

## ASSUMPTIONS





The liquid flow rate measurement with measuring weir and water rise method is based on the actual liquid level measured by the ultrasonic sensor (radar sensor, optional) at the hydraulic structure converted into the value of flow ratio by the ultrasonic flow meter (for ex. FLOWBOX).

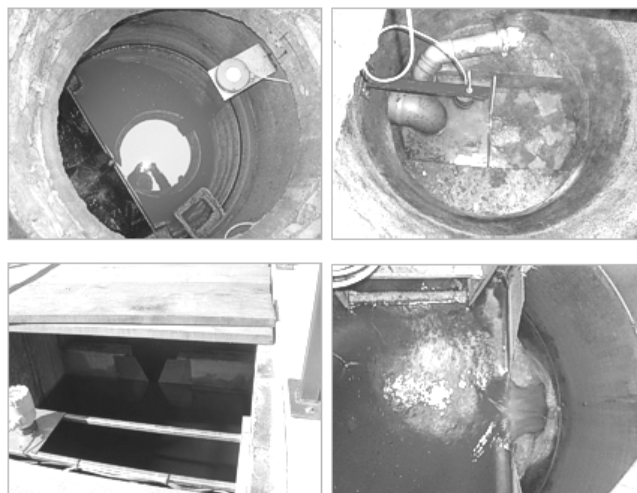
The basic condition to apply the method is to provide free, undisturbed outflow of liquid.

## MEASURING WEIR

We offer a wide range of measuring weirs to optimize the flow measurement. The measuring weirs made in accordance with ISO 1438:2008 "Hydrometry - Open channel flow measurement using thin-plate weirs", are installed in measuring wells or in existing ducts.

The measuring weirs can be used for treated wastewater without solid impurities.

TRIANGLE WEIR	CIRCULAR WEIR
0,0002<Q[m3/s]<1 błąd pomiarowy do 3%	0,0003<Q[m3/s]<25 błąd pomiarowy do 5%
	
RECTANGULAR WEIR	TRAPEZOID WEIR
0,001<Q[m3/s]<5 błąd pomiarowy do 1%	0,0032<Q[m3/s]<82 błąd pomiarowy do 3%
	



## FLOWBOX FLOW METER

The FLOWBOX Flow meter is intended for measurement of liquid level and volume in vessels and flow rate measurement in gravitational pipelines. The ultrasonic method eliminates sensor contact with aggressive (acids, bases) or contaminated (wastewater) medium. The measuring set includes M1600 Microprocessor Transmitter, ultrasonic level sensor and connecting cable.



## FLOWBOX FLOW METER FEATURES

- Readout: momentary flow rate, total flow rate
- Current outputs: 0-20mA, 4-20mA
- Impulse output - adder
- Digital outputs RS232C/485 - Modbus (on request)
- Accuracy  $\pm 0,1\%$  of range
- Supply:  $\sim 230$  V, 50 Hz or battery supply
- Power input  $< 10$  VA
- Ambient temperature: transmitter:  $-10$  to  $+55$  C, sensor:  $-30$  to  $+60$  C
- Housing protection rating: transmitter: IP65, sensor: IP68
- Housing material: transmitter: ABS, sensor: PP, PVDF
- Weight:  $\sim 1,5$ kg
- Automatic temperature compensation
- Narrow ultrasonic beam
- Ex version (on request)

## FLOWBOX FLOW METER – OPTIONAL VARIANTS

- Flow meter with data logger
- Flow meter with an additional measurement - FLOWBOXplus
- Flow meter in battery version - FLOWBOXbat
- Flow meter with remote data transmission