

TECHNICAL DATA SHEET

SANITARY TURBINE FLOWMETER FOR PROCESS LIQUID MEASUREMENT - TMS

The Turbines Incorporated 3A approved sanitary meters provide accurate, dependable and clean measurement to those in the food, beverage and pharmaceutical industries. Turbines Incorporated 3A meters come in sizes from 1/2" up to 3" and cover flow rates from 1.25 GPM to 650 GPM. Each meter is constructed of 316/316L stainless steel with a 17-4 rotor to deliver long lasting and low maintenance service for CIP and SIP applications in accordance with 3A Sanitary Standard 28-04. Turbines Incorporated offers a complete line of electronics from local displays to conditioned signals for use with PLCs and flow computers. Turbines Incorporated offers a complete line of factory calibrated internal kits. Each internal kit comes complete and ready for installation with a calibration certification, supports, snap rings and rotor to minimize downtime and maximizes field serviceability.



PERFORMANCE SPECIFICATIONS

PERFORMANCE DATA

Flow Meter ID (Inches)	Flow Range (GPM)
1/2"	1.25-10
5/8"	1.75-16
3/4"	2.5-30
1"	4-60
1-1/4"	6-93
1-1/2"	8-130
2"	15-225
3"	40-650

Calibration	+/- 0.5% over standard flow range
Repeatability	+/- 0.1% over standard flow range
Linearity	+/- 0.5% over standard flow range
Operating Temperature	-40°F to 300°F
Connections	Sanitary Tri-Clamp
Flow Rate	From 1.25 to 650 GPM
Cleaning Methods	CIP/SIP/COP/SOP
Surface Finish	Minimum 32 µm Ra
Materials	
Meter Body	316 Stainless Steel
Rotor	17-4 PH Stainless Steel
Bearings	Resin Impregnated Carbon Graphite, Rulon 123

Certifications

Turbines, Inc.'s quality management systems are ISO 9001 and AS 9100 compliant, Sanitary 3-A, NIST and Canadian CRN certified.



TYPICAL APPLICATIONS

FOOD

Vegetable Oil
Gravies & Sauces
Vegetable Mixes
Potable Water
Molasses

DAIRY

Yogurt
Milk
Whey
Soft Cheese

BEVERAGE

Juices
Wine & Spirits
Water
Beer

PHARMACEUTICAL

Ultra Pure Water
DI Water

BIOTECH

Broths

PERSONAL CARE

Tooth Paste
Creams
Shampoos
Conditioners
Fragrances

TMSA/TKSA0100X2-3A-G-2HUB

Style of Turbine Flow Meter

TMSA	Sanitary Style Turbine Meter
TKSA	Sanitary Style Turbine Meter Rebuild Kit

Turbine Flow Meter Size

0050	1/2"	(1" inlet diameter, 1.984" flange diameter standard)
0058	5/8"	(1" inlet diameter, 1.984" flange diameter standard)
0075	3/4"	(1" inlet diameter, 1.984" flange diameter standard)
0100	1"	(1" inlet diameter, 1.984" flange diameter standard)
0125	1 1/4"	(1 1/2" inlet diameter, 1.984" flange diameter standard)
0150	1 1/2"	(1 1/2" inlet diameter, 1.984" flange diameter standard)
0200	2"	(2" inlet diameter, 2.516" flange diameter standard)
0300	3"	(3" inlet diameter, 3.579" flange diameter standard)

Optional End Fitting Size

Blank	Standard End Fitting
X1/2	1/2" inlet diameter, 0.984" diameter flange
X3/4	3/4" inlet diameter, 0.984" diameter flange
X1 1/4	1 1/4" inlet diameter, 1.984" diameter flange
X1 1/2	1 1/2" inlet diameter, 1.984" diameter flange
X2	2" inlet diameter, 2.516" diameter flange
X3	3" inlet diameter, 3.579" diameter flange

3A Compliant Materials, Surface Finish, etc

Blank	non-3A Sanitary Standard compliant
3A	3A Sanitary Standard compliant

Bearing Material

G	Carbon Graphite M100
R	Rulon® 123

Pickup Coil

Blank	Standard Single Magnetic Coil
2Hub	Two Magnetic Pickup Coils
PAI	Single Magnetic Coil w/ Integrated Pulse Amplifier
2PAI	Two Magnetic Coils w/ Integrated Pulse Amplifiers

Support and Service

Our full time, dedicated service group offers 100% trustworthy support and recertification for flow meters – whether our own or a competitor’s brand. Our meter proving services are performed by our trained technicians and the latest testing equipment.

Custom meters and instrumentation options for your application are readily available. Our products are always in stock and ready for immediate shipment, typically within 24 hours.



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Turbines, Inc. products and operations are certified to industry standards for safety and performance. Visit our website for details.

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Worldwide Support

Turbines, Incorporated serves customers worldwide with U.S. offices in Cranston, RI (headquarters); Houston and Odessa-Midland, TX; Altus, OK; Seneca, SC; as well as locations in Edmonton, Alberta (Canada) and Beijing, China.

Contact your Turbines, Inc. Field Application Engineer for Assistance.

Name: _____

Phone: _____

Email: _____



All Turbines, Inc. products are proudly made in the U.S.A.