



# Paddle & Turbine Meters

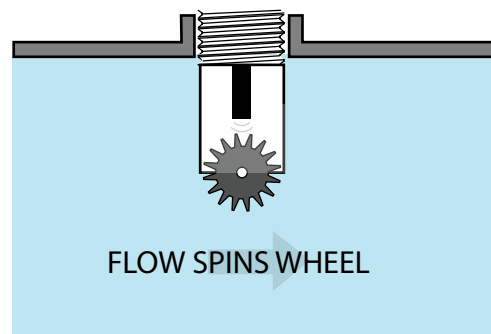
In-line and Insertion Flow Meters For Liquid Flow

## Method - Paddle Wheel

Paddle-wheel meters use an extremely old-fashioned method of measurement - your liquid moves past a small wheel with large blades. These blades are pushed by the flow and cause the wheel to spin. For each revolution (or part thereof), a pulse is generated and sent to the counter.

These meters are designed to be installed into a tapping point in your pipework, which means they are extremely easy to install compared to some other forms of meter.

You insert the turbine until it makes contact with your liquid. The design of the top of the sensor means that only half of the turbine is exposed to the flow - this ensures that you have uneven pressure on the turbine blades, making sure it spins.



## Advantages

- Suitable for a wide variety of liquids
- Very cost effective for large line sizes
- Easy to install

## Disadvantages

- Liquid must be very clean, filtered or strained
- Can sieze or clog, although this doesn't compromise flow rates

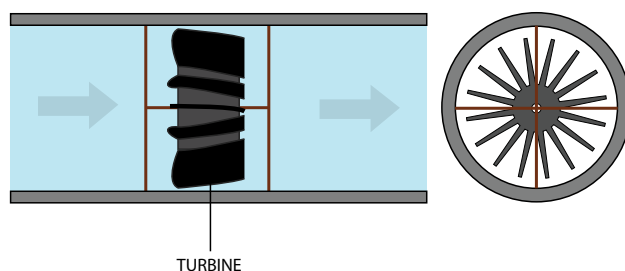
## Method - Turbine

For particularly small line sizes where a paddle wheel isn't possible, a turbine flowmeter provides an alternative.

These replace a small section of your pipework.

Inside the tube is a large turbine that has its axis in the direction of flow (so it looks quite similar to

the fans on a jet engine). As your liquid passes, the curved fins of the turbine are pushed, which makes them spin. The faster your flow, the faster the spin of the turbine.



An internal proximity sensor picks up the movement of the turbine blades, which is translated into a pulse and then into a rate of flow.

## Advantages

- Suitable for a wide variety of liquids
- Accurate at low flow rates

## Disadvantages

- Liquid must be very clean, filtered or strained
- Can sieze or clog, although this doesn't compromise flow rates