**Installation Instructions**

**Angle Single UFR - Unmeasured-Flow Reducer**

**COMPONENTS and REPAIR PARTS**

**O-ring repair part**

**Spacer**

**For Correct assembly, arrow direction on cartridge must point down as shown.**

**Piston Color:**
- M2 Style - Blue
- V Style - White

**Inlet/Outlet and cartridges configuration may vary.**

Contact factory for repair parts.

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**7202 Series - Model Number Explanation**

**SPACE 1, 2, 3, & 4**

Basic Angle Single UFR model number:
- 7202 = Angle Single UFR

**SPACE 5**

(–) Standard

**SPACE 6**

size: 3 = 3/4"

**SPACE 7**

Inlet connection type:
- H = Meter swivel integral with saddle
- J = Meter swivel integral
- Y = Yoke style thread male integral

**SPACE 8**

Outlet connection type:
- E = Female iron pipe integral
- Q = CTS Q - Series compression integral
- R = Copper flare integral
- T = CTS T - Series compression integral
- 2 = CTS (-22) Mac-Pak compression integral

**SPACE 9**

Blank

**SPACE 10**

Thread size of meter swivel nut

<table>
<thead>
<tr>
<th>METER SIZE</th>
<th>THREAD SIZE</th>
<th>THREAD DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8</td>
<td>3/4&quot;</td>
<td>3</td>
</tr>
<tr>
<td>5/8 x 3/4</td>
<td>1&quot;</td>
<td>4</td>
</tr>
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For Iron Yokes use the following designation:

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</tbody>
</table>

**SPACE 11**

Sizes for outlet connections
- 3/4" = 3

**SPACE 12**

Meter Type Required
- 1 - Volumetric (V), (Positive Displacement Meter)
- 2 - Multi-Jet Meter (M2)

Contact factory with name of meter manufacturer and model number for assistance in determining appropriate device.

**SPACE 13-16**

Backflow Prevention
- Blank - With Backflow Protection
- X001 - Without Backflow Protection

**HOW TO ORDER**

Not all sizes or combinations available - contact factory.

**UNIT REQUIRED** (Example):
- Angle Single UFR
- Inlet - Meter swivel integral (5/8 x 3/4 meter)
- For Volumetric Meter
- Valve size 3/4"
- Outlet - MNPT integral 3/4"
- With Backflow Prevention

**UNIT REQUIRED** (Example):
- Angle Single UFR
- Inlet - Meter swivel integral (5/8 x 3/4 meter)
- For Volumetric Meter
- M2 NCV
- Valve size 3/4"
- Outlet - MNPT integral 3/4"
- Without Backflow Prevention

**ORDER MODEL 7202-3HE 431**

7202 - 3 H E 4 3 1

**ORDER MODEL 7202-3HE 432 X001**

7202 - 3 H E 4 3 2 X 001

(Installation, troubleshooting, and test procedures on opposite side)

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**WARNING:** It is unlawful in CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014) to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380.
GENERAL INFORMATION

- **WARNING** - Do **NOT** use device with improper meter. The type of meter the device is to be used with is indicated in space 10 of model number:
  1 = Volumetric Meter (White tag on cap)
  2 = Multi-Jet Meter (Blue tag on cap)

  If uncertain of meter type being used, contact factory with meter manufacturer and model number.

- The device **MUST** be installed so that the arrow on the angle single UFR points in the direction of water flow.

- The device can be installed in either the horizontal or vertical position.

- The device requires a minimum line pressure of 14.5 PSI to operate correctly.

- If used in a system with a pressure regulating valve, best results will be obtained by locating the pressure regulating valve before the UFR or at least 25 feet after the UFR.

- Replacing the UFR cartridge at time the meter is changed out is recommended.

ASSEMBLY INSTRUCTIONS

- Service lines should be thoroughly flushed before installing device. Excessive pipe sealant or Teflon tape may prevent device from working properly.

  A suitable strainer should be installed upstream of the device.

- The device **MUST** be installed so that the arrow on the device points in the direction of water flow.

- Check cartridge O-rings should be lightly lubricated with a NSF approved silicone lubricant.

- DO **NOT** use Vaseline®, plumber's grease, or any other petroleum based product on seals or O-rings.

- DO **NOT** over-tighten O-ring cap seal or across body cylinder to avoid distortion.

- A pressure relief valve or an expansion tank is recommended downstream of the device if thermal expansion conditions are possible.

  Not required for No Check Valve (NCV) UFR’s (X001).

- Use only on cold water service lines under 110ºF. Protect from freezing.

- The device is not recommended for pressures exceeding 235 PSI.

TROUBLESHOOTING

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Causes</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No flow in the line</td>
<td>1. Shut off valves have not been opened after installation.</td>
<td>1. Check shut off valves.</td>
</tr>
<tr>
<td></td>
<td>2. The product is installed the wrong way round (against the flow direction).</td>
<td>2. Check direction of the product, and if necessary invert it in accordance with the flow direction.</td>
</tr>
<tr>
<td></td>
<td>3. Mains pressure is less than 14.5 PSI</td>
<td>3. The UFR requires a minimum mains pressure of 14.5 PSI to work normally.</td>
</tr>
<tr>
<td>There is a leak in the house but</td>
<td>1. There is a lot of air in the system following the installation.</td>
<td>1. Purge air from the system by opening the taps in the house and check again.</td>
</tr>
<tr>
<td>the UFR is not working.</td>
<td>2. The leak in the house is more than 7.9 gallons per hour (cumulative).</td>
<td>2. The UFR is designed to pulsate for leaks between 0 and 7.9 gallons per hour. For flows above 7.9 gallons per hour the UFR is fully open and meter should register full flow on its own.</td>
</tr>
<tr>
<td></td>
<td>3. Sealant has entered the sealing area of the UFR.</td>
<td>3. Remove the UFR from the line and clean out the sealant.</td>
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