



FT7 Hygienic Turbine Flowmeter

The Flowquip range of FT7 hygienic turbine flowmeters are specifically designed for the measurement of liquid flows in the food and pharmaceutical industries. They provide a highly accurate and economical means of measuring flows of clean liquids.

- ◆ Hygienic stainless steel construction
- ◆ Long bearing life
- ◆ Robust helically milled rotor
- ◆ Low pressure drop
- ◆ Bi-directional flow capability
- ◆ Highly accurate measurement of flow



Application

Flowquip FT7 hygienic turbine flowmeters have been designed for the dairy, beverage, food processing and pharmaceutical industries. The liquid food applications include milk products, vegetable oils and vinegar for both continuous measurement and batch control.

The brewing and soft drinks industries use the flowmeter for keg filling, ratio blending and tanker loading.

Pharmaceutical processes often require the hygienic qualities of the meter for the accurate flow measurement of salines, proprietary medicines and fine chemicals. The bearings are suitable for low pressure steam sterilisation and chemical in place cleaning.

Principle of Operation

When liquid flows and the rotor turns, the sensor detects the movement of the blade tips and generates pulses. The frequency of the pulses is directly proportional to flow rate.

Construction

The stainless steel construction of the Flowquip FT7 turbines is durable and gives excellent corrosion resistance. The rotor is machined from solid making it virtually indestructible. The sleeve bearings offer a highly reliable performance over long operating periods. Furthermore, the design minimises bacterial growth inside the flowmeter.

Calibration

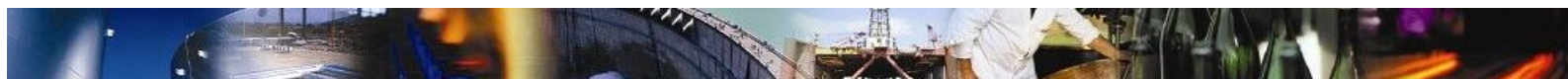
All Flowquip FT7 turbines are individually calibrated with water and are traceable to national standards. A test certificate is issued for each meter showing the derived 'K' factor which is used to set secondary instrumentation.

Instrumentation

The output signal can be fed to a local display, remote display or converted for transmission to a separate control system. Flowquip can offer a range of instrumentation to suit your exact requirements.

Installation

FT7 flowmeters are available with TriClamp, RJT, ISS/IDF or ACME ends. For best performance the flowmeter should be installed in a straight section of pipe allowing at least 10 pipe diameters upstream and 5 pipe diameters downstream. All control valves should be installed downstream and an upstream filter is recommended to prevent ingress of foreign matter. Preamplifiers are only needed for installations with very long transmission distances or where the installation is in an electrically or magnetically noisy environment close to pumps, motors, generators, switchgear or heavy current carrying cables.





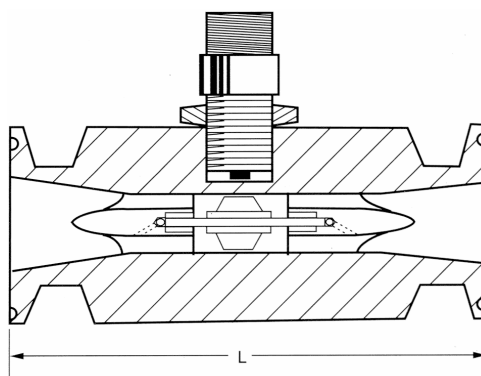
Specification

Linearity:	±0.5% of reading throughout the linear range
Repeatability:	±0.1% of reading
Pressure Drop:	0.5 bar at max. flow
Maximum overrange:	Up to 110% of the rated maximum flow rate for short duration
Max Working press.:	16 barg
Temperature Range:	Standard pickoff -30° C to +110° C I.S. pickoff -30° C to +110° C High temp -30° C to + 232° C
Body Connections:	Tri-Clamp RJT (Ring Joint Thread) ISS, IDF Threaded ACME Thread
Pick-off Coil:	Refer to data sheet for full details

Materials of Construction

Body:	316 stainless steel
Sleeve bearings:	Ceramic Carbon-graphite filled PTFE or Tungsten carbide
Rotor:	431 stainless steel or ferralium
Rotor shaft:	Ceramic
Hangers:	316 stainless steel
Circlips:	316 stainless steel

The nominal K factor is based on water at 20° C. Each flowmeter is individually calibrated on water and will have a unique K factor.



Flow Data and Dimensions

Model Nr.	L/min	K Factor p/litre	L mm	End Conns.	Weight kg
FT7/20/5	5-50	1080	127	1"	1.2
FT7/20/8	8.80	1080	127	1"	1.2
FT7/25/15	15-150	620	127	1 1/2"	1.7
FT7/25	25-250	362	127	1 1/2"	2.3
FT7/40	67-670	82	155	2"	3.2
FT7/50	110-1100	59	216	2 1/2"	5.0
FT7/80	225-2250	14	300	3"	8.0

Specification subject to change without prior notice.



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