### Liquid End Materials

<table>
<thead>
<tr>
<th>Liquid End</th>
<th>Pump</th>
<th>Head &amp; Fittings</th>
<th>Diaphragm</th>
<th>Valve Balls</th>
<th>Valve Seat</th>
<th>Valve Seals</th>
<th>Gasket</th>
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<td>FKM</td>
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<td>SS</td>
<td>PE</td>
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</table>

*Note: VM liquid end available on E66 only

### Summary of Key Benefits

**High Speed Performance**

E-Series pumps operate at 360 strokes-per-minute, providing high resolution chemical feed. Most competitive products operate at slower speeds, resulting in slug feeding, accelerated diaphragm wear and poor feed control.

**Engineered Longevity**

All E-Series pumps feature dual bearing support. The armature and shaft are supported with a bearing on each end, which ensures proper axial movement, enabling the E-Series to operate at 360 SPM while extending the life of the diaphragm.

**Superior Check Valve Performance**

Dual Check Valve Assemblies in both suction and discharge fittings feature precision ball guides and tapered seats. Precise machining and molding of parts limit valve ball travel, ensuring that balls fully seat and seal with every stroke. This superior check valve design guarantees fast priming and reliable performance.

**High Compression Ratio**

The compression ratio of a metering pump is important because it affects the pump’s ability to prime and vent. The compression ratio is raised when you reduce the dead volume of the pump head during operation. All E-Series pumps feature a very high compression ratio that ensures proper feed especially with off-gassing products (i.e. Sodium Hypochlorite).

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**EHE-Series**

The EHE is the workhorse of the E-Series metering pumps. EHE Series pumps have outputs up to 20 GPH (75 l/h) and pressure capabilities to 150 PSI (10 bar). Combining the EHE performance with a turndown ratio of 1800:1 yields one of the most versatile pumps in the water treatment industry today.

Superior mechanical design and quality manufacturing merge to create a pump better than the sum of its parts. The versatile control features enable the EHE to be integrated into virtually any chemical feed application. The 360 stroke-per-minute operation results in high resolution chemical feed and long service life. EHE pumps prime in seconds and hold prime reliably.

### EHE-Series

The EHE-Series is a versatile family of metering pumps designed for a wide range of applications. With programmable controls, the EHE-Series offers precise chemical feeding with high turndown ratios. The pumps are available in various sizes, from small units handling 1 GPH (3.8 l/h) to large models capable of delivering up to 20 GPH (75 l/h). The EHE-Series is ideal for water treatment, industrial processes, and applications requiring high accuracy and reliability.

#### Key Features

- **High Turndown Ratio**: The EHE-Series offers a turndown ratio of 1800:1, allowing for precise chemical feeding.
- **Programmable Controls**: Users can customize the pumps to meet specific chemical feeding requirements.
- **Long Service Life**: Thanks to reliable mechanical and valve design, EHE-Series pumps can operate for extended periods with minimal maintenance.
- **Versatility**: Suitable for a wide range of applications, from industrial processes to water treatment.

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Max. Capacity</th>
<th>Max. Output per Stroke</th>
<th>Max. Pressure</th>
<th>Power Index</th>
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<tbody>
<tr>
<td>E31</td>
<td>3.5</td>
<td>340 ml/min</td>
<td>0.94 l/min</td>
<td>75 PSI</td>
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<td>E36</td>
<td>8.5</td>
<td>530 ml/min</td>
<td>1.44 l/min</td>
<td>105 PSI</td>
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<td>E46</td>
<td>12.0</td>
<td>760 ml/min</td>
<td>2.08 l/min</td>
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<td>1250 ml/min</td>
<td>3.47 l/min</td>
<td>60 PSI</td>
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</table>

#### Liquid End Options

- **Alumina Ceramic**: CE
- **FKM Fluoroelastomer**: FKM
- **Polyethylene**: PE
- **Polytetrafluoroethylene**: PTFE
- **Hastelloy C276**: HC

#### Valve Seals

- **EPDM**: Ethylene propylene diene monomer
- **PTFE**: Polytetrafluoroethylene
- **PVDF**: Polyvinylidene fluoride

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**Ordering Information**

Walchem, Iwaki America Inc.
Five Boynton Road, Hopping Brook Park
Holliston, MA 01746, USA
Phone: 508-429-1110, www.walchem.com
Walchem and Iwaki have over 100 years of combined pump experience. This partnership has led to the design of the most innovative and comprehensive metering pump product line in the world, the E-Series Metering Pumps. E-Series features five great series: EJ, EZ, EWN, EK, and EHE. The wide range of capabilities within the E-Series ensures that there’s a model to fit any water treatment, food & beverage, agriculture, water conditioning, car wash, or other industrial chemical feed application.

**Powerful**
A pump’s maximum pressure rating times its maximum output at that pressure gives a relative measure of the pump’s hydraulic output power, a “power index.” The EHE-36, with an output of 8.5 GPH at 105 PSI, yields a power index of 892.5. No other electronic metering pump in this range even comes close!

**Efficient**
The EHE series does its work extremely well. Hydraulic output is maximized by its economical use of electricity via excellent heat rejection, valves that positively and consistently seat and unique front-and-back support of the armature.

**Durable**
Superior magnetic, electronic, thermal and hydraulic designs have been achieved in the EHE metering pump. The result is a pump that will perform longer at maximum duty than any other comparable pump.

**Microprocessor-based Control Circuitry**
- Allows operator adjustment of pump speed and external input settings via 4-button keypad.
- Often used in flow proportional systems, such as with a flowmeter contactor. One input pulse can produce 1 to 999 pump strokes.
- Pump can be set to divide (accumulate) pulses by a factor of 1 to 999.
- Programmable 4-20mA input allows for user defined speed control band; user sets minimum and maximum pump speeds.

**Electrical Specifications**
- 50/60 Hz, single phase: 48 Watt Avg
- 115 VAC ±10%: 1.8 Amp Max.
- 230 VAC ±10%: 0.8 Amp Max.

**Shipping Weight**
23 lbs. (10.5 kg approximate)

**Operating Conditions**
- Ambient Temperature: 32 to 122°F (0 to 50°C)
- Relative Humidity: 30% to 90% non-condensing
- Liquid Temperature: 32 to 104°F (0 to 40°C) for PVC based Liquid Ends
  - 32 to 140°F (0 to 60°C) for PP or PVDF based Liquid Ends

**Dimensions (EHE56 referenced)**

**Mounting Dimensions**

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<thead>
<tr>
<th>Units</th>
<th>A (inches)</th>
<th>B</th>
<th>C (inches)</th>
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<th>H (inches)</th>
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<td>297.5</td>
<td>60.5</td>
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</table>

**Safety Certifications**
The EHE metering pumps are tested by Intertek to UL and CSA standards.
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**Warranty**
- **2 Year ‘Bumper to Bumper’**

**Specifications Dimensions**

**Dimensions (EHE56 referenced)**

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The EHE metering pumps* are WQA tested and certified to NSF/ANSI/CAN Standard 61. *See www.wqa.org for specific chemical and certification parameters.

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<thead>
<tr>
<th>Units</th>
<th>R</th>
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### ABOUT US

Walchem integrates its advanced sensing, instrumentation, fluid pumping and communications technologies to deliver reliable and innovative solutions to the global water treatment market. Our in-house engineering is driven by quality, technology and innovation. For more information on the entire Walchem product line, visit: www.walchem.com

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**Metering Pumps**

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