Automatic Balancing Valves
Flow Control with butterfly valve and Flanged Reducer

Engineering GREAT Solutions
Model WR - is designed to attach directly to flanged ATC valves which are smaller than runout size. The regulator is factory set to automatically limit the specified flow to within +5 percent over 95 percent of the control range. The flanged reducer, flow regulator and butterfly valve are shipped assembled. The maximum gpm flows for each size are shown below. Ten gpm reduced increments are available (i.e.; 3” (3-20) control range is available 200, 190, 180, 170, etc.). Extended pressure / temperature ports are standard.

Butterfly Valve - The lug-type butterfly valve has a 2” (50mm) extended neck for insulation. Units have a infinite-position handle and memory stop.

Pressure Drop - The pressure drop of the WR assembly is 3 psi or 6.9 ft. (690)Pa/m) [3-20 range] plus the loss through the butterfly valve which can be calculated using the Cv (Kv) rates on the BF submittal (Form 215). The loss for other control ranges are shown in notes under the chart below.

**Key features**

- **Flow Regulator**
  - Reduced wasted pumping
- **Changeable Cartridges**
- **Tamper Resistant**

**Technical description**

**Application:**
Hydronic Balancing

**Functions:**
Flow regulator, shut-off

**Dimensions:**
2 1/2” - 6”

**Accuracy:**
±5%

**Pressure class:**
225 psig at 250°F (1551 kPa at 120°C)

**Flow Regulator Material:**
- Body: Ductile iron
- Flow Cartridge: Stainless Steel Wear Surfaces with Stainless Steel Spring

**Butterfly Valve Material:**
- Body: Cast Iron, Lug-type
- Seat & Gasket: EPDM
- Stem: 416 Stainless Steel
- Bearings: Bronze Sleeve
- Disc: Al-Bronze or Stainless Steel (if SS is required please consult factory)
## Connections / Flow

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (in./mm)</th>
<th>Connections</th>
<th>3-20 (21-138) psi (kPa)</th>
<th>5-40 (34-276) psi (kPa)</th>
<th>7-45 (48-310) psi (kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WR0300-250(-)</td>
<td>3.0 (80)</td>
<td>2 1/2” Inlet &amp; 3” Outlet</td>
<td>180 (11.4)</td>
<td>180 (11.4)</td>
<td>-</td>
</tr>
<tr>
<td>WR0400-250(-)</td>
<td>4.0 (100)</td>
<td>2 1/2” Inlet &amp; 4” Outlet</td>
<td>180 (11.4)</td>
<td>180 (11.4)</td>
<td>-</td>
</tr>
<tr>
<td>WR0600-300(-)</td>
<td>6.0 (150)</td>
<td>3” Inlet &amp; 4” Outlet</td>
<td>300 (18.9)</td>
<td>300 (18.9)</td>
<td>300 (18.9)</td>
</tr>
<tr>
<td>WR0600-400(-)</td>
<td>6.0 (150)</td>
<td>4” Inlet &amp; 6” Outlet</td>
<td>500 (31.5)</td>
<td>500 (31.5)</td>
<td>500 (31.5)</td>
</tr>
<tr>
<td>WR0600-500(-)</td>
<td>6.0 (150)</td>
<td>4” Inlet &amp; 6” Outlet</td>
<td>750 (47.3)</td>
<td>750 (47.3)</td>
<td>750 (47.3)</td>
</tr>
</tbody>
</table>

### Notes

The (-) in the model number must be replaced by: 3: 3-20 (21-138); 4: 5-40 (35-276) or 5: 7-45 (48-310).

For pump head calculations, the following loss applies for each range: 6.9 ft. or 17 kpa (3-20); 11.6 ft. or 34.6 kPa (5-40); & 16.2 ft. or 48.4 kPa (7-45).

*All models can have reduced flows in 10 gpm increments.

All weights and dimensions are subject to minor changes.

Allow approximately one foot for clearance on butterfly valve/handle.

### Articles

#### Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Size (in./mm)</th>
<th>A (in./mm)</th>
<th>B (in./mm)</th>
<th>C (in./mm)</th>
<th>D (in./mm)</th>
<th>Max No. 3” Canisters</th>
<th>Weight (lb./kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WR0300-250(-)</td>
<td>3.0 (80)</td>
<td>15.4 (109)</td>
<td>7.5 (191)</td>
<td>7.6 (193)</td>
<td>1.4 (36)</td>
<td>1</td>
<td>51 (6)</td>
</tr>
<tr>
<td>WR0400-250(-)</td>
<td>4.0 (100)</td>
<td>17.0 (127)</td>
<td>9.0 (229)</td>
<td>8.4 (213)</td>
<td>1.6 (41)</td>
<td>2</td>
<td>82 (9)</td>
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<tr>
<td>WR0600-300(-)</td>
<td>6.0 (150)</td>
<td>19.0 (193)</td>
<td>11.0 (279)</td>
<td>9.6 (244)</td>
<td>1.8 (46)</td>
<td>4</td>
<td>115 (22)</td>
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<tr>
<td>WR0600-400(-)</td>
<td>6.0 (150)</td>
<td>19.0 (219)</td>
<td>11.0 (279)</td>
<td>9.6 (244)</td>
<td>1.8 (46)</td>
<td>4</td>
<td>120 (27)</td>
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<tr>
<td>WR0600-500(-)</td>
<td>6.0 (150)</td>
<td>19.0 (279)</td>
<td>11.0 (279)</td>
<td>9.6 (244)</td>
<td>1.8 (346)</td>
<td>4</td>
<td>121 (40)</td>
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</tbody>
</table>
Model Order Designation

WR0400-1 - 240

Options Available

MI  Metal ID Tag
PI  Plastic ID Tag

Model Size
4" W Shown

Control Range
1 = 2-32 psi

GPM
240 GPM Shown

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