SPARTAN CONTROLS

TRANSLOADER SYSTEM PRODUCT DATA SHEET
Model TUS FB107

- Compliant with ERCB Directive 17 and API 2540 2004 calculations
- Based on FloBoss 107 Flow Manager
- Local operator interface
  - Keypad or PC configuration
- Class 1 Division 2 Design
- 0-100% water cut measurement calculation
- Liquid volume correction for crude oil
- Rail car ID on tickets
- Batch tracking of mass, volume and density

By Design

The TUS FB107TL Transloader is designed to monitor offloading from truck to rail car for hydrocarbon fluids such as condensate or light-to-heavy-density crude oil.

The TUS FB107 system utilizes a Micro Motion™ Coriolis meter for volume flow measurement and water cut determination. The meter provides three online measurements that include mass flow, density and temperature.

The volume measurement is derived from the mass and density variables (volume = mass/density). The meter can be used over a wide range of densities and volume flow rates providing custody transfer accuracy.

The TUS FB107 system water cut determination is typically provided in the following methods:

1. 0-5% Density Compensated Phase Dynamics or Drexelbrook Cut Monitor
2. 0-100% or 5-100% Net Oil Density Comparison using Micro Motion™
3. 0-100% Microwave water analysis using Phase Dynamics

The TUS FB107 system incorporates patented Density Compensation for 0-5% monitoring and a patented Net Oil Density Comparison for the 5-100% water cut calculation. The density compensated water cut monitor is used to improve water cut resolution for pipeline specifications over the 0-5% water cut ranges.

System Options

Common system options include ground permissive input (GPI), water cut alarms and high/low loading alarms. The system offers wireless printing and data access from the Transloader to a mobile unit or local office. The system reports both volume and mass transactions.

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Standard Specifications

Well Database	378	**Daily Total Records**	Yes
Truck Database	100	**MODBUS Access**	Yes
Historical Records	150*	**Ethernet Access**	Yes
Unload Points	1	**PC Configuration**	Yes
Unload Data Logs	8	**Data Trending**	Yes
Meter Prove Records	20	**Real Time Load Monitoring**	Yes
Tanks Alarm DI	4	**Class 1, Div. 2 Option**	Yes
Tank Monitoring AI	2	**3 Modes of Net Oil Calculations**	Yes
		Autocomp Feature	Yes
		Cut by Microwave	Yes
		Ground Permissive	Yes
		Diagnostic Records	Yes
		Volume Test Case Calculations	**Yes**

*There are two historical ticket storage locations.
The FB107 maintains 150 fast access tickets. There is also local flash drive storage for long-term production history.

Typical System I/O