

TELEDYNE HASTINGS INSTRUMENTS

APPLICATION NOTES

Goal: Portable Gas Blending System

The customer required a gas blending system that combined two gases in a ratio of true mass flow units (lbs/hr, SCFM, SLPM) for flow rates up to 1000 SCFH. The system was required to be portable and self-contained in a rugged wheeled case, with displays of the flow rates of each gas in engineering units. The selected mass flow controllers were the HFC-202 and the HFC-203 for the specific full-scale flow rates. One MFC controls the air stream in correct proportion to the other gas stream (fuel). Pressure regulators are used upstream and downstream of the MFCs to maintain proper control pressures. When the system is started, the fuel (wild stream) makes up 100% of the flow through the mixer. As the blending process progresses, air (controlled stream) is allowed into the blended stream until setpoint is reached. This system configuration provided the customer with the desired fuel-to-air ratio for the blending process.

HFC-202/HFC-203 Low Capacity Mass Flowcontroller

Proven Reliability

1% FS Accuracy

.05% FS Repeatability, Typical