

David Sellers

From: David Sellers
Sent: Wednesday, January 8, 2020 6:01 PM
To: Ryan Stroupe (R2S2@pge.com)
Cc: james Bell
Subject: More follow-up
Attachments: RE_Building Question - Genentech B20 - James Bell.msg; F169.9_UP_2.27.2018.pdf; F171.20-YC-Submittal.pdf; F258.9_UA_2.2018.pdf; F033.7-FS-IOM_7.15.pdf

Hi Ryan,

Additional follow-up items.

Valves sets serving reheat coils at the terminal units

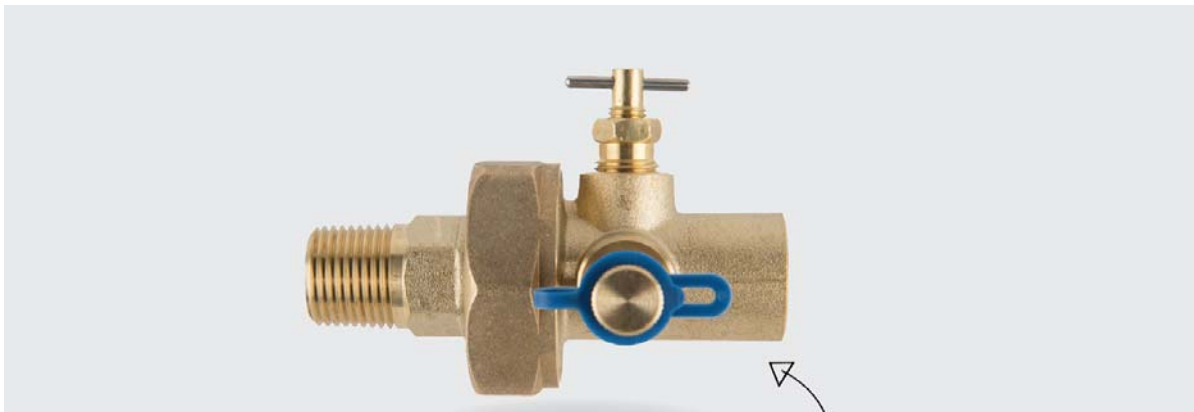
The links in the attached e-mail to James provide a bunch of information about the valves in general. However, now that I've had chance to look at them closer, I think they are by one of Griswolds competitors - FDI .

<https://www.imiflowdesign.com/>

From what I can tell, there are three products installed and they do not incorporate the constant pressure feature that would make the installation a pressure independent control valve application. Rather, they provide a number of functions that a designer would include in their standard reheat coil piping diagram in a packaged format, which would allow the contractor to provide the required functionality with fewer parts, which generally will mean less labor.

The three components provided appear to be:

UP Union With Two Port Option.



This provides:

- A point where you can break the piping apart if you needed to remove the coil or replace a component serving the coil (as long as it was installed downstream of a service valve, which it is in James's building). Using conventional components, this would show up as a union with a nipple to connect it to the next component.
- A pressure test point (basically a Pete's Plug). Using conventional components, this would require a tee with a nipple to connect to the next component on the run (the other side would connect to the nipple from the union) and a Pete's plug on the branch of the tee. Depending on the line size, a bushing might also be required on the branch to get from the reheat coil pipe size to the Pete's plug size.
- A manual vent (if the fitting is on the higher pipe associated with the coil) or drain (if the fitting is on the lower pipe associated with the coil). The intent is that the fitting would be on the high side and thus a manual air vent.

UA Manual Venturi Balancing Valve

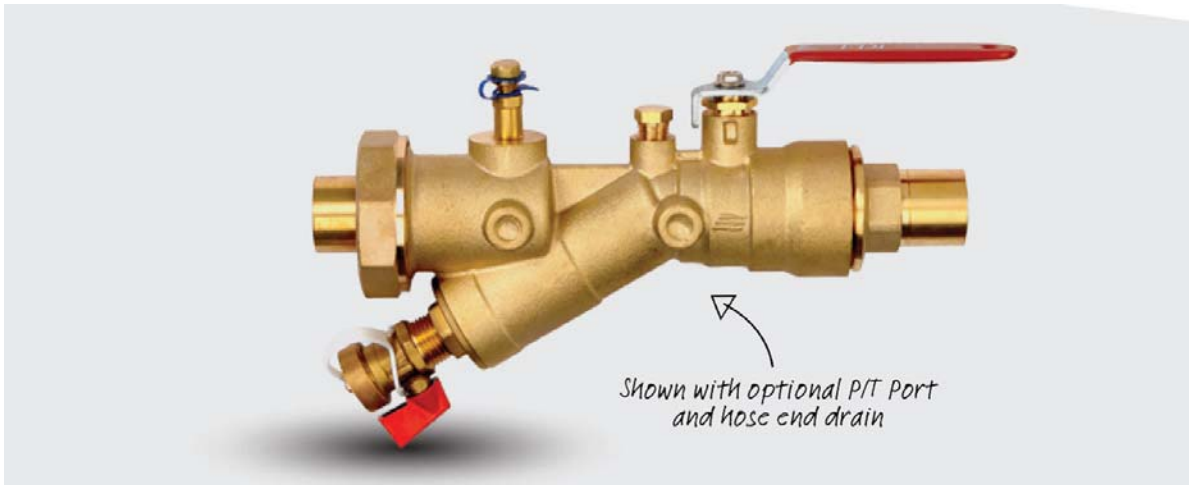


This provides:

- Another union to break the piping and allow the coil or a component in the pipe chain to be removed. Using conventional components, this would require a union fitting with a nipple to connect it to the next component.
- A manual shut-off and balancing valve in the form of a ball valve with a memory stop. The memory stop allows the valve to be fully closed to function as a service valve but limits how far you can open it to the balanced position. Using conventional components, this would require a ball valve with memory stop and a nipple to connect it to the next component.
- Pressure test ports to allow the internal venturi pressure difference to be read via some sort of differential gauge. Using conventional components, this would require a tee with a nipple to connect to the next component on the run (the other side would connect to the nipple from the union) and a Pete's plug on the branch of the tee. Depending on the line size, a bushing might also be required on the branch to get from the reheat coil pipe size to the Pete's plug size.

- A venturi (several different sizes are offered and can be inserted by unscrewing the fitting with the union and inserting the desired venturi into the valve body) that is used to measure the flow rate through the valve. You hook up a differential pressure (DP) gauge of some sort to the two pressure test ports and then throttle the valve until the DP associated with the flow you want is achieved. There are calibrated charts associated with each valve and venturi size that you use to figure out the flow rate associated with a given DP reading.

YC Combination Y-Strainer And Ball Valve With Union



This provides:

- Another union to break the piping and allow the coil or a component in the pipe chain to be removed. Using conventional components, this would show up as a union with a nipple to connect it to the next component.
- A ball valve that can be used as a service/isolation valve. Using conventional components, this would require a ball valve with memory stop and a nipple to connect it to the next component.
- A strainer with a blow-down valve. Using conventional components, this would require strainer with a nipple to connect it to the next component, another nipple in the blow down fitting to connect it to ball valve, a nipple in the ball valve to connect it to the hose end fitting, and the hose end fitting.
- A pressure test point. Using conventional components, this would require a tee with a nipple to connect to the next component on the run (the other side would connect to the nipple from the union) and a Pete's plug on the branch of the tee. Depending on the line size, a bushing might also be required on the branch to get from the reheat coil pipe size to the Pete's plug size.
- A drain valve on the strainer with a hose end adapter. See above for conventional components.

A lot of the features like the drain valve and hose end adapter, the pressure test point, etc. are options that can be installed in tapped connection points on the component casting. You can also

get things like manual and automatic air vents. This is also true for the other fittings and if the ports are not used, they are sealed with a brass plug.

I have attached the technical information for the components that are installed at James's building so you have them.

David

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