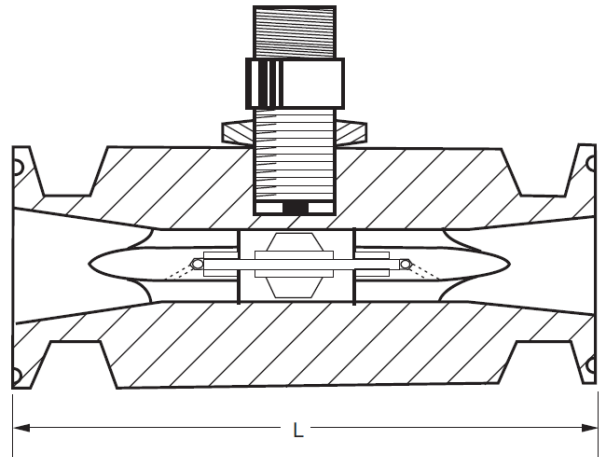
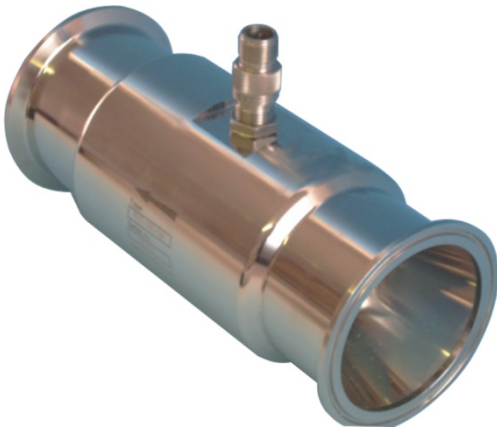




## HYGIENIC TRI-CLAMP LIQUID TURBINE FLOW METER

This range of Hygienic Tri-Clamp flow meters will provide you with a highly accurate and economical way of measuring liquids over the range of 1 to 2250 litres/min. They are specifically designed for food and pharmaceutical industries.



### Specification

Linearity:	Better than +/- 0.5% of reading
Repeatability:	+/-0.1% of reading
Pressure drop:	0.5 Barg at maximum flow
Maximum over range:	Up to 110% of the maximum flow rate for short durations
Maximum working pressure:	16 Barg
Temperature range:	Standard pickoff -30 to 110 degC / High temp -30 to 232 degC
Body connections:	Tri-clamp (standard), ISS threaded, RJT (ring joint thread), ACME thread

### Materials of Construction

Body:	316 Stainless Steel
Sleeve bearings:	Tungsten Carbide
Thrust balls:	Tungsten Carbide
Rotor:	431 Stainless Steel or Ferralium
Rotor shaft:	Tungsten Carbide
Hangers:	316 Stainless Steel
Circlip's:	316 Stainless Steel

### Application

The hygienic tri-clamp turbine flow meters 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 industry use the flow meter for keg filling, ratio blending and tanker loading. Pharmaceutical processes often require the hygienic qualities of the meter for accurate flow measurement of saline's, proprietary medicines and fine chemicals. The bearings are suitable for low pressure steam sterilisation and chemical in place cleaning.

### Instrumentation

The signal can be used for a local display, remote display or converted for transmission to a separate control system. We have a range of instruments to suit all your requirements.

### 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 proportional to the flowrate.

### Construction

The stainless-steel construction is durable and gives excellent corrosion resistance. The rotor is machined from solid making it virtually indestructible. The sleeve bearings provide you with highly reliable performance over long periods. The design minimises bacterial growth crevices.

### Calibration

The turbine flow meters are individually calibrated with water and are traceable to national standards. They are supplied with a test certificate for each meter showing the number of pulses per litre, which is used to set the instrumentation.

### Installation

These flow meters have hygienic tri-clamp, RJT, ISS or ACME end connections for mounting directly into the flow line. For the best performance and to reduce turbulence and get the best results from your flow meter we recommend that you install it in a straight section of pipe with at least 10 pipe diameters upstream and 5 pipe diameters downstream. Control valves should be installed downstream of the flowmeter.

To prevent foreign particles blocking your line we recommend you install a filter before the flow meter.

Preamplifiers are only needed if you have very long transmission distances or an electrically noisy environment close to pumps, motors, generators, switchgear or heavy current carrying cables. Intrinsically safe systems always require an IS pick-off coil. The IS P5 preamplifier is required for transmission to a safe area through barriers.

Model Number	Pipe size mm	Linear Flow Range	K factor pulses/litre
F7/15/1	25	1-10	6000
F7/15/2	25	2-20	3000
F7/20/5	25	5-50	1080
F7/20/8	25	8-80	1080
F7/25/15	25	15-150	520
F7/25	25	25-250	362
F7/40	40	65-650	72
F7/50	50	110-1100	41
F7/80/50	80	110-1100	41
F7/80	80	225-2250	16

Model Number	Standard Triclamp Size *	L mm	Weight kg
F7/15/1	1"	127	1.4
F7/15/2	1"	127	1.4
F7/20/5	1"	127	1.4
F7/20/8	1"	127	1.4
F7/25/15	1½"	127	1.8
F7/25	1½"	127	1.7
F7/40	2"	155	3.0
F7/50	2½"	216	5.2
F7/80/50	3"	216	6.0
F7/80	3"	250	8.0

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.