

METHANE FROM FLARING TOOLKIT



Composition: Manual Sampling

Uncategorized > Composition: Manual Sampling

Manual sampling systems are permanently installed systems that allow a sample cylinder to be installed and a specified volume of gas to be extracted into the cylinder for compositional analysis.

How it Works

Manual sampling systems are installed either as a standalone system or combined with an automatic sampling system.

Sampling systems extract a known sample of fluid through a fixed or retractable sample probe that is permanently installed into a flare line, this sample is then routed through isolation and flow control valves into a sample cylinder connected via flexible hoses.

Once the sample cylinder is full, the cylinder is isolated, removed and taken to a laboratory for analysis.

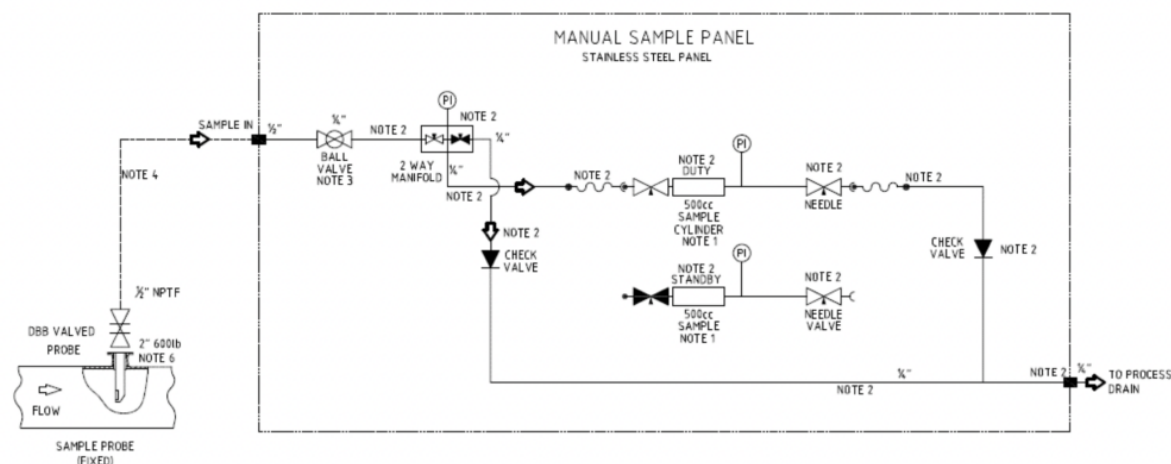


Figure 1: Principles of a Manual Sampling System

Industry Standards

ISO 10715: Natural Gas – Sampling Guidelines.

API MPMS 8.1: Manual Sampling.



Figure 2: Installed sample probe for a sampling system

Advantages



Low-cost

Limitations



Point in time spot sample



Potential for non-representative samples to be taken



Relies on experience of technician taking the sample



Flare systems can operate at very low or even sub-atmospheric pressures making extraction of a manual sample difficult

Go Deeper

- [Vendor Website](#)
- [Vendor Website](#)

Case study

No case study available at this time.

Do I know the gas composition?



Composition: Spectrometry (GC – MS)



Composition: On-Line



Composition: Laboratory Analysis



Composition: Specific Gravity Analyser (Relative Density)



Composition: Wobbe Index Analyser (Calorimeter)