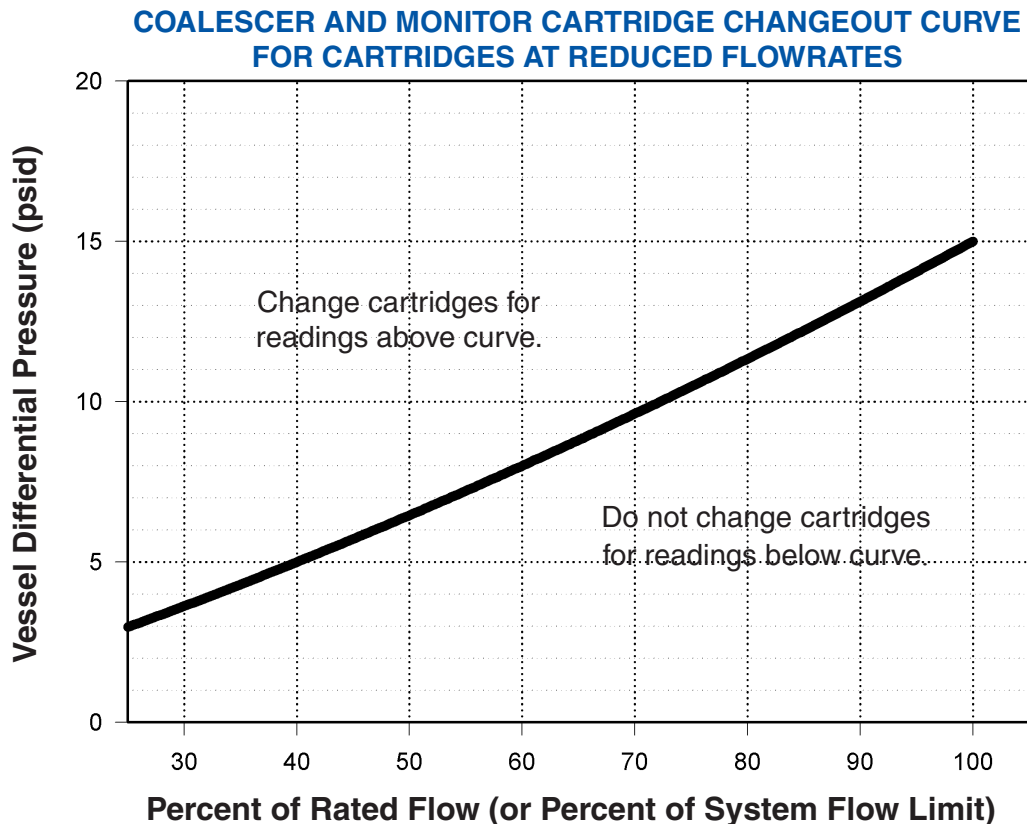


Velcon recommends changing coalescer and monitor cartridges when the pressure differential reaches 15 PSID and the filter/ separator is being operated at its rated flow. The system, however, will often be operating at lower flow rates with a corresponding lower differential pressure. If, for example, a 600 GPM filter/separator shows a differential of 12 PSID at 300 GPM and the flow rate was increased to 600 GPM, the differential would be about 28 PSID which is considerably above the recommended pressure drop for changing cartridges.

It is important, therefore, to know the pressure differential characteristics at lower flow rates for a set of coalescer cartridges which are plugged to the extent that they would show a 15 PSID differential at rated flow. The graph below contains this information for Velcon cartridges.



**Vessel pressure drop characteristics for coalescer and monitor cartridges complying with ATA-103 guidelines.**

**EXAMPLES:** A 1000 GPM filter/separator is operating at 600 GPM (60% of rated flow). If the pressure differential is less than 8 PSID, the cartridges do not require changing. If the pressure differential is 8 PSID or more, however, the elements are due for a changeout.

**EXCEPTION:** If the system in this example is limited to a maximum flow of 750 GPM by pump capacity or some other factor, then 750 GPM should be considered 100% of rated flow rather than higher rating of the filter/separator. In this case, the 600 GPM flow would be 80% of rated flow and the differential at this rate can be as high as 11½ PSID without changing elements.

**NOTE:** “Stick-on” labels (Form #1979) of the above graph can be obtained from Velcon Filters, LLC, Colorado Springs. These labels can be affixed to the vessel near the differential pressure gauge.



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