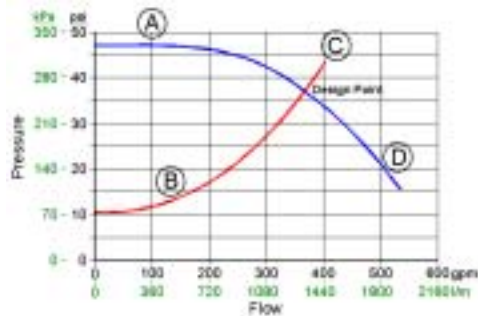


Pre-Test



Multiple Choice

- 1) Which of the following is NOT an equivalent name for a VFD?
 - A. Adjustable Frequency Drive
 - B. Frequency Converter
 - C. Variable Speed Drive
 - D. Inverter
 - E. Motor Control
- 2) Using the diagram below, if a throttling valve is used to limit flow of a pump, which letter, ABC or D displays the effects on the pump curve.



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- 3) Looking at the nameplate of an AC motor it shows a speed of 1750rpm using 60Hz. This must be a ____ pole motor?
 - A. 12-pole
 - B. 8-pole
 - C. 6-pole
 - D. 4-pole
 - E. 2-pole
- 4) When using a VFD on a centrifugal water pump application, what is the horsepower needed at 50% of the pump's speed? Assume no power lost because of friction.
 - A. 100%HP Because constant torque requires it.
 - B. 50%HP It is directly related to speed.
 - C. 25%HP It is directly related to the square root of the motor speed.
 - D. 12.5%HP It is directly related to the cube root of the motor speed.
 - E. 5%HP The motor efficiency is 95% efficient.
- 5) You just received a European motor, which was mounted on one of your pumps. It uses 50 Hz. What is the synchronous speed for a 2-pole AC induction motor using 50Hz?
 - A. 3000 rpm
 - B. 2000 rpm
 - C. 1500 rpm
 - D. 1000 rpm
 - E. 500 rpm



How did you do?

Answers:

1. E. Motor Control is NOT the same as VFD.
2. A. The valve causes the pump to ride up its curve.
3. D. 4-pole
4. D. 12.5%HP It is directly related to the cube root of the motor speed.
5. A. 2-pole motors using 50Hz is 3000 rpm.

If you got 4 or 5 right – skip to the next lesson.

If you only got 3 or less right please review this lesson.

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