Bell & Gossett Pumps - Quick Reference Guide

Legend:
- Gray: Total Flow Range
- Red: Optimal Flow Range

Y-axis (GPM): +10,000 / 7,500 / 5,000 / 4,000 / 3,000 / 2,500 / 2,000 / 1,500 / 1,000 / 800 / 600 / 400 / 200 / 150 / 100 / 50 / 25
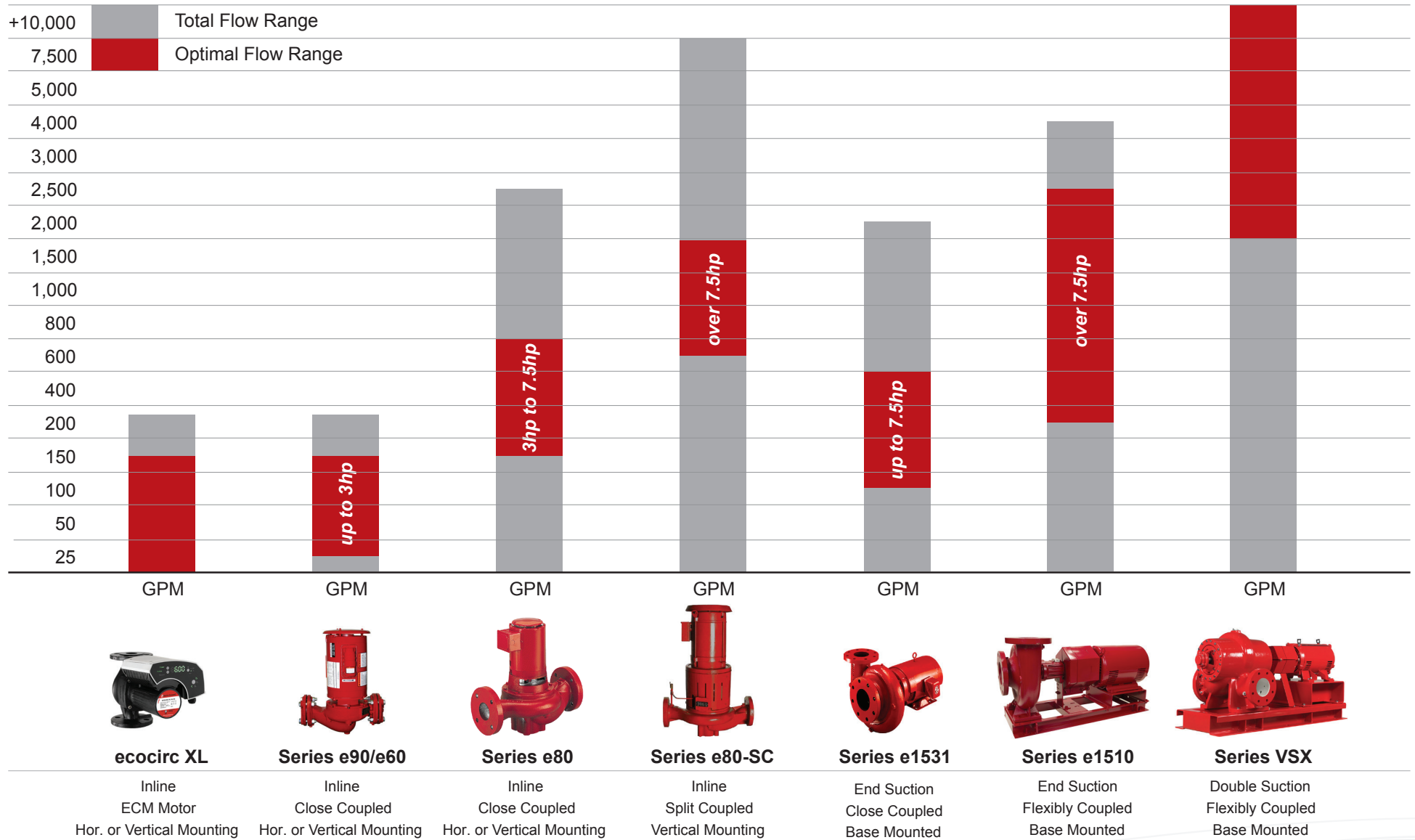
Pump	Flow label	Type
ecocirc XL		Inline / ECM Motor / Hor. or Vertical Mounting
Series e90/e60	up to 3hp	Inline / Close Coupled / Hor. or Vertical Mounting
Series e80	3hp to 7.5hp	Inline / Close Coupled / Hor. or Vertical Mounting
Series e80-SC	over 7.5hp	Inline / Split Coupled / Vertical Mounting
Series e1531	up to 7.5hp	End Suction / Close Coupled / Base Mounted
Series e1510	over 7.5hp	End Suction / Flexibly Coupled / Base Mounted
Series VSX		Double Suction / Flexibly Coupled / Base Mounted
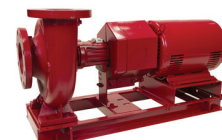
Pump Control Strategy

Control Strategy	When to consider	When to be cautious	Energy Savings	Comments
Sensored DP	Hot Water. Chilled water with pump motors ≤ 5HP.	***	Better	Uses a true measured remote set point. 90.1-2013 does not require variable-speed pumping in hot water systems.
Sensored DP with 90.1 reset	Required by 90.1-2013 if chilled water with pump motors > 5HP AND BMS can read control valve position.	Not recommended with PICVs.***	Best	
Sensorless	Hot water. Pumps with motors ≤ 5HP (consider ECM motors in this case). If you don't have a DDC BMS. Retrofit of old systems. When you don't have an engineer.	When HVAC zone air temperature is critical. When zones are unequally loaded. Some pumps are incompatible with Sensorless due to their kW-flow relationship on the pump curve.***	Better than constant speed.	Does an estimate of flow. Limited choice of drive manufacturers. Uses a controller-calculated set point that assumes all zones are equally loaded.
Smart Sensorless	Hot water. Pumps with motors ≤ 5HP (consider ECM motors in this case). If you don't have a DDC BMS. Retrofit of old systems. When you don't have an engineer.	When HVAC zone air temperature is critical. When zones are unequally loaded.***	Better than constant speed.	Works with any drive manufacturer. Uses a flow meter which is more accurate than Sensorless flow calculations. Works with any pump (some pumps are not suitable for Sensorless).
DemandSet	If all control valves are full-stroke PICVs.		Best	PICVs have full valve authority which leads to better flow control. No programmed setpoints or commissioning is needed. Works with any drive manufacturer.

***Be cautious of control valve authority and proportional manual balance in these systems