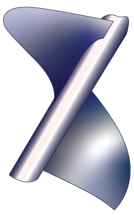
Faure Herman

Counting every drop

Heliflu™-TLM

Helical turbine meters

www.faureherman.com



We invented the helical turbine meter

Advanced rotor for superior performance and reliability

With our helical rotor, fluid velocity remains parallel to the blades, making it less sensitive to variations in viscosity and density. The helical rotor shape, rounded front edge and light weight materials improve stability and linearity even in high viscosity fluids — while reducing bearing wear. Every Heliflu™ rotor we manufacture is optimized in our world-class calibration lab to fit your specific application requirements.

Removable cartridge technology for easy maintenance

- Interchangeable precalibrated spare cartridges
- Easy cartridge replacement (generally less than an hour)
- Only cartridge return is required for calibration
- Easily maintain meters with minimal spare parts
- Limited downtime & interruption of service
- Lower Total Cost of Ownership (TCO)

Compact metering solution, easy to install

The TLM features a plug and play design. It may also be installed either horizontally or vertically (upward flow).

A flow conditioner is integrated.

While the TLM accepts bi-directional flow, only the upstream flow is quantified. It features a simple pulse output that works with any flow computer.

The Heliflu™ TLM is available in either of two hazardous area electrical protection modes:
Explosion Proof or Intrinsically Safe.

System of internal cartridge ("plug&play" type) inserted into the body of the turbine meter.

Ideal configuration is one complete turbine plus a "spare cartridge" already calibrated to the same conditions as of the complete turbine.

Key Benefits

- Proven robust technology
- Calibrated on customer specified viscosities
- Integrated flow conditioning; no straight length required
- Easy, flexible installation: either horizontal or vertical
- Lowers Total Cost of Ownership
- Removable cartridge for easy maintenance
- Lowers downtime whenever maintenance is required
- Low pressure drop means lower energy consumption
- Complies with global certifications and standards
- Faure Herman's 100 years of metering experience

Lower your total cost of ownership

WITH HELICAL TURBINE TECHNOLOGY

The Heliflu™ TLM includes an integral flow conditioner, that allows the installation without any upstream and downstream pipe runs. The meter is ideal for trucks and rail car loading, allowing its installation after bends or strainer without any loss in performance.

The Heliflu™ TLM is designed expressly for high accuracy measurement of low to medium viscosity liquids and refined products.

Your meter installations and custody transfer operations are improved by its unique weight and compact, space-saving design. The TLM is fitted with a maintenance-friendly removable measuring cartridge and also includes an integrated flow conditioner that allows you a more economical installation without any upstream and downstream pipe runs.

The Heliflu™ TLM is also designed for aircraft refuelling, in conjunction with electronic controller, where it replaces PD meters, without any modification of the piping.

Product applications

- Storage
- Airport refuelers
- Wagon & road tankers
- Loading racks
- Light products transfer
- LACT

The Compact Helical Metering Solution

for Liquid Hydrocarbon Measurement

Lower total cost of ownership

with helical turbine technology

Size		Model	Nominal Flow Range (min/max)						Typical K-factor			Meter Length		Appr. Weight	
in	mm		m³/h		l/min		GPM		Pulse/m³	Pulse/l	Pulse/gal	in	mm	kg	lbs
3	80	TLM 3-30	3	30	50	500	13	132	44,500	44.5	168.4	18.5	470	25	55
3	80	TLM 3-50	5	50	83	833	22	220	27,000	27	102.2	18.5	470	25	55
3	80	TLM 3-70	7	70	116	1,166	30	308	13,000	13.0	49.2	18.5	470	27	60
3	80	TLM 3-110	11	110	183	1,833	48	484	13,000	13.0	49.2	18.5	470	27	60
3	80	TLM 3-150	15	150	250	2,500	66	660	13,000	13.0	49.2	18.5	470	27	60
4	100	TLM 4-70	7	70	116	1,166	30	308	13,000	13.0	49.2	20	508	38	83
4	100	TLM 4-110	11	110	183	1,833	48	484	13,000	13.0	49.2	20	508	38	83
4	100	TLM 4-150	15	150	250	2,500	66	660	13,000	13.0	49.2	20	508	38	83
4	100	TLM 4-200	20	200	333	3,333	88	880	3,400	3.4	12.9	20	508	32	70
4	100	TLM 4-300	30	300	500	5,000	132	1,321	3,400	3.4	12.9	20	508	32	70

Materials of construction

Body and Flanges	Stainless Steel Options: Low Temperature Carbon Steel or Duplex (Other upon request)
Internals Cartridge Rotor Bearings	 316L Stainless Steel, Titanium (optional) Titanium or Aluminium Tungsten Carbide or Graphite
Electrical Enclosure Options	316 Stainless Steel or Aluminium Compliance to NORSOK, NACE

Meter temperature range

	ATEX/IECEx	UL/cUL
Ambient Temperature	-50°C to +80°C (-58°F to +176°F)	-50°C to +80°C (-58°F to +176°F)
Process Temperature	-50°C to +180°C (-58°F to +356°F)	-50°C to +150°C (-58°F to +302°F)
Ingress Protection	IP66	NEMA 4X
Storage Temperature	-50°C to +60°C (-58°F to +140°F)	

Meter Specification

Meter Size & Flange Rating	3'' & 4'' ANSI 150 & ANSI 300 (ASME B16.5)
Electrical enclosure - Sensor type - Preamplifier	1 or 2 Inductive pick-up coil 2 wires | 2 wires NAMUR | 3 wires Open Collector
Optional	Local totalizer available (upon request)

Performance

Linearity	± 0.15% (single product only) ± 0.25% (for multiple products)
Repeatability	≤ 0.04%
Complete flow range	3 to 300 m³/h | 13 to 1,321 gallons per minute
Viscosity range	< 15 cSt

Meter approvals

Electrical	ATEX and IECEx (II2G – IIC T6) | UL/cUL (Class 1 Div 1 Group C, D)
Pressure	PED Directive 2014/68/EU compliant
Electromagnetic environment	EMC Directive 2014/30/EU compliant
Metrology	OIML R117-1 | MID (Class 0.5) | Other national approvals upon request

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