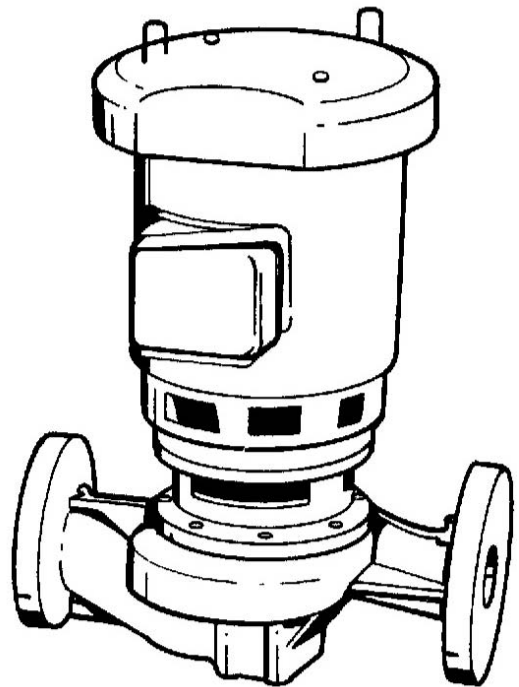
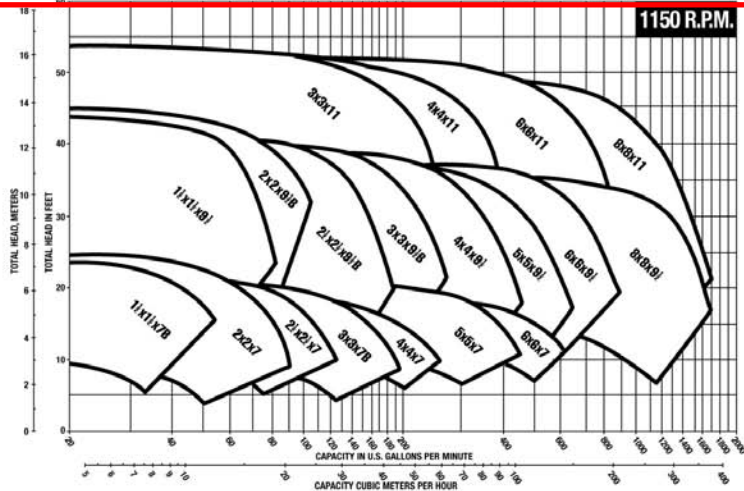
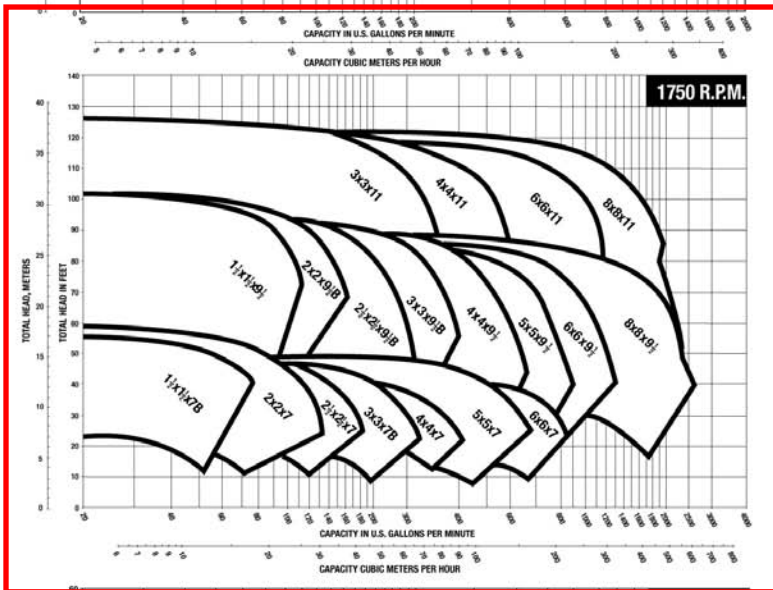
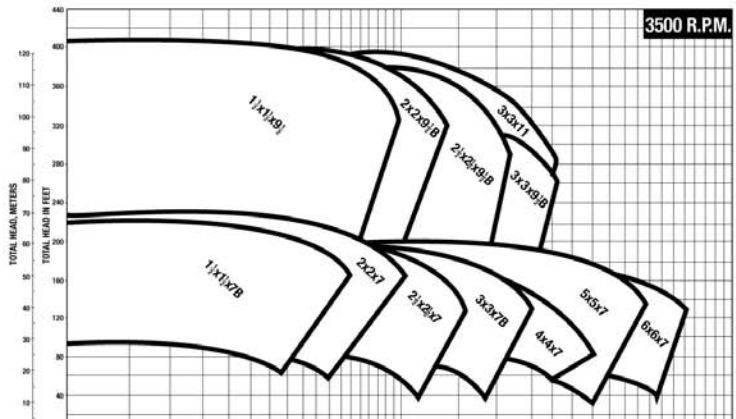




SERIES 80

IN-LINE MOUNTED CENTRIFUGAL PUMP PERFORMANCE CURVES - 60 HZ



SERIES 80 STANDARD PUMPS

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USEFUL PUMP FORMULAS

$$\begin{aligned} \text{Pressure (PSI)} &= \frac{\text{Head (Feet)} \times \text{Specific Gravity}}{2.31} \\ \text{Head (Feet)} &= \frac{\text{Pressure (PSI)} \times 2.31}{\text{Specific Gravity}} \\ \text{Vacuum (Inches of Mercury)} &= \frac{\text{Dynamic Suction Lift (Feet)} \times .883}{\text{Specific Gravity}} \\ \text{Horsepower (Brake)} &= \frac{\text{GPM} \times \text{Head (Feet)} \times \text{Specific Gravity}}{3960 \times \text{Pump Efficiency}} \\ \text{Horsepower (Water)} &= \frac{\text{GPM} \times \text{Head (Feet)} \times \text{Specific Gravity}}{3960} \\ \text{Efficiency (Pump)} &= \frac{\text{Horsepower (Water)}}{\text{Horsepower (Brake)}} \times 100 \text{ Per Cent} \\ \text{NPSH (Available)} &= \text{Positive Factors} - \text{Negative Factors} \end{aligned}$$

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 | $Q_2 = \frac{RPM_2}{RPM_1} Q_1$ | $H_2 = \left(\frac{RPM_2}{RPM_1}\right)^2 H_1$ | $P_2 = \left(\frac{RPM_2}{RPM_1}\right)^3 P_1$ |

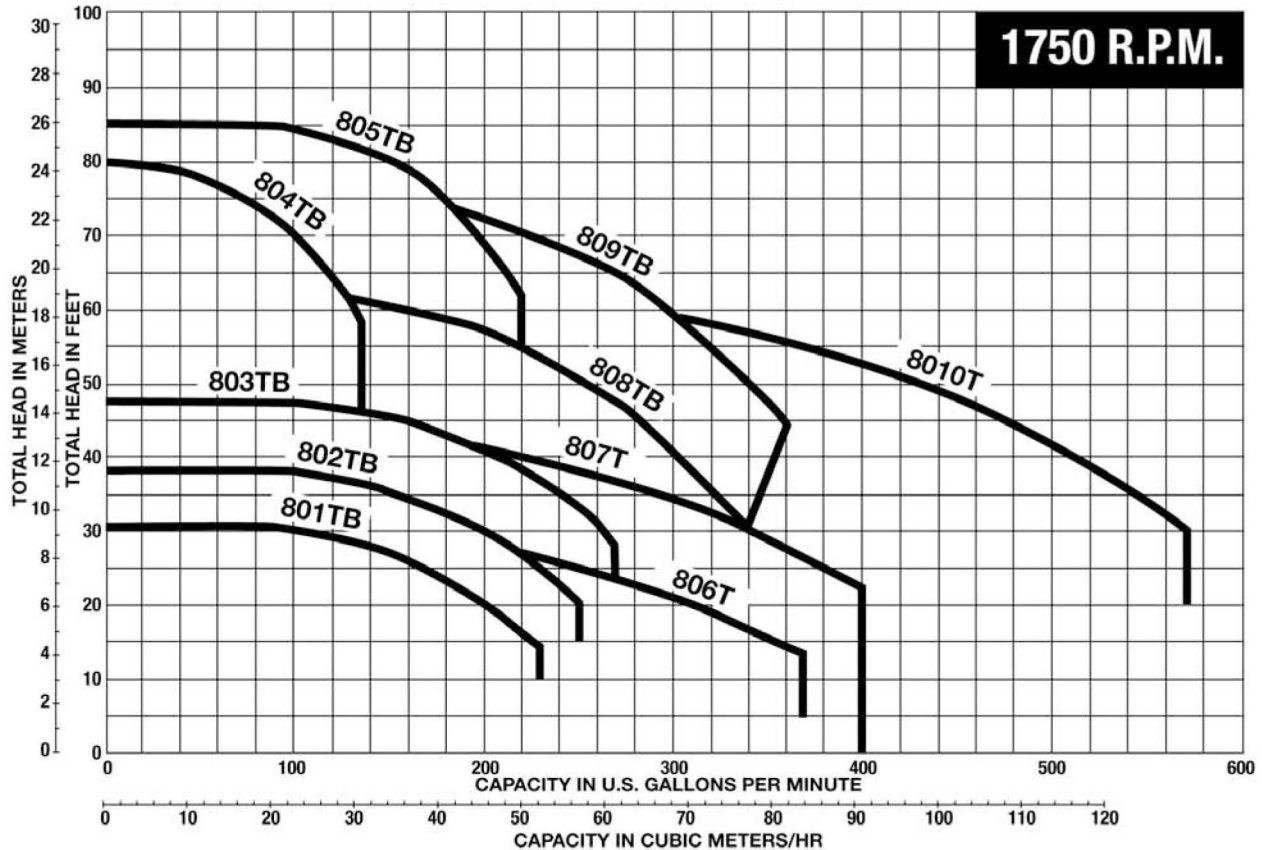
Where Q = GPM, H = Head, P = BHP, D = Impeller Dia., RPM = Pump Speed

SERIES 80 STANDARD PUMPS

Designed with preselected impeller diameters and motor horsepower sizes to offer better availability.

Pump Construction: Bronze Fitted
 Standard Mechanical Seal
 Maximum Working Pressure 175 psi
 with 125# ANSI Flanges

Motors: 208-230/460 Volts
 3 Phase, 60 Hertz
 Open Dripproof



| UNIT NO. | PUMP SIZE | MOTOR HP |
|----------|---|----------|
| 801TB | 3x3x7B | 1.5 |
| 802TB | | 2 |
| 803TB | | 3 |
| 804TB | 2x2x9 ¹ / ₂ B | 5 |
| 805TB | 2 ¹ / ₂ x2 ¹ / ₂ x9 ¹ / ₂ B | |

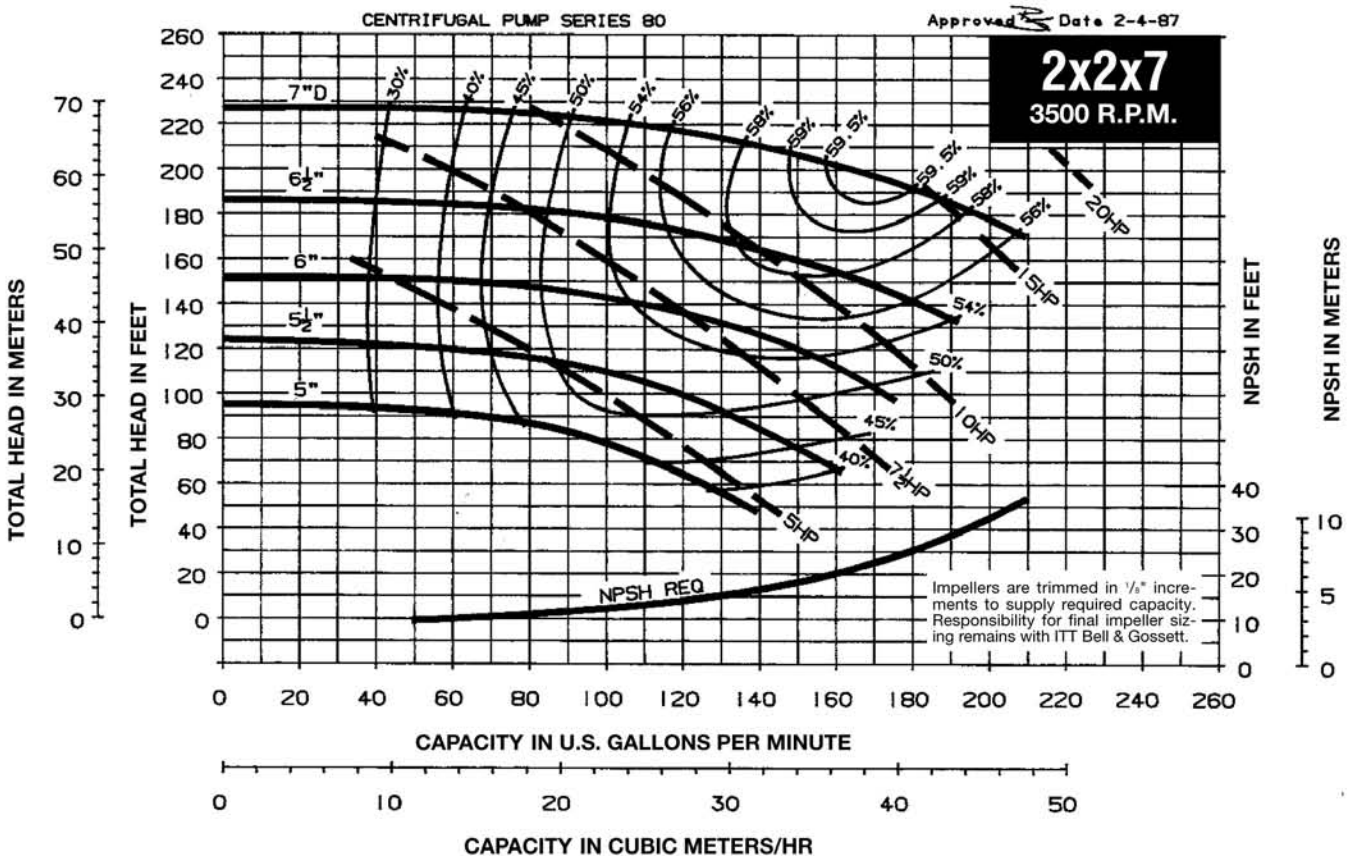
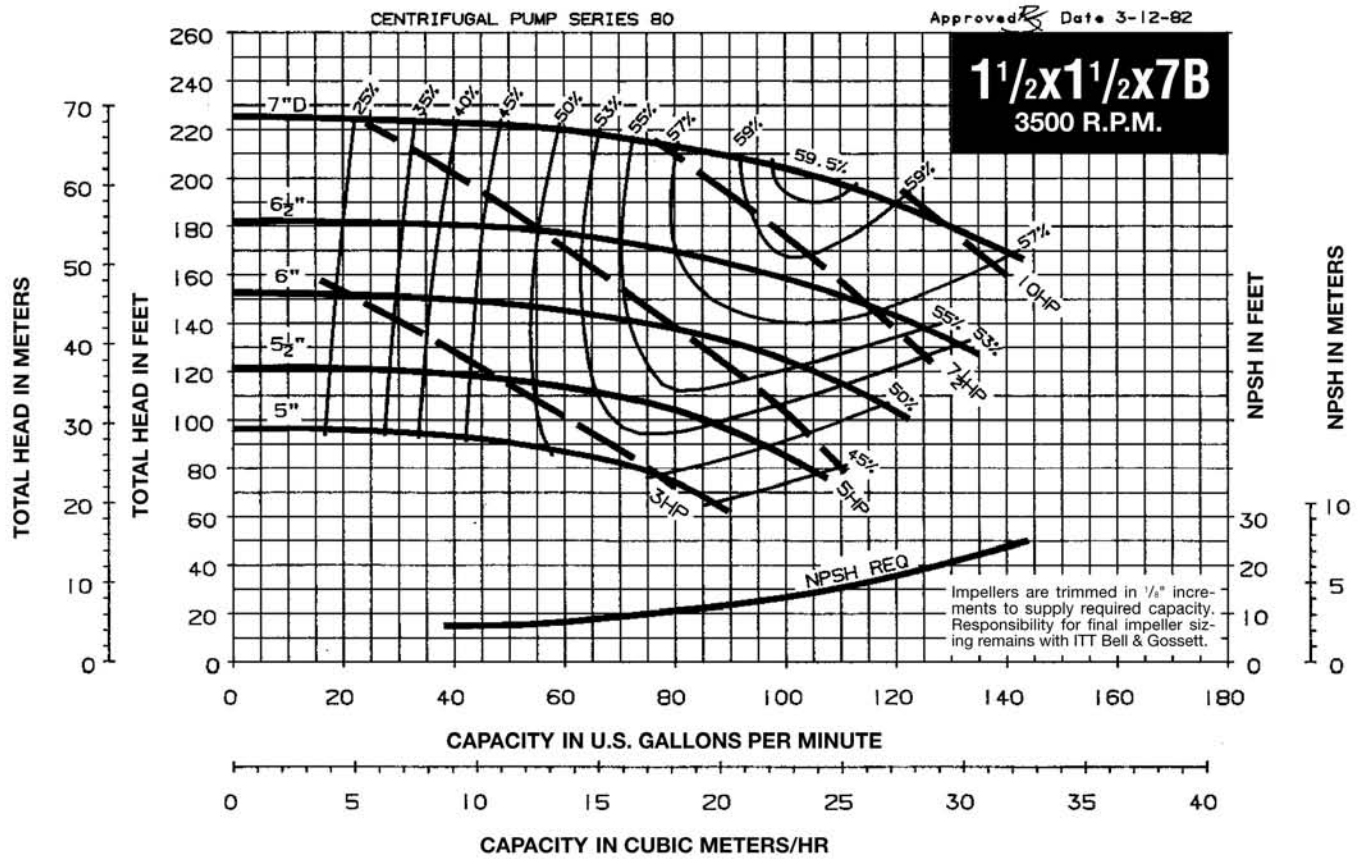
| UNIT NO. | PUMP SIZE | MOTOR HP |
|----------|-------------------------------------|-------------------------------|
| 806T | 4x4x7 | 2 |
| 807T | | 3 |
| 808TB | 3x3x9 ¹ / ₂ B | 5 |
| 809TB | | 7 ¹ / ₂ |
| 8010T | 4x4x9 ¹ / ₂ | |

HOW TO USE THIS BOOKLET

- Determine the Pump Model number from the quick selection charts on the cover of this Booklet. Required data: Pump Flow and Head and desired RPM. Use the Standard Pumps shown on this page when possible.
- Consult the individual pump curve for the desired pump model to determine the required motor horsepower, pump efficiency and NPSHR.
- For faster, computerized pump selections, consult your Bell & Gossett Representative about ESP-PLUS, Bell & Gossett's Equipment Selection Program for personal computers.

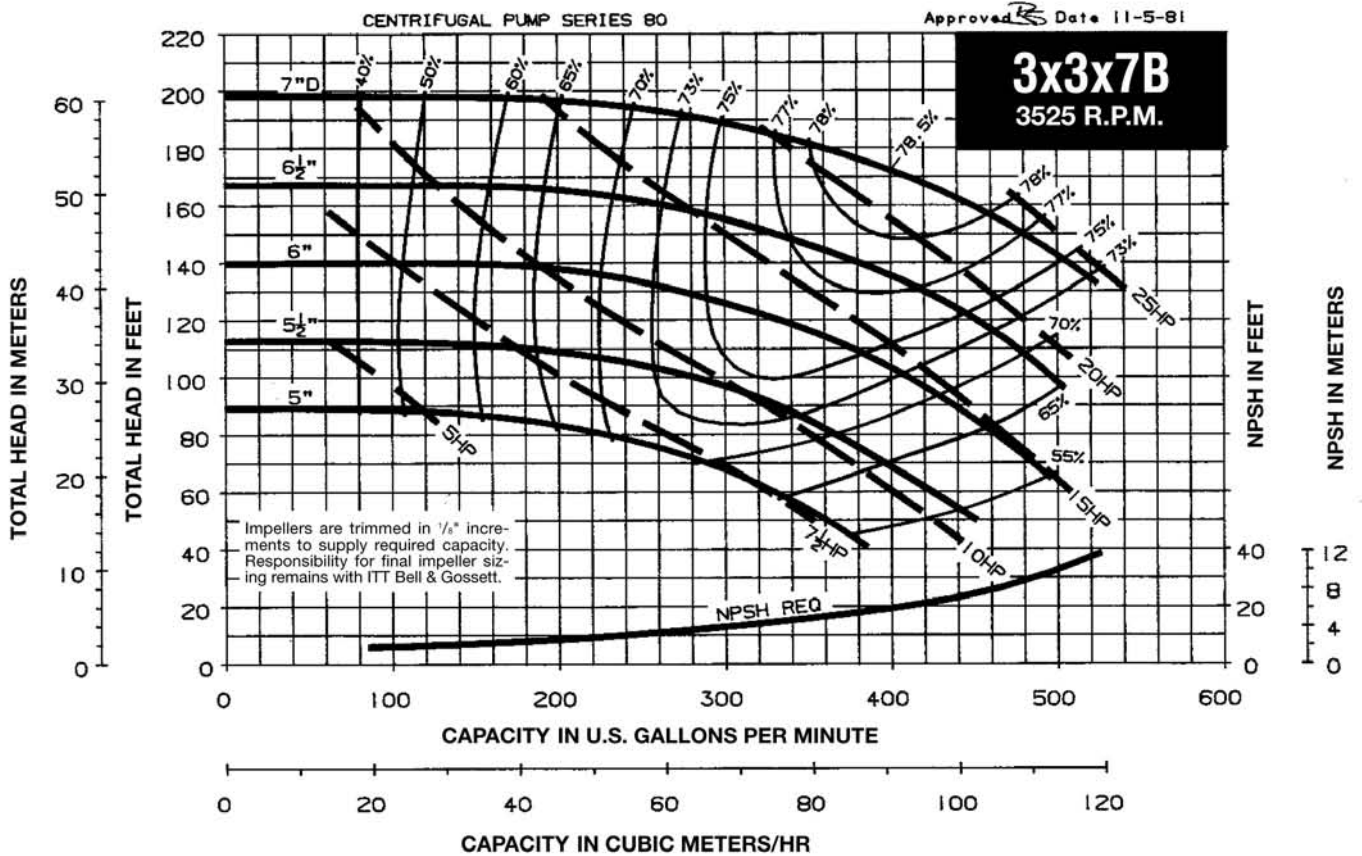
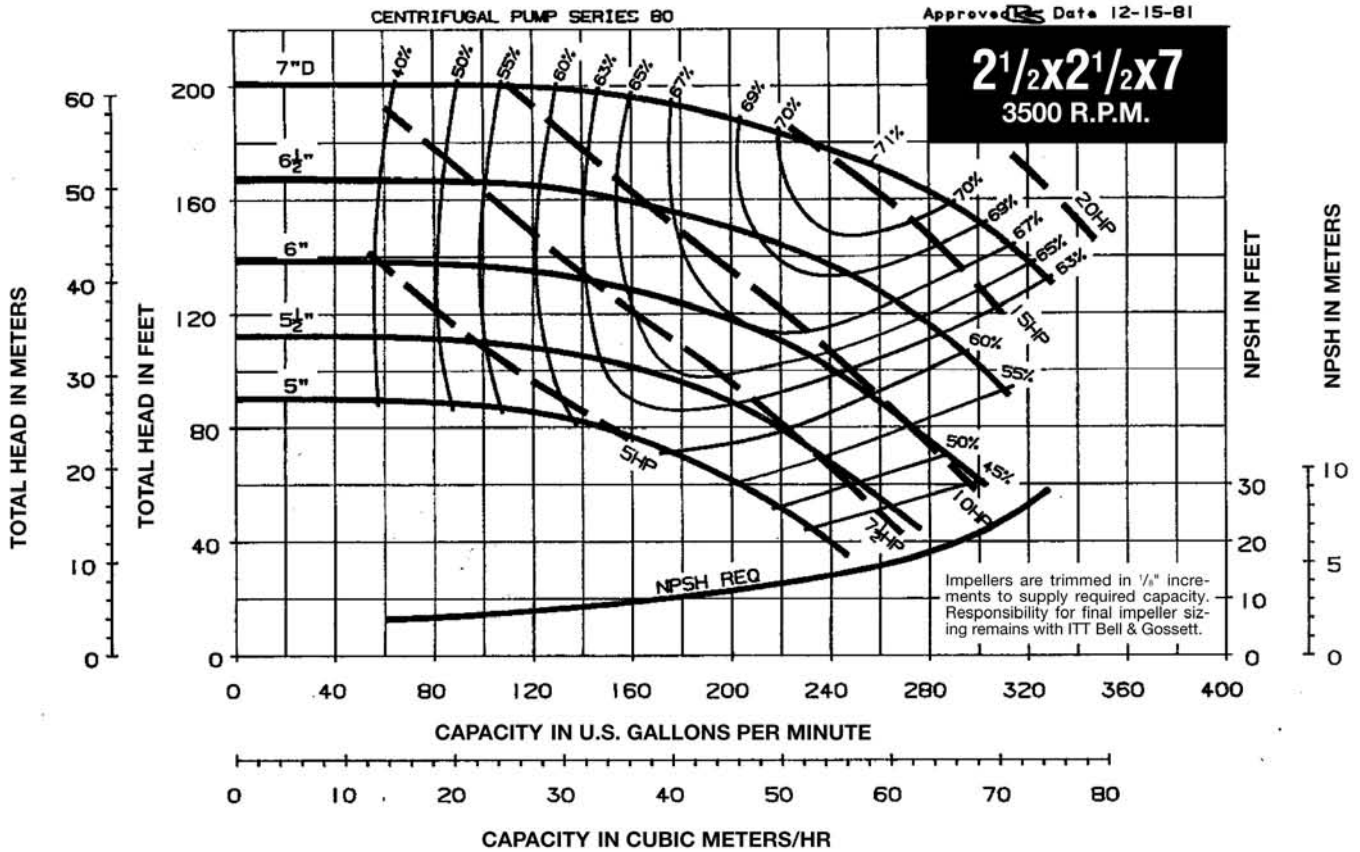
SERIES 80 STANDARD PUMPS

3500 RPM PUMP CURVES



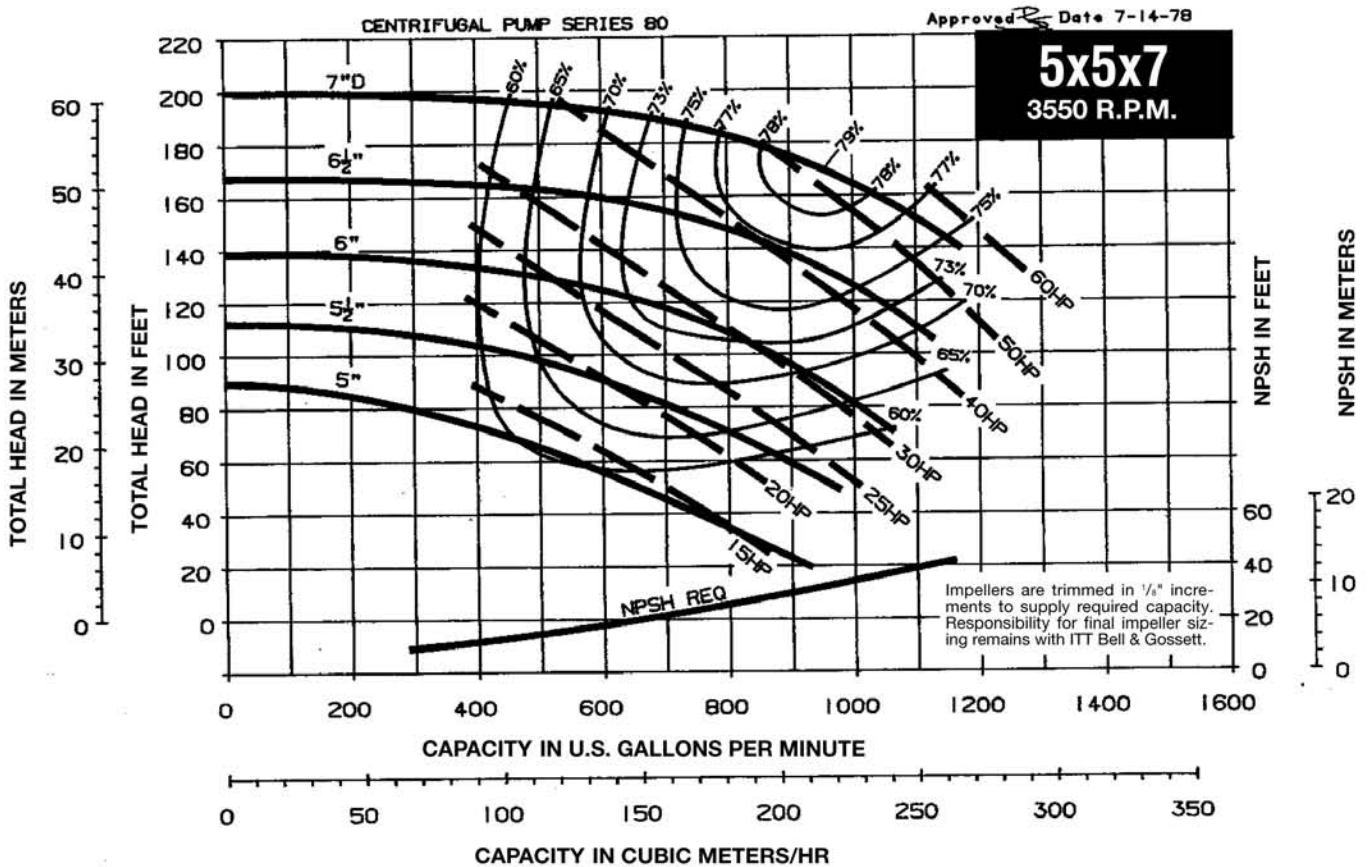
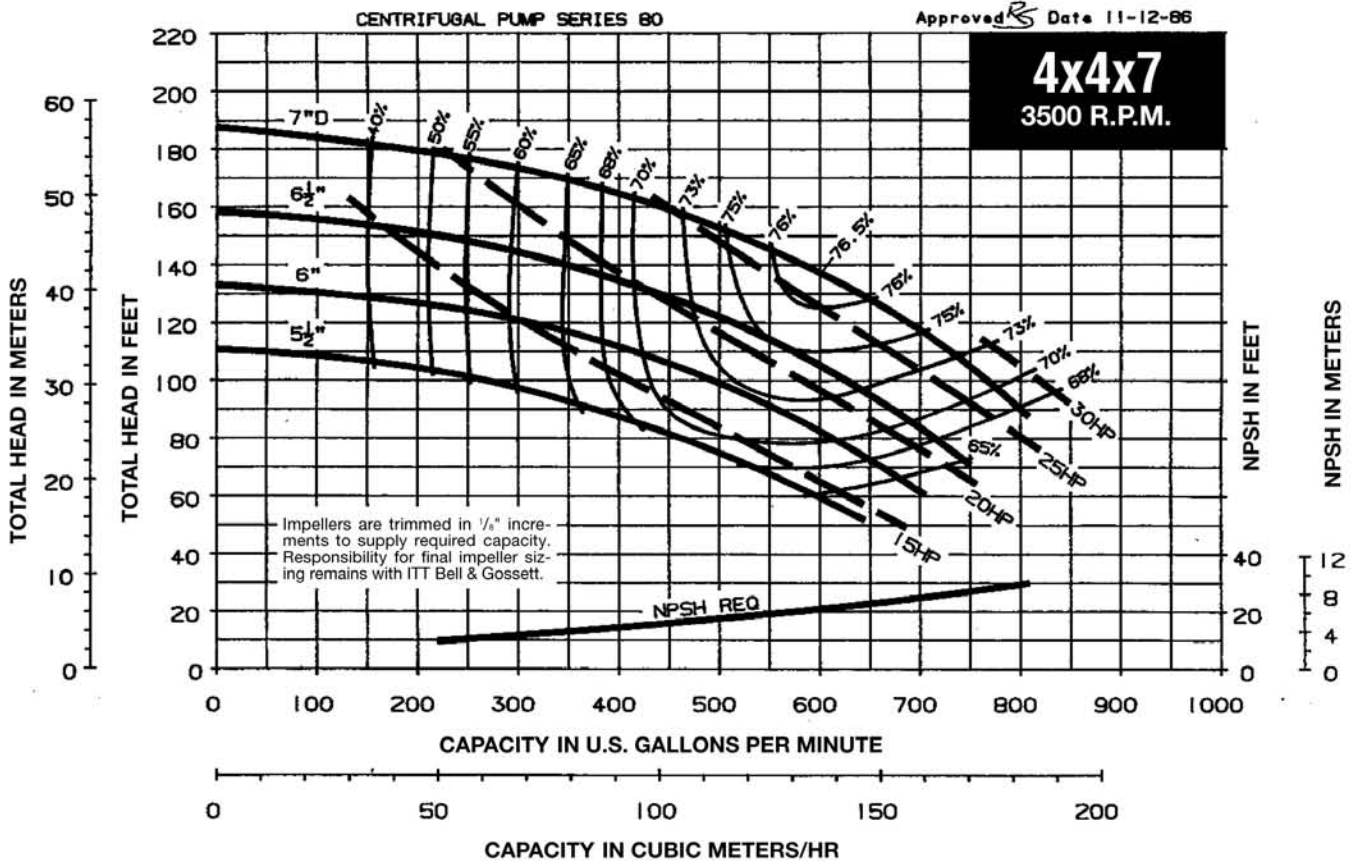
SERIES 80 STANDARD PUMPS

3500 RPM PUMP CURVES



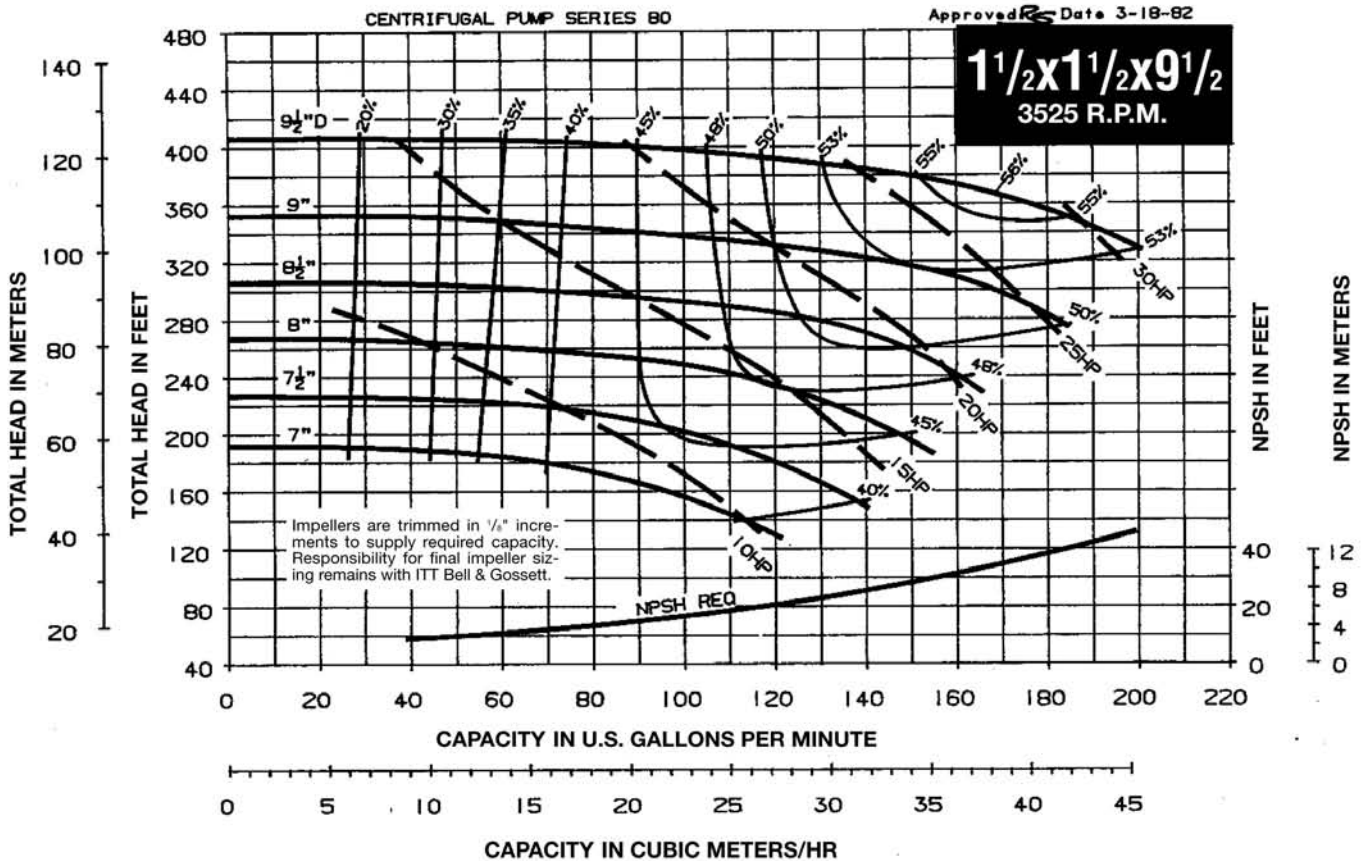
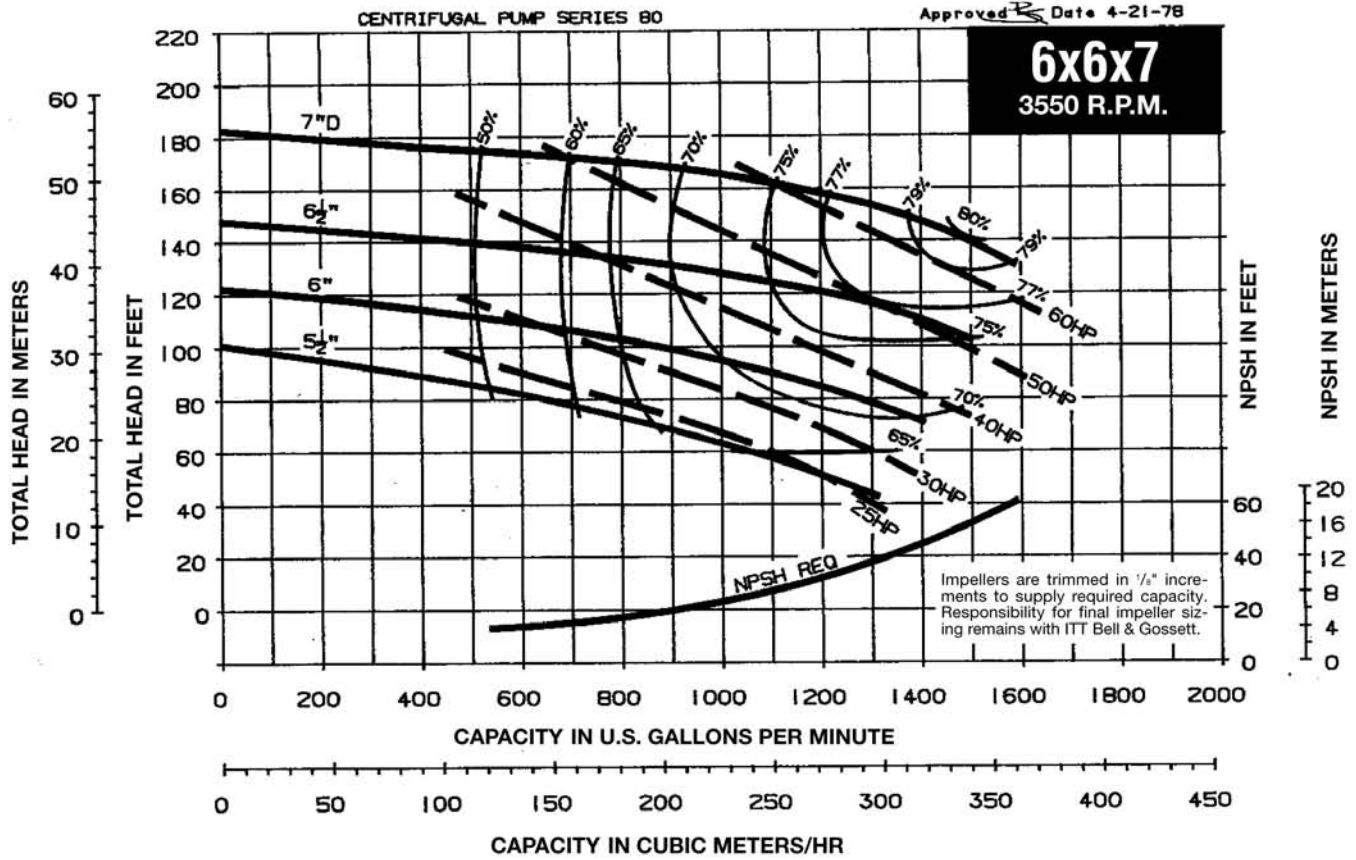
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3500 RPM PUMP CURVES



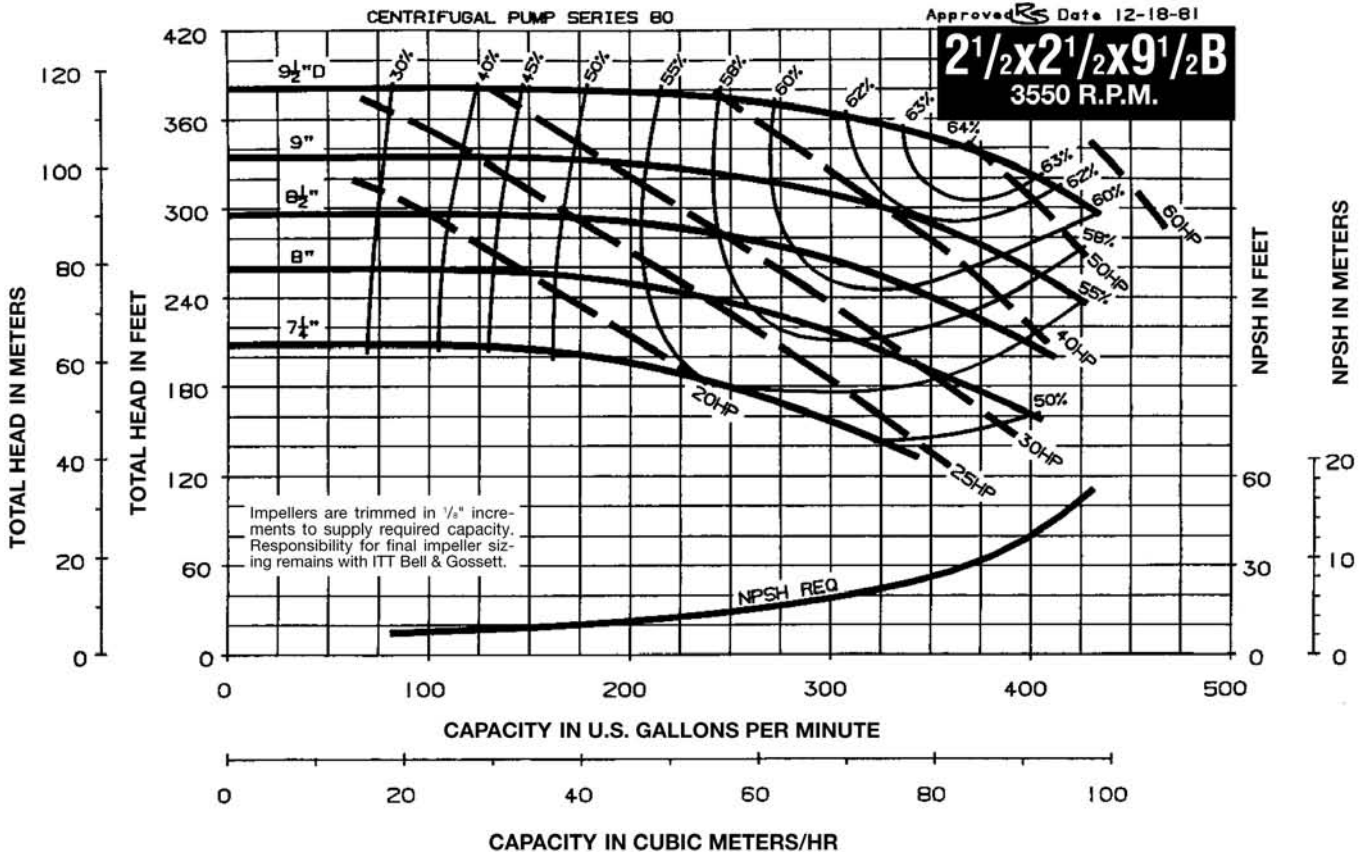
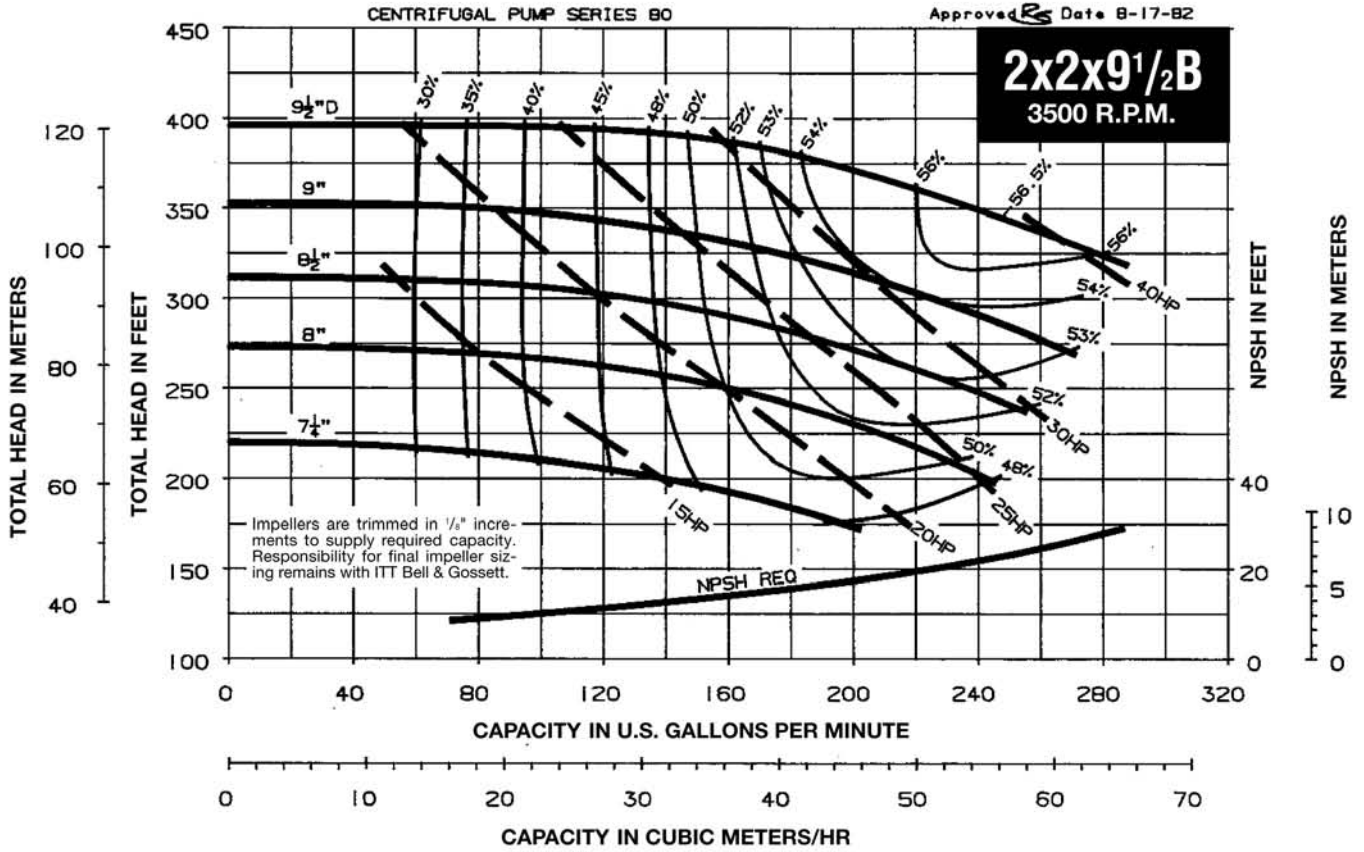
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3500 RPM PUMP CURVES



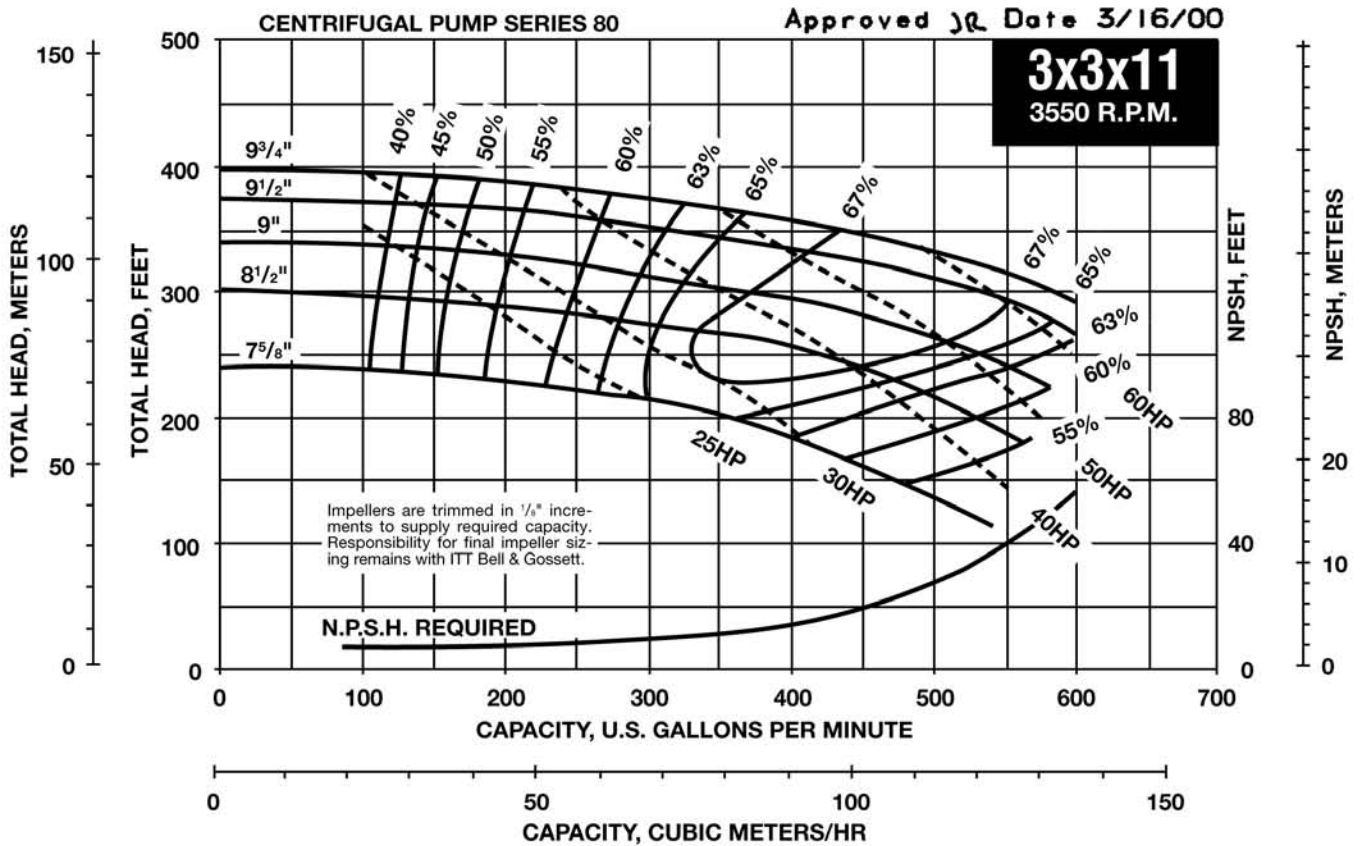
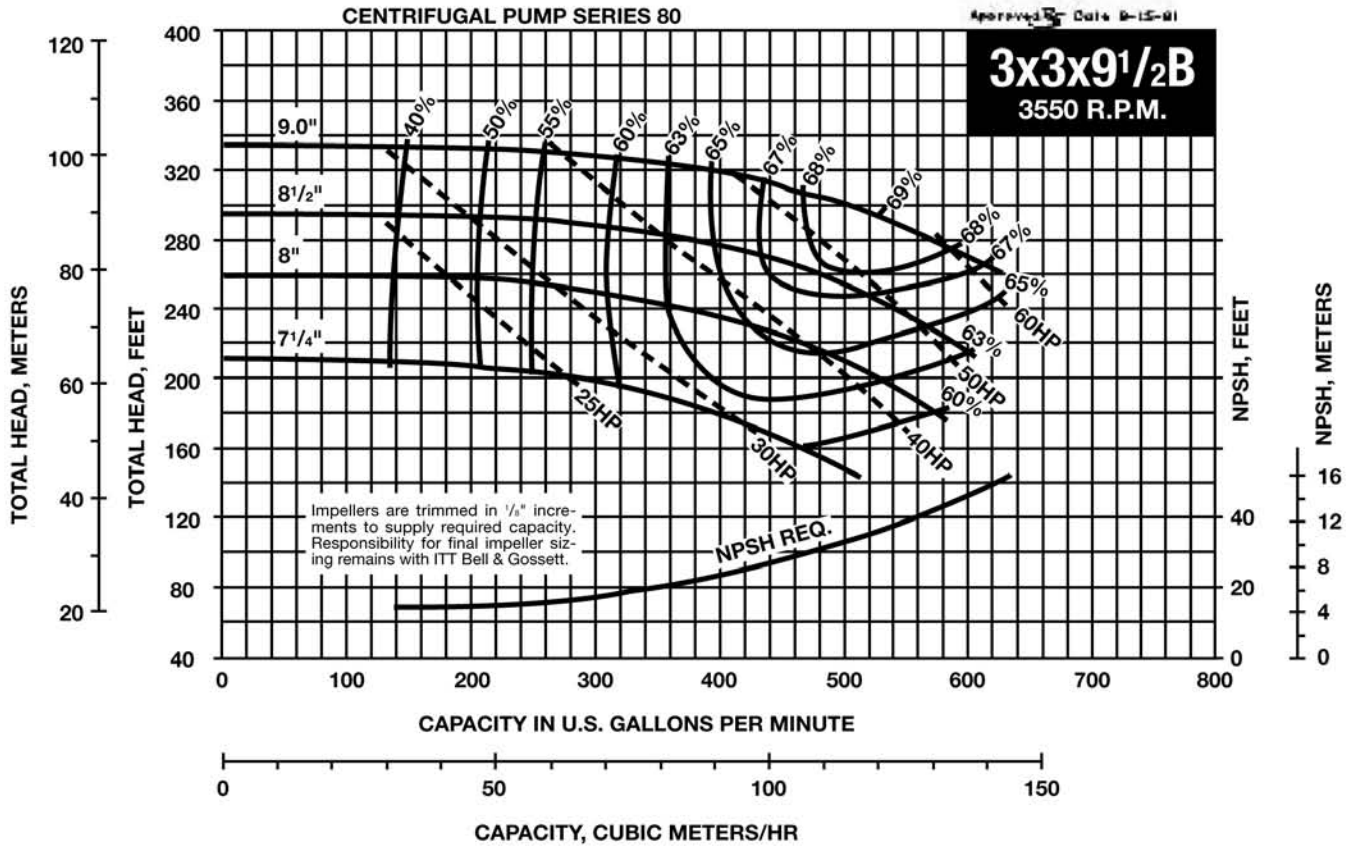
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3500 RPM PUMP CURVES



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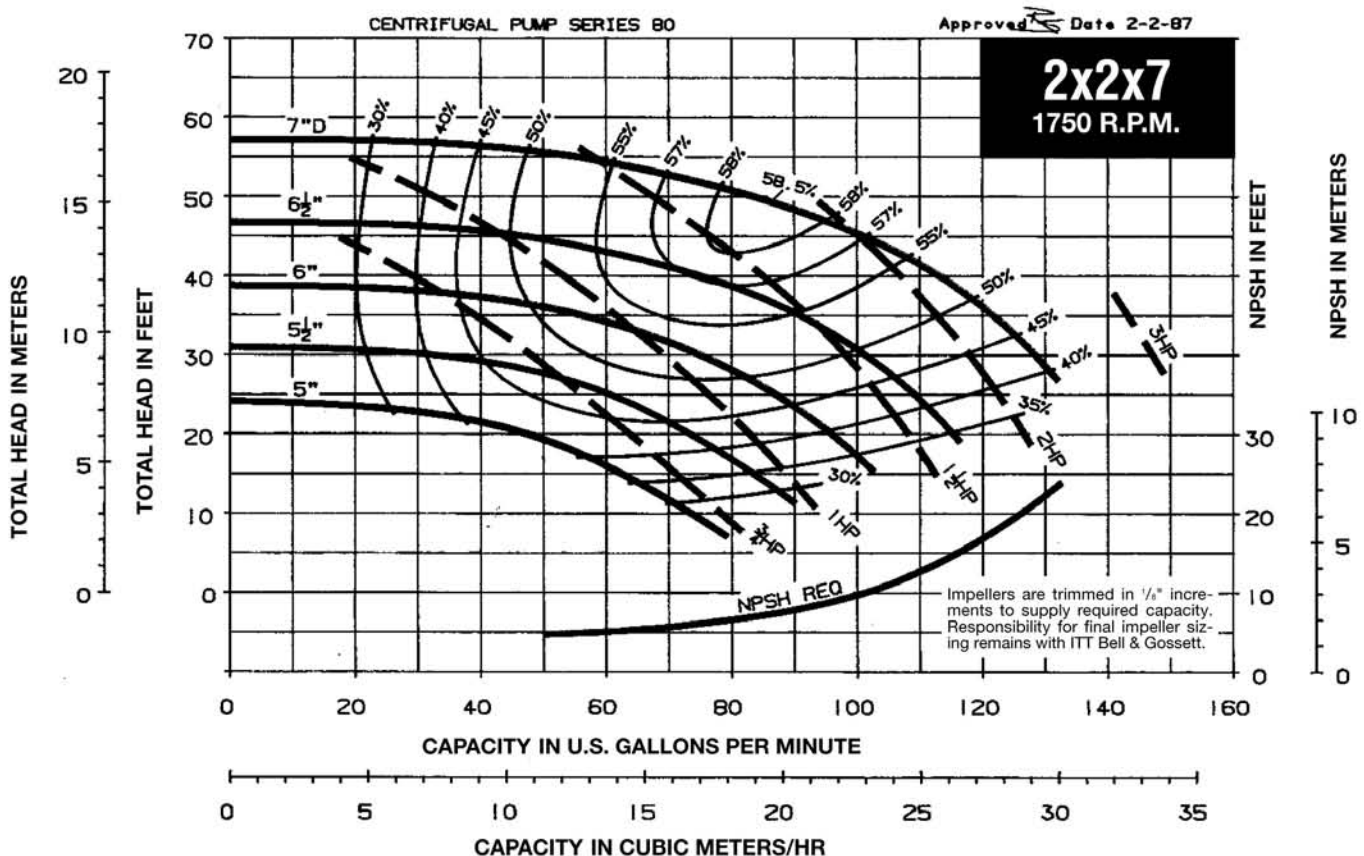
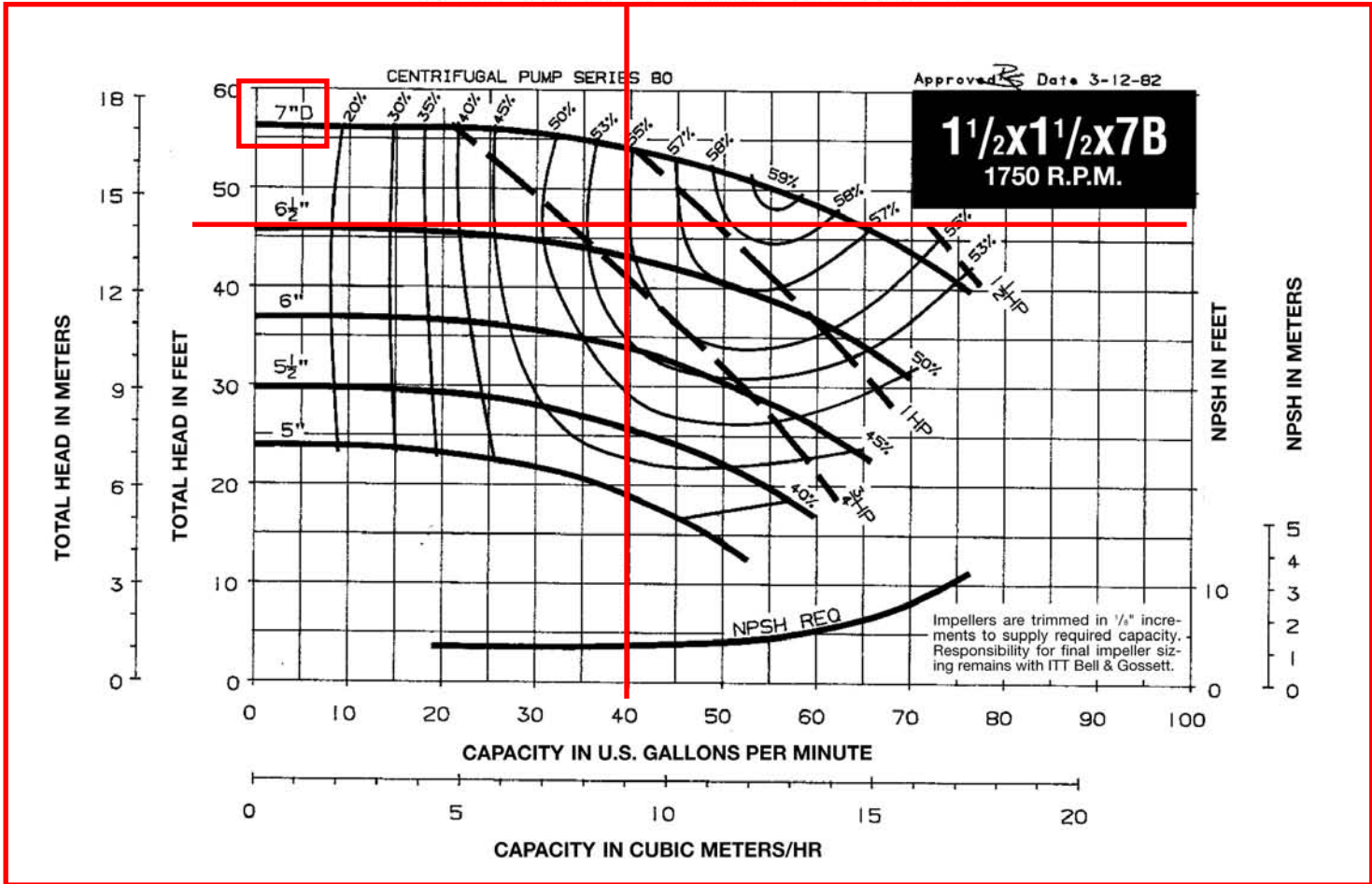


SERIES 80 STANDARD PUMPS

36 gpm each pump; 35 ft hd; 1750 RPM;

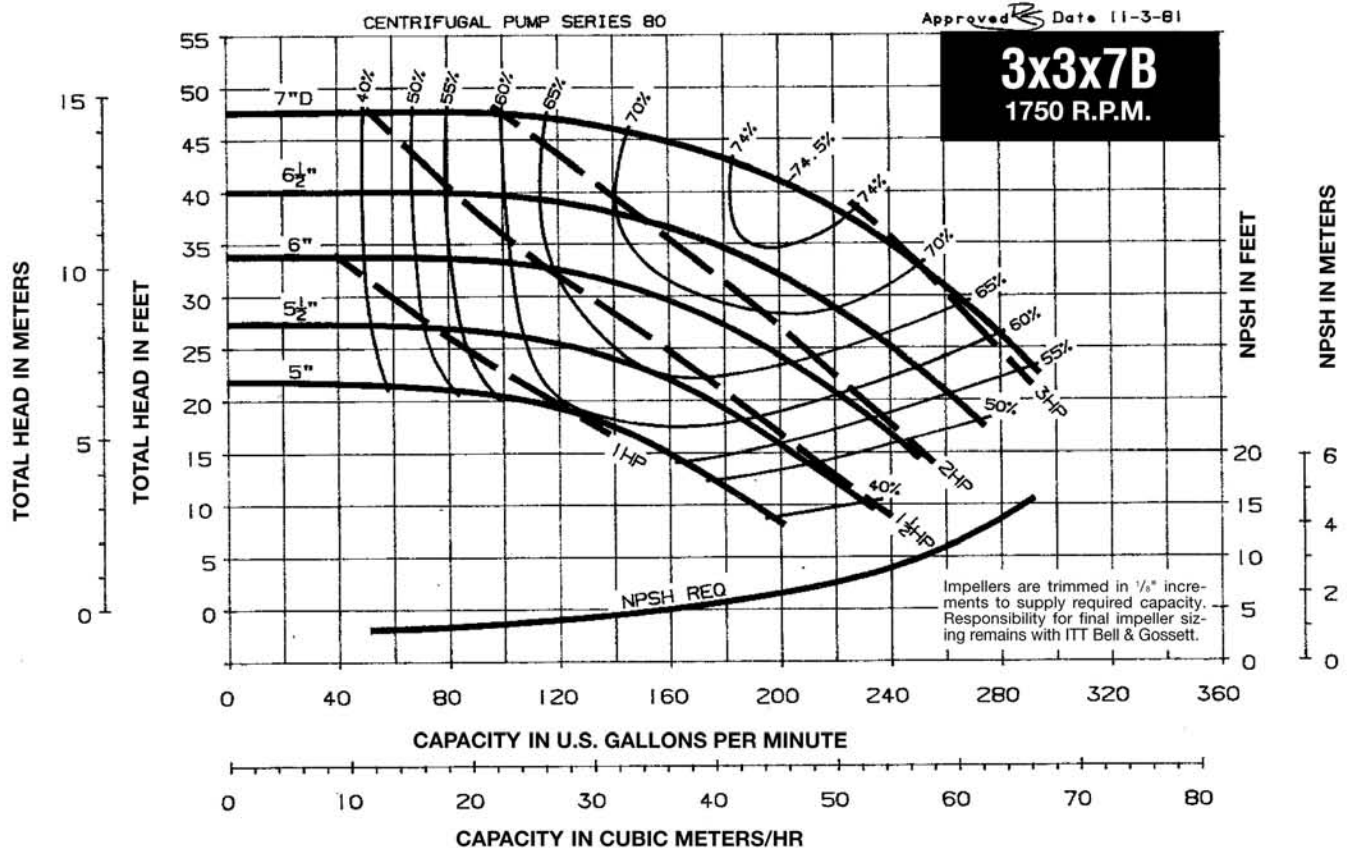
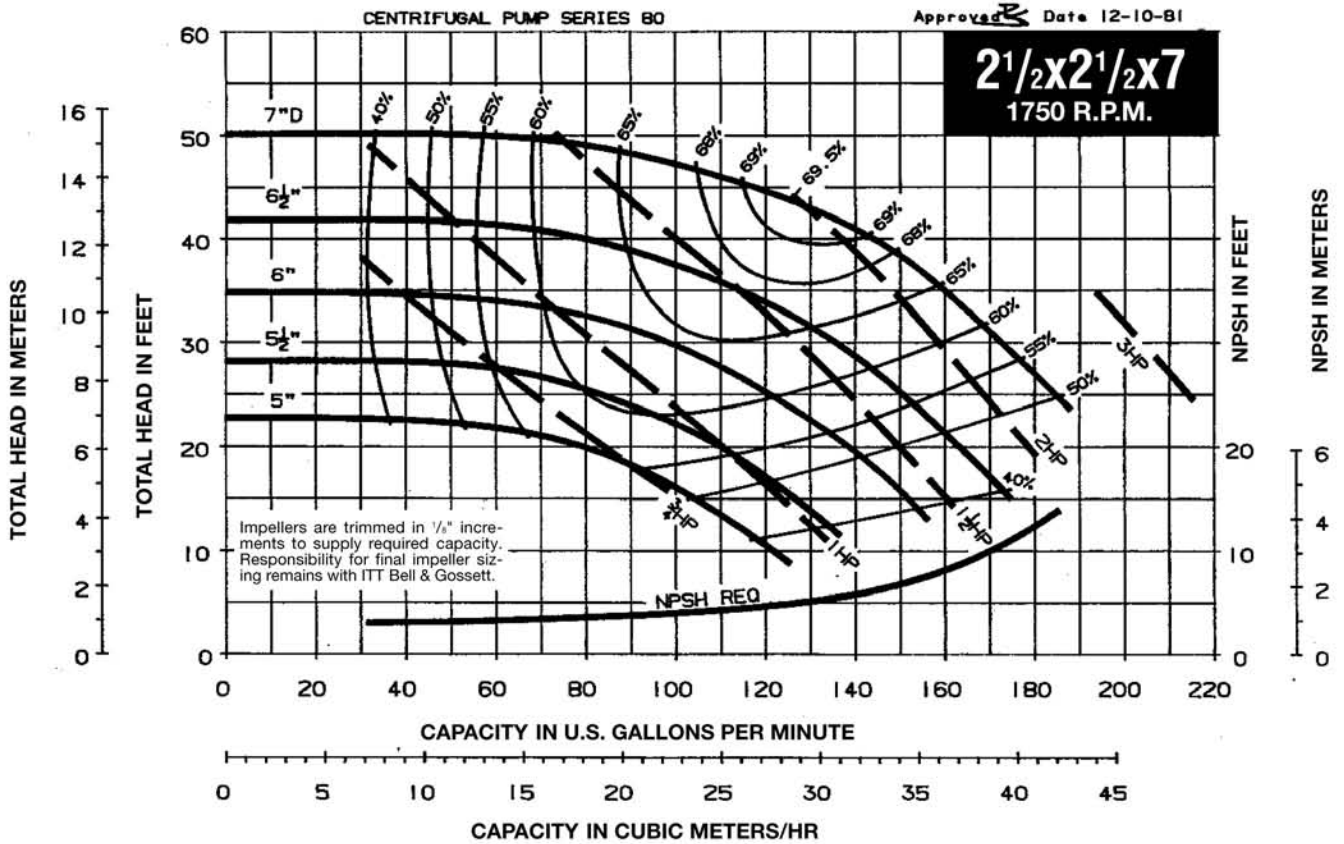
Minimum Eff 46%; 1 hp

1750 RPM PUMP CURVES



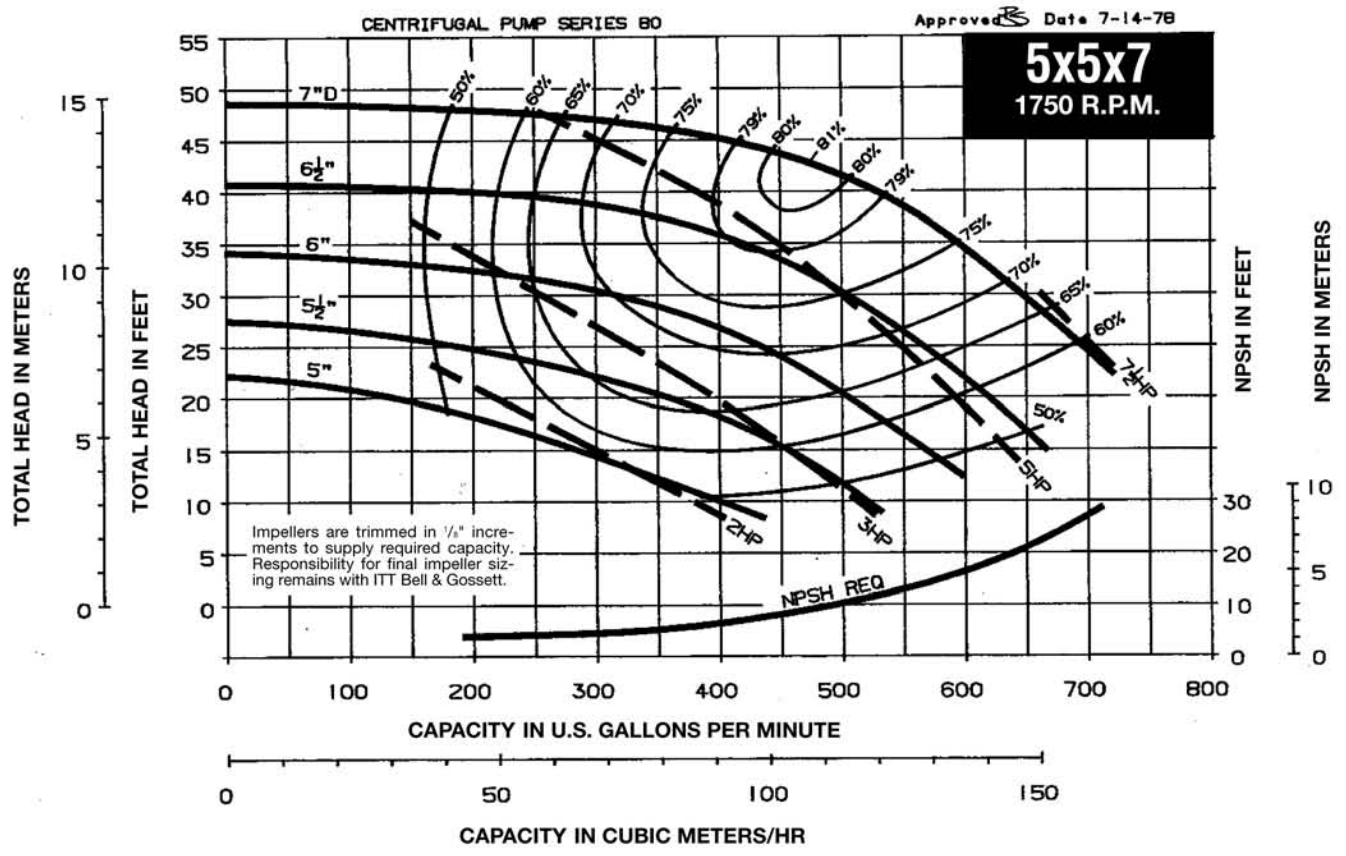
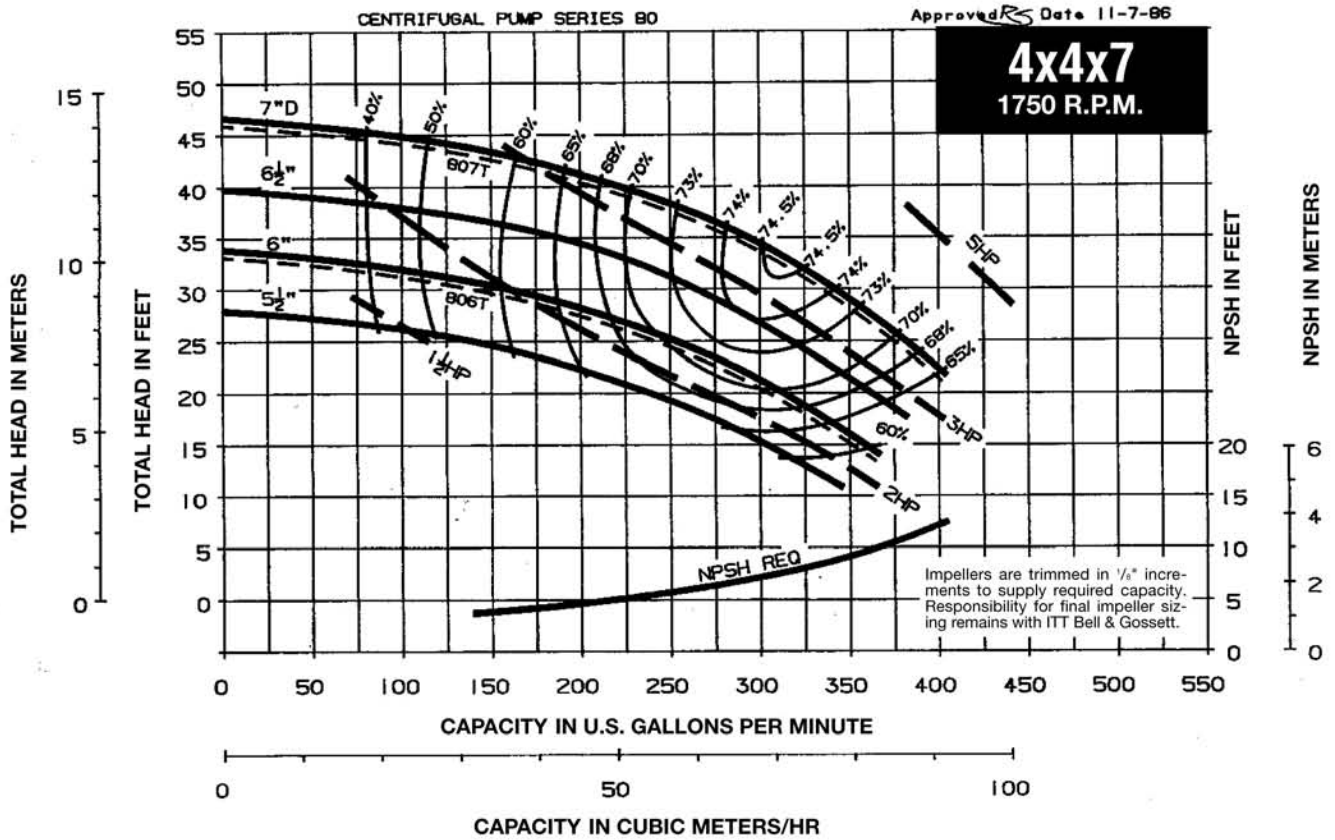
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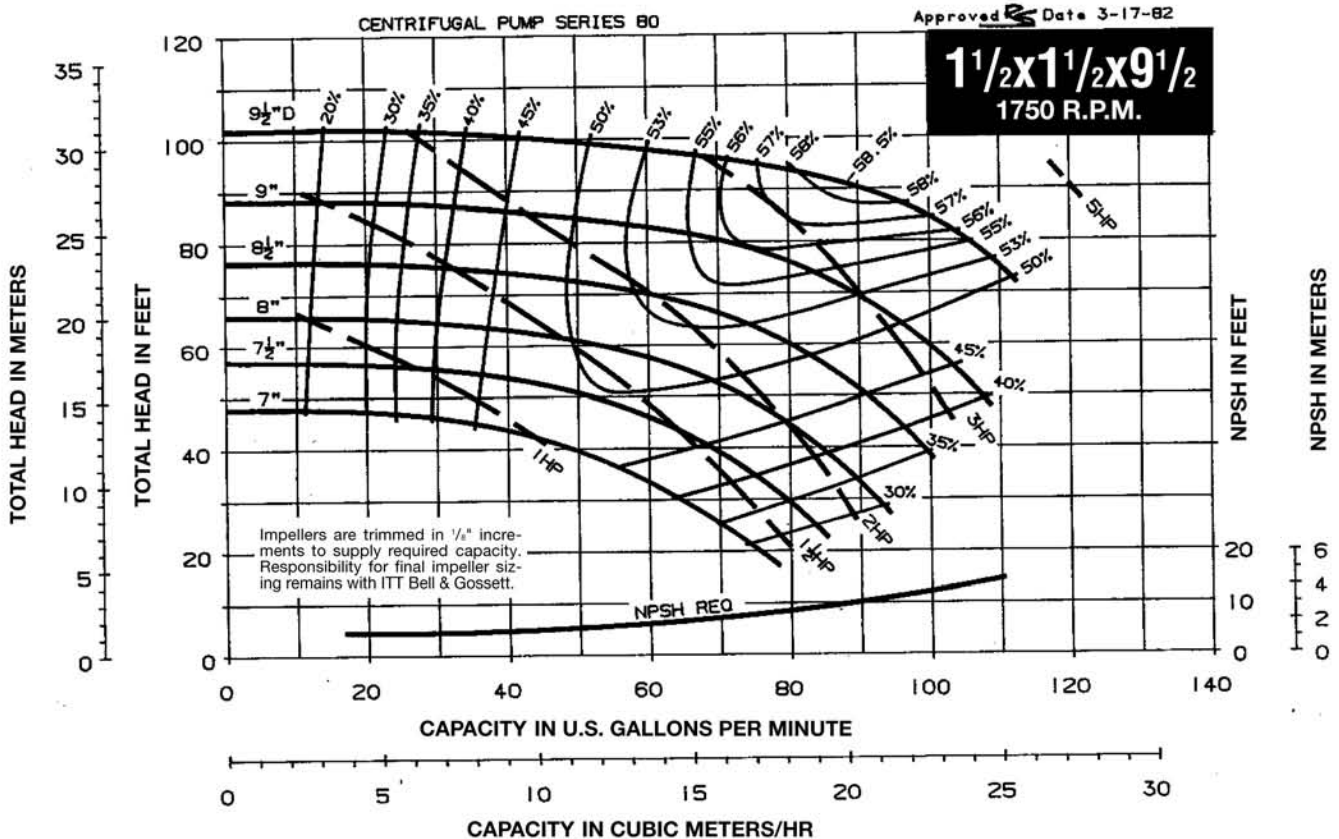
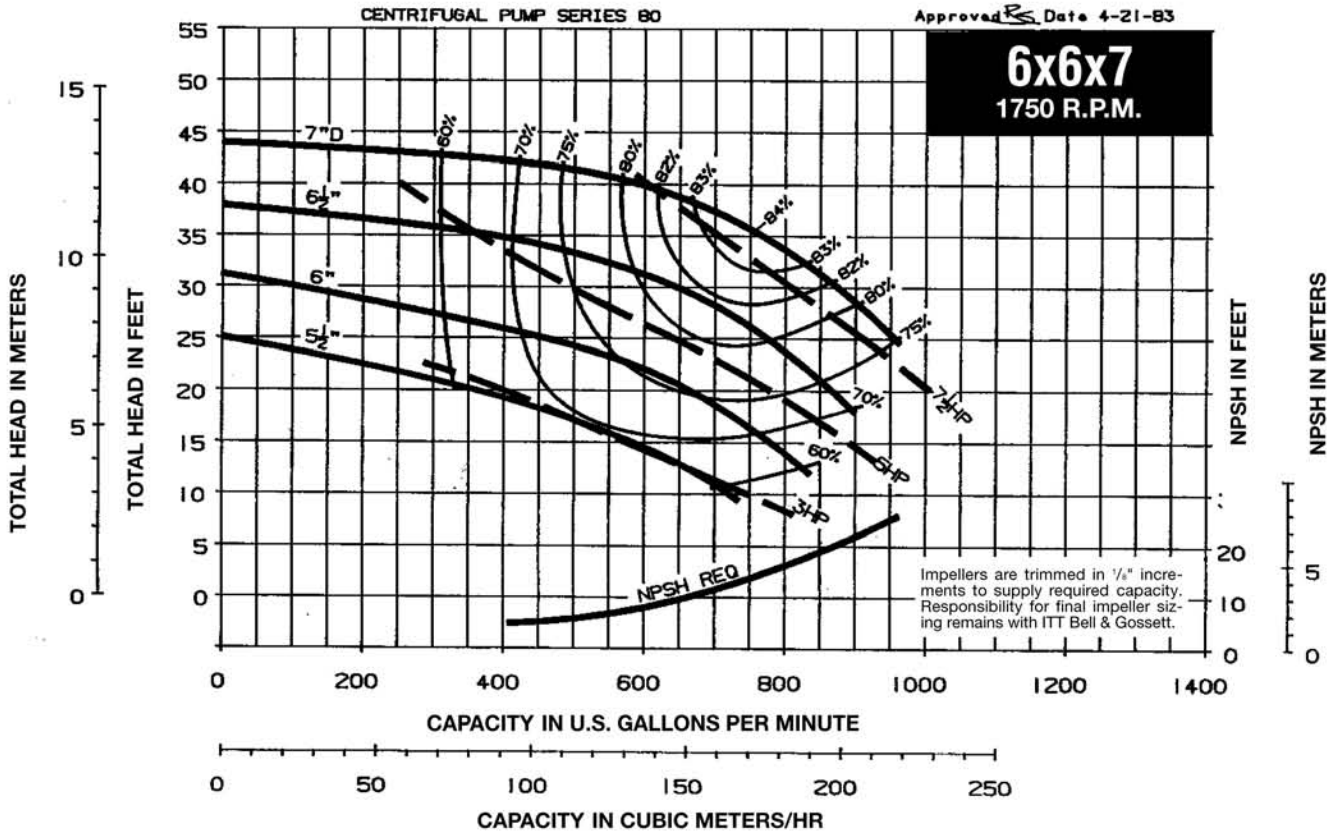
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1750 RPM PUMP CURVES



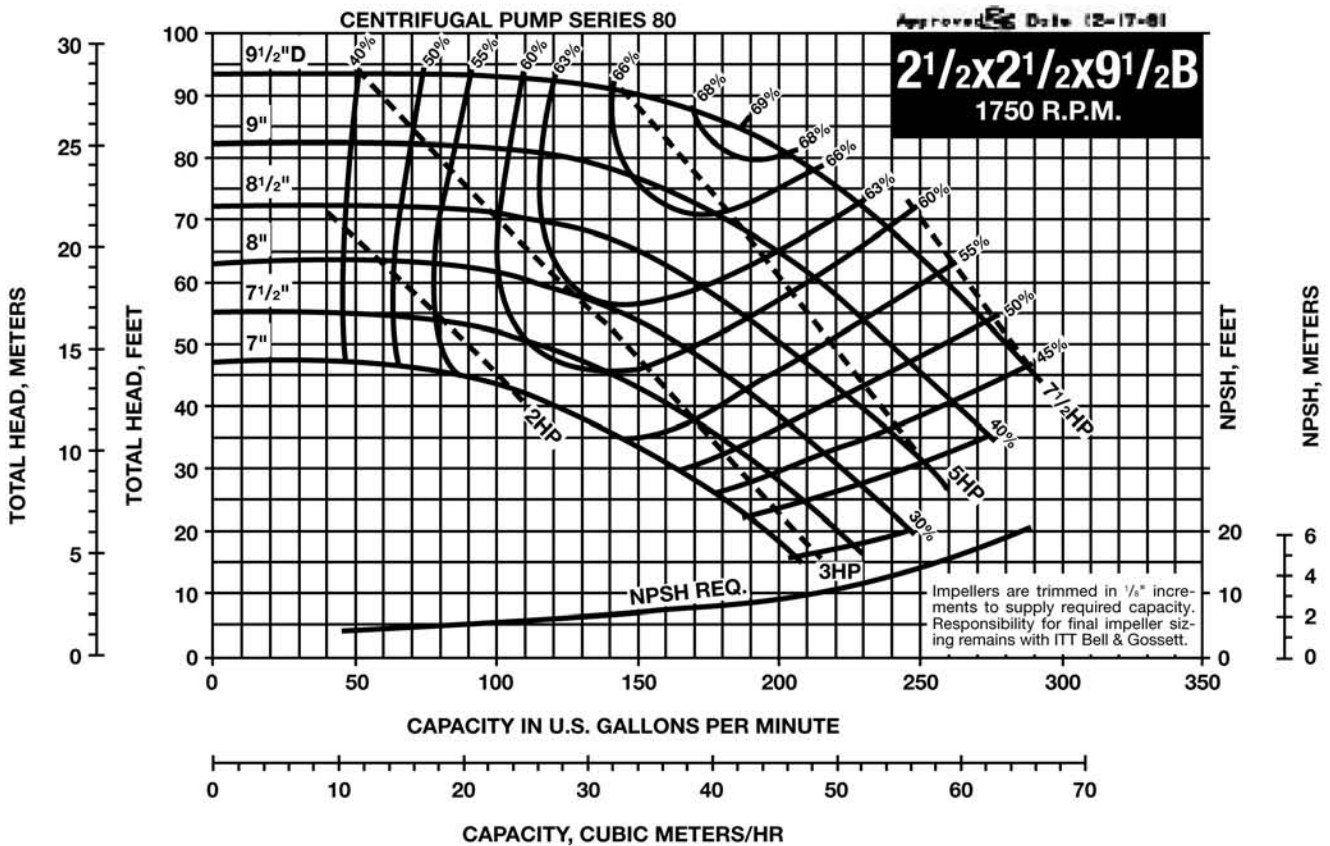
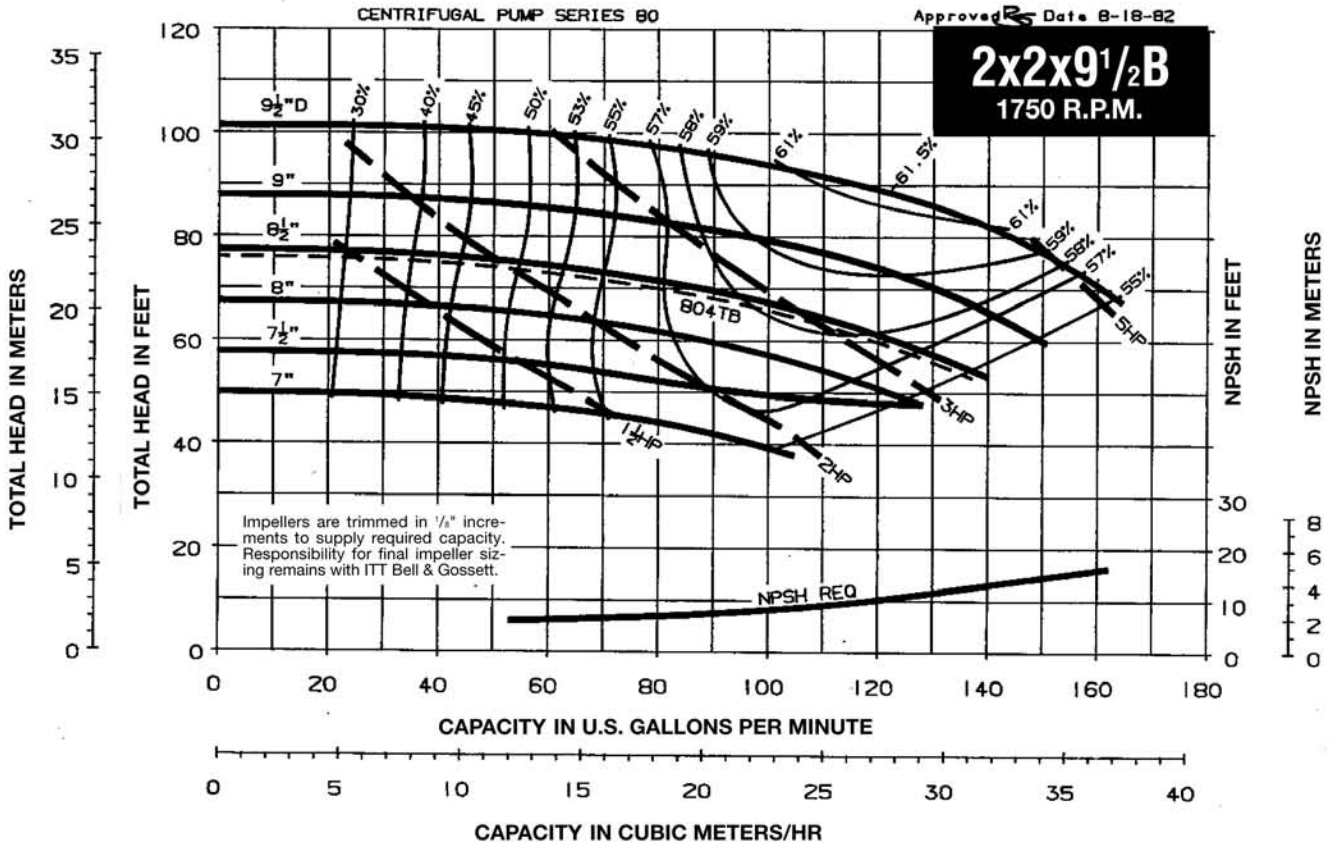
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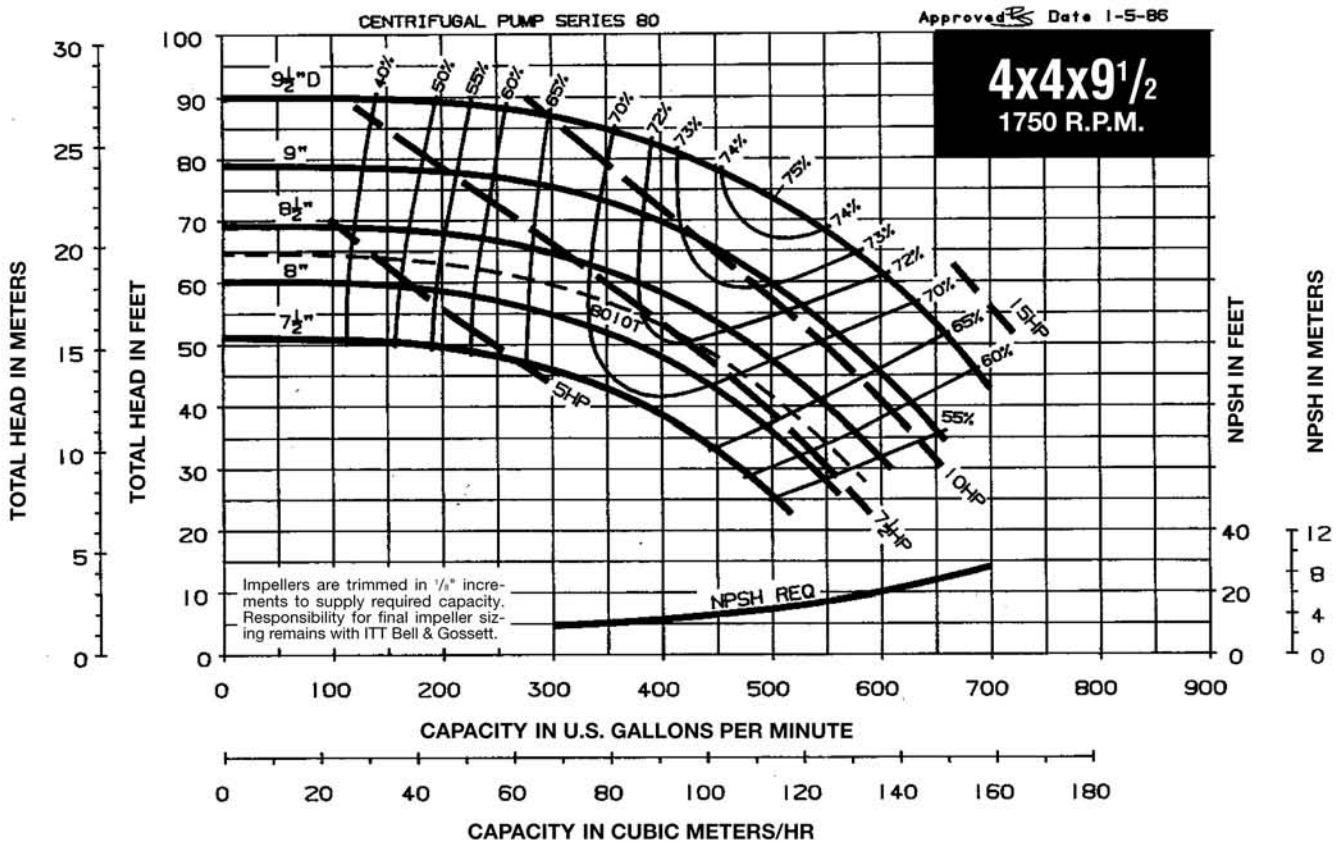
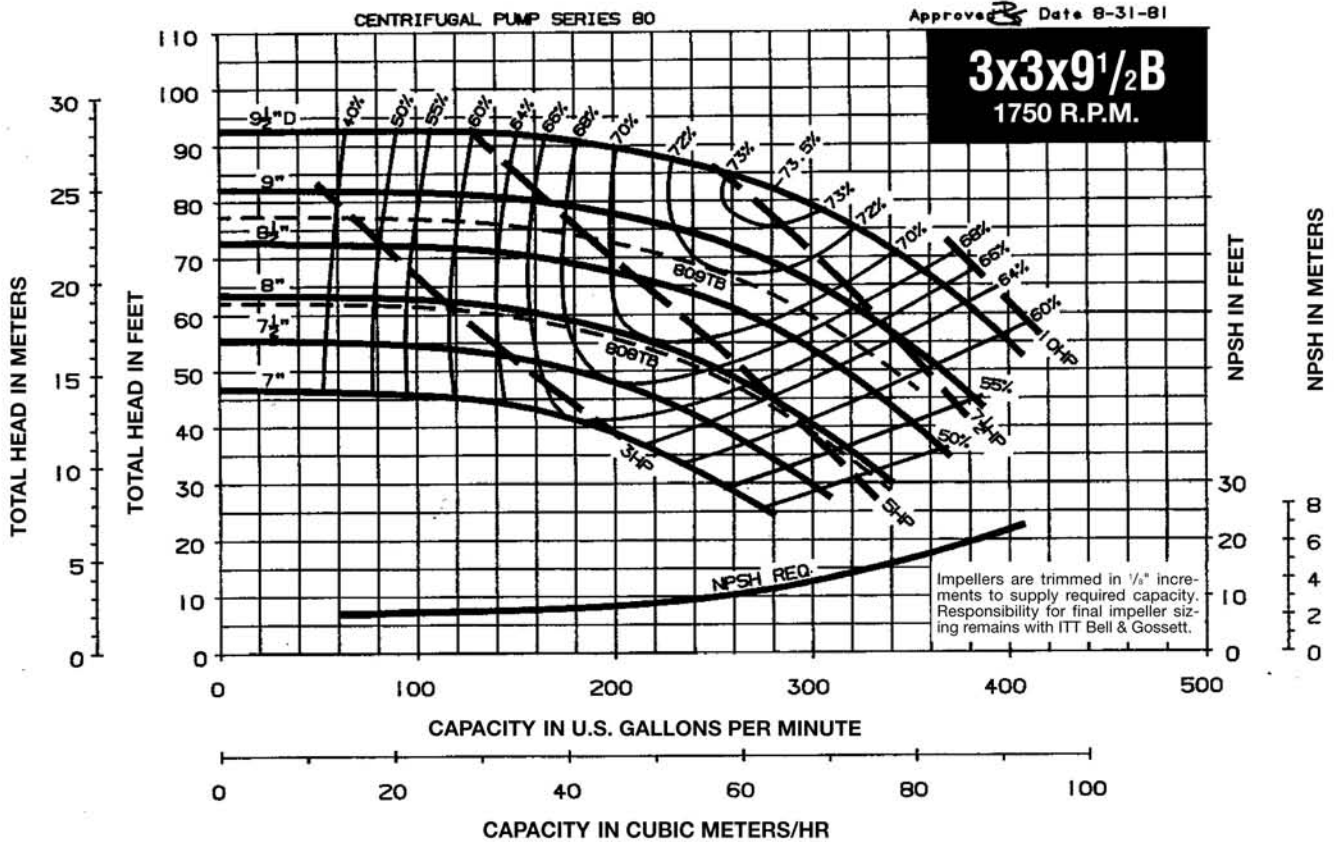
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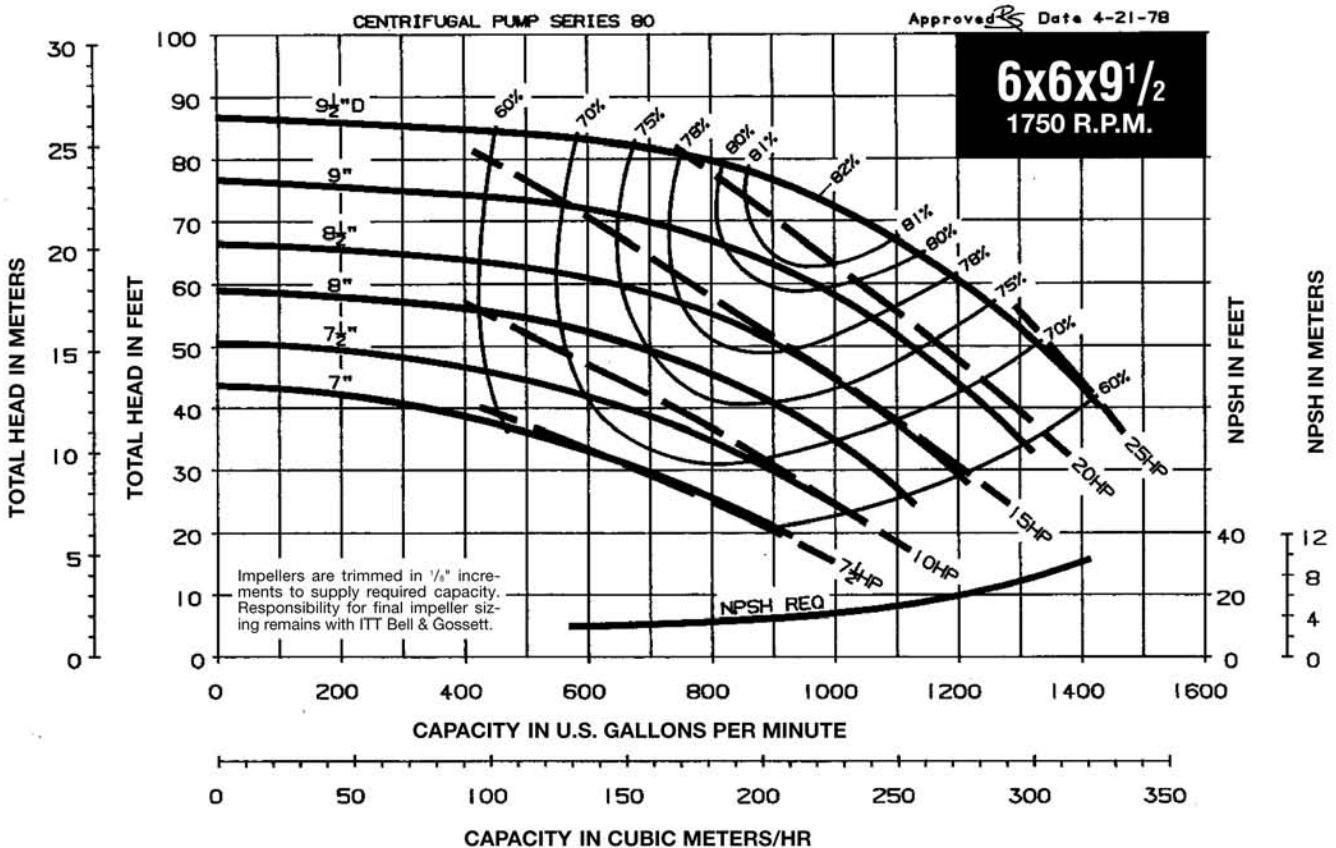
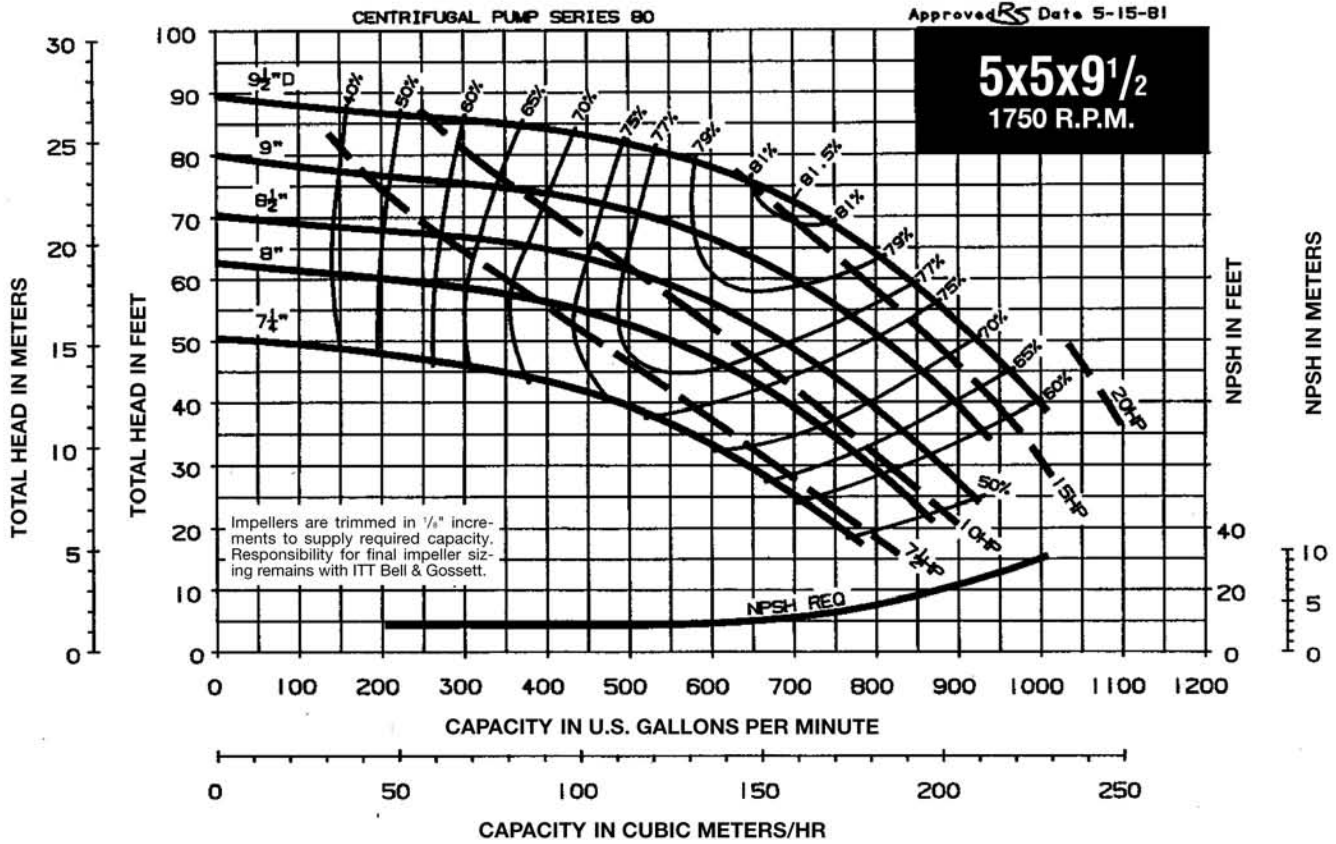
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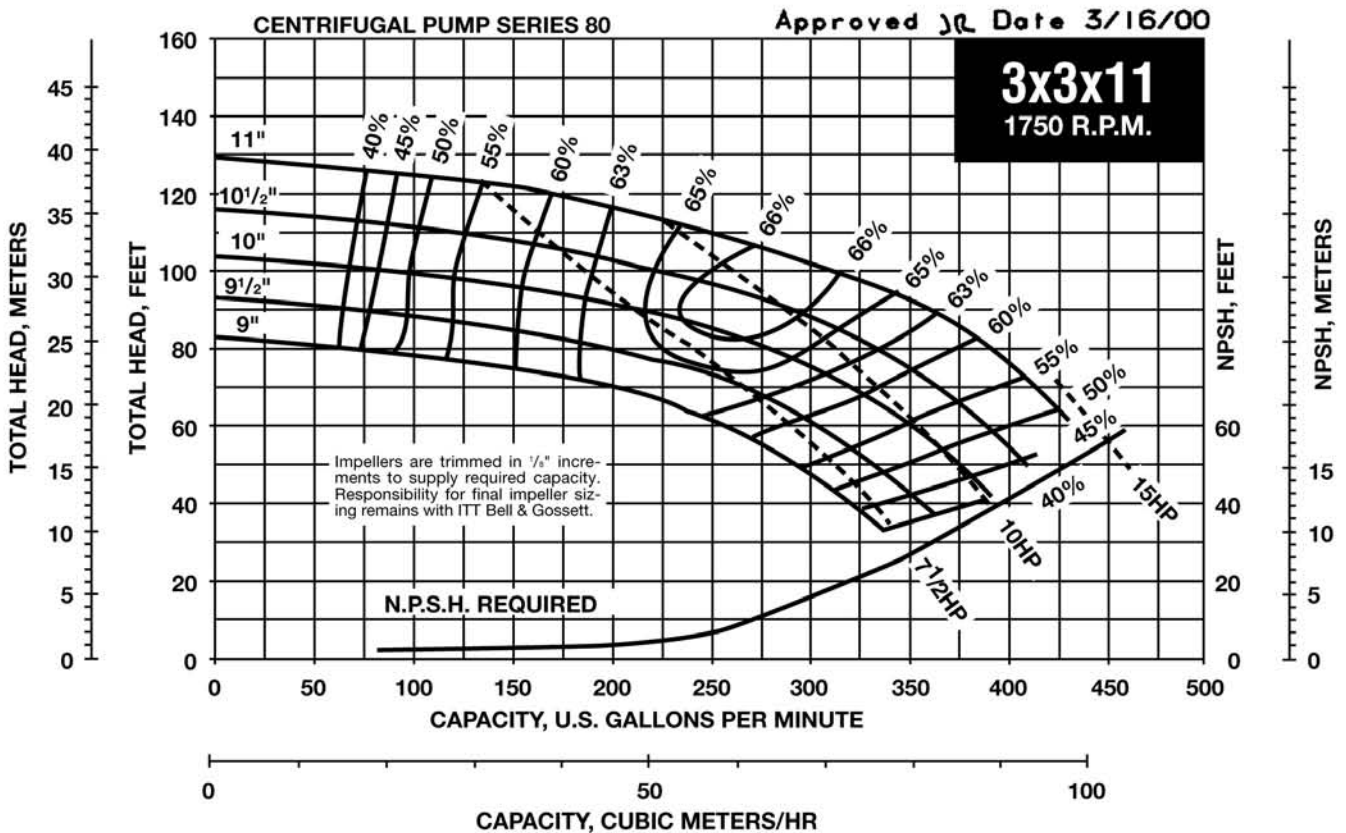
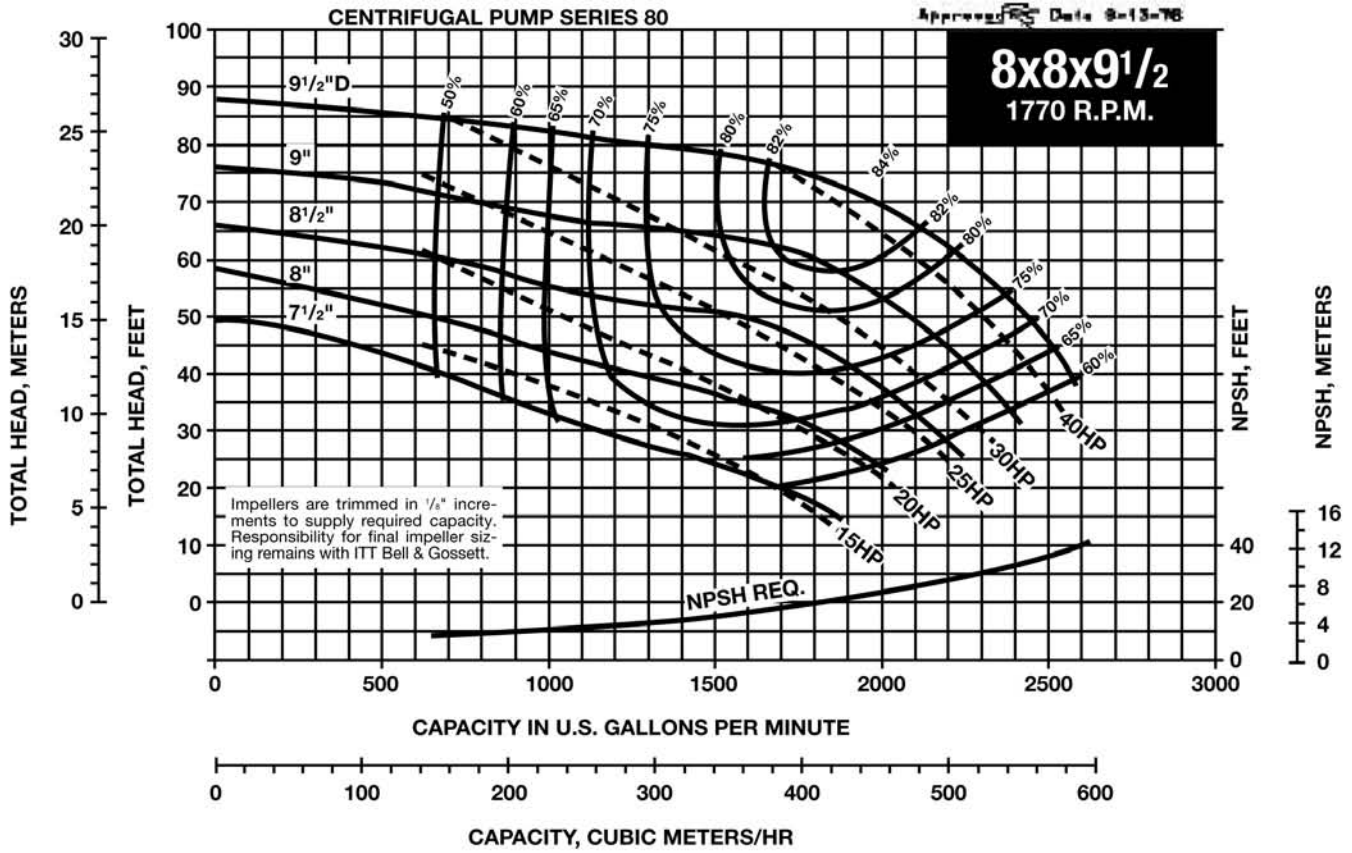
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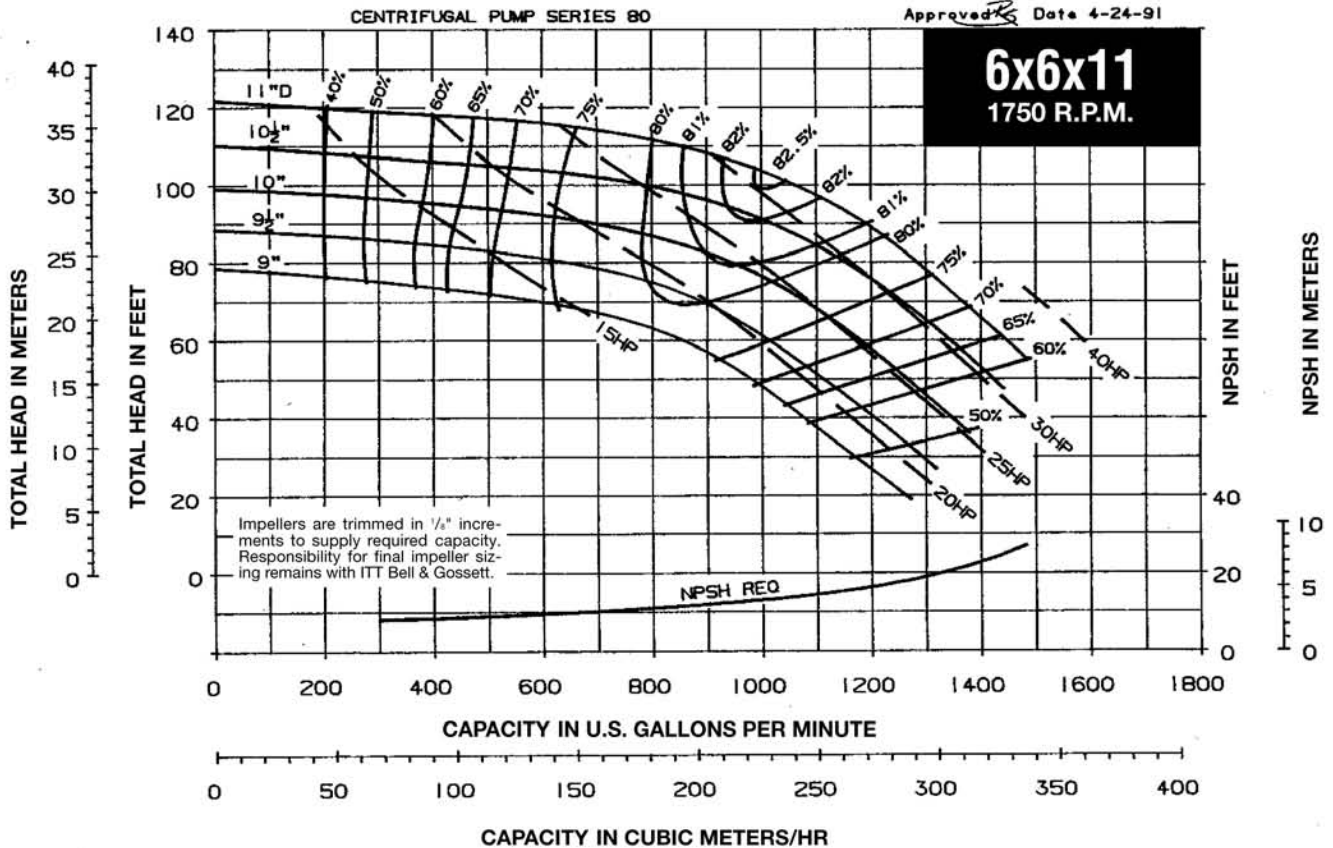
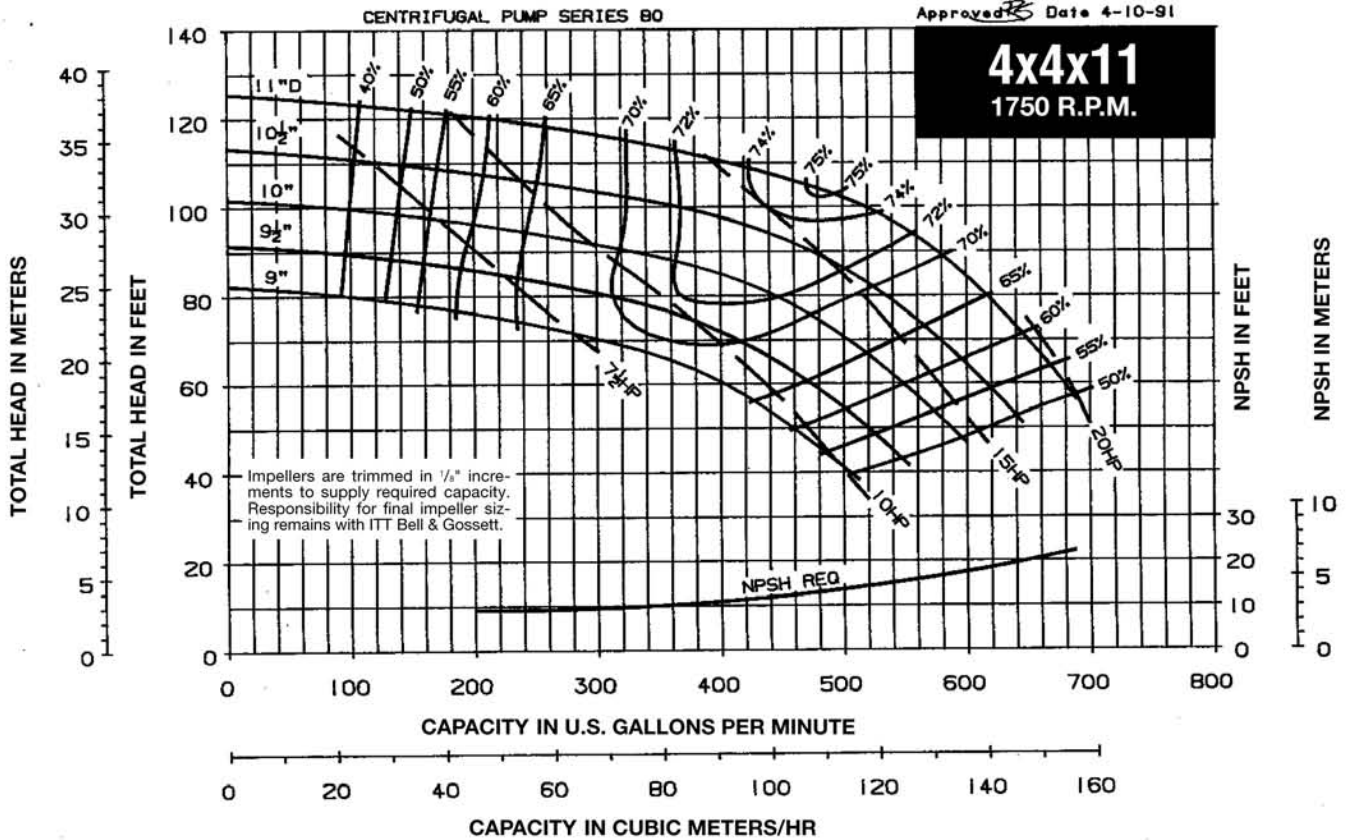
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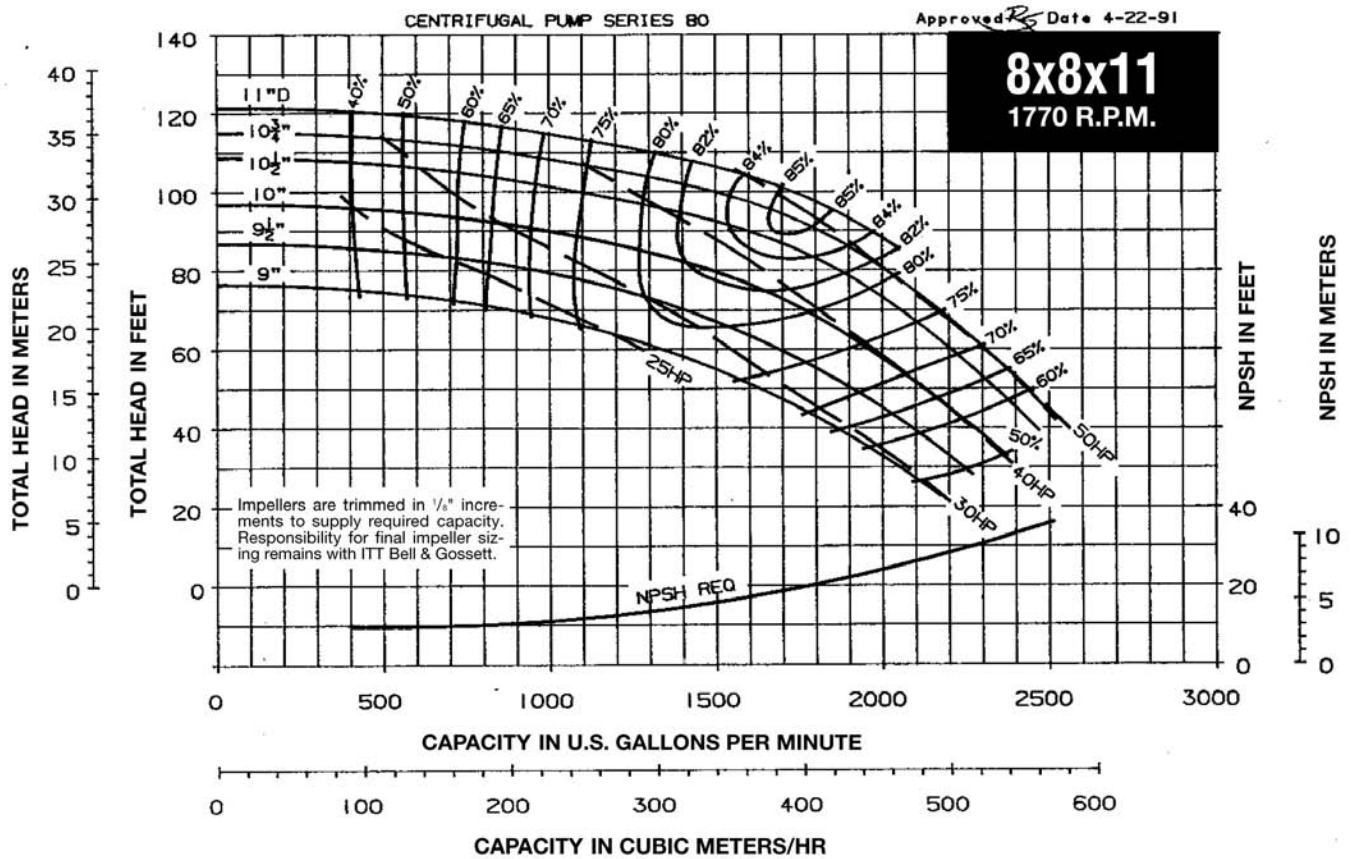
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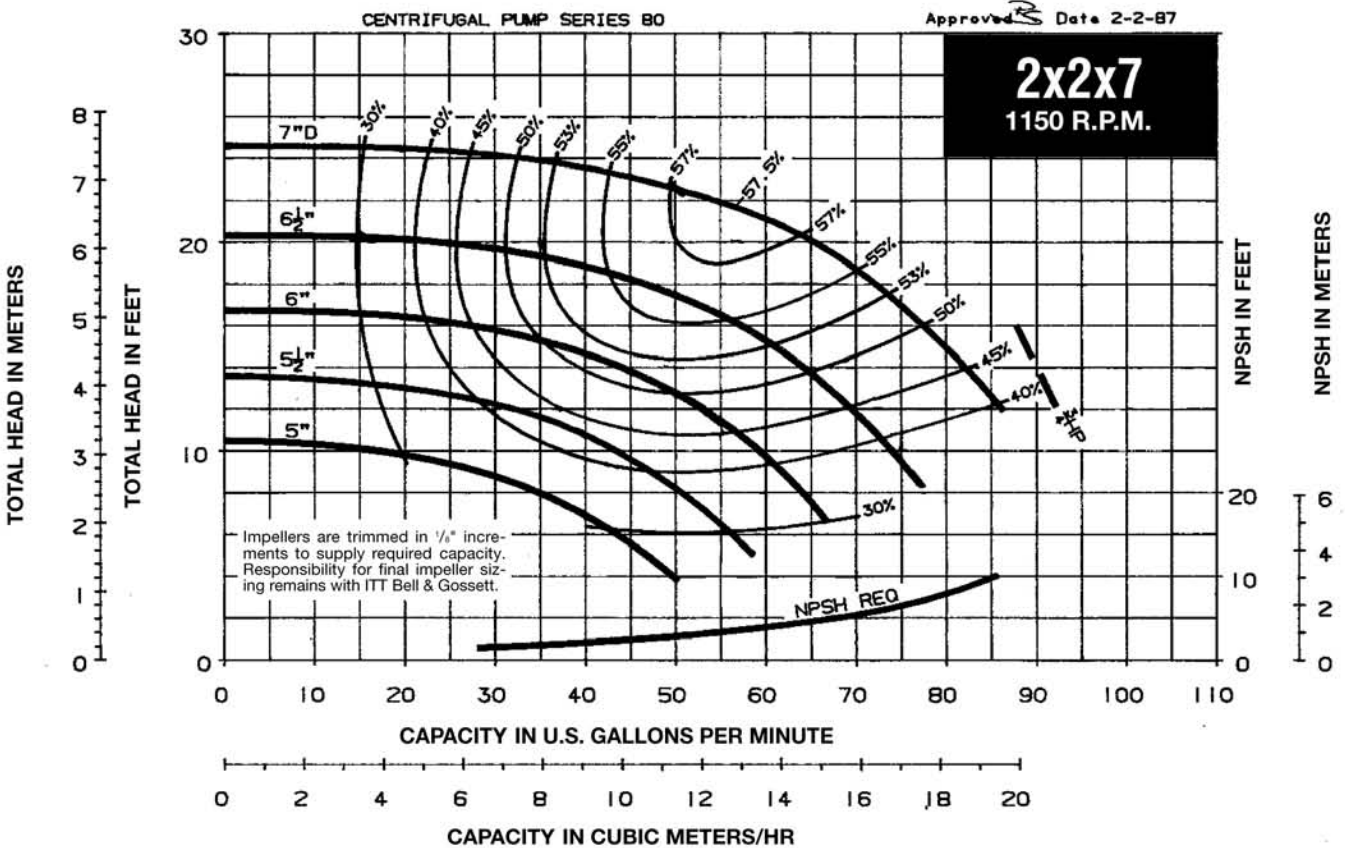
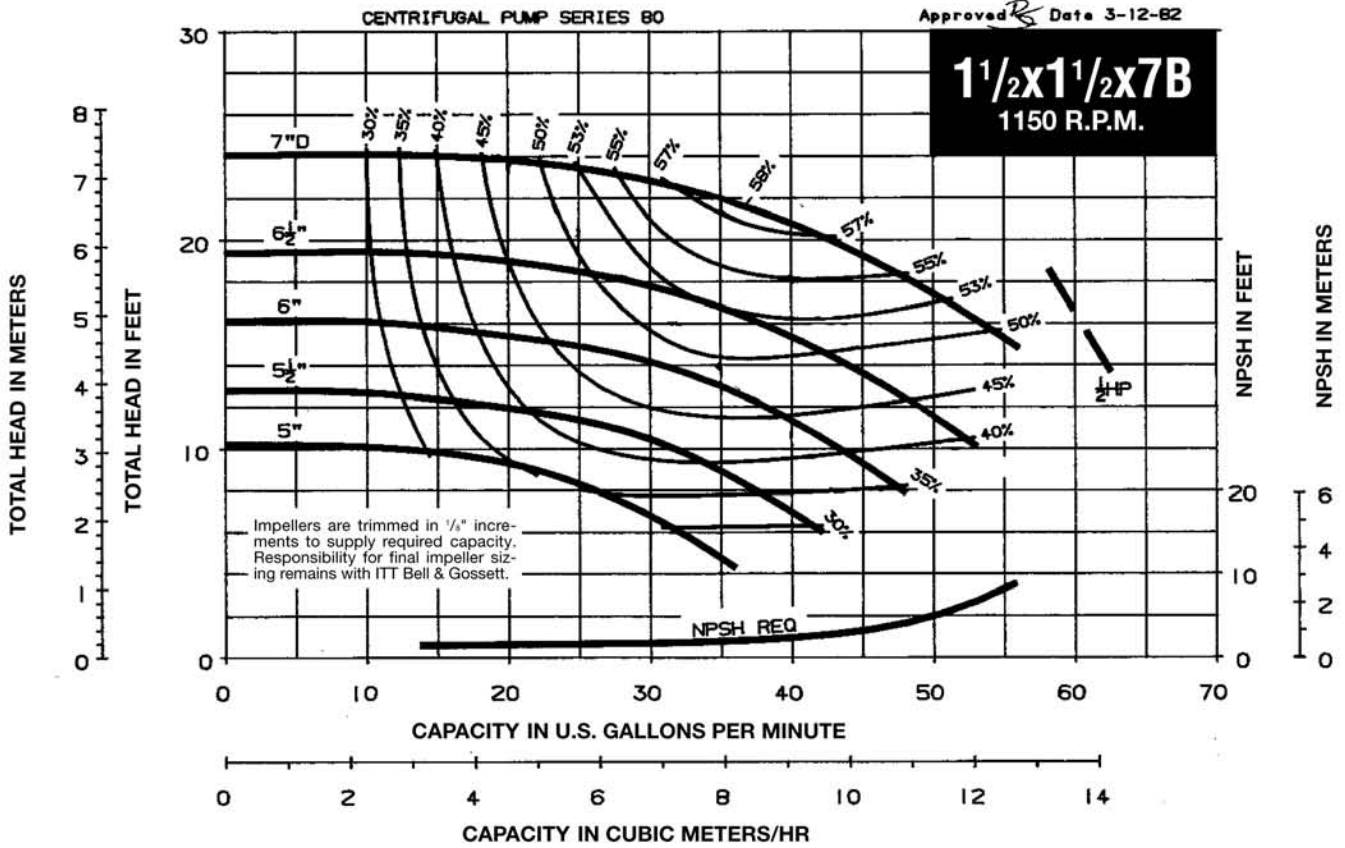
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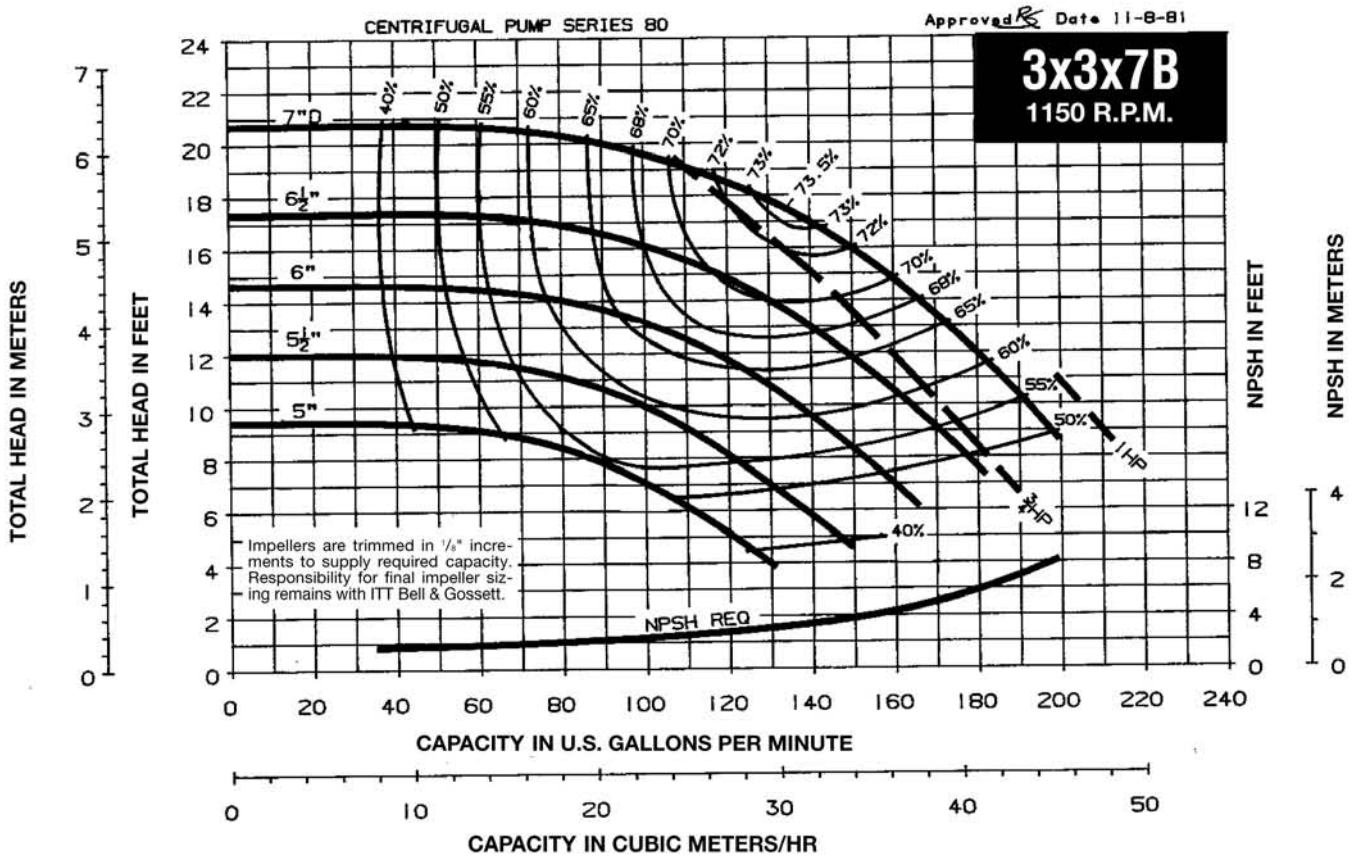
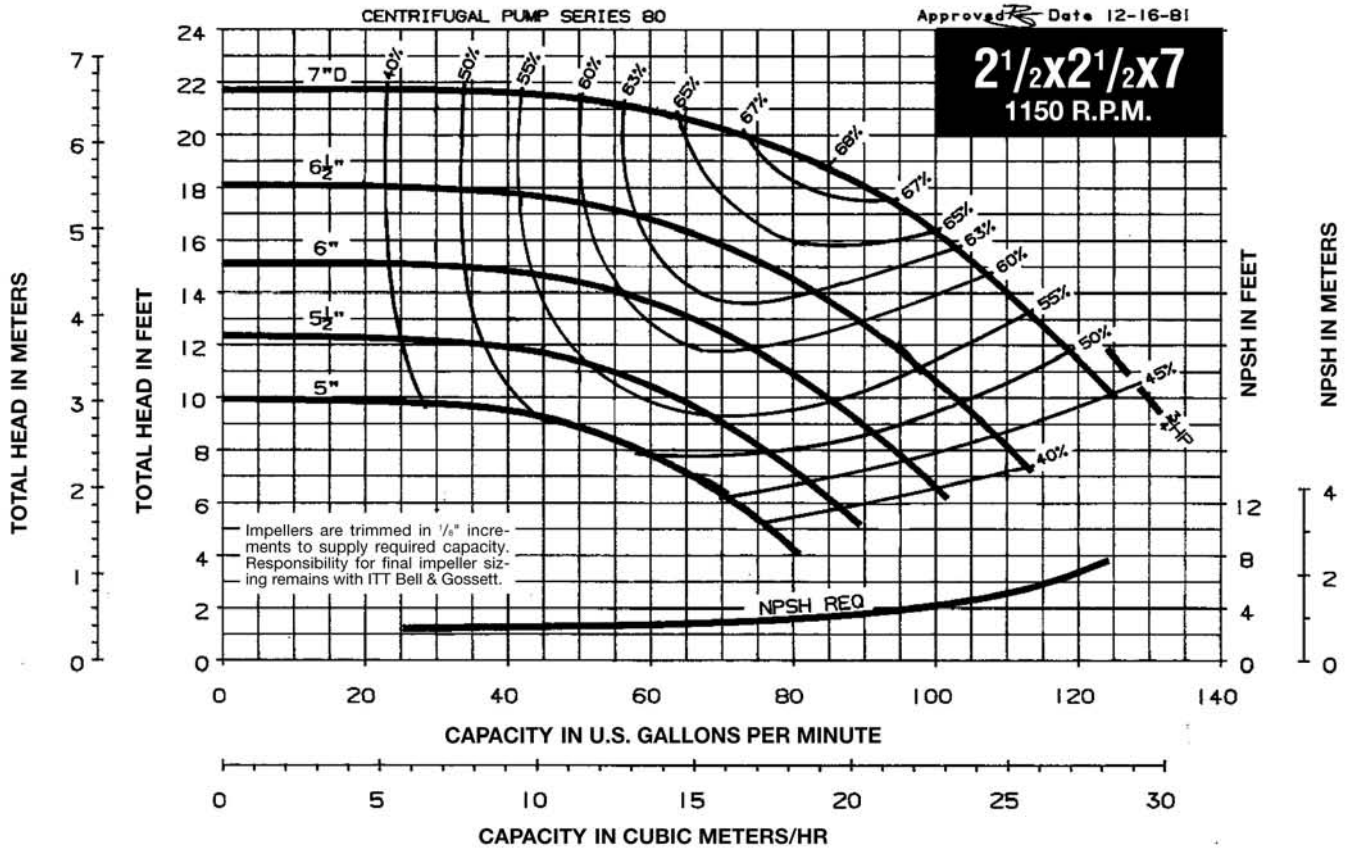
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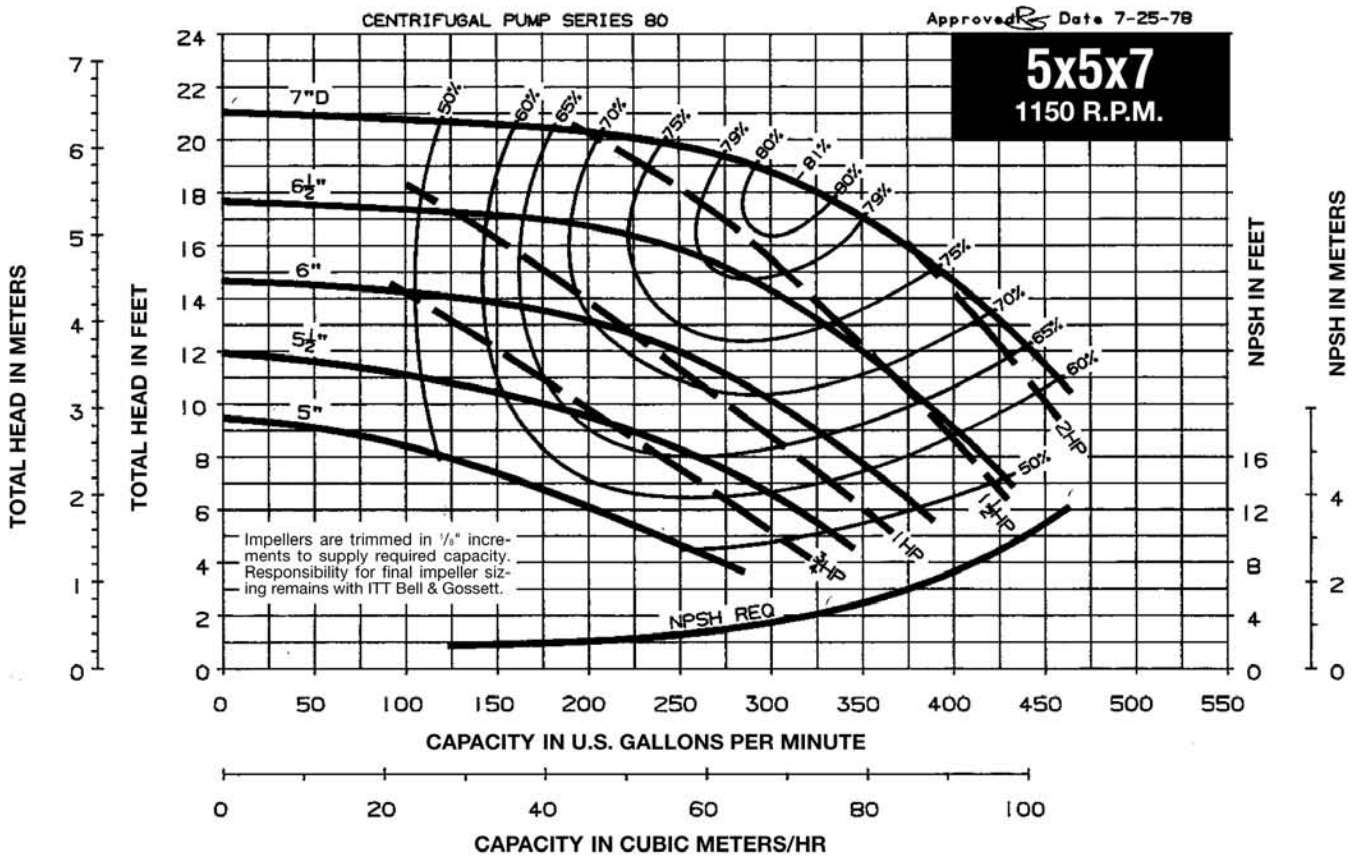
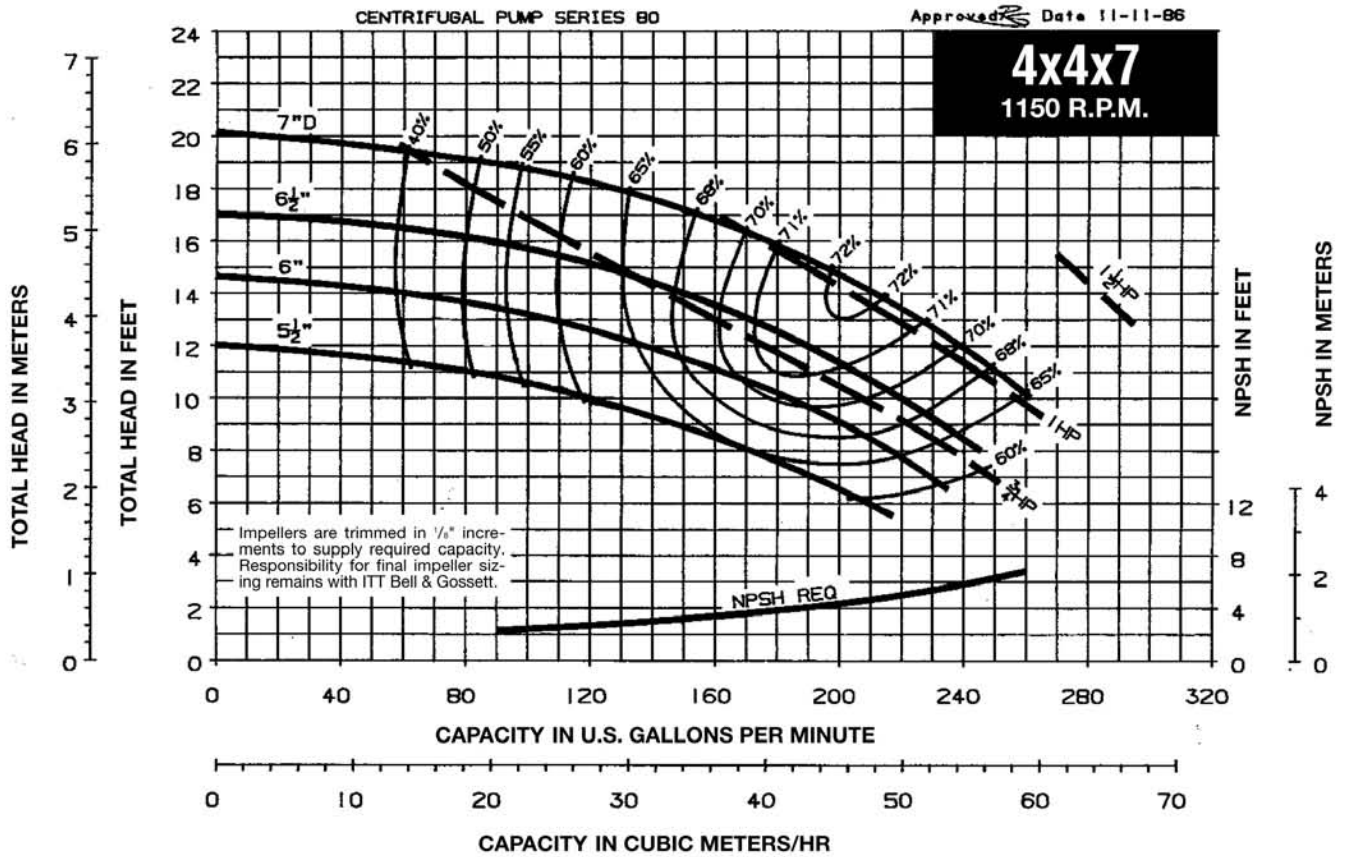
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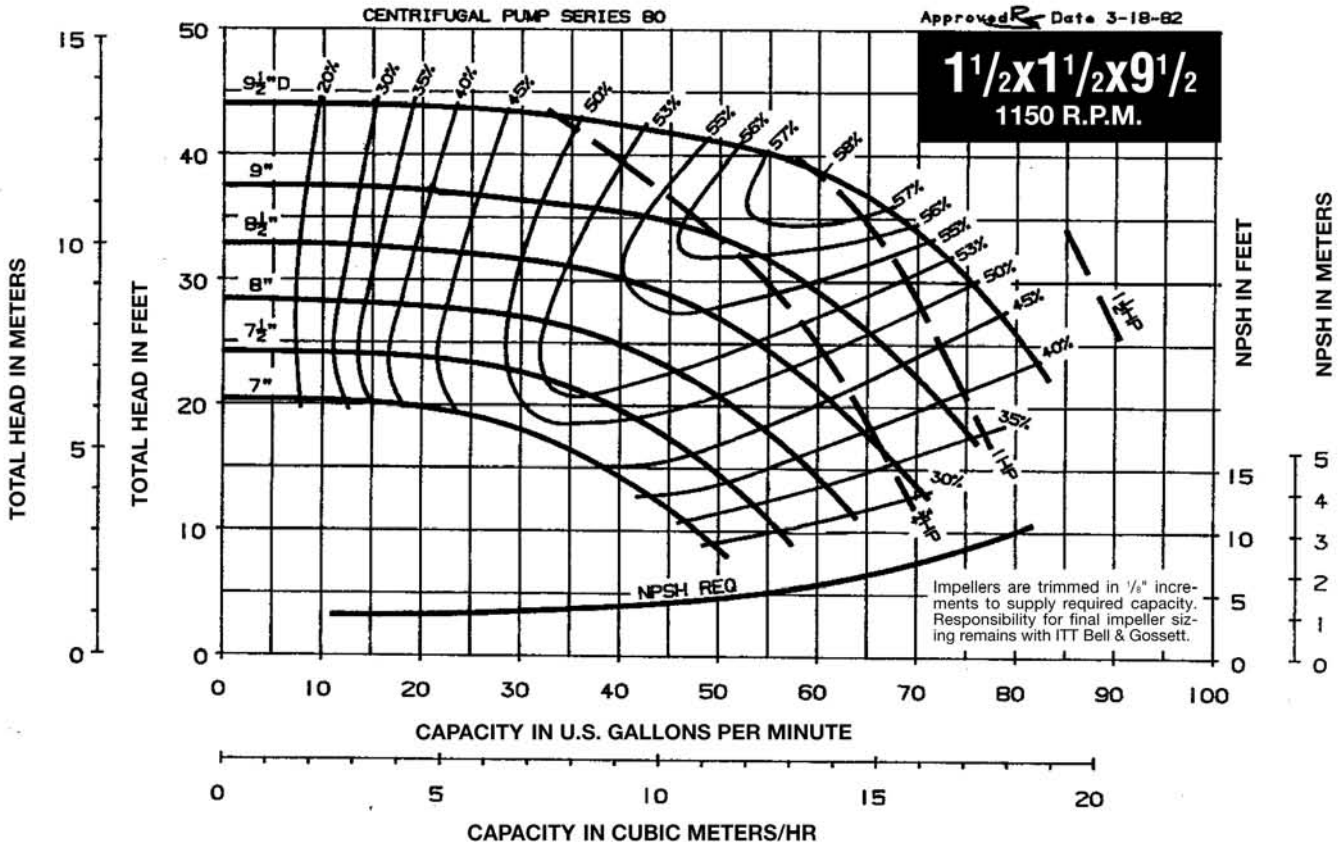
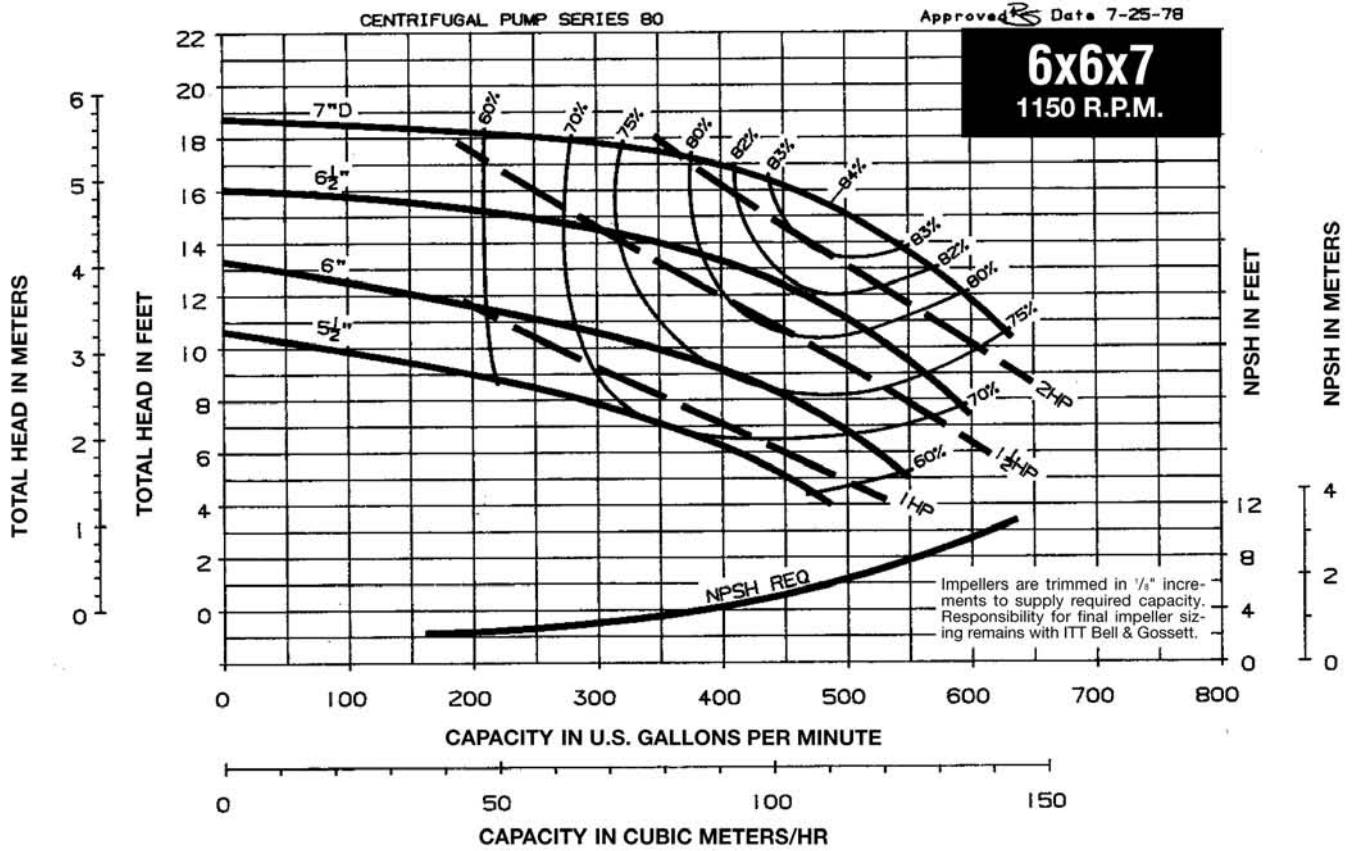
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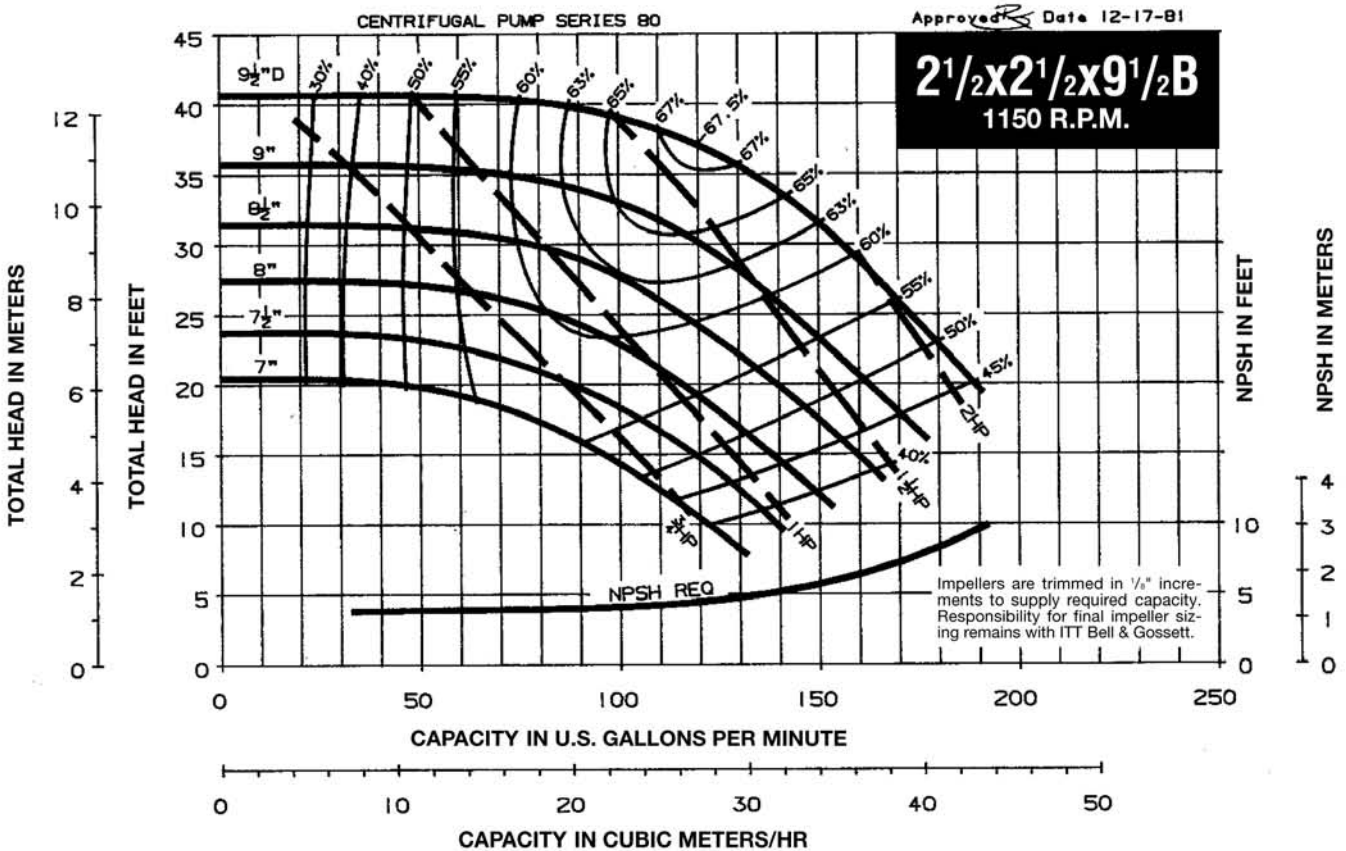
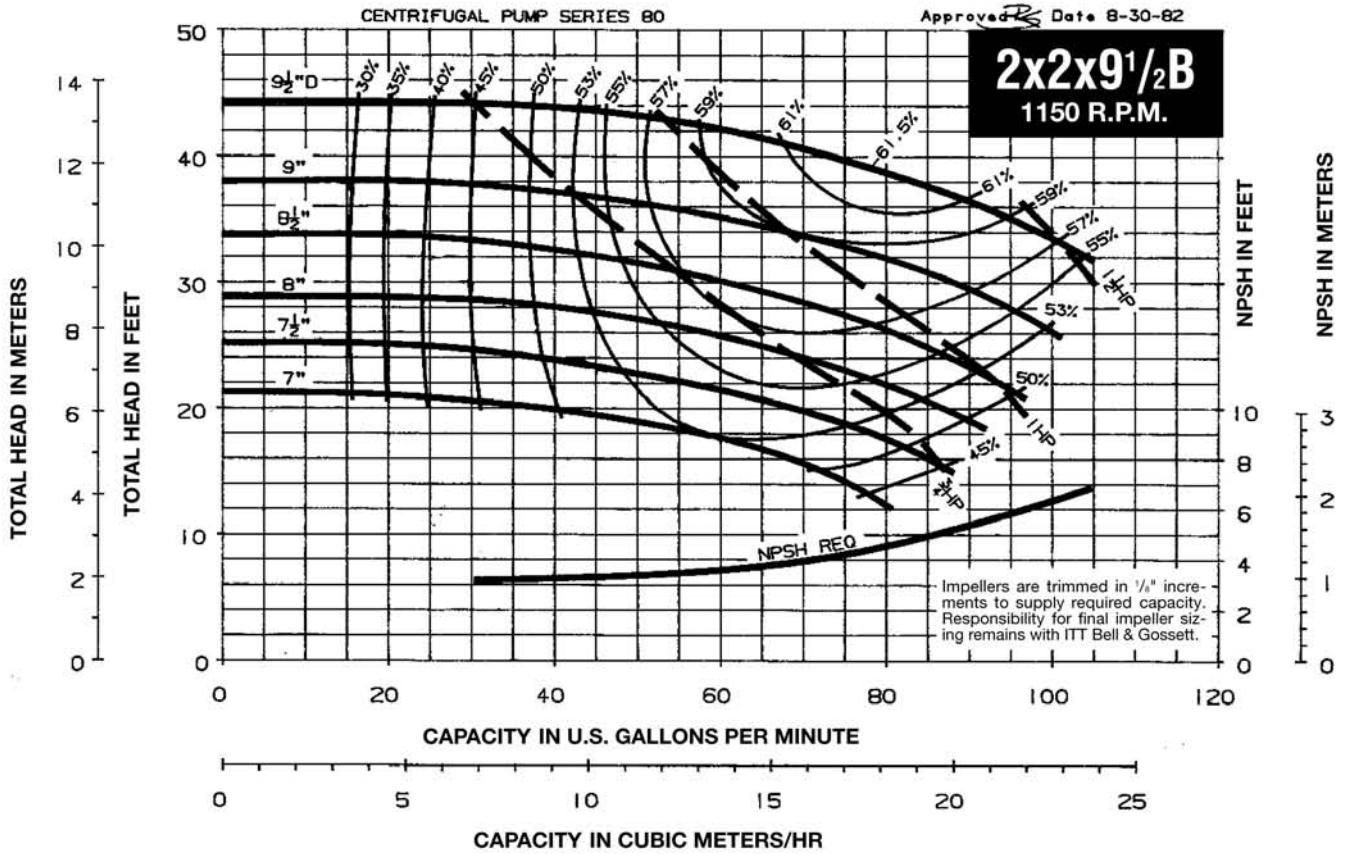
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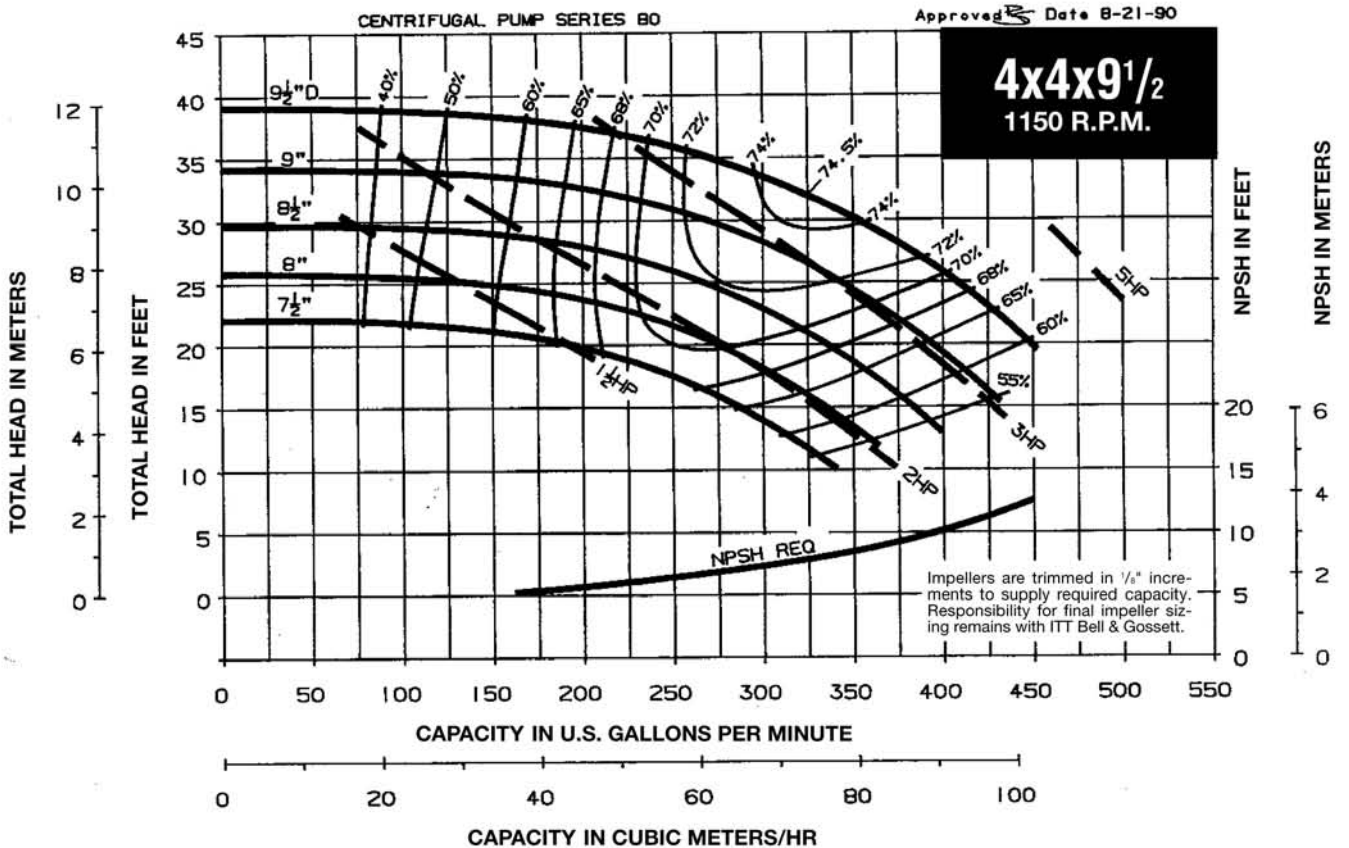
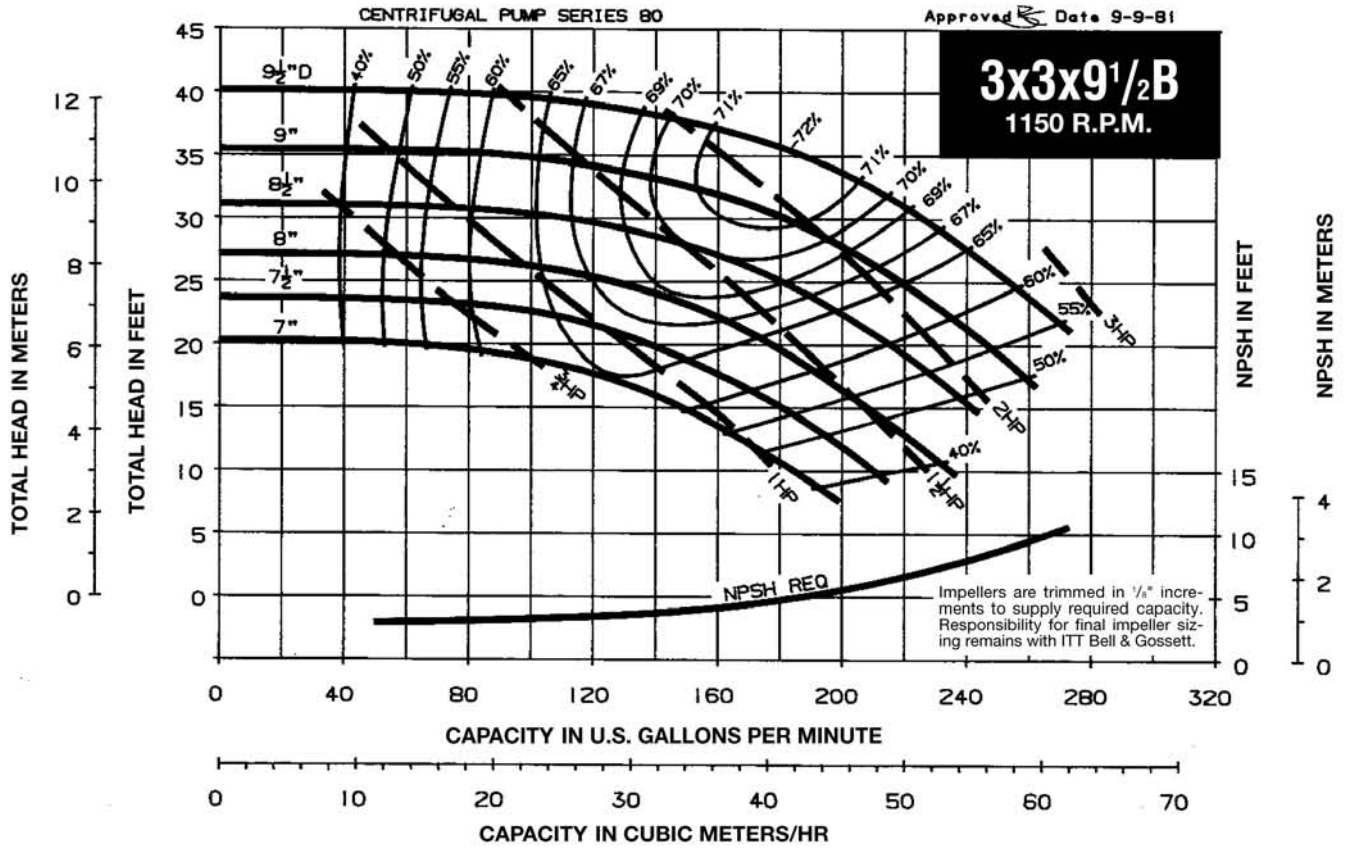
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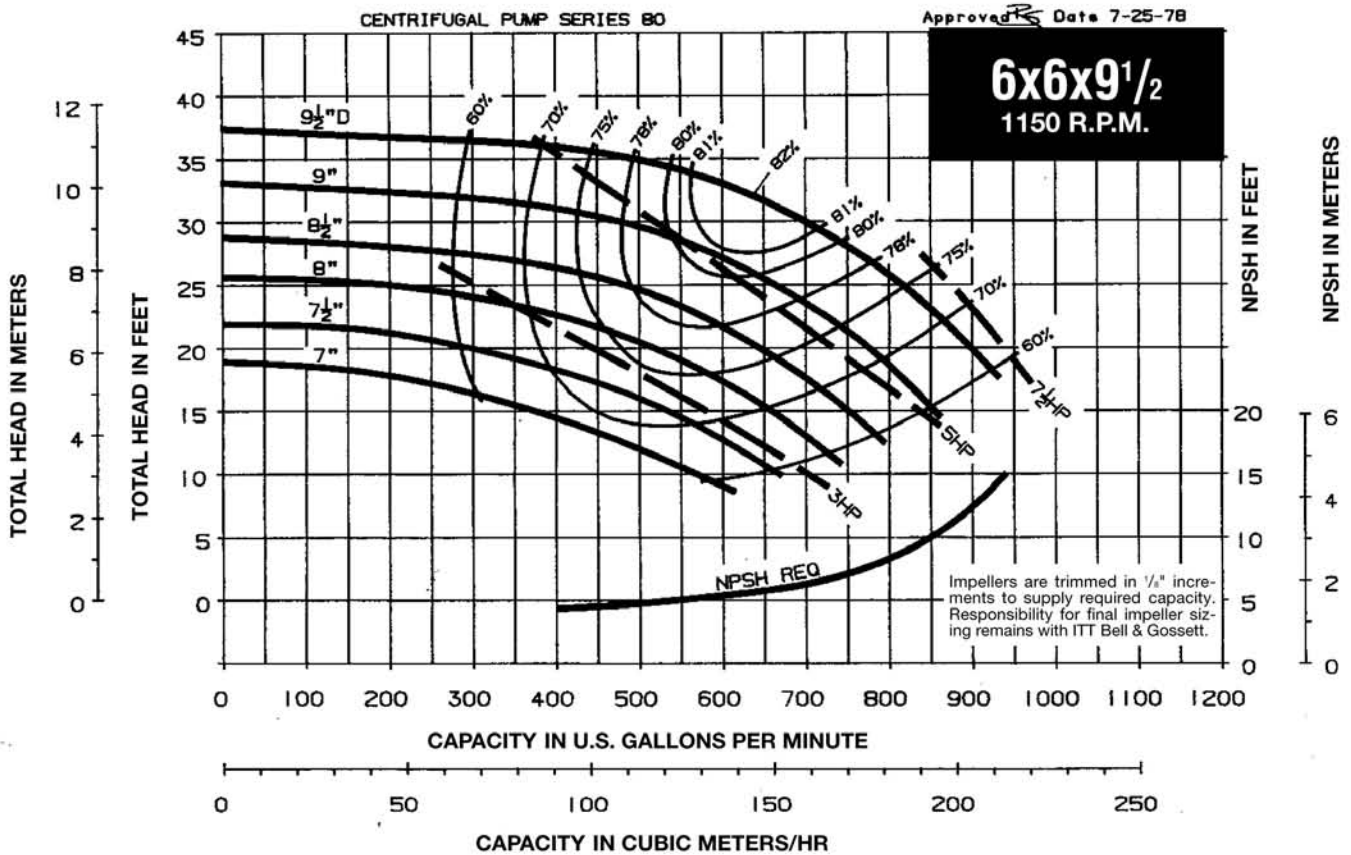
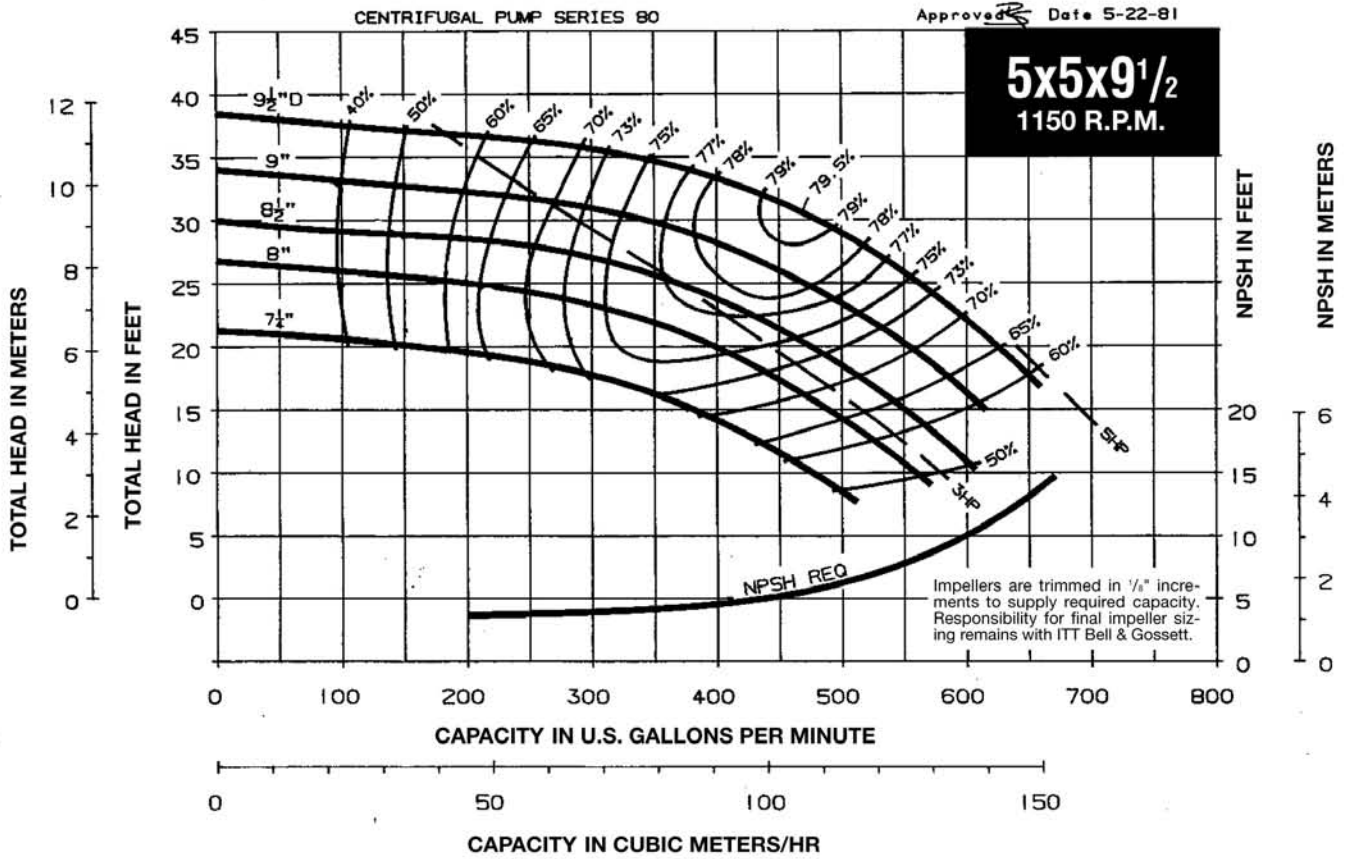
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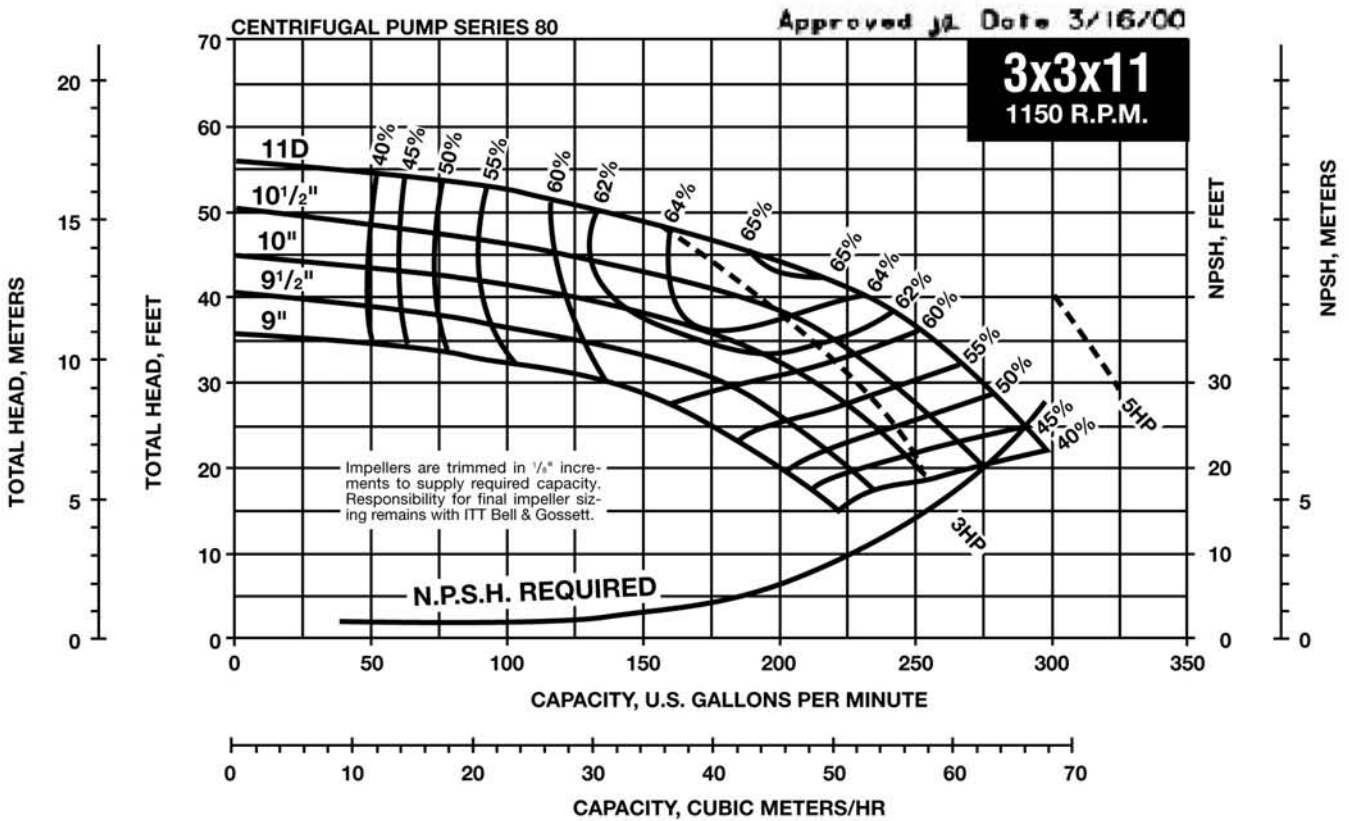
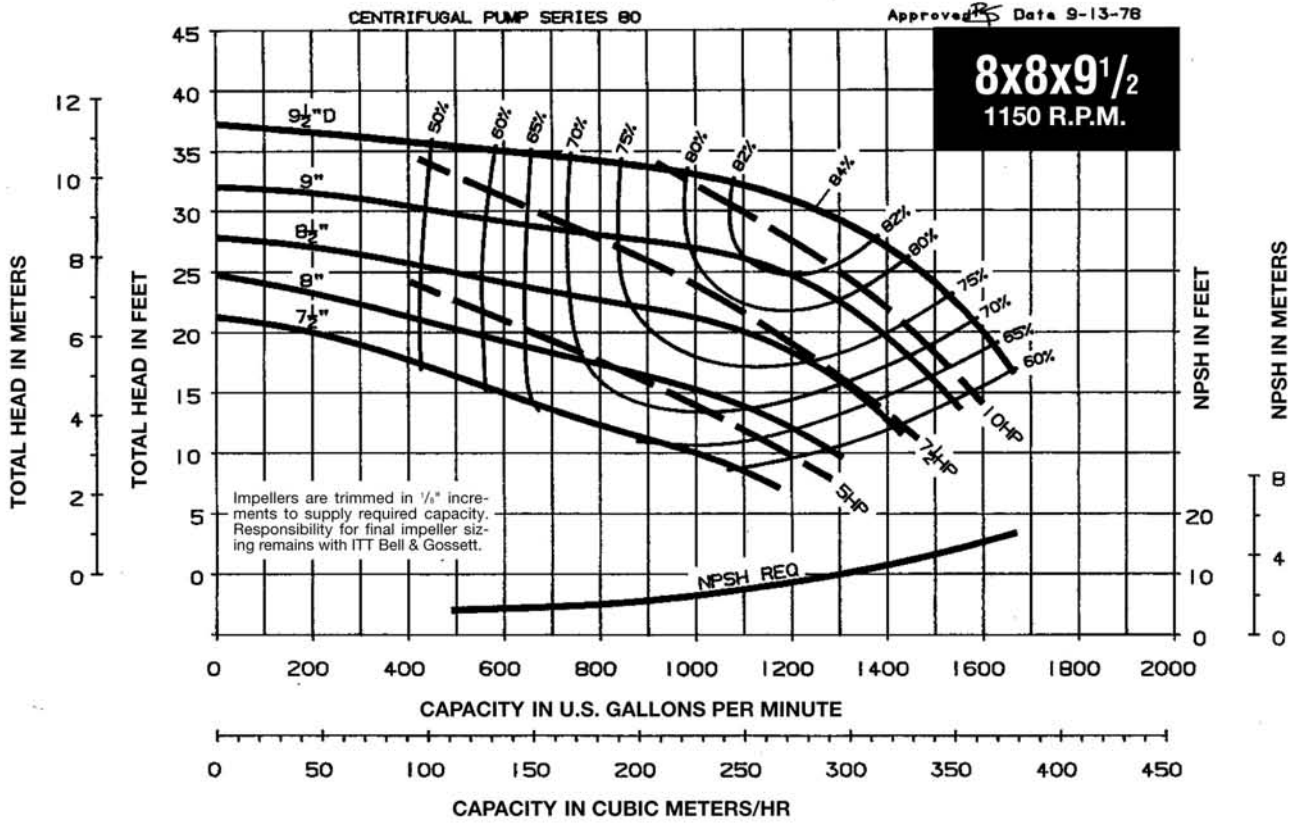
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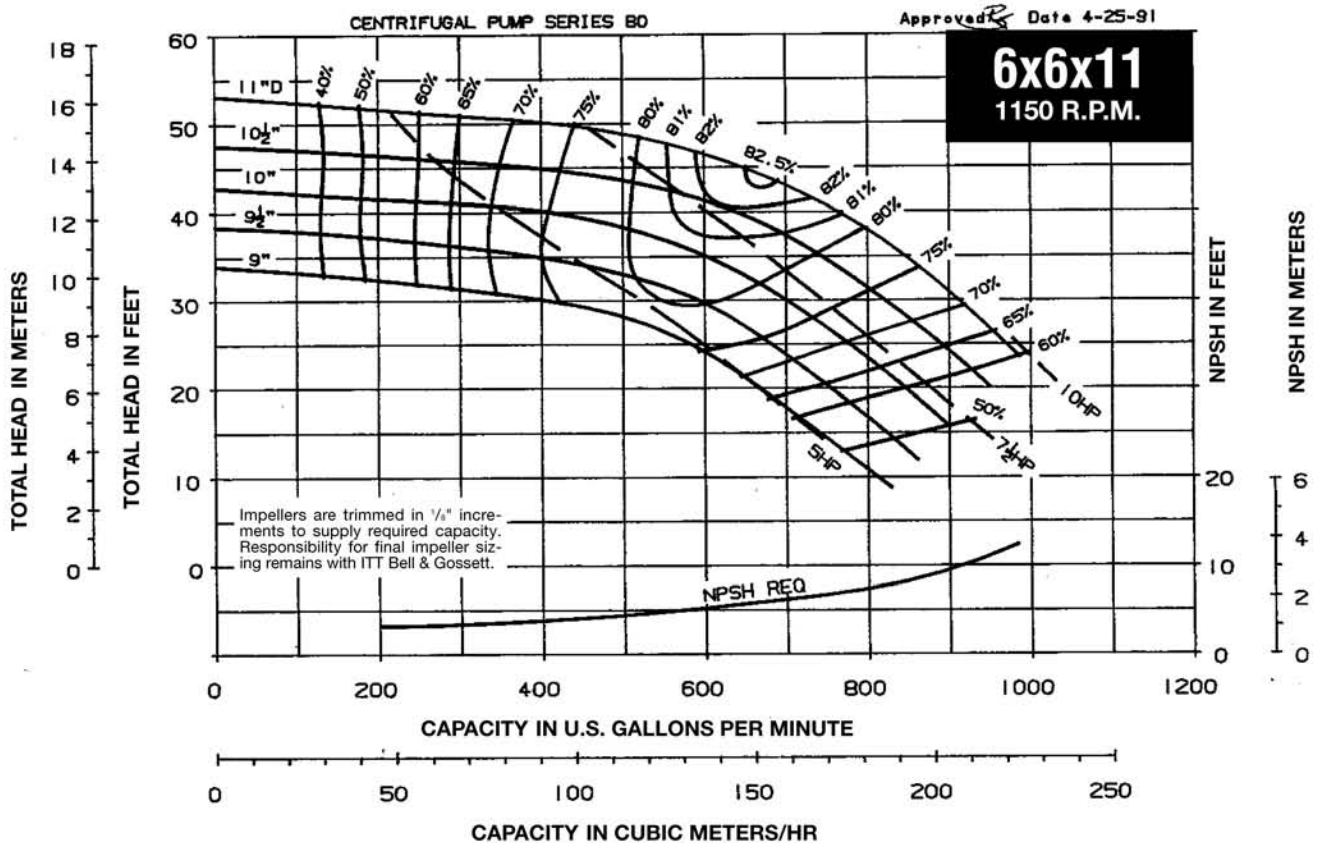
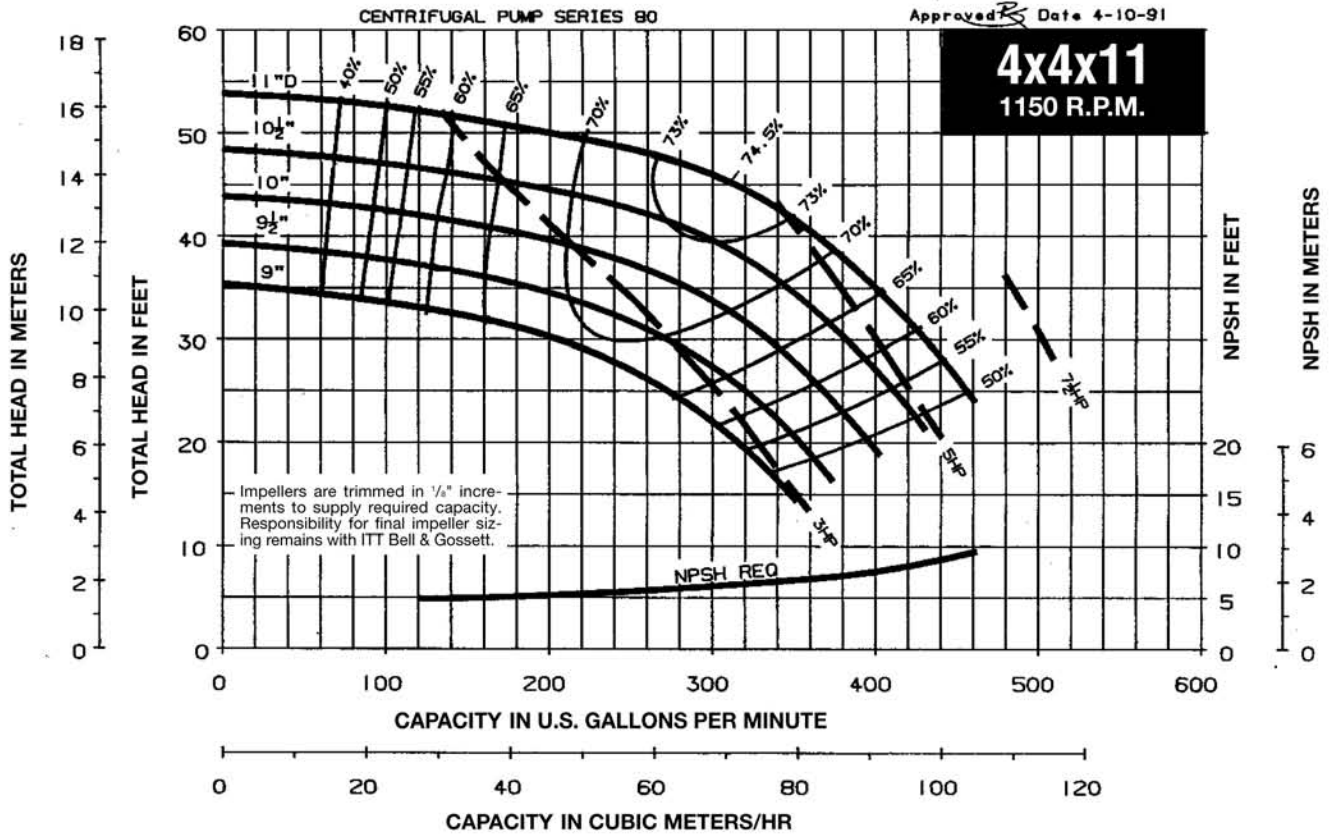
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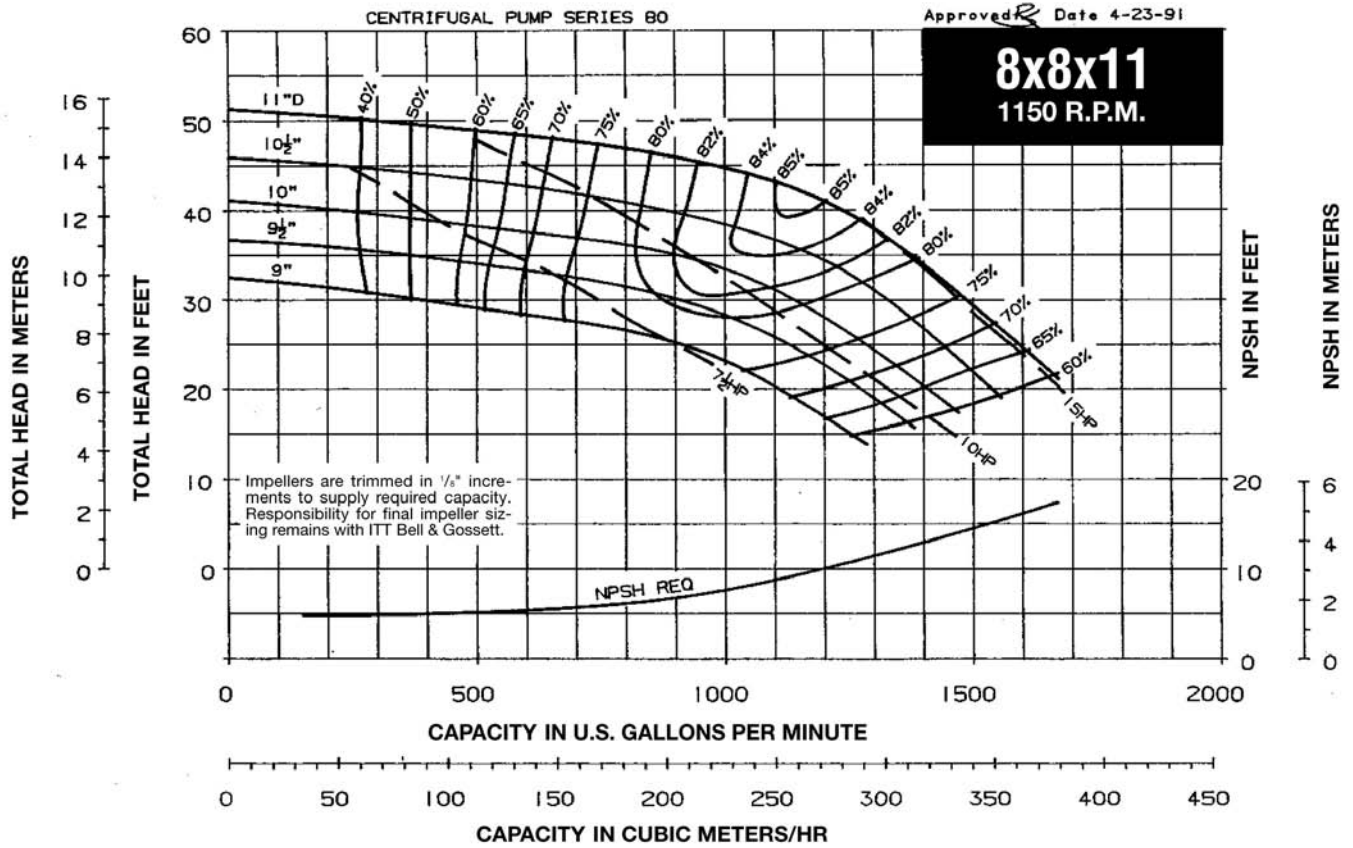
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NOTES

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NOTES

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www.xyleminc.com/brands/bellgossett



Bell & Gossett

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