

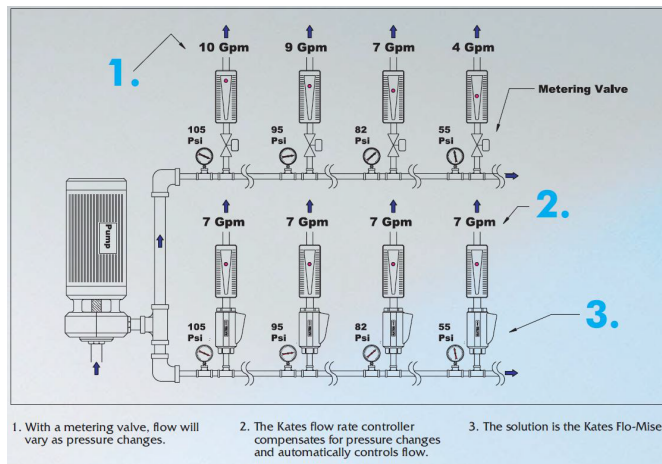
# HEADER SYSTEM

## APPLICATION SHEET

### APPLICATION OVERVIEW

The size (diameter) and distance to points of use in a header system have a large influence on pressure and flow. Pressure drops along a header system can require excessive initial pump discharge pressure to satisfy the most remote points. Opening and closing various legs of a header system can also dramatically affect the pressure within the system which in turn would affect the flow rates supplied at different points of use.

If a header system relies on pressure sensitive devices to deliver the required flow rates to the various points of use; additional controls will be required to monitor and adjust to the changing pressures inherent in the design. Pressure changes in most header systems are frequent and can dramatically effect points of use, especially those that are most remote. If the integrity of the piping system downstream of one of the legs is compromised the entire header system can be rendered useless without the proper controls.



### KATES SOLUTION

Kates Flow Controllers control at the set flow rate regardless of pressure changes up or downstream which makes them an excellent addition to header system design. Kates will only consume enough pressure to deliver the set flow rate downstream. The pressure swings that occur as various legs of a header are opened and closed do not affect the Kates Flow Controller. An accuracy of 1 ½% of SetPoint and a quick 1-2 second response time to changes in upstream or downstream pressure surges make it an excellent choice to deliver consistent flow. Most plants have header systems for various processes that are required to deliver fluids or gases that are vital to the operation.

Applications on plant air header systems where a pipe rupture occurring in one leg could rob all areas of plant air are solved by installing a Kates on each leg which would limit flow to the set rate regardless of the downstream pressure, or lack of any pressure in the case of a pipe rupture.

