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.
   
   Application
   - Ballasting
   - Pipeline hydrostatic test
   - Drilling
   - Pipeline flushing

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.
   
   Application
   - Sewage bypass
   - Dewatering
   - Emergency water treatment

4. Construction
   On Construction site, during casting of foundation it becomes critical to avoid water infiltration. Our pumps have got you covered.
   
   Application
   - Site drainage
   - Jetting

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.

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.

STACKABILITY

www.atlascopco.com/surface-pumps
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 HANDLINGS 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
- Fleet Link

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 capabilities.

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

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**WET PRIME SYSTEM**

- The system allows the unit to prime in any conditions through first water fill.
- The liquid rings formed evacuate air for quick priming

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**MOBILITY PACKAGE**

- Open-frame version available.
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.

FLEX-MOUNT SYSTEM

- Integrated vibration mounts eliminate unwanted vibration.

SOLIDS HANDLINGS CAPABILITY

- The whole range can handle high solids.

Key options

- Impeller CF3M
- Wear plate CF3M
- Stainless steel shaft
- Zinc anodized
- Fleet Link
## PAS range
### Technical data

<table>
<thead>
<tr>
<th>Specifications</th>
<th>PAS 80MF 202</th>
<th>PAS 100MF 250</th>
<th>PAS 150MF 250</th>
<th>PAS 200MF 310</th>
<th>PAS 300MF 401</th>
<th>PAS 100HF 250</th>
<th>PAS 150HF 300</th>
<th>PAS 200HF 300</th>
<th>PAS 300HF 440</th>
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<tbody>
<tr>
<td>Max. head</td>
<td>m</td>
<td>19</td>
<td>30</td>
<td>37</td>
<td>36</td>
<td>25</td>
<td>42</td>
<td>51</td>
<td>50</td>
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<tr>
<td>Max. capacity</td>
<td>m³/h</td>
<td>160</td>
<td>250</td>
<td>540</td>
<td>660</td>
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<td>50</td>
<td>76</td>
<td>76</td>
<td>100</td>
<td>76</td>
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<tr>
<td>Best efficiency point</td>
<td>%</td>
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<td>70</td>
<td>77</td>
<td>70</td>
<td>60</td>
<td>70</td>
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<tr>
<td>Max. absorbed power</td>
<td>kW</td>
<td>7,5</td>
<td>17</td>
<td>27</td>
<td>40</td>
<td>65</td>
<td>29</td>
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### Engine

<table>
<thead>
<tr>
<th>Emission compliance</th>
<th>EU (Stage)</th>
<th>Stage V</th>
<th>Stage V</th>
<th>Stage V</th>
<th>Stage V</th>
<th>Stage IV</th>
<th>Stage V</th>
<th>Stage IV</th>
<th>Stage IV</th>
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<tbody>
<tr>
<td>LRC (Tier)</td>
<td>T3</td>
<td>T2-T3</td>
<td>T2-T3</td>
<td>T2-T3</td>
<td>T2-T3</td>
<td>T2-T3</td>
<td>T2-T3</td>
<td>T2-T3</td>
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<td>Max. engine power</td>
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<td>24,3</td>
<td>28,4</td>
<td>55</td>
<td>100</td>
<td>31,0</td>
<td>51,2</td>
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<td>2000</td>
<td>2000</td>
<td>1500</td>
<td>2000</td>
<td>2200</td>
<td>2200</td>
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<tr>
<td>Max. fuel autonomy</td>
<td>h</td>
<td>120</td>
<td>51</td>
<td>48</td>
<td>45</td>
<td>24</td>
<td>45</td>
<td>27</td>
<td>22</td>
</tr>
</tbody>
</table>

### Weight and dimensions

| Weight (dry) | kg | 900 | 1260 | 1400 | 1650 | 2600 | 1400 | 1680 | 2250 | 4200 |
| Length       | mm | 1850| 2250 | 2250 | 2560 | 2610 | 2250 | 2560 | 2610 | 3900 |
| Width        | mm | 1100| 1100 | 1100 | 1100 | 1225 | 1100 | 1100 | 1225 | 2200 |
| Height       | mm | 1480| 1550 | 1550 | 1705 | 1840 | 1550 | 1705 | 1840 | 2000 |
Performance curves

- **PAS 80MF 202**

- **PAS 100MF 250**

- **PAS 100HF 250**

- **PAS 150MF 250**

- **PAS 150HF 300**

- **PAS 200MF 310**

- **PAS 200HF 305**

- **PAS 300MF 401**

- **PAS 300HF 440**
# VAR range

## Technical data

<table>
<thead>
<tr>
<th>Specifications</th>
<th>VAR 4-250</th>
<th>VAR 6</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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<tbody>
<tr>
<td>Max. head m</td>
<td>40*</td>
<td>26</td>
<td>33</td>
<td>35</td>
<td>39</td>
<td>29,3</td>
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<tr>
<td>Max. capacity m³/h</td>
<td>180</td>
<td>300</td>
<td>340</td>
<td>560</td>
<td>690</td>
<td>1400</td>
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<tr>
<td>Suction / discharge size</td>
<td>Threaded 4” BSP</td>
<td>Flanged DN 150 D.I. 1882 (6”)</td>
<td>Flanged DN 150 D.I. 1882 (6”)</td>
<td>Flanged DN 200 UNI 6082 (8”)</td>
<td>Flanged DN 250 D.I. 1882 (10”)</td>
<td>Flanged DN 300 UNI 6082 (12”)</td>
</tr>
<tr>
<td>Max. solids handling mm</td>
<td>50</td>
<td>50</td>
<td>76</td>
<td>76</td>
<td>76</td>
<td>70</td>
</tr>
<tr>
<td>Best efficiency point %</td>
<td>65</td>
<td>65</td>
<td>60</td>
<td>53</td>
<td>70</td>
<td>54</td>
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<tr>
<td>Max. absorbed power kW</td>
<td>16,5</td>
<td>14</td>
<td>25</td>
<td>31</td>
<td>45</td>
<td>85,5</td>
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**Engine**

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<td>T2 - T3</td>
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<tr>
<td>Max. engine power kW</td>
<td>24,3</td>
<td>19</td>
<td>28,4</td>
<td>33,6</td>
<td>47,7</td>
<td>79,1</td>
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<tr>
<td>Max. operating speed rpm</td>
<td>2000</td>
<td>1800</td>
<td>2000</td>
<td>1800</td>
<td>1800</td>
<td>1150</td>
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</tr>
<tr>
<td>Max. fuel autonomy h</td>
<td>48</td>
<td>45</td>
<td>42</td>
<td>50</td>
<td>47</td>
<td>29</td>
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</table>

**Weight and dimensions**

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

* Applicable for T2-T3 models only, for Stage 5 Variant max head is 32m

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

GENERATORS

PORTABLE
1.6–12 kVA

MOBILE
9–1250 kVA

INDUSTRIAL
10–2250 kVA

LARGE POWER
800–1450 kVA

*Multiple configurations available to produce power for any size application

DEWATERING PUMPS

ELECTRIC SUBMERSIBLE
250–16,200 l/min

SURFACE PUMPS
833–23,300 l/min

ENERGY STORAGE SYSTEMS

ENERGY STORAGE SYSTEMS

ZENERGIZE

LIGHT TOWERS

DIESEL

BATTERY

ELECTRIC

Diesel and electric options available

AIR COMPRESSORS AND HANDHELD TOOLS

AIR COMPRESSORS
1–116 m³/min
7–345 bar

HANDHELD TOOLS
Pneumatic
Hydraulic
Petrol engine driven

FLEETLINK
Intelligent telematics is a system that helps optimize fleet usage and reduce maintenance, ultimately saving time and cutting operating costs.

ONLINE SOLUTIONS

SHOP ONLINE
PARTS ONLINE
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.

LIGHT THE POWER: YOUR SIZING TOOL
A useful calculator to help you choose the best solution for your power and light needs.

Atlas Copco Power Technique
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