Pump ED 101

Seminars & Training - - Centrifugal Pump Applications

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Title: Centrifugal Pump Applications - Overview

Level: Introductory – A basic knowledge of centrifugal pump operation and motor controls is required. A basic understanding of variable frequency control is useful but not necessary.

Technique: Power Point presentation with animations and Excel examples. Audience interaction.

Duration: One half day (4 hours with two 10 minute breaks)

Topics: Water Supply & Storage, Circulation (open & closed loop), Boiler Feed, Constant Flow, Constant Pressure, Level Control, Well Pumping (deep and shallow), Wastewater

Result: This seminar will provide the student with an overview of the versatility of the centrifugal pump and the applications it supports. It will also take a brief look at applications where displacement pumps are used. The student will also become familiar with the pump types and curve shapes that are used in these applications.

Title: Constant Pressure Booster Systems

Level: Introductory to Intermediate – A basic knowledge of centrifugal pump operation and constant speed motor controls is required. A basic understanding of variable frequency control is also necessary. A knowledge of elementary algebra is useful but not required.

Technique: Power Point presentation with animations and Excel examples. Audience interaction.

Duration: One half day (4 hours with two 10 minute breaks)

Topics: Additive Pressure (static pressure, series operation), Differential Pressure Boosters, Constant Pressure Boosters, Pressure Reducing Valve Control, Cycle Limiting Valve Control, Simplex/Duplex/Triplex Boosters, Parallel Pump Operation, Lead/Lag Operation, Pump Selection PRV Control, VFD Control, Multi-Pump VFD Control, Pump Selection VFD Control, Potential Power Savings

Result: This seminar will provide the student with a thorough overview of the most frequently used booster system designs and their pro's and con's. They will also gain a basic understanding of pressure control and the pump performance curve characteristics that compliment a particular control method. They will also be able to recognize when and where significant power savings can be realized via VFD control.