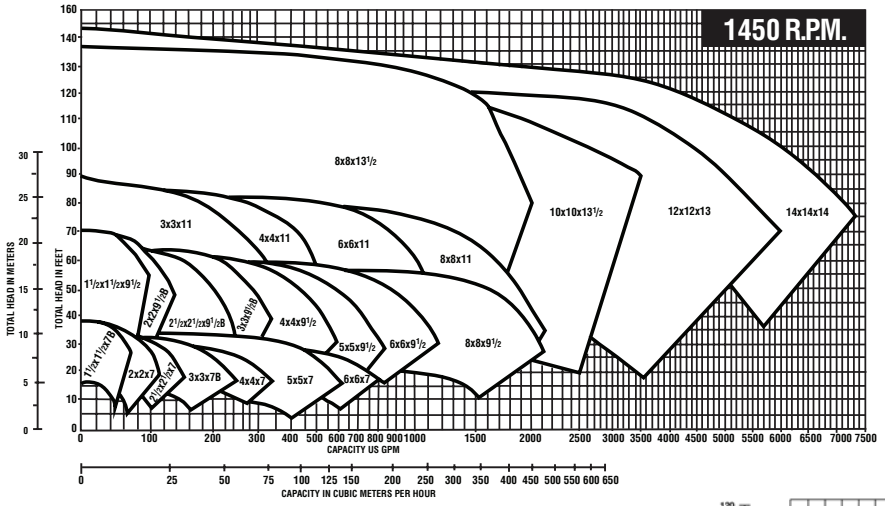
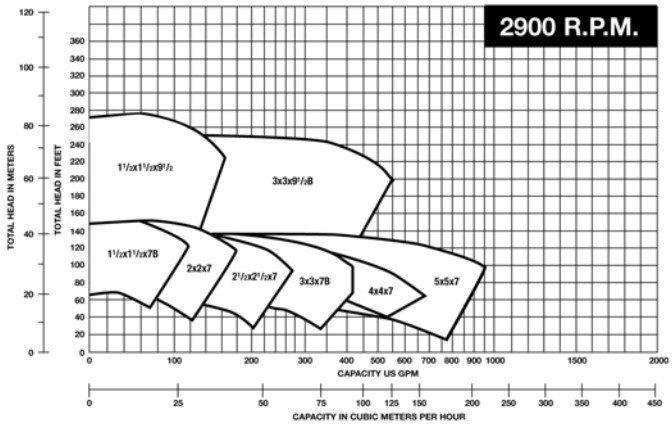
**CURVES**
BX-180C

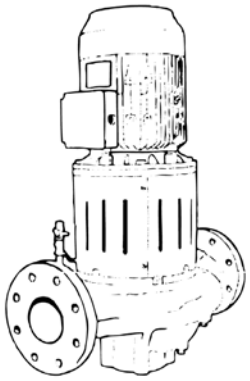



# Series 80®-SC

## Spacer-Coupled Vertical In-Line Centrifugal Pump

FOR 50 CYCLE OPERATION FOR
1450 & 2900 RPM



Bell & Gossett
a xylem brand

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## USEFUL PUMP FORMULAS

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

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

$$\text{Vacuum (Inches of Mercury)} = \text{Dynamic Suction Lift (Feet)} \times .883 \times \text{Specific Gravity}$$

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

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

$$\text{Efficiency (Pump)} = \frac{\text{Horsepower (Water)}}{\text{Horsepower (Brake)}} \times 100 \text{ Per Cent}$$

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

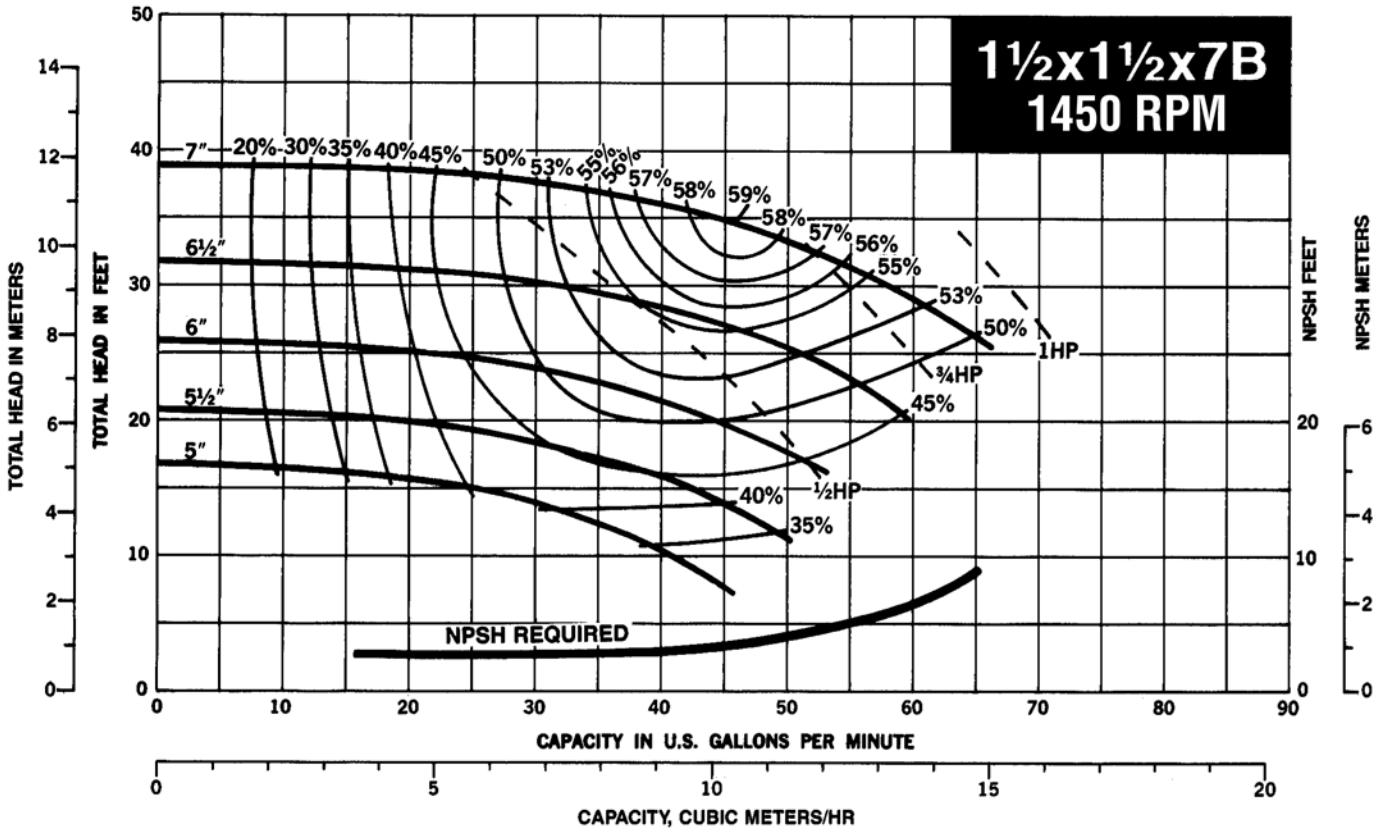
**Affinity Laws: Effect of change of speed or impeller diameter on centrifugal pumps.**

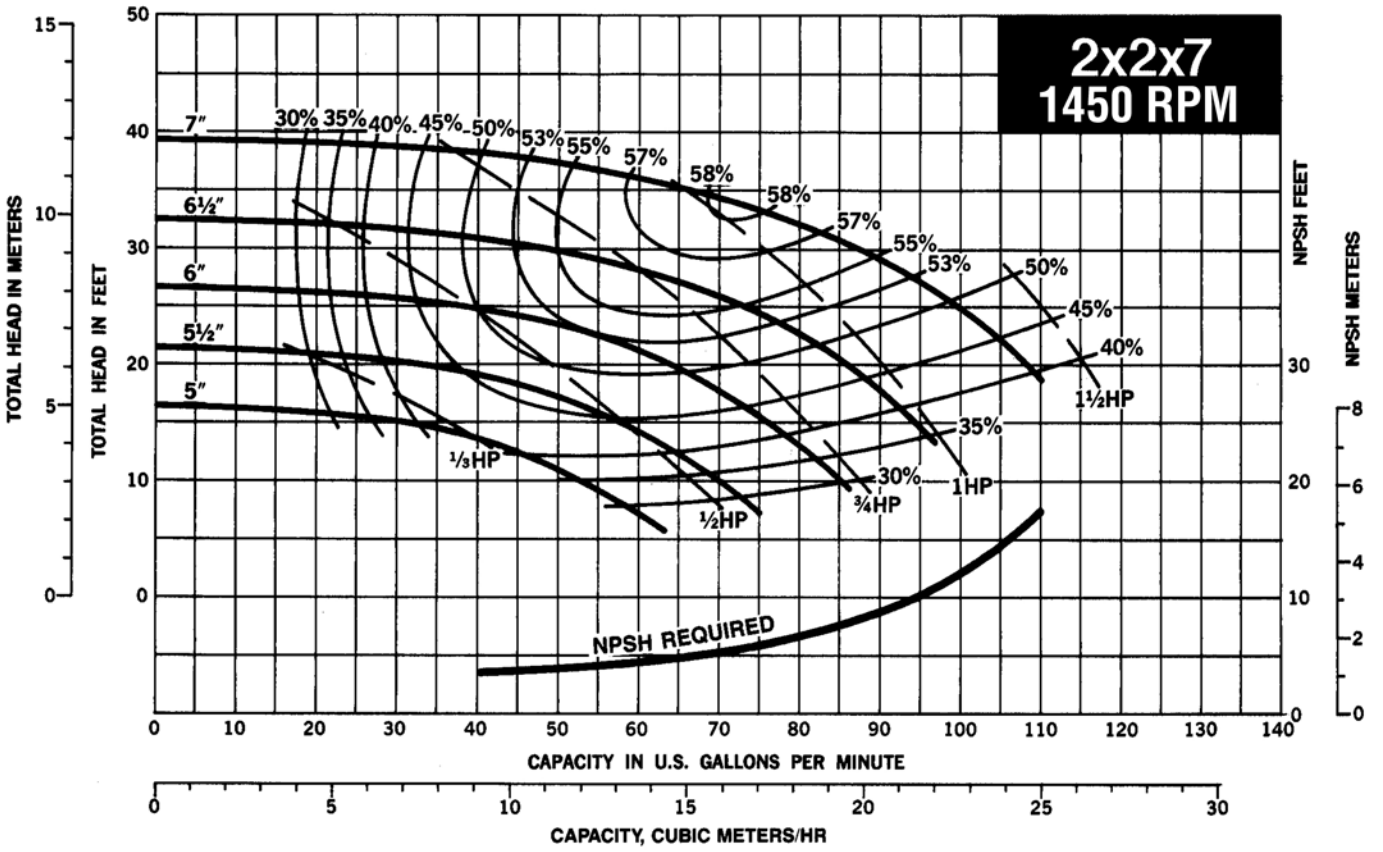
| | GPM Capacity | Ft. Head | BHP |
|---|---|---|---|
| Impeller Diameter Change | $Q_2 = \frac{D_2}{D_1} Q_1$ | $H_2 = \left(\frac{D_2}{D_1}\right)^2 H_1$ | $P_2 = \left(\frac{D_2}{D_1}\right)^3 P_1$ |
| Speed Change | $Q_2 = \frac{RPM_2}{RPM_1} Q_1$ | $H_2 = \left(\frac{RPM_2}{RPM_1}\right)^2 H_1$ | $P_2 = \left(\frac{RPM_2}{RPM_1}\right)^3 P_1$ |

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

# Series 80-SC Selection Curves – 1450 RPM

Curves based upon shop test using clear cold water at a temperature not over 85°F.



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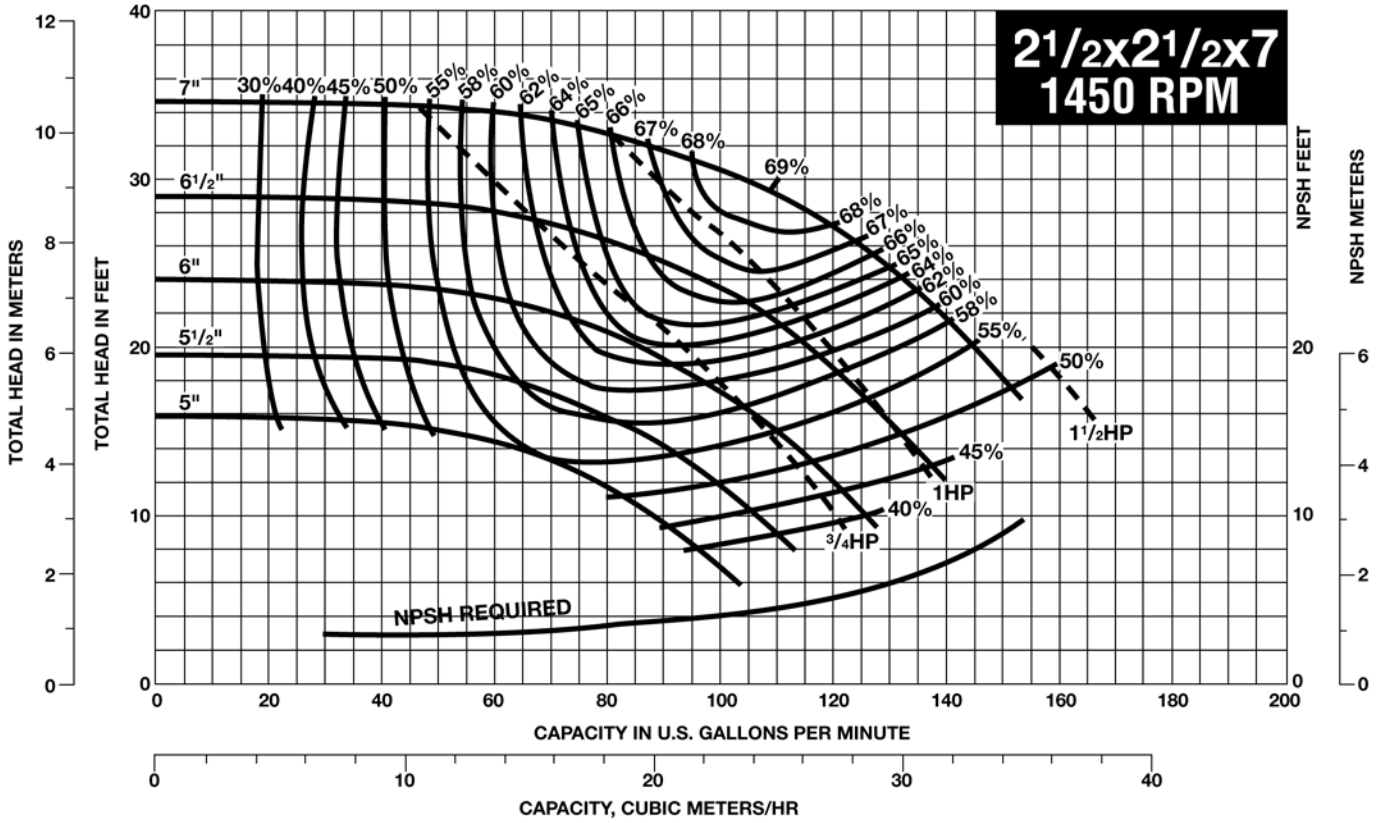


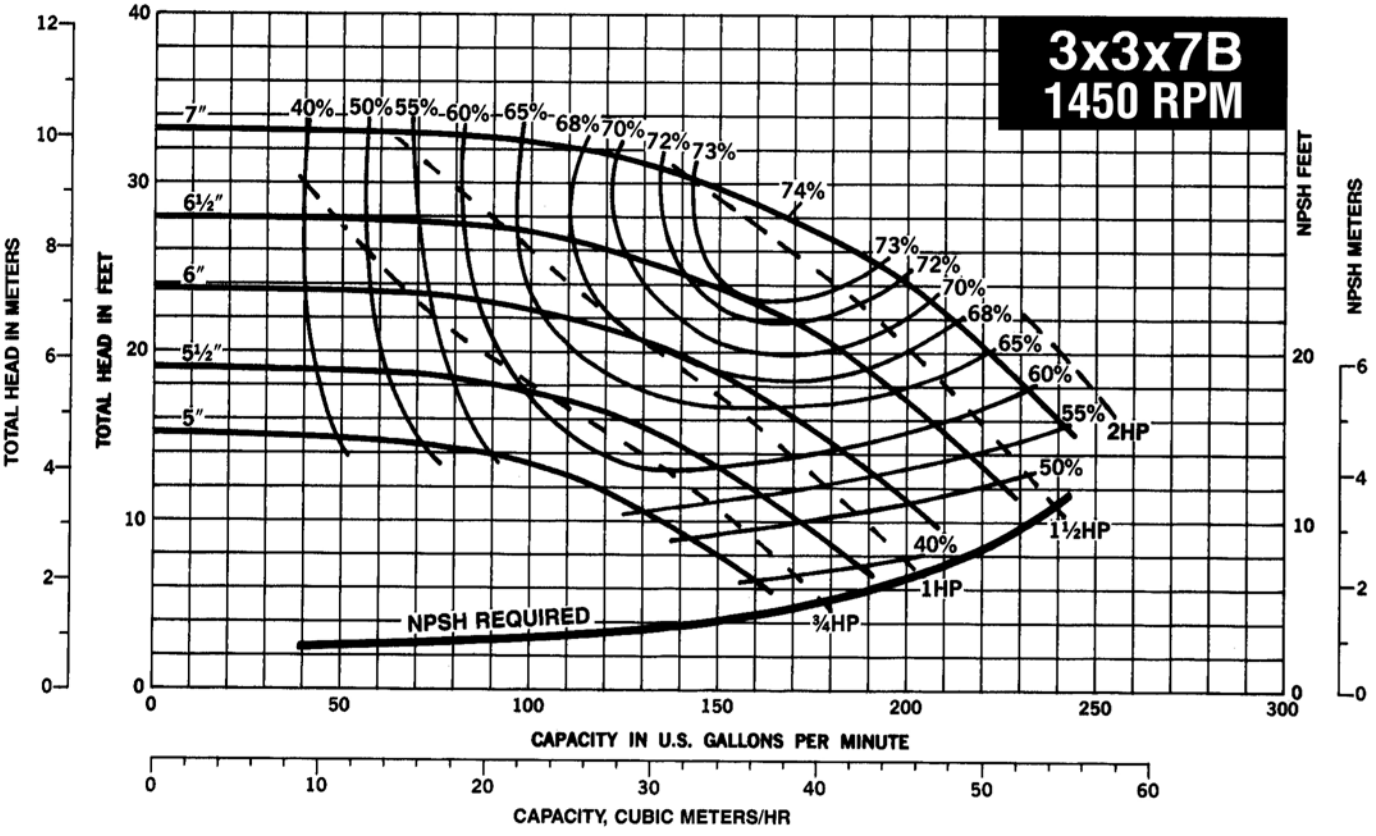

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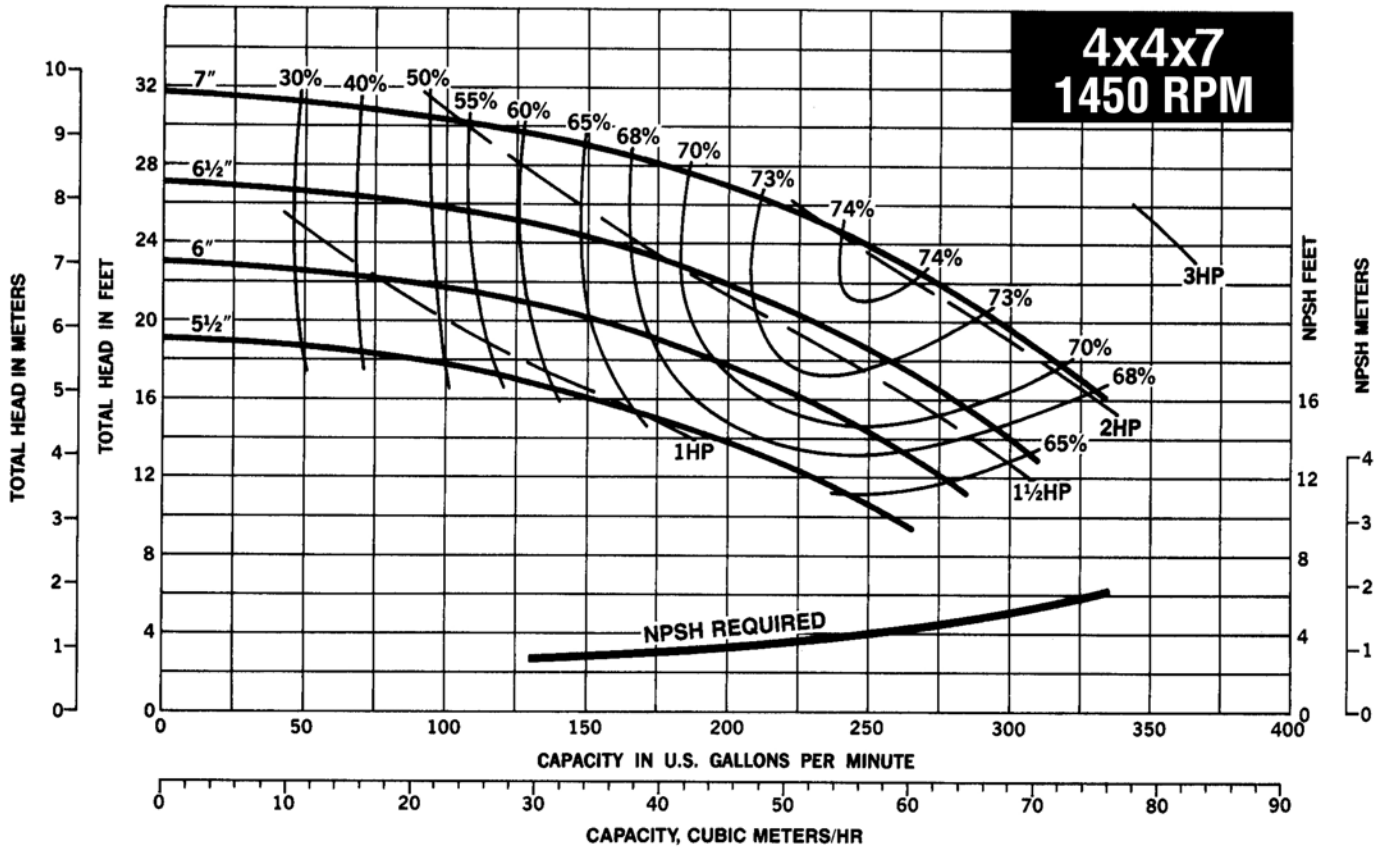


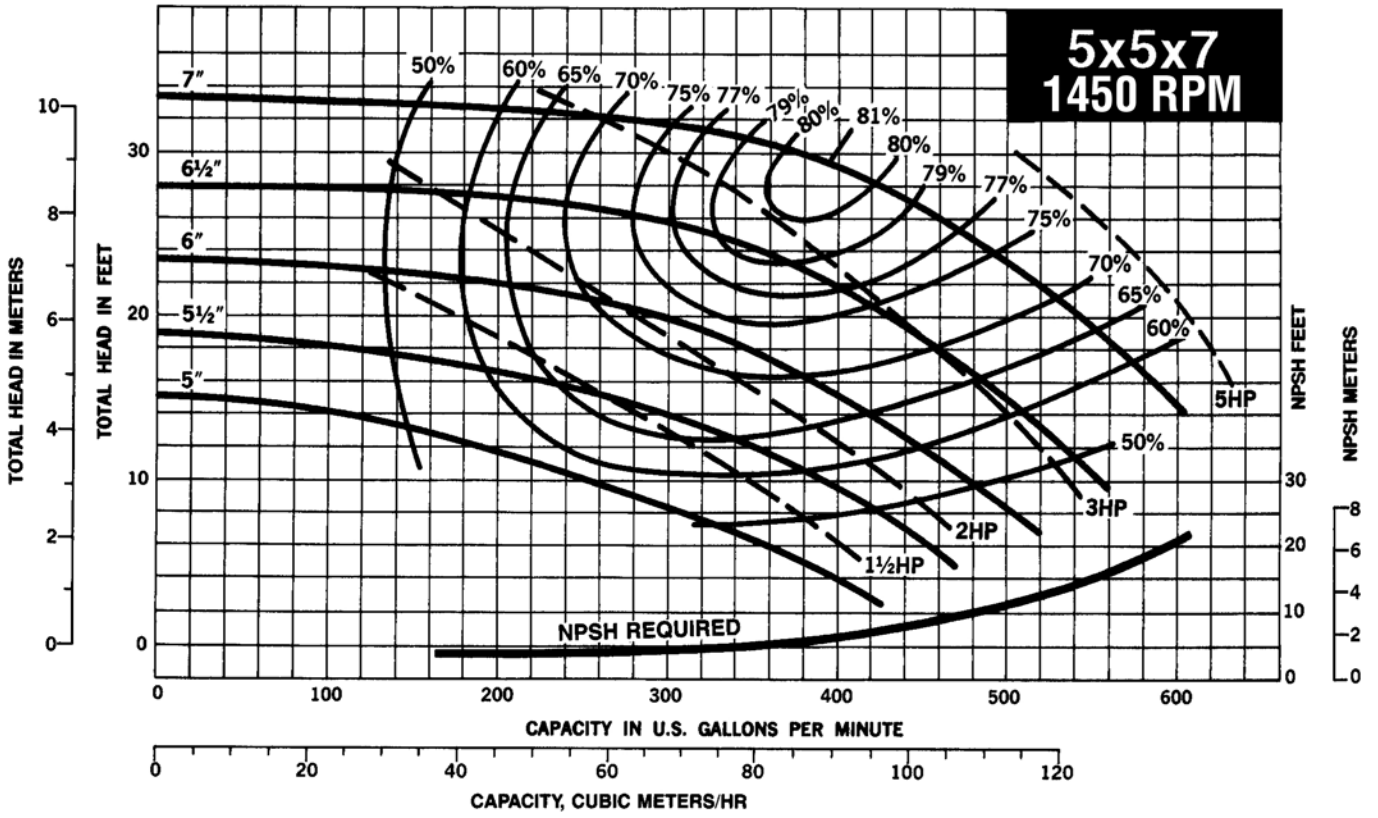

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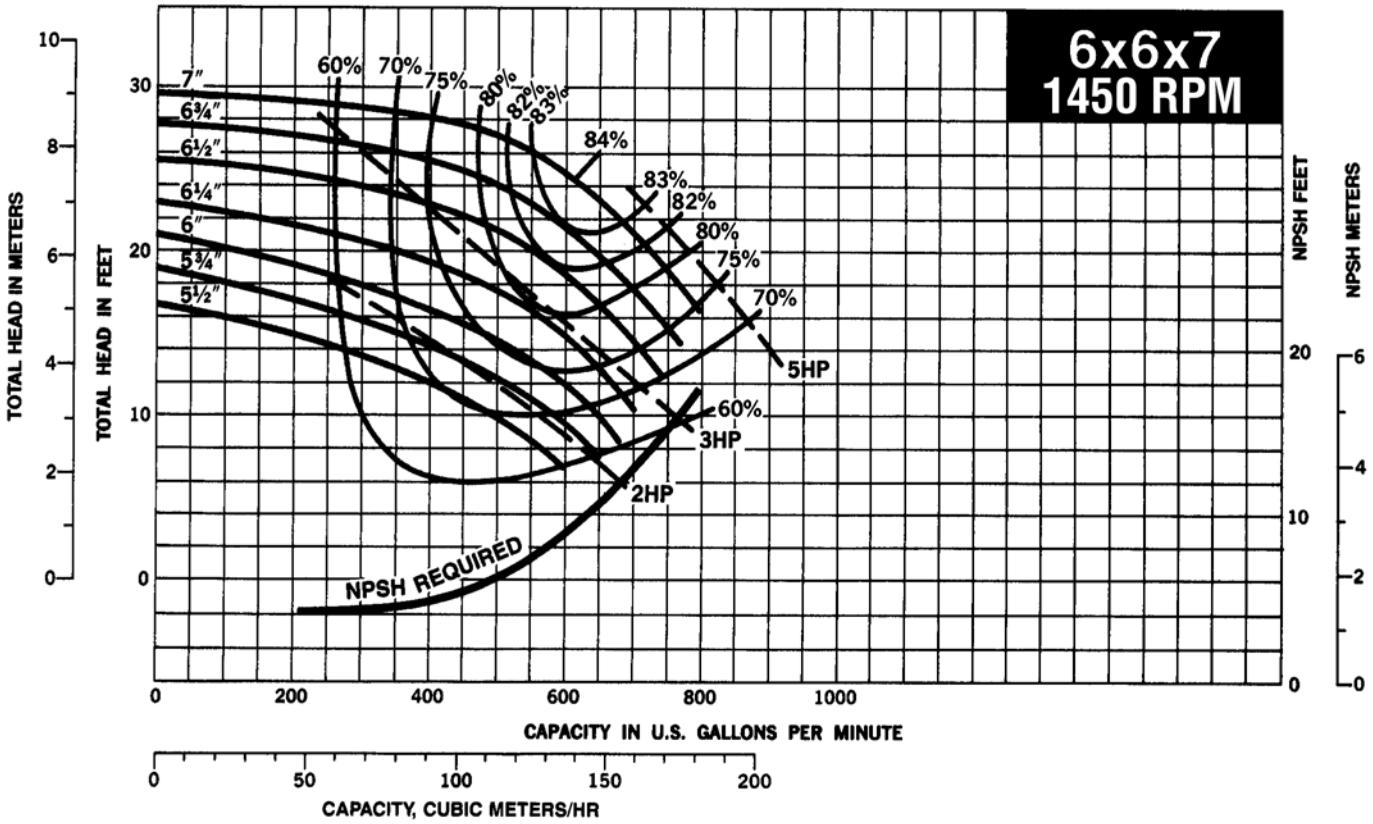


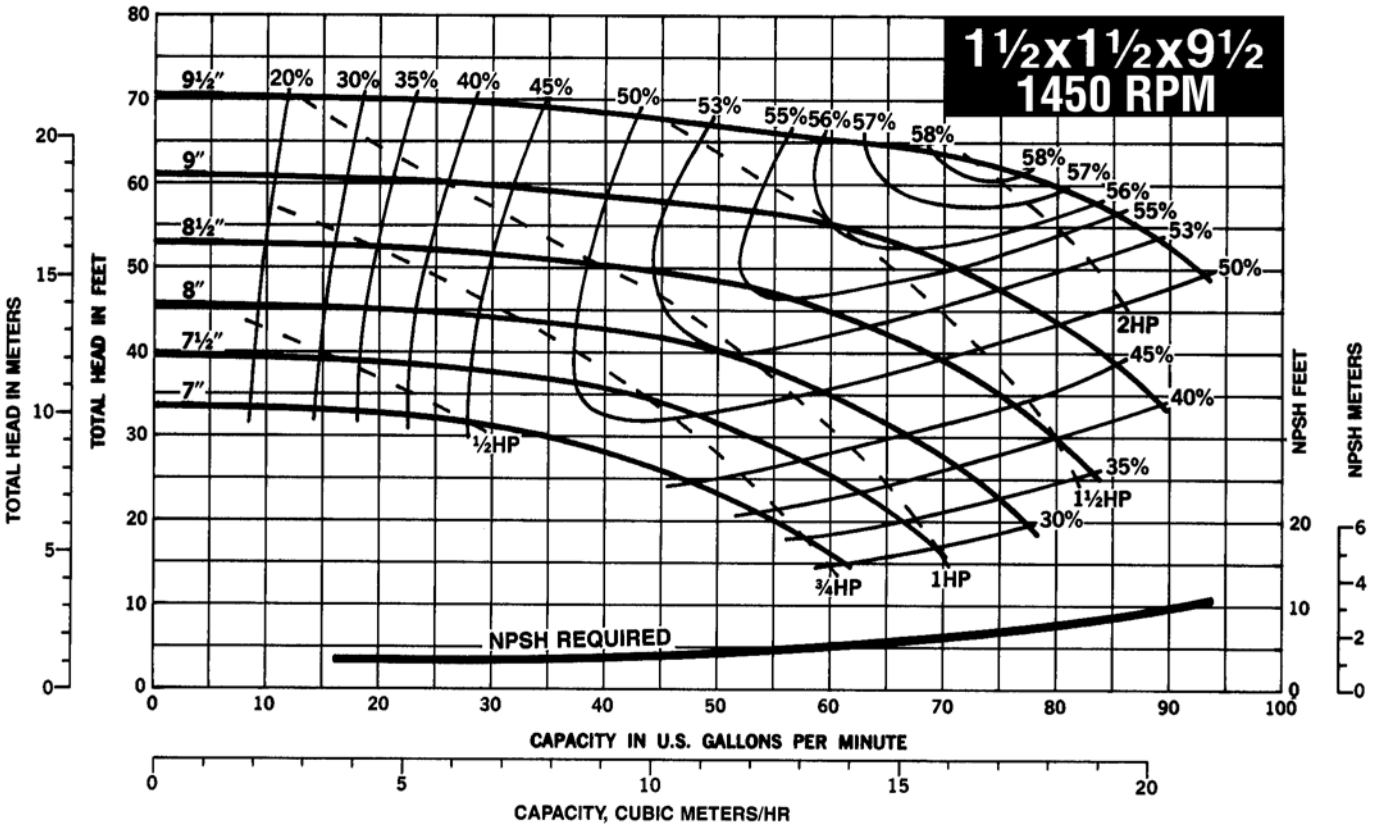

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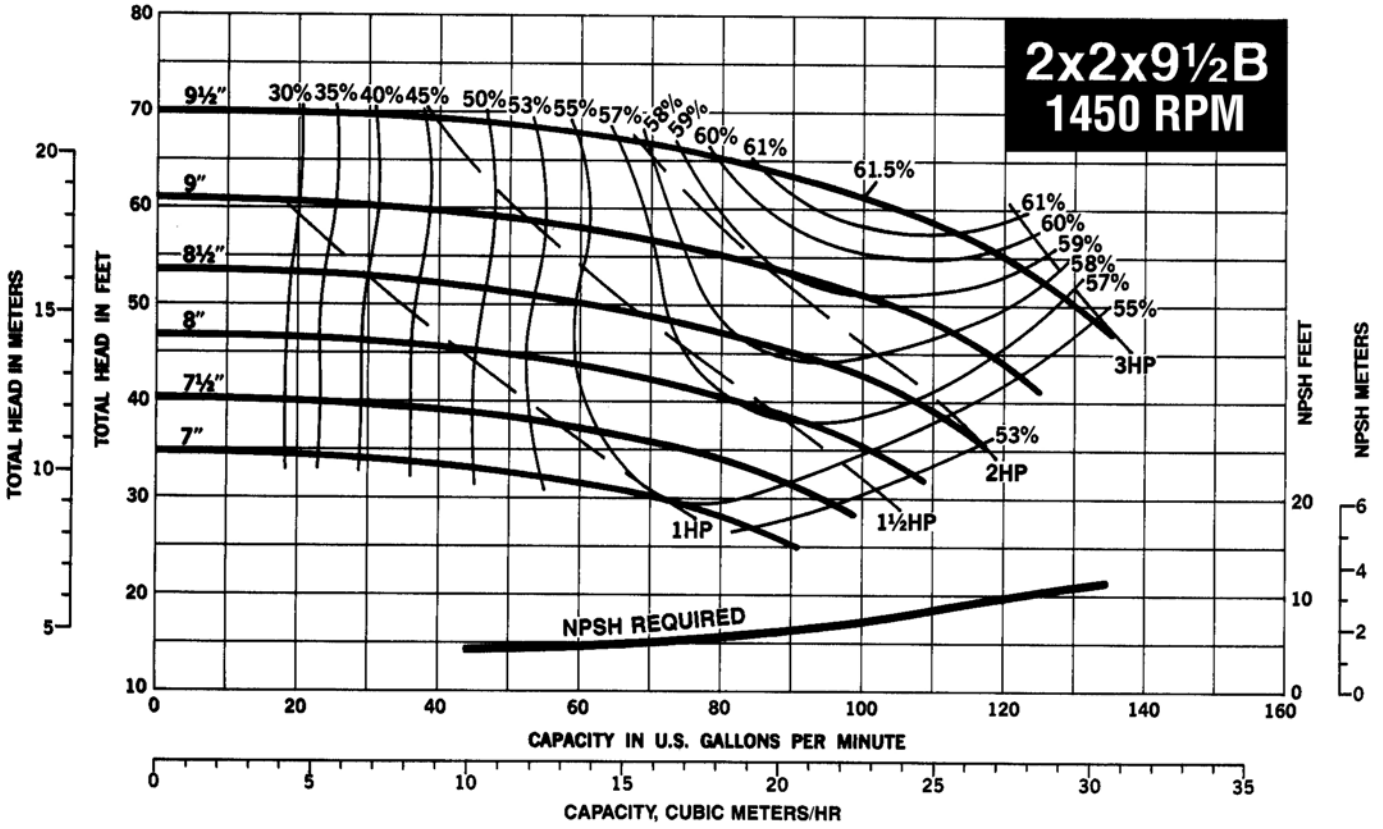


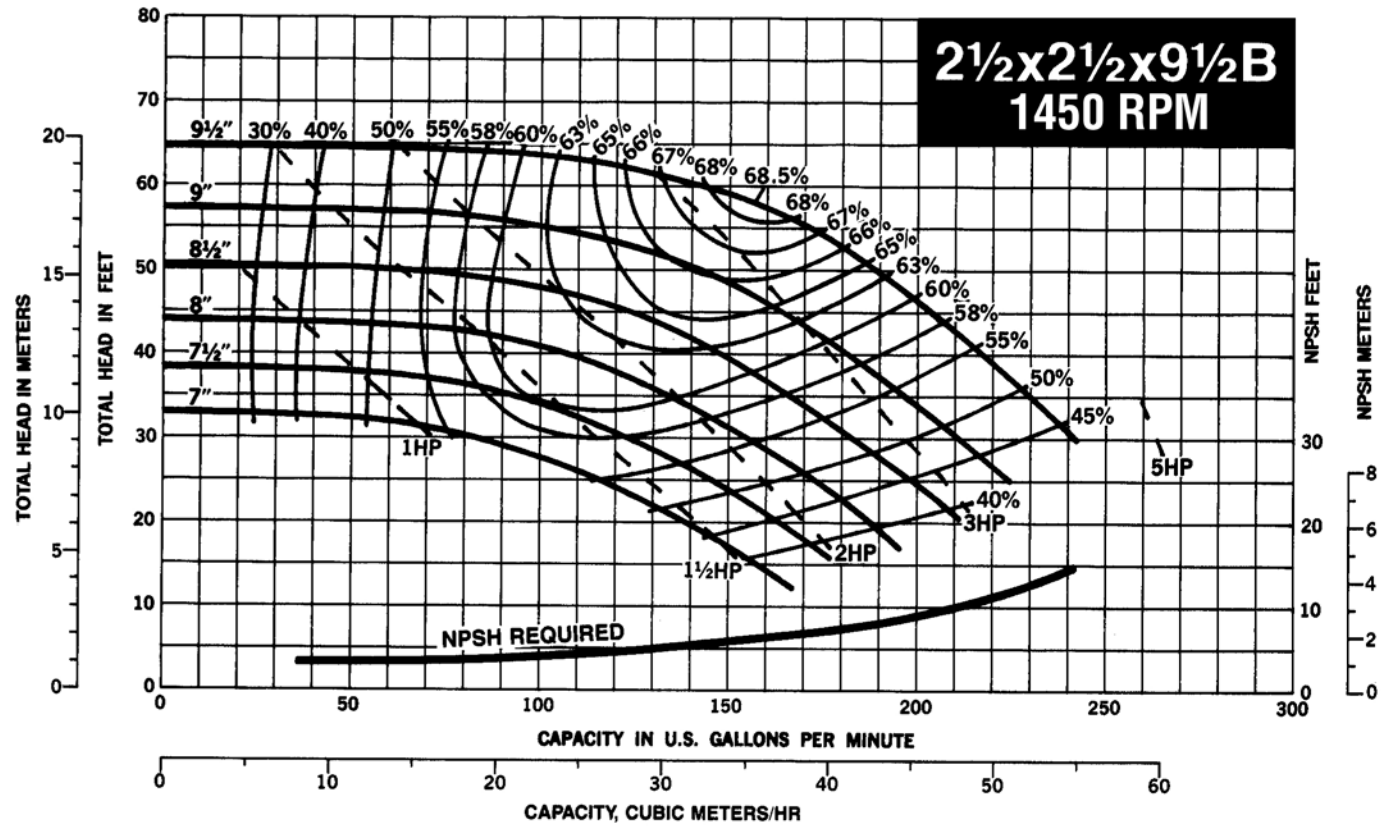

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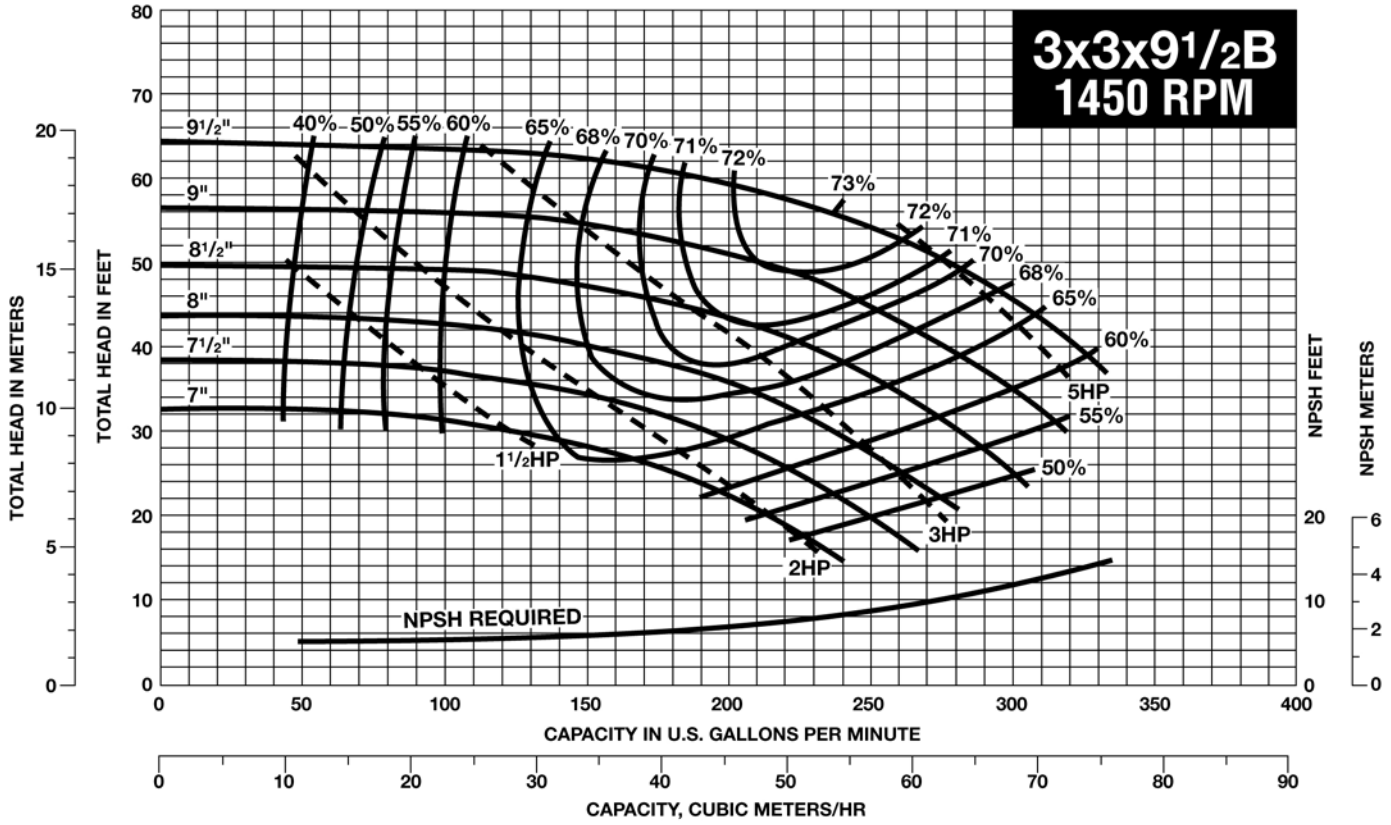


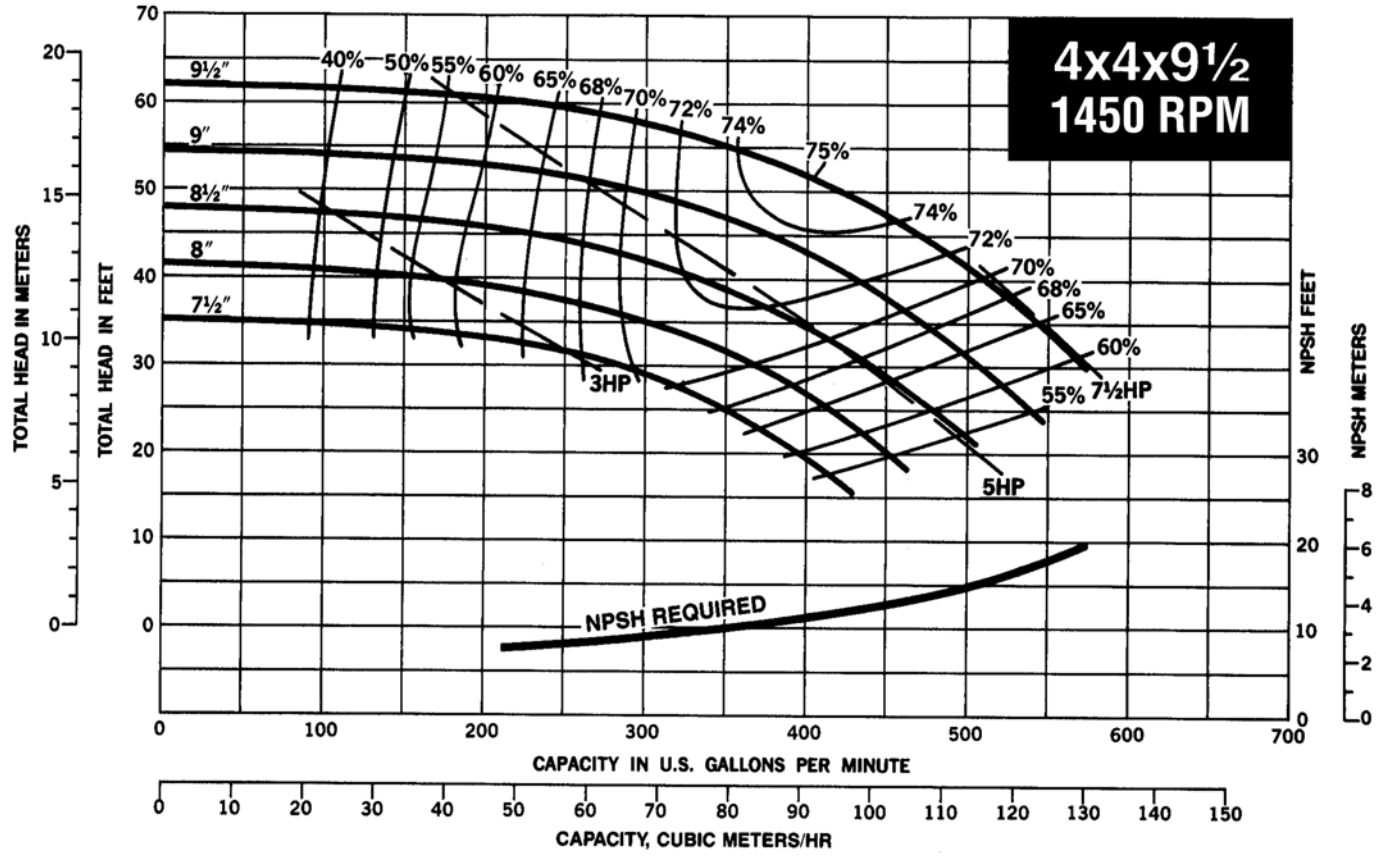

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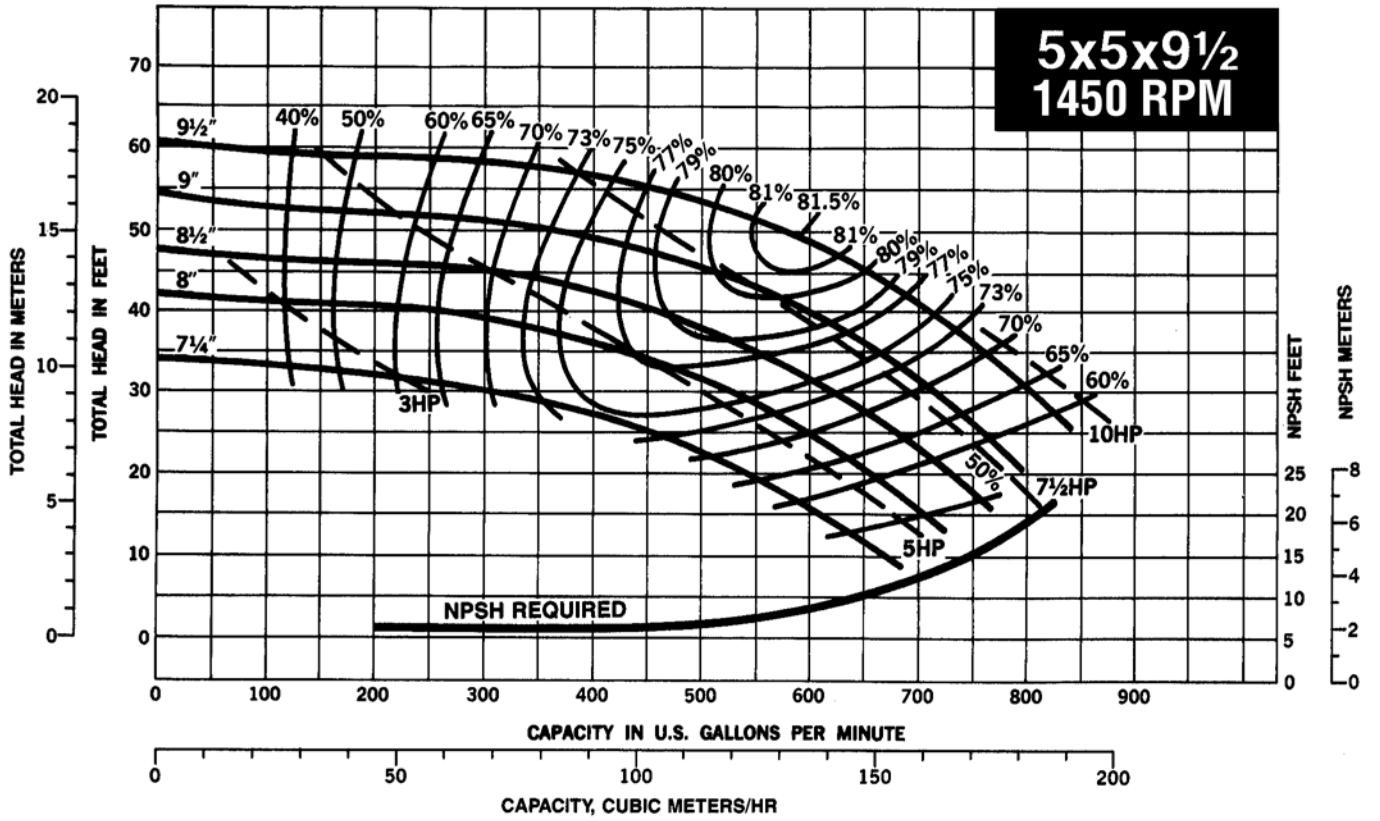


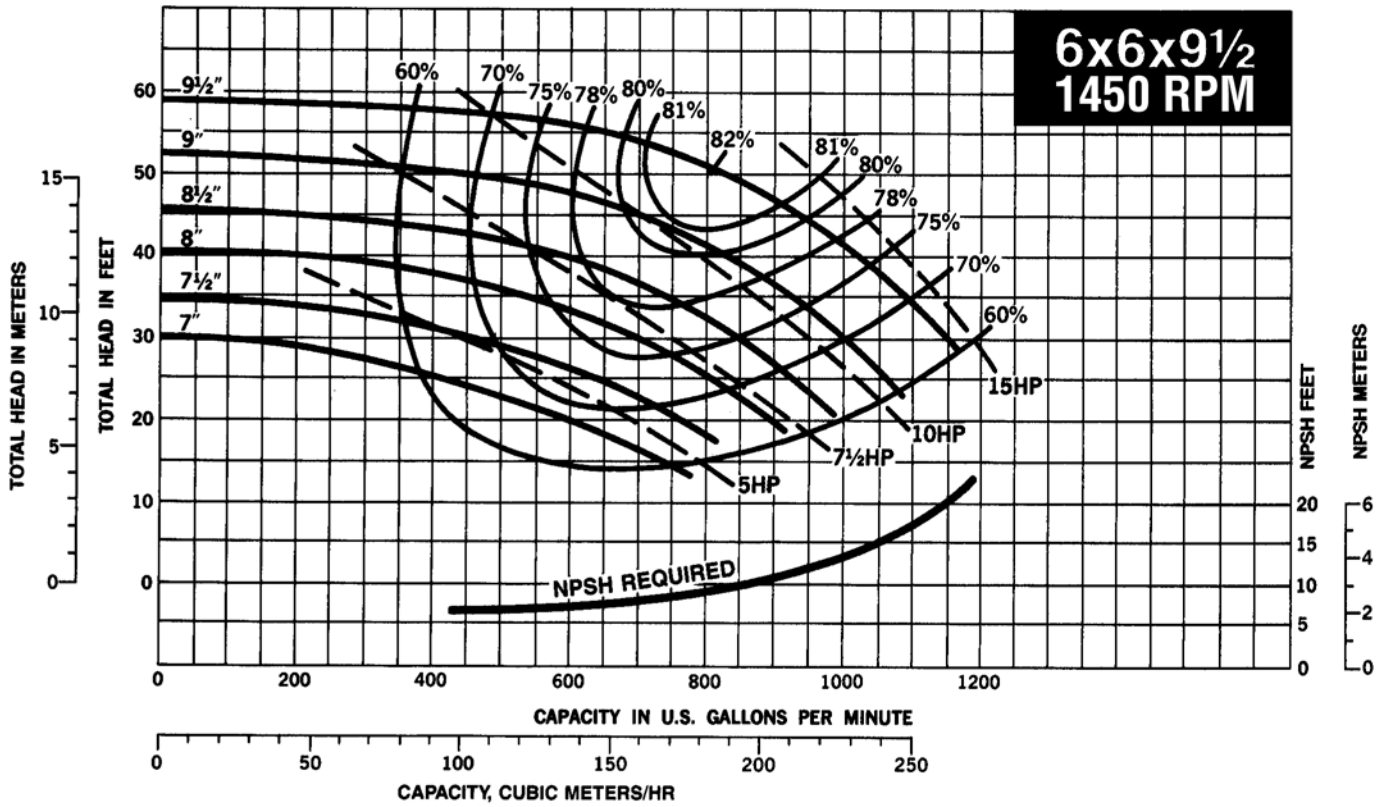

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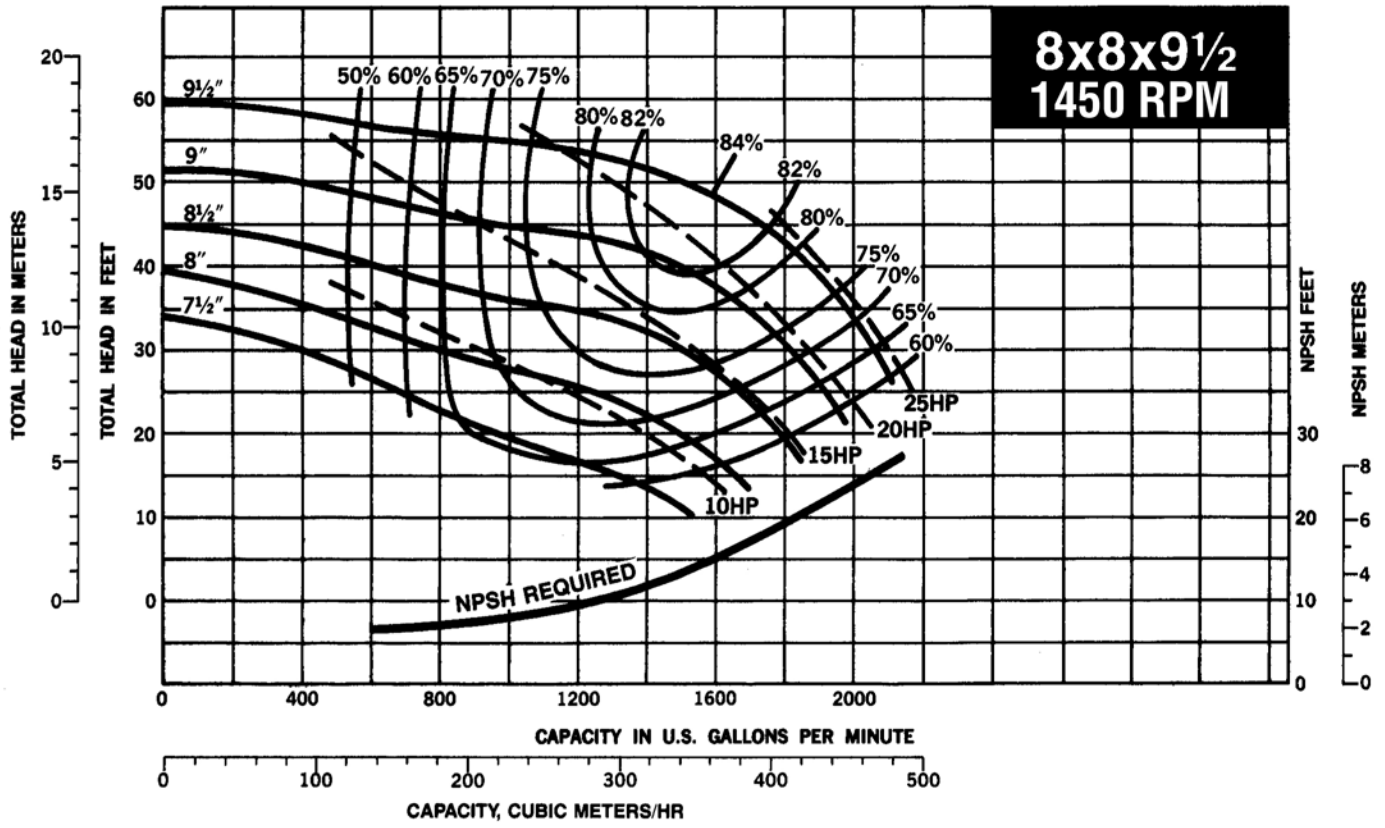


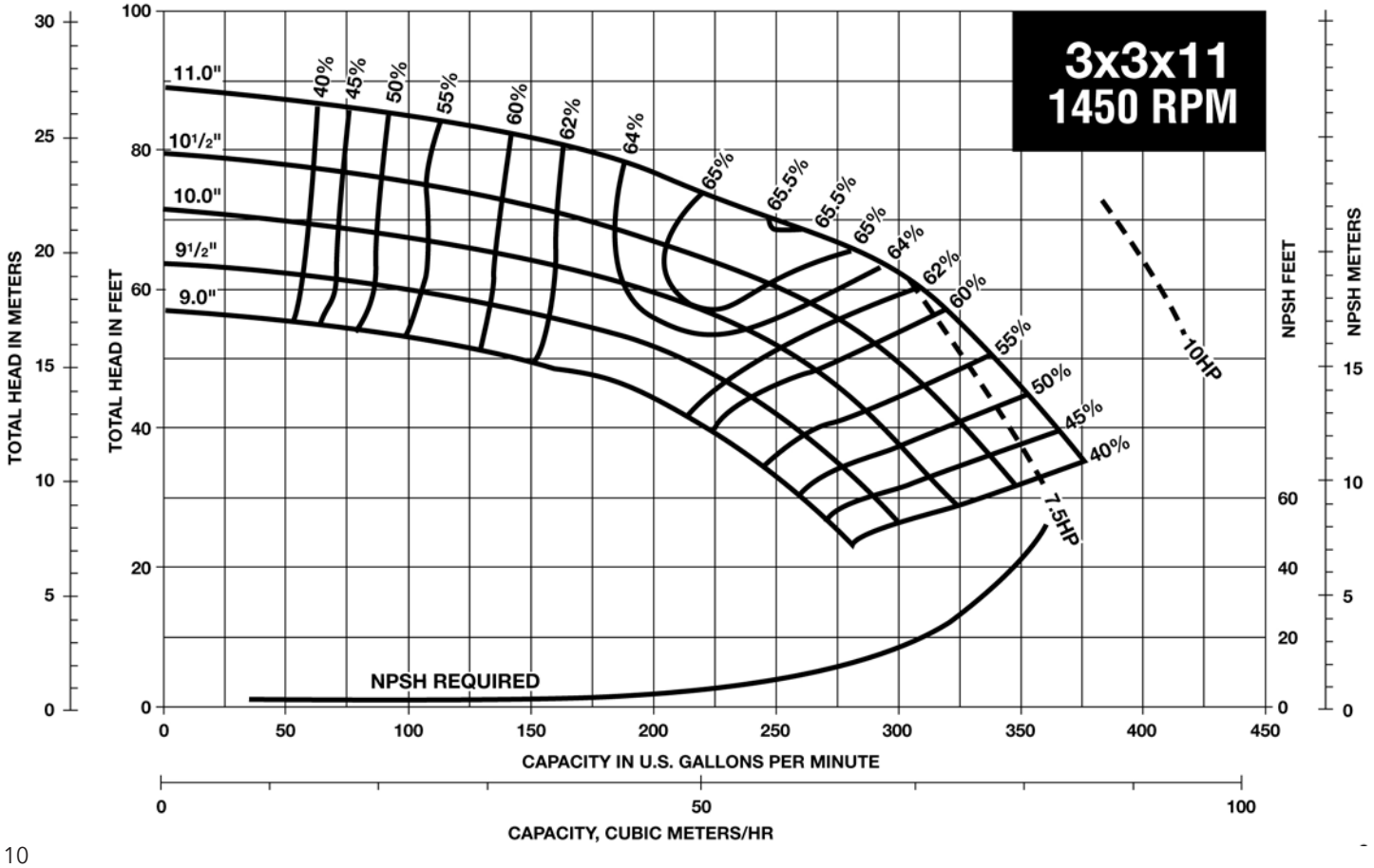

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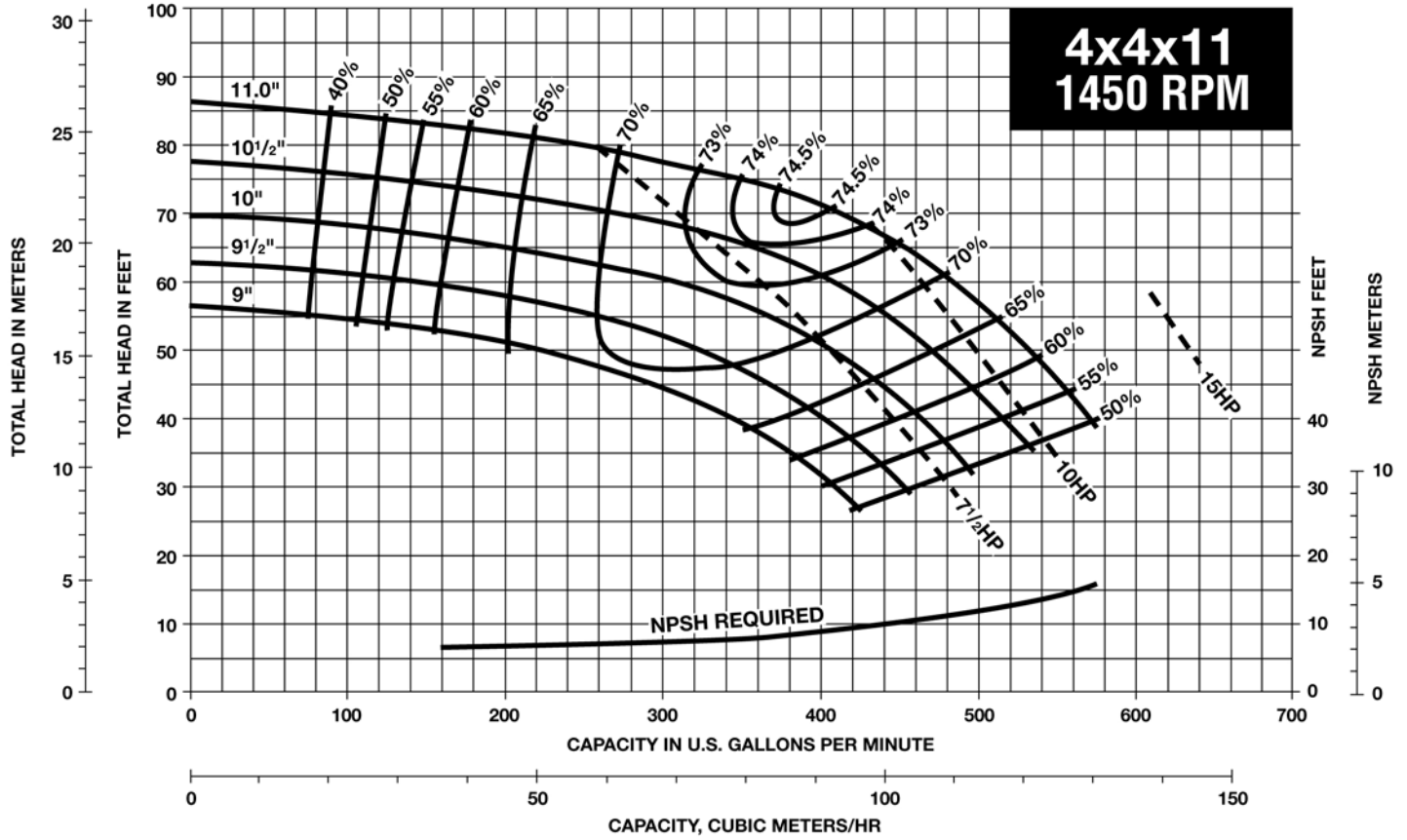


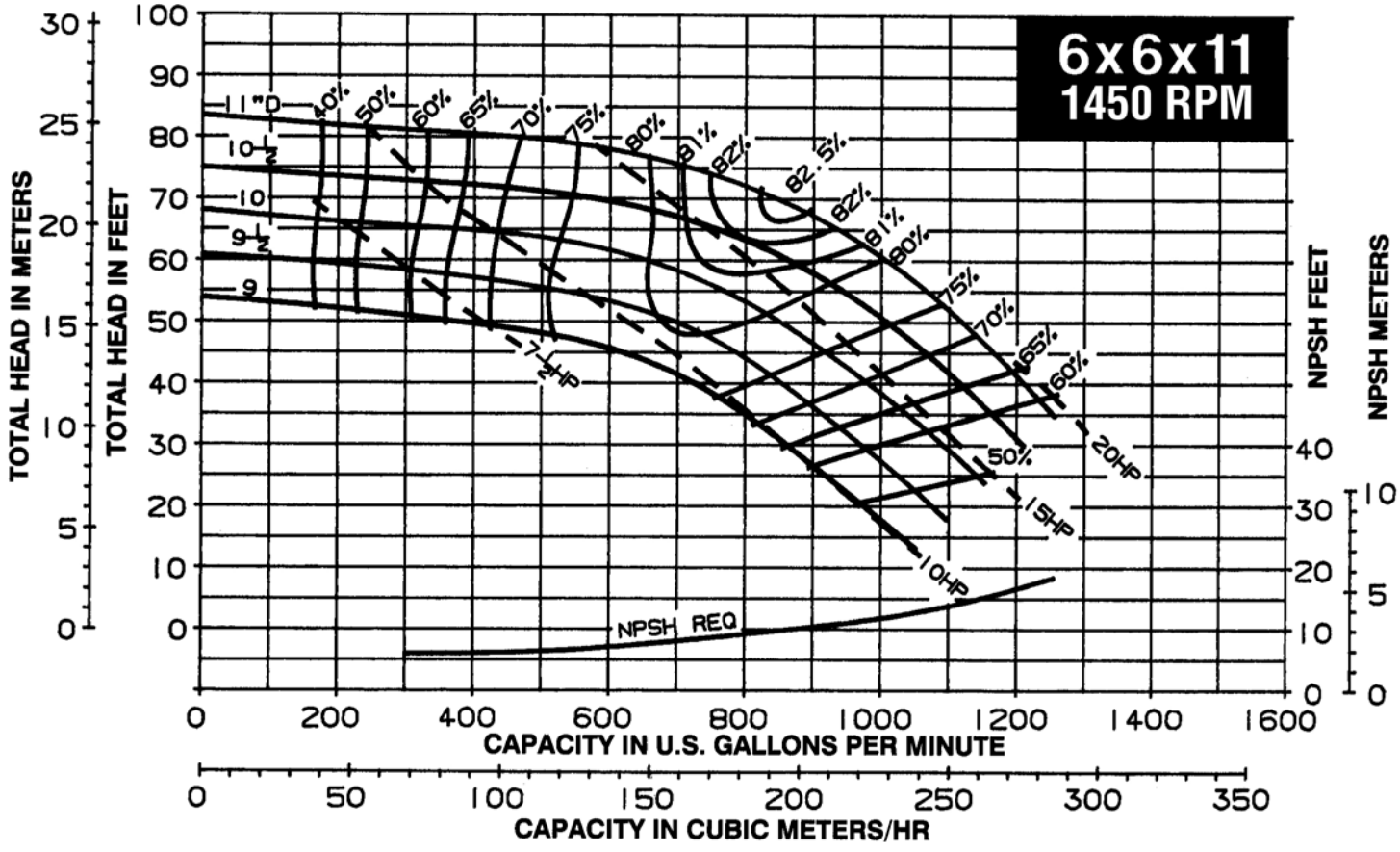

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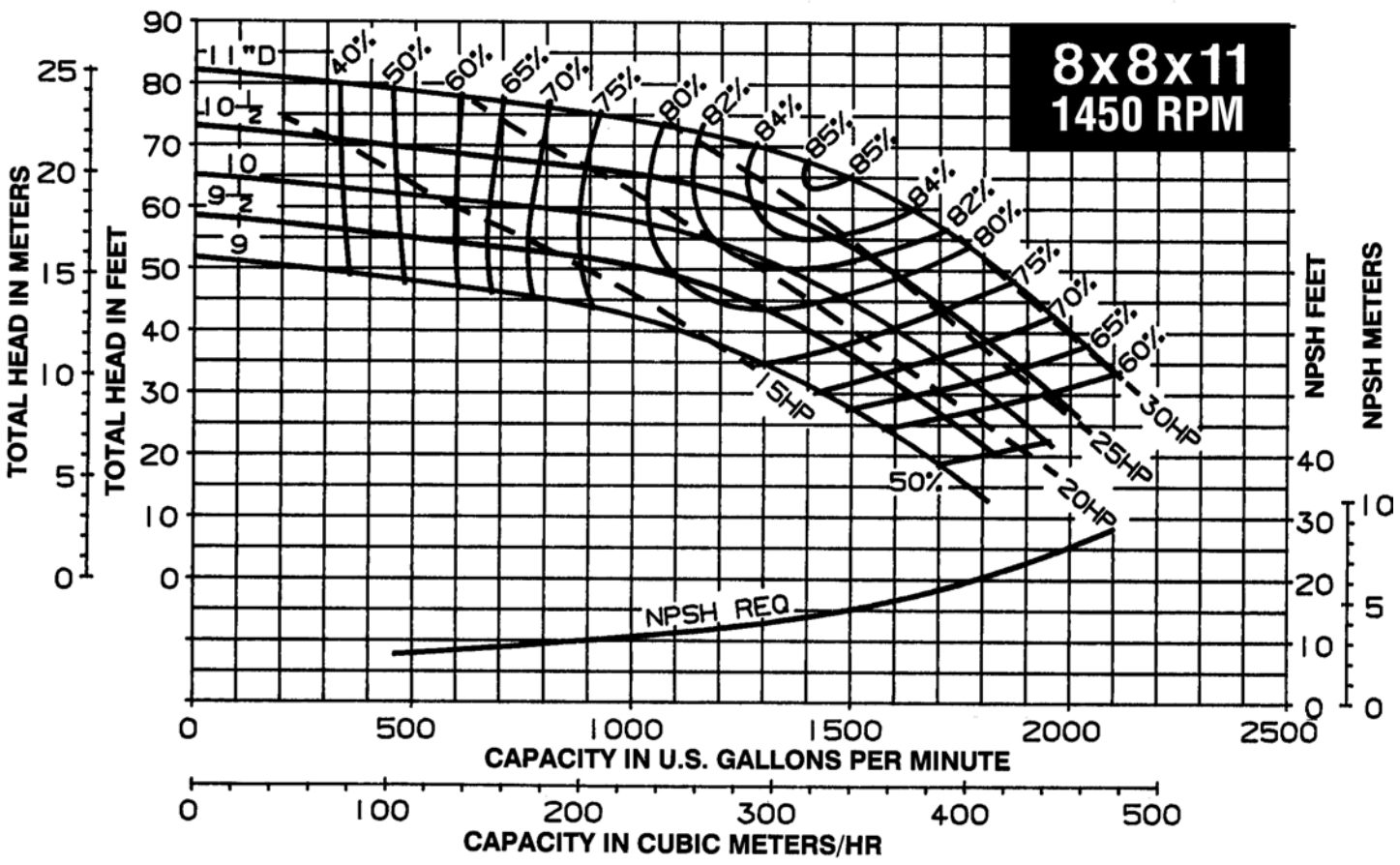


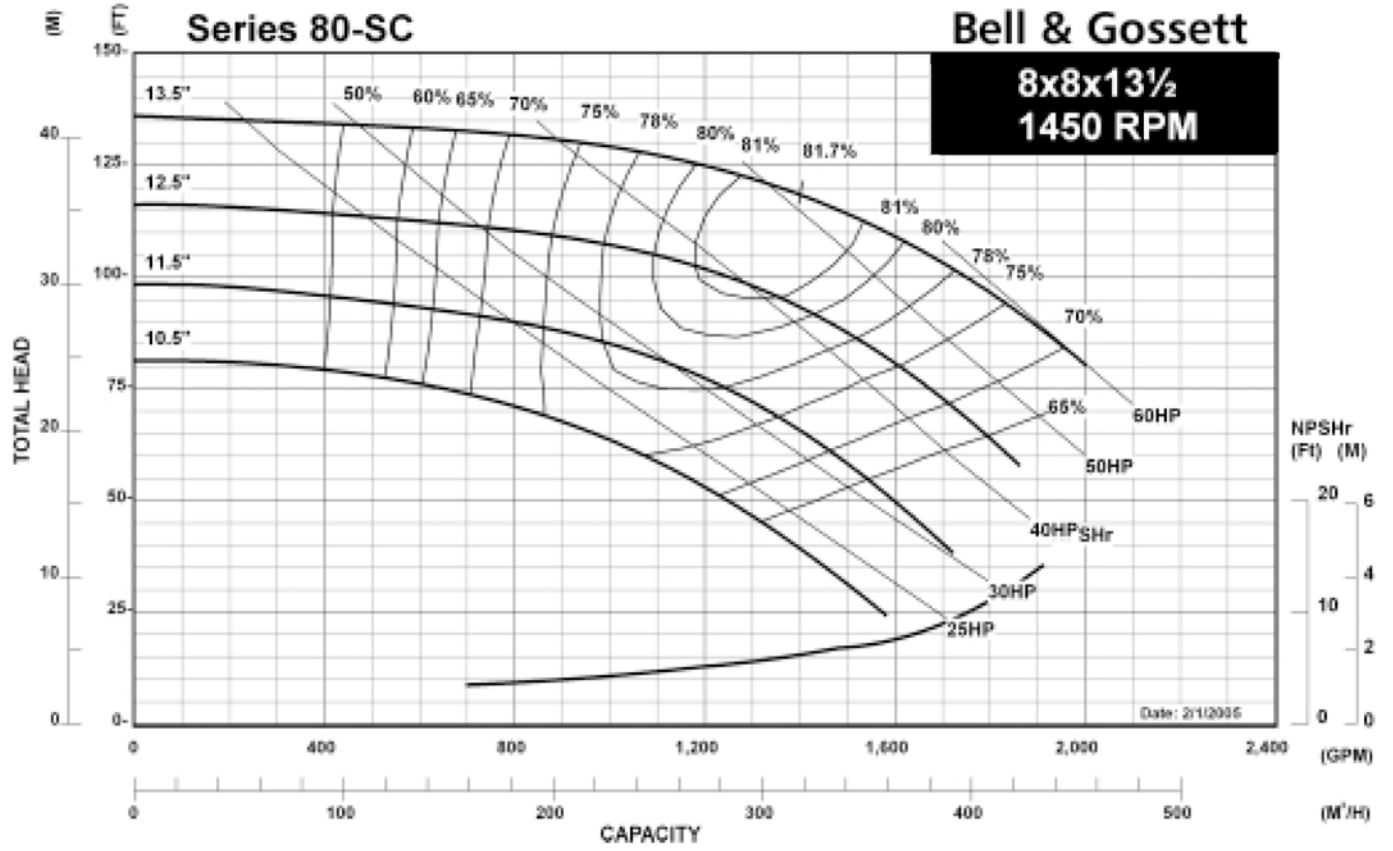

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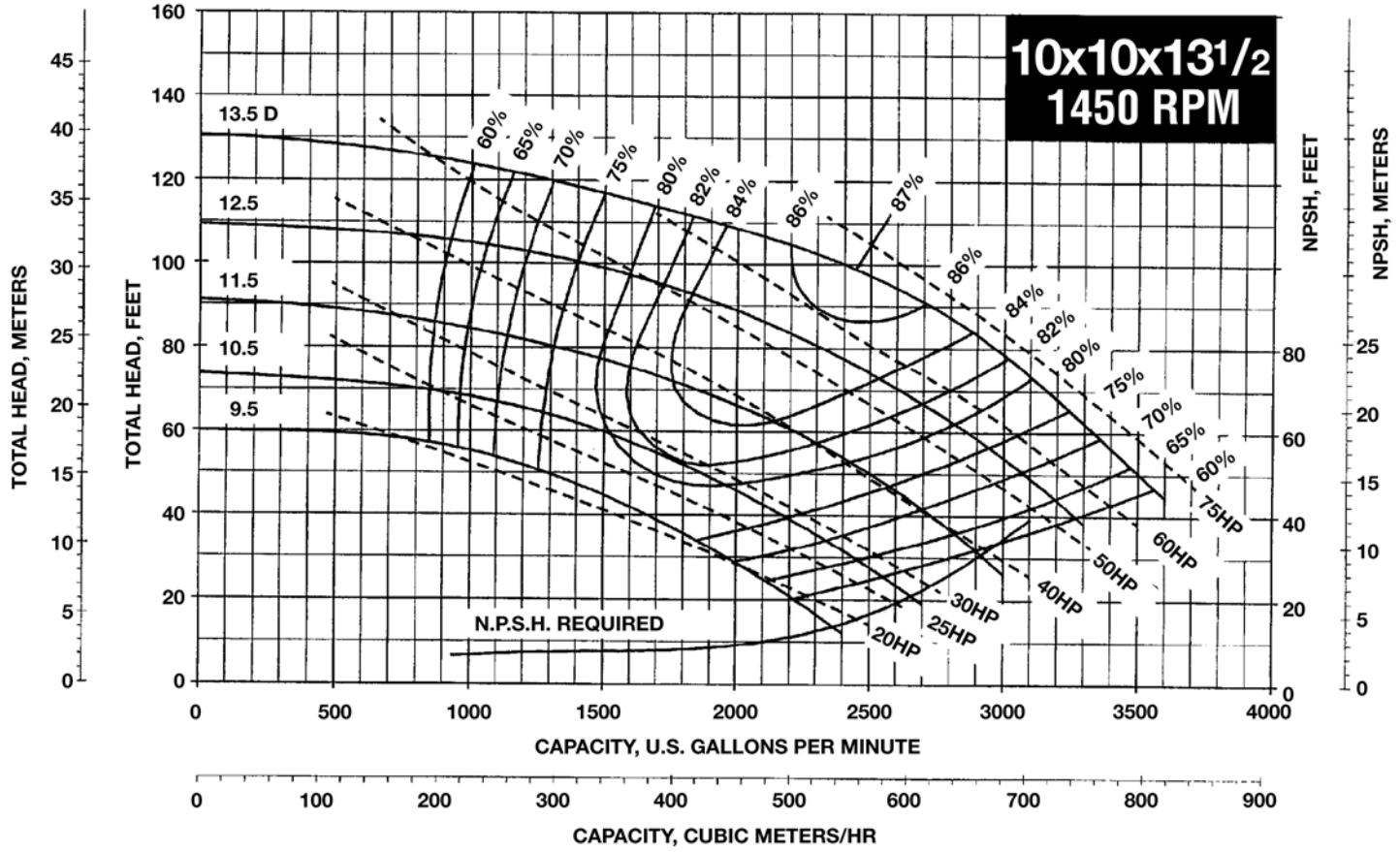
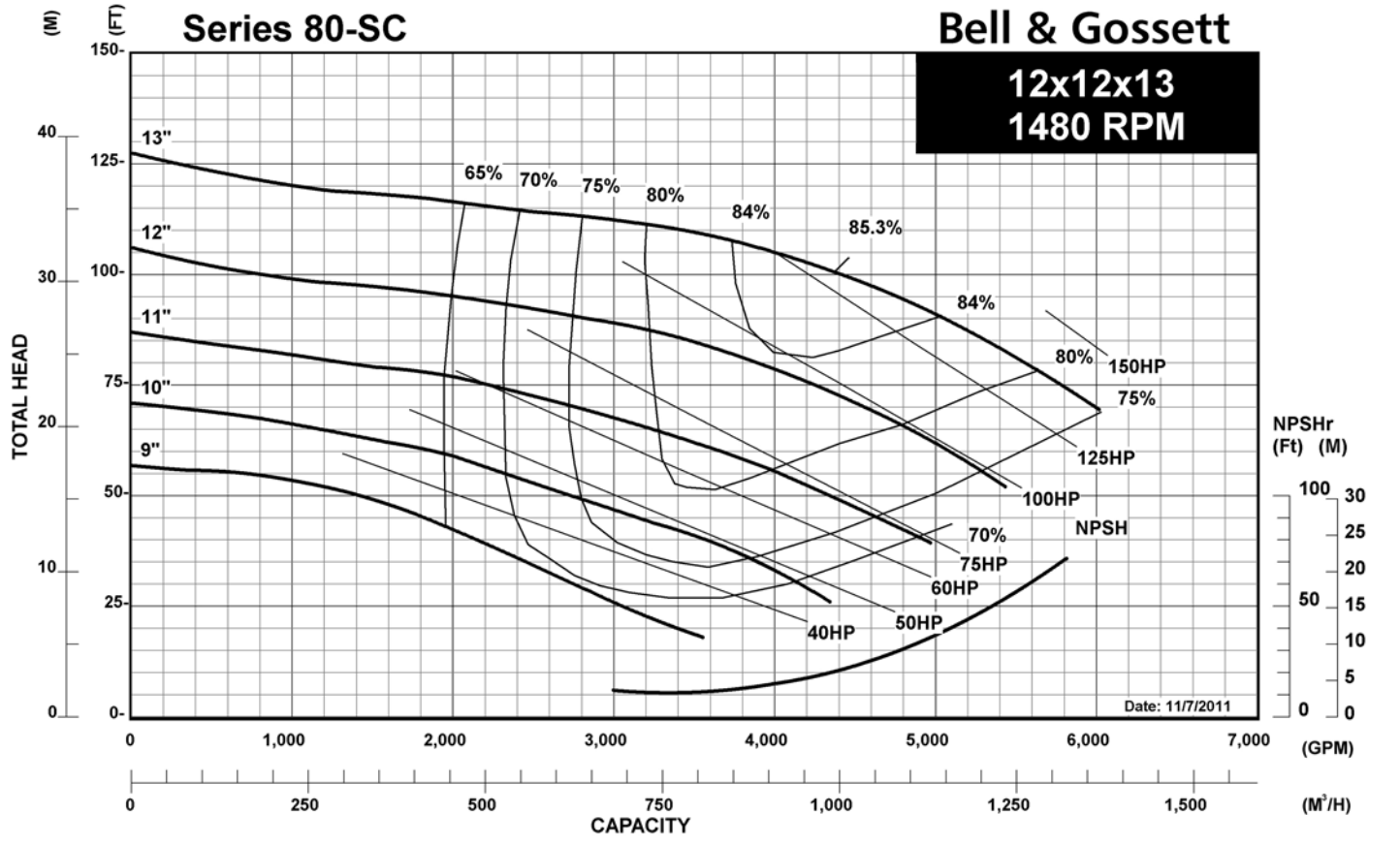
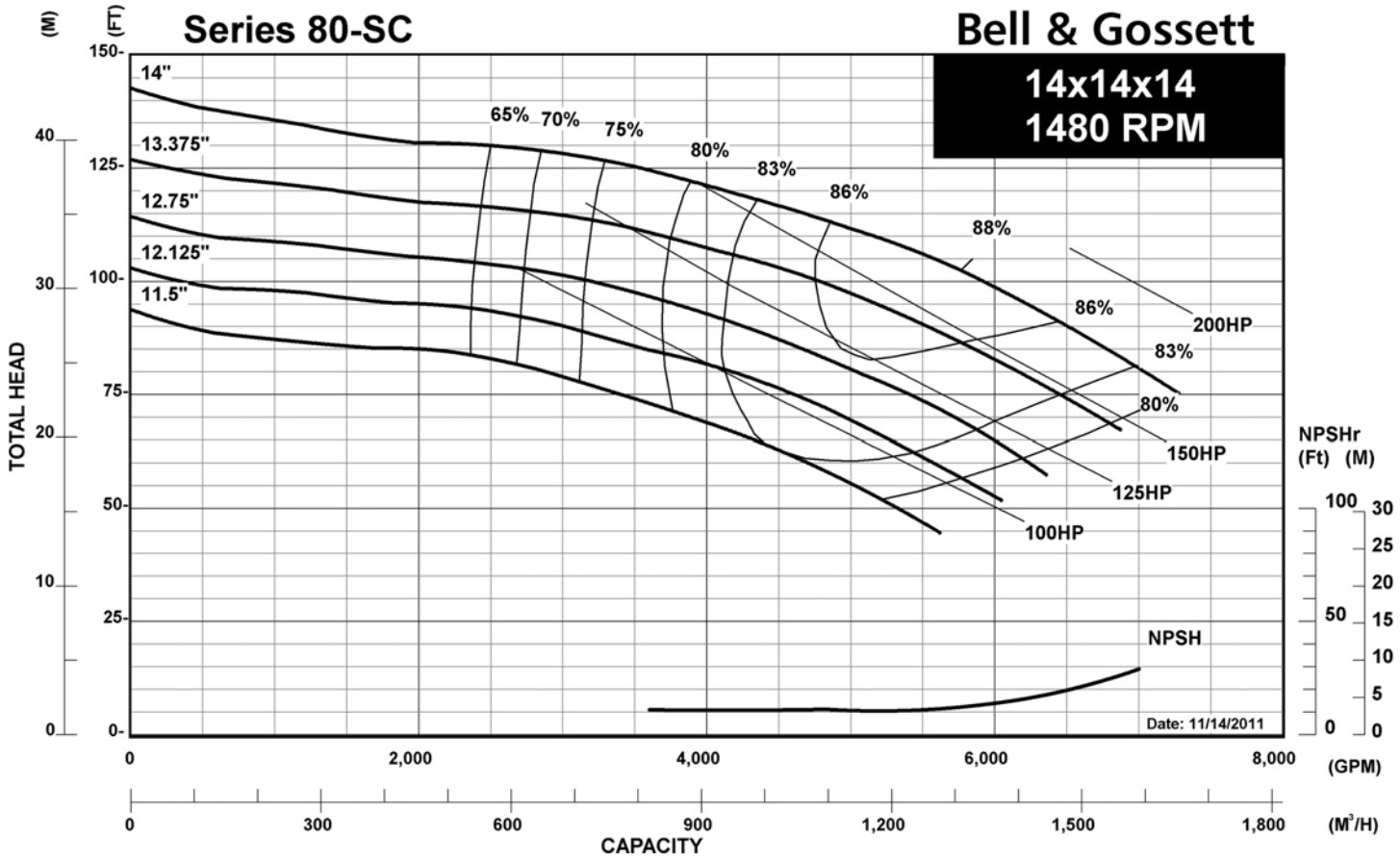
Curves based upon shop test using clear cold water at a temperature not over 85°F.



# Series 80-SC Selection Curves - 1480 RPM

**Curves based upon shop test using clear cold waer at a temperature not over 85ºF.**



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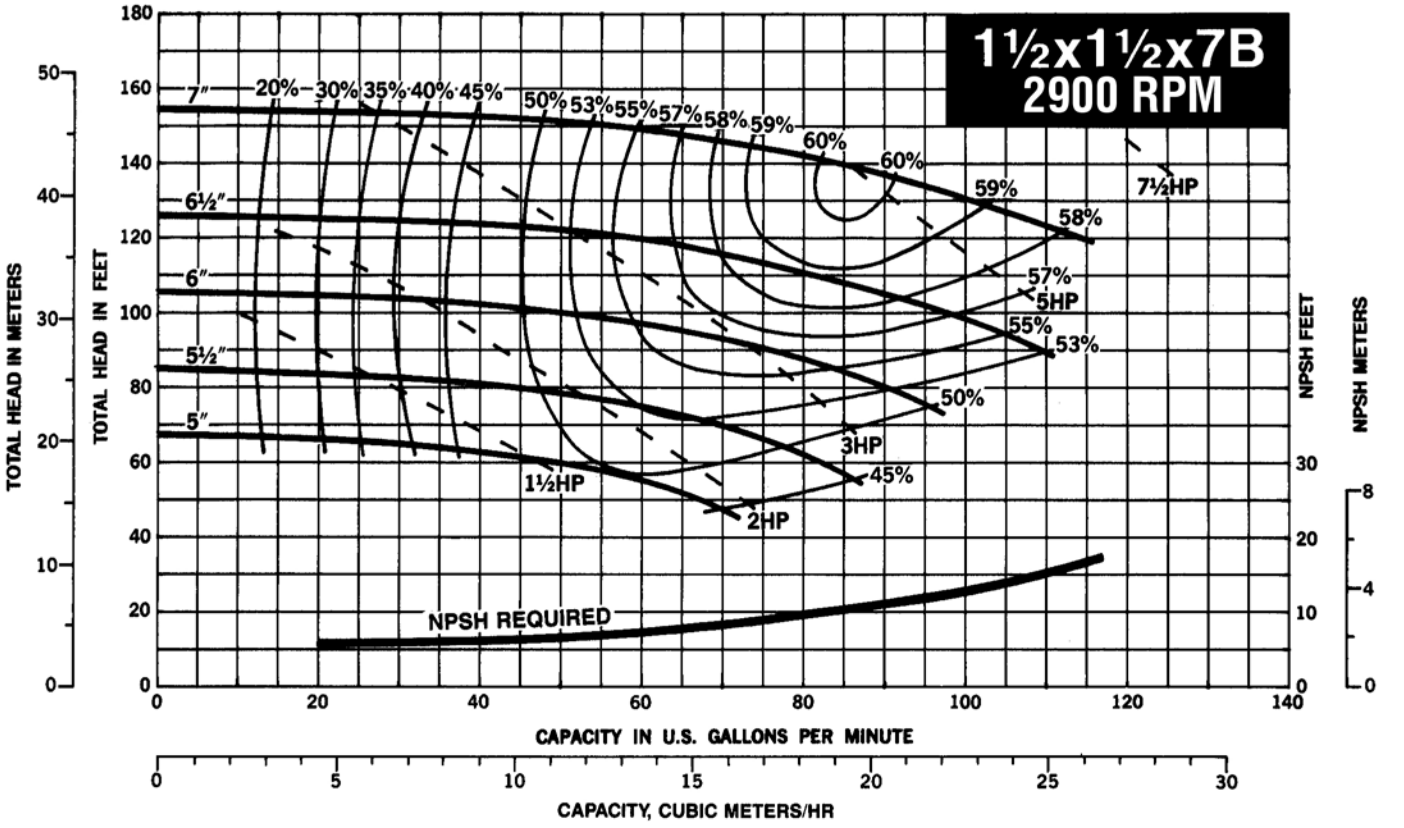
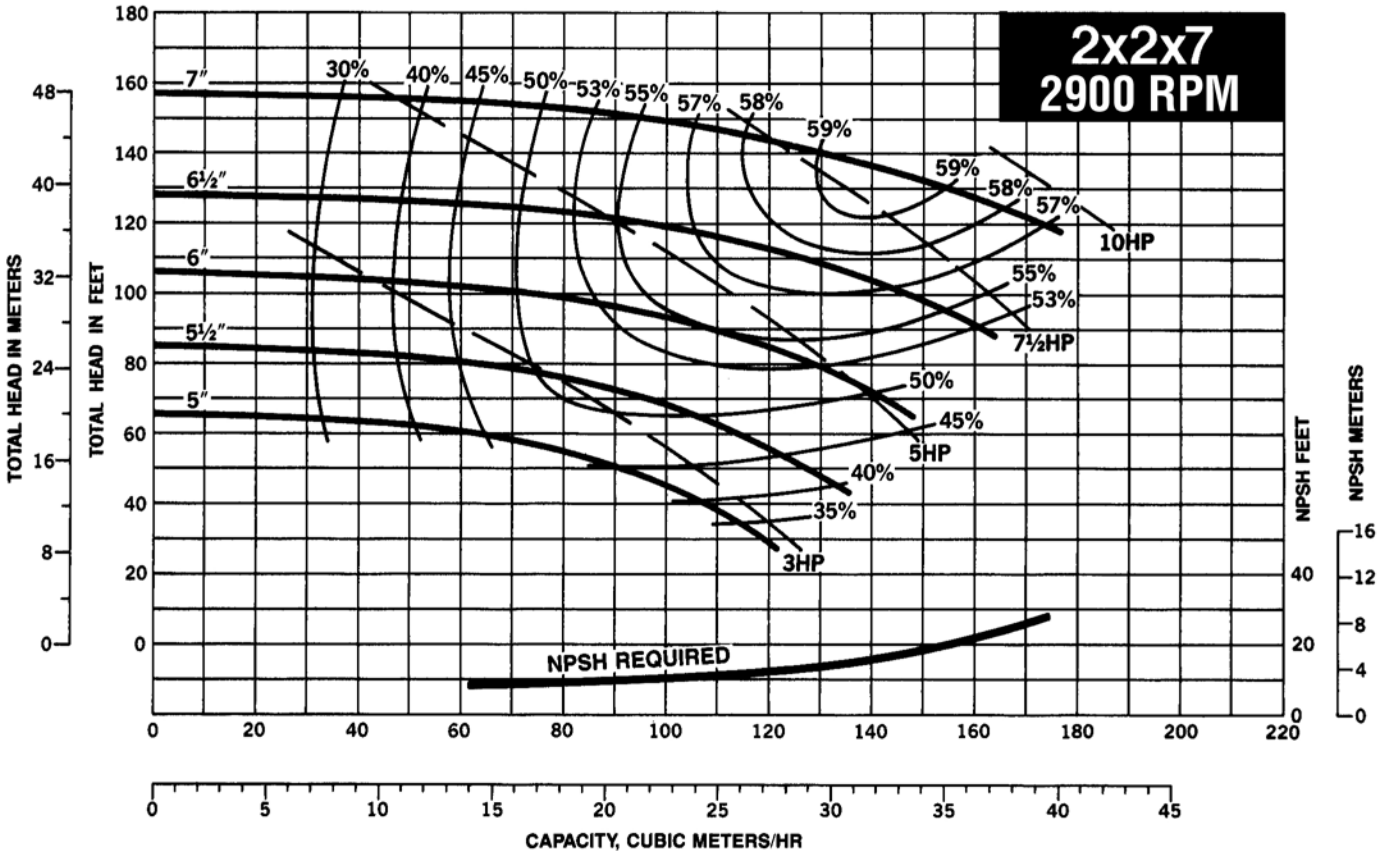
Curves based upon shop test using clear cold water at a temperature not over 85°F.



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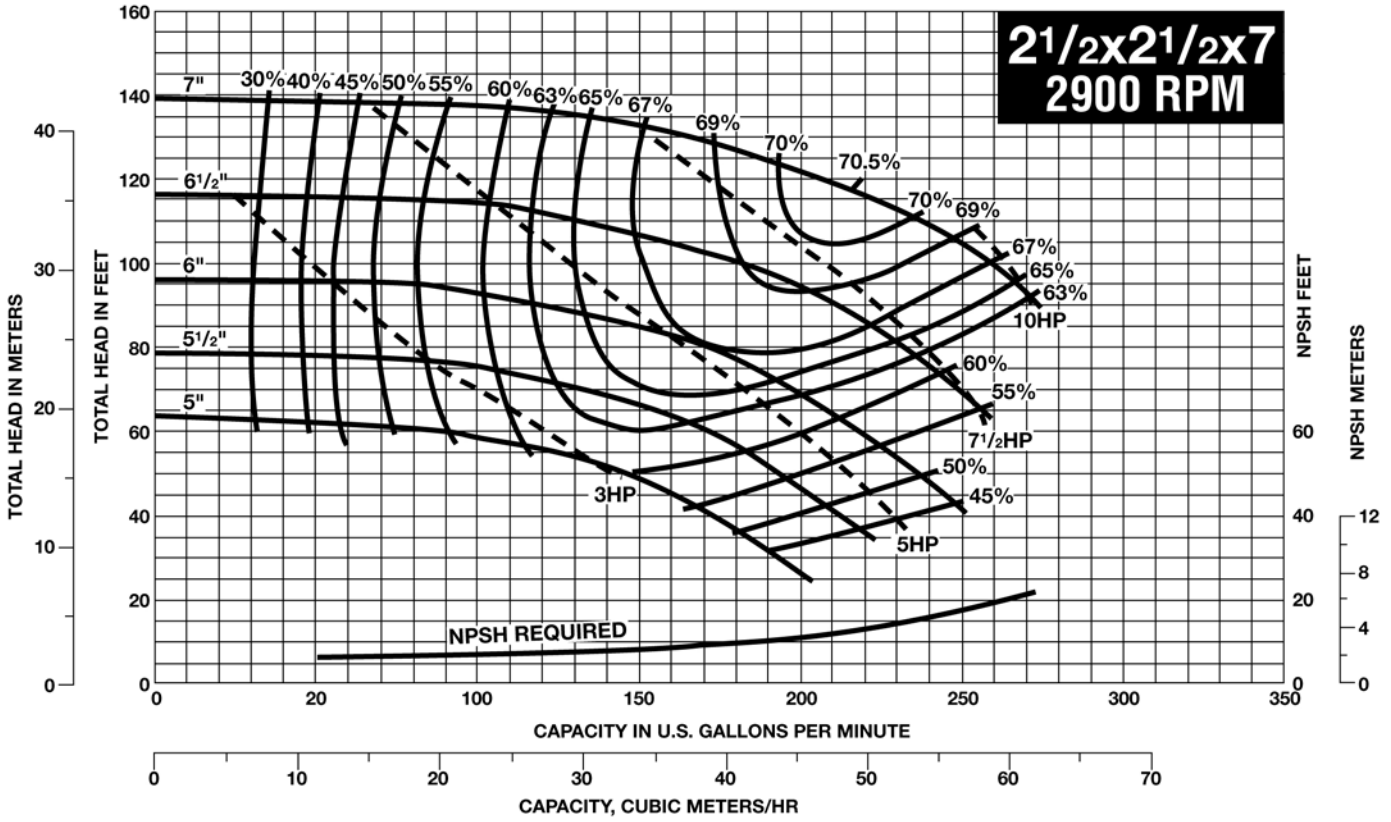
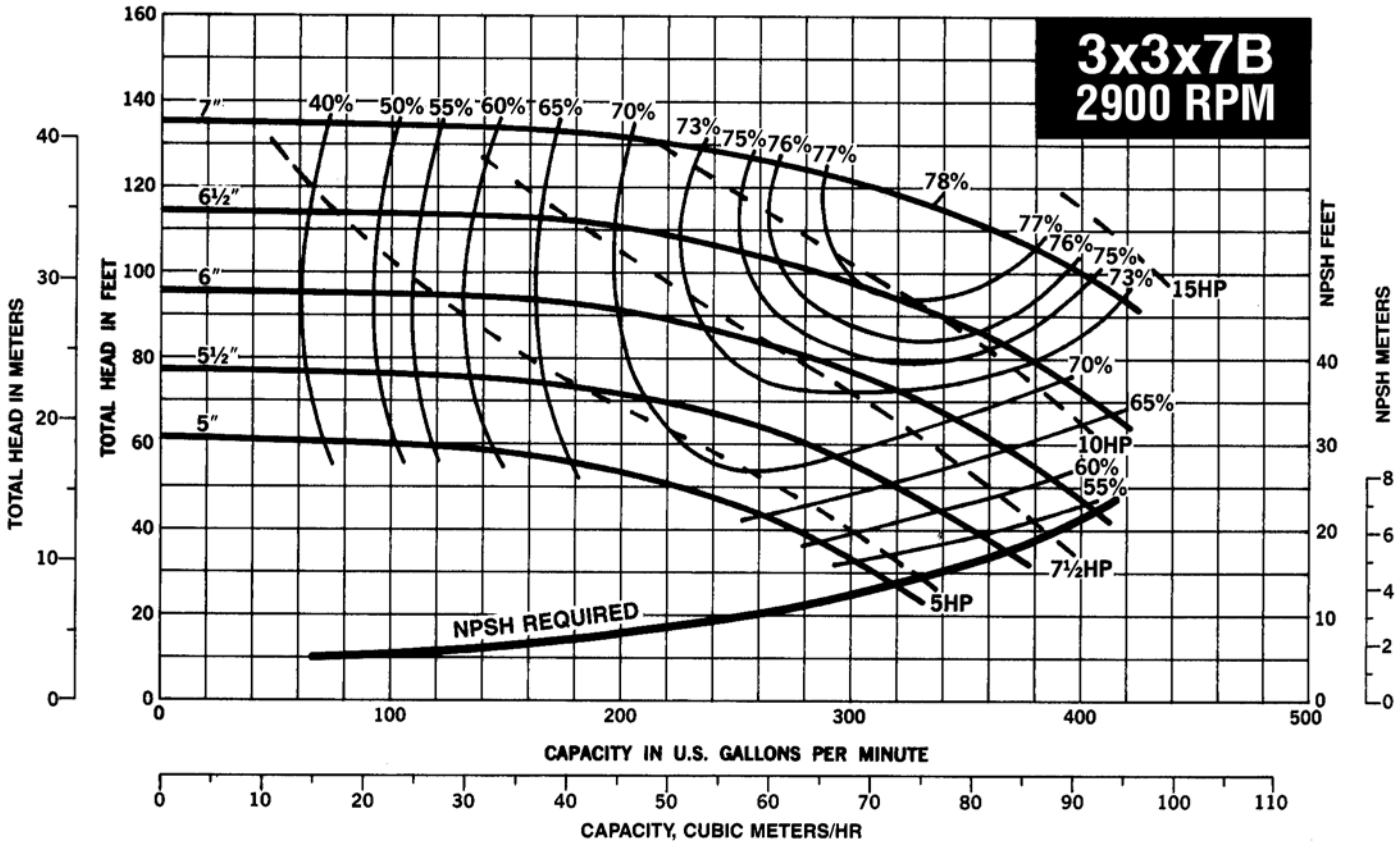
Curves based upon shop test using clear cold water at a temperature not over 85°F.



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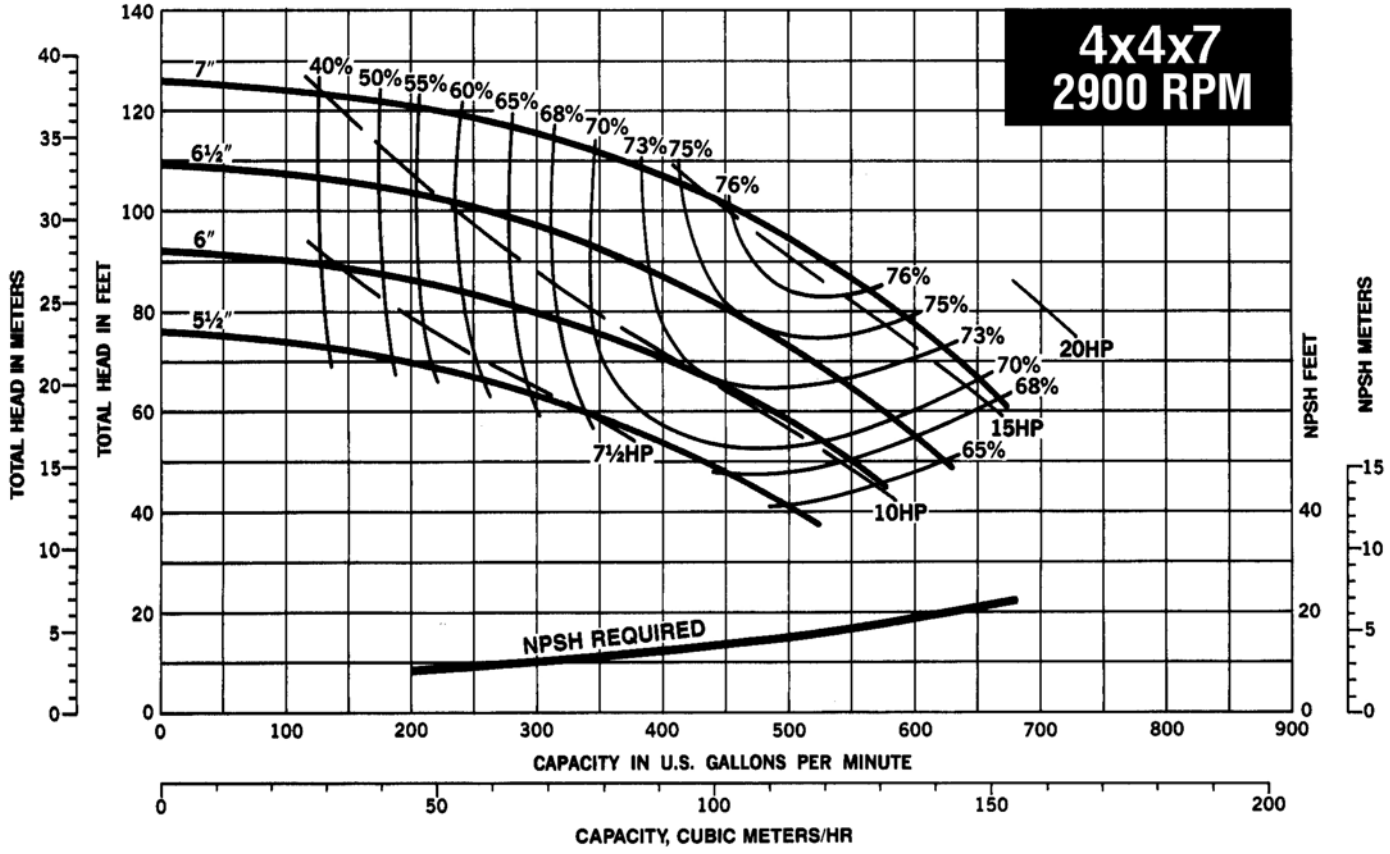


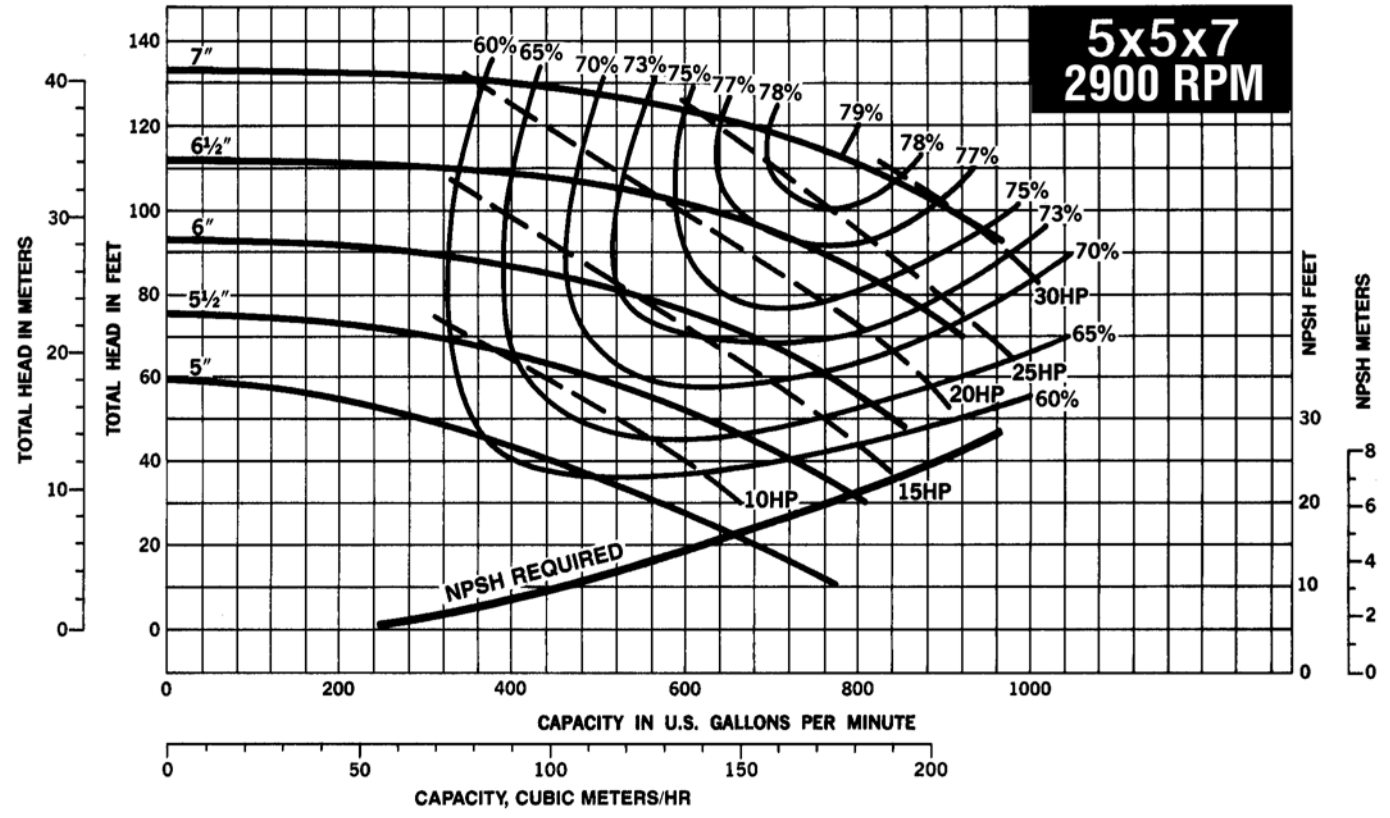

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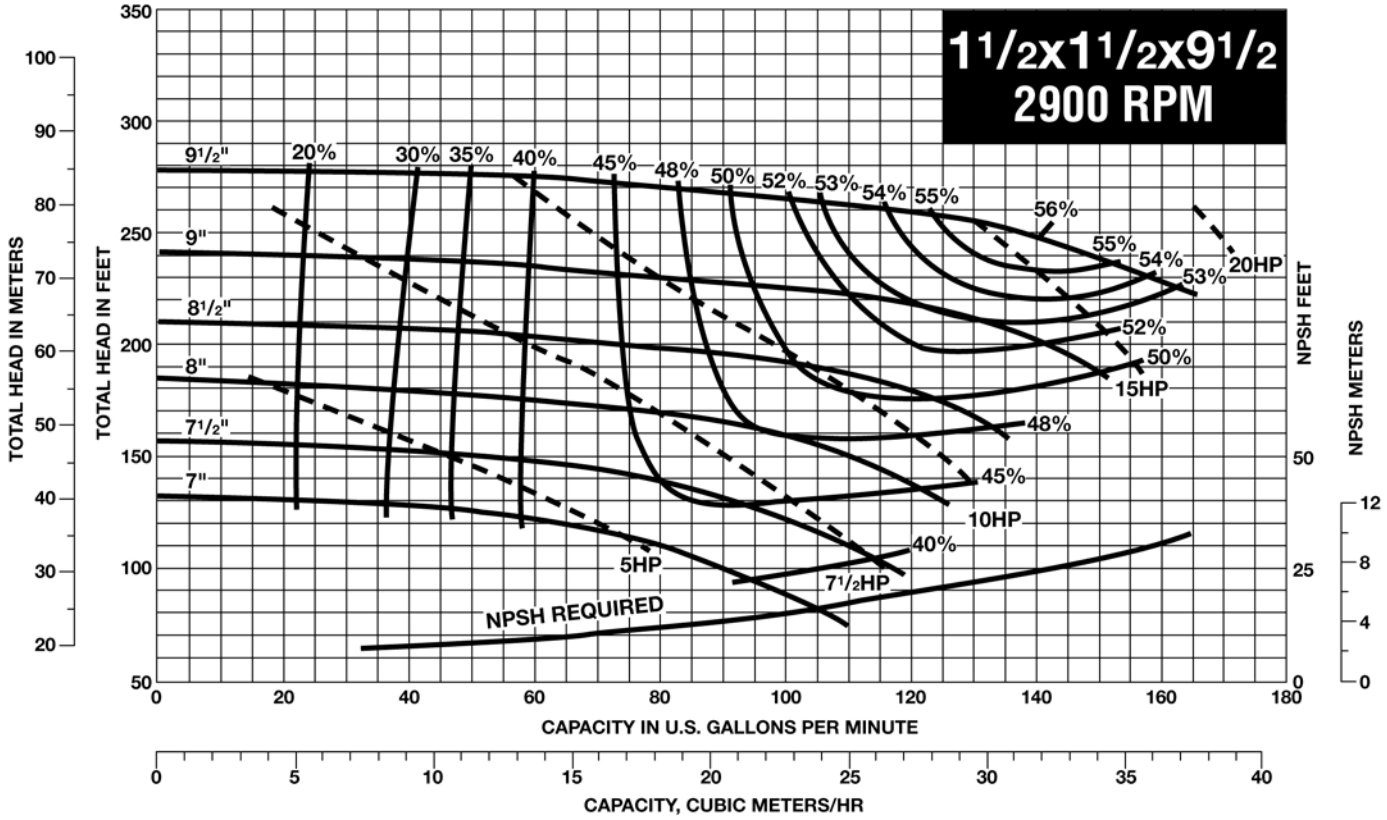
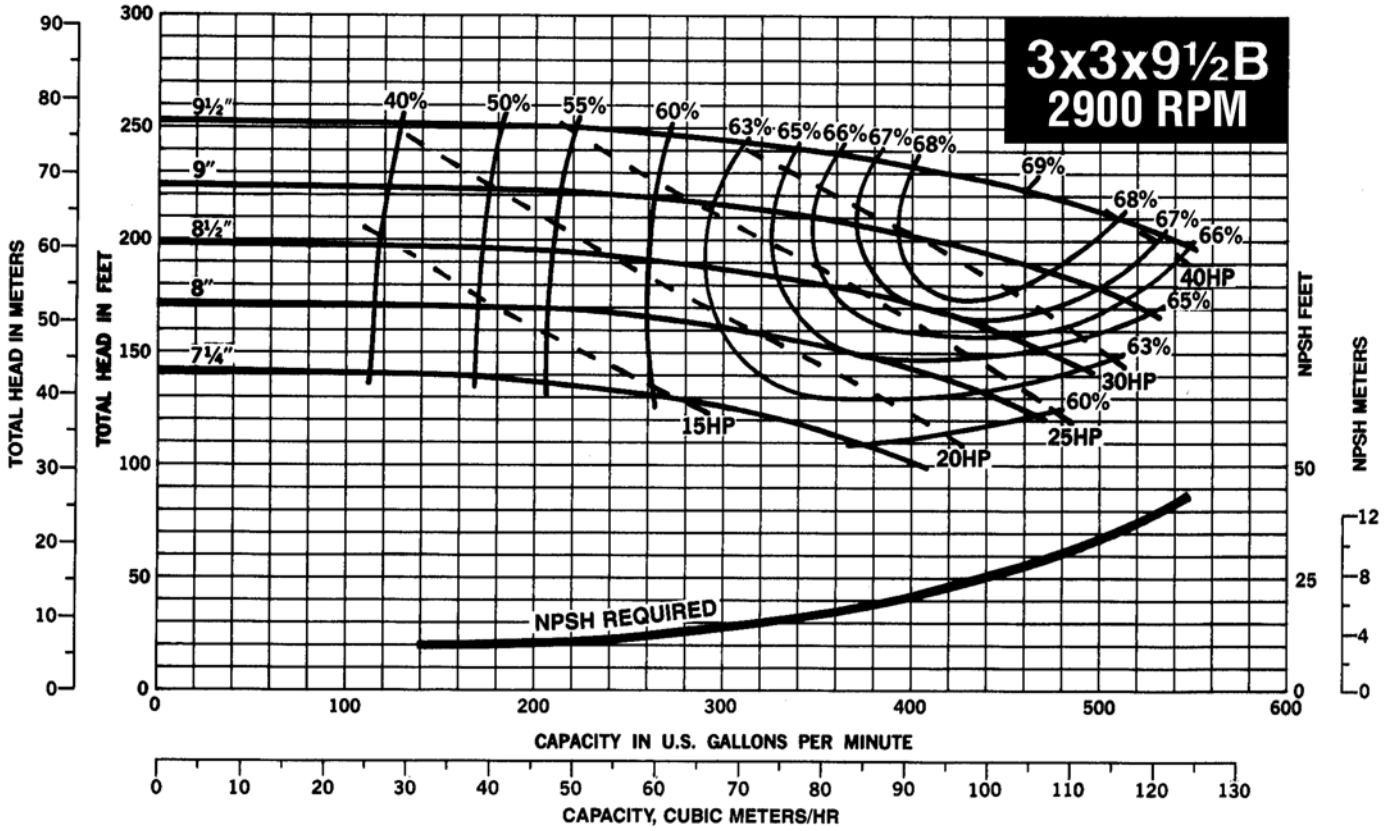
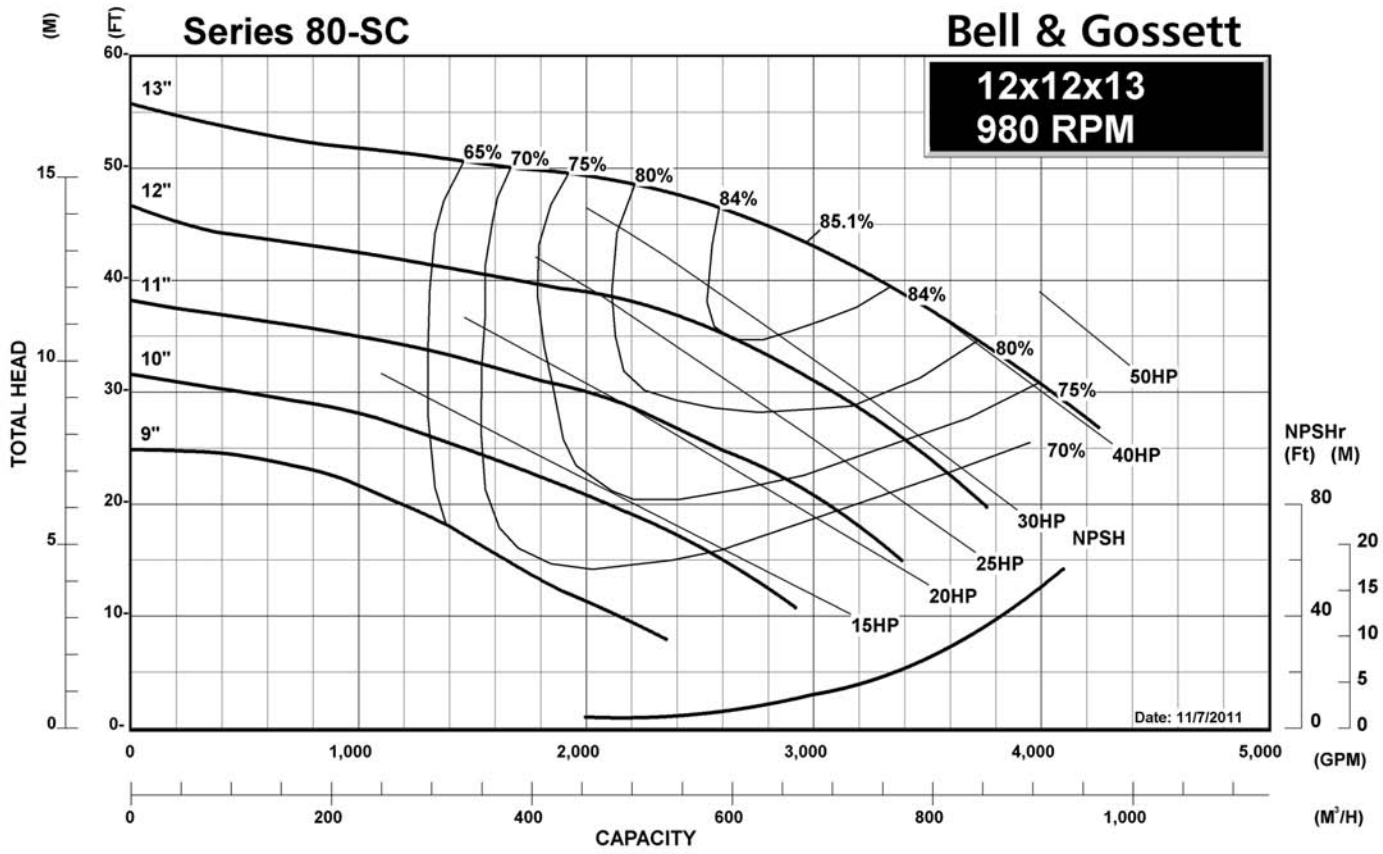
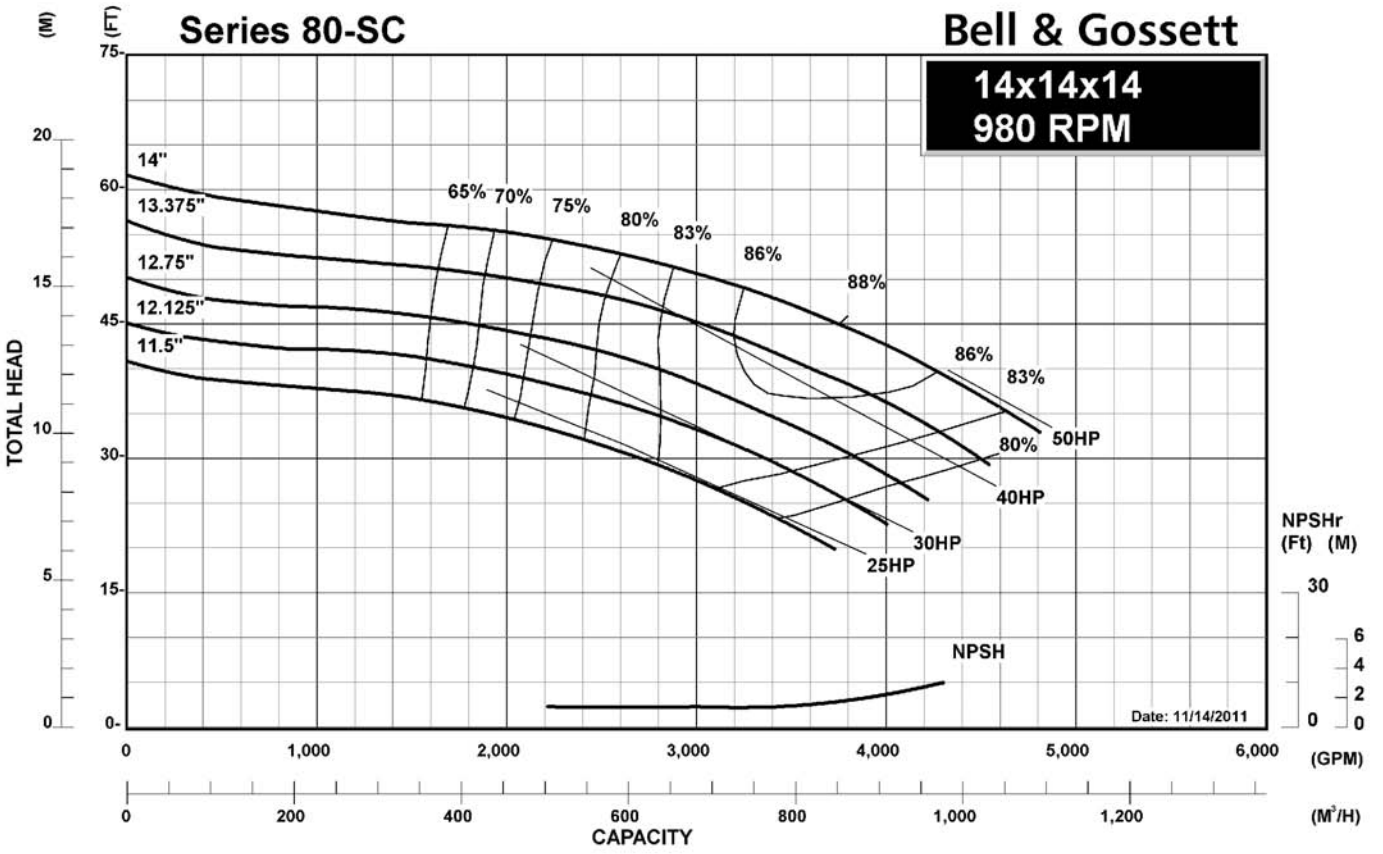


# 980 RPM PUMP CURVES

**Curves based upon shop test using clear cold water at a temperature not over 85ºF.**



# Xylem |'zīləm|

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

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

**For more information on how Xylem can help you, go to www.xyleminc.com**

xylem
Let's Solve Water

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