The ROBUST Performer

Hydraulic Injection Moulding Machine
80 to 910 Ton

- Generous Specifications
- High Productivity
- Robust & Reliable
- User Friendly Control

Technology for Productivity

Omega

Ferromatik Milacron
India
Hydraulic Injection Moulding Machine

**The ROBUST Performer**

1. **Unique Prefill Cylinder Design**
   - Fast Tonnage Built-up Time

2. **Large Ram Diameter**
   - Provides Uniform Force Distribution across Platen
   - Provides Excellent Mould Squareness & Parallelism
   - Reduces Mould Wear

3. **Generous Mould Space**
   - Accommodates Large Moulds

4. **Wide Skates for Platen Supports**
   - Reduced Platen Deflection
   - Enhanced Life of Tie-bars
   - Higher Mould Carrying Capacity

5. **Closed Loop PID Temperature Control**
   - Provides Precise Temperature Control
   - Excellent Process Control & Stability

6. **Endura-II - Advanced User Friendly Control**
   - Ergonomic Layout
   - High Speed Microprocessor
   - Direct Access Menu Keys
   - Graphical Presentation of Machine Features
   - Self Diagnostic & Fault Finding Capability
   - Parameter Entry in Absolute Value
   - Central Monitoring System
   - Statistical Process Control (SPC)

7. **Twin Cylinder injection Unit**
   - Uniform Load Distribution across Screw Centerline

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**Energy Saving**

Upto 40%

AC Drive

(Optional)
**AC Variable Frequency Drive - One of the Best Energy Saving Concept**
(Upto 100 HP - Optional Feature)

**Principle**
AC Variable Frequency Drive adjusts the Electric Motor Velocity to match the Power requirement of the Moulding Cycle by Optimizing the Oil Volume from the Pump during various Moulding Phase.

**Benefits**
- Large Energy Saving when Machine Cycle with High Idling Time

**Other Advantages**
- AC Variable Frequency Drive offers a “Soft Start” Capability of Motor
- Reduced Wear & Tear on the Hydraulic Component & Motor related Components
- Prevents Excess Flow of Oil resulting in
  - Lower Oil Temperature
  - Reduced Oil Cooling Requirement
  - Enhanced Oil Life
- Reduced Motor Noise

**Typical Applications**
Suitable for AC Variable Frequency Drive
- Automotive
- White Goods
- House Ware
- Rigid Packaging
- Construction
- Furniture

**Typical Case Study**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>OMEGA 660</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Weight (gms)</td>
<td>1148</td>
</tr>
<tr>
<td>Cycle Time (sec)</td>
<td>58</td>
</tr>
<tr>
<td>Power Pack (HP)</td>
<td>75</td>
</tr>
<tr>
<td>Cooling Time (sec)</td>
<td>26</td>
</tr>
</tbody>
</table>

**Energy Consumption**

<table>
<thead>
<tr>
<th>With Fix Pump</th>
<th>With AC Drive</th>
<th>Energy Saving</th>
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</thead>
<tbody>
<tr>
<td>Energy Consumption (kWh)</td>
<td>42</td>
<td>28.67</td>
</tr>
<tr>
<td>Energy Consumption (kWh/kg)</td>
<td>0.6</td>
<td>0.4</td>
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</table>

Note: Case Study Data for the Same Mould
## Hydraulic Injection Moulding Machine

**UNIT 28 MM FRAME**

<table>
<thead>
<tr>
<th>Frame Size</th>
<th>Machine Weight (kg)</th>
<th>Machine Dimensions (L x W x H) (m)</th>
<th>Connected Load (kW)</th>
<th>Total Oil Tank Capacity (ltr)</th>
<th>Electric Motor kW (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 MM</td>
<td>3600</td>
<td>4.23 x 1.40 x 1.98</td>
<td>21.4</td>
<td>280</td>
<td>15 (20)</td>
</tr>
<tr>
<td>32 MM</td>
<td>3800</td>
<td>4.26 x 1.40 x 1.98</td>
<td>22.3</td>
<td>280</td>
<td>15 (20)</td>
</tr>
<tr>
<td>40 MM</td>
<td>4350</td>
<td>4.76 x 1.43 x 2.04</td>
<td>25.8</td>
<td>280</td>
<td>18.5 (25)</td>
</tr>
<tr>
<td>40 MM</td>
<td>4550</td>
<td>4.87 x 1.43 x 2.04</td>
<td>28.7</td>
<td>280</td>
<td>18.5 (25)</td>
</tr>
</tbody>
</table>

**UNIT 32 MM FRAME**

<table>
<thead>
<tr>
<th>Frame Size</th>
<th>Machine Weight (kg)</th>
<th>Machine Dimensions (L x W x H) (m)</th>
<th>Connected Load (kW)</th>
<th>Total Oil Tank Capacity (ltr)</th>
<th>Electric Motor kW (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 MM</td>
<td>3750</td>
<td>4.23 x 1.40 x 1.98</td>
<td>22.3</td>
<td>280</td>
<td>15 (20)</td>
</tr>
<tr>
<td>32 MM</td>
<td>3950</td>
<td>4.26 x 1.40 x 1.98</td>
<td>25.8</td>
<td>280</td>
<td>18.5 (25)</td>
</tr>
<tr>
<td>40 MM</td>
<td>4500</td>
<td>4.76 x 1.43 x 2.04</td>
<td>28.7</td>
<td>280</td>
<td>18.5 (25)</td>
</tr>
<tr>
<td>40 MM</td>
<td>4700</td>
<td>4.87 x 1.43 x 2.04</td>
<td>31.7</td>
<td>280</td>
<td>18.5 (25)</td>
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</table>

**UNIT 40 MM FRAME**

<table>
<thead>
<tr>
<th>Frame Size</th>
<th>Machine Weight (kg)</th>
<th>Machine Dimensions (L x W x H) (m)</th>
<th>Connected Load (kW)</th>
<th>Total Oil Tank Capacity (ltr)</th>
<th>Electric Motor kW (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 MM</td>
<td>4650</td>
<td>5.00 x 1.43 x 2.04</td>
<td>31.7</td>
<td>280</td>
<td>18.5 (25)</td>
</tr>
<tr>
<td>40 MM</td>
<td>4850</td>
<td>4.87 x 1.43 x 2.04</td>
<td>34.5</td>
<td>280</td>
<td>18.5 (25)</td>
</tr>
</tbody>
</table>

**INJECTION UNIT**

<table>
<thead>
<tr>
<th>Frame Size</th>
<th>Injection Capacity (GPM)</th>
<th>Plasticizing Rate (GPM)</th>
<th>Screw Torque</th>
<th>Screw Speed</th>
<th>Screw L/D Ratio</th>
<th>Screw Diameter</th>
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</thead>
<tbody>
<tr>
<td>28 MM</td>
<td>64</td>
<td>14</td>
<td>425</td>
<td>343</td>
<td>22.5</td>
<td>28</td>
</tr>
<tr>
<td>32 MM</td>
<td>84</td>
<td>17</td>
<td>425</td>
<td>343</td>
<td>22.5</td>
<td>32</td>
</tr>
<tr>
<td>40 MM</td>
<td>105</td>
<td>22</td>
<td>425</td>
<td>343</td>
<td>22.5</td>
<td>42</td>
</tr>
<tr>
<td>40 MM</td>
<td>126</td>
<td>29</td>
<td>425</td>
<td>343</td>
<td>22.5</td>
<td>45</td>
</tr>
</tbody>
</table>

## Technical Specifications

**Technical Specifications**

- **Model:** OMEGA 80 W
- **Dimensions:**
  - Stationary Platen: Ø 100 (+0.035/0.00)
  - Moving Platen: Ø 50 without locating ring
  - M16x40 deep (106 holes on moving platen)

- **Model:** OMEGA 100 W
- **Dimensions:**
  - Stationary Platen: Ø 125 (+0.040/0.00)
  - Moving Platen: Ø 50 without locating ring
  - M16x40 deep (108 holes on stationary platen)

- **Model:** OMEGA 150 W
- **Dimensions:**
  - Stationary Platen: Ø 125 (+0.040/0.00)
  - Moving Platen: Ø 50 without locating ring
  - M16x40 deep (108 holes on stationary platen)

- **Model:** OMEGA 200 W
- **Dimensions:**
  - Stationary Platen: Ø 125 (+0.040/0.00)
  - Moving Platen: Ø 50 without locating ring
  - M16x40 deep (108 holes on stationary platen)
## Technical Specifications

### MODEL OMEGA 250 W

<table>
<thead>
<tr>
<th>International Size</th>
<th>OMEGA 250 W</th>
<th>OMEGA 350 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Pack</td>
<td>104 HP</td>
<td>168 HP</td>
</tr>
<tr>
<td>Compression Unit</td>
<td>55 MM Frame</td>
<td>55 MM Frame</td>
</tr>
<tr>
<td>Injection Rate</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Screw Diameter</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Screw Speed</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Clamping Force</td>
<td>ton</td>
<td>ton</td>
</tr>
<tr>
<td>Clamp Stroke</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Maximum Daylight</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Minimum Mould Height</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Distance Between Tie Rod</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Tie Rod Diameter</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Ejector Stroke</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Ejector Force</td>
<td>ton</td>
<td>ton</td>
</tr>
<tr>
<td>Mould Weight Capacity</td>
<td>kg</td>
<td>kg</td>
</tr>
<tr>
<td>ELECTRIC MOTOR</td>
<td>kW (HP)</td>
<td>kW (HP)</td>
</tr>
<tr>
<td>TOTAL OIL TANK CAPACITY</td>
<td>ltr</td>
<td>ltr</td>
</tr>
<tr>
<td>WATER REQUIREMENT (max temp. 30°C)</td>
<td>lpm</td>
<td>lpm</td>
</tr>
<tr>
<td>MACHINE DIMENSION (L x W x H)</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>MACHINE WEIGHT</td>
<td>kg</td>
<td>kg</td>
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</table>

### MODEL OMEGA 350 W

<table>
<thead>
<tr>
<th>International Size</th>
<th>OMEGA 350 W</th>
<th>OMEGA 450 W</th>
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<tbody>
<tr>
<td>Power Pack</td>
<td>168 HP</td>
<td>217 HP</td>
</tr>
<tr>
<td>Compression Unit</td>
<td>55 MM Frame</td>
<td>70 MM Frame</td>
</tr>
<tr>
<td>Injection Rate</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Screw Diameter</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Screw Speed</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Clamping Force</td>
<td>ton</td>
<td>ton</td>
</tr>
<tr>
<td>Clamp Stroke</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Maximum Daylight</td>
<td>mm</td>
<td>mm</td>
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<tr>
<td>Minimum Mould Height</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Distance Between Tie Rod</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Tie Rod Diameter</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Ejector Stroke</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Ejector Force</td>
<td>ton</td>
<td>ton</td>
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<tr>
<td>Mould Weight Capacity</td>
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<td>kg</td>
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<tr>
<td>ELECTRIC MOTOR</td>
<td>kW (HP)</td>
<td>kW (HP)</td>
</tr>
<tr>
<td>TOTAL OIL TANK CAPACITY</td>
<td>ltr</td>
<td>ltr</td>
</tr>
<tr>
<td>WATER REQUIREMENT (max temp. 30°C)</td>
<td>lpm</td>
<td>lpm</td>
</tr>
<tr>
<td>MACHINE DIMENSION (L x W x H)</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>MACHINE WEIGHT</td>
<td>kg</td>
<td>kg</td>
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</table>

### MODEL OMEGA 450 W

<table>
<thead>
<tr>
<th>International Size</th>
<th>OMEGA 450 W</th>
<th>OMEGA 500 W</th>
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<tbody>
<tr>
<td>Power Pack</td>
<td>217 HP</td>
<td>260 HP</td>
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<tr>
<td>Compression Unit</td>
<td>70 MM Frame</td>
<td>90 MM Frame</td>
</tr>
<tr>
<td>Injection Rate</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Screw Diameter</td>
<td>mm</td>
<td>mm</td>
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<tr>
<td>Screw Speed</td>
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<td>mm</td>
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<tr>
<td>Clamping Force</td>
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<tr>
<td>Clamp Stroke</td>
<td>mm</td>
<td>mm</td>
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<tr>
<td>Maximum Daylight</td>
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<tr>
<td>Minimum Mould Height</td>
<td>mm</td>
<td>mm</td>
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<tr>
<td>Distance Between Tie Rod</td>
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<td>mm</td>
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<tr>
<td>Tie Rod Diameter</td>
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<td>mm</td>
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<tr>
<td>Ejector Stroke</td>
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<td>mm</td>
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<tr>
<td>Ejector Force</td>
<td>ton</td>
<td>ton</td>
</tr>
<tr>
<td>Mould Weight Capacity</td>
<td>kg</td>
<td>kg</td>
</tr>
<tr>
<td>ELECTRIC MOTOR</td>
<td>kW (HP)</td>
<td>kW (HP)</td>
</tr>
<tr>
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<td>ltr</td>
<td>ltr</td>
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<tr>
<td>WATER REQUIREMENT (max temp. 30°C)</td>
<td>lpm</td>
<td>lpm</td>
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<tr>
<td>MACHINE DIMENSION (L x W x H)</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>MACHINE WEIGHT</td>
<td>kg</td>
<td>kg</td>
</tr>
</tbody>
</table>

---

### Hydraulic Injection Moulding Machine

**OMEGA 250 W**

- With Ram Spacer
- All dimensions are in mm

**OMEGA 350 W**

- All dimensions are in mm

**OMEGA 450 W**

- All dimensions are in mm
## Technical Specifications

### MODEL: OMEGA 550 W

<table>
<thead>
<tr>
<th>INTERNATIONAL SIZE</th>
<th>POWER PACK</th>
<th>INJECTION UNIT</th>
<th>DIMENSION</th>
<th>ELECTRIC MOTOR</th>
<th>WATER REQUIREMENT</th>
<th>ELECTRIC TO TANK CAPACITY</th>
<th>TOTAL MACHINE WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5500 - 3340</td>
<td>75 HP</td>
<td>90 MM FRAME</td>
<td>1375</td>
<td>97.8</td>
<td>100</td>
<td>1375</td>
<td>32300</td>
</tr>
<tr>
<td>5500 - 4850</td>
<td>75 HP</td>
<td>90 MM FRAME</td>
<td>1375</td>
<td>97.8</td>
<td>100</td>
<td>1375</td>
<td>32300</td>
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<td>1375</td>
<td>97.8</td>
<td>100</td>
<td>1375</td>
<td>32300</td>
</tr>
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</table>

### MODEL: OMEGA 660 W

<table>
<thead>
<tr>
<th>INTERNATIONAL SIZE</th>
<th>POWER PACK</th>
<th>INJECTION UNIT</th>
<th>DIMENSION</th>
<th>ELECTRIC MOTOR</th>
<th>WATER REQUIREMENT</th>
<th>ELECTRIC TO TANK CAPACITY</th>
<th>TOTAL MACHINE WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>6600 - 4850</td>
<td>75 HP</td>
<td>90 MM FRAME</td>
<td>1375</td>
<td>97.8</td>
<td>100</td>
<td>1375</td>
<td>32300</td>
</tr>
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<td>75 HP</td>
<td>90 MM FRAME</td>
<td>1375</td>
<td>97.8</td>
<td>100</td>
<td>1375</td>
<td>32300</td>
</tr>
<tr>
<td>6600 - 10070</td>
<td>100 HP</td>
<td>100 BAR FRAME</td>
<td>151</td>
<td>125</td>
<td>125</td>
<td>151</td>
<td>6600</td>
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<tr>
<td>6600 - 10070</td>
<td>100 HP</td>
<td>100 BAR FRAME</td>
<td>151</td>
<td>125</td>
<td>125</td>
<td>151</td>
<td>6600</td>
</tr>
</tbody>
</table>

### Common Features

- **INJECTION CAPACITY MAX. (GPPS)**: gm 2421, 2989, 3617, 3288, 3978, 5137, 5063, 6538
- **THEORETICAL DISPLACEMENT**: cc 2545, 3142, 3801, 3456, 4181, 5400, 5322, 6872
- **INJECTION PRESSURE**: bar 1906, 1544, 1276, 1864, 1540, 1193, 1891, 1465
- **INJECTION RATE**: cc/sec 620, 765, 926, 651, 788, 1018, 541, 699
- **INJECTION SCREW STROKE**: mm 400, 400, 400, 440, 440, 440, 560, 560
- **SCREW DIAMETER**: mm 90, 100, 110, 100, 110, 125, 110, 125
- **SCREW L/D RATIO**: 22.2, 20, 18.2, 22, 20, 20, 22.7, 20
- **SCREW SPEED**: rpm 151, 151, 151, 121, 121, 121, 121, 121
- **SCREW TORQUE @ 172 BAR**: Nm 6631, 6631, 6631, 8268, 8268, 8268, 8268, 8268
- **PLASTICIZING RATE (GPPS)**: gm/sec 78, 101, 128, 81, 103, 151, 103, 151
- **PLASTICIZING RATE (BARRIER SCREW)**: gm/sec 94, 120, 153, 96, 122, 163, 96, 122
- **NO. OF PYROMETER (BARREL+NOZZLE)**: 4+1, 4+1, 4+1, 4+1
- **TOTAL HEAT CAPACITY**: kW 54, 59.3, 61.9, 62
- **CLAMP FORCE**: ton 550, 660, 660, 660
- **CLAMP STROKE**: mm 1140, 1320, 1320, 1320
- **MAXIMUM DAYLIGHT**: mm 1676, 1780, 1780, 1780
- **MINIMUM MOLD HEIGHT**: mm 536, 460, 460, 460
- **PLASTICIZEpression (GPPS)**: gm/sec 78, 101, 128, 81, 103, 151, 103, 151
- **PLASTICIZING RATE (BARRIER SCREW)**: gm/sec 94, 120, 153, 96, 122, 163, 96, 122
- **TOTAL HEAT CAPACITY**: kW 54, 59.3, 61.9, 62
- **CLAMP FORCE**: ton 550, 660, 660, 660
- **CLAMP STROKE**: mm 1140, 1320, 1320, 1320
- **MAXIMUM DAYLIGHT**: mm 1676, 1780, 1780, 1780
- **MINIMUM MOLD HEIGHT**: mm 536, 460, 460, 460
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- **PLASTICIZING RATE (BARRIER SCREW)**: gm/sec 94, 120, 153, 96, 122, 163, 96, 122
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- **PLASTICIZING RATE (BARRIER SCREW)**: gm/sec 94, 120, 153, 96, 122, 163, 96, 122
- **TOTAL HEAT CAPACITY**: kW 54, 59.3, 61.9, 62
### Technical Specifications

#### OMEGA 660 W

**International Size**
- 6600 - 4850
- 6600 - 6440
- 6600 - 10070

**Power Pack**
- 150 HP

**Injection Unit**
- Unit 90 mm Frame

**Injection Capacity Max. (GPPS)**
- 2421

**Theoretical Displacement**
- 2545

**Injection Pressure**
- 1906

**Injection Rate**
- 884

**Injection Screw Stroke**
- 400

**Screw Diameter**
- 90

**No. of Pyrometer (Barrel + Nozzle)**
- 4 + 1

**Total Heat Capacity**
- kW: 54

**Clamp Force**
- ton: 660

**Maximum Daylight**
- mm: 1780

**Minimum Mould Height**
- mm: 460

**Distance Between Tie Rod**
- mm: 950

**Tie Rod Diameter**
- mm: 170

**Electrode Stroke**
- mm: 200

**Electrode Force**
- ton: 12

** mould weight capacity**
- kg: 9455

**Mental Motor kW (HP)**
- 112 (150)

**Total Oil Tank Capacity**
- lt: 1995

**Water Requirement (at temp. 30%)**
- lpm: 200

**Machine Dimension (L x W x H)**
- m: 10.16 x 2.56 x 2.92

**Machine Weight**
- kg: 35300

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#### OMEGA 775 W

**International Size**
- 7750 - 4850
- 7750 - 6440
- 7750 - 10070

**Power Pack**
- 100 HP

**Injection Unit**
- Unit 110 mm Frame

**Injection Capacity Max. (GPPS)**
- 2421

**Theoretical Displacement**
- 2545

**Injection Pressure**
- 1906

**Injection Rate**
- 620

**Injection Screw Stroke**
- 400

**Screw Diameter**
- 90

**No. of Pyrometer (Barrel + Nozzle)**
- 4 + 1

**Total Heat Capacity**
- kW: 54

**Clamp Force**
- ton: 775

**Maximum Daylight**
- mm: 1780

**Minimum Mould Height**
- mm: 460

**Distance Between Tie Rod**
- mm: 950

**Tie Rod Diameter**
- mm: 170

**Electrode Stroke**
- mm: 200

**Electrode Force**
- ton: 12

** mould weight capacity**
- kg: 9455

**Mental Motor kW (HP)**
- 112 (150)

**Total Oil Tank Capacity**
- lt: 1995

**Water Requirement (at temp. 30%)**
- lpm: 200

**Machine Dimension (L x W x H)**
- m: 10.16 x 2.56 x 2.92

**Machine Weight**
- kg: 35300

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**ALL DIMENSIONS ARE IN MM**

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**NOTE:**
- Model OMEGA 660 W (210 HP)
- Model OMEGA 775 W (210 HP)
- Model OMEGA 775 W (440 HP)
### Technical Specifications

#### OMEGA 775 W

<table>
<thead>
<tr>
<th>Feature</th>
<th>7750 - 4850</th>
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</tr>
</thead>
<tbody>
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<tr>
<td>Power Pack</td>
<td>150 HP</td>
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</tr>
<tr>
<td><strong>Injection Unit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Injection Capacity (max.) (g/ps)</td>
<td>3286</td>
<td>3978</td>
<td>5137</td>
</tr>
<tr>
<td>B. Theoretical Displacement (cc)</td>
<td>3406</td>
<td>4181</td>
<td>5400</td>
</tr>
<tr>
<td>C. Injection Pressure (bar)</td>
<td>1864</td>
<td>1540</td>
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</tr>
<tr>
<td>D. Injection Rate</td>
<td>8268</td>
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</tr>
<tr>
<td>E. Screw Diameter (mm)</td>
<td>6872</td>
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</tr>
<tr>
<td>F. Screw Speed (rpm)</td>
<td>1540</td>
<td>1193</td>
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<tr>
<td>G. Screw Torque @ 172 Bar (Nm)</td>
<td>1193</td>
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<td>H. Plasticizing Rate (g/ps) (bar)</td>
<td>1465</td>
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</tr>
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<td>I. Electrode Stroke (mm)</td>
<td>700</td>
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<td>J. Electrode Force (ton)</td>
<td>18.3</td>
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<td>K. Mold Weight Capacity (kg)</td>
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<td><strong>General</strong></td>
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<td>112 (150)</td>
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<td>M. Oil Tank Capacity (ltr)</td>
<td>2500</td>
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<td>N. Water Requirement (inlet temp. 30°C) (lpm)</td>
<td>200</td>
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<td>O. Machine Dimensions (L x W x H) (mm)</td>
<td>12.40 x 2.93 x 2.92</td>
<td>10.74 x 2.93 x 2.92</td>
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<tr>
<td>P. Machine Weight (kg)</td>
<td>38300</td>
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#### Technical Specifications

#### OMEGA 910 W

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Hydraulic Injection Moulding Machine

Design Advantages & Features

CLAMP
- Hollow Headless Ram with Mono Seal & No Piston Rings
- Large Prefill Designed for Fast Tonnage Build-up
- Rapid Traverse Cylinders
- Conical Strain Rod Nuts & Controlled Stress on Tie Rods
- Adjustable moving Platen Skates
- Rigid Cast Platens with FEA
- Adjustable Pressure setting of Closing & Opening Stage
- Proportional Speed Control with 2 Closing & 2 Opening Speed
- Adjustable 2 Stage Mould Safety Pressure & 1 Stage Speed
- Position Based Ramping for Accurate Position Switching - Precise Speed & Pressure Control
- Linear Position Transducer for Accurate Clamp Position Control
- Sensitive Mould Protection with Try Again Circuit
- Stage Wise Actual Time Display
- Insert Moulding Program

EJECTOR
- Knock-Out Bar
- 2 Stage Programmable Ejector Forward Profile with Soft Eject
- Ejector Speed & Pressure adjustable on Screen (Omega 80W to 450W)
- Linear Transducer for Ejector Position
- Pulsating Ejector Strokes upto 9 Pulses
- Intermediate Retract Set Point
- Ejector Stay Forward & Forward Dwell Timer

INJECTION
- 6 Stage Injection Velocity & 15 Stage Injection Pressure Profile
- 5 Stage Screw Speed & 5 Stage Back Pressure Control (Setting) through Screen
- Digital setting of Extruder RPM & Digital Read out of Actual RPM
- Wide Choice of Injection Units with A-B-C Screw/Barrel Combinations
- Easy Injection Unit Swivelling
- Switch Over from Fill to Pack based on Position or Time
- Linear Position Transducer for Accurate Injection Position Control
- Injection Decompression Before / After Refilling or Both
- Semi-Auto Purge, Cold Slug removal & Intrusion Moulding Programs
- Chequered Plate below Purge Area
- Sprue Break with Timer
- Injection start, Suck-back & Melt Decompression - Delay Timer
- Graphically Adjustable Alarm Bands for Injection Pressure
- Sliding Hopper
- Nozzle Contact Force by Pressure Switch

TEMPERATURE CONTROL
- Actual Current Display of Heating Zones
- Heater Failure & Thermocouple Failure Detection
- Accurate PID Temperature Control settable on Screen
- Feed Throat Temperature Indication
- Auto Heat Startup & Shutdown
- Heat Standby after set number of Cycles
- Soak Timer for Cold Start Protection
- High / Low Temperature Alarm
- Set & Actual Temperature Data with Bar Graph

CONTROLS
- 22 Parameter Monitoring for last 1000 cycles with Graphics
- 10.4” TFT Color Display with Alpha - Numeric Keypad
- Actual Injection Speed & Pressure Graph Display
- 80 Mould Data Storage
- Configurable Multilevel Password with Operator’s Name
- Graphically Presentation of Hourly Production
- Customized Setup Menu
- High / Low Limit Display for Each Adjustable Parameter
- I / 0 diagnosis - Analog & Digital
- Timer Precision in 0.01 Second
- Change Log Menu: logs last 100 Set Points Changes with Time & Date
- Statistical Process Control (SPC) with Graphics
- Process Mode: Functions with its Co-fuctions on a Single Key Press
- Note Pad & Maintenance Scheduling
- Freely Programmable Smart Outputs
- Over View Screen with Graphical Display of Machine Functions
- Soft Keys for Fast Access of Select Menus
- Auto shut down
- Visual & Audible Alarm
- 1000 Alarm History with Date & Time Log
- Printer Interface with USB Port

HYDRAULICS
- Multiple Pump with PQ circuit
- Pump & Motor slide out from Base for Ease of Maintenance
- Ergonomic Hydraulic Layout for Easy Approach
- Valves Placed near Actuators for Rapid Response
- Pre-Heating Circuit for Hydraulic Oil
- Low Oil Level Audible Alarm & Motor Shut Down
- Continuous Oil Filtration with 10 Micron Filter
- Audible Alarm for Filter Clogging

AVAILABLE OPTIONS
- Air Ejection
- Hydraulic Core pull
- Feed Throat Temperature Control
- Oil Temperature Control
- Part Drop Detect for Single Cavity
- Water Battery with Temperature Indicator
- Water Manifolds
- Robot Interface (SPI / EUROMAP)
- Extra Heating Zones
- Ejector on Fly
- Jam Bar
- T-slot Platens
- Extended Daylight with Ram Spacer
- Eject Retract Limit Switch Verification
- Insulated Heater Band
- Bimetallic Barrel & Hardened / Coated Screw
- AC Variable Frequency Drive

All specifications reflect average values based on typical machine layouts. Actual figures may vary depending on final machine configuration. Performance specifications are based on theoretical data. Photograph may show attachments or accessories, which may not be part of the standard scope of supply. Due to continual improvements, specifications & some components are subject to change without notice.

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