



# Heliflu<sup>®</sup>-TCX

## HELICAL TURBINE METERS



### LOWER YOUR TOTAL COST OF OWNERSHIP

WITH **HELICAL**  **TURBINE TECHNOLOGY**

Our innovative design provides you the most economical method to address your process measurement needs with high accuracy on light to medium liquids while also allowing easy field serviceability.

Unlike so many 'disposable' meters, the Heliflu<sup>™</sup> TCX is far more cost efficient. That's because its custom calibrated rotor and downstream crosspiece were designed to be replaced in the field.

Since the rotor is the calibrated component of the meter and all spare rotors are precalibrated in our lab<sup>1</sup> the result is vastly reduced downtime whenever maintenance is required.

The Heliflu<sup>™</sup> TCX is well suited for process measurement applications in the world's most demanding applications, environments and industries.

<sup>1</sup>When you order a spare rotor with your primary meter, we precalibrate both to the same specifications your application requires

### APPLICATIONS

- Process measurement
- Crude oil production
- Light product transfer
- Process mixing applications
- Tank Farm management
- Refinery & petrochemical
- Separators & fractionation
- Non Custody Storage
- Leak detection
- Oil production allocation

### KEY BENEFITS

- Economical process measurement
- Custom calibrated precisely to your specified viscosities
- Flexible flow rates available within certain line sizes
- Suitable for low to medium viscosities (< 10 cSt)
- Minimal sensitivity to density and viscosity variations
- Low pressure drop lowers energy consumption
- Lowers total cost of ownership
- Lowers downtime - easy field maintenance
- Proven technology / Long term reliability
- Easy, flexible installation: either horizontal or vertical
- Complies with global certifications and standards
- 90+ years of metering experience

# The Economical Helical Turbine Flowmeter for Process Measurement

## Heliflu™ TCX METER SIZES

DN mm	NPS inch	Model	Flow Range (m³/h)		Flow Range (Bbl/h)		Flow Range (GPM)		Meter Length		Meter Mass	
			Qmin	Qmax	Qmin	Qmax	Qmin	Qmax	mm	inches	kg	lbs
25	1"	TCX 25-10	1	10	6.3	63	4.4	44	140	5.5	6	13
50	2"	TCX 50-70	7	70	44	440	31	310	165	6.5	10	18
80	3"	TCX 80-110	11	110	69	690	48	480	235	9.25	20	44
		TCX 80-150	15	150	95	950	66	660				
100	4"	TCX 100-200	20	200	126	1,260	88	880	305	12	31	68
		TCX 100-300	30	300	189	1,890	132	1,320				
150	6"	TCX 150-400	40	400	252	2,520	177	1,770	356	14	61	134
		TCX 150-600	60	600	377	3,770	264	2,640				
200	8"	TCX 200-800	80	800	503	5,030	352	3,520	406	16	70	155
		TCX 200-1000	100	1,000	629	6,290	440	4,400				



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## MATERIALS OF CONSTRUCTION

BODY & FLANGES	Standard: Carbon Steel (cast or welded body, depending on size & ANSI rating) Options: Stainless steel, Duplex; others on request
INTERNALS Rotor Bearings	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)	-50°C to +60°C   (-58°F to +140°F)

## METER SPECIFICATION

METER SIZE   FLANGE RATING	1" to 8"   ANSI 150 to ANSI 2500 (ASME B16.5)*	<small>* Consult Faure Herman for higher pressures or other flange types</small>
ELECTRICAL ENCLOSURE - Sensor type - Pre-amplifier	1 or 2 Inductive pick-up coil 2 wires,   2 wires NAMUR   3 wires Open Collector	
OPTIONAL	Local totalizer available (upon request)	

## PERFORMANCE

LINEARITY	±0.5% Single product only
REPEATABILITY	<0.04%
MAXIMUM FLOW RATE	1 to 1,000 m³/h   6.3 to 6,290 bbl/h   4.4 to 4,400 gpm
VISCOSITY RANGE	≤ 10 cSt

## METER APPROVALS

ELECTRICAL	ATEX and IECEx (II2G - IICT6)   UL/cUL (Class 1 Div 1 Group C, D)
PRESSURE	PED Directive 2014/68/EU Compliant
ELECTROMAGNETIC ENVIRONMENT	EMC Directive 2014/30/EU compliant