

## DENSITRAK® DENSITY METER vs Mass Flow Coriolis Meters

From ISHM (International School of Hydrocarbon Measurement) where this topic is discussed at great length! An ISHM Instructor, who is also on the API (American Petroleum Institute) Board for writing the Measurement Standards, answers the question:

### DENSITRAK® vs Coriolis:

1. The use of the Coriolis as a densitometer is **NOT** as accurate as the **DENSITRAK® Density Meter**
2. For custody transfer, the accuracy needs to be **0.0001 g/cc** and the Coriolis cannot perform to this accuracy and stability in all fluids.
3. The use of the Coriolis as a flow meter is ok, but it is **NOT** a **direct measurement** but a calculated flow based upon the mass measurement and the density measurement.
4. **The cost ratio of a DENSITRAK®** and a standard flow meter versus Coriolis: in diameters of 4" and above for mass measurement is **extremely low**-----roughly \$15k vs. \$125k or more.

### **BENEFITS of the DENSITRAK® Density Meter for DENSITY MEASUREMENT:**

- **Cost:** DENSITRAK® Density Meter is priced significantly **lower** than Coriolis Mass Flow Meters
- **Accuracy:** Due to the fact that the DENSITRAK D625 is calibrated on multiple fluids that meet the customer specifications, the DENSITRAK® provides an additional level of accuracy over multi-function Mass Flow Coriolis meters.
- DENSITRAK® DENSITY meter is **dedicated to only DENSITY MEASUREMENT**, which allows us to tune the instrument for each application which is the result of improved calibration. Density measurement is a **secondary consideration** for Coriolis mass meters.
- **DENSITRAK® Density Meters** provide an **accuracy of  $\pm 0.0001 \text{ gm/cm}^3$** , compared to some **Coriolis or Insertion Type meters** with an accuracy of  **$\pm 0.001 \text{ gm/cm}^3$**  – which is **NOT** nearly accurate enough for Custody Transfer Applications.
- **Density Meter Design:** When we consider dedicated digital density meters, they are designed solely for the measurement of density and the design is optimized for this function only.
- **Low Cost Installation options:** Due to the DENSITRAK® design we can offer many installation options; DENSITRAK® Density Meter can work on many various pipeline sizes under many different process conditions.
- **Customer Service / Satisfaction:** DENSITRAK® customer service is our main priority. We are available to assist a technician in the field working on an installation & needs immediate engineering or customer support. Our competitors do not compare with our level of personalized service!