factors}$$

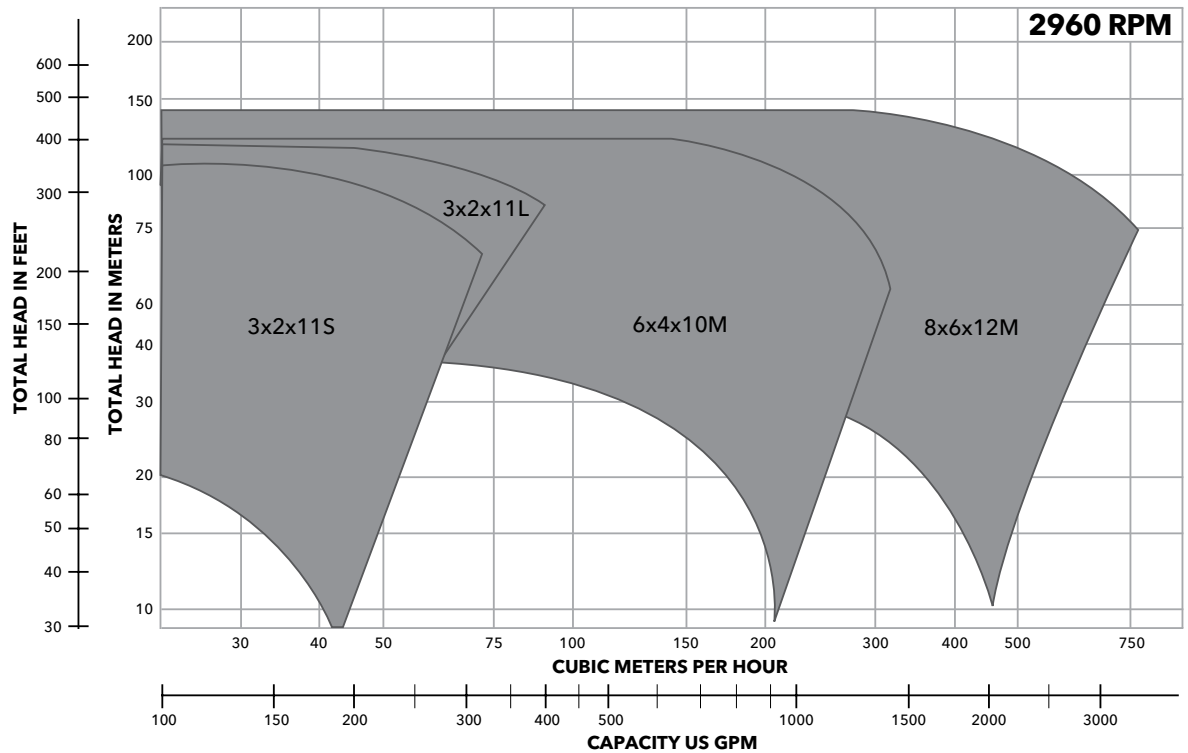
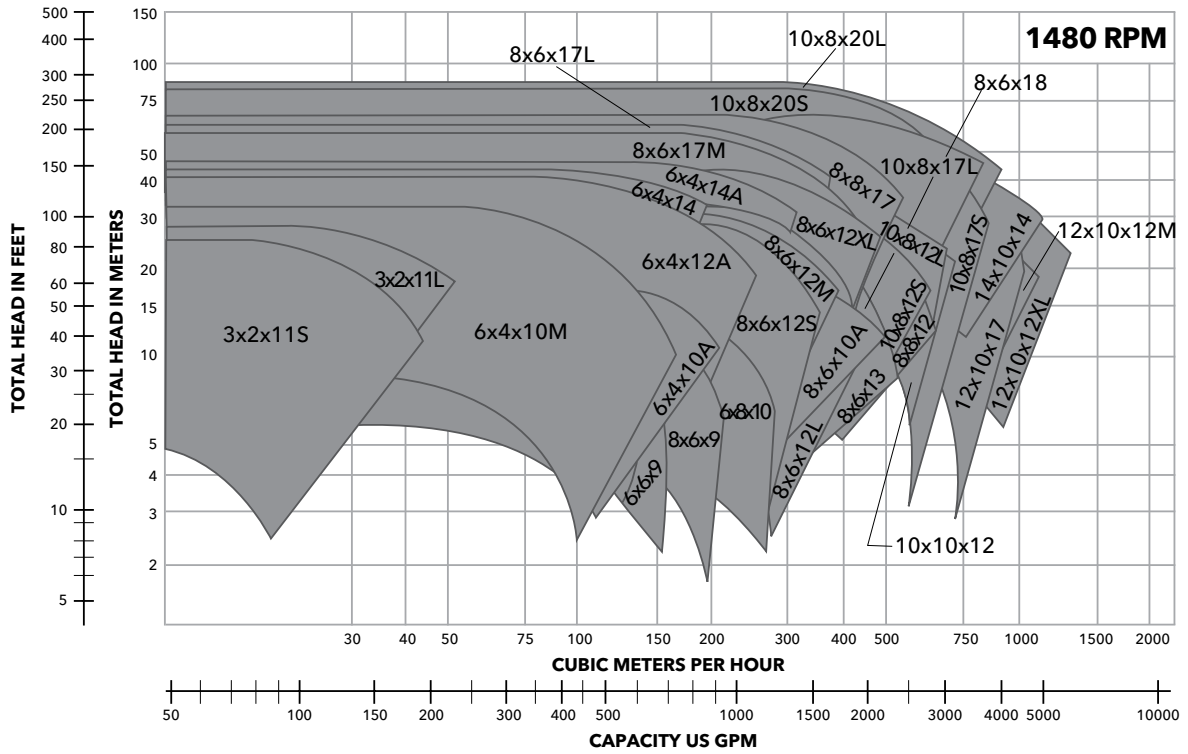
$$\text{Horsepower (brake)} = \frac{\text{GPM} \times \text{Head (feet)} \times \text{Specific Gravity}}{3960 \times \text{Pump Efficiency}}$$

### AFFINITY LAWS: Effect of change of speed or impeller diameter on centrifugal pumps

	GPM Capacity	Feet Head	BHP
Impeller Diameter Change	$Q_2 = \frac{D_2}{D_1} Q_1$	$H_2 = \left(\frac{D_2}{D_1}\right)^2 H_1$	$P_2 = \left(\frac{D_2}{D_1}\right)^3 P_1$
Speed Change	$Q_2 = \frac{\text{RPM}_2}{\text{RPM}_1} Q_1$	$H_2 = \left(\frac{\text{RPM}_2}{\text{RPM}_1}\right)^2 H_1$	$P_2 = \left(\frac{\text{RPM}_2}{\text{RPM}_1}\right)^3 P_1$

Where Q = GPM, H = Head, P = BHP, D = Impeller Diameter, RPM = Pump Speed

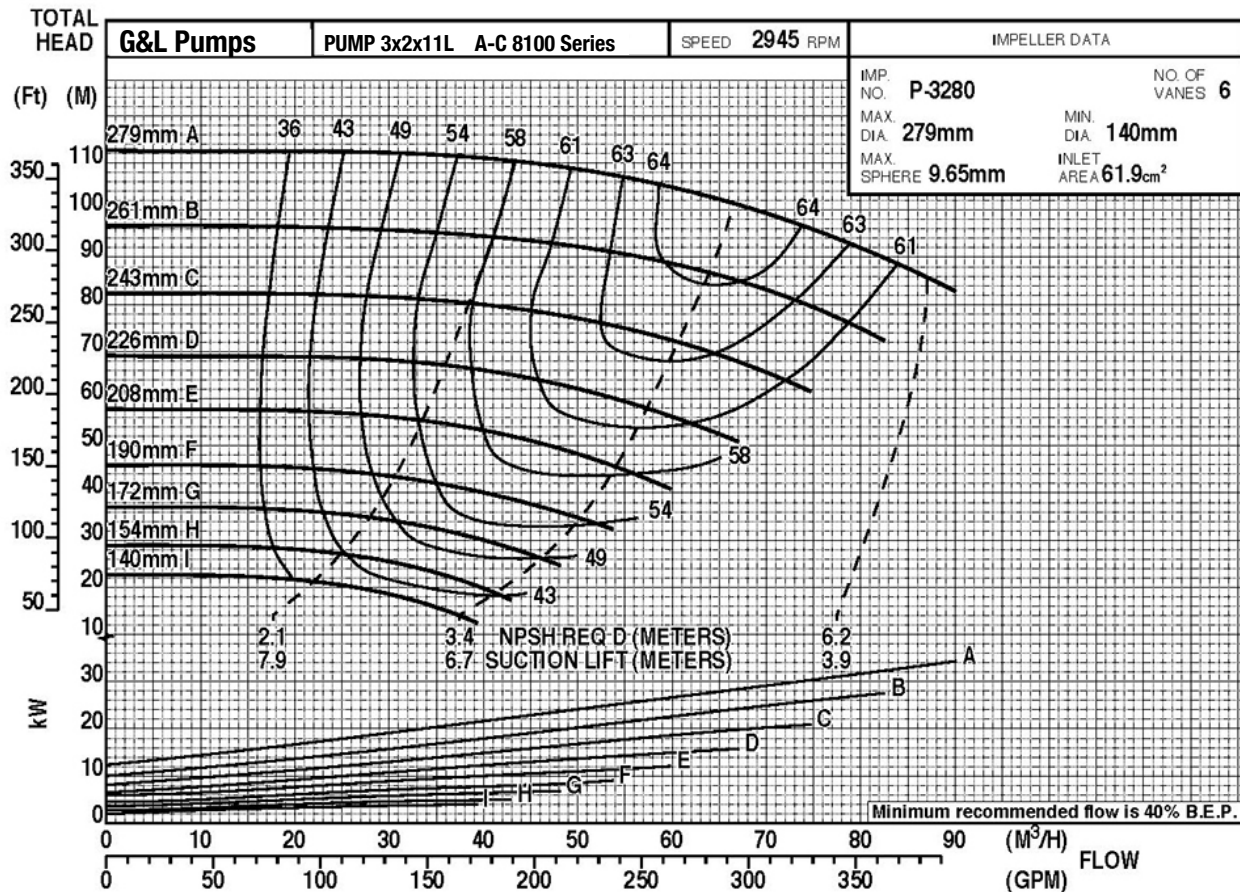
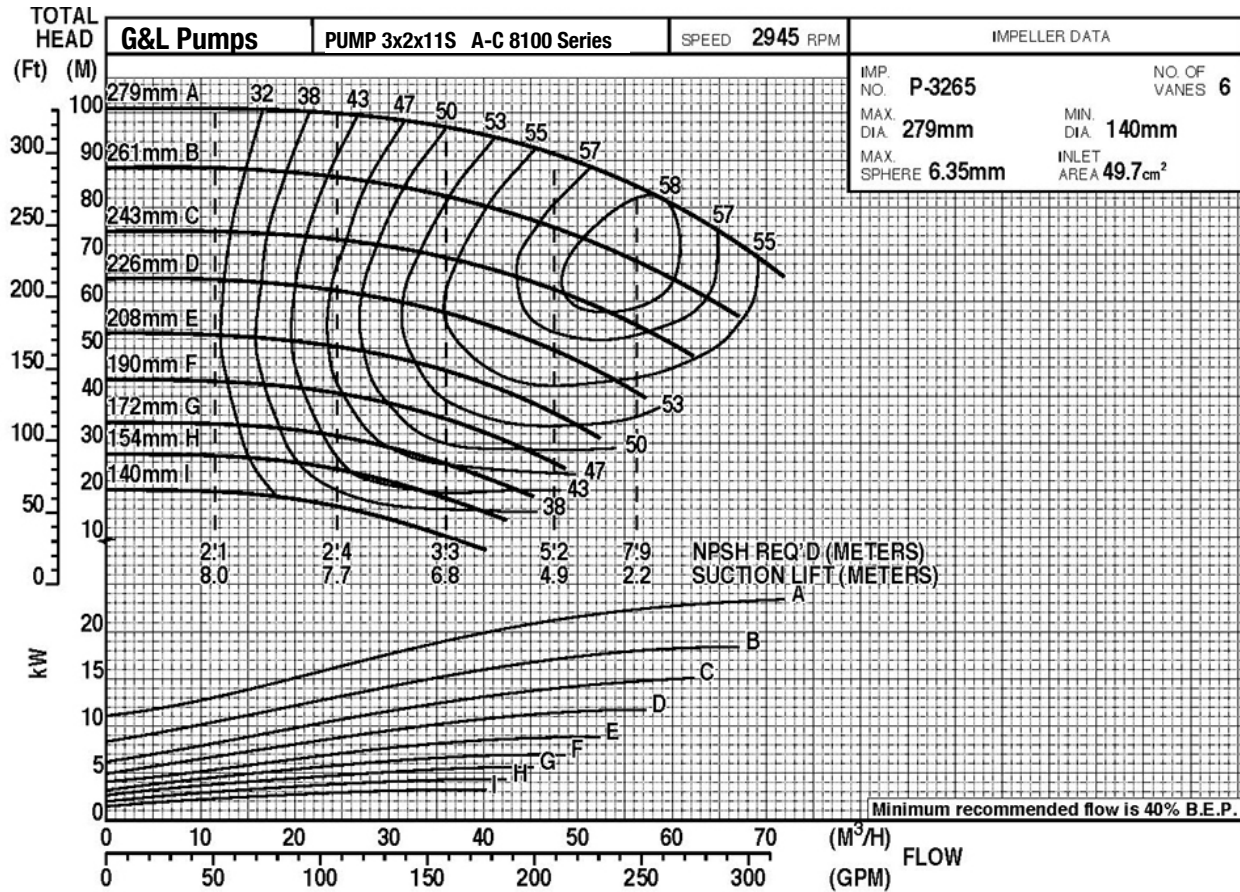
### 50 HZ FULL HYDRAULIC RANGE CURVES





SERIES A-C 8100 - 50 Hz

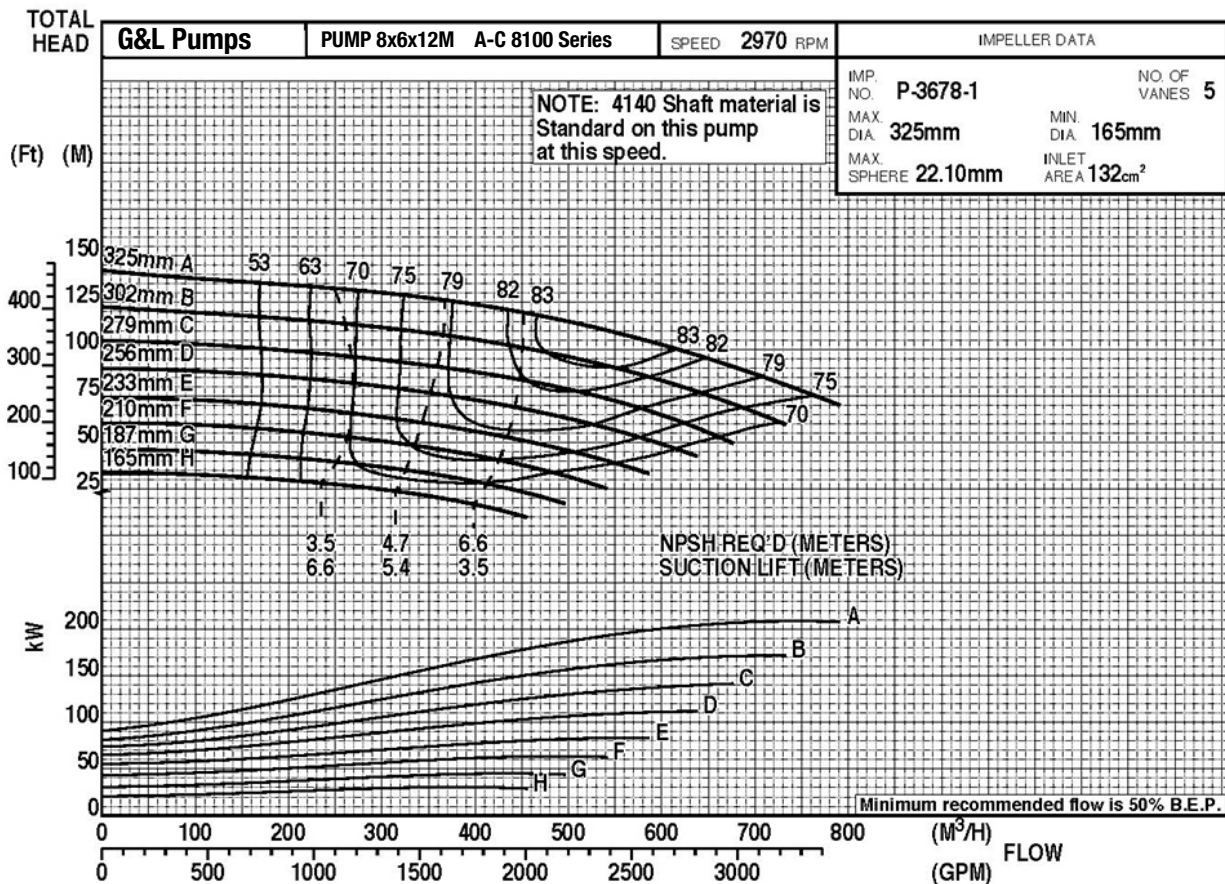
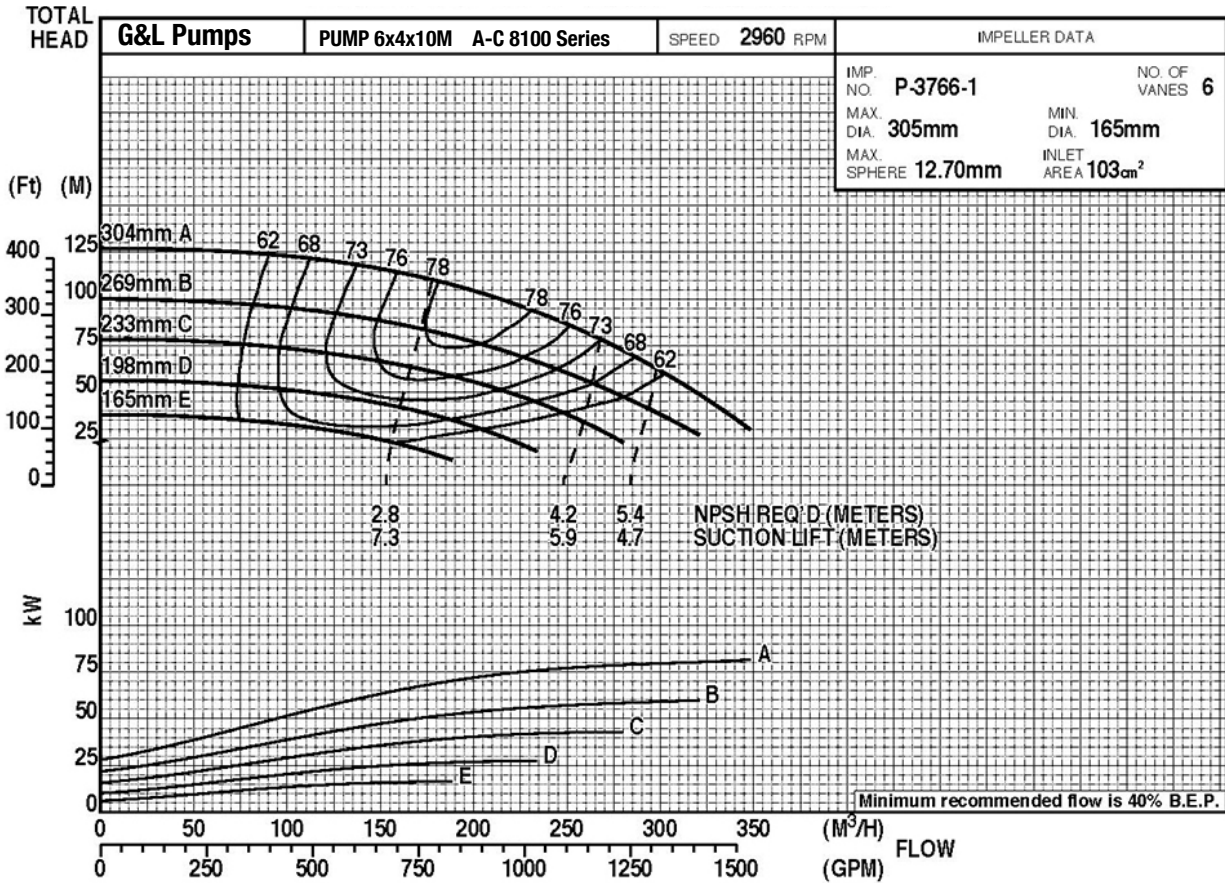
## 2900 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

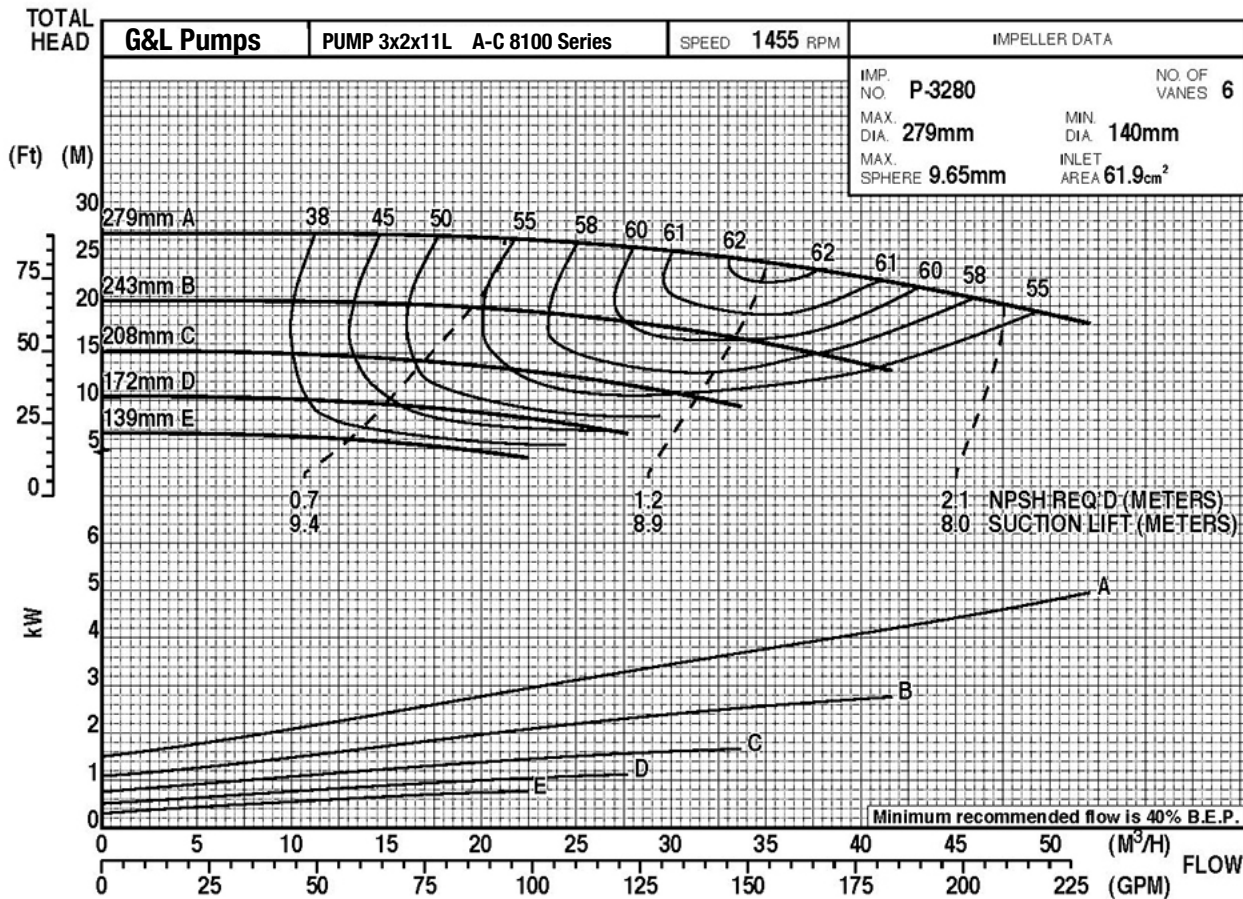
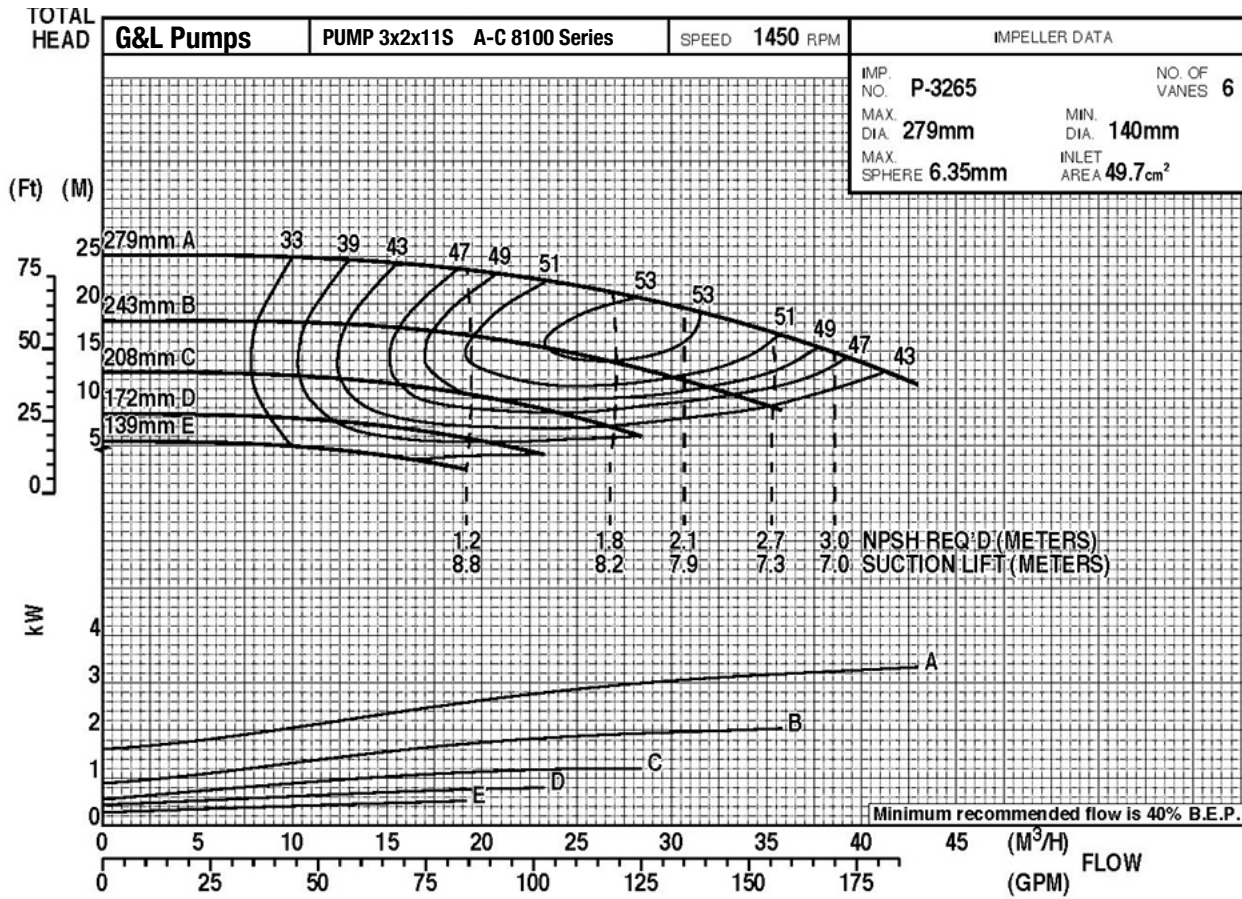
## 2900 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

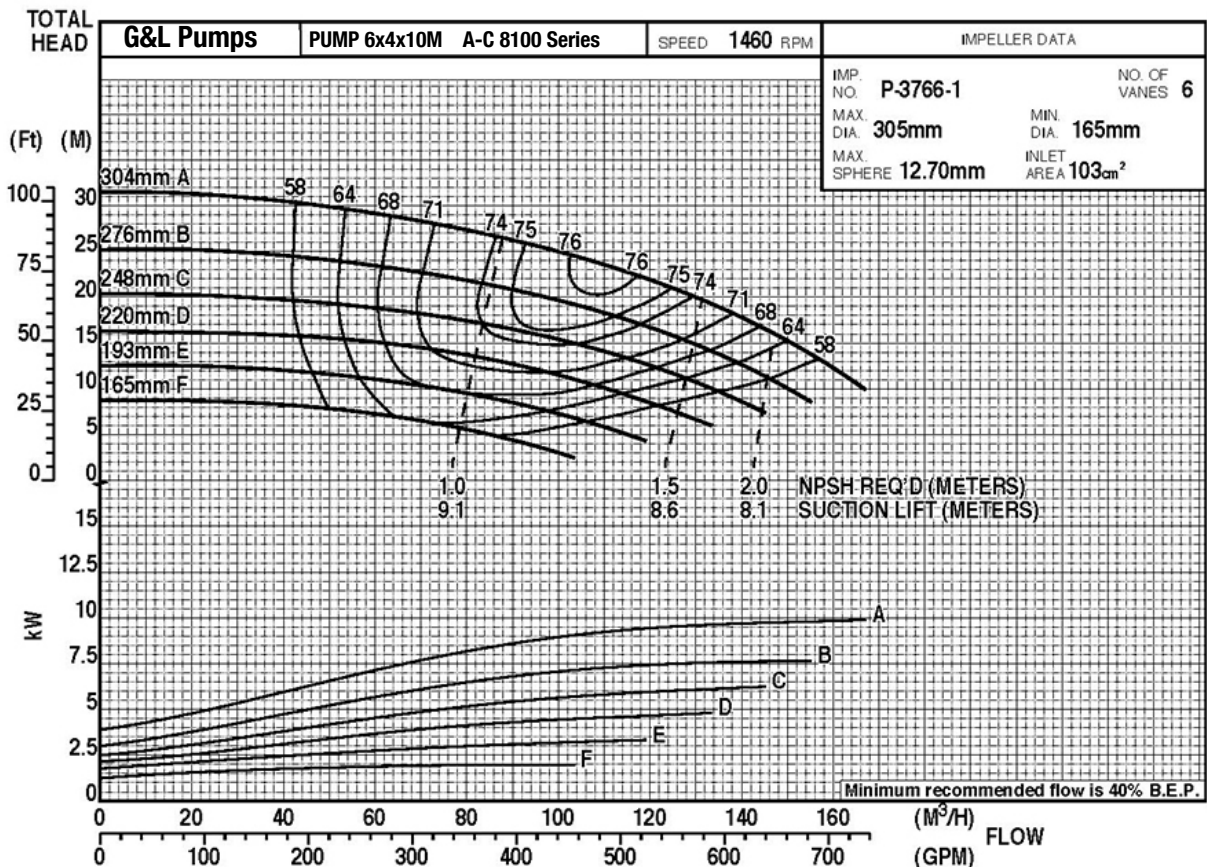
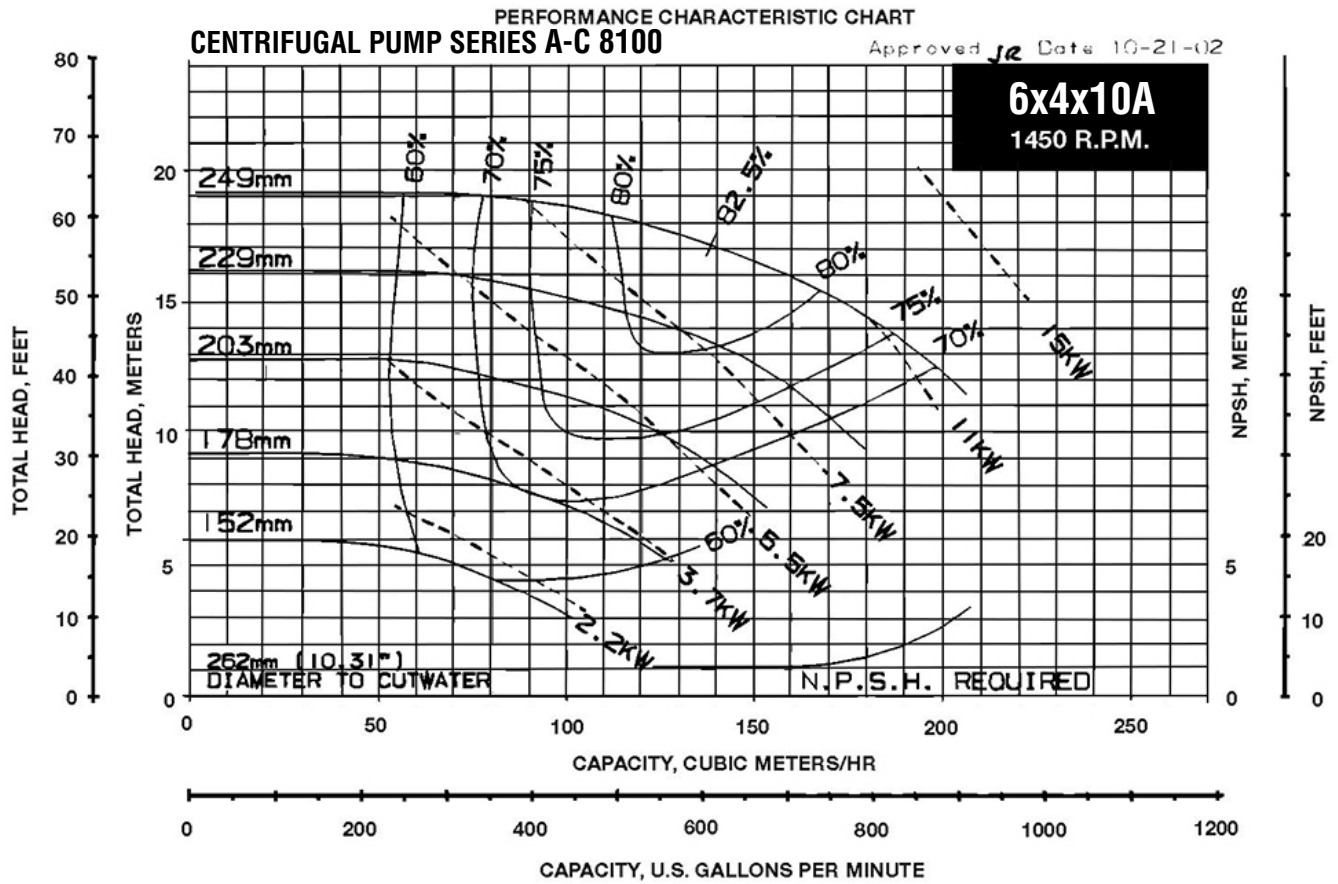
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

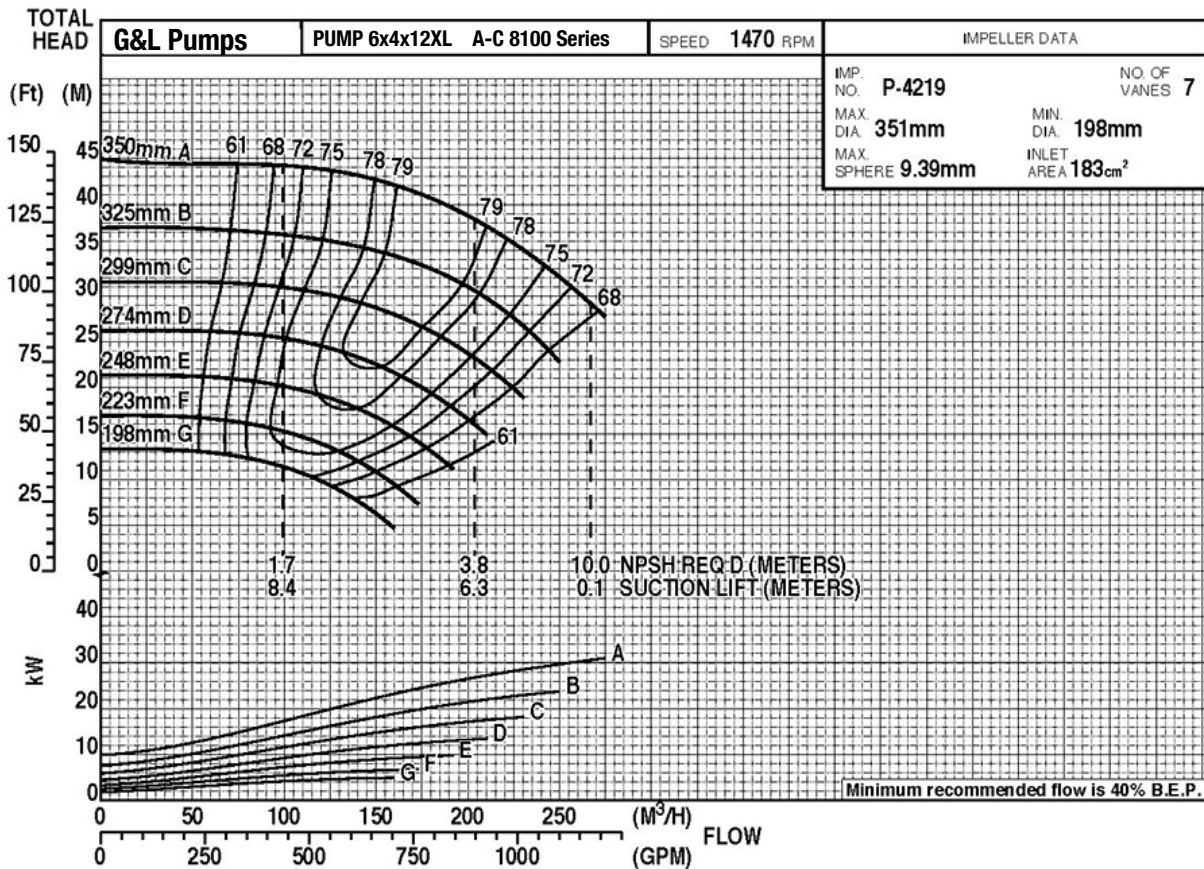
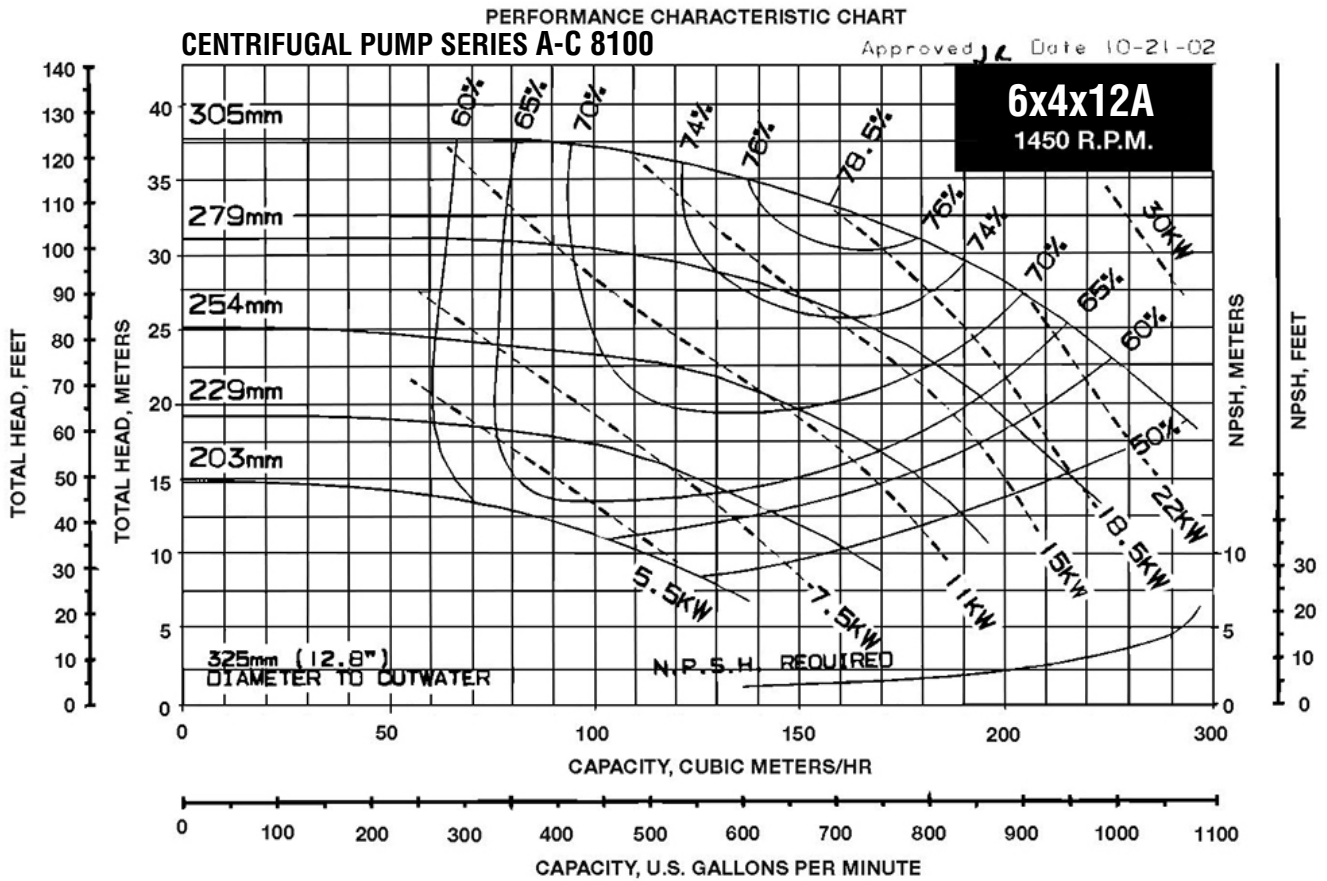
## 1450 RPM – 50 HZ PUMP CURVES





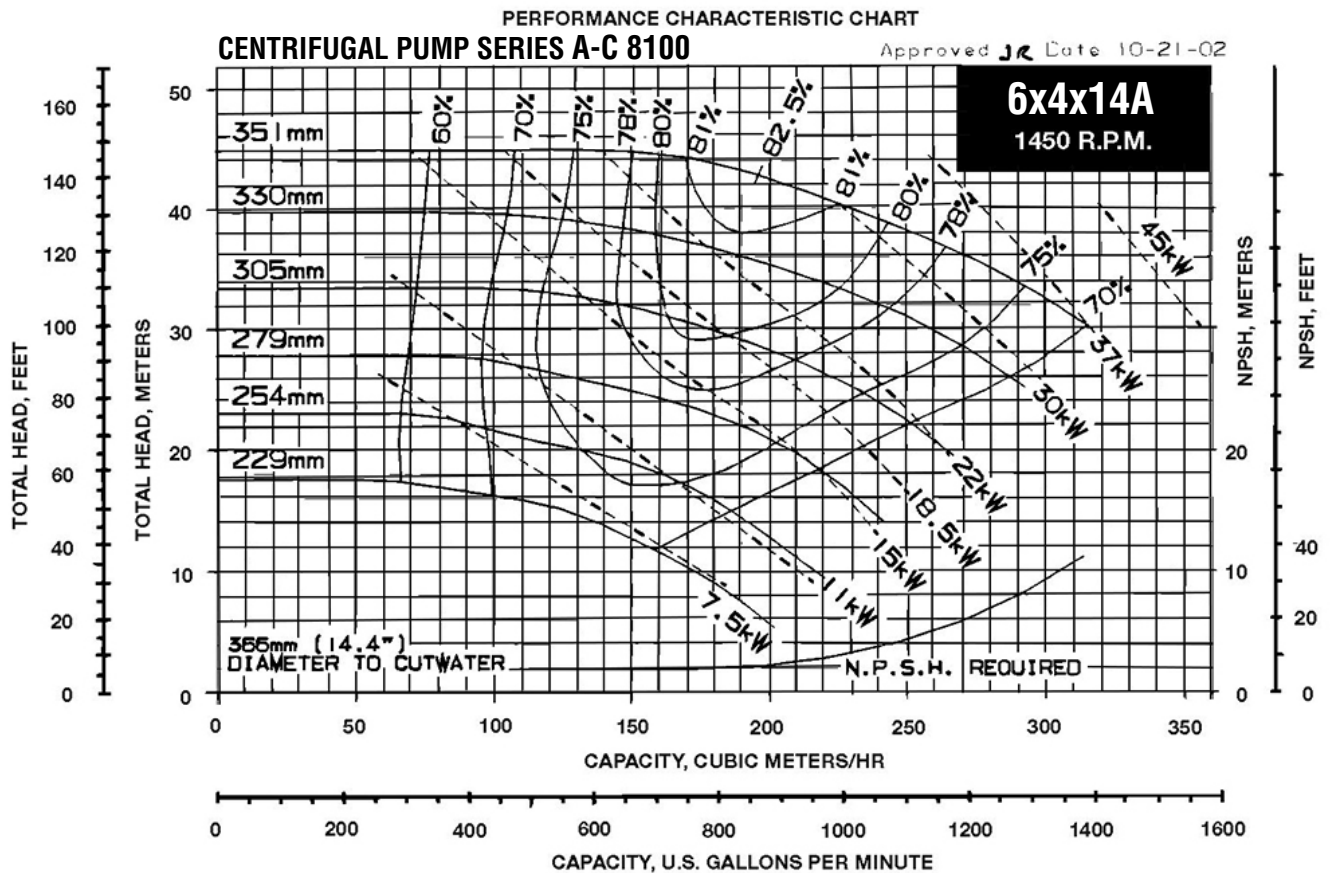
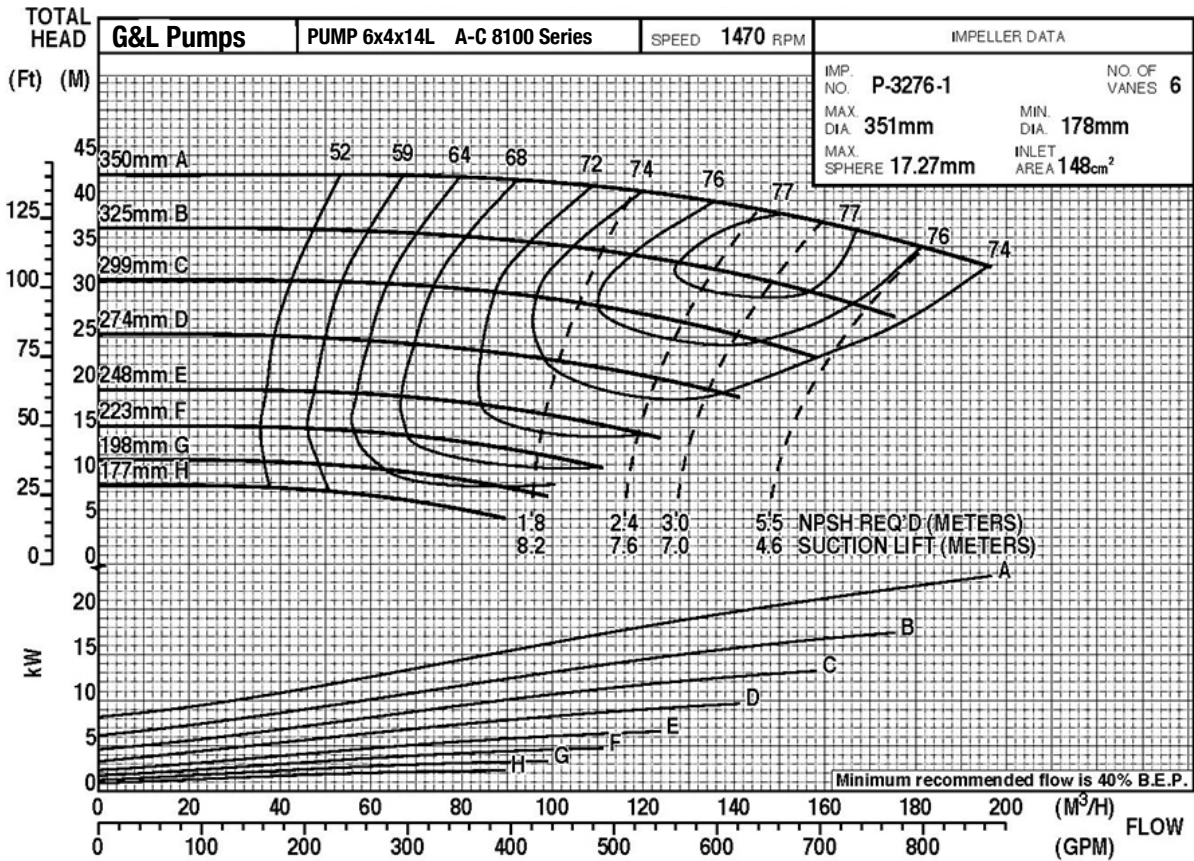
SERIES A-C 8100 - 50 Hz

## 1450 RPM – 50 HZ PUMP CURVES



SERIES A-C 8100 - 50 Hz

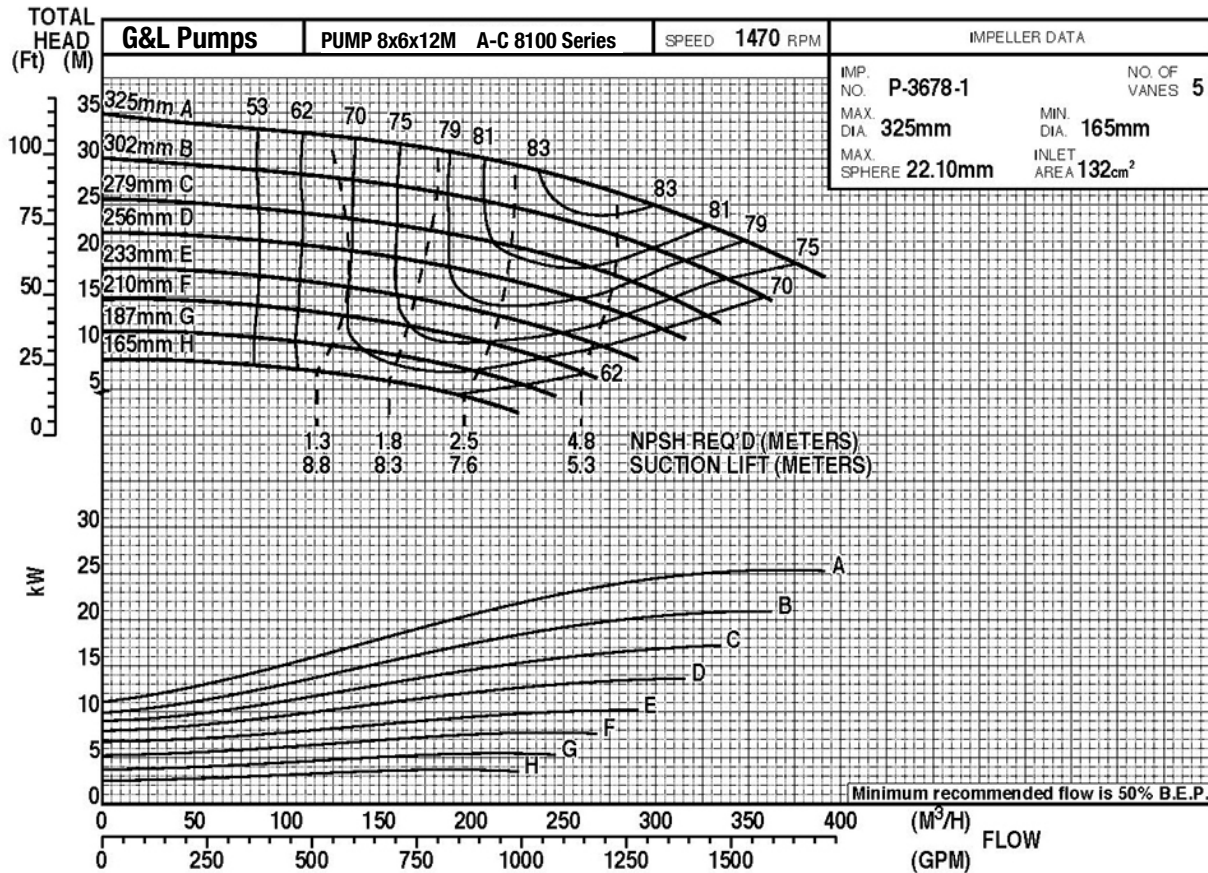
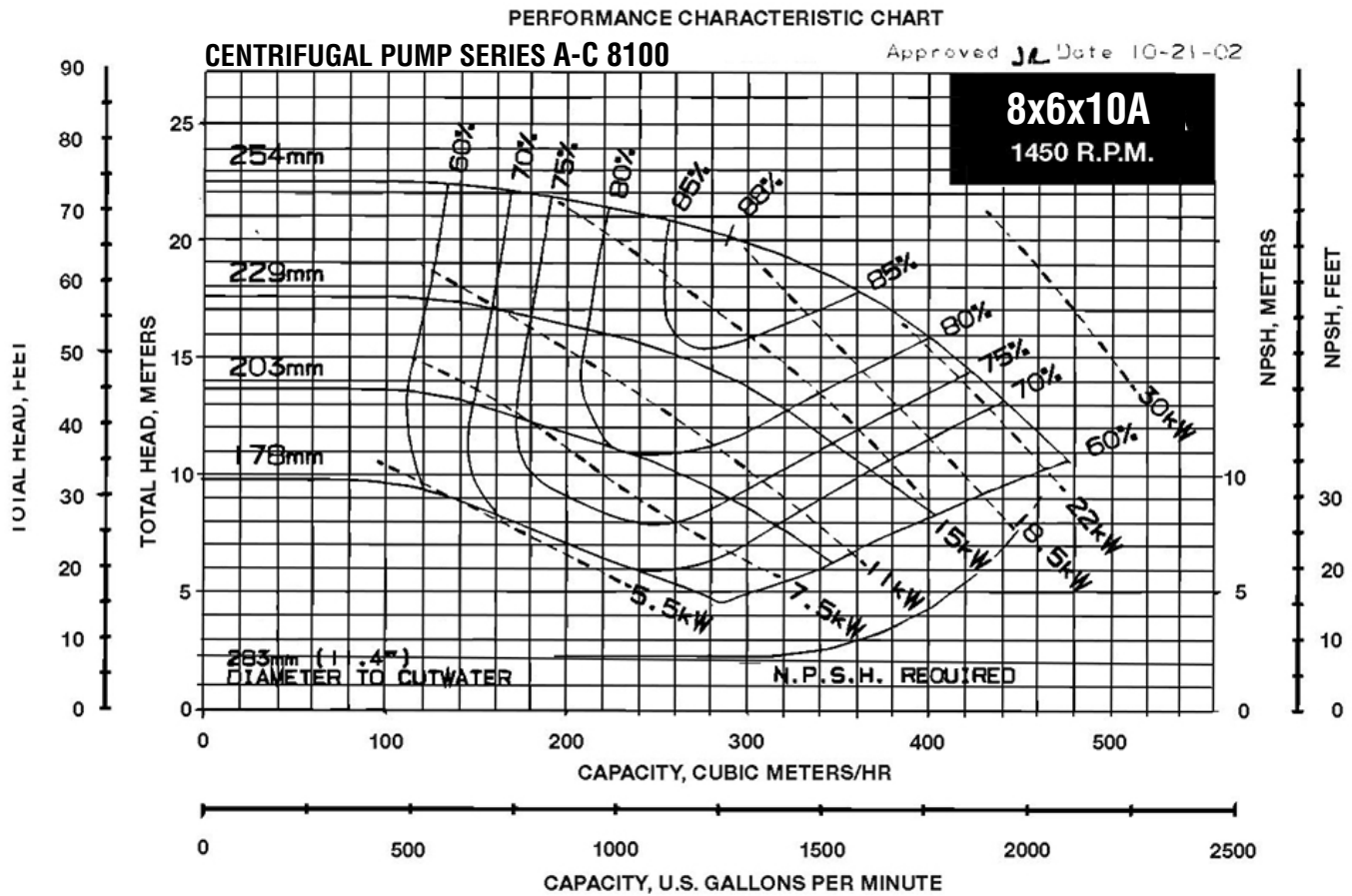
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

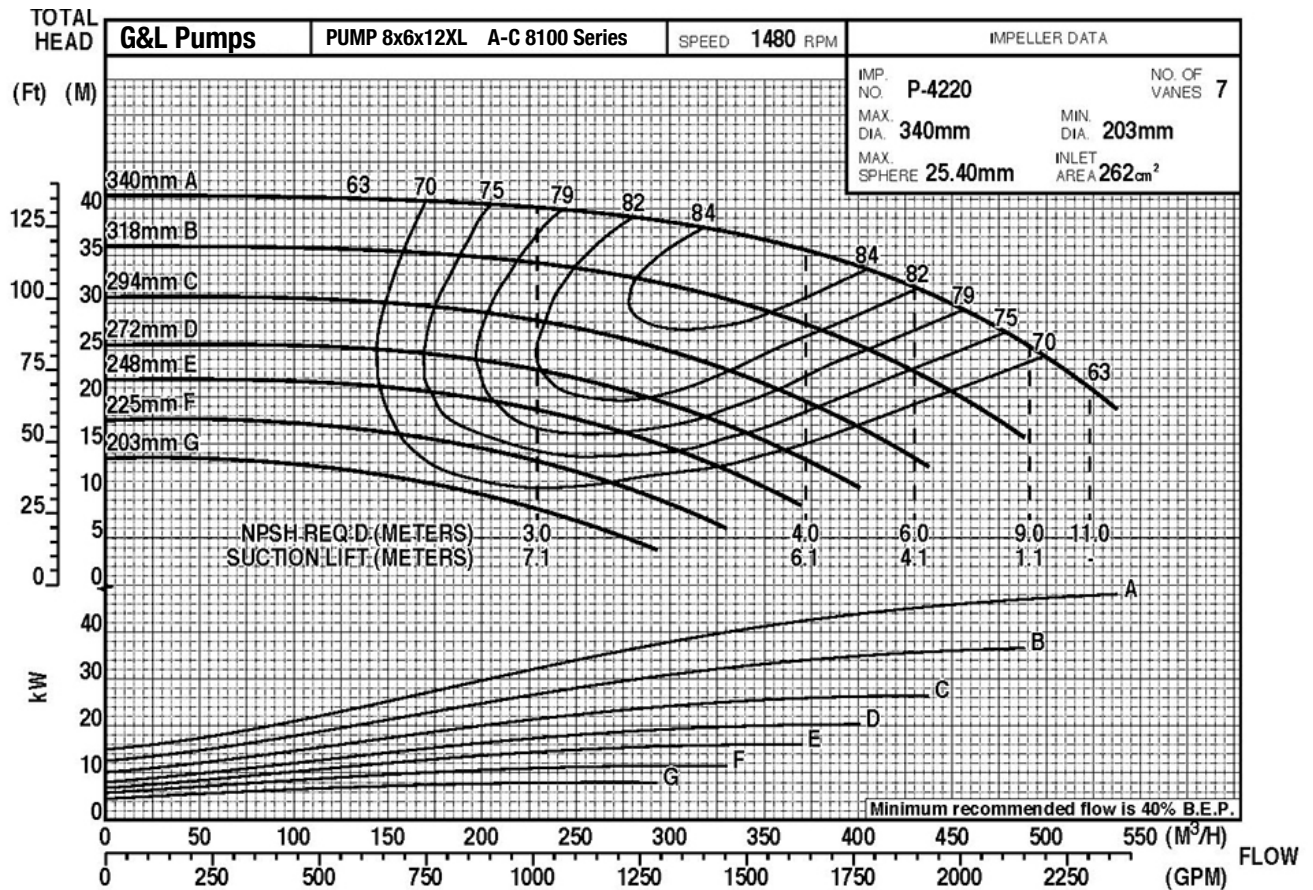
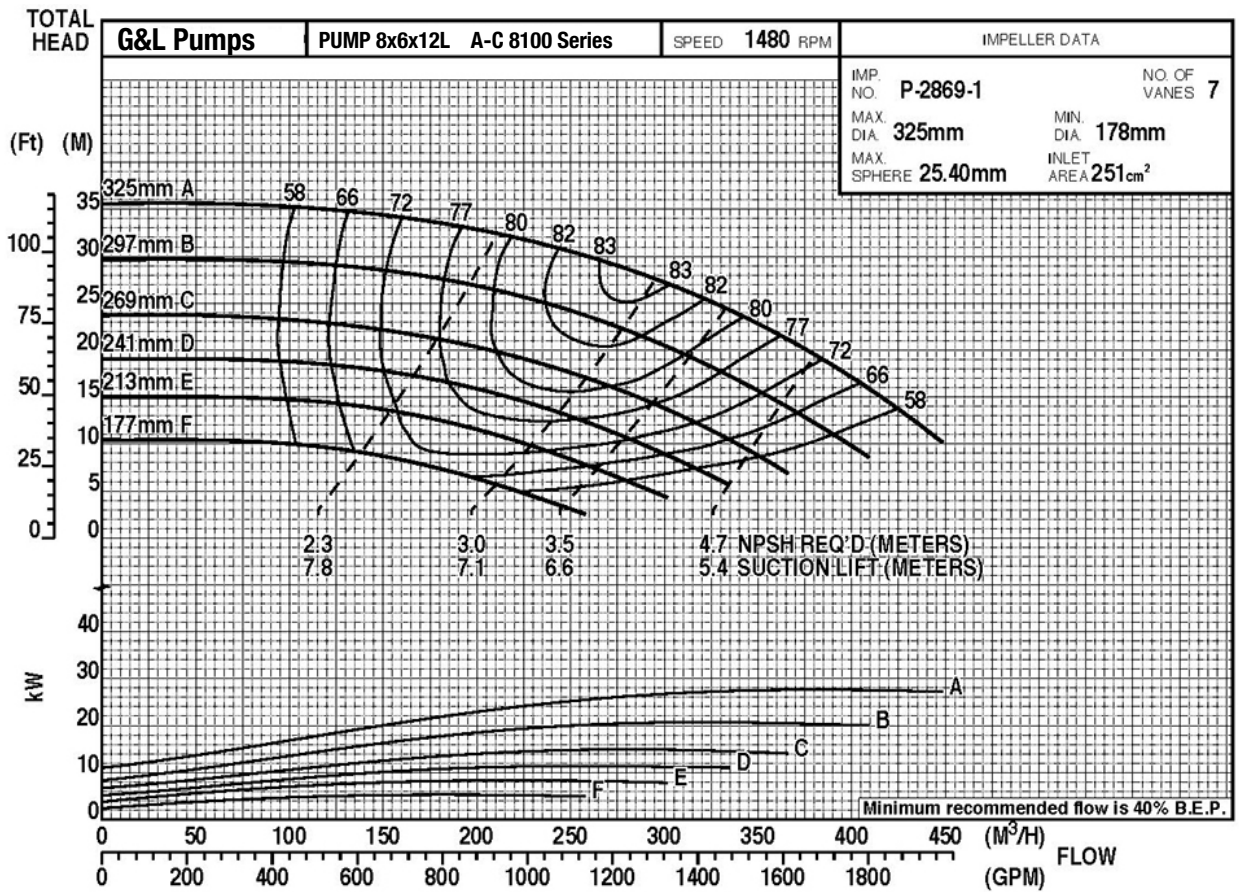
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

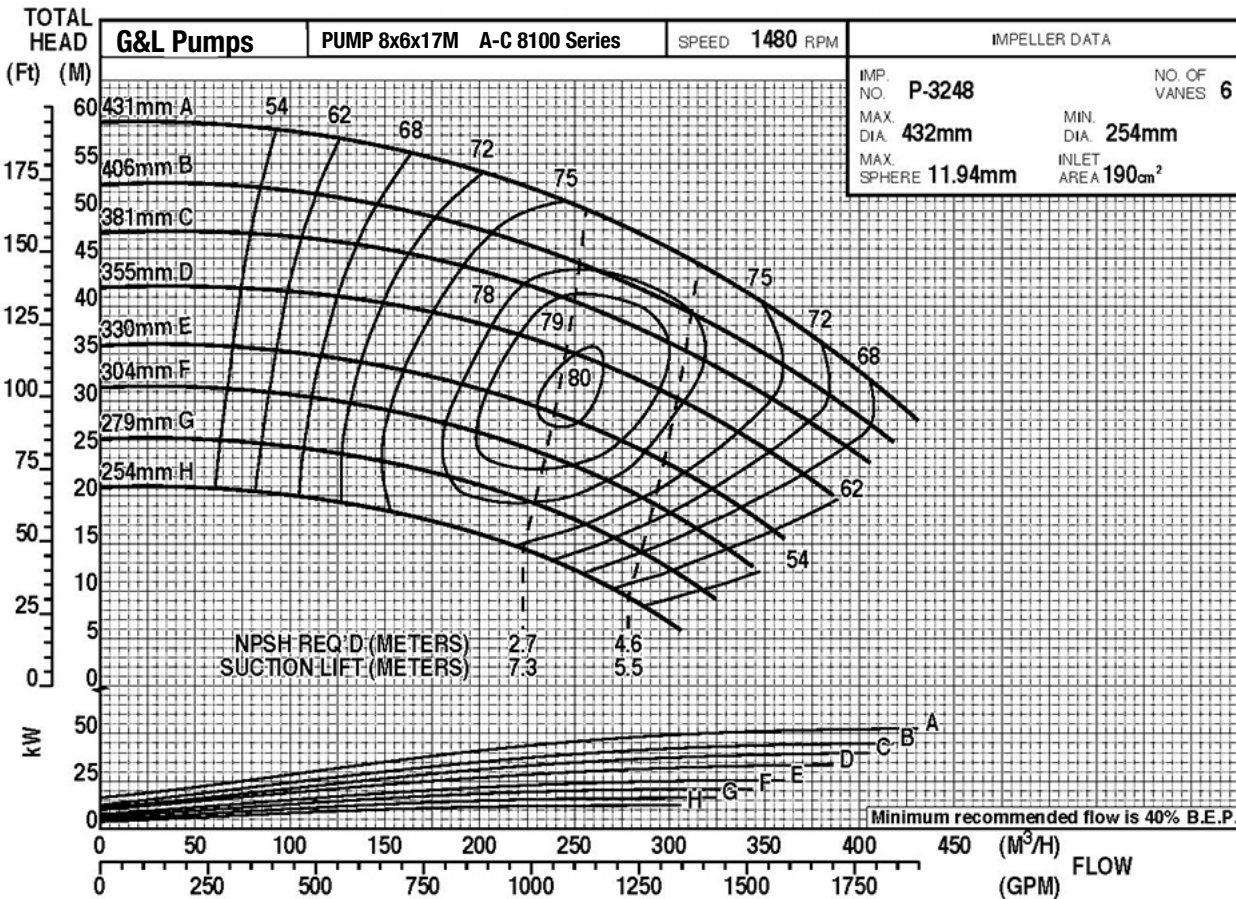
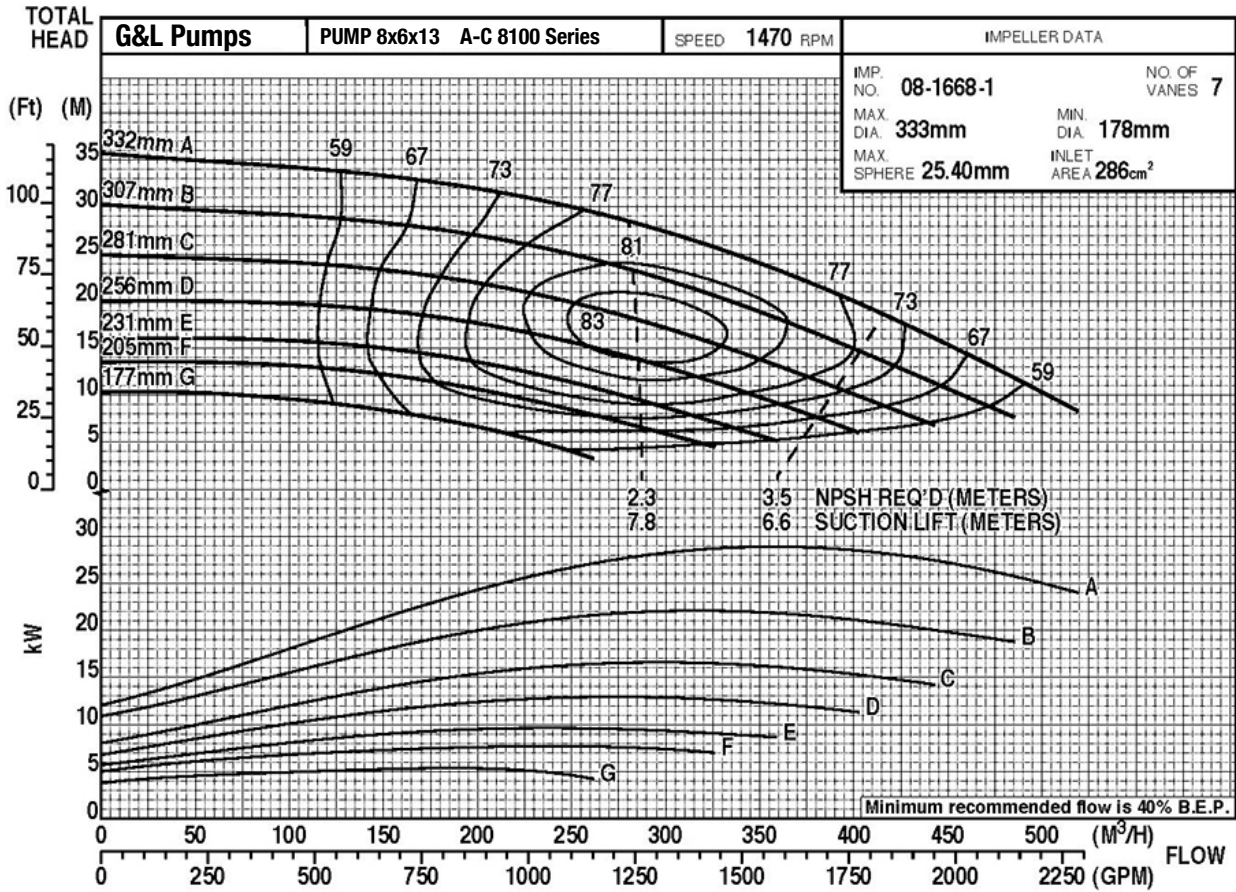
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

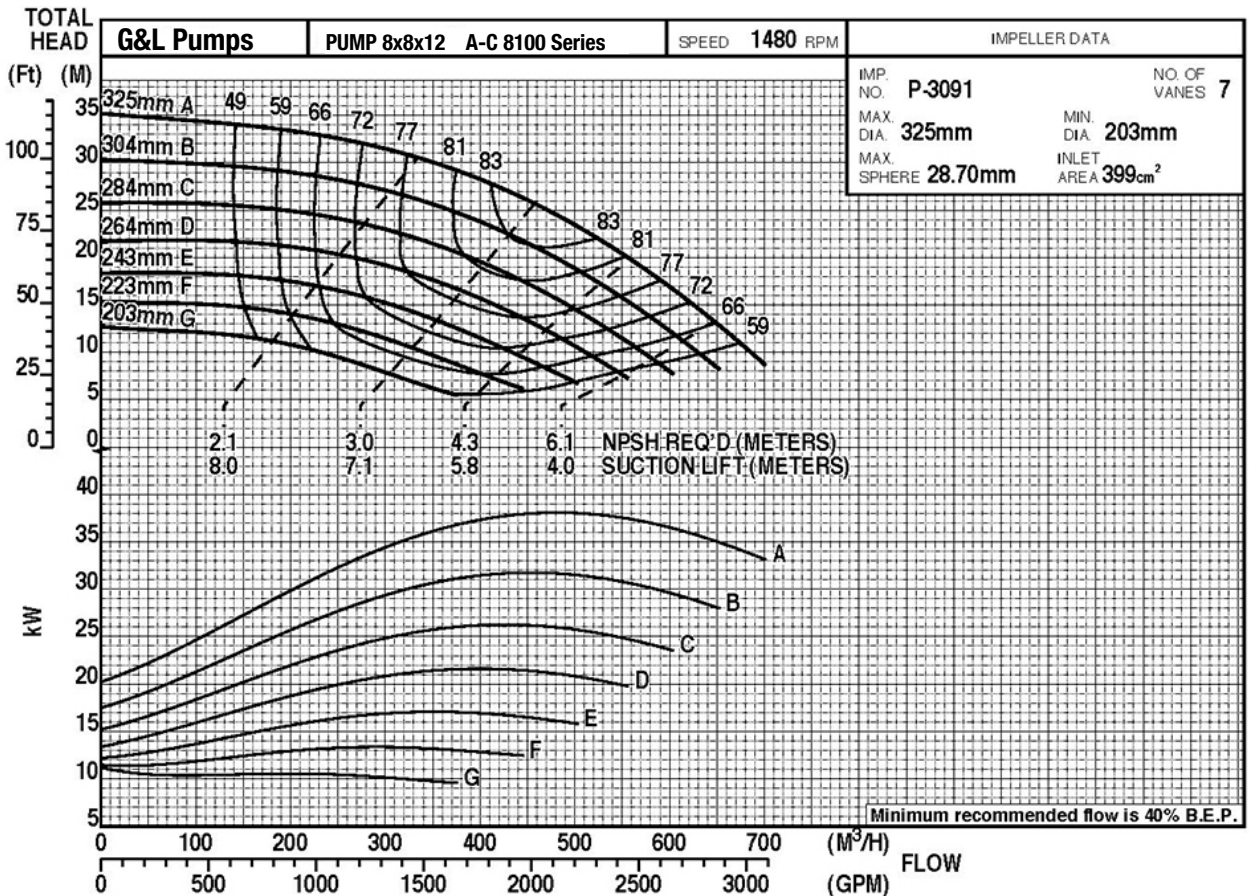
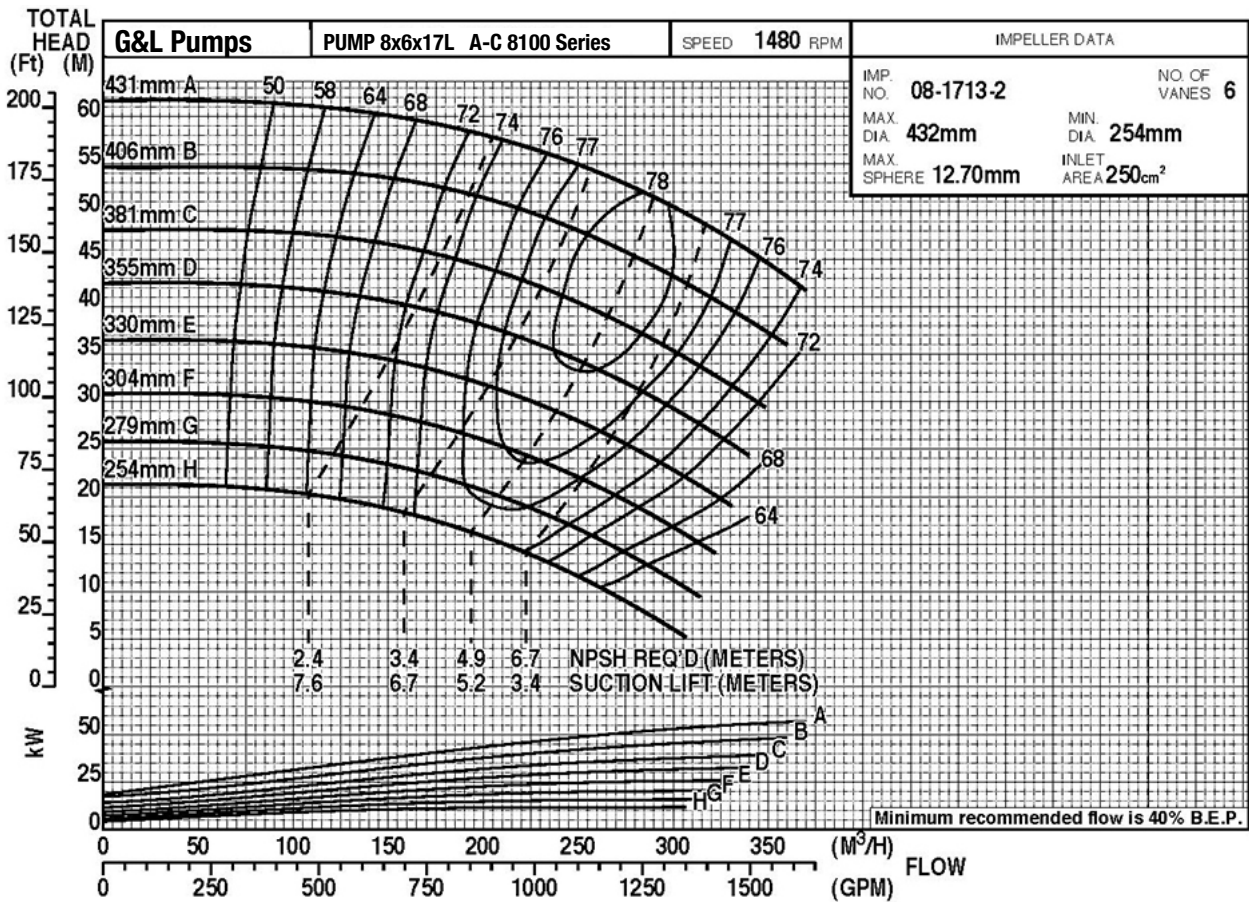
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

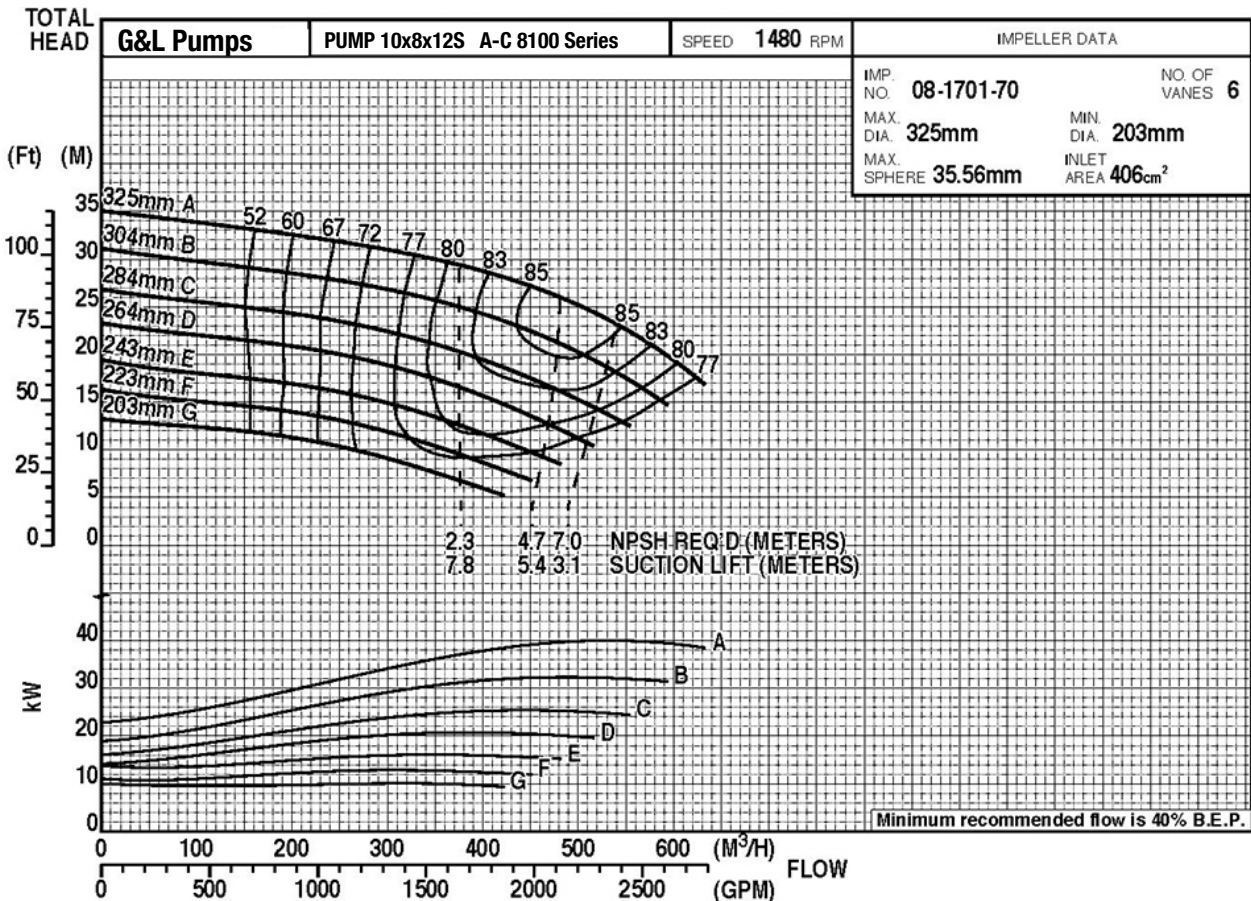
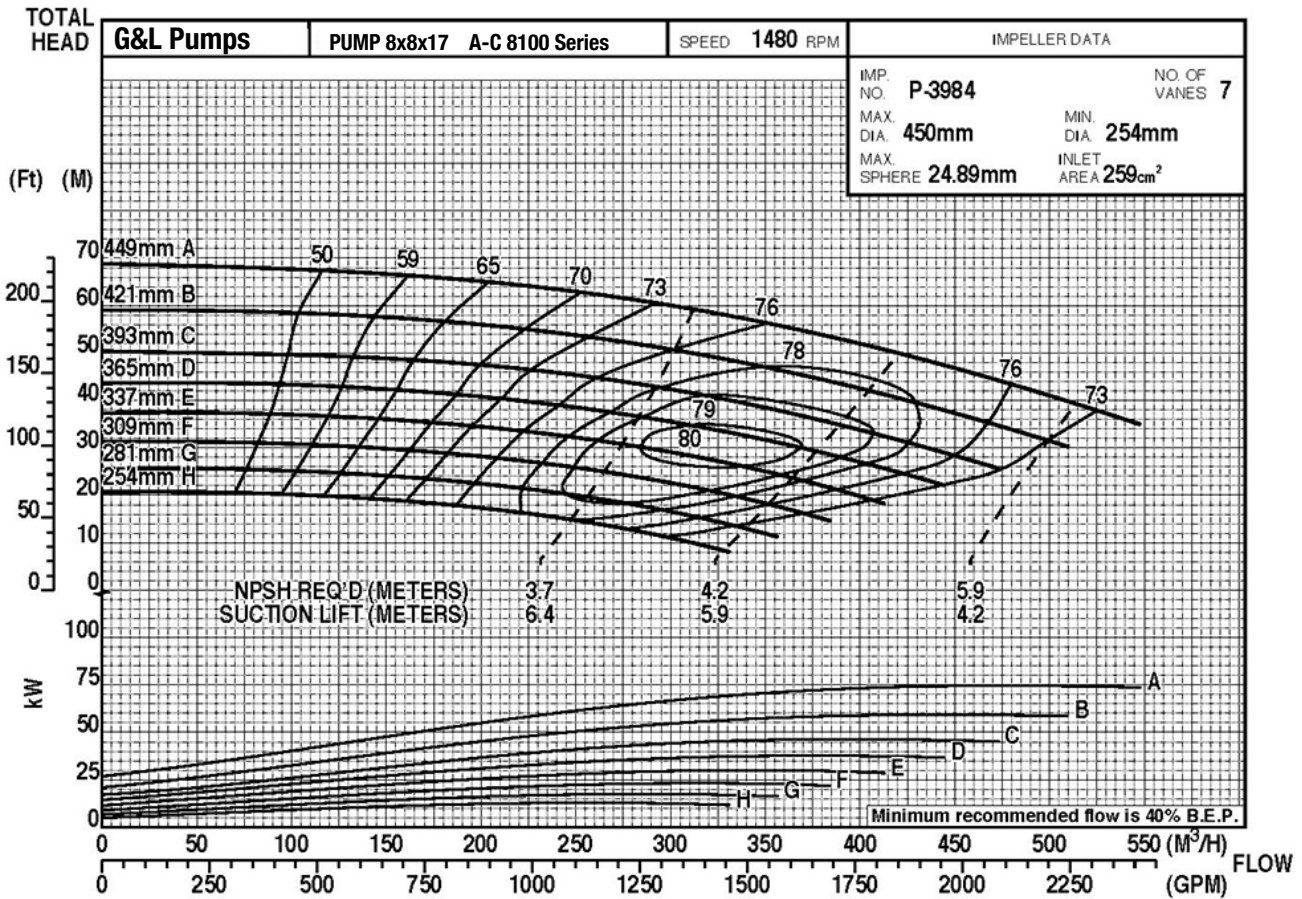
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

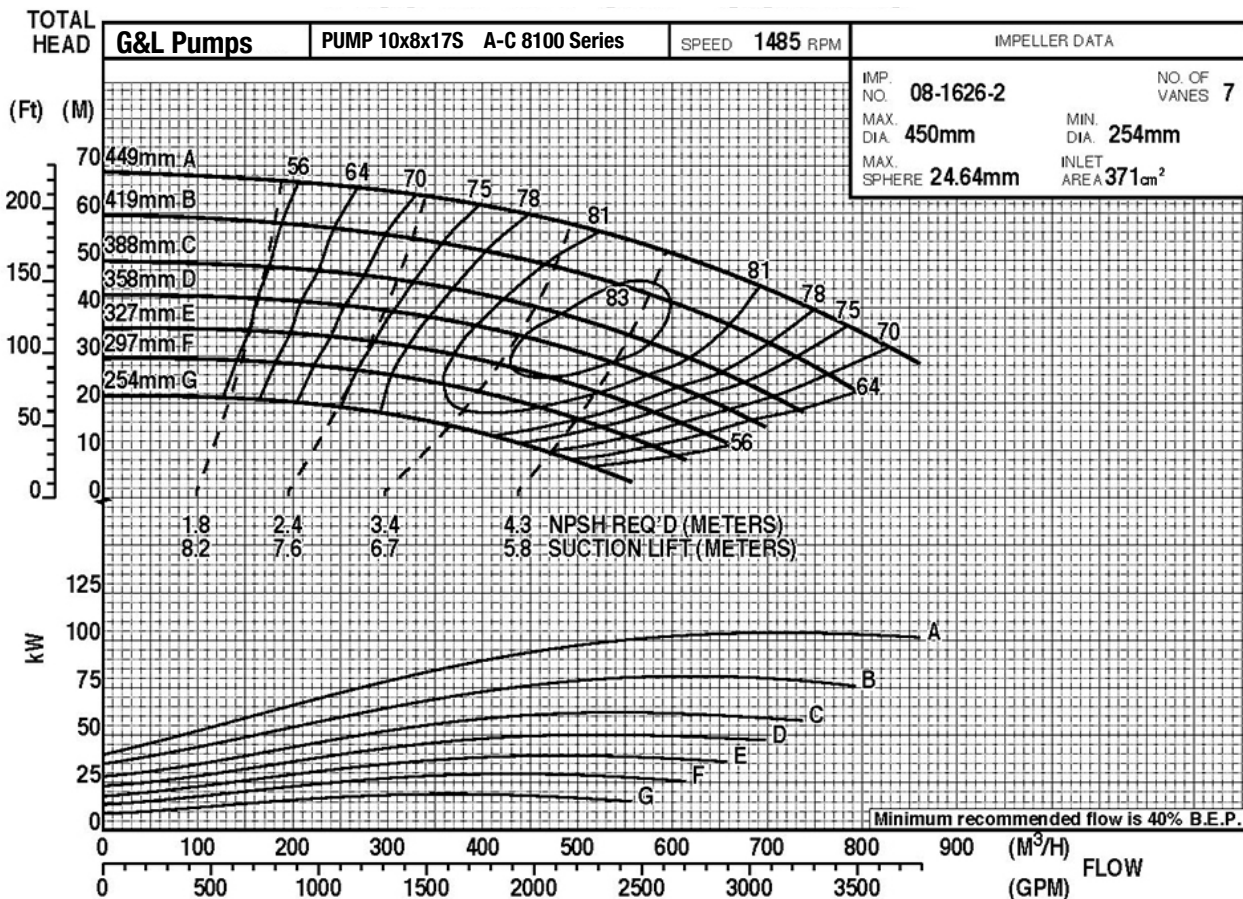
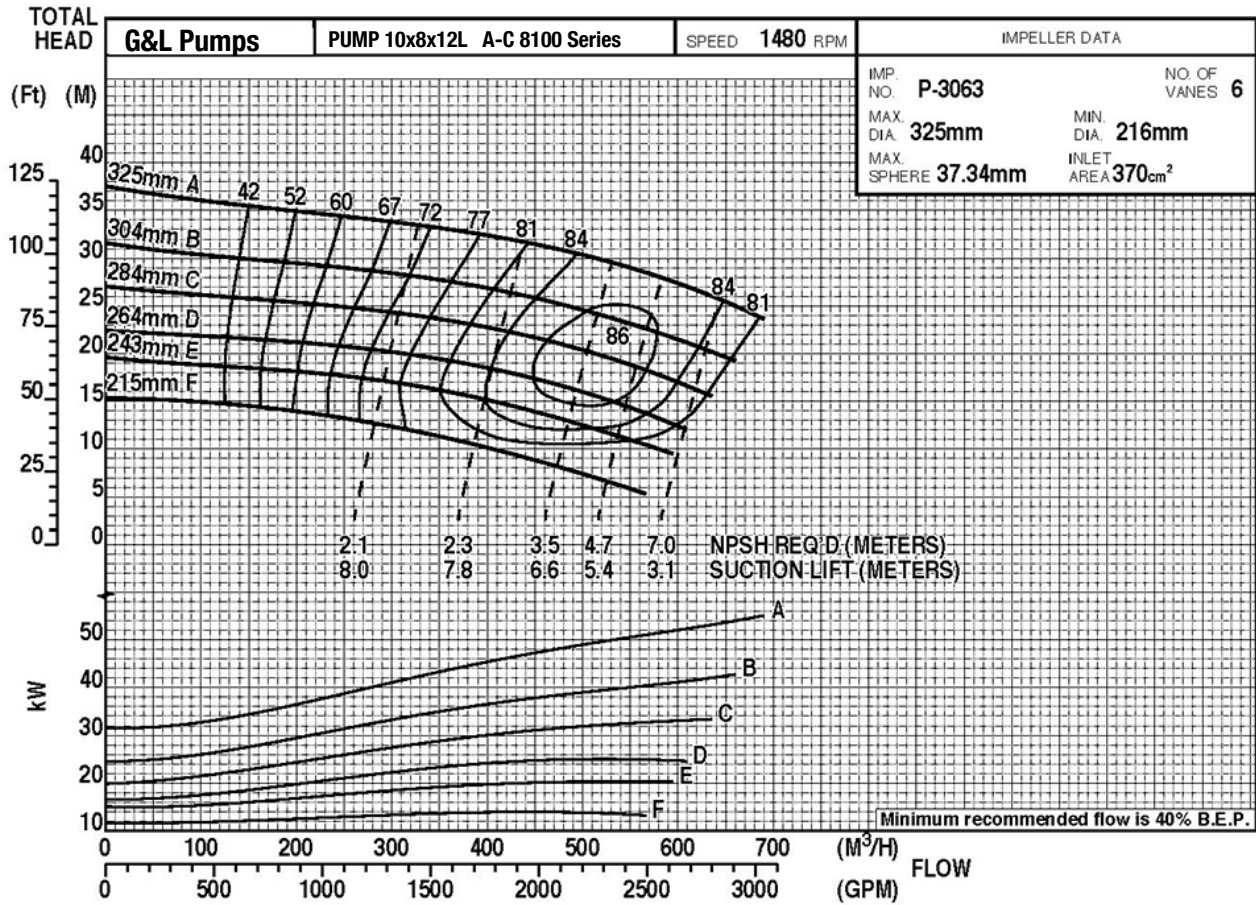
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

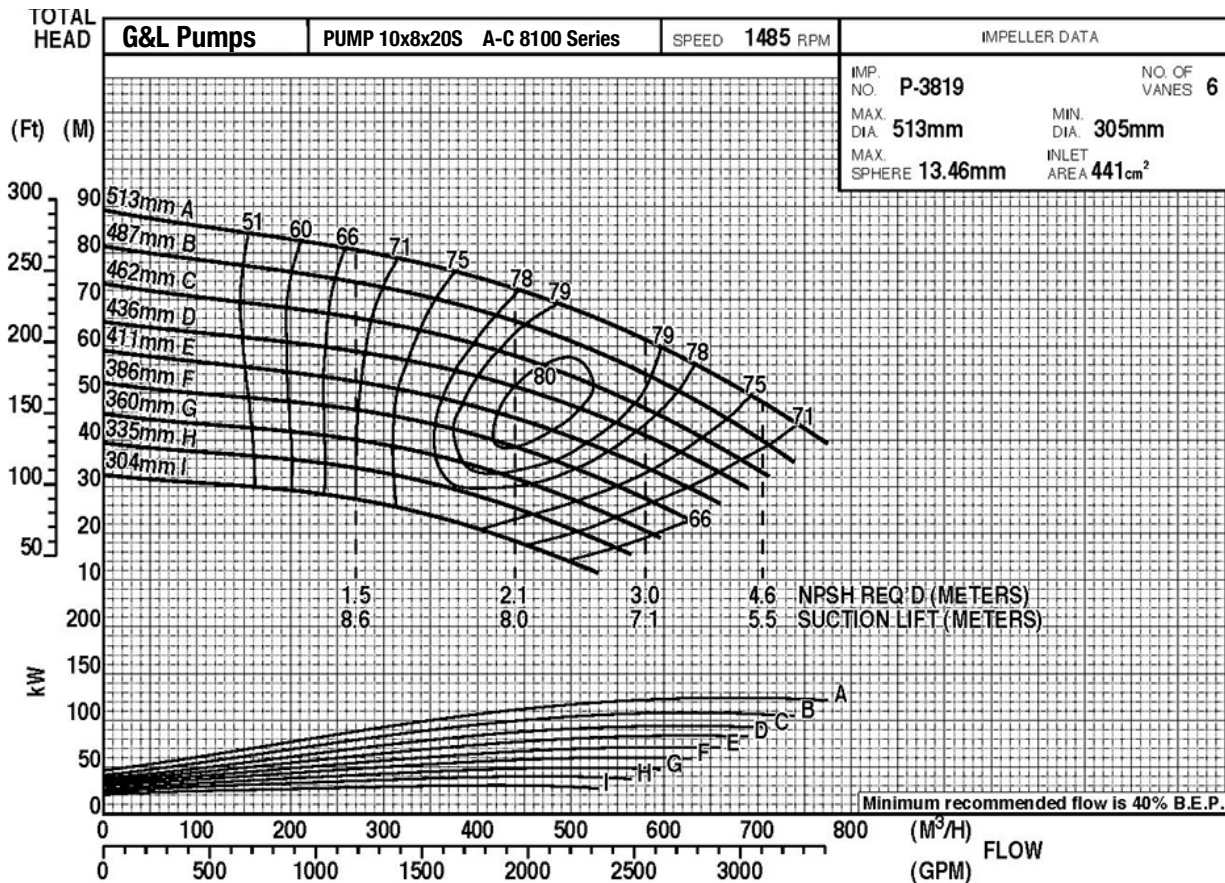
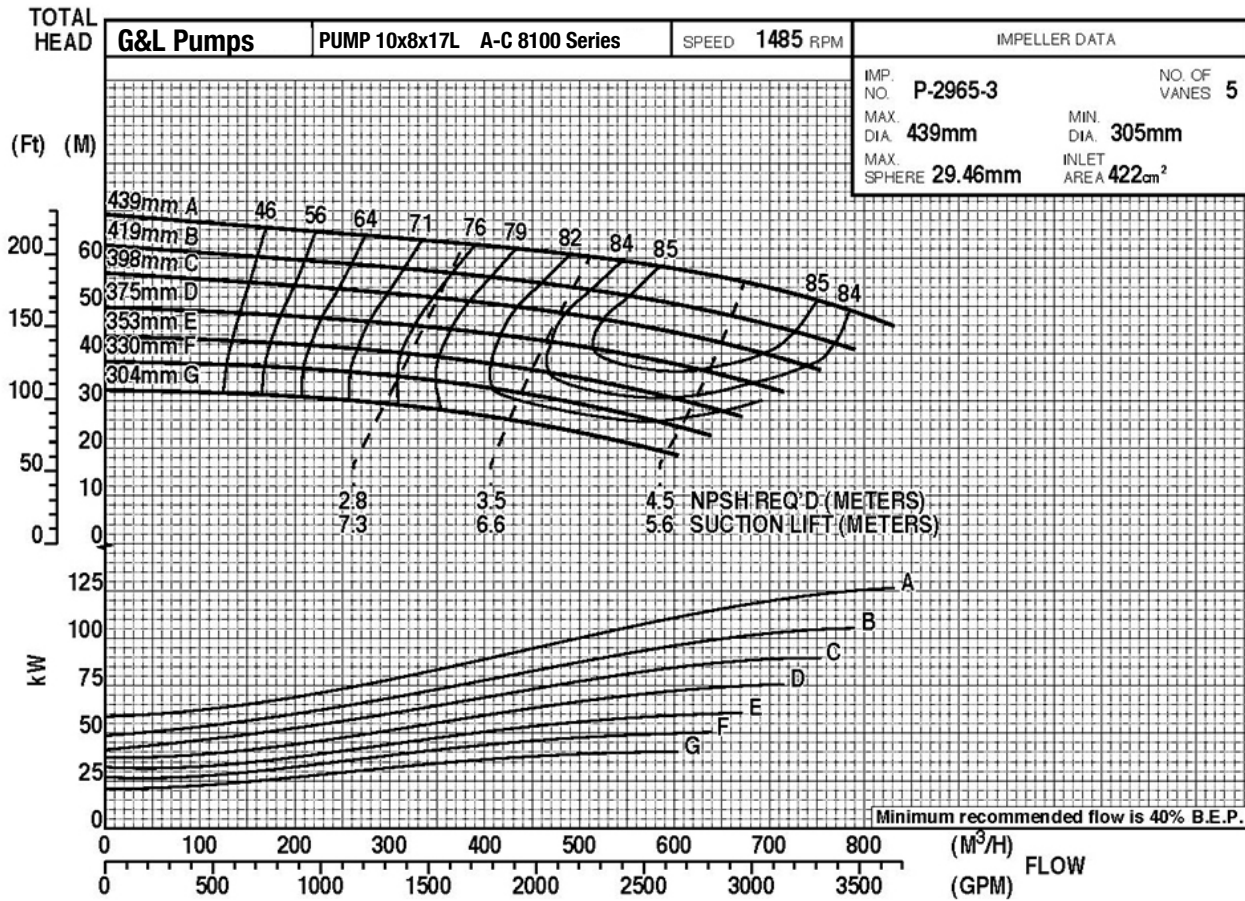
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

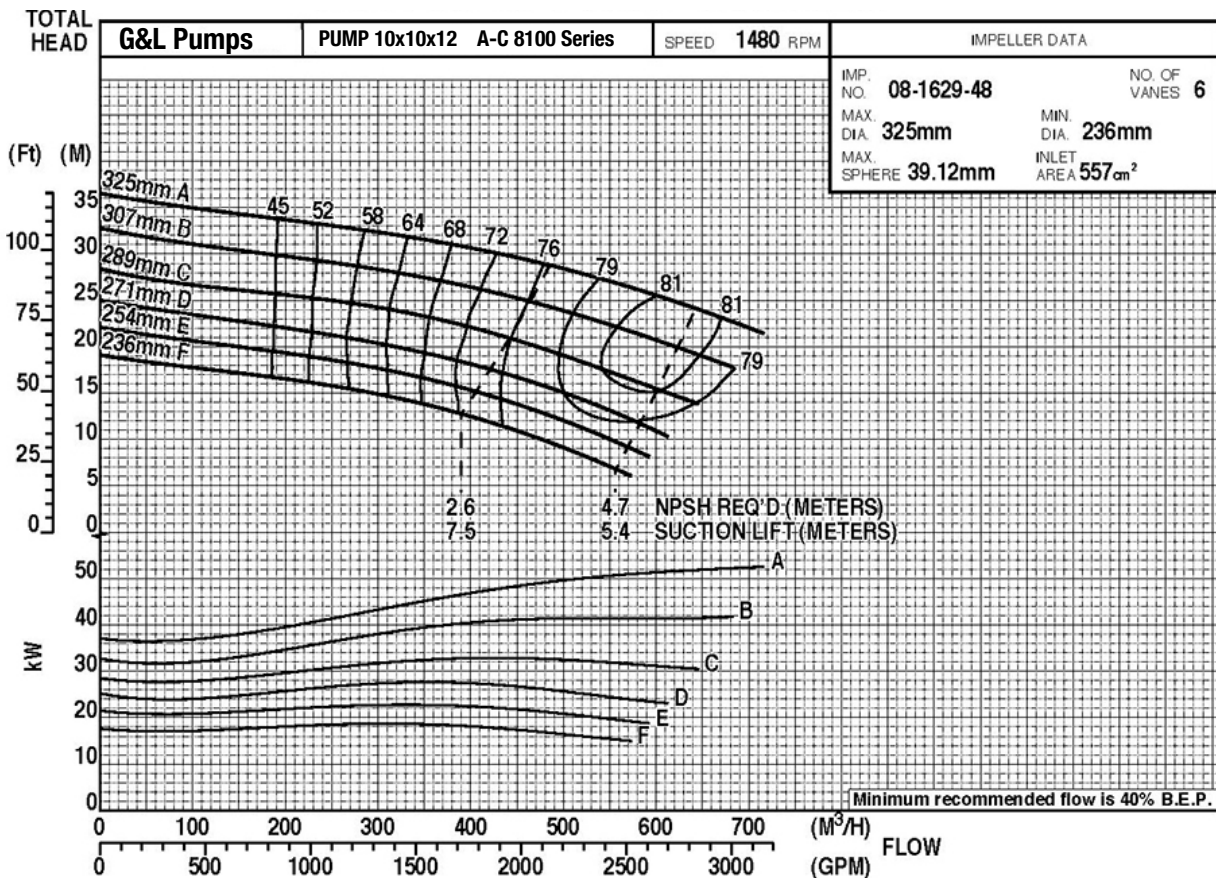
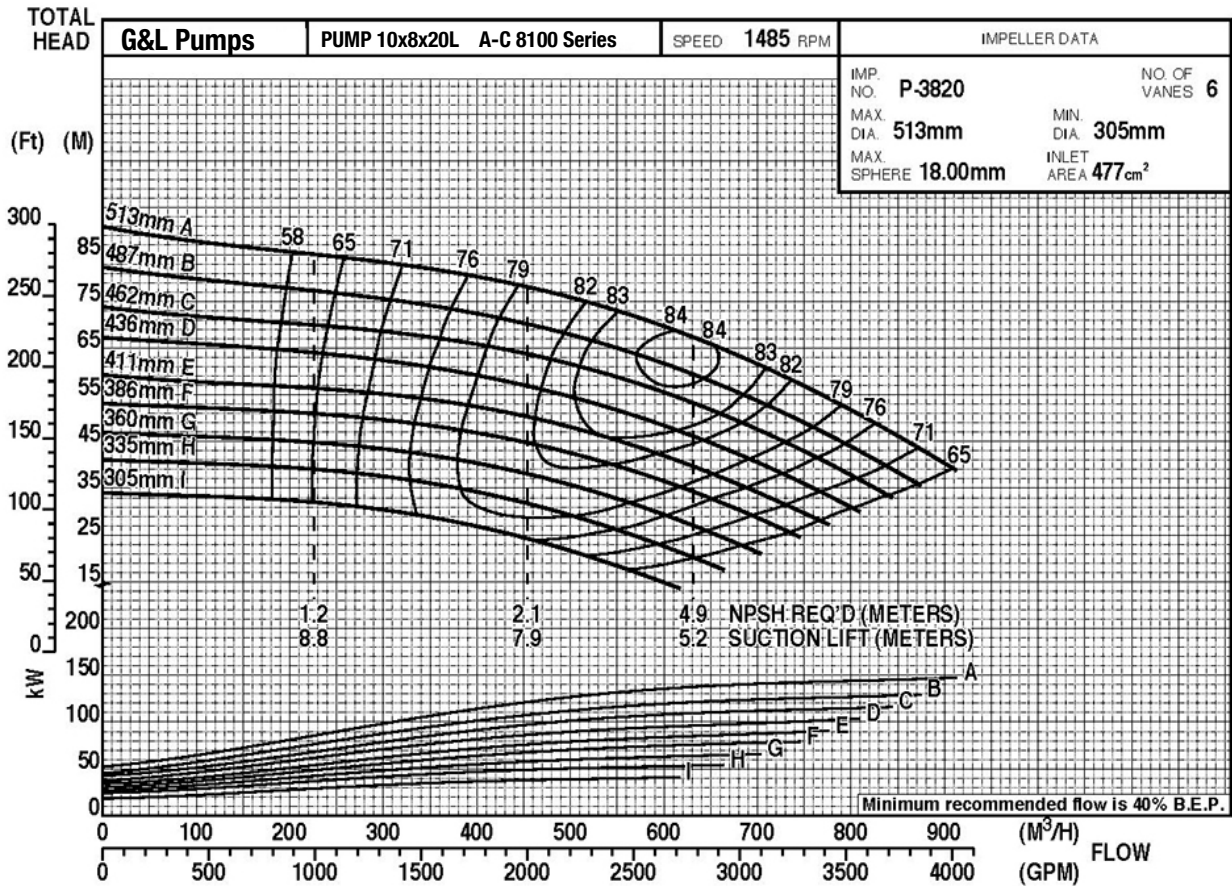
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

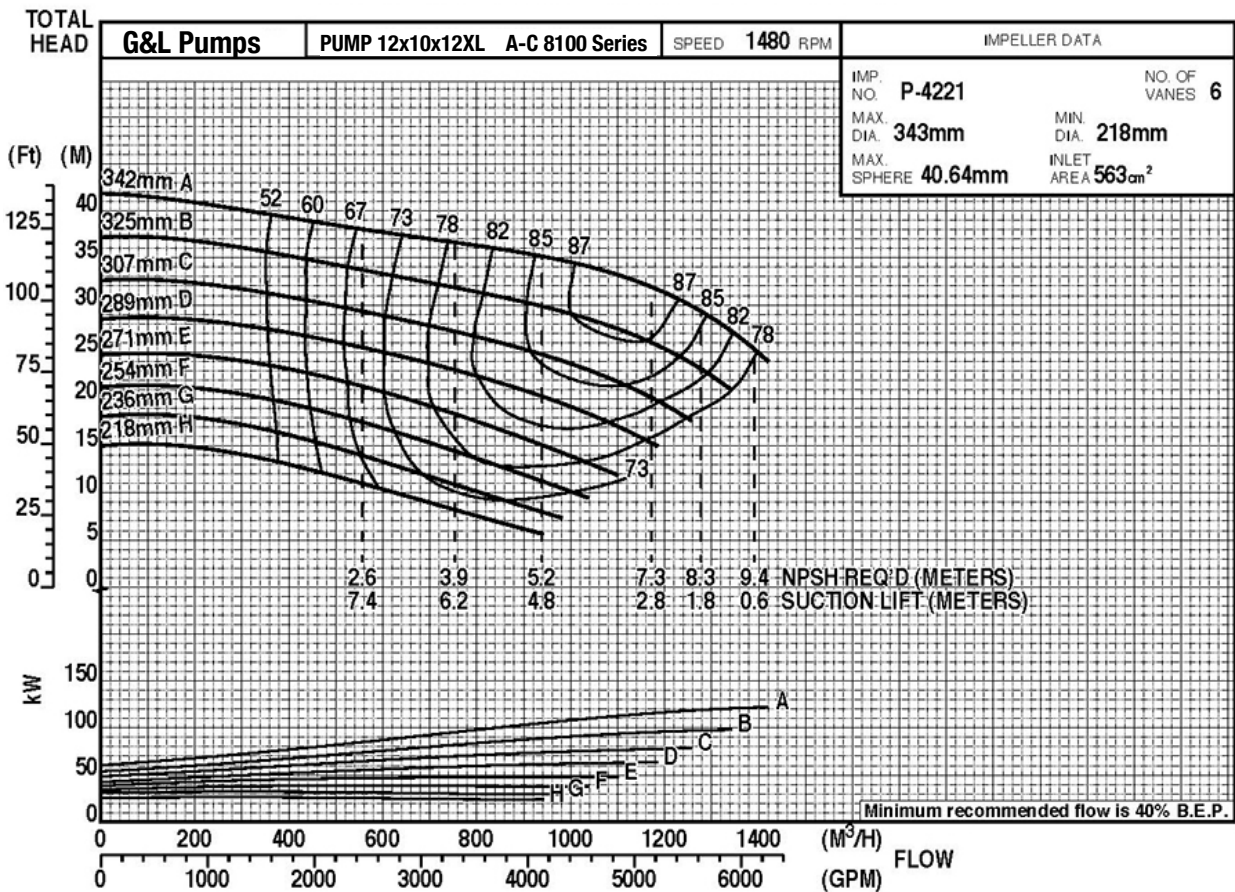
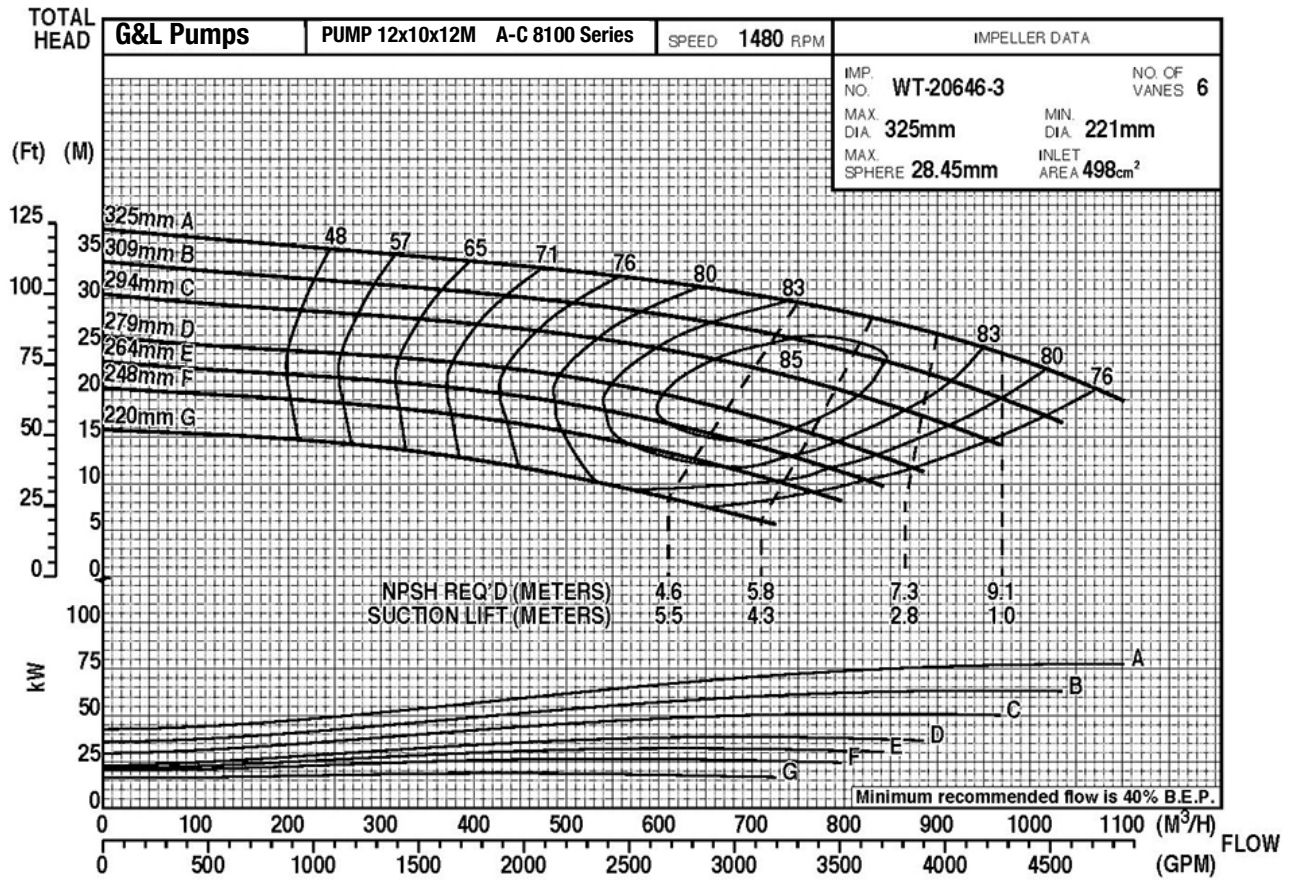
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

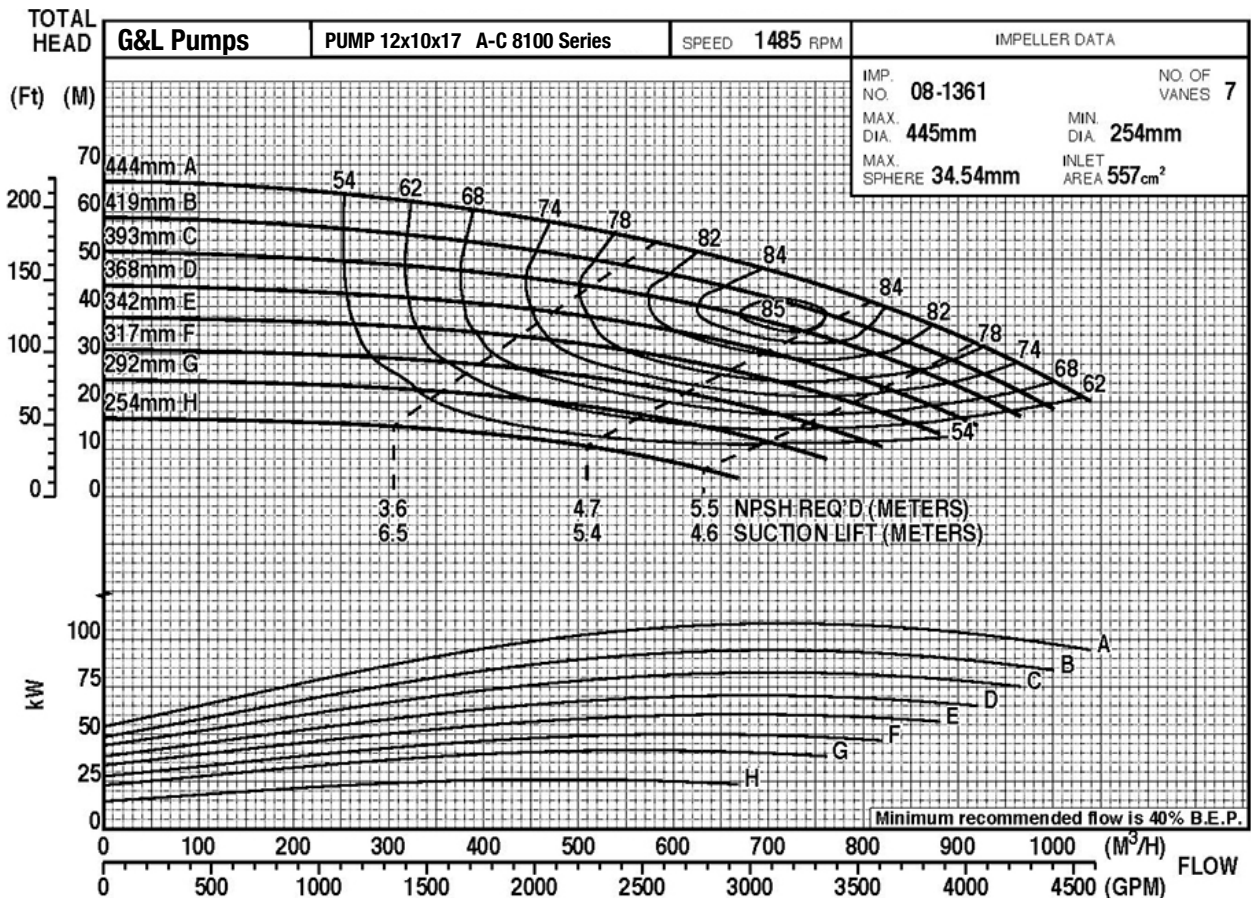
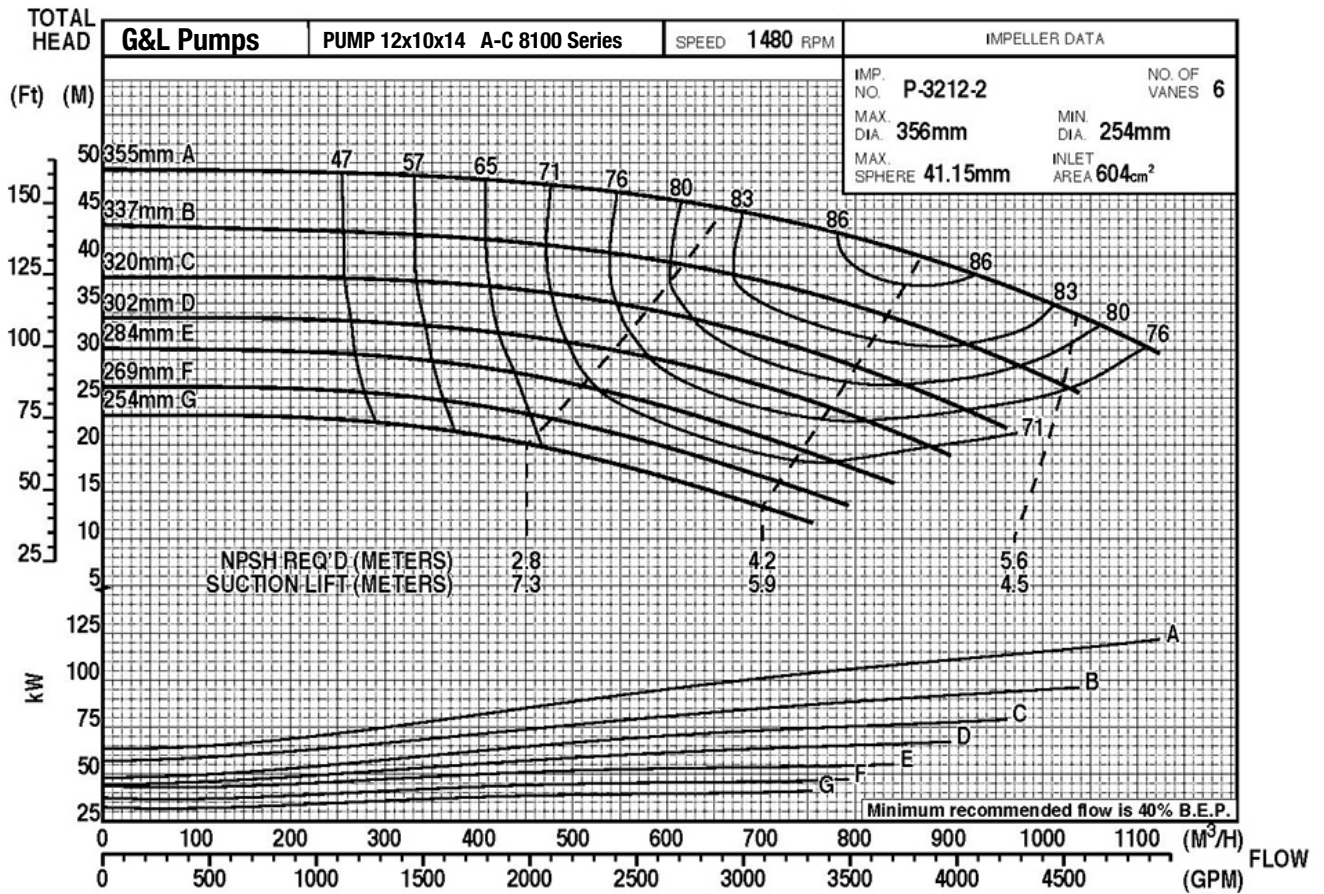
## 1450 RPM – 50 HZ PUMP CURVES





SERIES A-C 8100 - 50 Hz

## 1450 RPM – 50 HZ PUMP CURVES



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- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

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Xylem Inc.  
2881 East Bayard Street Ext., Suite A  
Seneca Falls, NY 13148  
Phone: (800) 453-6777  
Fax: (888) 322-5877  
[www.gouldswatertechnology.com](http://www.gouldswatertechnology.com)

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