

What type of flow meter is best for your application?

There are no “universal” flow meters which are suitable for all applications. To select the proper technology for an application requires writing a flow specification which covers the use of the meter. There are usually trade-offs with each meter type, so knowing the critical specifications will be important.

Things that must be known:

- What Gas or Liquid will be measured?
- Minimum and maximum flow rates.
- What are the accuracy requirements?
- The fluid temperature and viscosity.
- Fluid compatibility with the materials of construction
- The maximum pressure at the location.
- What pressure drop is allowable?
- Will the meter be mounted in a hazardous location?
- Is the fluid flow continuous or intermittent?
- What type of output signal or readout do is required?

This list can be used to eliminate the flowmeter technologies that do not apply (Turbine flowmeters don't work for viscous fluids. Coriolis meters don't respond fast enough for injection flow, etc.). Then a comparison of the remaining technologies is available for selection for the correct flowmeter. Accurate meters are priced based on their capabilities. It is better to locate the type of meter which fits the application before trading features for cost savings. Closely evaluate extreme conditions, such as low flow rates, high pressure or temperature or the need to measure over a wide operating range. If these conditions are important, do not consider lower priced alternatives that would be applied outside of their capabilities.