

# APPLICATION TIPS' SUMMARY SHEET #4

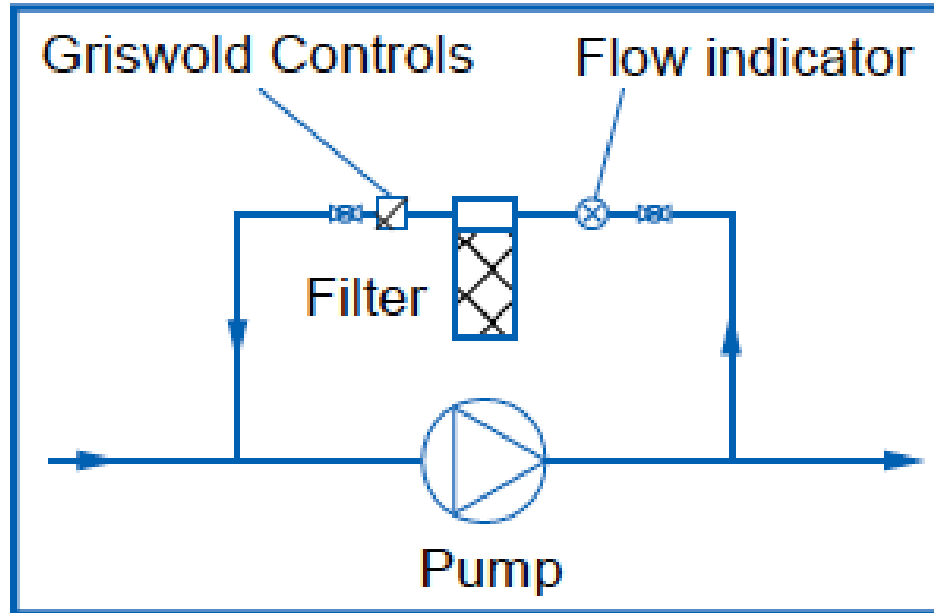
Hydronic Technology Solutions that *fit*

## APPLICATION TIPS

*Questions about this application?*

Contact [info@GriswoldControls.com](mailto:info@GriswoldControls.com) or 949-559-6000

### Side Stream Filters



Side stream filters are installed on almost every commercial hydronic system, diverting a small portion of the total flow from the discharge of a circulating pump through the filter, and back to the pump inlet as shown here.

The media in these filters is very fine and capable of removing small particles. As with any filter, it works best if the flow rate through it is controlled to a recommended maximum. If overflow occurs, the media can actually be ripped out of the casing and thrust into the system. A sight flow indicator is usually installed to show that flow exists, but not how much. In most cases, a designated person physically throttles the flow through the system using an isolation ball valve to whatever flow they think is correct.

Aside from that fact that a full port isolation-ball valve makes a terrible balance valve,

The filter is seeing the full pump head so the amount of throttling required may be huge. Quite frequently one of the ball valves is barely cracked. Another problem is that the pump head in most systems will vary, as does the pressure drop through the filter as it loads up. Both of these normal occurrences will cause the filter flow rate to vary.

Therefore, this is an excellent application for a Griswold Controls flow limiting valve. The valve should be selected to match the filter's recommended flow rate, and with a control range high enough to absorb the full pump head. The filter will never overflow and will work at peak efficiency regardless of what the pump is doing. Also, no flow will be robbed from the system because of overflow through the filter circuit.

And, best of all, there is no adjustment required or even possible.

~ Author | Jerry Boulanger

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