**Bredel 65, Bredel 80 and Bredel 100 Hose Pumps**

**FEATURES AND BENEFITS**

- Sealless, valveless pumping principle for reliable, low maintenance metering, dosing and transfer
- Flow rates up to 53,000 L/hr (233 USGPM) and pressures up to 16 bar (232 psi)
- Dry running and self-priming, with up to 9.5 meters (30 foot) suction lift capability
- Robust design for aggressive chemicals or abrasives
- Compact direct coupled design to maximise gearbox life
- Simple hose change decreases cost of ownership, downtime and need for parts inventory

**PERFORMANCE**

<table>
<thead>
<tr>
<th>Required motor power kW (hp)</th>
<th>Bredel 65</th>
<th>Bredel 80</th>
<th>Bredel 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.0 (14.75hp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.0 (13.40hp)</td>
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<tr>
<td>8.0 (10.72hp)</td>
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<tr>
<td>6.0 (8.04hp)</td>
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<tr>
<td>4.0 (5.36hp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0 (2.68hp)</td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump speed rpm</th>
<th>Capacity L/h</th>
<th>Capacity USGPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>4000</td>
<td>17.6</td>
</tr>
<tr>
<td>20</td>
<td>8000</td>
<td>35.2</td>
</tr>
<tr>
<td>30</td>
<td>12000</td>
<td>52.8</td>
</tr>
<tr>
<td>40</td>
<td>16000</td>
<td>70.4</td>
</tr>
<tr>
<td>50</td>
<td>20000</td>
<td>88.1</td>
</tr>
<tr>
<td>60</td>
<td>24000</td>
<td>105.7</td>
</tr>
<tr>
<td>70</td>
<td>28000</td>
<td>123.3</td>
</tr>
<tr>
<td>80</td>
<td>32000</td>
<td>140.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product temperature C (F)</th>
<th>100 kPa = 1 bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 (104F)</td>
<td>40 (104F)</td>
</tr>
<tr>
<td>50 (122F)</td>
<td>50 (122F)</td>
</tr>
<tr>
<td>60 (140F)</td>
<td>60 (140F)</td>
</tr>
<tr>
<td>70 (158F)</td>
<td>70 (158F)</td>
</tr>
<tr>
<td>80 (176F)</td>
<td>80 (176F)</td>
</tr>
</tbody>
</table>

1. Flow required indicates pump speed
2. Calculated discharge pressure
3. Net motor power required
4. Product temperature
5. Calculated discharge pressure
6. Maximum recommended pump speed

Note: The area of continuous operation diminishes with increased product temperatures. For product temperatures >40°C (104F), the area of continuous operation is limited by the corresponding red temperature line.
**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Components</th>
<th>Materials</th>
<th>Options</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump housing</td>
<td>Cast iron</td>
<td>Available hose materials</td>
<td>NR Endurance***, NBR, EPDM, CSM, NBR for food, F-NBR</td>
</tr>
<tr>
<td>Rotor</td>
<td>Cast iron</td>
<td>Available flanges</td>
<td>ANSI, EN DIN, JIS</td>
</tr>
<tr>
<td>Pressing shoes</td>
<td>Aluminium or epoxy</td>
<td>Available inserts</td>
<td>Bredel standard or with sanitary connectors</td>
</tr>
<tr>
<td>Cover</td>
<td>Mild steel</td>
<td>High level float switch</td>
<td>Max. 2A, 230 V AC/DC, max. 40VA</td>
</tr>
<tr>
<td>Brackets</td>
<td>Galvanized steel or AISI 316</td>
<td>Low level float switch</td>
<td>ATEX: max. 50 mA, max. 28V AC/DC</td>
</tr>
<tr>
<td>Flanges</td>
<td>Galvanized steel or AISI 316</td>
<td>Integrated FI for stand alone speed control</td>
<td>Factory programmable from 12-80 Hz</td>
</tr>
<tr>
<td>Inserts</td>
<td>AISI 316, PVC, PP, PVDF</td>
<td>Revolution counter</td>
<td>For maintenance intervals and /or metering</td>
</tr>
<tr>
<td>Support frame</td>
<td>Galvanized steel or AISI 316</td>
<td>Vacuum assist</td>
<td>For difficult suction conditions and high viscosity fluids</td>
</tr>
<tr>
<td>Hose clamps</td>
<td>Galvanized steel or AISI 316</td>
<td>Cover lifting device</td>
<td>For one-man pump maintenance</td>
</tr>
<tr>
<td>Shaft</td>
<td>Alloy steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seals</td>
<td>Neoprene or nitrile</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MATERIALS OF CONSTRUCTION**

**DIMENSIONS**

| Type               | A     | B     | C     | D     | E     | F     | G     | H     | J     | K     | Lmax  | L  | L2max | M     | N     | O     | L1    | L2    | R    | S    |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|------|------|------|
| Bredel 65 (mm)     | 1059  | 580   | 3     | 746   | 152   | 680   | 740   | 1036  | 525   | 104   | 137   | 1172 | 141  | 486   | 415   | 220   | 50   | 18   | 145  | 4    |
| Bredel 65 (inches) | 41.7  | 22.8  | 0.12  | 29.4  | 6     | 26.8  | 29.1  | 40.8  | 20.7  | 4.1   | 5.4   | 46.1 | 5.6  | 19.1  | 16.3  | 8.7   | 2    | 0.71 | 0.71 | 5.7  | 0.16 |
| Bredel 80 (mm)     | 1257  | 700   | 4     | 876   | 182   | 900   | 990   | 1218  | 620   | 124   | 153   | 1391 | 166  | 582   | 525   | 275   | 50   | 22   | 18   | 100  |
| Bredel 80 (inches) | 49.5  | 27.6  | 0.16  | 34.5  | 7.2   | 35.4  | 39    | 48    | 24.4  | 4.9   | 6     | 53.2 | 6.5  | 22.9  | 20.7  | 10.8  | 2    | 0.9  | 0.71 | 6.3  | 0.31 |
| Bredel 100 (mm)    | 1468  | 813   | 3     | 1042  | 199   | 1050  | 1140  | 1415  | 720   | 151   | 173   | 1392 | 200  | 489   | 540   | 310   | 50   | 22   | 18   | 100  |
| Bredel 100 (inches)| 57.8  | 32    | 0.12  | 41    | 7.8   | 41.3  | 44.9  | 55.7  | 28.3  | 5.9   | 6.8   | 54.8 | 7.9  | 19.3  | 21.3  | 12.2  | 2    | 0.9  | 0.71 | 7.1  | 0.31 |

**TECHNICAL SPECIFICATIONS**

- **Flow range**: up to 32,000 L/hr (140.9 USGPM)
- **Capacity**: 6.7 L/rev (1.77 G/rev)
- **Minimum starting torque**: 1,150Nm (10,178 inch-lbs)
- **Hose lubricant required**: 20 litres (5.28 USG)
- **Pumphead weight**: 398kg (877 lbs)
- **Max inlet pressure**: 2.0bar abs (30 psia)
- **Product temperature range**: -10C up to 80C (-14F up to 176F)
- **Ambient temperature range**: -20C up to 45C (-4F up to 113F)

**Options**

- Available hose materials
- Available flanges
- Available inserts
- High level float switch
- Low level float switch
- Integrated FI for stand alone speed control
- Revolution counter
- Vacuum assist
- Cover lifting device

**Features**

- NR Endurance***, NBR, EPDM, CSM, NBR for food, F-NBR
- ANSI, EN DIN, JIS
- Bredel standard or with sanitary connectors
- Max. 2A, 230 V AC/DC, max. 40VA
- ATEX: max. 50 mA, max. 28V AC/DC
- Factory programmable from 12-80 Hz
- For maintenance intervals and /or metering
- For difficult suction conditions and high viscosity fluids
- For one-man pump maintenance

**Notes**

- The information contained in this document is believed to be correct at the time of publication, but Watson-Marlow Bredel BV accepts no liability for any error it contains, and reserves the right to alter specifications without prior notice. All mentioned values in this document are values under controlled circumstances at our test bed. Actual flow rates achieved may vary because of changes in temperature, viscosity, inlet and discharge pressures and/or system configuration. APEX, DuCoNite®, Bioprene® and Bredel are registered trademarks.
- *Allowable ambient temperature is based on pump capabilities and may be further limited by gearbox ambient capabilities.
- **NOTE:** Please consult your Bredel representative for lower or higher temperature operation.

**Connector sizes**

- **Bredel 65**: ANSI 150#, EN DIN, JIS
- **Bredel 80**: 3", 80mm
- **Bredel 100**: 4", 100mm

**More information can be found at:** info@wmftg.com