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## January 11, 2010 ~ Monday Morning Minutes:

## The Bell and Gossett System Syzer<sup>®</sup> – a few other uses

Last week we used the ITT Bell and Gossett system syzer to select a pipe size for 800 GPM. We used the wheel and the electronic version. Today, let's expand the selection to include a fluid other than water. To use fluids other than water you must use the electronic version. There were two solutions from last week's example using water:



Now let's change the fluid in our example from water to 50% Ethylene Glycol at 40° F. Start by clicking on the "fluid" at the top of the page and remove the 60° F water selection to <sub>allow</sub> changes. Select ethylene glycol and enter the 40° F and 50% options. Notice the viscosity jumps to 6.65 and the specific gravity is 1.07. We can expect an increase in friction loss with this new fluid.

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Fluid Properties X		System Syster Scale Selection C Temperature/MDH Relationship # Flow/Pressure Swap Relationship C Cecut Piping Pressure Drop	Fluid Properties	System System Scale Selection
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C Water C Water C Popplene Spical B Ethione Spical C Other	Temperature Plat in-Deg F Percentage 48 50	C Pressure Degr/Sprine Caren/Cv Pipe Info Steel Pipe Into 24" is Schedule 40. Steel Pipe 30: 38" is Schedule 30.	Flad Type     Condition     O Vide     C Properties Satisf     C Utities Days     C Utities     C Utities	C Petranee Dog/System Carve/C Pige Info See Pige Into 20" in Schedule 40. Deel Pige 20 - 30" in Schedule 20.
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-		Functions Function - 8, 8298		Fection Factor- 0.0165

Select "OK" and we see 6" pipe with a pressure drop of 5.04 feet/100 feet and 8" pipe at 1.33 feet/100 feet. This may make us decide to change from the 6" pipe to the 8" pipe to keep the pump horsepower lower.

Next week we will use this information for other correction factors.

If you would like to download the electronic system syzer go to http://www.bellgossett.com/BG-SystemSyzer.asp

WHY YOU SPECIFY ... ITT Bell and Gossett VSX **Double Suction** 1111 Pumps! Speaking of impellers, the B&G VSX impeller is factory balanced to ANSI G6.3 grade with even tighter tolerances available if required. CALL FOR A QUOTE TODAY! (800) 589-6120

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