EDWARDS
THE PARTNER OF CHOICE

Edwards is a world leader in the design, technology and manufacture of vacuum pumps with nearly 100 years’ history supplying reliable vacuum solutions.

Edwards believes in delivering results that bring value to our customers by using our breadth of industry experience to identify and apply solutions to your problems. Using the most innovative and up-to-date modelling techniques, we can optimize the pumping configuration for customers to provide a system design giving the maximum performance in the most reliable and cost-effective way.
PROVEN PERFORMANCE

With over 80 years of experience, the Stokes Microvac has set the standard for performance, efficiency and reliability. The Stokes line has been improved, upgraded and fine-tuned and delivers even better dependability and productivity combined with minimal maintenance and process downtime.

Proven reliability
Over 80 years of time-tested, proven performance

Value for investment
Low rotational speed enables longest pump life cycle

Easy on-site maintenance
Robust, simple mechanism for high reliability and ease of rebuild

Configured for your application
Choice of pumping combinations available to provide a wide range of vacuum pumping solutions

Features and benefits

- Robust cast and ductile iron construction provides rugged, reliable operation
- Efficient design provides maximum uptime with minimal moving parts and large clearance
- Low ultimate blank-off with maximum speed down to 1 Torr and continuous high pressure pumping up to 600 Torr
- Latest valve design virtually eliminates valve maintenance and reduces noise, while requiring lower power
- Space-saving design which saves up to 50% of valuable floor space
- Complete and self-contained unit delivered ready to install
- Controlled balancing reduces vibration to a practical minimum
- Automatic lubrication system provides proper flow of oil to bearings and sealing surfaces and prevents back-flow into system
- Gas ballast as standard
- Total capability includes the manufacturing and service capabilities to keep your equipment in top operation with a broad range of vacuum system accessories
SPECIFICATIONS

<table>
<thead>
<tr>
<th>Pump Type</th>
<th>Maximum pumping speed</th>
<th>Ultimate vacuum</th>
<th>Motor power 50 Hz</th>
<th>Motor power 60 Hz</th>
<th>Overall dimensions 50/60 Hz</th>
<th>Noise level 50/60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m³/hr (50 Hz)</td>
<td>cfm (60 Hz)</td>
<td>mbar</td>
<td>Torr</td>
<td>kW</td>
<td>Hp</td>
</tr>
<tr>
<td>212 J</td>
<td>234</td>
<td>138</td>
<td>&lt;3.3x10⁻²</td>
<td>&lt;2.5x10⁻²</td>
<td>5.5</td>
<td>7.5</td>
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<tr>
<td>412 J</td>
<td>442</td>
<td>260</td>
<td>&lt;3.3x10⁻²</td>
<td>&lt;2.5x10⁻²</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>612 J</td>
<td>884</td>
<td>520</td>
<td>&lt;3.3x10⁻²</td>
<td>&lt;2.5x10⁻²</td>
<td>11</td>
<td>15</td>
</tr>
</tbody>
</table>

Stokes Microvac Model 212J Performance Curve

Stokes Microvac Model 412J Performance Curve

Stokes Microvac Model 612J Performance Curve
STOKES BOOSTER COMBINATIONS
Higher capacities and deeper vacuum levels are available by combining mechanical boosters with Stokes pumps.

STOKES 6” MECHANICAL BOOSTER PUMPS
Stokes 6” series mechanical boosters are designed to be used in conjunction with Stokes rotary pumps and a wide range of other roughing or backing vacuum pumps to create a compact, integrated package.

When coupled with one of these pumps, the Stokes 6” mechanical boosters increase pumping speed at working pressures and significantly reduce pumpdown time.

Stokes booster pump options include:
- direct drive (1800 RPM, or 3600 RPM) Variable Frequency (VFD) compatible
- bare shaft
- vertical or horizontal gas flow
- by-pass (designed to pumpdown from atmospheric pressure)
- process isolation variant (five seal design for tough, high particulate applications)

Industry Staple
Over 80 years of time-tested, proven performance with experienced service and technical support

Easy to maintain
Single mechanical seal can be replaced easily without need to access pump internal mechanism

Increased productivity
Five seal design for optimal process protection

6” BOOSTER DIMENSIONS

<table>
<thead>
<tr>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Inlet connection size</th>
<th>Outlet connection size</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>mm</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>607</td>
<td>1087</td>
<td>502</td>
<td>19.76</td>
<td>543</td>
</tr>
<tr>
<td></td>
<td>42.8</td>
<td>19.76</td>
<td>543</td>
<td>21.38</td>
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<tr>
<td>615</td>
<td>1369</td>
<td>502</td>
<td>19.76</td>
<td>543</td>
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<tr>
<td></td>
<td>53.9</td>
<td>19.76</td>
<td>543</td>
<td>21.38</td>
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<tr>
<td>622</td>
<td>1613</td>
<td>501</td>
<td>19.72</td>
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<tr>
<td></td>
<td>63.5</td>
<td>19.72</td>
<td>543</td>
<td>21.38</td>
</tr>
</tbody>
</table>

mm = millimeters / in = inches

6” ASA/ANSI
EDWARDS EH mechanical booster pumps feature a unique hydrokinetic drive which provides efficient power transmission with benefits in economy, performance and compactness. These booster pumps are suitable for use with high differential pressures, allowing the booster pump to be started at the same time as the backing pump, reducing total pumpdown times.

**Increased productivity**

**Faster pumpdown time**

**Simple installation**

No need for pressure switches, bypass lines or variable frequency drives

**Reliable operation even for harsh duties**

**Proven shaft seal design**

### EH BOOSTER DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Length (mm)</th>
<th>Length (in)</th>
<th>Width (mm)</th>
<th>Width (in)</th>
<th>Height (mm)</th>
<th>Height (in)</th>
<th>Inlet connection size</th>
<th>Outlet connection size</th>
</tr>
</thead>
<tbody>
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<td>ISO40</td>
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<td>EH500</td>
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<td>ISO63</td>
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<tr>
<td>EH1200</td>
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<td>15</td>
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<td>20.6</td>
<td>479</td>
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<td>ISO250</td>
<td>ISO100</td>
</tr>
</tbody>
</table>

### APPLICATION ENGINEERING, DESIGN AND SYSTEMIZATION

Our application expertise will ensure we can offer a comprehensive package of design and integrated system solutions.

Our highly focused applications team, central applications group and regional networks of application specialists are on hand to offer expert support throughout your selection and installation process.

Acessories include -

- water miser
- oil mist separators
- gas ballast silencers
- auto gas ballast
- external oil purifiers
- inlet filters
- closed loop external cooling system (min/max)

Stokes 1700 Series Mechanical Booster Combinations maximize your productivity and performance. Models range from 1721 to 1754HC.
### Motor Control Module
- **0**: No Motor Control / No Pressure Switch
- **1**: Motor starter control box pedestal mount without pressure
- **2**: Motor starter control box wall mount without pressure
- **3**: Motor starter control box pedestal mount with pressure
- **4**: Pressure switch only
- **5**: Motor starter control box wall mount with pressure

### CE Marking
- **0**: No CE mark required
- **1**: CE marked system

### Microvac Pump
- **1**: 212J No CE Marked System
- **2**: 212J CE Marked System
- **3**: 412J No CE Marked System
- **4**: 412J CE Marked System
- **5**: 212J with base No CE Marked System
- **6**: 212J with base CE Marked System
- **7**: 412J with base No CE Marked System
- **8**: 412J with base CE Marked System

### Coil Voltage
- **1**: Coil Voltage 24 V AC 50 Hz
- **2**: Coil Voltage 24 V AC 60 Hz
- **3**: Coil Voltage 120 V 60 Hz / 110 V 50 Hz
- **4**: Coil Voltage 240 V 60 Hz / 220 V 50 Hz
- **5**: Coil Voltage 380 V 50 Hz (CE)
- **6**: Coil Voltage 415 V 50 Hz (CE)
- **7**: Coil Voltage 480 V 60 Hz / 440 V 50 Hz
- **8**: Coil Voltage 380 V 60 Hz

### Booster
- **0**: No Booster
- **1**: EH250
- **2**: EH500
- **3**: EH1200
- **4**: EH2600
- **5**: EH4200
- **6**: EH250 with 3” ASA inlet (for EH250)
- **7**: EH500 with 4” ASA inlet (for EH500)
- **8**: EH1200 with 6” ASA inlet
- **9**: EH2600 with 8” ASA inlet
- **A**: 607 low speed low power
- **B**: 607 low speed high power
- **C**: 607 low speed low power (EU and Asia)
- **D**: 615 high speed
- **E**: 618 low speed
- **F**: 618 high speed
- **G**: 622 high speed
- **H**: 607 high speed (EU and Asia)

### Oil Mist Filter
- **0**: No mist filter
- **1**: MF 291-150J
- **2**: MF 291-300J

### Cooling Options
- **0**: No cooling options
- **1**: Water miser (TCV)
- **2**: Min max cooler 115 V 1-ph 60 Hz
- **3**: Min max cooler 230 V 1-ph 60 Hz

### Oil Purifier and Connection Kit
- **0**: No oil purifier
- **1**: OP 339-030 115 V 1-ph 60 Hz
- **2**: OP 339-030CE 230 V 1-ph 50 Hz
- **3**: OP 339-030CE 200/400 V 3-ph 50 Hz
- **4**: OP 339-215 115 V 1-ph 60 Hz

### Note
- Above booster combinations are direct mount vertical flow.
- Oil mist filters and min max coolers will ship separately unless ordered with base frame.
- Oxygen service pumps are available, please contact your local Edwards representative to discuss your requirements.
- Not applicable in CE versions.
- For other possible combinations, please contact your local Edwards representative to discuss your requirements.

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**OIL SEALED PISTON PUMPS & MECHANICAL BOOSTER COMBINATIONS**