



Waterworks

## Unmeasured-Flow Reducer **PATENTED**

### Description

Smart and simple reduction of unmeasured flow, installed on the water supply line adjacent to the water meter. Protected by an international patent, the UFR changes the flow regime in order to solve the problem of velocity type water meters which have difficulty measuring low flow rates.

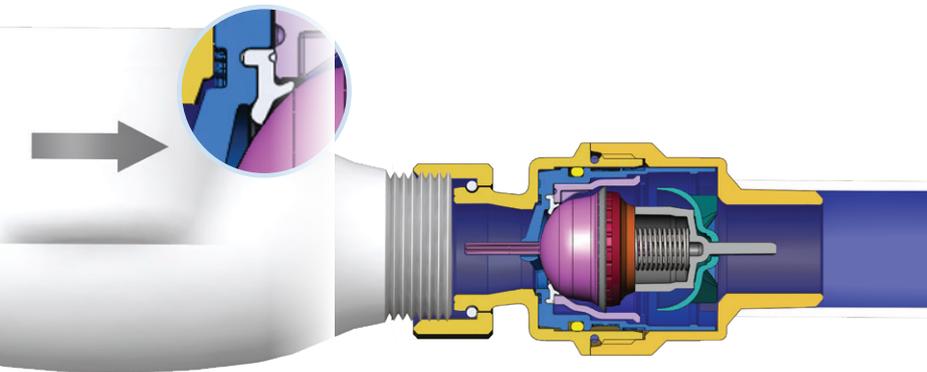
### Features

- Reduces unmeasured flow, cuts down apparent losses.
- Substantially increases the income of the water utility, up to 10%.
- The UFR is a high quality check valve preventing backflow and main pipe contamination.
- Turns apparent water losses into revenue water.
- Reduces measurement differences between the main water meter and domestic water meters.
- Helps detect small leaks downstream of the water meter.

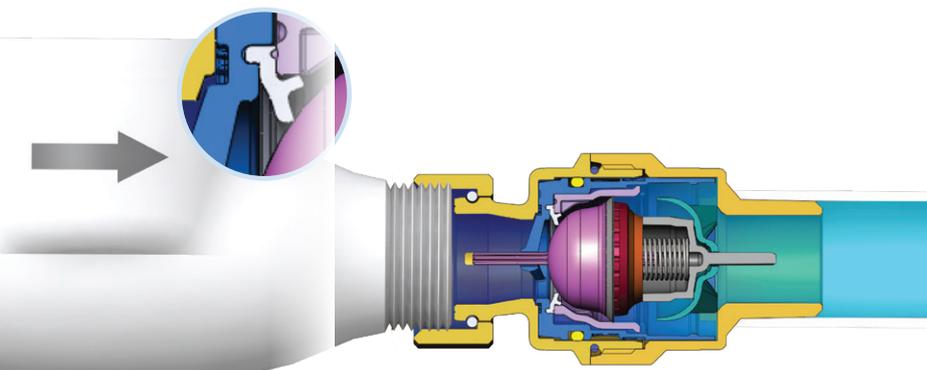
### Standards & Approvals

WRAS, PZH, The Standards Institution of ISRAEL.

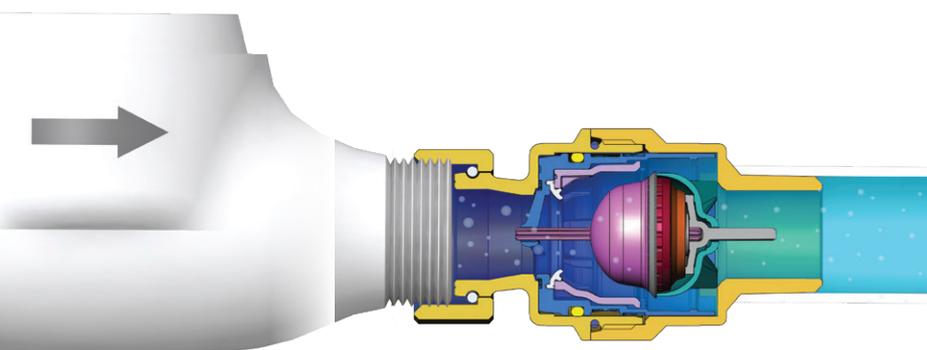
Compatible to ISO standard for small domestic water meters (Qn 1.5), is 30 l/h for class B water meters, 15 l/h for class C water meters and 11.25 l/h for class D water meters.


**Operation**

**1. Closed**

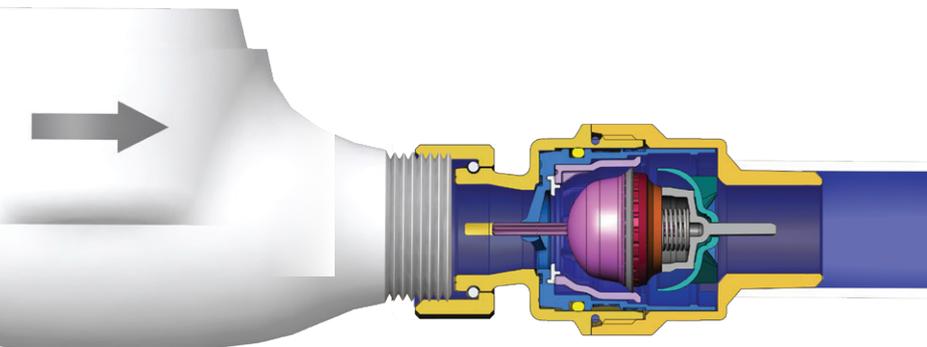
When pressure on both sides of the UFR is equal, the spring pushes the plunger to the "closed" position.


**2. Starts opening**

Leakage causes the downstream pressure to decrease - and the plunger moves forward, pulling the rubber seal with it.


**3. Open**

The plunger seal disengages instantaneously and the water batch moves quickly forward activating the water meter.


**4. Closes again**

When pressure on both sides of the UFR is equal the spring pushes the plunger back to the "closed" position.

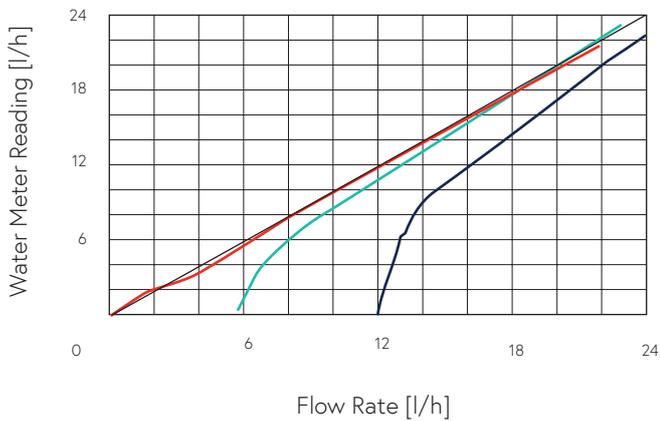
## Technical Specifications

Size range	½" – 1"
Sealing pressure range	0.2 - 16 bar
Testing pressure	1.5 times maximum working pressure
Temperature	Maximum working temperature: 60° C.
Valve connection	Threaded BSP/BSPT Male/Female/U
Standard materials	Reinforced Nylon, Brass

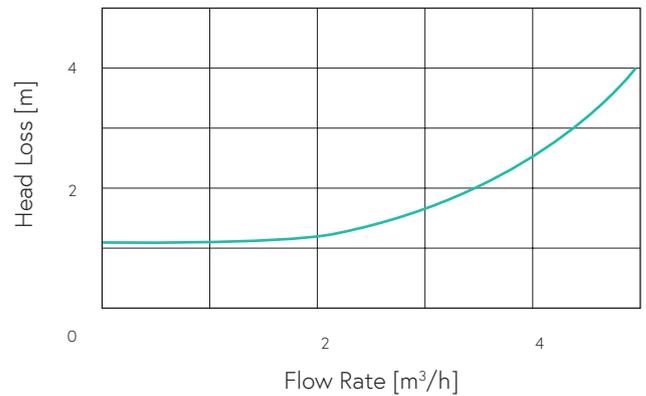
Upon ordering, please specify: model, size, working pressure, thread standard

## Flow Charts

Water Meter Accuracy With/Without UFR



Head Loss VS. Flow Rate



- 100% Accuracy
- Water Meter With UFR
- Qn 1.5 Water Meter Without UFR
- Qn 2.5 Water Meter Without UFR

## ➤ Dimensions and Weight

Connections		Dimensions (mm)		Weight (g.)
Outlet	Inlet	A	B	
<b>Nylon Models</b>				
1/2" BSP Female	1/2" BSP Female	80	64	140
3/4" BSP Female	3/4" BSP Female	81	64	144
3/4" BSP Female	1/2" BSP Female	81	64	142
1/2" BSP Female	3/4" BSP Female	81	64	142
1" BSP Female	1" BSP Female	87	64	146
<b>Metal Models</b>				
3/4" BSPT Male	1" BSP-U	81	47	330
1/2" BSPT Male	3/4" BSP-U	82.5	47	290
3/4" BSPT Male	3/4" BSP-U	85	47	310
3/4" BSPT Male	3/4" BSP Female	83.5	47	290
1/2" BSPT Male	1/2" BSP Female	80	47	270
1/2" BSPT Male	3/4" BSP Female	81	47	280
3/4" BSPT Male	1/2" BSP Female	83	47	280
1" BSP Female	1" BSP Female	88.5	47	350
1" BSP-U	3/4" BSPT Male	88	47	342
1" BSP-U	1/2" BSPT Male	85	47	300
3/4" BSP-U	3/4" BSPT Male	85	47	310
3/4" BSP-U	1/2" BSPT Male	82.5	47	290

