The **Series OP** Orifice Plate Flowmeters are a complete flow metering package. They incorporate a stainless steel orifice plate with a unique holder or carrier ring containing metering taps and integral gaskets. The Series OP is available in line sizes from 1/2’’ to 24’’ and can be used with compatible liquids and gases.

**FEATURES/BENEFITS**
- Mounted with standard flanges with no need of specialty flanges
- Reduced installation costs with simple installation by slipping the unit between standard flanges
- Easy access with corner type metering taps
- Long operation life with corrosion free material
- Stainless steel wetted parts assures long term reliability and accuracy
- Proven through a wide range of applications for energy efficiency

**APPLICATIONS**
- Fluid flow rates in building water lines
- Boiler feedwater
- Cooling water
- Combustion or compressed air
- Steam flow

The **SERIES PE & TE** Orifice Plate Flowmeters are two series of plastic orifice plate flow metering packages incorporating a unique holder or carrier ring containing metering taps and integral gaskets. They can be used in place of other primary differential products for efficiency and cost-effectiveness.

The Series PE orifice plate flowmeter is of PVC construction and is available in line sizes from 1/2 to 24’. This series can be used for air and most gases and meets or exceeds ASME, AGA & ISO standards.

The Series TE orifice plate flowmeter is of PTFE construction and is available in line sizes from 1/2 to 24’. This Series can be used with gases, liquids, corrosive and high temperature fluids.

**FEATURES/BENEFITS**
- Mounted with standard flanges with no need of specialty flanges
- Reduced installation costs with simple installation by slipping the unit between standard flanges
- Easy access with corner type metering taps
- Long operation life with corrosion free material
- Proven through a wide range of applications for energy efficiency
- PTFE construction yields excellent chemical and weather resistance
- TE models are flame retardant without factory gaskets
- Low friction leading to minimum wear and long operation life

**APPLICATIONS**
- Fluid flow rates in building water lines
- Boiler feedwater
- Cooling water
- Combustion or compressed air
- Steam flow

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Service</th>
<th>OP &amp; TE: Compatible liquids and gases; PE: Clean air and compatible gases.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>0.6% FS. (Beta = 2-.6) ±0.7% for Beta greater than .6.</td>
</tr>
<tr>
<td>Temperature Limits</td>
<td>OP: -50 to 200°F (-45 to 93°C); PE: 140°F (60°C) max; TE: -40 to 200°F (-40 to 93.3°C).</td>
</tr>
<tr>
<td>Pressure Limits</td>
<td>OP: Limited only by pipe and flange rating restrictions.</td>
</tr>
<tr>
<td>Head Loss</td>
<td>1-Beta ratio2 eg: 1-0.72 = 1-0.49 = 51% of the d.p.</td>
</tr>
<tr>
<td>Line Sizes</td>
<td>1/2’’ to 24’.</td>
</tr>
<tr>
<td>Process Connection</td>
<td>1/4’’ female NPT.</td>
</tr>
<tr>
<td>Installation</td>
<td>Standard flange. OP: Any rating (orifice flanges not required); PE &amp; TE: 125#/150# rating.</td>
</tr>
<tr>
<td>Pipe Requirements</td>
<td>General requirements 10 diameter upstream and 5 diameter downstream of orifice plate.</td>
</tr>
<tr>
<td>Weight</td>
<td>Varies with line size. See chart.</td>
</tr>
</tbody>
</table>
### SERIES OP ORIFICE PLATE FLOWMETER – CAPACITY STRUCTURE
- Material: 304/304L, gaskets Buna-N
- Based on: 70°F, 14.7 psia (base conditions)
- Beta value based on std sch pipe I.D.
- 1.25" overall thickness
- Orifice plate thickness is 0.125"

### SERIES PE ORIFICE PLATE FLOWMETER – AIR CAPACITY STRUCTURE
- Material: PVC, gaskets Buna-N
- Based on: 70°F, 14.7 psia (base conditions)
- Beta value based on std sch pipe I.D.
- 1.25" overall thickness
- Orifice plate thickness is 0.125"

### SERIES TE ORIFICE PLATE FLOWMETER – CAPACITY STRUCTURE
- Material: PTFE, gaskets Buna-N
- Based on: 70°F, 14.7 psia (base conditions)
- Beta value based on std sch pipe I.D.
- 1.25" overall thickness
- Orifice plate thickness is 0.250"

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**MODEL CHART**

<table>
<thead>
<tr>
<th>OP Model</th>
<th>OP Weight (lb)</th>
<th>PE Model</th>
<th>PE Weight (lb)</th>
<th>TE Model</th>
<th>TE Weight (lb)</th>
<th>Line Size</th>
<th>Water Capacity</th>
<th>Air Capacity - Flow in SCFM</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>PE-A-1</td>
<td>1.00</td>
<td>TE-A-1</td>
<td>1.00</td>
<td>1/2&quot; 0.200&quot;, 0.32</td>
<td>32</td>
<td>0.62</td>
<td>20 12.3, 6.6</td>
<td>20 320</td>
</tr>
<tr>
<td>1.00</td>
<td>PE-A-2</td>
<td>1.00</td>
<td>TE-A-2</td>
<td>1.00</td>
<td>1/2&quot; 0.310&quot;, 0.50</td>
<td>32</td>
<td>0.77</td>
<td>20 9.7</td>
<td>20 3.5</td>
</tr>
<tr>
<td>1.00</td>
<td>PE-A-3</td>
<td>1.00</td>
<td>TE-A-3</td>
<td>1.00</td>
<td>1/2&quot; 0.430&quot;, 0.69</td>
<td>32</td>
<td>0.77</td>
<td>20 9.7</td>
<td>20 3.5</td>
</tr>
<tr>
<td>1.00</td>
<td>PE-B-1</td>
<td>1.00</td>
<td>TE-B-1</td>
<td>1.00</td>
<td>3/4&quot; 0.250&quot;, 0.30</td>
<td>32</td>
<td>0.97</td>
<td>20 9.7</td>
<td>20 3.5</td>
</tr>
<tr>
<td>1.00</td>
<td>PE-B-2</td>
<td>1.00</td>
<td>TE-B-2</td>
<td>1.00</td>
<td>3/4&quot; 0.400&quot;, 0.50</td>
<td>32</td>
<td>0.97</td>
<td>20 9.7</td>
<td>20 3.5</td>
</tr>
<tr>
<td>1.00</td>
<td>PE-B-3</td>
<td>1.00</td>
<td>TE-B-3</td>
<td>1.00</td>
<td>3/4&quot; 0.580&quot;, 0.70</td>
<td>32</td>
<td>0.97</td>
<td>20 9.7</td>
<td>20 3.5</td>
</tr>
</tbody>
</table>

- Note: Differential pressure values should be less than 50% of the inlet absolute pressure.

- Items are subject to Schedule B discounts.