The EH mechanical booster pumps feature the unique hydrokinetic drive, providing an efficient power transmission with benefits in economy, performance and compactness. The hydrokinetic drive provides the following features:

- Pump down times cut by 50%, when compared with direct drive pumps
- No bypass lines or pressure switches required
- Universal voltage motors
- Reduced capital and operating costs
- Air cooled motors – with water cooled options
- Quiet, minimum vibration

The EH mechanical booster pumps, based on the simple Roots principle, remain the favorite pumps for applications where high pumping speeds over 3000 m³h⁻¹ / 1776 ft³min⁻¹ are required in the pressure region of 0.01 to 50 mbar / 0.0075 to 37.5 Torr. These pumps must always be backed by another pump which can deliver against a high pressure differential to atmospheric pressure. Operating at relatively low pressures, the mechanical booster pump is not exposed to the same concentrations of corrosive process media as is the backing pump, which makes it highly reliable.

High Performance Pumping Mechanism

The EH has a high quality, oil-free pumping mechanism. This offers:

- Quiet, vibration free operation
- Rugged and corrosion resistant
- Advanced shaft-seal technology – no oil contamination of process chamber

The corrosion resistant pumping mechanism is manufactured from high grade cast iron. The proven shaft-seal arrangement ensures that no oil enters the pumping stator, and the absence of internal and external by-pass lines and valves which may corrode or stick minimizes maintenance requirements.

The design of the shaft seals is optimised to ensure that no lubricants can migrate into the pumping mechanism. This maintains booster pump performance in applications which demand the highest standard of cleanliness. In addition, this prevents the build-up of trapped particles on the rotor lobes and end-faces which have very close tolerances.

The dynamically balanced rotors and precision ground gears contribute to the smooth, quiet operation of the pumps, as demanded by manufacturers of advanced technology equipment.

Broad Application Coverage

EH mechanical boosters are available to cover a broad range of industrial and chemical process applications.

Industrial

Industrial EH boosters are safe to handle non-flammable gases and vapours within the normal operating parameters of the booster.

ATEX

ATEX classified EH boosters are annotated with the suffix "T3" or "T160".

- EH boosters may be supplied with ATEX classification either as part of a pump system or stand-alone, on application. Please consult Edwards.
- ATEX compliance is typically specified for use in Europe, but may also be required in other areas.

ATEX compliant EH boosters are suitable for operation in ATEX systems rated as follows:

All of the EH1200C, EH1200 T160, EH2600C, EH2600 T3, EH2600 T160, EH4200C, EH4200 T3 and EH4200 T160 chemical EH pumps are fitted with flameproof motors:

- Pumps suitable for 50 Hz operation are fitted with a flameproof motor approved to EEx d. Gas Group IIA, IIB, Temperature Class T4.
- Pumps suitable for 60 Hz operation are fitted with a flameproof motor approved to CSA, Division 1 area, Gas Class I Group C & D, Dust Class II Group F & G, Temperature Class T3C.

Internal and External Classifications

\[
\text{II} \ 2 \ G \ c \ \text{IIB} \ T3
\] or

\[
\text{II} \ 2 \ G \ c \ \text{IIB} \ T160
\]

The notations used in these ratings are as follows:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>Equipment group II</td>
</tr>
<tr>
<td>2 G</td>
<td>Equipment category 2 (gas)</td>
</tr>
<tr>
<td>c</td>
<td>Constructional safety</td>
</tr>
<tr>
<td>IIB</td>
<td>Suitable to pump gas group IIB</td>
</tr>
<tr>
<td>T3 / T160</td>
<td>Gas auto-ignition temperature</td>
</tr>
</tbody>
</table>

Equipment Category

For equipment category 1 (gas) consult Edwards.

Gas Auto-Ignition Temperature

The temperature classifications applied to the chemical EH pumps relate to the auto-ignition temperature of flammable materials that can be pumped:

- The EH1200C, EH2600C, EH4200C and chemical EH pumps that have a T3 classification are suitable for pumping flammable materials that have an auto-ignition temperature greater than 200 °C.
- Chemical EH pumps that have a T160 classification are suitable for pumping flammable materials that have an auto-ignition temperature greater than 160 °C.

Shop online at www.edwardsvacuum.com
Explosion Proof

Explosion proof boosters are annotated with the suffix “C”.
- EH boosters may be ordered with explosion proof motors either individually, or as part of an explosion proof system.
- Explosion proof is generally applicable in N. America and the rest of the world (excluding Europe).

Explosion-proof boosters will be supplied fitted with an explosion-proof motor (suitable for 60 Hz operation) approved to CSA, Division 1 area, Gas Class I Group C & D and Dust Class II Group F & G, Temperature Class T3C.

EH Pumps with Hydrokinetic Drive

EH booster pumps have a unique and patented hydrokinetic fluid drive, which couples the motor to the pumping mechanism. The hydrokinetic drive offers the following advantages:
- Pump down times cut by up to 50%
- Reduced capital and operating costs
- No pressure sensors, by-pass lines or valves
- Can operate continuously at all pressures – when used with a backing pump

EH booster pumps have universal voltage, air-cooled motors and are available with effective pumping speeds of up to 4140 m³h⁻¹ / 2440 ft³min⁻¹. The pump bodies of the EH1200, EH2600 and EH4200 pumps are water-cooled.

Two versions of each EH booster pump are available, with different oils used for the lubrication of the seals and gears. The standard version uses mineral oils, such as Ultragrade 20. The alternative version has PFPE (perfluoropolyether) oils and is suitable for applications where oxygen or other reactive and corrosive gases are processed.

Pump-Down Times cut by up to 50%

The hydrokinetic drive allows the booster pump to be started at the same time as the backing pump (at atmospheric pressure) as it prevents motor overload. The EH booster pump therefore assists the pumping process from the start of pump-down. In comparison pumping systems with conventional, direct drive mechanical booster pumps (where the booster pump is switched on when the chamber pressure has been reduced to, typically, less than 10 mbar / 7.5 Torr), the total evacuation time can be reduced by as much as 50%. The graph below shows data for a 2.8 m³ / 100 ft³ chamber, with a 2600 m³h⁻¹ / 2600 ft³min⁻¹ mechanical booster pump and a 255 m³h⁻¹ / 150 ft³min⁻¹ backing pump.

Automatic Overload Protection

The hydrokinetic drive automatically varies the rotational speed of the pump. This protects the motor from overload, prevents over-heating, and allows the pump to operate with high pressure differentials. Consequently, EH booster pumps are not damaged by sudden increases of inlet pressure and even by the entry of solid debris into the pump.

Important Cost Savings

When you use EH mechanical booster pumps, you save money on installation and operation. Your capital costs are reduced as you do not need valves, by-pass lines and pressure switches, and you can use a smaller backing pump than with conventional drive booster pumps. Operation costs are reduced because EH booster pumps have smaller motors than direct drive pumps and, when operating at full speed, they use only a fraction of the rated power.
The EH mechanical booster pump, based on the simple Roots principle, remains the favourite pump for applications where high pumping speeds are required for pressures in the region of 0.01 to 10 mbar. This pump must always be backed by another pump, which can deliver against a high-pressure differential to atmospheric pressure.

Operating at relatively low pressures, the mechanical booster pump is not exposed to the same concentrations of corrosive process media as is the backing pump, which makes it highly reliable.

Features & Benefits

- Suitable for applications where high pumping speeds over 3000 m$^3$/h/1776 ft$^3$/min are required in the pressure region of 0.01 to 50 mbar/0.0075 to 37.5 Torr.
- Operating at relatively low pressures makes it highly reliable.
- The EH pumps have a high quality, oil-free pumping mechanism. This offers:
  - Quiet, vibration free operation.
  - Rugged and corrosion resistant.

Applications

- Semiconductor processing
- Vacuum distillation
- Vacuum packaging
- Steel degassing
- Thin film coating

Dimensions

![Pump dimensions](image)

Pump is shown with inlet and outlet blanking flanges fitted. Dimensions are to the top surface of the pump flanges.

Performance Curves

![Performance curves](image)
### Technical Data

<table>
<thead>
<tr>
<th>Displacement (swept volume)</th>
<th>50Hz</th>
<th>60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective pumping speed with backing pump</td>
<td>E2M40</td>
<td>310 m³h⁻¹ / 185 ft³min⁻¹</td>
</tr>
<tr>
<td>E2M80</td>
<td>375 m³h⁻¹ / 220 ft³min⁻¹</td>
<td>274 m³h⁻¹ / 161 ft³min⁻¹</td>
</tr>
<tr>
<td>Pressure differential across pump</td>
<td>50Hz</td>
<td>0-180 mbar / 0-140 Torr</td>
</tr>
<tr>
<td>60Hz</td>
<td>0-150 mbar / 0-115 Torr</td>
<td></td>
</tr>
</tbody>
</table>

### Ordering Information

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH250ND</td>
<td>200V, 3-ph, 60Hz, 3hp</td>
<td>NRC221000</td>
</tr>
<tr>
<td>EH250ND</td>
<td>200V, 3-ph, 50Hz, 2.2kW</td>
<td>NRC222000</td>
</tr>
<tr>
<td>EH250ND</td>
<td>220-240/380-415V, 3-ph, 50Hz, 2.2kW</td>
<td>A30151945</td>
</tr>
<tr>
<td>EH250ND</td>
<td>208-230V or 460V, 3-ph, 60Hz, 3 hp</td>
<td>A30152946</td>
</tr>
<tr>
<td>PFPE EH250FX</td>
<td>220-240/380-415V, 3-ph, 50Hz, 1.3kW</td>
<td>A30153935</td>
</tr>
<tr>
<td>PFPE EH250FX</td>
<td>208-230/460V, 3-ph, 60Hz, 2 hp</td>
<td>A30154936</td>
</tr>
<tr>
<td>EH250C</td>
<td>460V, 3-ph, 60Hz, 3 hp</td>
<td>NRA997000</td>
</tr>
<tr>
<td>EH250T160</td>
<td>220-240/380-415V, 3-ph 50Hz, 2.2kW</td>
<td>NRA998000</td>
</tr>
</tbody>
</table>

### Accessory Spares

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A30151815</td>
<td>Spares Kit Con C&amp;O EH/QMB250/500A</td>
</tr>
<tr>
<td>A30151820</td>
<td>Spares Kit Module EH/QMB250/500A</td>
</tr>
<tr>
<td>A30151825</td>
<td>Spares Kit Shim EH/QMB250/500A</td>
</tr>
<tr>
<td>A60041029</td>
<td>ISO63 Screen Centring S/S Viton</td>
</tr>
</tbody>
</table>

### Specifications

- **Displacement (swept volume)**
  - 50Hz: 310 m³h⁻¹ / 185 ft³min⁻¹
  - 60Hz: 375 m³h⁻¹ / 220 ft³min⁻¹
- **Effective pumping speed with backing pump**
  - E2M40: 240 m³h⁻¹ / 141 ft³min⁻¹
  - E2M80: 274 m³h⁻¹ / 161 ft³min⁻¹
- **Pressure differential across pump**
  - 50Hz: 0-180 mbar / 0-140 Torr
  - 60Hz: 0-150 mbar / 0-115 Torr
- **Rotational speed**
  - 50Hz: 0-2900 rpm
  - 60Hz: 0-3500 rpm
- **Operating continuous inlet pressure**
  - 0-1000 mbar / 0-760 Torr
- **Maximum outlet pressure**
  - 1000 mbar / 760 Torr
- **Recommended backing pumps**
  - GV80, E2M40, E2M80
- **Electrical supply voltage, 3-ph**
  - 50Hz: 220 - 240V / 380 - 415V
  - 60Hz: 208-230V / 460V
- **Motor power**
  - Hydrocarbon: 2.2 kW / 3 hp
  - PFPE: 1.5 kW / 2 hp
  - ATEX: 2.2 kW
  - Explosion proof: 3 hp
- **Ambient temperature range**
  - Operating: 5 to 40°C / 40 to 104°F
  - Storage: -10 to 80°C / 14 to 176°F
- **Maximum operating humidity**
  - 90% RH
- **Cooling method**
  - Air cooled
- **Recommended oil**
  - Ultragrade 20
- **Oil capacity**
  - Coupling cover: 1.5 litre / 1.6 qt
  - Shaft seal reservoir: 0.125 litre / 0.25 qt
- **Weight**
  - 61 kg / 134 lb
The EH mechanical booster pump, based on the simple Roots principle, remains the favourite pump for applications where high pumping speeds are required for pressures in the region of 0.01 to 10 mbar. This pump must always be backed by another pump, which can deliver against a high-pressure differential to atmospheric pressure.

Operating at relatively low pressures, the mechanical booster pump is not exposed to the same concentrations of corrosive process media as is the backing pump, which makes it highly reliable.

Features & Benefits
- Suitable for applications where high pumping speeds over 3000 m$^3$/h/1776 ft$^3$/min are required in the pressure region of 0.01 to 50 mbar/0.0075 to 37.5 Torr.
- Operating at relatively low pressures makes it highly reliable.
- The EH pumps have a high quality, oil-free pumping mechanism.
  This offers:
  - Quiet, vibration free operation.
  - Rugged and corrosion resistant.

Applications
- Semiconductor processing
- Vacuum distillation
- Vacuum packaging
- Steel de-gassing
- Thin film coating

Dimensions

Performance Curves

Shop online at www.edwardsvacuum.com
### Technical Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Displacement (swept volume)</th>
<th>Effective pumping speed with backing pump</th>
<th>Pressure differential across pump</th>
<th>Rotational speed</th>
<th>Operating continuous inlet pressure</th>
<th>Maximum outlet pressure</th>
<th>Recommended backing pumps</th>
<th>Electrical supply</th>
<th>Motor power</th>
<th>Ambient temperature range</th>
<th>Recommended oil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50Hz</td>
<td>505 m³ h⁻¹ / 300 ft³ min⁻¹</td>
<td>E2M40</td>
<td>0-2900 rpm</td>
<td>0-1000 mbar / 0-760 Torr</td>
<td>1000 mbar / 760 Torr</td>
<td>GV80, E2M80</td>
<td>220-240V / 380-415V</td>
<td>2.2kW / 3hp</td>
<td>5 to 40°C / 40 to 104°F</td>
<td>Ultragrade 20</td>
</tr>
<tr>
<td></td>
<td>60Hz</td>
<td>605 m³ h⁻¹ / 335 ft³ min⁻¹</td>
<td>E2M80</td>
<td>0-3500 rpm</td>
<td>0-90 mbar / 0-68 Torr</td>
<td></td>
<td></td>
<td>208-230V / 460V</td>
<td>1.5 kW / 2hp</td>
<td>-10 to 80°C / 14 to 176°F</td>
<td>Fomblin VAC 16/6</td>
</tr>
</tbody>
</table>

### Ordering Information

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH500IND 208-230/460V, 3-ph, 60Hz, 3 hp</td>
<td>A3027946</td>
</tr>
<tr>
<td>EH500IND 200V, 3-ph 60Hz, 3 hp</td>
<td>NRC219000</td>
</tr>
<tr>
<td>EH500IND 200V, 3-ph, 50Hz, 2.2kW</td>
<td>NRC220000</td>
</tr>
<tr>
<td>EH500IND 220-240/380-415V, 3-ph, 50Hz, 2.2kW</td>
<td>A30271945</td>
</tr>
<tr>
<td>EH500AFX 220-240/380-415V, 3-ph 50Hz, 1.5 kW</td>
<td>A30273935</td>
</tr>
<tr>
<td>EH500AFX 208-230/460V, 3-ph, 60Hz, 2 hp</td>
<td>A30274936</td>
</tr>
<tr>
<td>EH500C 460V, 3-ph, 60Hz, 3 hp</td>
<td>NRA999000</td>
</tr>
<tr>
<td>EH500T3 220-240/380-415V, 3-ph, 50Hz, 2.2kW</td>
<td>NRA998000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spares Kit Con C&amp;O EH/QMB250/500A</td>
<td>A30151813</td>
</tr>
<tr>
<td>Spares Kit Module EH/QMB250/500A</td>
<td>A30151820</td>
</tr>
<tr>
<td>Spares Kit Shim EH/QMB250/500A</td>
<td>A30151825</td>
</tr>
<tr>
<td>ISO100 Screen Centring S/S Viton</td>
<td>C10523085</td>
</tr>
</tbody>
</table>

Shop online at www.edwardsvacuum.com
The EH mechanical booster pump, based on the simple Roots principle, remains the favourite pump for applications where high pumping speeds are required for pressures in the region of 0.01 to 10 mbar. This pump must always be backed by another pump, which can deliver against a high-pressure differential to atmospheric pressure.

Operating at relatively low pressures, the mechanical booster pump is not exposed to the same concentrations of corrosive process media as is the backing pump, which makes it highly reliable.

Features & Benefits

- Suitable for applications where high pumping speeds over 3000 m$^3$/h/1776 ft$^3$/min are required in the pressure region of 0.01 to 50 mbar/0.0075 to 37.5 Torr.
- Operating at relatively low pressures makes it highly reliable.
- The EH pumps have a high quality, oil-free pumping mechanism. This offers:
  - Quiet, vibration free operation.
  - Rugged and corrosion resistant.

Applications

- Semiconductor processing
- Vacuum distillation
- Vacuum packaging
- Steel degassing
- Thin film coating

Dimensions

Pump is shown with inlet and outlet blanking flanges fitted. Dimensions are to the top surface of the pump flanges.
### Technical Data

#### Displacement (swept volume)
- 50Hz: \(11 \frac{5}{3} \text{ m}^3 \text{ h}^{-1} / 715 \text{ ft}^3 \text{ min}^{-1}\)
- 60Hz: \(1435 \text{ m}^3 \text{ h}^{-1} / 845 \text{ ft}^3 \text{ min}^{-1}\)

#### Effective pumping speed with backing pump
- E2M80: \(840 \frac{4}{3} \text{ m}^3 \text{ h}^{-1} / 4 \text{ ft}^3 \text{ min}^{-1}\)
- E2M175: \(30 \frac{1}{3} \text{ m}^3 \text{ h}^{-1} / 548 \text{ ft}^3 \text{ min}^{-1}\)
- E2M275: \(1020 \frac{1}{3} \text{ m}^3 \text{ h}^{-1} / 601 \text{ ft}^3 \text{ min}^{-1}\)

#### Pressure differential across pump
- 50Hz: 0-0 mbar / 0-68 Torr
- 60Hz: 0-75 mbar / 0-56 Torr

#### Inlet connection
- ISO160

#### Outlet connection
- ISO100

#### Rotational speed
- 50Hz: 0-2 00 rpm
- 60Hz: 0-3500 rpm

#### Operating continuous inlet pressure
- 0-1000 mbar / 0-760 Torr

#### Maximum outlet pressure
- 1000 mbar / 760 Torr

#### Recommended backing pumps
- G 160, G 250, E2M80, E2M175

#### Electrical supply
- 50Hz: 220-240 / 380-415
- 60Hz: 208-230 / 460

#### Motor power
- Hydrocarbon: 3kW / 4hp
- PFPE: 3kW / 4hp
- ATEX: 3kW
- Explosion proof: 4hp

#### Ambient temperature range
- Operating: 5 to 40°C / 40 to 104°F
- Storage: -10 to 80°C / 14 to 176°F

#### Maximum operating humidity
- 0% RH

#### Recommended cooling water flow (inlet temperature 20°C)
- 120l h\(^{-1}\) / 0.53 gal min\(^{-1}\)

#### Recommended cooling water supply pressure
- 2-6 bar

#### Cooling water connections
- 3/8 inch BSP male

#### Recommended oil
- Standard version: Ultragrade 20
- PFPE version: Fomblin Y AC 16/6

#### Oil capacity
- Gear case: 1.25 litre / 1.3 qt
- Coupling cover: 1.5 litre / 1.6 qt
- Shaft seal reservoir: 0.125 litre / 0.25 qt
- Weight: 74 kg / 163 lb

---

**Ordering Information**

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1200IND 220-240/380-415, 3-ph, 50Hz, 3kW</td>
<td>A305 0 35</td>
</tr>
<tr>
<td>E1200IND 208-230/460, 3-ph, 60Hz, 4 hp</td>
<td>A305 1 36</td>
</tr>
<tr>
<td>E1200IND 200, 3-ph, 60Hz, 4 hp</td>
<td>NRC217000</td>
</tr>
<tr>
<td>E1200IND 200, 3-ph, 50Hz, 3 kW</td>
<td>NRC218000</td>
</tr>
<tr>
<td>E1200FX 220-240/380-415, 3-ph, 50Hz, 3 kW</td>
<td>A305 2 35</td>
</tr>
<tr>
<td>E1200FX 208-230/460, 3-ph, 60Hz, 4 hp</td>
<td>A305 3 36</td>
</tr>
<tr>
<td>E1200C 230/460, 3-ph, 60Hz, 4 hp</td>
<td>A30556 82</td>
</tr>
<tr>
<td>E1200T160 380-415, 3-ph, 50Hz, 3kW</td>
<td>A30557 0 00</td>
</tr>
</tbody>
</table>

**Accessories / Spares**

<table>
<thead>
<tr>
<th>Spares</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>It Con C&amp;O EH/QMB1200</td>
<td>A30551815</td>
</tr>
<tr>
<td>It Module EH/QMB1200</td>
<td>A30551820</td>
</tr>
<tr>
<td>Shim kit</td>
<td>A30551825</td>
</tr>
<tr>
<td>ISO160 Screen Centring S/S</td>
<td>C10524085</td>
</tr>
<tr>
<td>Inlet Mesh Assembly EH2600/EH4200</td>
<td>A60041570</td>
</tr>
</tbody>
</table>

---

Under many circumstances, pumps may operate without cooling water. Apply to Edwards for more information.

*Depends on pressure*
The EH mechanical booster pump, based on the simple Roots principle, remains the favourite pump for applications where high pumping speeds are required for pressures in the region of 0.01 to 10 mbar. This pump must always be backed by another pump, which can deliver against a high-pressure differential to atmospheric pressure.

Operating at relatively low pressures, the mechanical booster pump is not exposed to the same concentrations of corrosive process media as is the backing pump, which makes it highly reliable.

Features & Benefits

- Suitable for applications where high pumping speeds over 3000 m³ h⁻¹/1776 ft³ min⁻¹ are required in the pressure region of 0.01 to 50 mbar/0.0075 to 37.5 Torr.
- Operating at relatively low pressures makes it highly reliable.
- The EH pumps have a high quality, oil-free pumping mechanism. This offers:
  - Quiet, vibration free operation.
  - Rugged and corrosion resistant.

Applications

- Semiconductor processing
- Vacuum distillation
- Vacuum packaging
- Steel de-gassing
- Thin film coating

Dimensions

Performance Curves

Shop online at ebarvacuum.com
Technical Data

**Displacement (swept volume)**
- 50Hz: 2950 m³/h / 1525 ft³/min
- 60Hz: 3110 m³/h / 1830 ft³/min

**Effective pumping speed with backing pump**
- E2M175: 1750 m³/h / 1031 ft³/min
- E2M275: 1900 m³/h / 1119 ft³/min

**Pressure differential across pump**
- 50Hz: 0-80 mbar / 0-60 Torr
- 60Hz: 0-67 mbar / 0-50 Torr

**Inlet connection**: ISO160
**Outlet connection**: ISO100

**Rotational speed**
- 50Hz: 0-2900 rpm
- 60Hz: 0-3500 rpm

**Operating continuous inlet pressure**: 0-1000 mbar / 0-760 Torr
**Maximum outlet pressure**: 1000 mbar / 760 Torr

**Recommended backing pumps**
- GV250, GV400, E2M175, E2M275

**Electrical supply**
- 50Hz: 220-240V / 380-415V
- 60Hz: 208-230V / 460V

**Motor power**
- Hydrocarbon: 11kW / 15hp
- PFPE: 7.5kW / 10hp
- ATEX: 11kW
- Explosion proof: 15hp

**Ambient temperature range**
- Operating: 5 to 40°C / 40 to 104°F
- Storage: -10 to 80°C / 14 to 176°F

**Maximum operating humidity**: 90% RH

**Recommended cooling water flow (inlet temperature 20°C)**
- 250lh⁻¹ / 1.1 gal min⁻¹

**Recommended cooling water supply pressure**: 2-6 bar

**Cooling water connections**: 3/8 inch BSP male

**Recommended oil**
- Standard version: Ultragrade 20
- PFPE version: Fomblin VAC 16/6

**Oil capacity**
- Gear case: 3.5 litre / 3.3 qt
- Coupling cover: 6.5 litre / 7 qt
- Shaft seal reservoir: 1.5 litre / 1.4 qt
- Weight: 308 kg / 679 lb

Under many circumstances, pumps may operate without cooling water. Apply to Edwards for more information.

- Depends on pressure

---

Ordering Information

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH2600IND 380-415V, 3-ph, 50Hz, 11 kW</td>
<td>A30775946</td>
</tr>
<tr>
<td>EH2600IND 230/460V, 3-ph, 60Hz, 15 hp</td>
<td>A30776982</td>
</tr>
<tr>
<td>EH2600IND 200V, 3-ph, 60Hz, 15 hp</td>
<td>NRB999000</td>
</tr>
<tr>
<td>EH2600IND 200V, 3-ph, 50Hz, 11 kW</td>
<td>NRC216000</td>
</tr>
<tr>
<td>EH2600FX 220-240/380-415V, 3-ph, 50Hz, 7.5kW</td>
<td>A30753935</td>
</tr>
<tr>
<td>EH2600FX 208-230/460V, 3-ph, 60Hz, 10 hp</td>
<td>A30754936</td>
</tr>
<tr>
<td>EH2600C 230/460V, 3-ph, 60Hz, 15 hp</td>
<td>A30756982</td>
</tr>
<tr>
<td>EH2600T3 380-415V, 3-ph, 50Hz, 11 kW</td>
<td>A30741933</td>
</tr>
<tr>
<td>EH2600T160 380-415V, 3-ph, 50Hz, 11 kW</td>
<td>A30779900</td>
</tr>
</tbody>
</table>

**Accessories/Spares**

| Spares Kit Con C&O EH/QMB26/4200 | A30751815 |
| Spares Kit Module EH/QMB26/4200 | A30751820 |
| Spares Kit Shim EH/QMB12/26/4200 | A30751825 |
| ISO160 Screen Centring S/S Viton | C10524085 |
| Inlet Mesh Assembly EH2600/EH4200 | A60041570 |

Shop online at [e ar s acuum com](http://www.eurosclerosis.com)
4200 mechanical booster pump

The EH mechanical booster pump, based on the simple Roots principle, remains the favourite pump for applications where high pumping speeds are required for pressures in the region of 0.01 to 10 mbar. This pump must always be backed by another pump, which can deliver against a high-pressure differential to atmospheric pressure.

Operating at relatively low pressures, the mechanical booster pump is not exposed to the same concentrations of corrosive process media as the backing pump, which makes it highly reliable.

Features & Benefits

- Suitable for applications where high pumping speeds over 3000 m$^3$/h (1776 ft$^3$/min) are required in the pressure region of 0.01 to 50 mbar/0.0075 to 37.5 Torr.
- Operating at relatively low pressures makes it highly reliable.
- The EH pumps have a high quality, oil-free pumping mechanism. This offers:
  - Quiet, vibration free operation.
  - Rugged and corrosion resistant.

Applications

- Semiconductor processing
- Vacuum distillation
- Vacuum packaging
- Steel degassing
- Thin film coating

Dimensions

Performance Curves

Shop online at earsacuum.com
**Technical Data**

<table>
<thead>
<tr>
<th>Displacement (swept volume)</th>
<th>50Hz</th>
<th>60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4140 m³ h⁻¹ / 2440 ft³ min⁻¹</td>
<td>4985 m³ h⁻¹ / 2935 ft³ min⁻¹</td>
</tr>
</tbody>
</table>

Effective pumping speed with backing pump

- E2M275: 3100 m³ h⁻¹ / 1825 ft³ min⁻¹

Pressure differential across pump

- 50Hz: 0-60 mbar / 0-45 Torr
- 60Hz: 0-50 mbar / 0-38 Torr

Inlet connection: ISO250
Outlet connection: ISO100

Rotational speed

- 50Hz: 0-2900 rpm
- 60Hz: 0-3500 rpm

Operating continuous inlet pressure: 0-1000 mbar / 0-760 Torr

Maximum outlet pressure: 1000 mbar / 760 Torr

Recommended backing pumps: GV400, E2M275

Electrical supply

- 50Hz: 220-240V / 380-415V
- 60Hz: 208-230V / 460V

Motor power

- Hydrocarbon: 11kW / 15hp
- PFPE: 11kW / 15hp
- ATEX: 11kW
- Explosion proof: 15hp

Ambient temperature range

- Operating: 5 to 40°C / 40 to 104°F
- Storage: -10 to 80°C / 14 to 176°F

Maximum operating humidity: 90% RH

Recommended cooling water flow (inlet temperature 20°C): 250 l/h⁻¹ / 1.1 gal min⁻¹

Recommended cooling water supply pressure: 2-6 bar

Cooling water connections: 3/8 inch BSP male

Recommended oil

- Standard version: Ultragrade 20
- PFPE version: Fomblin VAC 16/6

Oil capacity

- Gear case: 3.5 litre / 3.3 qt
- Coupling cover: 6.5 litre / 7 qt
- Shaft seal reservoir: 1.5 litre / 1.4 qt
- Weight: 400 kg / 882 lb

Under many circumstances, pumps may operate without cooling water. Apply to Edwards for more information.

- Depends on pressure

**Ordering Information**

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH4200IND 380-415V, 3-ph, 50Hz, 11 kW</td>
<td>A30975946</td>
</tr>
<tr>
<td>EH4200IND 200V, 3-ph, 60Hz, 15 hp</td>
<td>NRB988080</td>
</tr>
<tr>
<td>EH4200IND 200V, 3-ph, 50Hz, 11 kW</td>
<td>NRC215000</td>
</tr>
<tr>
<td>EH4200IND 208-230/460V, 3-ph, 60Hz, 15 hp</td>
<td>A30976982</td>
</tr>
<tr>
<td>EH4200C 230/460V, 3-ph, 60Hz, 15 hp</td>
<td>A30956982</td>
</tr>
<tr>
<td>EH4200T3 380-415V, 3-ph, 50Hz, 11 kW</td>
<td>A30941935</td>
</tr>
<tr>
<td>EH4200T160 380-415V, 3-ph, 50Hz, 11 kW</td>
<td>A30979900</td>
</tr>
</tbody>
</table>

**Accessories**

- Spares Kit Con C&O EH/QMB26/4200 | A30751815 |
- Spares Kit Module EH/QMB26/4200 | A30751820 |
- Spares Kit Shim EH/QMB12/26/4200 | A30751825 |
- Inlet Mesh Assembly EH2600 | A60041571 |

Shop online at edwardsvacuum.com
500 oil level monitor

Fit the O M500 in place of the oil sight-glass on the EH250 and EH500 oil seal reservoirs, and on the EH1200, EH2600 and EH4200 oil seal reservoirs and gear boxes. The O M500 provides a switched output for remote activation or warning devices. Technical data: 24 V a.c. or d.c., maximum current 0.5 A.

Ordering Information

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>O M500 oil level monitor</td>
<td>A50434000</td>
</tr>
</tbody>
</table>

Inlet Seal with mesh Screen

Designed to prevent objects falling into the inlet of our booster pumps, the mesh aperture is 3.3 mm.

Ordering Information

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet seal with mesh screen</td>
<td></td>
</tr>
<tr>
<td>ISO 63</td>
<td>C10521085</td>
</tr>
<tr>
<td>ISO 100</td>
<td>C10523085</td>
</tr>
<tr>
<td>ISO 160</td>
<td>C10524085</td>
</tr>
</tbody>
</table>

Not suitable for ATEX boosters

Shop online at earsacuum.com