Application Summary

MFT / 454FT Application Summary

Kurz Instruments, Inc. 454FT Insertion Flow Meters used in Flare Applications

A chemical plant in Louisiana wanted a better handle on Flare events. The Plant already had flow meters on the main flare headers but during flare events, someone had to "search" for the area and/or vessel that was causing the event.

After some consideration as to the measurements accuracy and cost requirement, Kurz 454FT insertion flow meters were purchased and installed on each line feeding the main flare headers.

These meters are used for both accurate identification of the area causing the event and to provide a flow signal/totalization of the flared gas.

All of the meters are calibrated for Methane and a mole weight correction is used to correct the flow signal to the proper gas being flared.

Mole weight correction is accomplished by using a multiplier based calculating the square root of the mole weight of the measured gas divided by methane's mole weight.

It should be noted that some gases, such as hydrogen, have very different thermal properties and will cause an error in the above calculation.

Application Specifics:

- Line sizes from 3-18"
- Methane Correlation calibrations
- Packing Glands and Retractor Restraints are used
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Customer Benefits:

- Faster response to flare events.
- Measurement is used for reporting purposes.

Figure 1: 454FT with Retractor/Restraint in 16" Line

Figure 2: 454FT with Retractor and Customer supplied valve.

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