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By Norman Hall

Can I Change My Vacuum Condensate Pump to a Simple Condensate Pump? (part 1)

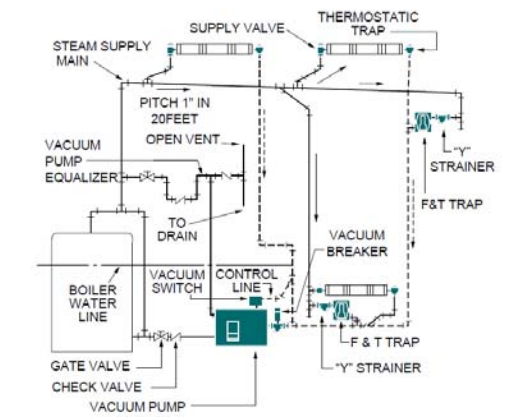
Every heating season we get, at least, a half dozen calls with the question above, which is the subject of today's R. L. Deppmann Monday Morning Minute.

Vacuum condensate transfer pumps exist in many older steam heating systems. There were many reasons contractors and engineers used these pumps but most of the systems fall into three categories: time control, temperature control, and condensate lift.

Let's look at each category very briefly. **TIME CONTROL FACT 1:** In today's modern heating systems we take night or weekend setback in large office buildings for granted. In the 1930s and 1940s, not so much! Back then, on weekends, these large heating systems were just turned off for a period of time which allowed the building temperature to drop. When Monday morning came around, the office workers would want the building warm so the operator or janitor would come in early during the night to start the system.



Xylem Bell and Gossett DOMESTIC VLR vacuum condensate unit



Two pipe vacuum system from manual HS-901A

TIME CONTROL FACT 2: As the IHM nuns taught me back in science class, no two things can occupy the same space at the same time. When the operator came in to start up the system, the pipes were cold and full of air. The steam can't get in until the air is pushed out. Vacuum units were used to help pull the air out of the systems so steam could heat the building faster.

Vacuum systems also allowed a greater differential across steam traps. This got the condensate back to the boiler room faster, again helping the system to heat faster. Sometimes this added differential of pressure to vacuum also allowed pipes to be sized smaller.

Today, there are many more controls for night setback. If your vacuum pump was installed for TIME CONTROL only, there may be areas where the vacuum portion might be unnecessary. Don't assume and just remove it. Ask your R. L. Deppmann sales engineer to stop by and discuss it with your installing contractor or engineer. If you are not lucky enough to be in the Deppmann territory, Call your Bell and Gossett/Domestic pump representative for their assistance.

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