Surface dewatering pumps solutions

PAS and VAR ranges
Surface dewatering pumps

The surface dewatering pumps range are designed and developed to offer high performance, reliability and ease of use across multiple industries for applications like construction and mine site dewatering, removing floodwater, and other municipal applications.

At Atlas Copco, we understand pumps, their application and most importantly, the people using them. We have a complete range of diesel and electric driven pumps, that offer durability and long life. Modular design offers flexibility in packaging and easy servicing of wear components means less down time and more pumping without stopping.
There is a surface pump for any surface dewatering application

1. Oil & Gas
   Pipelines used to transport crude oil or natural gas must be dewatered to guarantee the quality of the hydrocarbons and prevent the formation of hydrates and protect pipes from internal corrosion.
   Ballasting process requires robust high performing pumps which, based on the needs, pumps sea water in and out of the shipyard tank during the loading and unloading of water vessels.

2. Mining and Quarry
   For dewatering applications in the mines post dredging, our pumps offer effective and efficient solutions due to their solids handling capability.

3. Municipalities
   Municipal public service applications can vary from sewage bypass to wastewater treatment plants to water reclamation centers. When wastewater is being treated, our pumps handle the fluids and solids without clogging or failing.

4. Construction
   On construction site, during casting of foundation it becomes critical to avoid water infiltration. Our pumps have got you covered.

5. Industry
   The effluent produced by different industries should be treated, relaunched or drained. With the availability of different materials for our wet ends, we offer a complete solution.

   Application
   • Effluent handling and transporting.
   • Waste drainage and disposals.
   • Temporary firefighting protection.

6. Civil works
   Modern day civil engineering projects are fast paced. Be it construction of road, dams, bridges, airports or building, site dewatering and drainage, before and during construction work is very important.

   Application
   • Sump water removal
   • Dewatering

7. Floods controls
   Our pumps, due to their high performance and portability, are effective to provide quick solutions in case of flood emergency.

   Application
   • Emergency

8. Wellpoint
   All the areas with high ground water level needs to be reduced before the initial digging up of the land. Our pumps can be installed on a side or around the excavation site.

   Application
   • Groundwater level reduction
   • Pipeline on-shore
   • Polluted soil remediation
   • Tunneling

9. Rental
   Rental application requires robust and long running products. Our start and forget control panels and more than 24 hours fuel autonomy make them ideal for such applications.

   Application
   • General construction
   • Flood controls
   • Industry
   • Mine and quarry dewatering
PAS range

The PAS range of dry prime pumps are engineered to offer high performance in any conditions. Comprising of a air separator unit and a vacuum pump, it offers rapid automatic primming. Even with suction heights of several meters, the machine rapidly evacuates the air from the suction pipe and starts to pump.

Additionally, thanks to the semi-open impeller, the PAS range is also suitable for pumping liquids with solids in suspensions.

SERVICEABILITY IN ANY CONDITIONS

- Patented Hinged door access guarantees easy clean-up with minimal downtime.
- All wear components are easily accessible with minimal downtime.
- Easy replacement of the wear components (impeller and wear plates).
- Trimming plate to guarantee the hydraulic performance as an emergency reserve, before scheduled maintenance.

EASY MAINTENANCE

STACKABILITY

PACKAGING FLEXIBILITY

- One-by-one stackability in standard canopy and open version.
- Mobility, with heavy-duty skids and road trailer equipped for a range of conditions.
INTEGRATED CONTROL AND POWER CUBICLE

- Digital controller with standard warnings, shutdown, stop/start function, emergency stop and easy-to-access and read diagnostics. Configurable set point via transducer to control engine speeds*

SOLIDS HANDLING CAPABILITY

- The whole range can handle high solids.

FLEX-MOUNT SYSTEM

- Integrated vibration mounts eliminate unwanted vibration.

Key options

- Impeller CF3M
- Wear plate CF3M
- Stainless steel shaft
- Zinc anodized

Key features

- Hinge Kit
- Trimming plate*
- Diaphragm vacuum pump
- Dry running system
- PW 250, PW500, PW 750 control panel*

* Available options may change depending on model selected.
VAR range

The **VAR range** of wet prime pumps offer a robust and flexible solution for dewatering applications. The technology allows to have a simple first prime due to its first water fill in capabilities.

Due to its open impeller and solids handling capabilities, the equipment perfectly suits for medium construction and flood controls.

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**WET PRIME SYSTEM**

- The system allow the unit to prime in every conditions trough first water filling up.
- The liquid rings formed evacuates air in order to have quick primming.

![Wet Prime System Diagram](image1)

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**POSSIBLE IN MOBILITY PACKAGE**

- Open-frame version available.

![Mobility Package](image2)
MECHANICAL SEAL FLUSHING

- Integrated port on pump casing to flush the mechanical seal.
- Solution guarantees the right start up of the units and helps prevent possible casing failure due to fluid solidification.

SOLIDS HANDLINGS CAPABILITY

- The whole range can handle high solids.

Key options

- Impeller CF3M
- Wear plate CF3M
- Stainless steel shaft
- Zinc anodized

FLEX-MOUNT SYSTEM

- Integrated vibration mounts eliminate unwanted vibration.
## PAS range

### Technical data

<table>
<thead>
<tr>
<th>Specifications</th>
<th>PAS 100 MF 250</th>
<th>PAS 100 MF 260</th>
<th>PAS 150 MF 250</th>
<th>PAS 150 MF 305</th>
<th>PAS 200 MF 305</th>
<th>PAS 300 MF 401</th>
<th>PAS 100 HF 250</th>
<th>PAS 150 HF 300</th>
<th>PAS 200 HF 305</th>
<th>PAS 300 HF 440</th>
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<tbody>
<tr>
<td>Max. head</td>
<td>m</td>
<td>36</td>
<td>42</td>
<td>37</td>
<td>30</td>
<td>24</td>
<td>51</td>
<td>51</td>
<td>50</td>
<td>75</td>
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<tr>
<td>Max. capacity</td>
<td>m³/h</td>
<td>250</td>
<td>325</td>
<td>540</td>
<td>630</td>
<td>1150</td>
<td>280</td>
<td>520</td>
<td>920</td>
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<tr>
<td>Suction / discharge size</td>
<td>DN100 (4&quot;)</td>
<td>DN100 (4&quot;)</td>
<td>DN150 (6&quot;)</td>
<td>DN200 (8&quot;)</td>
<td>DN300 (12&quot;)</td>
<td>ANSI 4&quot;</td>
<td>ANSI 6&quot;</td>
<td>ANSI 8&quot;</td>
<td>DN300 (12&quot;)</td>
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</tr>
<tr>
<td>Max. solids handling</td>
<td>mm</td>
<td>50</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>100</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>89</td>
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<tr>
<td>Best efficiency point</td>
<td>%</td>
<td>70</td>
<td>70</td>
<td>77</td>
<td>64</td>
<td>62</td>
<td>70</td>
<td>70</td>
<td>75</td>
<td>72</td>
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<tr>
<td>Max. absorbed power</td>
<td>kW</td>
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<td>27</td>
<td>33</td>
<td>65</td>
<td>29</td>
<td>51</td>
<td>78</td>
<td>210</td>
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| Engine                  |               |               |               |               |               |               |               |               |               |               |
| Emission compliance     | Stage 3A      | Stage 3A      | Stage 3A      | Stage 3B      | Stage 4       | Stage 3B      | Stage 4       | Stage 4       | Stage 4       |               |
| Max. engine power       | kW            | 24,3           | 28,4           | 28,4           | 33,6           | 79,1           | 31,0           | 51,2           | 79,1           | 210           |
| Max. operating speed    | rpm            | 2000           | 2000           | 2000           | 1800           | 1500           | 2200           | 2200           | 2200           | 1600           |
| Max. fuel autonomy      | h              | 51             | 48             | 48             | 48             | 24             | 45             | 27             | 22             | 12             |

| Weight and dimensions   |               |               |               |               |               |               |               |               |               |               |
| Weight (dry)            | kg            | 1260           | 1260           | 1400           | 1600           | 2600           | 1380           | 1680           | 2250           | 4200           |
| Length                  | mm            | 2250           | 2250           | 2250           | 2560           | 2610           | 2560           | 2560           | 2610           | 3900           |
| Width                   | mm            | 1100           | 1100           | 1100           | 1100           | 1225           | 1100           | 1100           | 1225           | 2200           |
| Height                  | mm            | 1550           | 1550           | 1550           | 1705           | 1840           | 1705           | 1705           | 1840           | 2000           |

LOOKING FOR ELECTRIC?*  
E-Pump OPTIONS ALSO AVAILABLE  

* Please consult with your local representative.
Performance curves

PAS 100 MF 250

PAS 100 MF 260

PAS 150 MF 250

PAS 200 MF 305

PAS 300 MF401

PAS 100 HF 250

PAS 150 HF 300

PAS 200 HF 305

PAS 300 HF440
# VAR range

## Technical data

<table>
<thead>
<tr>
<th>Specifications</th>
<th>VAR 4-250</th>
<th>VAR 6-250</th>
<th>VAR 8-305</th>
<th>VAR 10-305</th>
<th>VAR 12-400</th>
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<tr>
<td>Max. head</td>
<td>m</td>
<td>40</td>
<td>33</td>
<td>35</td>
<td>39</td>
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<tr>
<td>Max. capacity</td>
<td>m³/h</td>
<td>180</td>
<td>340</td>
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<td>Suction / discharge size</td>
<td>Threaded 4&quot; BSP</td>
<td>Flanged DN 150 D.I. 1882 (6&quot;)</td>
<td>Flanged DN 200 UNI 6082 (8&quot;)</td>
<td>Flanged DN 250 D.I. 1882 (10&quot;)</td>
<td>Flanged DN 300 UNI 6082 (12&quot;)</td>
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<tr>
<td>Max. solids handling</td>
<td>mm</td>
<td>50</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Best efficiency point</td>
<td>%</td>
<td>65</td>
<td>60</td>
<td>53</td>
<td>70</td>
</tr>
<tr>
<td>Max. absorbed power</td>
<td>kW</td>
<td>16,5</td>
<td>25</td>
<td>31</td>
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### Engine

<table>
<thead>
<tr>
<th>Emission compliance</th>
<th>Stage 3A</th>
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<th>Stage 3B</th>
<th>Stage 4</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. engine power</td>
<td>kW</td>
<td>24,3</td>
<td>28,4</td>
<td>33,6</td>
<td>47,7</td>
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<tr>
<td>Max. operating speed</td>
<td>rpm</td>
<td>2000</td>
<td>2000</td>
<td>1800</td>
<td>1800</td>
</tr>
<tr>
<td>Max. fuel autonomy</td>
<td>h</td>
<td>48</td>
<td>42</td>
<td>50</td>
<td>47</td>
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### Weight and dimensions

<table>
<thead>
<tr>
<th>Weight (dry)</th>
<th>kg</th>
<th>905</th>
<th>935</th>
<th>1205</th>
<th>1850</th>
<th>2125</th>
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<tbody>
<tr>
<td>Length</td>
<td>mm</td>
<td>1750</td>
<td>1750</td>
<td>2500</td>
<td>2800</td>
<td>2800</td>
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<tr>
<td>Width</td>
<td>mm</td>
<td>950</td>
<td>950</td>
<td>950</td>
<td>1450</td>
<td>1450</td>
</tr>
<tr>
<td>Height</td>
<td>mm</td>
<td>1520</td>
<td>1520</td>
<td>1850</td>
<td>1850</td>
<td>1850</td>
</tr>
</tbody>
</table>

(1) Dimensions refer to Block model. Please refer the data sheet with overall dimensions with options

**LOOKING FOR ELECTRIC?**

**E-Pump OPTIONS ALSO AVAILABLE**

* Please consult with your local representative.

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[www.atlascopco.com/surface-pumps](http://www.atlascopco.com/surface-pumps)
Performance curves

VAR 4-250

VAR 6-250

VAR 8-305

VAR 10-305

VAR 12-400
## Product portfolio

### GENERATORS

<table>
<thead>
<tr>
<th>Type</th>
<th>Power Range (kVA)</th>
</tr>
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<tbody>
<tr>
<td>PORTABLE</td>
<td>1.6 – 12</td>
</tr>
<tr>
<td>MOBILE</td>
<td>9 – 1250*</td>
</tr>
<tr>
<td>INDUSTRIAL</td>
<td>10 – 2250*</td>
</tr>
<tr>
<td>CONTAINERS</td>
<td>800 – 1450</td>
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</table>

*Multiple configurations available to produce power for any size application

### DEWATERING PUMPS

<table>
<thead>
<tr>
<th>Type</th>
<th>Flow Rate (l/min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTRIC SUBMERSIBLE</td>
<td>250 – 16,200</td>
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<tr>
<td>SURFACE PUMPS</td>
<td>833 – 23,300</td>
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<tr>
<td>SMALL PORTABLE</td>
<td>210 – 2500</td>
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</table>

Diesel and electric options available

### LIGHT TOWERS

<table>
<thead>
<tr>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIESEL LED AND MH</td>
</tr>
<tr>
<td>BATTERY LED</td>
</tr>
<tr>
<td>ELECTRIC LED</td>
</tr>
</tbody>
</table>

### AIR COMPRESSORS AND HANDHELD TOOLS

<table>
<thead>
<tr>
<th>Type</th>
<th>Flow Rate (l/min)</th>
<th>Pressure (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR COMPRESSORS</td>
<td>1 – 116</td>
<td>7 – 345</td>
</tr>
<tr>
<td>HANDHELD TOOLS</td>
<td>Pneumatic, Hydraulic, Petrol engine driven</td>
<td></td>
</tr>
</tbody>
</table>

### ONLINE SOLUTIONS

<table>
<thead>
<tr>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHOP ONLINE PARTS ONLINE</td>
</tr>
<tr>
<td>POWER CONNECT</td>
</tr>
<tr>
<td>FLEETLINK</td>
</tr>
</tbody>
</table>

- **SHOP ONLINE PARTS ONLINE**: Find and order the spare parts for power equipment. We handle your orders 24 hours a day.
- **POWER CONNECT**: Scan the QR code on your machine, and go to the QR Connect Portal to find all the information about your machine.
- **FLEETLINK**: Intelligent telematics system that helps optimize fleet usage, reduce maintenance costs, ultimately saving time and cost.

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Atlas Copco AB
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