

**CURVES**  
A-165B



# ecocirc® XL

HIGH EFFICIENCY LARGE WET ROTOR PUMP PERFORMANCE 50/60HZ CURVES



**Bell & Gossett**

a xylem brand

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## Useful Pump Formulas

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

### 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	$Q_2 = \frac{\text{RPM}_2}{\text{RPM}_1} Q_1$	$H_2 = \left(\frac{\text{RPM}_2}{\text{RPM}_1}\right)^2 H_1$	$P_2 = \left(\frac{\text{RPM}_2}{\text{RPM}_1}\right)^3 P_1$

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

# ecocirc XL

## Model Part Numbers & Motor Data

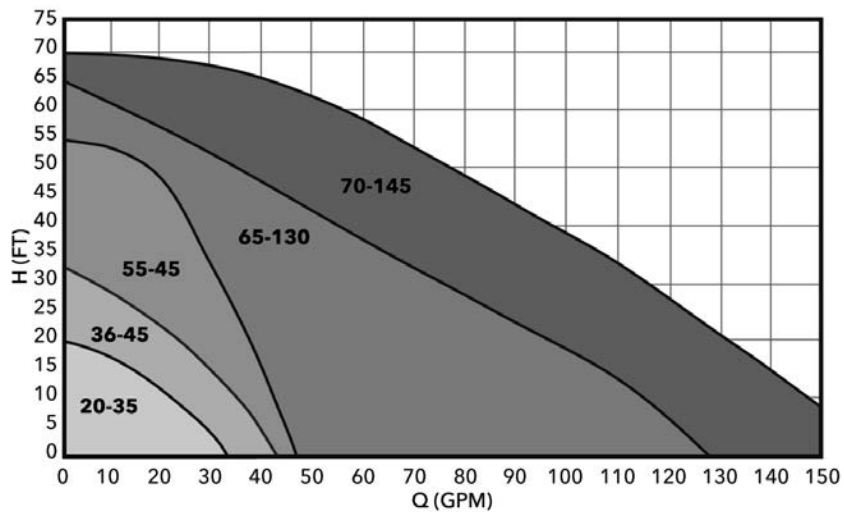
Cast Iron Body		Lead-Free Bronze Body*		Rated Motor Characteristics					
Model Number	Part Number	Model Number	Part Number	HP**	Voltage	Phase	Hz	Watts Range	AMP Range
ecocirc XL 20-35	104300	ecocirc XL B 20-35	104400LF	1/12	115	1	50/60	6-85	0.1 - 1.3
ecocirc XL 36-45	104301	ecocirc XL B 36-45	104401LF	1/6	115	1	50/60	20-200	0.1 - 3.0
ecocirc XL 36-45	104302	ecocirc XL B 36-45	104402LF	1/6	208-230	1	50/60	20-200	0.1 - 1.5
ecocirc XL 15-75	104303	ecocirc XL B 15-75	104403LF	1/6	115	1	50/60	30-150	0.1 - 2.3
ecocirc XL 15-75	104304	ecocirc XL B 15-75	104404LF	1/6	208-230	1	50/60	30-150	0.1 - 1.1
ecocirc XL 55-45	104306	ecocirc XL B 55-45	104406LF	1/2	208-230	1	50/60	30-500	0.2 - 2.0
ecocirc XL 20-140	104308	ecocirc XL B 20-140	104408LF	1/2	208-230	1	50/60	35-470	0.2 - 2.0
ecocirc XL 65-130	104309	ecocirc XL B 65-130	104409LF	1	208-230	1	50/60	45-825	0.5 - 3.5
ecocirc XL 40-200	104312	ecocirc XL B 40-200	104412LF	1	208-230	1	50/60	50-825	0.5 - 3.5
ecocirc XL 70-145	104315	ecocirc XL B 70-145	104415LF	2	208-230	1	50/60	55-1400	0.6 - 6.0
ecocirc XL 40-275	104318	ecocirc XL B 40-275	104418LF	2	208-230	1	50/60	50-1400	0.5 - 6.0

Note: Where potable water is pumped, use a lead-free bronze booster. ecocirc XL pumps are recommended for indoor use only.

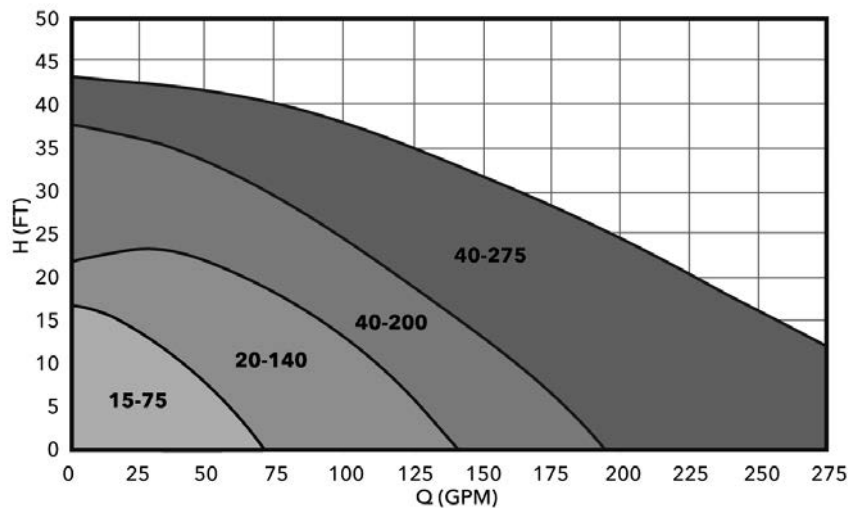
\*CSA certified to NSF/ANSI 372 that product contains less than 0.25% lead content by weight on wetted surface.

\*\* Nominal HP

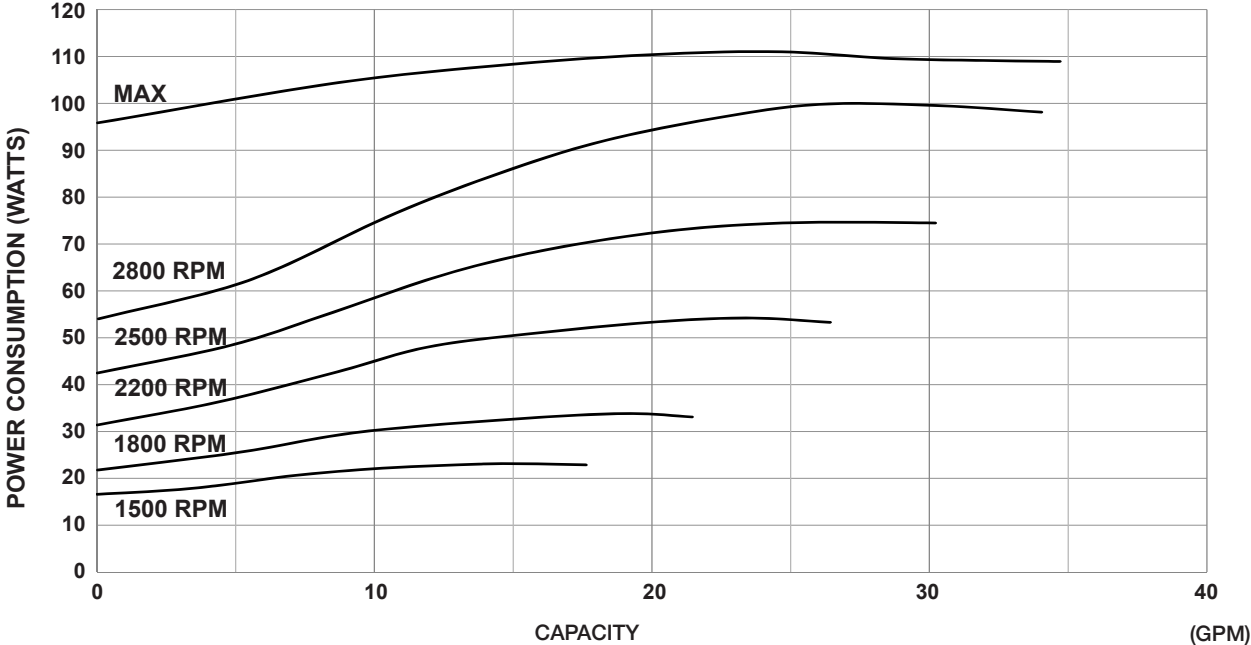
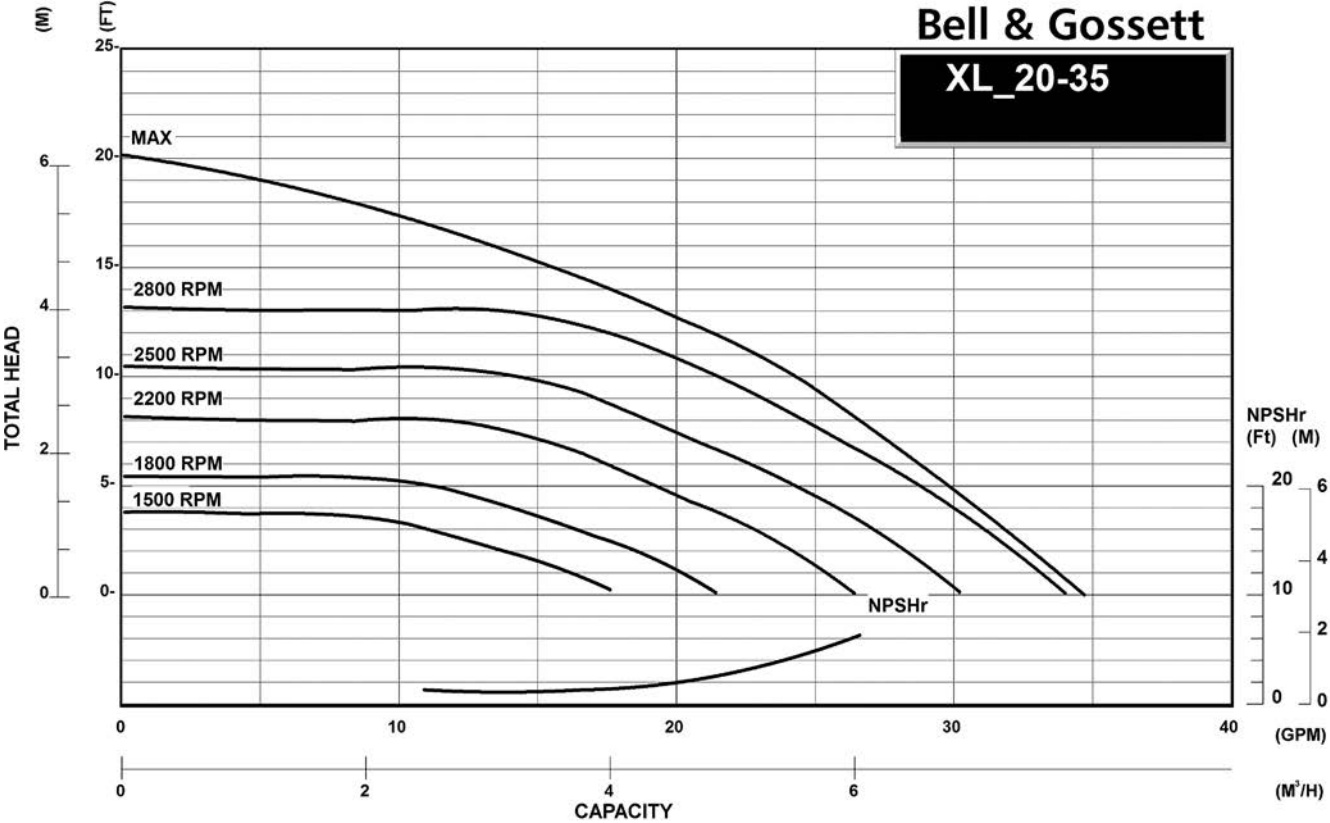
### ecocirc XL High Head Performance Range



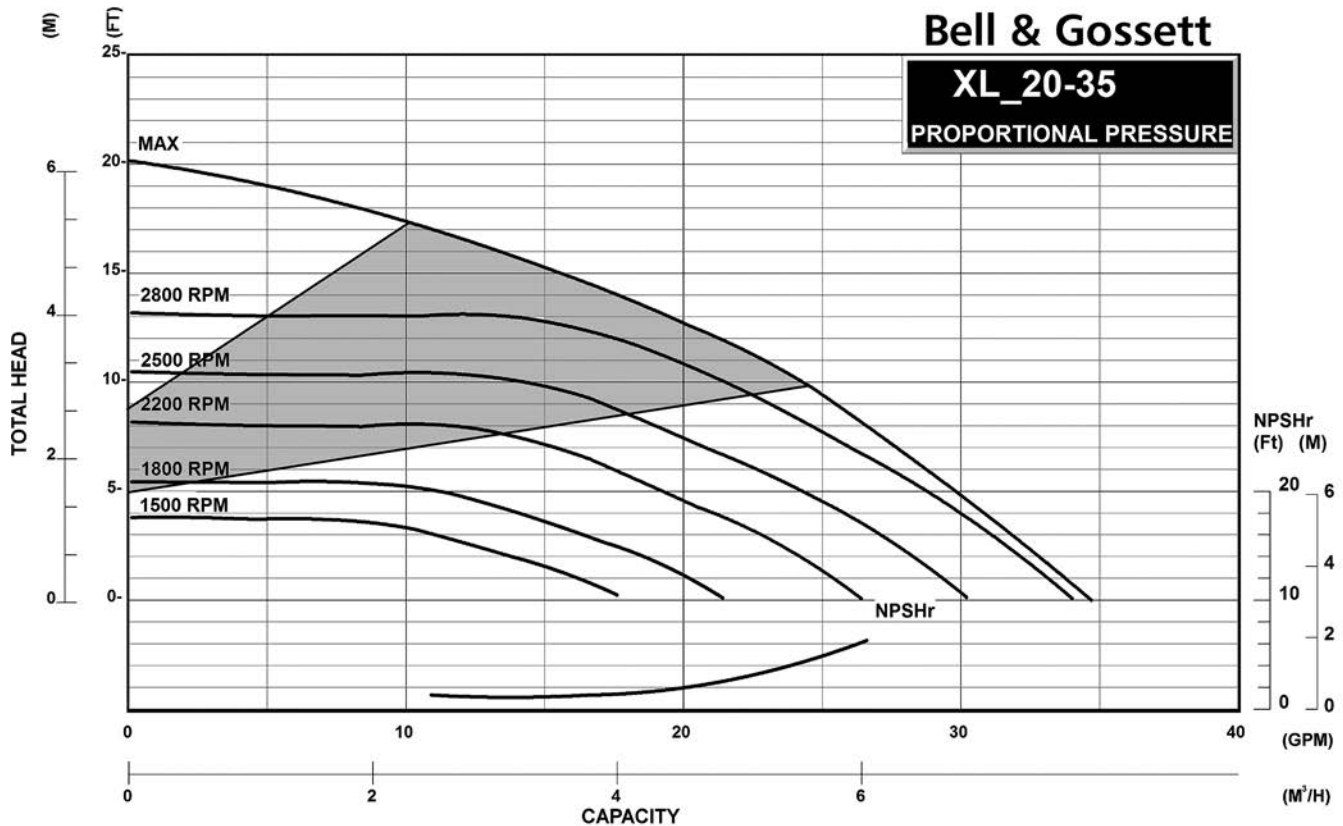
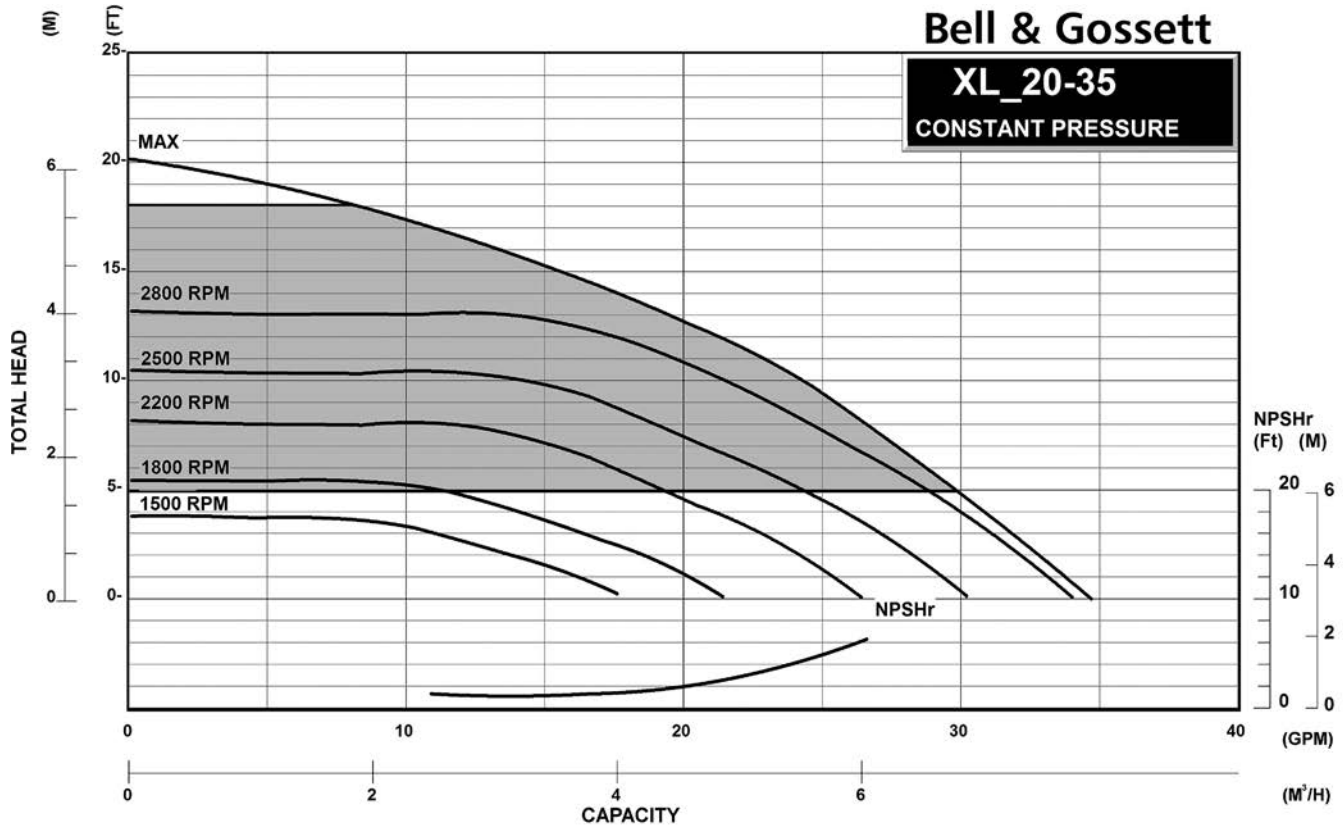
### ecocirc XL High Flow Performance Range



# ecocirc XL 20-35 Curves

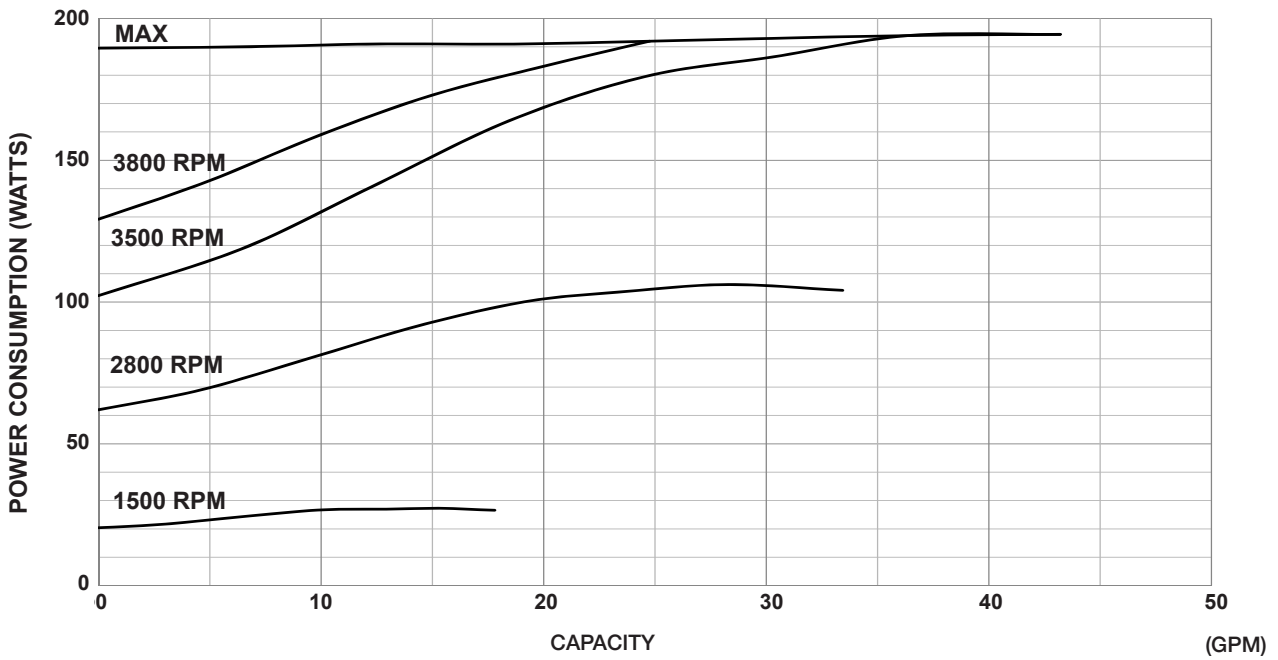
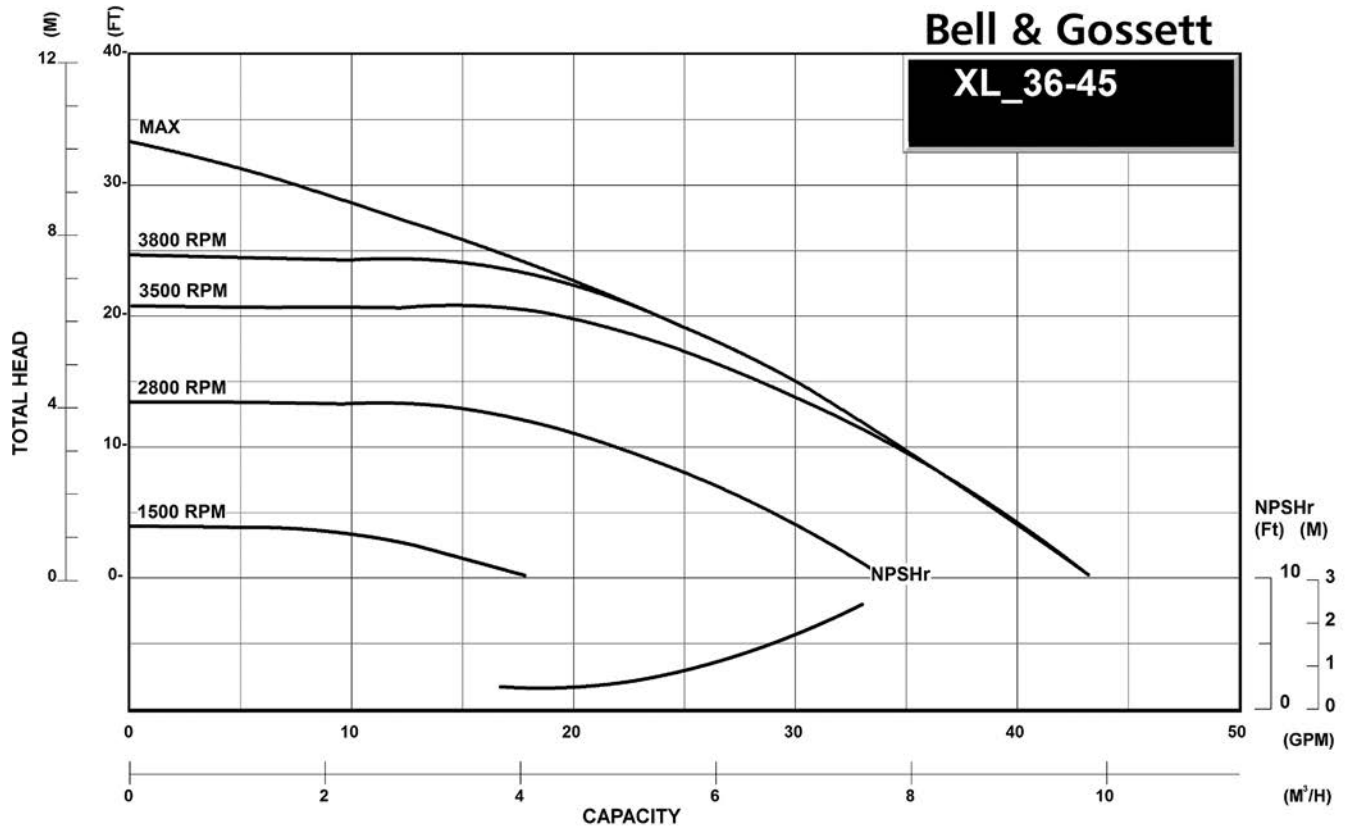


# ecocirc XL 20-35 Curves

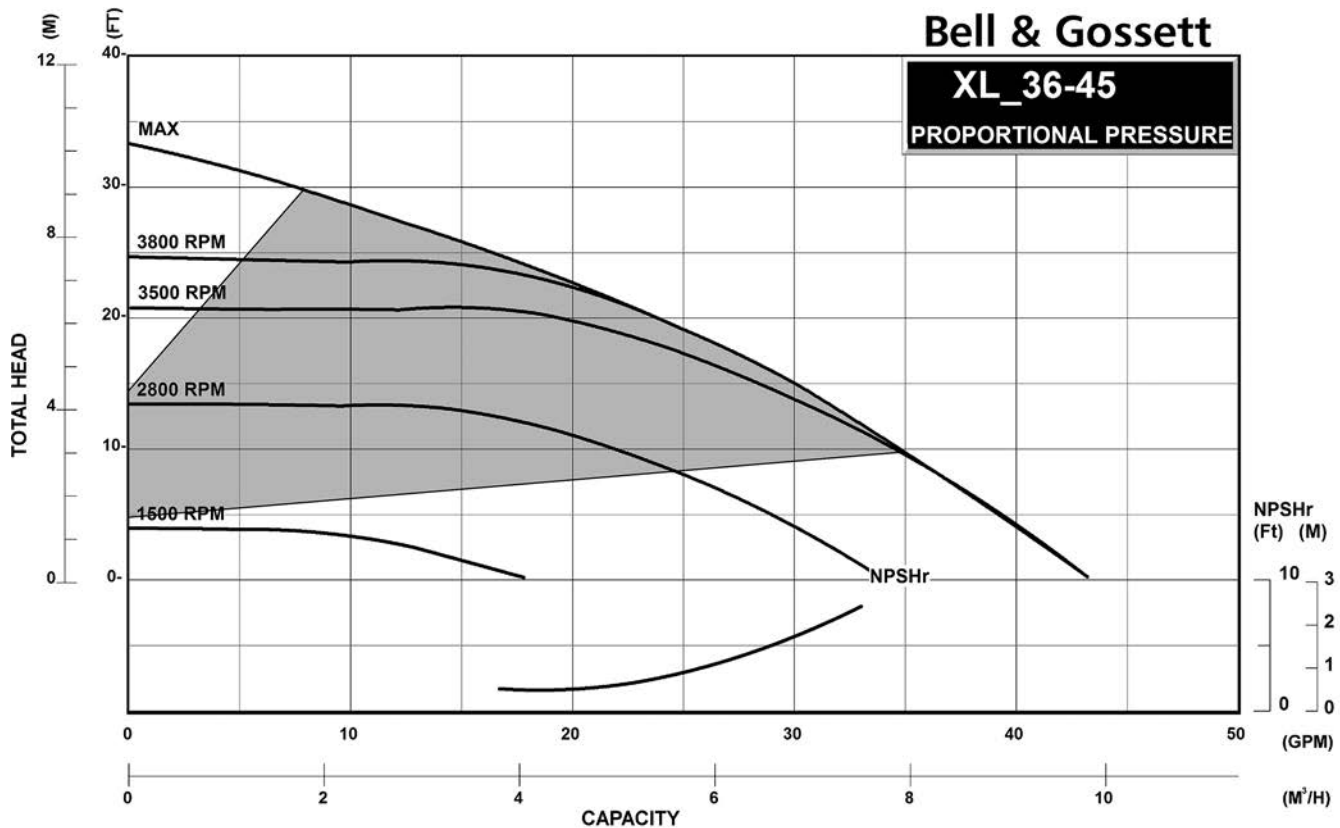
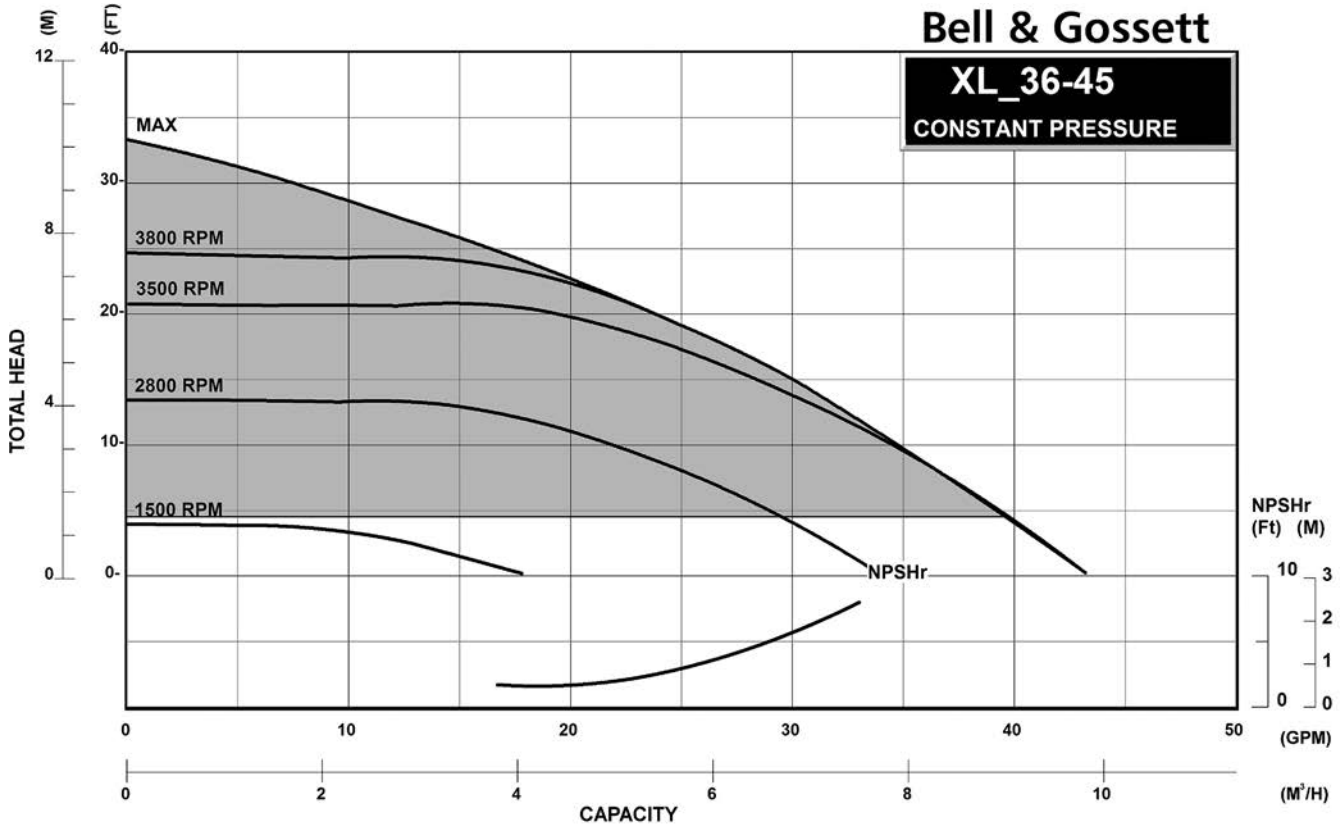


Note: The shaded area represents the operating range for the control mode. Each control mode will operate along a single control curve set by the max differential pressure set point.

# ecocirc XL 36-45 Curves

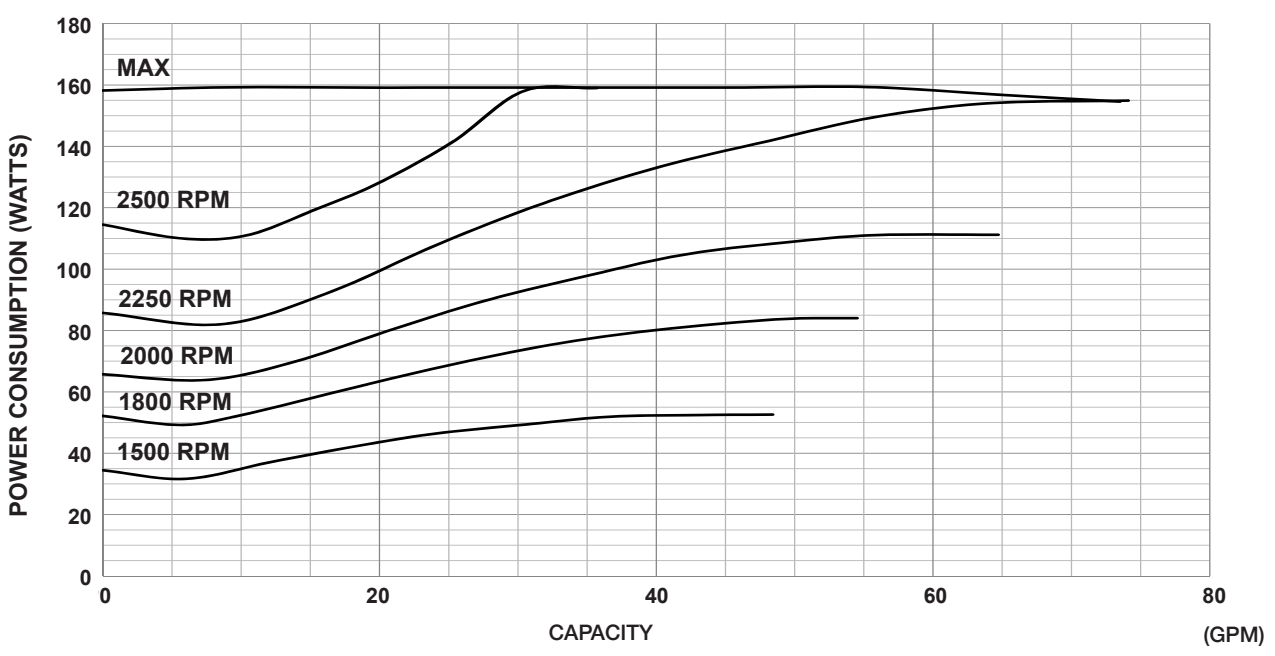
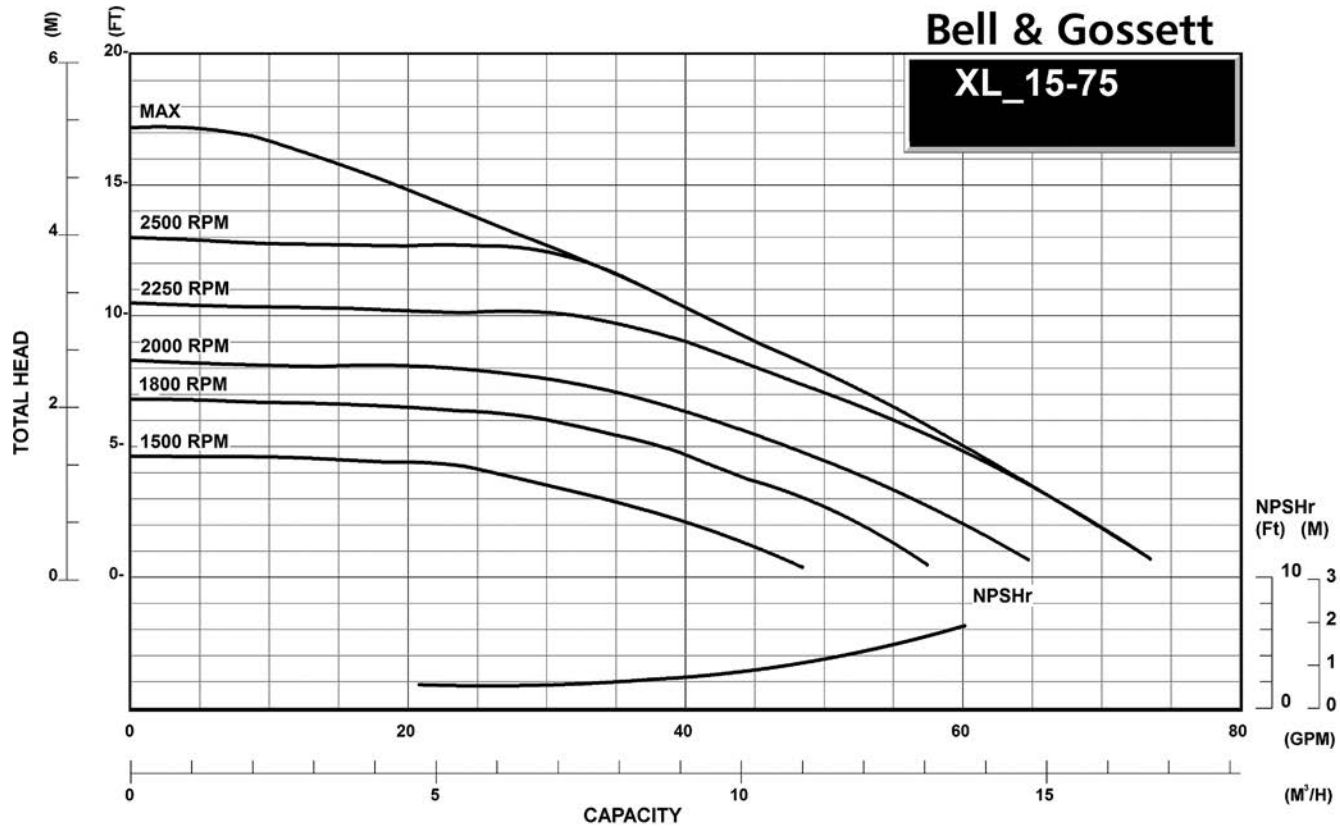


# ecocirc XL 36-45 Curves



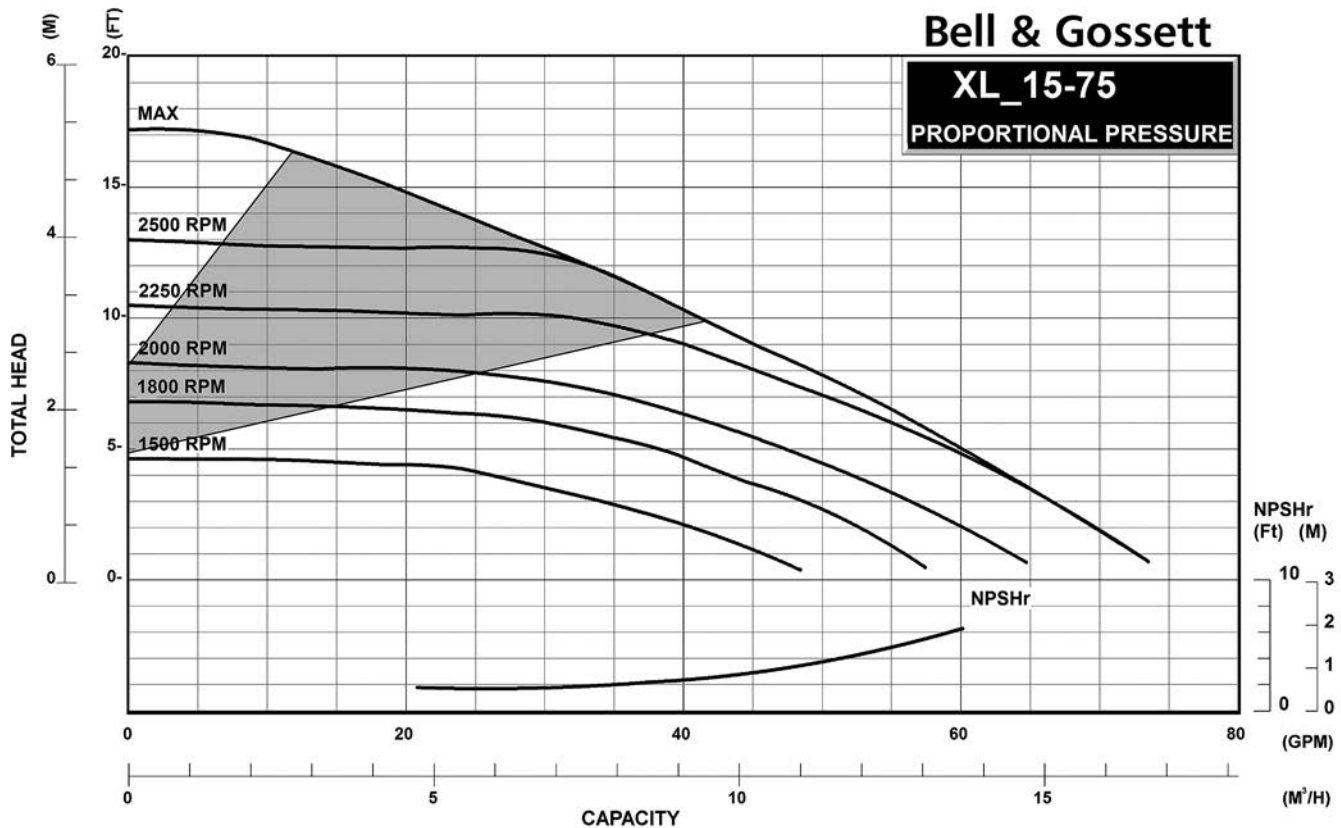
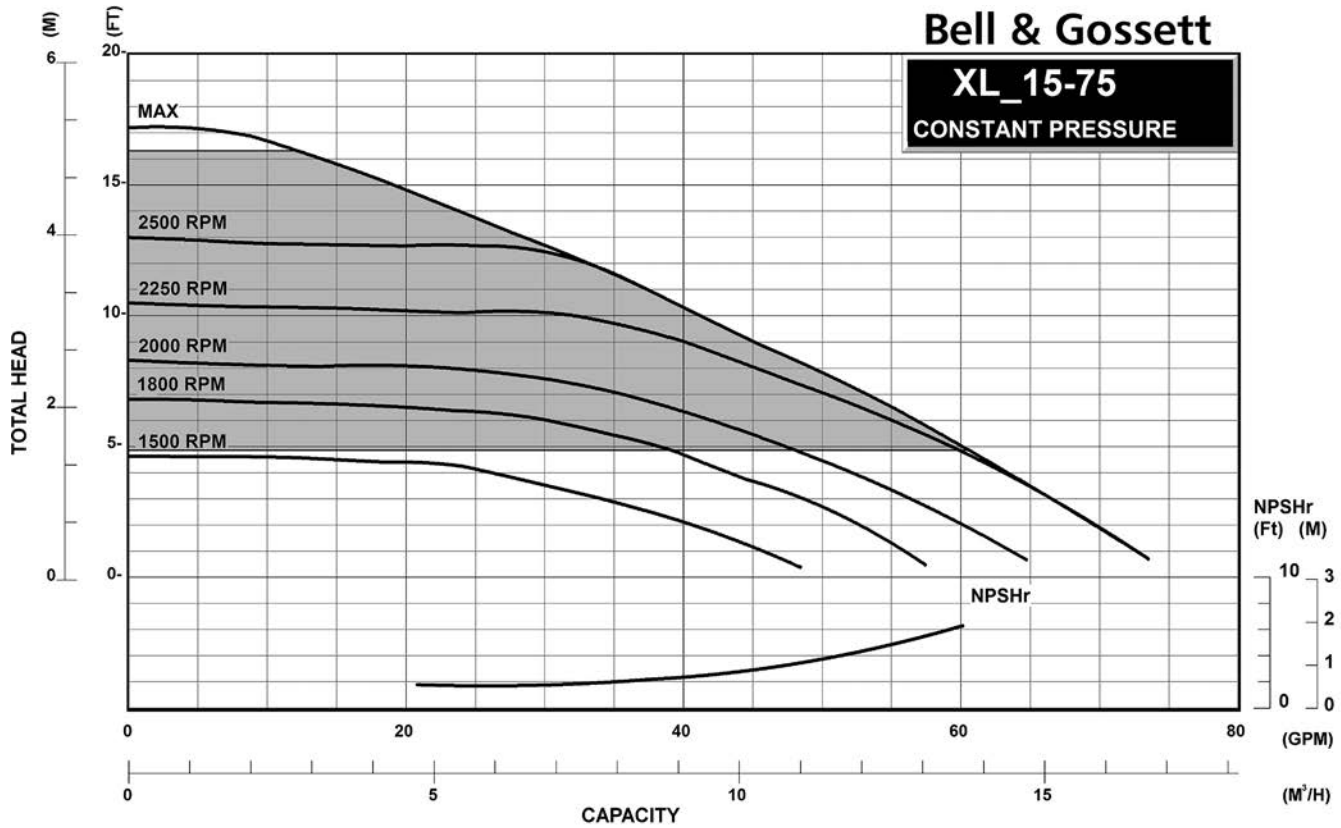
Note: The shaded area represents the operating range for the control mode. Each control mode will operate along a single control curve set by the max differential pressure set point.

# ecocirc XL 15-75 Curves



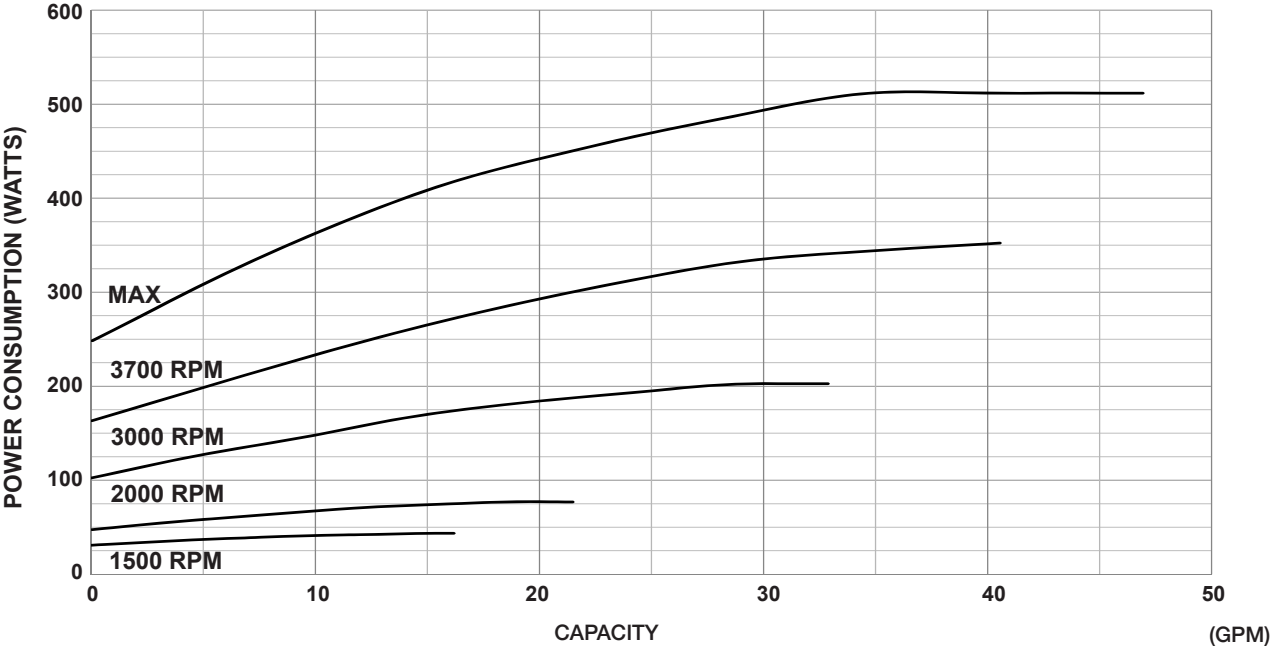
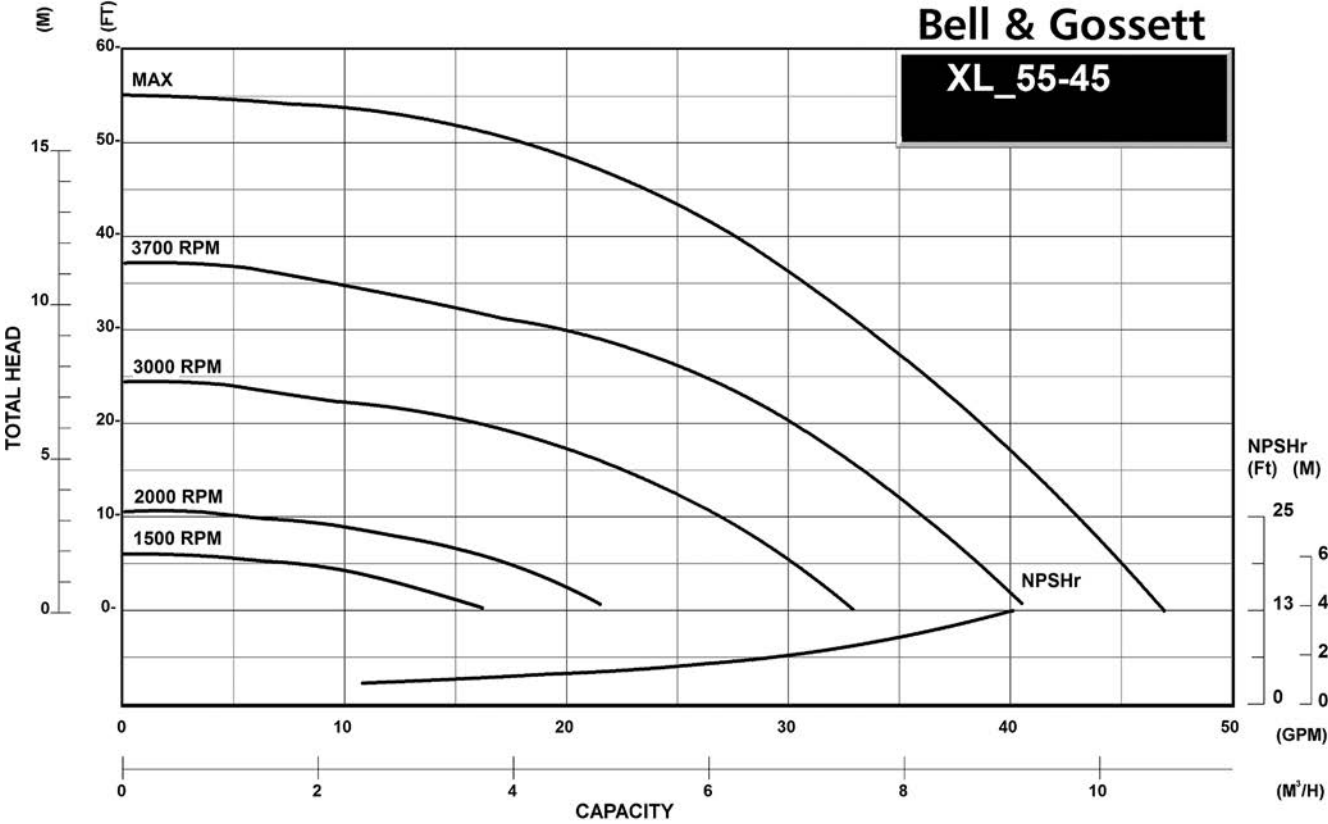


# ecocirc XL 15-75 Curves

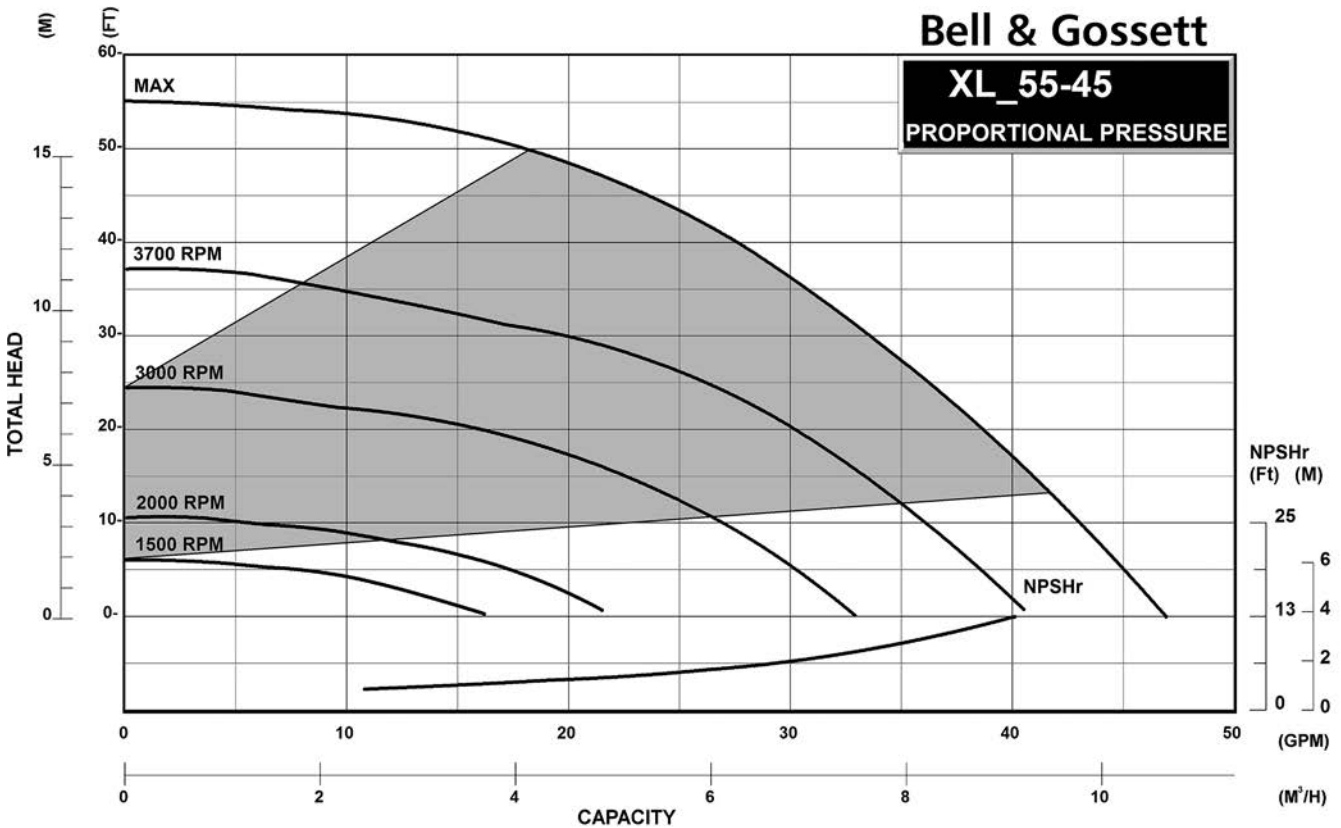
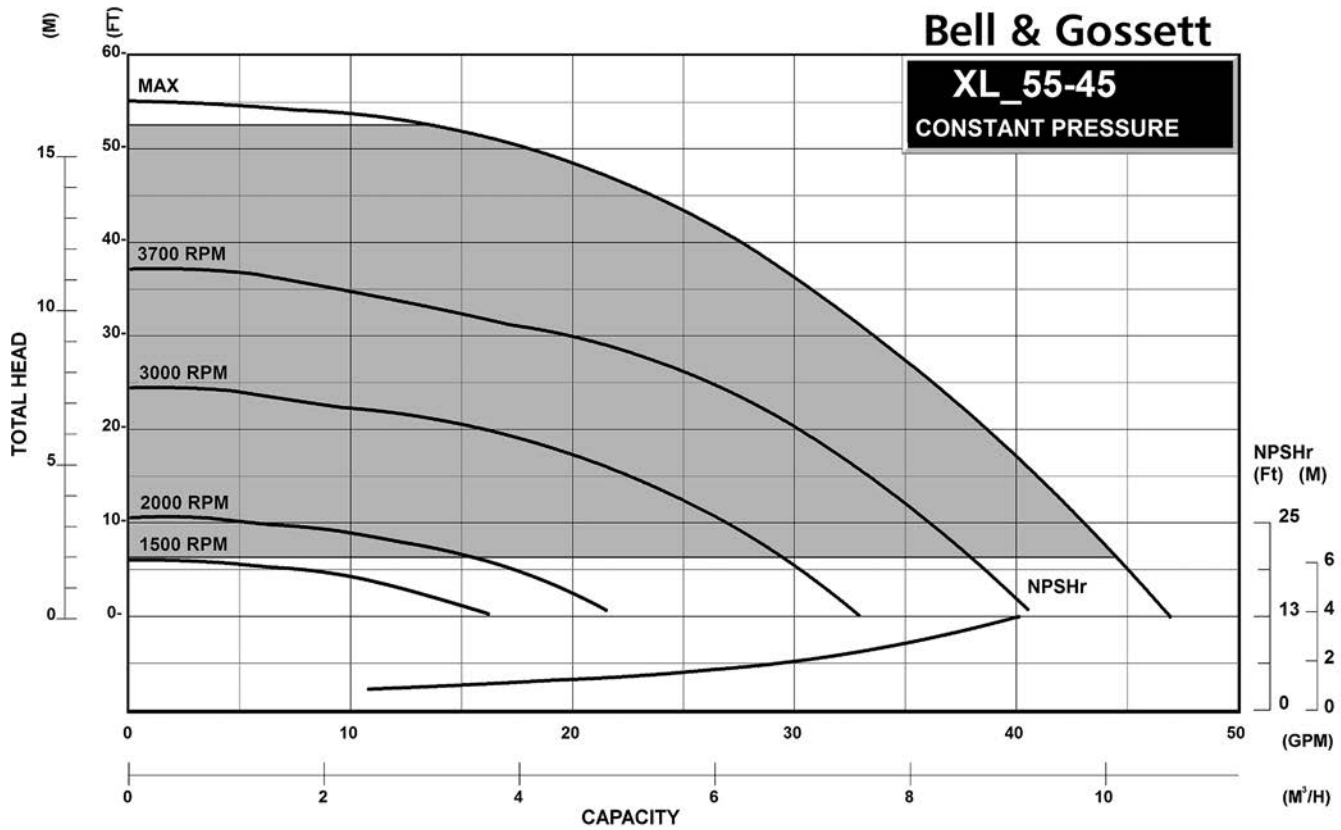


Note: The shaded area represents the operating range for the control mode. Each control mode will operate along a single control curve set by the max differential pressure set point.

# ecocirc XL 55-45 Curves

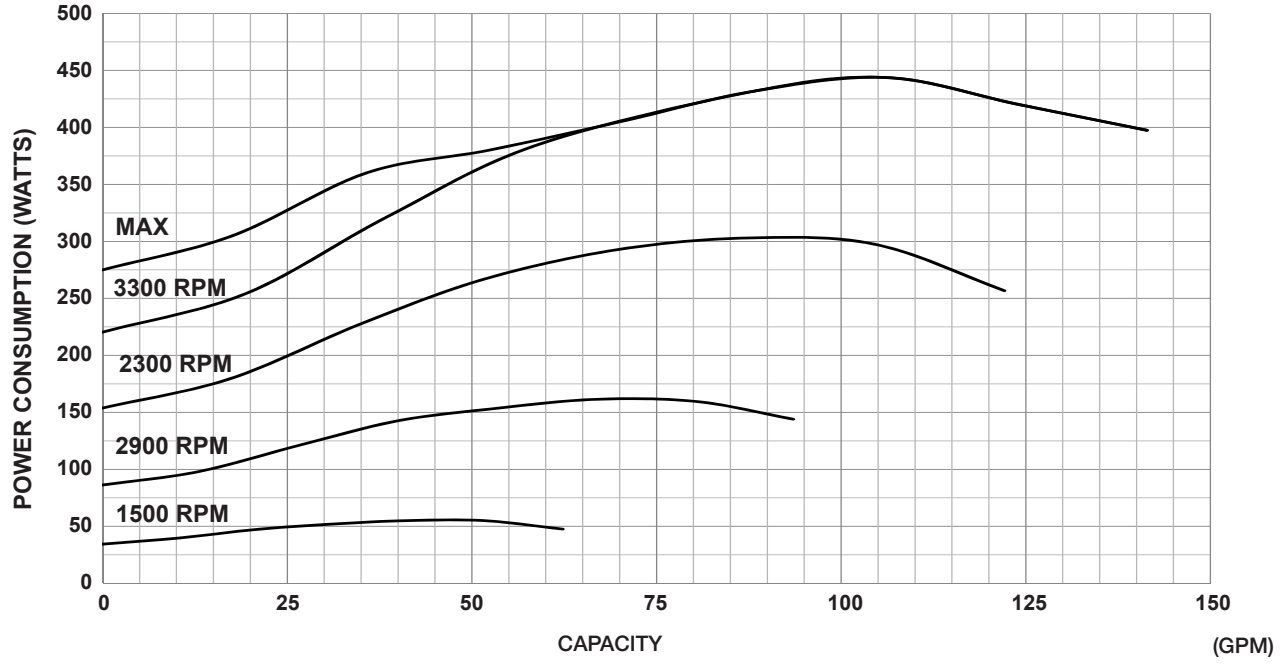
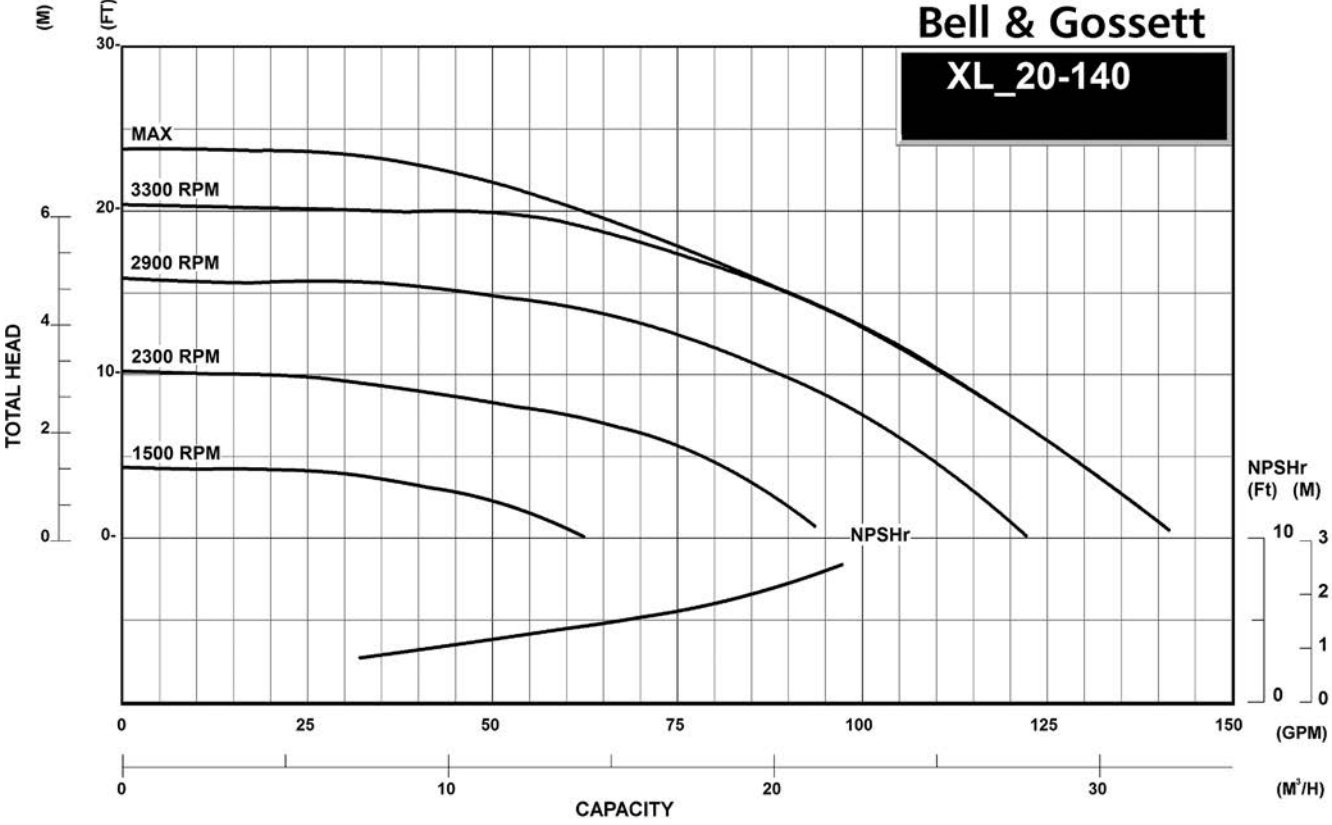


# ecocirc XL 55-45 Curves

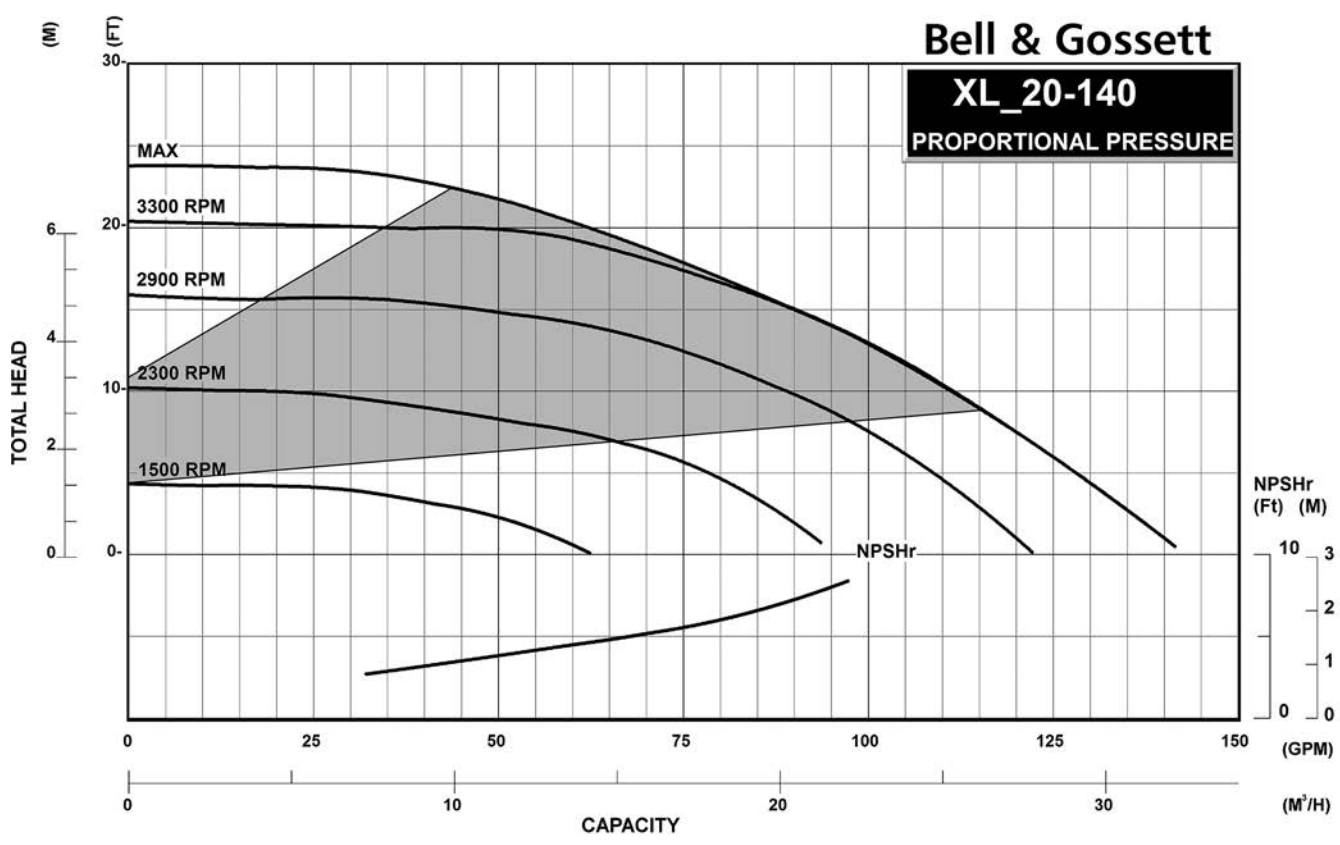
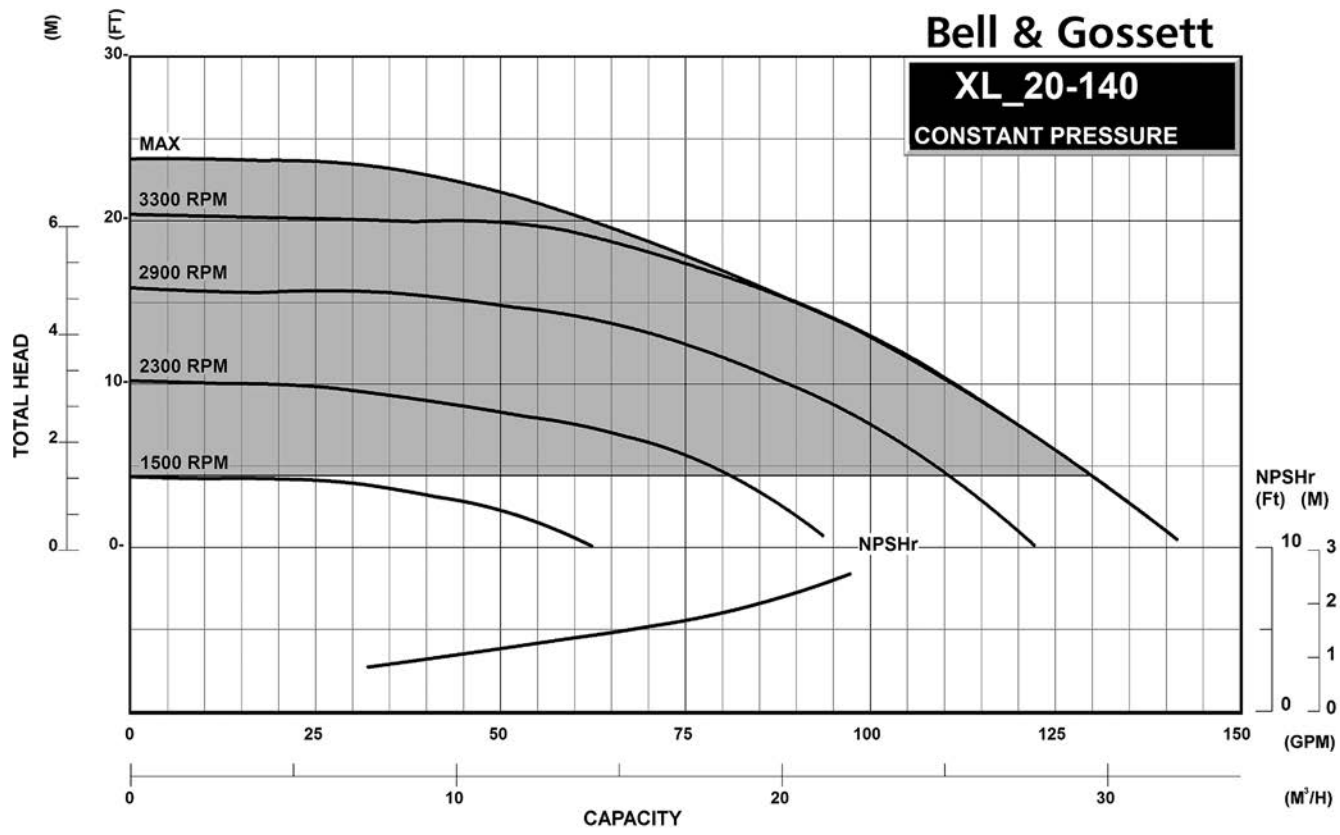


Note: The shaded area represents the operating range for the control mode. Each control mode will operate along a single control curve set by the max differential pressure set point.

# ecocirc XL 20-140 Curves

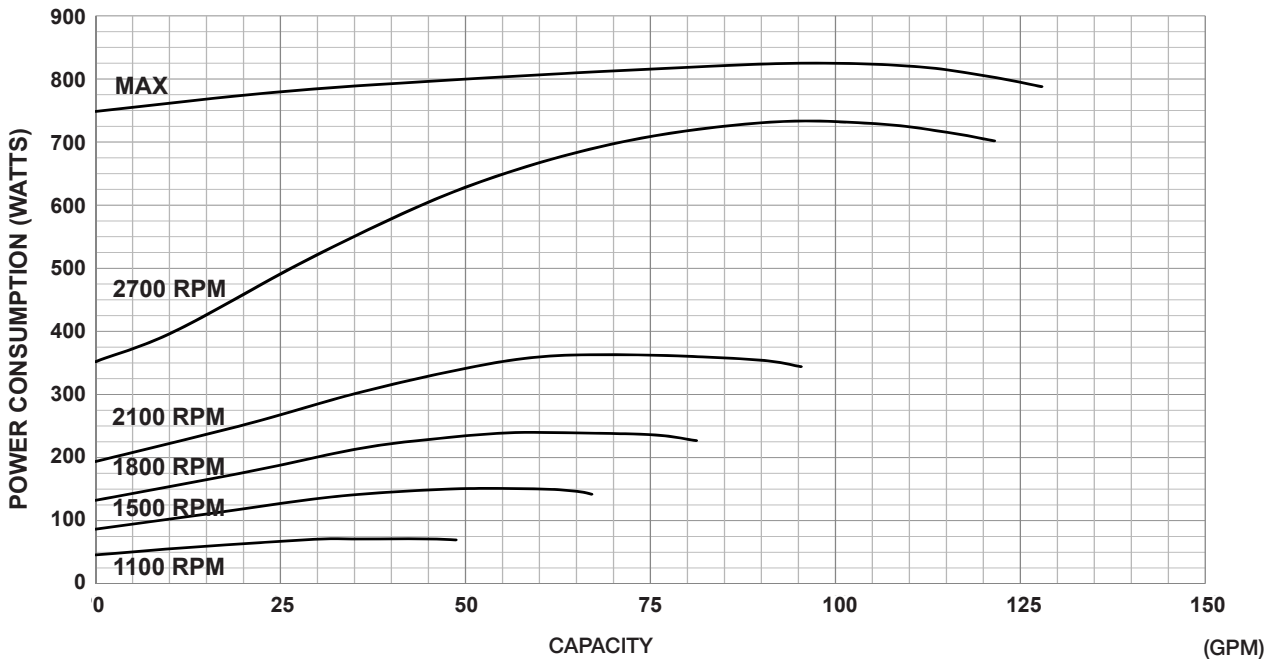
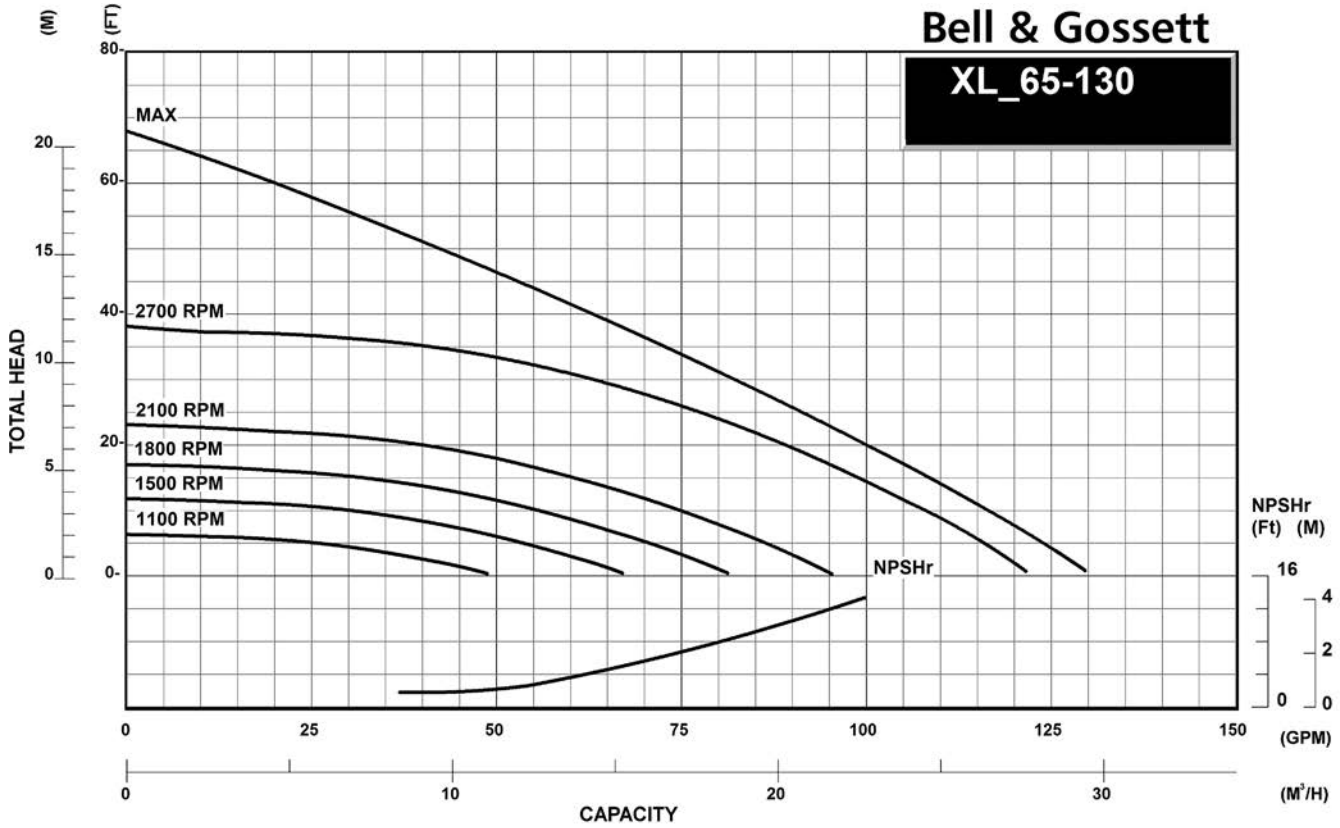


# ecocirc XL 20-140 Curves

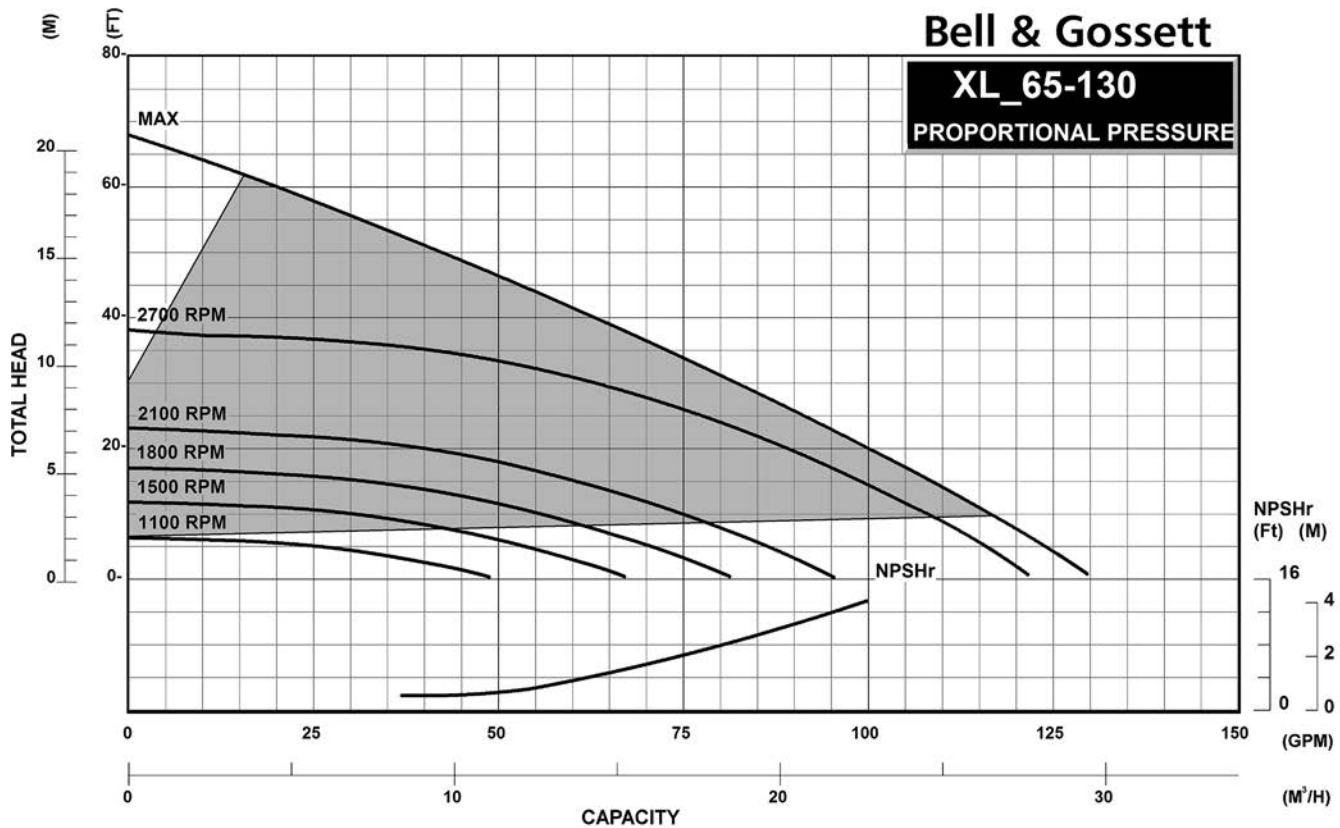
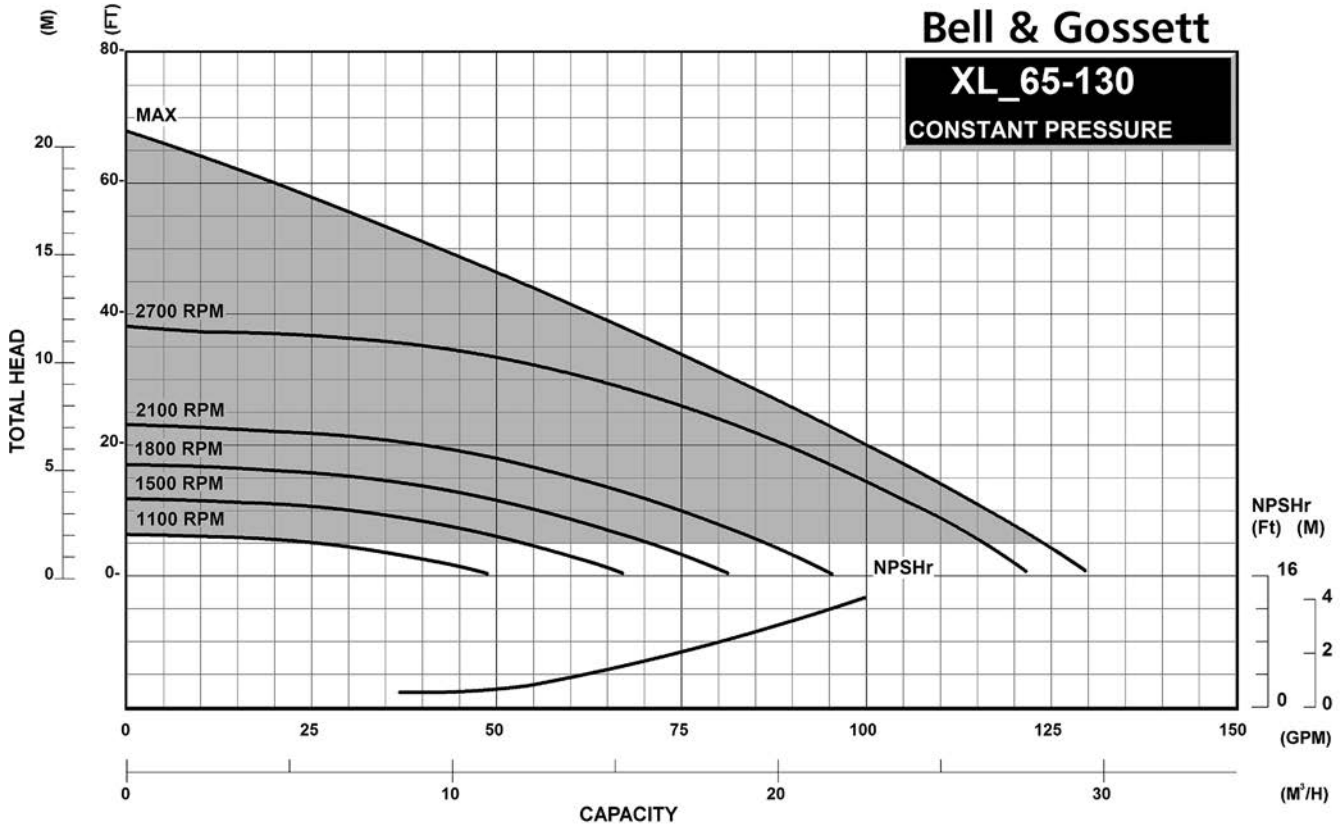


Note: The shaded area represents the operating range for the control mode. Each control mode will operate along a single control curve set by the max differential pressure set point.

# ecocirc XL 65-130 Curves

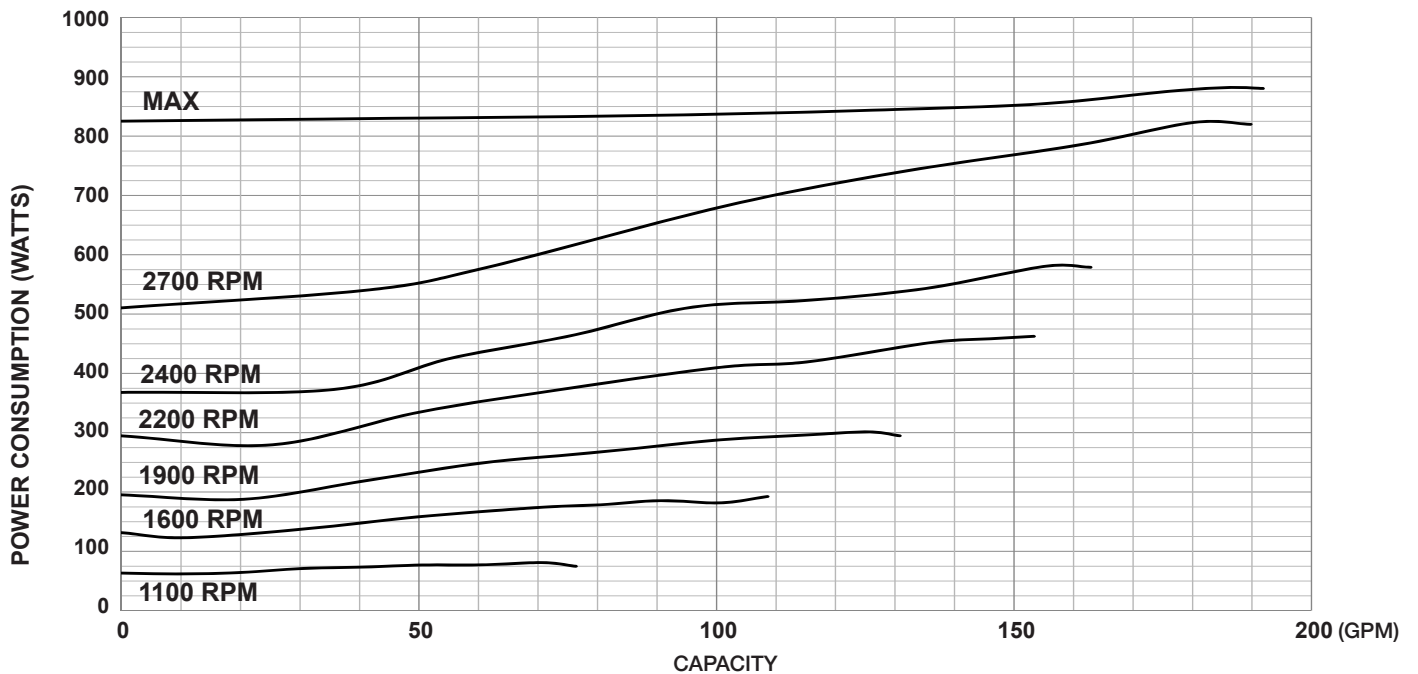
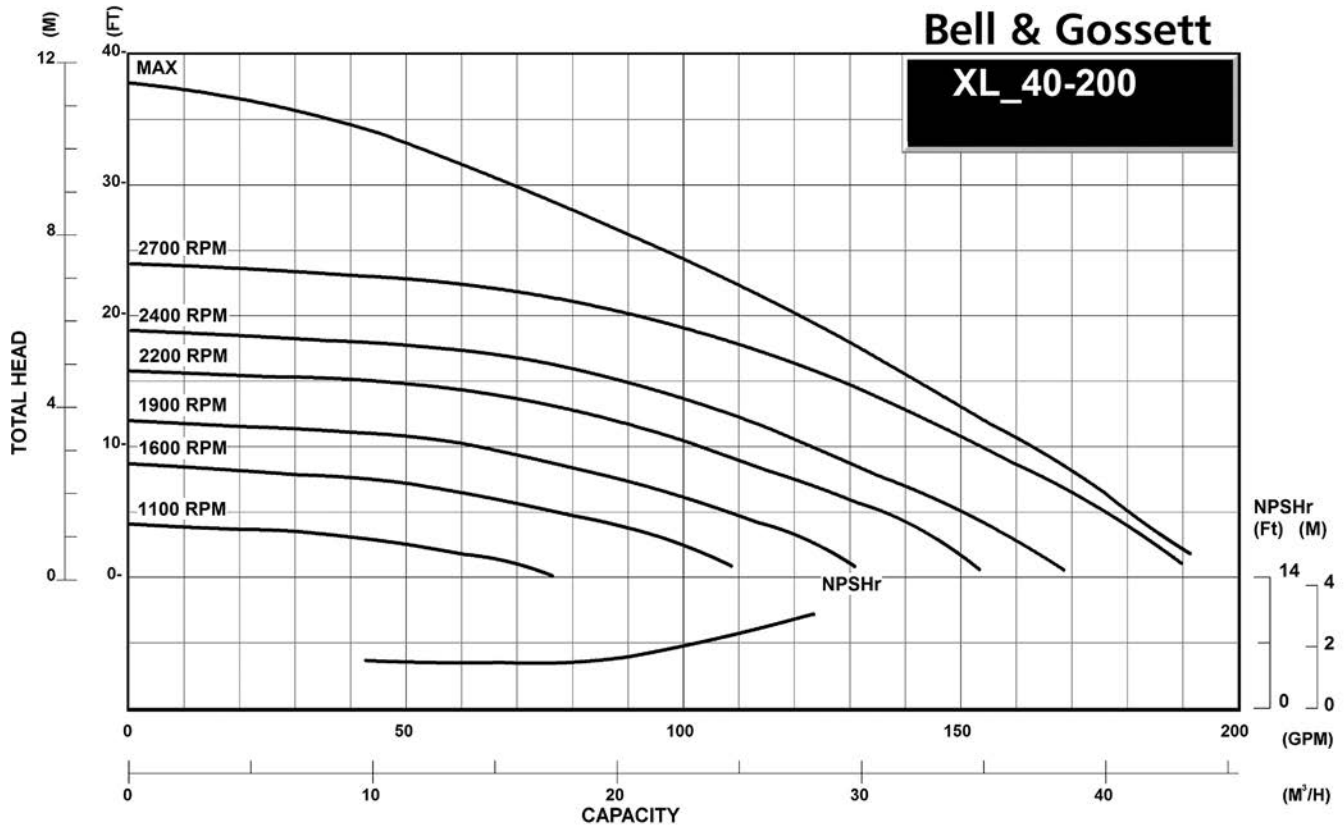


# ecocirc XL 65-130 Curves



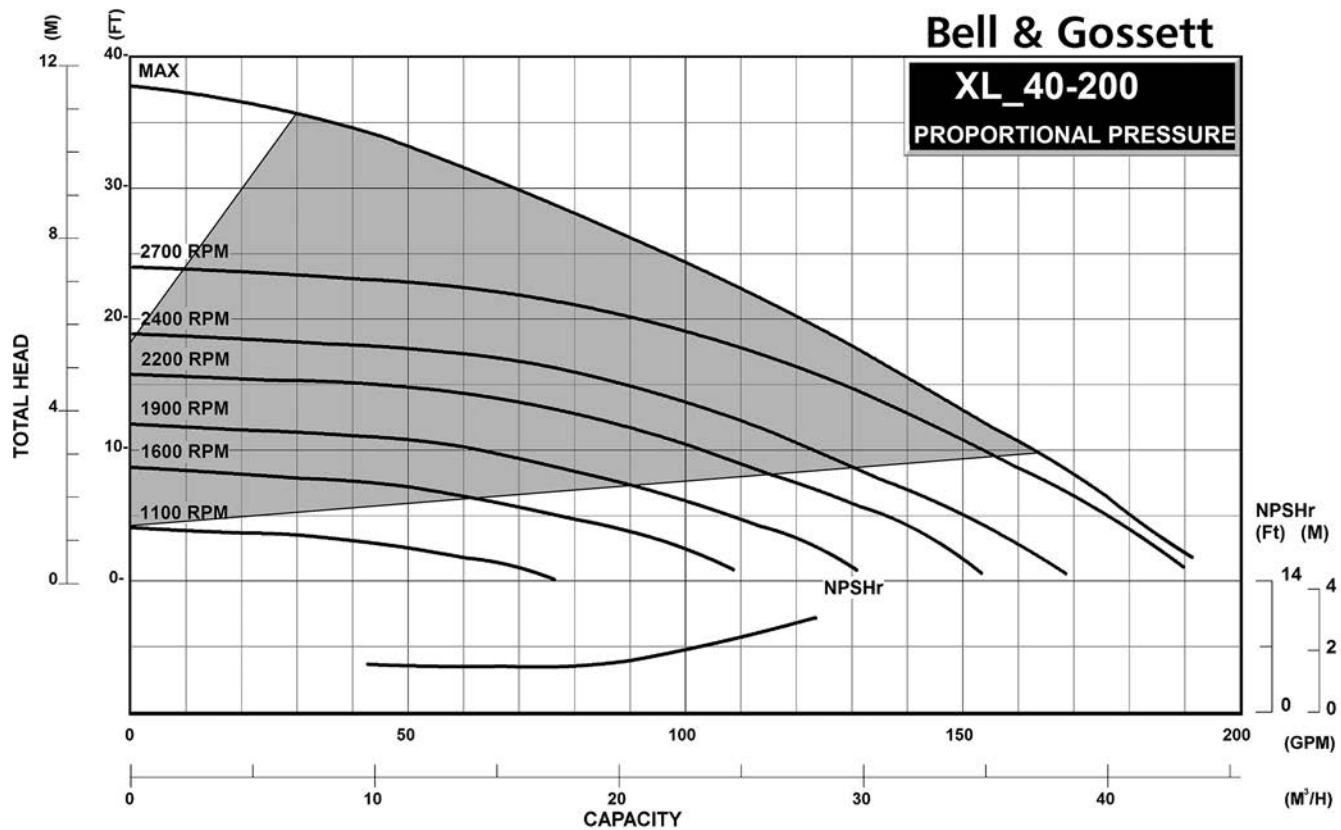
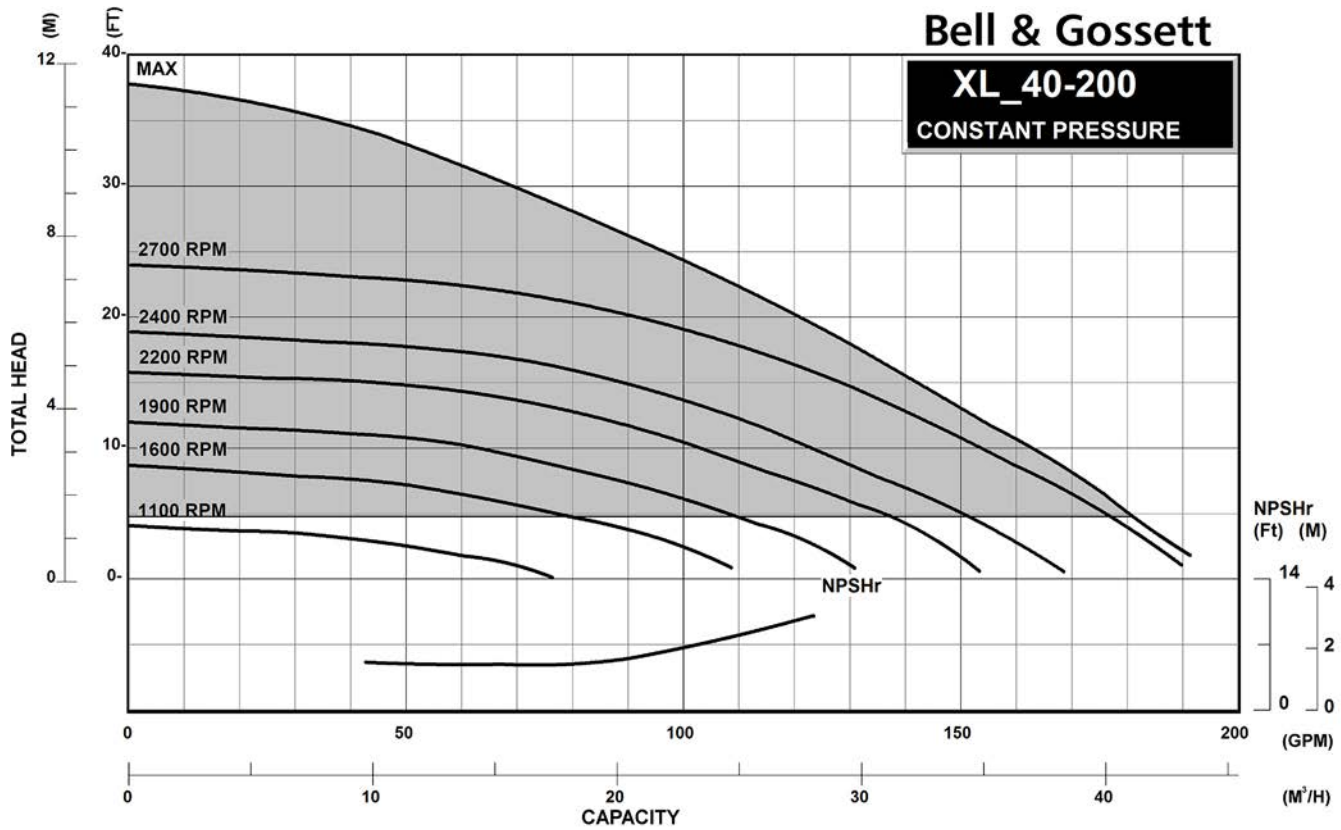
Note: The shaded area represents the operating range for the control mode. Each control mode will operate along a single control curve set by the max differential pressure set point.

# ecocirc XL 40-200 Curves



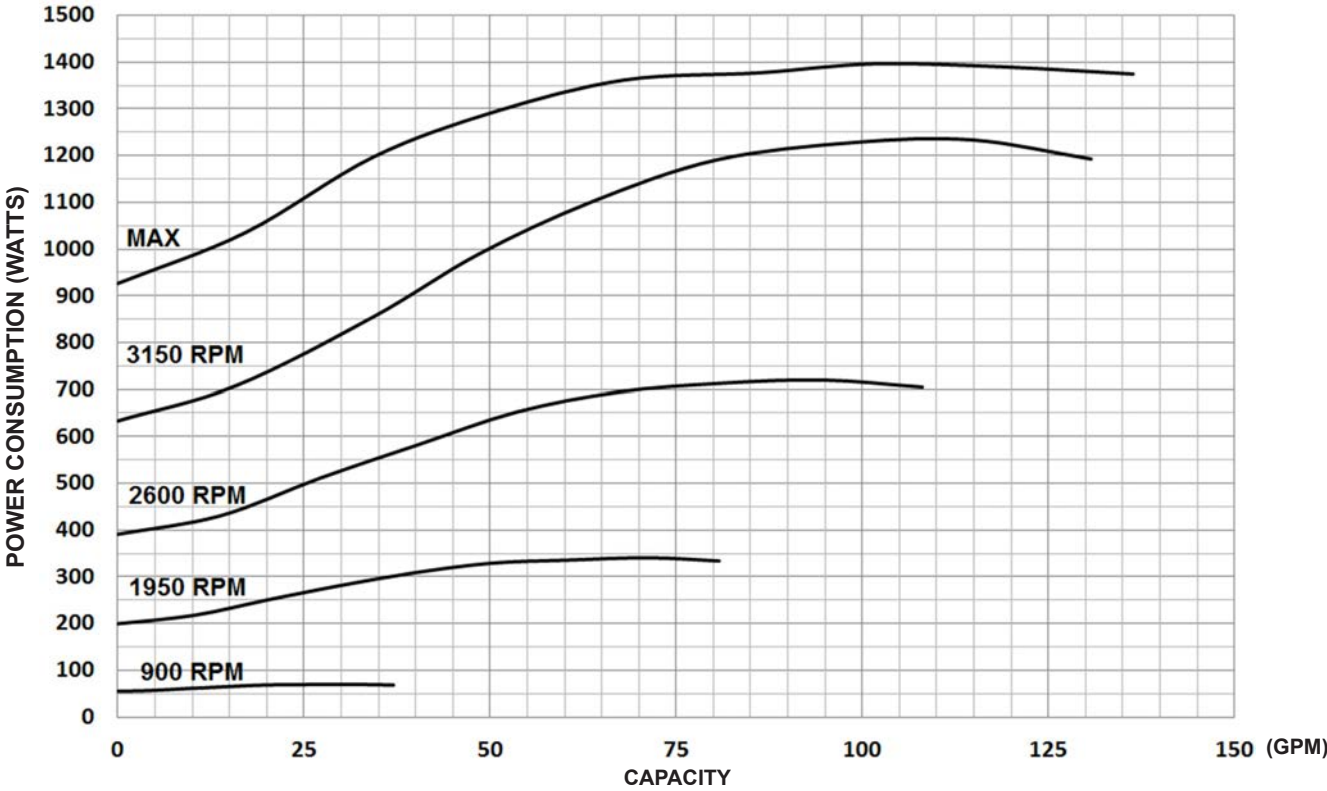


# ecocirc XL 40-200 Curves

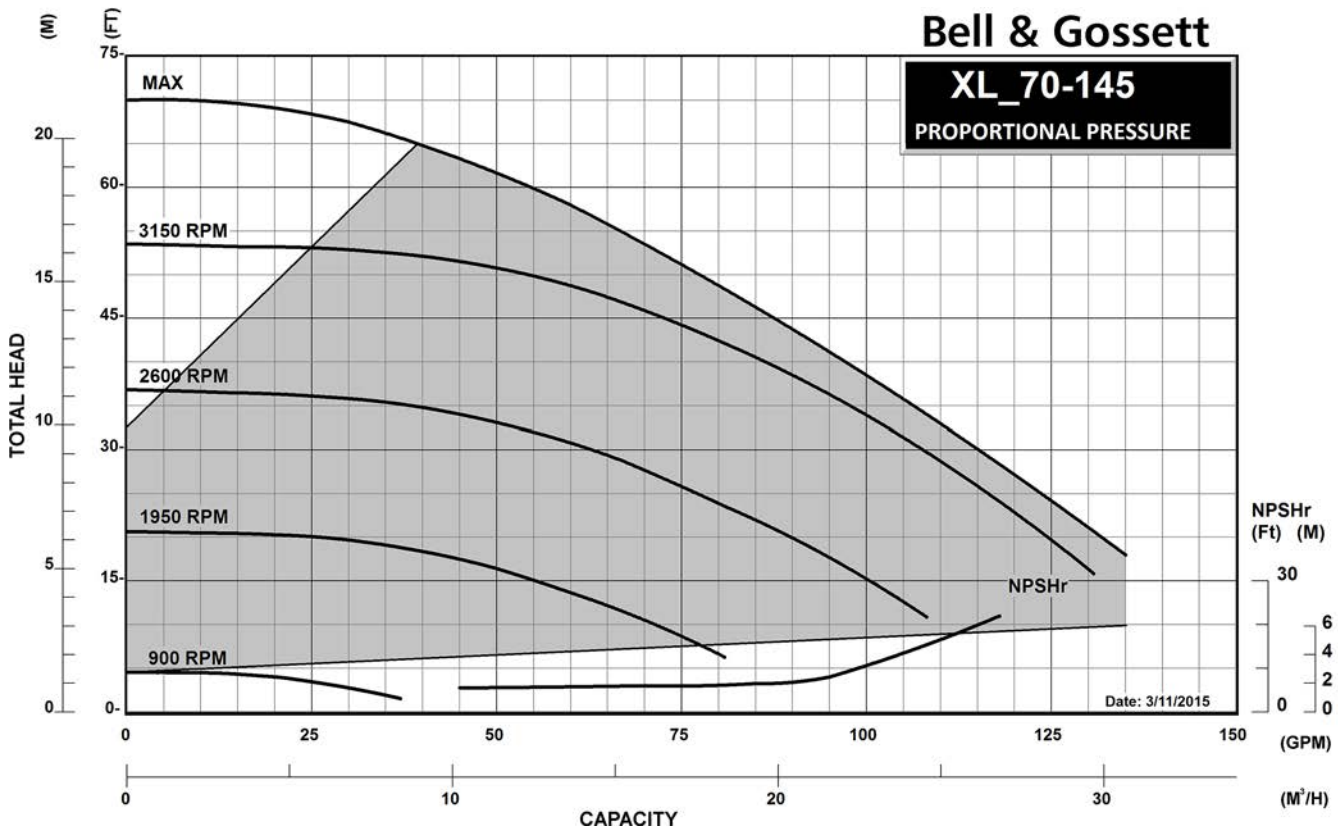
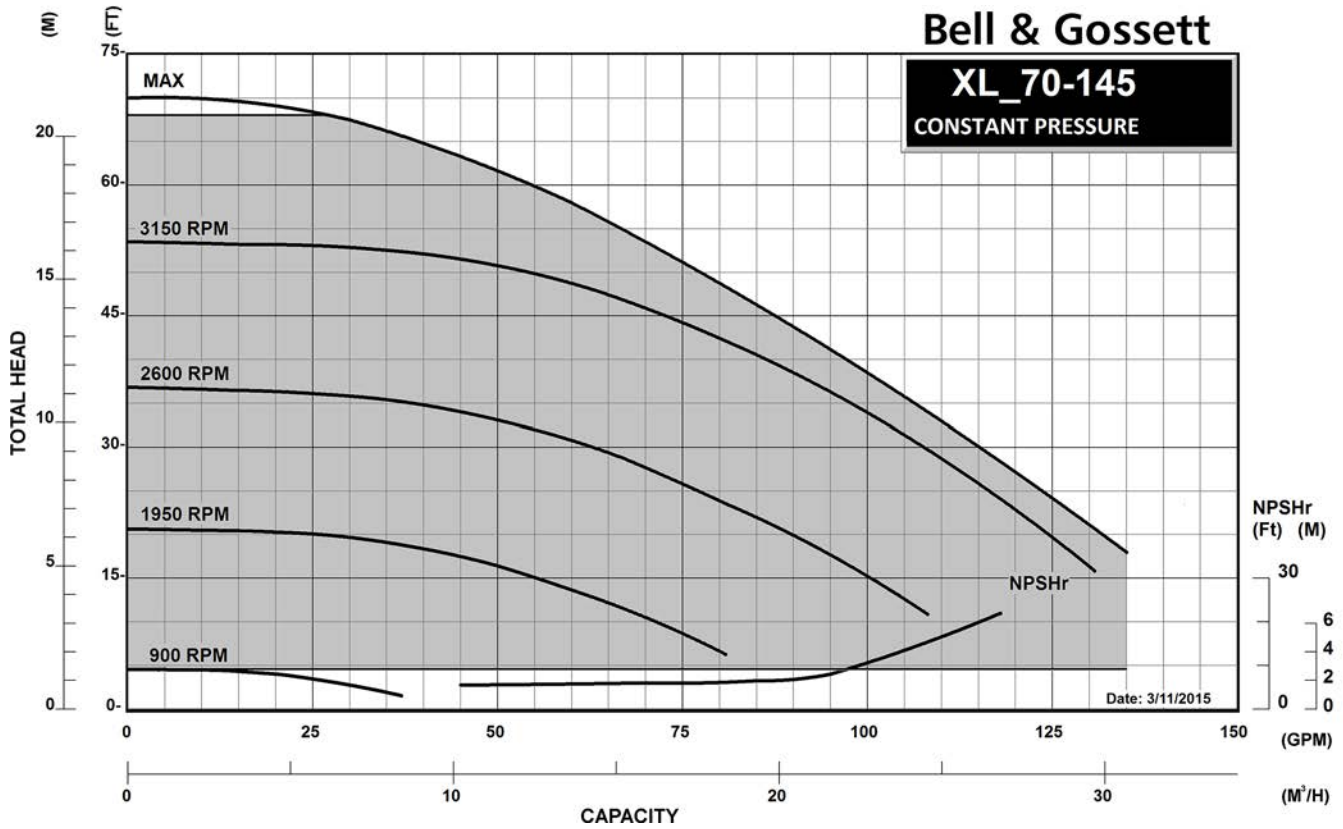


Note: The shaded area represents the operating range for the control mode. Each control mode will operate along a single control curve set by the max differential pressure set point.

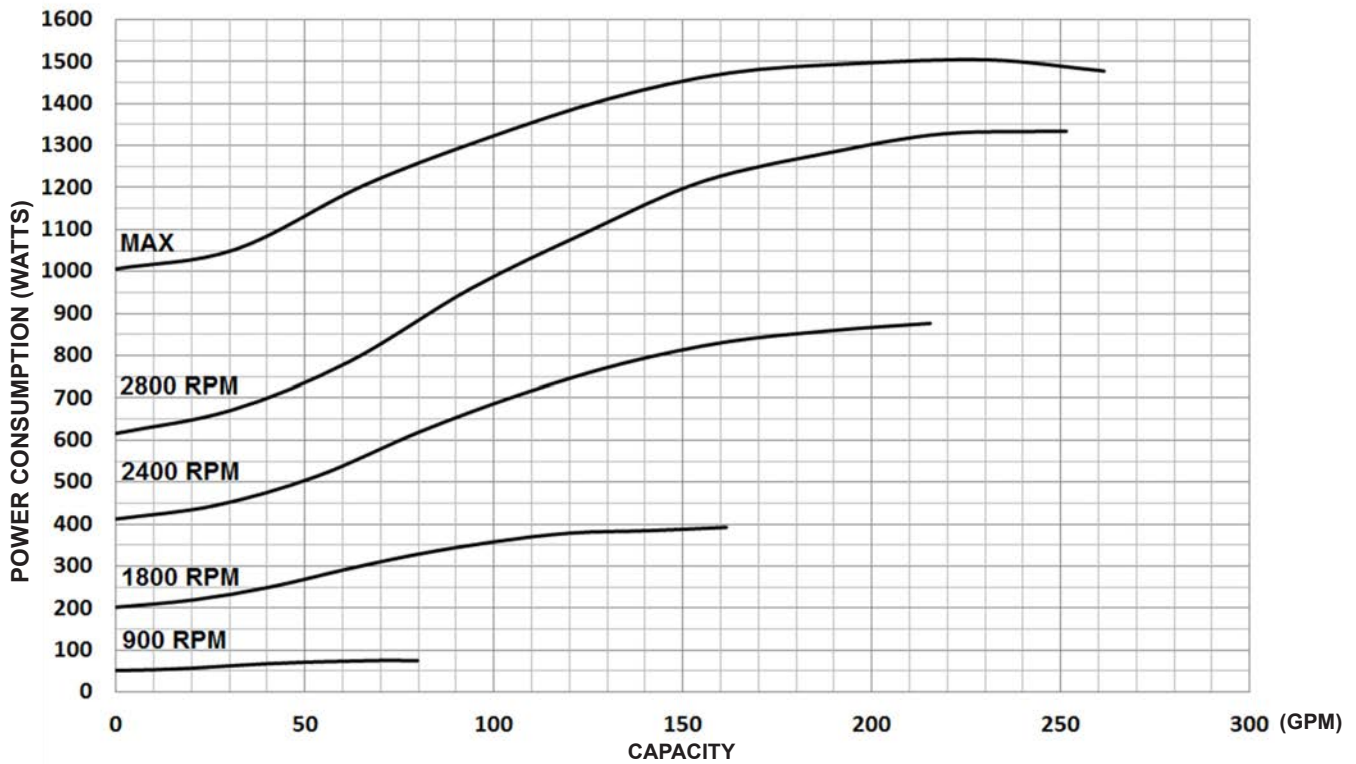
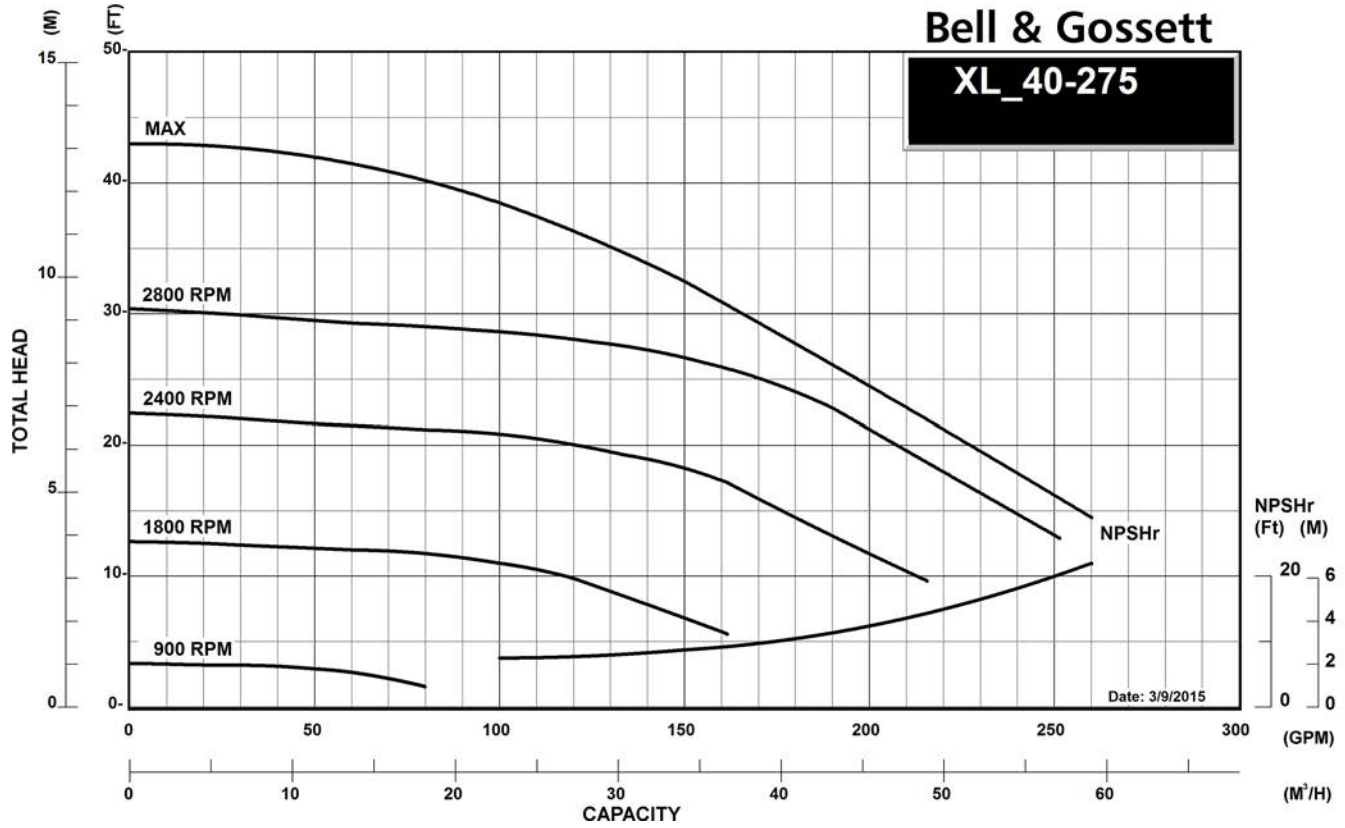
# ecocirc XL 70-145 Curves



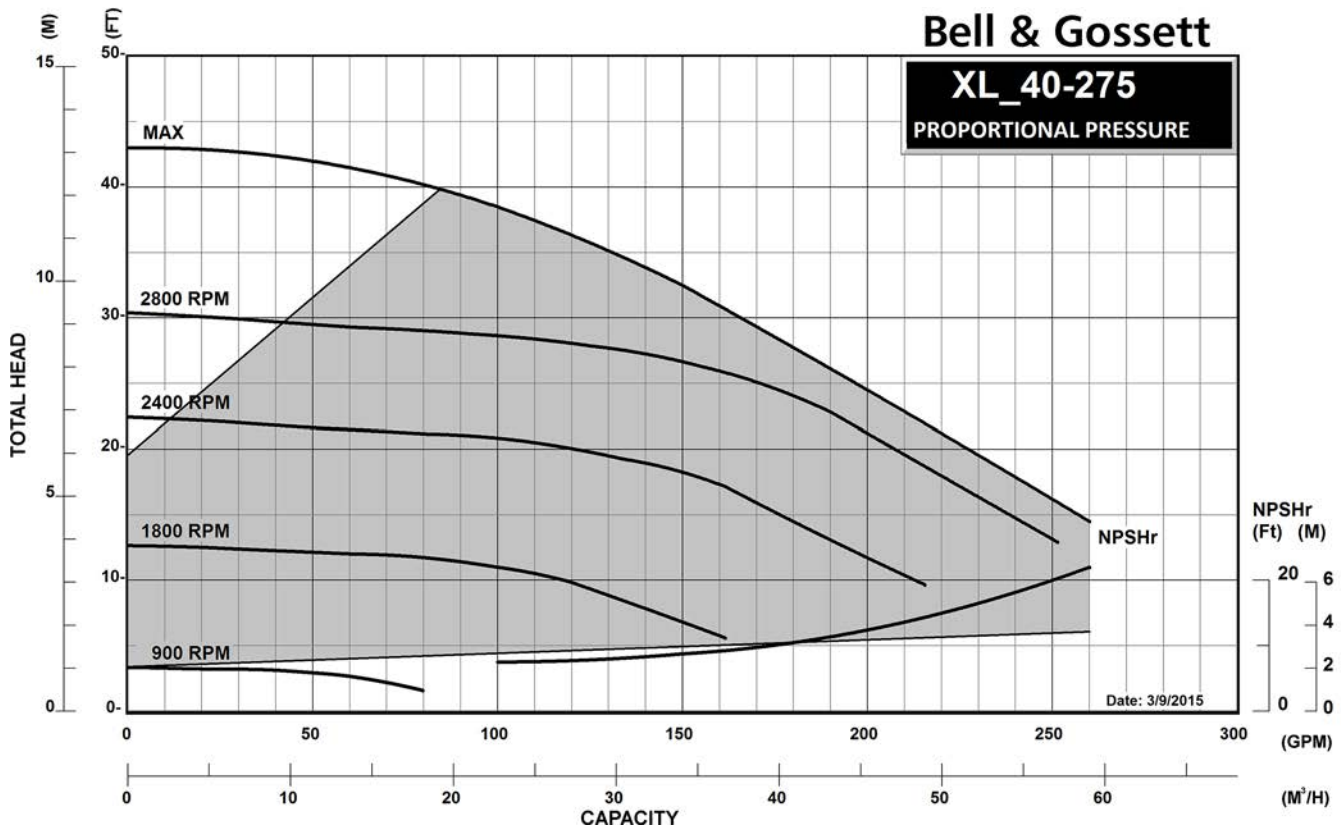
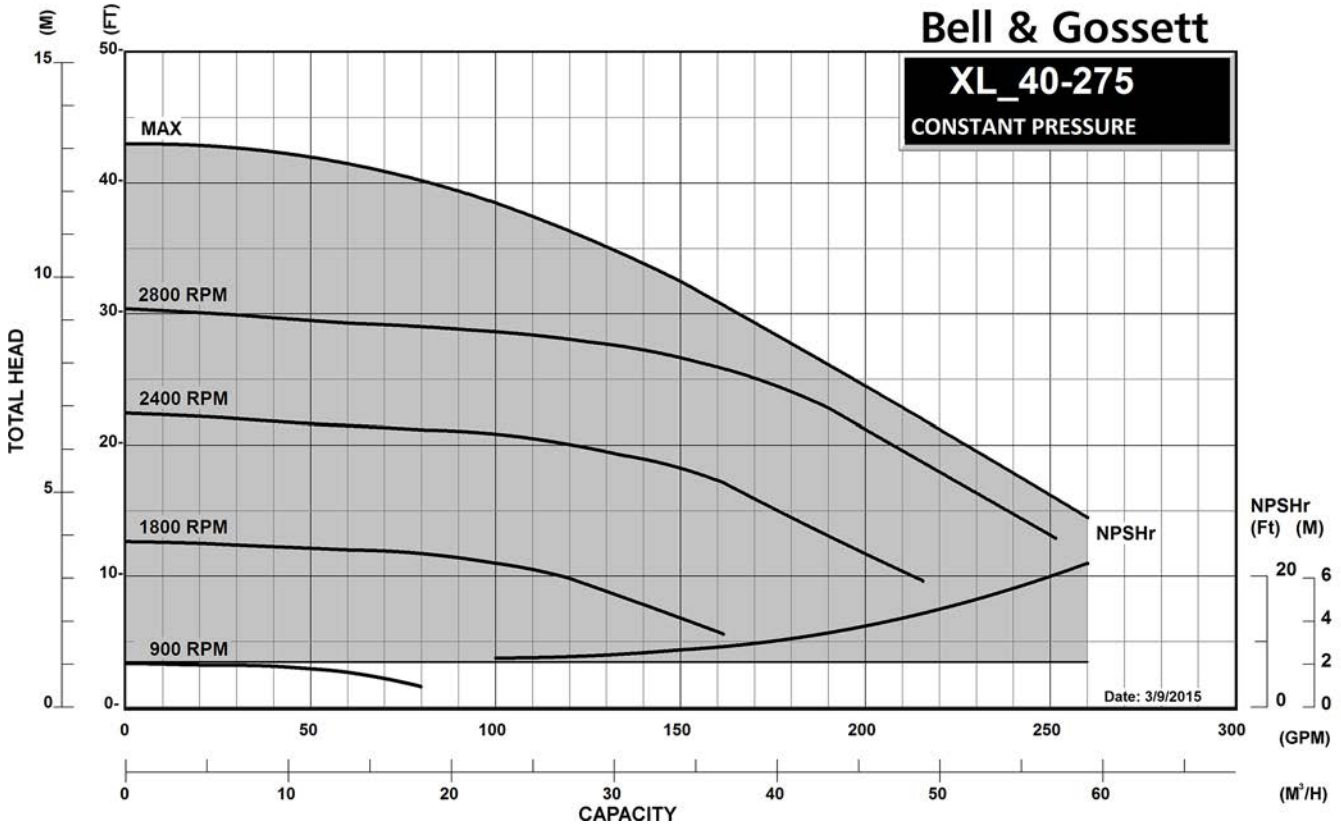
# ecocirc XL 70-145 Curves



# ecocirc XL 40-275 Curves



# ecocirc XL 40-275 Curves



# Xylem |'zīləm|

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

We're a global team 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](http://www.xyleminc.com)**



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