One range of quality pumps for the Home, Garden and Farm
WHAT PUMP DO I NEED?

<table>
<thead>
<tr>
<th>Application</th>
<th>Household water supply</th>
<th>Drainage</th>
<th>Irrigation</th>
<th>Water transfer</th>
<th>Other</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Water source</th>
<th>Above ground tank</th>
<th>Underground tank</th>
<th>River</th>
<th>Dam</th>
<th>Other</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Power supply</th>
<th>240 V single phase</th>
<th>415 V three phase</th>
</tr>
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<table>
<thead>
<tr>
<th>Water requirement</th>
<th>Household</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>House only</td>
</tr>
<tr>
<td></td>
<td>House and garden</td>
</tr>
<tr>
<td></td>
<td>Showers (number)</td>
</tr>
<tr>
<td></td>
<td>Sprinklers (number)</td>
</tr>
<tr>
<td></td>
<td>Sprinklers (type)</td>
</tr>
<tr>
<td></td>
<td>Evaporative airconditioner connected</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Irrigation</th>
<th>Sprinklers (number)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Sprinklers (type)</td>
</tr>
<tr>
<td></td>
<td>Automatic Operation</td>
</tr>
<tr>
<td></td>
<td>Manual Operation</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Drainage and Water transfer</th>
<th>Lift from pump (A) to point of discharge (B)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Details of existing pipeline</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type (Polyethylene/PVC/Copper/Steel)</td>
</tr>
<tr>
<td></td>
<td>Length (m)</td>
</tr>
</tbody>
</table>

HOW MUCH PRESSURE (P)?

\[ P = \left( \begin{array}{c} \text{Hd} \\ \text{Hs} \\ \text{Hf} \\ \text{Pr} \end{array} \right) \]

**P** = Pump Head

**Hd** = Height difference between the pump and the highest point of use

**Hs** = Pressure already available at the pump level (tank example with positive suction head). If you pump water under the level of the pump (well, river, underground tank), contact your Dealer in order to calculate the suction lift and to select the right pump

**Hf** = Friction loss or pipe resistance to water flow

**Pr** = Residual pressure, i.e. the required pressure at the tap, shower or sprinkler. As a guide, shower head, standard ½” tap or sprinkler requires approx. 150 kPa (15 m or 21 psi)

**Example**

**Q** (Flow rate) = 60 L/min = 4 (sprinklers) x 15 L/min

Hs = 2 m

Hd = 15 m

Hf = 3.6 m

(50 m of 40 mm Poly Pipe - see Friction Loss Chart, page 48)

Pr = 15 m (150 kPa)

\[ P = 15 - 2 + 3.6 + 15 = 31.6 \text{ m} = 310 \text{ kPa} = 44 \text{ psi} \]

CALCULATE THE PRESSURE

**Q** = ( ) L/min
WHAT PUMP DO I NEED?

Application

- Household water supply
- Drainage
- Irrigation
- Water transfer
- Other

Water source

- Above ground tank
- Underground tank
- River
- Dam
- Other

Power supply

- 240 V single phase
- 415 V three phase

Water requirement

Household

- House only
- House and garden
- Showers (number)
- Sprinklers (number)

Sprinklers (type)

- Automatic Operation
- Manual Operation

Drainage and Water transfer

- Lift from pump (A) to point of discharge (B)

Details of existing pipeline

- Size (mm)
- Type (Polyethylene/PVC/Copper/Steel)
- Length (m)

HOW MUCH FLOW (Q)?

Water pressure systems

- ✔

Weekend cottage 10 to 20 L/min
- Small home 20 to 30 L/min
- Average home 30 to 50 L/min
- Large home 50 to 90 L/min

Average water consumption

- No.
- Standard shower head 15 L/min
- Water saving shower head 6-7 L/min
- Household standard tap 10-15 L/min
- Tap with aerator or flow restrictor 4-6 L/min
- Lawn sprinkler 10-15 L/min

Drainage and effluent

- See your Grundfos dealer

P = Pump Head

Hd = Height difference between the pump and the highest point of use

Hs = Pressure already available at the pump level (tank example with positive suction head). If you pump water under the level of the pump (well, river, underground tank), contact your Dealer in order to calculate the suction lift and to select the right pump

Hf = Friction loss or pipe resistance to water flow

Pr = Residual pressure, i.e. the required pressure at the tap, shower or sprinkler. As a guide, shower head, standard ½” tap or sprinkler requires approx. 150 kPa (15 m or 21 psi)

HOW MUCH PRESSURE (P)?

Example

- Q (Flow rate) = 60 L/min = 4 (sprinklers) x 15 L/min
- Hs = 2 m
- Hd = 15 m
- Hf = 3.6 m (50 m of 40 mm Poly Pipe - see Friction Loss Chart, page 48)
- Pr = 15 m (150 kPa)
- P = 15 - 2 + 3.6 + 15 = 31.6 m = 310 kPa = 44 psi

CALCULATE THE PRESSURE

P = (       ) Hd - (       ) Hs + (       ) Hf + (       ) Pr

CALCULATE THE FLOW RATE

Q = (       ) L/min

PRODUCT PAGES
GRUNDFOS SCALA2 is a robust, composite, variable speed pump that adjusts performance according to water demand, providing constant pressure to all taps. The fully integrated pump includes a motor, tank, sensor, drive and non-return valve in one compact unit that is quick and easy to install. The SCALA2 is self-priming, allowing for use from both above and below ground water sources and the water-cooled motor ensures quiet operation.

**FEATURES**

**Variable Speed**
The pump adjusts performance according to water demand, providing constant pressure to all taps regardless of variations in demand or inlet pressure.

**Self-Priming**
Ideal for pressurising water from above or below ground water sources with a suction lift of up to 8 metres and self-priming up to 4 metres.

**Energy Efficient**
The pump features a permanent magnet motor to help reduce power consumption while the frequency controller matches the power consumption with the required water output, also helping to conserve energy and reduce energy bills.

**Simple Selection**
One model to suit most domestic applications makes selection easy.

**User Friendly**
The easy to use control panel features LED indicators displaying power status, pressure setting and alarm indicators lights.

**Protective Functions**
To protect the pump and help ensure a long life, a range of protective features are incorporated into the pump such as; dry-run protection, anti-cycling alarm, auto-reset and maximum continuous operation time (30 mins).

**Easy Installation**
Quick and easy installation in just three steps; connect the pipes, prime the pump and plug into the power outlet.

**Integrated Non-Return Valve**
No additional non-return valve required - plug and pump solution.

**APPLICATIONS**

- Mains boosting
- Household water supply
- Pressure boosting from above ground water tanks
- Pressure boosting from below ground water sources eg. Below ground tank/dam
GRUNDFOS SCALA2 is a robust, composite, variable speed pump that adjusts performance according to water demand, providing constant pressure to all taps. The fully integrated pump includes a motor, tank, sensor, drive and non-return valve in one compact unit that is quick and easy to install. The SCALA2 is self-priming, allowing for use from both above and below ground water sources and the water-cooled motor ensures quiet operation.

**APPLICATIONS**
- Mains boosting
- Household water supply
- Pressure boosting from above ground water tanks
- Pressure boosting from below ground water sources  eg. Below ground tank/dam

**FEATURES**
- Variable Speed
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- Self-Priming
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  The pump features a permanent magnet motor to help reduce power consumption while the frequency controller matches the power consumption with the required water output, also helping to conserve energy and reduce energy bills.
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  One model to suit most domestic applications makes selection easy.
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  The easy to use control panel features LED indicators displaying power status, pressure setting and alarm indicators lights.
- Protective Functions
  To protect the pump and help ensure a long life, a range of protective features are incorporated into the pump such as; dry-run protection, anti-cycling alarm, auto-reset and maximum continuous operation time (30 mins).
- Easy Installation
  Quick and easy installation in just three steps; connect the pipes, prime the pump and plug into the power outlet.
- Integrated Non-Return Valve
  No additional non-return valve required - plug and pump solution.

**OPERATING CONDITIONS**
- System pressure
  Max. 10 bar
- Liquid temperature
  0°C to + 45°C
- Ambient temperature
  Max. 55°C

**TECHNICAL DATA**
- Mains voltage
  1 x 240 V, 50 Hz
- Enclosure class
  F
- Insulation class
  X4D (suitable for outdoor installation)
- Sound pressure level
  <47 dBA
- Approvals and markings
  ASNZ4020, CE

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Input (kW)</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCALA2</td>
<td>0.55</td>
<td>H1 302, H2 234, H3 114, L 403, W 193, A1 1&quot;, A2 1&quot;</td>
<td>10</td>
</tr>
</tbody>
</table>
CME Booster / CME TWIN Booster

A variable speed pump that adjusts accordingly to water demand, resulting in lower running costs. All wetted components are constructed from high quality stainless steel ensuring the water quality is not affected by pump materials. The pump will provide constant pressure at the tap (up to pump capacity), regardless of variation in demand or inlet pressure.

The CME TWIN Booster system consists of two CME Boosters connected in parallel and mounted on a common base plate.

**FEATURES**

**Robust design**
All wetted parts are made from high quality stainless steel to ensure the longest life possible.

**Energy saving**
The frequency controller of the CME Booster matches the power consumption with the required water output, helping to conserve energy.

**Easy installation**
The CME Booster is very easy to install. Once the booster has been connected to the pipework, it is simply a matter of putting the plug into a socket, and the system is operational.

**Quiet operation**
The CME Booster operates quietly, at around 55 decibels, significantly quieter than most pumps currently available on the market.

**User-friendly interface**
The user-friendly interface features LED indicators showing operational status and buttons for pressure adjustment.

**Protective features**
The CME Booster features dry run protection to automatically stop the pump if the water source runs out. The pump is also protected against any accidental overload by built-in thermal protection. These protective features help to ensure the longest life possible.

**Cascade Control**
CME TWIN Booster cascade control ensures that the performance automatically adapts to demand by switching pumps on or off and by changing the speed of the pumps in operation.

**Applications**
- Mains boosting
- Household water supply
- Pressure boosting from above ground water tanks
- Light industrial use

**Technical Data**

- **Mains voltage**: 1 x 240 V, 50 Hz
- **Enclosure class**: IP55
- **Insulation class**: F
- **Sound pressure level**: < 55 dB
- **Approvals and markings**: ASNZ4020, CE
CME Booster / CME TWIN Booster

PERFORMANCE

CME Booster

OPERATING CONDITIONS

System pressure
Max. 10 bar

Liquid temperature
0 °C to 60 °C

Ambient temperature
Max. 55 °C

Relative air humidity
Max. 95 %

DIMENSIONS

CME Booster

TECHNICAL DATA

Mains voltage
1 x 240 V, 50 Hz

Enclosure class
IP55

Insulation class
F

Sound pressure level
< 55 dB

Approvals and markings
ASNZ4020, CE

Model | Power (kW) | Connections | Dimensions (mm) | Weight (kg)
------|------------|-------------|-----------------|---------
CMBE 1-44 | 0.55 | 1” F | 1” F | 345 | 467 | 221 | 75 | 239 | 16.1
CMBE 3-62 | 1.1 | 1” F | 1” F | 345 | 467 | 221 | 75 | 239 | 17.4
CMBE 5-62 | 1.5 | 1” F | 1¼” F | 345 | 467 | 221 | 75 | 239 | 18.8

Model | Power (kW) | Connections | Dimensions (mm) | Weight (kg)
------|------------|-------------|-----------------|---------
CMBE TWIN 3-62 | 1.21 | 1” F | 1” F | 485 | 235 | 110 | 475 | 344 | 40kg
CMBE TWIN 3-93 | 1.72 | 1” F | 1” F | 495 | 250 | 125 | 475 | 404 | 44kg
CMBE TWIN 5-62 | 1.72 | 1” F | 1¼” F | 495 | 250 | 125 | 475 | 350 | 45kg

Old models

<table>
<thead>
<tr>
<th>CH-PC</th>
<th>CM Booster</th>
<th>CME Booster</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH2-40 PC</td>
<td>CMB 3-3</td>
<td>CMBE 1-44</td>
</tr>
<tr>
<td>CH4-50 PC</td>
<td>CMB 5-5</td>
<td>CMBE 3-62</td>
</tr>
<tr>
<td>CH4-60 PC</td>
<td>CMB 5-62</td>
<td></td>
</tr>
</tbody>
</table>

Please Note: Conversion at 250 kPa
CM Booster Self-Priming

The Grundfos CM Booster Self-Priming is a compact booster pump designed for domestic and light industrial use. The booster unit consists of a robust multistage centrifugal pump and a generator friendly PM1 or PM2 Pressure Manager. The Pressure Manager allows the pump to start and stop automatically according to demand and protects the pump from dry running. The CM Booster Self-Priming is the perfect solution if you are struggling with insufficient mains pressure, and can also be used with above or below ground water sources.

FEATURES

Self-priming
With a suction lift of up to 8 metres (self-priming up to 4 metres), the CM Booster Self-Priming is ideal for pressurising water from above or below ground water sources.

Robust design
All wetted parts are made from high quality, corrosion resistant stainless steel to ensure the longest life possible.

User-friendly interface
The pump features a user-friendly interface with LED indicators displaying power status, pump running, alarm indication and pressure indication (excluding CMB-SP 1-36).

Protective features
The pump incorporates a range of protective features such as; dry run protection, thermal overload protection, cycling alarm and maximum continuous operation time - 30 mins (excluding CMB-SP 1-36) to protect the pump and ensure a long life.

Easy installation
The booster unit is a compact and adaptable solution, which makes it suitable for most installations. Simply connect the inlet and outlet and adjust the start pressure to suit individual requirements and you have a fully operational booster unit.

Integrated non-return valve
Non-return valve for backflow prevention.

APPLICATIONS

- Mains boosting
- Household water supply
- Boosting from above ground water tanks
- Boosting from below ground water sources e.g. below ground tank/dam
- Light industrial use
CM Booster Self-Priming

**PERFORMANCE**

<table>
<thead>
<tr>
<th>Model</th>
<th>Power (kW)</th>
<th>Connections</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMB-SP 1-36</td>
<td>0.5</td>
<td>1” M 1” F</td>
<td>377 317 75</td>
<td>14.1</td>
</tr>
<tr>
<td>CMB-SP 3-28</td>
<td>0.5</td>
<td>1” M 1” F</td>
<td>377 317 75</td>
<td>13.7</td>
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<tr>
<td>CMB-SP 3-37</td>
<td>0.5</td>
<td>1” M 1” F</td>
<td>377 317 75</td>
<td>14.1</td>
</tr>
<tr>
<td>CMB-SP 3-47</td>
<td>0.5</td>
<td>1” M 1” F</td>
<td>413 317 75</td>
<td>14.4</td>
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<tr>
<td>CMB-SP 3-56</td>
<td>0.67</td>
<td>1” M 1” F</td>
<td>453 317 75</td>
<td>16.4</td>
</tr>
<tr>
<td>CMB-SP 5-28</td>
<td>0.5</td>
<td>1” M 1” F</td>
<td>377 317 75</td>
<td>13.7</td>
</tr>
<tr>
<td>CMB-SP 5-47</td>
<td>0.9</td>
<td>1” M 1” F</td>
<td>453 317 75</td>
<td>16.9</td>
</tr>
</tbody>
</table>

**OPERATING CONDITIONS**

- **System pressure**
  Max. 10 bar

- **Liquid temperature**
  0 °C to 60 °C

- **Ambient temperature**
  Max. 55 °C

- **Relative air humidity**
  Max. 95 %

**TECHNICAL DATA**

- **Mains voltage**
  1 x 240 V, 50 Hz

- **Enclosure class**
  IP55

- **Insulation class**
  F

- **Sound pressure level**
  55 dB

- **Start/stop frequency**
  Max. 100 per hour

- **Approvals and markings**
  ASNZ4020, CE

**APPLICATIONS**

- Mains boosting
- Household water supply
- Boosting from above ground water tanks
- Boosting from below ground water sources
  e.g. below ground tank/dam
- Light industrial use

**FEATURES**

- **Self-priming**
  With a suction lift of up to 8 metres (self-priming up to 4 metres), the CM Booster Self-Priming is ideal for pressurising water from above or below ground water sources.

- **Robust design**
  All wetted parts are made from high quality, corrosion resistant stainless steel to ensure the longest life possible.

- **User-friendly interface**
  The pump features a user-friendly interface with LED indicators displaying power status, pump running, alarm indication and pressure indication (excluding CMB-SP 1-36).

- **Protective features**
  The pump incorporates a range of protective features such as; dry run protection, thermal overload protection, cycling alarm and maximum continuous operation time - 30 mins (excluding CMB-SP 1-36) to protect the pump and ensure a long life.

- **Easy installation**
  The booster unit is a compact and adaptable solution, which makes it suitable for most installations. Simply connect the inlet and outlet and adjust the start pressure to suit individual requirements and you have a fully operational booster unit.

- **Integrated non-return valve**
  Non-return valve for backflow prevention.

**CM Booster Self-Priming**

- A compact booster pump designed for domestic and light industrial use. The booster unit consists of a robust multistage centrifugal pump and a generator friendly PM1 or PM2 Pressure Manager. The Pressure Manager allows the pump to start and stop automatically according to demand and protects the pump from dry running. The CM Booster Self-Priming is the perfect solution if you are struggling with insufficient mains pressure, and can also be used with above or below ground water sources.
The Grundfos CMBasic is a compact booster pump designed for domestic and light industrial use. The booster unit consists of a Grundfos CM cast iron pump with stainless steel hydraulic components and PM1 Pressure Manager. The Pressure Manager allows the pump to start and stop automatically according to demand and protects the pump from dry running.

**FEATURES**

**Robust design**
All moving parts are made from high quality, corrosion resistant stainless steel to ensure the longest life possible.

**User-friendly interface**
The pump features a user-friendly interface with LED indicators displaying power status, pump running, and alarm indication.

**Protective features**
The pump incorporates a range of protective features such as dry run protection, thermal overload protection, and cycling alarm to protect the pump and ensure a long life.

**Easy installation**
The booster unit is a compact solution, which makes it suitable for most installations. Simply connect the inlet and outlet and you have a fully operational booster unit.

**Integrated non-return valve**
Non-return valve for backflow prevention.

**APPLICATIONS**

- Household water supply
- Boosting from above ground water tanks
- Light industrial use
PERFORMANCE

OPERATING CONDITIONS
System pressure
Max. 10 bar

Liquid temperature
0 °C to 60 °C

Ambient temperature
Max. 55 °C

Relative air humidity
Max. 95 %

TECHNICAL DATA
Mains voltage
1 x 240 V, 50 Hz

Enclosure class
IP55

Insulation class
F

Sound pressure level
50-60 dB

Start/stop frequency
Max. 100 per hour

Approvals and markings
CE

DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Power (kW)</th>
<th>Connections</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMBasic 1-36</td>
<td>0.5</td>
<td>1” M 1” F</td>
<td>323 75 317</td>
<td>13.3</td>
</tr>
<tr>
<td>CMBasic 3-37</td>
<td>0.5</td>
<td>1” M 1” F</td>
<td>323 75 317</td>
<td>13.3</td>
</tr>
<tr>
<td>CMBasic 5-46</td>
<td>0.9</td>
<td>1” M 1¼” F</td>
<td>381 75 317</td>
<td>16.0</td>
</tr>
</tbody>
</table>
CM-PS

FEATURES

Robust design
All wetted parts are made from high quality stainless steel including the impeller, pump housing and shaft to ensure the longest life possible.

Automatic operation
The built-in pressure switch automatically starts and stops the pump according to demand.

Easy installation
The booster unit is a compact solution, which makes it suitable for most installations. Simply connect your own pressure tank, inlet and outlet, and you have a fully operational booster unit.

Great system comfort
The diaphragm tank increases system comfort by limiting the switching frequency of the pump and compensating for pressure drops when a tap is opened. It also reduces problems with water hammer in the pipework.

Motor protection
The pump is effectively protected against any accidental overload, by built-in thermal and current protection. This means that no additional motor protection is required.

APPLICATIONS

- Mains boosting
- Boosting from above ground water tanks

<table>
<thead>
<tr>
<th>Model</th>
<th>Connection size (mm)</th>
<th>Capacity (L)</th>
<th>Mounting type</th>
<th>Max pressure (kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-H-18 PN10 G1 V</td>
<td>1” M</td>
<td>18</td>
<td>Pipe</td>
<td>1000</td>
</tr>
<tr>
<td>GT-H-18 PN16 G1 V</td>
<td>1” M</td>
<td>18</td>
<td>Pipe</td>
<td>1600</td>
</tr>
<tr>
<td>GT-H-60 PN10 G1 V</td>
<td>1” F</td>
<td>60</td>
<td>Free standing</td>
<td>1000</td>
</tr>
<tr>
<td>GT-H-80 PN10 G1 V</td>
<td>1” F</td>
<td>80</td>
<td>Free standing</td>
<td>1000</td>
</tr>
<tr>
<td>GT-H-80 PN16 G1 V</td>
<td>1” F</td>
<td>80</td>
<td>Free standing</td>
<td>1600</td>
</tr>
<tr>
<td>GT-H-100 PN10 G1 V</td>
<td>1” F</td>
<td>100</td>
<td>Free standing</td>
<td>1000</td>
</tr>
<tr>
<td>GT-D-130 PN10 G1 V</td>
<td>1” F</td>
<td>130</td>
<td>Free standing</td>
<td>1000</td>
</tr>
<tr>
<td>GT-D-200 PN10 G1 1/4 V</td>
<td>1½” F</td>
<td>170</td>
<td>Free standing</td>
<td>1000</td>
</tr>
<tr>
<td>GT-D-240 PN10 G1 1/4 V</td>
<td>1½” F</td>
<td>240</td>
<td>Free standing</td>
<td>1000</td>
</tr>
<tr>
<td>GT-D-300 PN10 G1 1/4 V</td>
<td>1½” F</td>
<td>300</td>
<td>Free standing</td>
<td>1000</td>
</tr>
<tr>
<td>GT-D-450 PN10 G1 1/4 V</td>
<td>1½” F</td>
<td>450</td>
<td>Free standing</td>
<td>1000</td>
</tr>
</tbody>
</table>

Note: Recommended tank size is dependant on application. To avoid rapid cycling Grundfos recommends the following tank sizes:
CM1 > 80 L  CM3 > 200 L  CMS > 300 L  CM10 - 450 L

The CM-PS is a compact booster solution designed for domestic and light industrial use. The booster unit consists of a robust CM pump, 5-way valve and a pressure switch. To complete the booster system a pressure tank must be fitted. The pressure switch and pressure tank ensure a convenient water supply with a minimum start/stop frequency.
OPERATING CONDITIONS

System pressure
Max. 10 bar

Liquid temperature
0 °C to 60 °C

Ambient temperature
Max. 60 °C

Relative air humidity
Max. 95 %

TECHNICAL DATA

Mains voltage
1 x 240 V, 50 Hz

Enclosure class
IP55

Insulation class
F

Sound pressure level
50-60 dB

Start/stop frequency
Max. 100 per hour

Approvals and markings
ASNZ4020, CE
The Grundfos JPB is a compact self-priming booster solution for domestic water supply. It consists of a robust single-stage jet pump and is available with a Pressure Manager. Together these components ensure great comfort by automatically starting and stopping the pump according to your demand. Furthermore, the booster unit offers integrated protective functions protecting your investment. The JPB is easy to install, a simple matter of plug and pump. The JPB 5 & 6 are also available as a bare pump without the pressure manager.

**FEATURES**

**Self-priming**
With a suction-lift up to 7 metres, this booster unit is ideal for pumping from below ground level. This feature makes the booster unit suitable for a large variety of installations.

**Robust design**
The pump is made with materials that ensure excellent corrosion resistance. The pump housing and impeller are made of high quality stainless steel, while the rest of the pump is electrophoretically painted.

**User-friendly interface**
The booster versions include a user-friendly interface with LED indicators which shows, power on, pump running and alarm indication.

**Protective features**
The Pressure Manager incorporates features to protect both the pump and installation including dry running protection and cycling alarm.

**Easy installation**
The booster unit is a compact solution, which makes it suitable for most installations. Simply connect the inlet and outlet and you have a fully operational booster unit.

**Integrated non-return valve**
No additional fittings required for an above ground tank installation.

**APPLICATIONS**

- Below and above ground water source with a suction lift up to 7 metres
### FEATURES
- **Self-priming**
  - With a suction-lift up to 7 metres, this booster unit is ideal for pumping from below ground level. This feature makes the booster unit suitable for a large variety of installations.
- **Robust design**
  - The pump is made with materials that ensure excellent corrosion resistance. The pump housing and impeller are made of high quality stainless steel, while the rest of the pump is electrophoretically painted.
- **User-friendly interface**
  - The booster versions include a user-friendly interface with LED indicators which shows, power on, pump running and alarm indication.
- **Protective features**
  - The Pressure Manager incorporates features to protect both the pump and installation including dry running protection and cycling alarm.
- **Easy installation**
  - The booster unit is a compact solution, which makes it suitable for most installations. Simply connect the inlet and outlet and you have a fully operational booster unit.
- **Integrated non-return valve**
  - No additional fittings required for an above ground tank installation.

### APPLICATIONS
- Below and above ground water source with a suction lift up to 7 metres

### OPERATING CONDITIONS
- **System pressure**
  - Max. 6 bar
- **Suction lift**
  - Max. 7 metres, including suction pipe pressure loss at a liquid temperature of 20 °C
- **Liquid temperature**
  - 0 °C to 40 °C
- **Ambient temperature**
  - -20 °C to 45 °C
- **Relative air humidity**
  - Max. 95 %

### TECHNICAL DATA
- **Mains voltage**
  - 1 x 240 V, 50 Hz (JP Booster PM)
- **Enclosure class**
  - IP44
- **Insulation class**
  - F
- **Sound pressure level**
  - 72 dB
- **Start/stop frequency**
  - Max. 100 per hour
- **Approvals and markings**
  - CE, C-tick, GHOST TR

### PERFORMANCE

![Performance Graph](image)

### DIMENSIONS

![Dimensions Diagram](image)

<table>
<thead>
<tr>
<th>Model</th>
<th>Power (kW)</th>
<th>Connections</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP 5</td>
<td>0.48</td>
<td>1” M, 1” M</td>
<td>A: 364, B: 206, C: 411, D: 240</td>
<td>8.5</td>
</tr>
<tr>
<td>JP 6</td>
<td>0.92</td>
<td>1” M, 1” M</td>
<td>A: 401, B: 206, C: 411, D: 240</td>
<td>10.0</td>
</tr>
</tbody>
</table>
The Grundfos JPC is a compact booster pump designed for domestic and garden use. The booster unit consists of a Grundfos JPC self-priming, composite, single-stage jet-pump, with PM1 Pressure Manager. The Pressure Manager allows the pump to start and stop automatically according to demand and protects the pump from dry running.

The JPC is also available with a pressure tank and switch or bare pump with no controller.

**FEATURES**

**Self-priming**
With a suction-lift up to 7 metres, this pump is ideal for transferring water from wells or ground tanks. This feature makes this pump ideal for a large variety of installations.

**Robust design**
The materials of the pump are lightweight and ensure excellent corrosion resistance.

**Protective features**
The Booster version incorporates functions to protect both the pump and installation. These protective functions are dry running protection and cycling alarm.

**Stable operation**
The pump ensures stable operation with excellent suction capacity even when there are air bubbles and small sandy impurities in the water.

**User friendly interface**
The booster versions includes a user-friendly interface with LED indicators which shows, power on, pump running and alarm indication.

**APPLICATIONS**

- Domestic rainwater

**TECHNICAL DATA**

**Mains voltage**
1 x 240 V, 50 Hz

**Enclosure class**
IP65

**Insulation class**
F

**Sound pressure level**
JPC 2: 83 dB
JPC 3: 85 dB
JPC 4: 88 db

**Start/stop frequency**
Max. 20 per hour

**Approvals and markings**
C-tick, CE, GOST
## Model Power

<table>
<thead>
<tr>
<th>Model</th>
<th>Power (kW)</th>
<th>Connections</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JPC3-42 PM1</td>
<td>0.44</td>
<td>1&quot; M 1&quot; F</td>
<td>A 170 B 406 C 360 D 143 E 120 F 122</td>
<td>8.0</td>
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<tr>
<td>JPC4-47 PM1</td>
<td>0.60</td>
<td>1&quot; M 1&quot; F</td>
<td>A 170 B 406 C 360 D 143 E 120 F 122</td>
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<tr>
<td>JPC4-54 PM1</td>
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<td>1&quot; M 1&quot; F</td>
<td>A 230 B 425 C 365 D 143 E 120 F 122</td>
<td>10.5</td>
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</table>

## Applications

- Domestic rainwater

## Features

- **Self-priming**: With a suction-lift up to 7 metres, this pump is ideal for transferring water from wells or ground tanks. This feature makes this pump ideal for a large variety of installations.
- **Robust design**: The materials of the pump are lightweight and ensure excellent corrosion resistance.
- **Protective features**: The Booster version incorporates functions to protect both the pump and installation. These protective functions are dry running protection and cycling alarm.
- **Stable operation**: The pump ensures stable operation with excellent suction capacity even when there are air bubbles and small sandy impurities in the water.
- **User friendly interface**: The booster versions include a user-friendly interface with LED indicators which shows power on, pump running and alarm indication.

The Grundfos JPC is a compact booster pump designed for domestic and garden use. The booster unit consists of a Grundfos JPC self-priming, composite, single-stage jet-pump, with PM1 Pressure Manager. The Pressure Manager allows the pump to start and stop automatically according to demand and protects the pump from dry running.

The JPC is also available with a pressure tank and switch or bare pump with no controller.

## Technical Data

- **Mains voltage**: 1 x 240 V, 50 Hz
- **Enclosure class**: IP65
- **Insulation class**: F
- **Sound pressure level**:
  - JPC 2: 83 dB
  - JPC 3: 85 dB
  - JPC 4: 88 db
- **Start/stop frequency**: Max. 20 per hour
- **Approvals and markings**: C-tick, CE, GOST

## Operating Conditions

### System pressure
Max. 6 bar

### Suction lift
Max: 8 metres, including suction pipe pressure loss at a liquid temperature of 20 °C

### Liquid temperature
0 °C to 35 °C

### Ambient temperature
Max. 40 °C

### Relative air humidity
Max. 95 %
The Grundfos SB pump is a submersible booster pump designed for the pumping of clean water for domestic and rainwater applications. The SB submersible pump is silent when submerged and therefore a noiseless alternative to surface mounted pumps. The SB pump is built of high quality composite and stainless steel materials that are resistant to corrosion. The SB is ideal for operation in a well or ground tanks, as it easily prevents solid particles from entering the pump. Furthermore, the pump features a flow switch which ensures the user a convenient experience with automatic start/stop operation and dry running protection of the pump.

**FEATURES**

**Noiseless operation**
The SB pump emits no noise when submerged and is therefore a noiseless alternative to non-submersible pumps.

**Robust design**
The SB pump is built of composite and stainless steel materials which are resistant to corrosion.

**Thermal overload protection**
The single-phase model is effectively protected against any accidental overload, by built in thermal protection.

**Dry running protection**
The SB pump is protected from dry running, by means of the function of the flow switch.

**Automatic operation**
The flow switch for the SB pump ensures automatic operation by means of the water level in tank.

**APPLICATIONS**
- Boosting from wells (less than 8 meters) and domestic rainwater
PERFORMANCE

![Graph showing performance of SB pumps]

OPERATING CONDITIONS

- Maximum particle size: 1 mm
- Ambient temperature: Max 50 °C
- Liquid temperature: 0 to 40 °C
- pH-value range: 4-9

TECHNICAL DATA

- Mains voltage: 1 x 240 V, 50 Hz
- Insulation class: B
- Enclosure class: IP68
- Max installation depth: 10 m
- Approvals and markings: EAC, CSA, C-tick

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable (m)</th>
<th>Power (kW)</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB 3-35</td>
<td>15</td>
<td>0.8</td>
<td>1&quot; F</td>
<td>A 536 B 390 C 150</td>
<td>9.4</td>
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<tr>
<td>SB 3-45</td>
<td>15</td>
<td>1.05</td>
<td>1&quot; F</td>
<td>A 584 B 415 C 150</td>
<td>9.7</td>
</tr>
<tr>
<td>SB 3-35 AW</td>
<td>15</td>
<td>0.8</td>
<td>1&quot; F</td>
<td>A 621 B 528 C 150</td>
<td>10.3</td>
</tr>
<tr>
<td>SB 3-45 AW</td>
<td>15</td>
<td>1.05</td>
<td>1&quot; F</td>
<td>A 646 B 553 C 150</td>
<td>10.6</td>
</tr>
</tbody>
</table>

DIMENSIONS

![Dimensions diagram for SB and SB AW models]
The Grundfos SBA pump is a submersible booster pump designed for the pumping of clean water for domestic and rainwater applications. The SBA submersible pump is silent when submerged and therefore a noiseless alternative to surface mounted pumps. The SBA pump is built of high quality composite and stainless steel materials that are resistant to corrosion. The SBA is ideal for operation in a well or ground tanks. Furthermore, the pump features a flow switch which ensures the user a convenient experience with automatic start/stop operation and dry running protection of the pump.

FEATURES

Automatic control unit
Integrated control unit eliminates the need for an external pump controller - simply plug-and-pump.

Noiseless operation
The SBA pump emits no noise when submerged and is therefore a noiseless alternative to non-submersible pumps.

Robust design
The SBA pump is built of composite and stainless steel materials which are resistant to corrosion.

Integrated protection
SBA features integrated float switch for dry-running protection.

Automatic restart
SBA with float switch automatically restarts when water is added.

Overheat protection
Built-in thermal protection immediately stops the pump if it overheats. Having cooled down, the pump automatically restarts when it reaches a normal temperature.

Longer life
A Grundfos float switch prevents air from entering the system as a result of dry running.

APPLICATIONS

- Boosting from wells (less than 8 meters) and domestic rainwater tanks
PERFORMANCE

![Performance Graph]

OPERATING CONDITIONS

- **Maximum particle size**: 1 mm
- **Ambient temperature**: Max 50 °C
- **Liquid temperature**: 0 to 40 °C
- **pH-value range**: 4-9

TECHNICAL DATA

- **Mains voltage**: 1 x 240 V, 50 Hz
- **Insulation class**: B
- **Enclosure class**: IP68
- **Max installation depth**: 10 m
- **Approvals and markings**: EAC, CSA, C-tick, CE

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable (m)</th>
<th>Power (kW)</th>
<th>Connection size</th>
<th>Dimensions A (mm)</th>
<th>Dimensions B (mm)</th>
<th>Dimensions C (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBA 3-35</td>
<td>15</td>
<td>0.8</td>
<td>1” F</td>
<td>621</td>
<td>528</td>
<td>150</td>
<td>10.9</td>
</tr>
<tr>
<td>SBA 3-45</td>
<td>15</td>
<td>1.05</td>
<td>1” F</td>
<td>646</td>
<td>553</td>
<td>150</td>
<td>11.1</td>
</tr>
</tbody>
</table>

DIMENSIONS

![Dimensions Diagram]
The all-in-one Grundfos Pressure Manager is an intelligent waterworks that controls your pump in accordance with consumption in domestic water supply and booster systems. The Pressure Manager is suitable for toilets, washing machines and outside taps. This state-of-the-art product offers benefits from innovative Grundfos features including functionality, system integration, plug-and-pump convenience and ease of use. The Pressure Manager offers a choice of two excellent models: the PM1 for basic flexibility, and the PM2 for all-round control.

**FEATURES**

**Internal pressure tank**
The Pressure Manager incorporates a small internal pressure tank which minimises the number of starts and stops of the pump in case of minor leakages.

**Free position installation**
The Pressure Manager can freely be installed vertically, horizontally or at an angle, if you struggle with confined spaces. Furthermore, the display can be turned 360 degrees, so it is always readable.

**Integrated non-return valve**
Non-return valve for backflow prevention.

**PM 1 - Basic flexibility**
The PM1 is suitable for applications where there is a need to start and stop the pump according to consumption. It is the basic flexibility solution, offering pump start at 1.5 or 2.2 bar. The PM1 will start the pump when the starting pressure is reached and it will keep running as long as there is flow. It provides dry-running protection and a cycling alarm for increased safety. In addition, it is suitable for use on generators.

**PM 2 - All-round control**
The PM2 is the all-round control solution, offering adjustable pump start at 1.5 to 5 bar. This enables customisation to different types of installation and desired comfort levels. The start pressure is set inside the unit, whereas current pressure is read on the intuitive LED display on the front of the Pressure Manager. The PM2 starts the pump when the starting pressure is reached and keeps running as long as there is flow. It is equipped with an internal pressure tank to minimise starts and stops in the event of leakage in the installation. In addition, the PM2 can be optimised for operation with a large external pressure tank by enabling the 1-bar differential pressure function. This significantly reduces the number of operating hours of the pump in installations with a pressure tank. The PM2 is also suitable for use on generators.
**Pressure Manager**

**Pressure Loss**

![Pressure Loss Graph]

**Operating Conditions**

- **Max. operating pressure**: 10 bar
- **Minimum flow**: 1.0 L/min
- **Liquid temperature**: Max 60 °C
- **Ambient temperature**: Max. 45 °C
- **Maximum humidity**: 95 % RH

**Technical Data**

- **Mains voltage**: 1 x 240 VAC, 50 Hz
- **Enclosure class**: IP65
- **Sound pressure level**: at 0-4 m3/h 26 dB
- **Volume of internal pressure tank**: 0.1 L
- **Approvals and markings**: VDE, CB, C-tick, CE, GOST, RoHS, WRAS, ACS

<table>
<thead>
<tr>
<th>Model</th>
<th>Max Current (A)</th>
<th>Connections</th>
<th>Dimensions (mm)</th>
<th>Q/min (Lpm)</th>
<th>P Start (kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM 1-15</td>
<td>6</td>
<td>1” M 1” M</td>
<td>165 12 120 143 171</td>
<td>1 Lpm</td>
<td>150</td>
</tr>
<tr>
<td>PM 1-22</td>
<td>6</td>
<td>1” M 1” M</td>
<td>165 12 120 143 171</td>
<td>1 Lpm</td>
<td>220</td>
</tr>
<tr>
<td>PM2</td>
<td>10</td>
<td>1” M 1” M</td>
<td>175 12 120 143 171</td>
<td>1 Lpm</td>
<td>150-500</td>
</tr>
</tbody>
</table>

**Features**

- **Internal pressure tank**: Minimises the number of starts and stops of the pump in case of minor leakages.
- **Free position installation**: Can be installed vertically, horizontally or at an angle.
- **Display rotation**: Can be turned 360 degrees for readability.
- **Integrated non-return valve**: Prevents backflow.

**Pressure Manager**

The Pressure Manager is an intelligent waterworks that controls your pump in accordance with consumption in domestic water supply and booster systems. It is suitable for toilets, washing machines and outside taps. The Pressure Manager offers benefits from innovative Grundfos features including functionality, system integration, plug-and-pump convenience and ease of use. It offers a choice of two excellent models: the PM1 for basic flexibility, and the PM2 for all-round control.
The Grundfos PM Rain is a rain water harvesting device based on the Pressure Manager and is used in conjunction with a Grundfos pump. It ensures that all collected rainwater is used as first priority instead of precious drinking water, on applications such as toilets, laundry and watering the garden. It automatically starts the pump when it senses a demand and will switch over to mains water when your rainwater tank is empty or in the case of an electrical failure. Installation of the PM Rain is easy, simply connect it to your pipework.

No level sensor is needed for the rainwater tank.

**FEATURES**

**Easy installation**
The PM Rain incorporates a specially designed valve, which eliminates the need for a level sensor in the rainwater tank. This reduces installation time and cost.

**Certified for drinking water**
The PM Rain is WaterMark approved, and suitable for direct plumbing with main water.

**User-friendly display**
The PM Rain features a user-friendly display with LED indicators showing pump on, warning and indication of whether water is drawn from the rainwater tank or mains water supply.

**Protective functions**
The PM Rain incorporates functions which protect both the pump and the installation. These protective functions are dry-running protection, cycling alarm.

**Backflow prevention**
PM Rain features dual non-return valve for the mains water supply. This ensures that there will be no backflow into the mains supply eliminating the risk of contamination.

**APPLICATIONS**

- Rainwater harvesting with mains water back up

**OPERATING CONDITIONS**

- **System pressure**
  - Max. 10 bar

- **Liquid temperature**
  - 0 °C to 60 °C

- **Ambient temperature**
  - 0 °C to 55 °C

**TECHNICAL DATA**

- **Mains voltage**
  - 1 x 240 V, 50 Hz

- **Enclosure class**
  - IP65

- **Pstart**
  - 2.5 to 6 bar

- **Pstop**
  - Pstart+1 bar

- **Insulation class**
  - B

- **Sound pressure level**
  - 55 dB

- **Approvals and markings**
  - C-Tick, Watermark AS4020
## FEATURES

- **Easy installation**
  - The PM Rain incorporates a specially designed valve, which eliminates the need for a level sensor in the rainwater tank. This reduces installation time and cost.

- **Certified for drinking water**
  - The PM Rain is WaterMark approved, and suitable for direct plumbing with main water.

- **User-friendly display**
  - The PM Rain features a user-friendly display with LED indicators showing pump on, warning and indication of whether water is drawn from the rainwater tank or mains water supply.

- **Protective functions**
  - The PM Rain incorporates functions which protect both the pump and the installation. These protective functions are dry-running protection, cycling alarm.

- **Backflow prevention**
  - PM Rain features dual non-return valve for the mains water supply. This ensures that there will be no backflow into the mains supply eliminating the risk of contamination.

## DIMENSIONS

### Connections Dimensions (mm)

<table>
<thead>
<tr>
<th>Model</th>
<th>Connections</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMRain controller</td>
<td>Outlet (House)</td>
<td>Outlet (Garden)</td>
</tr>
<tr>
<td></td>
<td>¾&quot; F</td>
<td>1&quot; M</td>
</tr>
</tbody>
</table>

## OPERATING CONDITIONS

- **System pressure**
  - Max. 10 bar

- **Liquid temperature**
  - 0 °C to 60 °C

- **Ambient temperature**
  - 0 °C to 55 °C

## TECHNICAL DATA

- **Mains voltage**
  - 1 x 240 V, 50 Hz

- **Enclosure class**
  - IP65

- **Pstart**
  - 2.5 to 6 bar

- **Pstop**
  - Pstart+1 bar

- **Insulation class**
  - B

- **Sound pressure level**
  - 55 dB

- **Approvals and markings**
  - C-Tick, Watermark AS4020
The Grundfos GT pressure tanks for cold-water applications are longlife tanks for both domestic and industrial applications. The GT tank ensures controlled pressure in your water supply. The result of this is better comfort in your installation by limiting the start/stop frequency of your pump, compensation for pressure drops and eliminating water hammer in pipework. GT tanks can be integrated in many different installations with a wide variety of pumps. Grundfos offers a large range of tank types and sizes, ensuring the best possible tank for your installation.

**APPLICATIONS**

- Boost of city mains, break tank or boost from well > 8 metres

**FEATURES**

**Wide range of GT tanks**
The GT tanks are available in sizes from 8 to 5,000 litres, suitable for vertical installation. GT tanks in sizes 24 to 80 litres are also suitable for horizontal installation.

**Approved for drinking water**
The Grundfos GT tanks are approved for use with drinking water.

**Reducing start/stop frequency**
The GT tanks ensure controlled pressure in the water supply and thereby limit the switching frequency of the pump in case of low water consumption or leakage loss.

**Optimise comfort**
The GT tanks increase system comfort by compensating for pressure drops when a tap is opened and reduce problems with water hammer in the pipework.
### Pressure Tanks

#### PERFORMANCE

<table>
<thead>
<tr>
<th>Model</th>
<th>Connection Size</th>
<th>Dimensions (mm)</th>
<th>Capacity (L)</th>
<th>Mounting type</th>
<th>Max pressure (kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-H-2 PN10 G1 V</td>
<td>1” M</td>
<td>183 127</td>
<td>2</td>
<td>Pipe</td>
<td>1000</td>
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<tr>
<td>GT-H-8 PN10 G1 V</td>
<td>1” M</td>
<td>311 203</td>
<td>8</td>
<td>Pipe</td>
<td>1000</td>
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<tr>
<td>GT-H-18 PN10 G1 V</td>
<td>1” M</td>
<td>366 279</td>
<td>18</td>
<td>Pipe</td>
<td>1000</td>
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<tr>
<td>GT-H-18 PN16 G1 V</td>
<td>1” M</td>
<td>366 279</td>
<td>18</td>
<td>Pipe</td>
<td>1600</td>
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<tr>
<td>GT-H-60 PN10 G1 V</td>
<td>1” F</td>
<td>528 388</td>
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<td>1000</td>
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<td>626 388</td>
<td>80</td>
<td>Free standing</td>
<td>1000</td>
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<tr>
<td>GT-H-80 PN16 G1 V</td>
<td>1” F</td>
<td>787 388</td>
<td>80</td>
<td>Free standing</td>
<td>1600</td>
</tr>
<tr>
<td>GT-H-100 PN10 G1 V</td>
<td>1” F</td>
<td>804 430</td>
<td>100</td>
<td>Free standing</td>
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</tr>
<tr>
<td>GT-D-130 PN10 G1 V</td>
<td>1¼” F</td>
<td>1101 406</td>
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<td>Free standing</td>
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<tr>
<td>GT-D-200 PN10 G1 1/4 V</td>
<td>1¼” F</td>
<td>1042 534</td>
<td>200</td>
<td>Free standing</td>
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</tr>
<tr>
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<td>9967 634</td>
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<td>1600</td>
</tr>
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<td>GT-D-240 PN10 G1 1/4 V</td>
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<td>1219 533</td>
<td>240</td>
<td>Free standing</td>
<td>1000</td>
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<tr>
<td>GT-D-300 PN10 G1 1/4 V</td>
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<td>1575 533</td>
<td>300</td>
<td>Free standing</td>
<td>1000</td>
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<td>GT-D-450 PN10 G1 1/4 V</td>
<td>1¼” F</td>
<td>1505 660</td>
<td>450</td>
<td>Free standing</td>
<td>1000</td>
</tr>
</tbody>
</table>

#### TANK RANGE

**GT-H**

GT-H is a steel pressure tank with a non-toxic butyl rubber diaphragm with a precision-moulded polypropylene liner for superior air and water separation.

**GT-D**

GT-D is a steel pressure tank with double diaphragm. The diaphragm is a chlorine-resistant 100% butyl diaphragm with a precision-moulded copolymer polypropylene liner for superior air and water separation.

#### OPERATING CONDITIONS

- **Max. operating pressure**
  - Max. 10/16 bar
- **Liquid temperature**
  - Max. 90 °C

#### TECHNICAL DATA

- **Approvals and markings**
  - CE, GOST, NSF, WRAS, ACS, Worksafe certified

  Tank pre charge recommended 10% below cut in pressure for PT systems; 70% of maximum pump pressure on PM1 and PM2 units and 70% of set point on variable speed pumps.
SQ / SQE is a small and compact submersible multi-stage pump designed for constant pressure operation in domestic applications. The SQ / SQE features a permanent magnet motor with a micro frequency converter ensuring optimum efficiency. Soft-starting capabilities ensures a smooth and steady acceleration and the integrated protection helps prevents damage to the motor. The SQ / SQE pump is handy and user-friendly due to its low weight and 3-inch diameter. For constant pressure operation, the SQE coupled the CU300 or CU301, pressure transducer and a pressure tank is required.

**FEATURES**

**Constant pressure operation**
When using a CU300 or CU301, pressure transducer and a pressure tank with the SQNE your water pressure will always remain constant pressure regardless of how many family members are consuming water. As more taps are opened, the pump automatically increases its speed, maintaining your chosen pressure at any flow rate.

**Excellent starting capabilities**
The soft starter minimises the risk of wear on the pump and prevents overloading of the mains during start-up. Its soft-start system also reduces water hammering, light flickering and other electrical disturbances.

**Overvoltage and undervoltage protection**
The integrated protection prevents damage to the motor in case the supply voltage moves outside the permissible voltage range.

**Overload protection**
The SQNE eliminates the need for motor protection. If the pump is exposed to heavy load the motor will automatically reduce its speed, or if the pump is blocked it automatically stops pumping.

**Over-heating protection**
As an extra protection, the electronic unit has a built-in temperature sensor. When the temperature exceeds a critical limit, the pump is stopped and when the temperature has dropped, the pump automatically starts.

**Protection against upthrust**
The SQNE is fitted with an upthrust bearing protecting both pump and motor against upthrust, thus preventing breakdown during the critical start-up phase.

**OPERATING CONDITIONS**

**pH values**
5 to 8

**Liquid temperature**
0 °C to 35 °C

**TECHNICAL DATA**

**Mains voltage**
1 x 240 V, 50 Hz

**Enclosure class**
IP68

**Insulation class**
F

**Installation depth**
Max. 150 m below static water level

**Pump diameter**
74 mm

**Borehole diameter**
Min. 76 mm

**Approvals and markings**
CE, UL, cUL
### FEATURES

- **Constant pressure operation**
  - When using a CU300 or CU301, pressure transducer and a pressure tank with the SQNE your water pressure will always remain constant pressure regardless of how many family members are consuming water. As more taps are opened, the pump automatically increases its speed, maintaining your chosen pressure at any flow rate.

- **Excellent starting capabilities**
  - The soft starter minimizes the risk of wear on the pump and prevents overloading of the mains during start-up. Its soft-start system also reduces water hammering, light flickering and other electrical disturbances.

- **Overvoltage and undervoltage protection**
  - The integrated protection prevents damage to the motor in case the supply voltage moves outside the permissible voltage range.

- **Overload protection**
  - The SQNE eliminates the need for motor protection. If the pump is exposed to heavy load the motor will automatically reduce its speed, or if the pump is blocked it automatically stops pumping.

- **Over-heating protection**
  - As an extra protection, the electronic unit has a built-in temperature sensor. When the temperature exceeds a critical limit, the pump is stopped and when the temperature has dropped, the pump automatically starts.

- **Protection against upthrust**
  - The SQNE is fitted with an upthrust bearing protecting both pump and motor against upthrust, thus preventing breakdown during the critical start-up phase.

### SQ/SQE

- **SQ / SQE** is a small and compact submersible multi-stage pump designed for constant pressure operation in domestic applications. The SQ / SQE features a permanent magnet motor with a micro frequency converter ensuring optimum efficiency. Soft-starting capabilities ensures a smooth and steady acceleration and the integrated protection helps prevent damage to the motor. The SQ / SQE pump is handy and user-friendly due to its low weight and 3-inch diameter. For constant pressure operation, the SQE coupled the CU300 or CU301, pressure transducer and a pressure tank is required.

### TECHNICAL DATA

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<th>Model</th>
<th>Power-P2 (kW)</th>
<th>Max Current (A)</th>
<th>Outlet</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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The Grundfos SP A is a 4-inch multi-stage, submersible pump designed for operation in boreholes. SP A is made entirely of corrosion-resistant stainless steel, offering high operating reliability regardless of the application.

The SP A offers high efficiency along with great resistance to sand and other abrasive particles.

**FEATURES**

100% high-grade stainless steel inside and outside
As standard, all Grundfos SP A pumps are made entirely of stainless steel DIN 1.4301 (AISI 304). Where particularly aggressive liquids are encountered, the SP pumps are available in extra high grade stainless steel DIN 1.4401 (AISI 316), or, for severe conditions, DIN 1.4539 (AISI 904 L) providing maximum reliability.

Bearings with sand channels
All bearings are water-lubricated and have a squared shape, enabling sand particles, if any, to leave the pump together with the pumped liquid.

Inlet strainer
The pump is mounted with an inlet strainer preventing particles over a certain size from entering the pump.

Non-return valve
SP A pumps have a built-in non-return valve preventing backflow in connection with pump stoppage.

Motor burnout protection
Protecting the motor against high motor temperatures is the simplest and cheapest way of avoiding a reduced motor life. The SP A motor is available with built-in temperature sensor and when used with the MP204 will monitor and protect against overheating.

Optional monitoring and controlling
A complete monitoring and control system is available for constant optimisation of the pumping system.

**OPERATING CONDITIONS**

Liquid temperature
0 °C to 30 °C at 0.15 m/s
Higher flow past motor equals higher permissible liquid temperature. Consult Grundfos for further information.

**TECHNICAL DATA**

Mains voltage
1 x 240 V, 50 Hz
3 x 415 V, 50Hz

Enclosure class
IP68

Insulation class
F

Installation depth
Max. 600 m

Approvals and markings
UL, CSA, VDE, CE
Home & Garden Range

FEATURES

100% high-grade stainless steel inside and outside

As standard, all Grundfos SP A pumps are made entirely of stainless steel DIN 1.4301 (AISI 304). Where particularly aggressive liquids are encountered, the SP pumps are available in extra high grade stainless steel DIN 1.4401 (AISI 316), or, for severe conditions, DIN 1.4539 (AISI 904 L) providing maximum reliability.

Bearings with sand channels

All bearings are water-lubricated and have a squared shape, enabling sand particles, if any, to leave the pump together with the pumped liquid.

Inlet strainer

The pump is mounted with an inlet strainer preventing particles over a certain size from entering the pump.

Non-return valve

SP A pumps have a built-in non-return valve preventing backflow in connection with pump stoppage.

Motor burnout protection

Protecting the motor against high motor temperatures is the simplest and cheapest way of avoiding a reduced motor life. The SP A motor is available with built-in temperature sensor and when used with the MP204 will monitor and protect against overheating.

Optional monitoring and controlling

A complete monitoring and control system is available for constant optimisation of the pumping system.

PERFORMANCE

The Grundfos SP A is a 4-inch multi-stage, submersible pump designed for operation in boreholes. SP A is made entirely of corrosion-resistant stainless steel, offering high operating reliability regardless of the application.

The SP A offers high efficiency along with great resistance to sand and other abrasive particles.

OPERATING CONDITIONS

Liquid temperature

0 °C to 30 °C at 0.15 m/s

Higher flow past motor equals higher permissible liquid temperature. Consult Grundfos for further information.

TECHNICAL DATA

Mains voltage

1 x 240 V, 50 Hz
3 x 415 V, 50Hz

Enclosure class

IP68

Insulation class

F

Installation depth

Max. 600 m

Approvals and markings

UL, CSA, VDE, CE

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</table>
Grundfos NS duty centrifugal irrigation and water transfer pumps are ideal for pumping clear water and other non-aggressive liquids. Available in single-impeller and twin-impeller, these efficient pumps are constructed from robust materials to ensure a long life. All single-phase versions have built-in overload protection.

**FEATURES**

- **Robust Construction**
  Pump body and motor constructed from anti-corrosive materials to provide the longest life possible.

- **Quiet**
  Enclosed fan-cooled induction motor and rotor mounted on oversized greased-for-life ball bearings to ensuring quiet operation and a long life.

- **Built in Overload protection**
  All single-phase versions have built-in overload protection for added protection.

**APPLICATIONS**

- Boosting from above ground water tanks
- Light industrial use

**TECHNICAL DATA**

- **Mains voltage**
  1 x 240 V, 50 Hz
  3 x 415 V, 50 Hz

- **Enclosure class**
  Motor: IP44
  Terminal Box: IP55

- **Insulation class**
  F

- **Approvals and markings**
  C-tick, CE

**OPERATING CONDITIONS**

- **System pressure**
  Max. 6 Bar (NS 3-40, NS4-23, NS5-33, NS30-18)
  Max. 8 Bar (NS 5-60)

- **Liquid temperature**
  0 °C to 35 °C

- **Ambient temperature**
  Max. 40 °C
APPLICATIONS
- Boosting from above ground water tanks
- Light industrial use

FEATURES
- Robust Construction
  - Pump body and motor constructed from anti-corrosive materials to provide the longest life possible.
- Quiet
  - Enclosed fan-cooled induction motor and rotor mounted on oversized greased-for-life ball bearings to ensuring quiet operation and a long life.
- Built in Overload protection
  - All single-phase versions have built-in overload protection for added protection.

Grundfos NS duty centrifugal irrigation and water transfer pumps are ideal for pumping clear water and other non-aggressive liquids. Available in single-impeller and twin-impeller, these efficient pumps are constructed from robust materials to ensure a long life. All single-phase versions have built-in overload protection.

OPERATING CONDITIONS
- System pressure
  - Max. 6 Bar (NS 3-40, NS4-23, NS5-33, NS30-18)
  - Max. 8 Bar (NS 5-60)
- Liquid temperature
  - 0 °C to 35 °C
- Ambient temperature
  - Max. 40 °C

TECHNICAL DATA
- Mains voltage
  - 1 x 240 V, 50 Hz
  - 3 X 415 V, 50 Hz
- Enclosure class
  - Motor: IP44
  - Terminal Box: IP55
- Insulation class
  - F
- Approvals and markings
  - C-tick, CE

<table>
<thead>
<tr>
<th>Model</th>
<th>Power (kW)</th>
<th>Connections</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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<td>Inlet</td>
<td>A</td>
<td>B</td>
<td>C</td>
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<tr>
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<tr>
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<td>NS30-18</td>
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<td>2 F</td>
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<td>430</td>
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<td>NS30-40</td>
<td>2.1</td>
<td>2 F</td>
<td>2 F</td>
<td>358</td>
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The Grundfos UNILIFT CC is a lightweight single-stage drainage pump with a semi-open impeller. They are designed for pumping drain water and grey wastewater containing particles up to a size of up to 10 mm. The suction strainer at the bottom of the pump prevents particles larger than the pump is designed for from entering. The strainer is made of stainless steel, while the main pump parts, e.g. the sleeve and pump housing, are made of moulded composite materials. The UNILIFT CC can pump down to a water level of 3 mm above the floor by removing the strainer and can be used in permanent installations or as a portable pump.

**FEATURES**

**Prevention of backflow**
The pump is supplied with an adapter and a non-return valve to prevent backflow through the pump when it stops.

**Robust design**
The materials of the pump ensure excellent corrosion resistance. Furthermore, the CC 7 and 9 have a built in V-ring mechanical shaft seal which offers wear resistance and a long operating life.

**Thermal overload protection**
The single-phase version is effectively protected against any accidental overload, by built-in thermal protection. This means that no additional motor protection is required.

**Auto-restart**
In case the motor cuts out due to thermal overload, the motor automatically starts again when it has cooled to normal temperature.

**Handy and easily transportable**
The light weight of the pump and the carry handle mounted on the housing make it handy and easily transportable.

**Automatic operation**
The pump has a float switch for automatic on/off operation between two liquid levels.

**Self-venting valve**
The UNILIFT CC 7 features a self-venting valve. Place the pump underwater, engage the power, and relax. The self-venting valve located in the handle prevents air from getting trapped in the pump.

**Good connectivity**
Includes multiple adapter for thread sizes from 3/4” to 1/1/4”

**APPLICATIONS**
- Domestic wastewater

---

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Power - P2 (kW)</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
<td>UNILIFT CC 5</td>
<td>10</td>
<td>0.25</td>
<td>1¼”</td>
<td>306.6</td>
<td>160</td>
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<tr>
<td>UNILIFT CC 7</td>
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<td>0.38</td>
<td>1¼”</td>
<td>306.6</td>
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<tr>
<td>UNILIFT CC 9</td>
<td>10</td>
<td>0.78</td>
<td>1¼”</td>
<td>306.6</td>
<td>160</td>
</tr>
</tbody>
</table>
**PERFORMANCE**

![Performance Graph]

**OPERATING CONDITIONS**

- **Liquid temperature**: 0 °C to 40 °C
- **Max. particle size**: Ø10 mm
- **pH concentration**: 4 to 9
- **Max. installation depth**: 10 m

**TECHNICAL DATA**

- **Mains voltage**: 1 x 240 V, 50 Hz
- **Enclosure class**: IP68
- **Insulation class**: B (UNILIFT CC 5 & CC 9), F (UNILIFT CC 7)
- **Cable type**: H07RN-F
- **Approvals and markings**: VDE, CSA, GOST and LGA according to DIN EN 12050-2

![](image)

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Power - P2 (kW)</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
<td>UNILIFT CC 5</td>
<td>10</td>
<td>0.25</td>
<td>1¼” M</td>
<td>306.6 160 26.5</td>
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<tr>
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<td>1¼” M</td>
<td>306.6 160 26.5</td>
<td>4.60</td>
</tr>
<tr>
<td>UNILIFT CC 9</td>
<td>10</td>
<td>0.78</td>
<td>1¼” M</td>
<td>306.6 160 26.5</td>
<td>6.5</td>
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</tbody>
</table>
UNILIFT KP

The UNILIFT KP is a lightweight, single-stage pump with a semi-open impeller. They are designed for liquid transfer and pumping of drain water and grey wastewater containing particles up to a size of Ø10. All UNILIFT KP pumps are mostly made of stainless steel, with a stainless steel sleeve for cooling during operation. The pumps are small and handy, suitable for permanent installation or as a portable pump. The suction strainer at the bottom of the pump prevents particles larger than the pump is designed for from entering. The suction strainer is clipped on to the pump housing for easy removal, in case of maintenance.

All UNILIFT KP pumps can be supplied with or without float switch, for automatic or manual operation.

FEATURES

Lightweight and robust
The KP is a lightweight pump designed specifically for drainage jobs. Its stainless steel surface makes it robust, durable and corrosion free, which reduces maintenance to an absolute minimum.

Wet runner
The pump is designed with a canned rotor, which hermetically seals the rotor from the stator. This eliminates the need for a shaft seal, making the pump highly reliable and service friendly.

Prevention of backflow
An optional non-return flap valve can be fitted in the outlet in order to prevent backflow when the pump stops operating.

Thermal overload protection
The single-phase version is effectively protected against any accidental overload, by built-in thermal protection. This means that no additional motor protection is required.

Auto-restart
In case the motor cuts out due to thermal overload, the motor automatically starts again when it has cooled to normal temperature.

Handy and easily transportable
The carry handle mounted on the pump housing makes it handy and easily transportable.

Option for automatic operation
The pumps are available with float switches for automatic on/off operation between two liquid levels or with vertical float for operation in confined areas.

APPLICATIONS

- Domestic wastewater
PERFORMANCE

![Performance Graph]

OPERATING CONDITIONS

Liquid temperature
0 °C to 50 °C

Max. particle size
Ø10 mm

pH concentration
4 to 9

Max. installation depth
10 m

TECHNICAL DATA

Mains voltage
1 x 240 V, 50 Hz

Enclosure class
IP68

Insulation class
F

Cable type
H07RN-F

Approvals and markings
CE, LGA, VDE, GS, EMV, GOST, UL, CSA and C-tick

### Model Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Power - P2 (kW)</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
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DIMENSIONS

![Dimension Diagram]
The UNILIFT AP 12 is a single-stage, submersible pump with semi-open impeller, designed for pumping drainage water containing particles up to a size of up to 12 mm. UNILIFT AP12 is for automatic as well as manual operation and can be used in a permanent installation or as a portable pump. The pump is easily installed as it’s fitted with a carry handle and 10 m mains cable. UNILIFT AP12 is mostly made of stainless steel, with a stainless steel sleeve for cooling during operation. The stainless steel pump sleeve is made in one piece with a clipped on suction strainer for easy removal in case of maintenance.

**FEATURES**

**Robust design**
The materials of the pump ensure excellent corrosion resistance. The pump housing and impeller are made of high quality stainless steel. Furthermore, the mechanical shaft seal offers high-wear resistance and a long operating life.

**Thermal overload protection**
The single-phase version is effectively protected against any accidental overload by built-in thermal protection. This means that no additional motor protection is required.

**Handy and easily transportable**
The carry handle mounted on the pump housing makes it handy and easily transportable.

**Option for automatic operation**
The pumps are available with float switches for automatic on/off operation.

**APPLICATIONS**

- Domestic wastewater

**TECHNICAL DATA**

**Mains voltage**
1 x 240 V, 50 Hz
3 x 415 V, 50 Hz

**Enclosure class**
IP68

**Insulation class**
F

**Cable type**
H07RN-F

**Approvals and markings**
VDE, LGE, UL and CSA
UNILIFT AP 12

PERFORMANCE

OPERATING CONDITIONS

Liquid temperature
0 °C to 55 °C

Max. particle size
Ø12 mm

pH concentration
4 to 10

Max. installation depth
10 m

DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Power - P2 (kW)</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
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<td>11</td>
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<td>1¾&quot; F</td>
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<td>2&quot; F</td>
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<td>15.1</td>
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</table>
The Grundfos UNILIFT AP 35 & 50 is a single-stage, submersible pump with vortex impeller, designed for pumping effluent and sewage, containing particles up to a size of Ø50 mm (Unilift AP 50) and Ø35 mm (Unilift AP 35) depending on the pump size. UNILIFT AP 35 & 50 is available for automatic as well as manual operation and can be used in a permanent installation or as a portable pump. The pump is easily installed, as it is fitted with a carry handle and 10m mains cable. UNILIFT AP 35 & 50 is mostly made of stainless steel, with a stainless steel sleeve for cooling during operation. The stainless steel pump sleeve is made in one piece, with a clipped on suction strainer, for easy removal, in case of maintenance.

**FEATURES**

**Robust design**
The materials of the pump ensure excellent corrosion resistance. The pump housing and impeller are made of high quality stainless steel. Furthermore, the mechanical shaft seal offers high-wear resistance and a long operating life.

**Thermal overload protection**
The single-phase version is effectively protected against any accidental overload, by built-in thermal protection. This means that no additional motor protection is required.

**Handy and easily transportable**
The carry handle mounted on the pump housing makes it handy and easily transportable.

**Option for automatic operation**
The pumps are available with float switches for automatic on/off operation.

**OPERATING CONDITIONS**

**Liquid temperature**
0 °C to 55 °C

**Max. particle size**
AP 35 - Ø35 mm
AP 50 - Ø50 mm

**pH concentration**
4 to 10

**Max. installation depth**
10 m

**TECHNICAL DATA**

**Mains voltage**
1 x 240 V, 50 Hz

**Enclosure class**
IP68

**Insulation class**
F

**Cable type**
H07RN-F

**Approvals and markings**
VDE, LGE, UL and CSA
UNILIFT AP 35 & 50

PERFORMANCE

![Performance Graphs]

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Power - P2 (kW)</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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<td>2&quot; F</td>
<td>436</td>
<td>241</td>
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</table>

DIMENSIONS

![Dimensions Diagram]

TECHNICAL DATA

- Mains voltage: 1 x 240 V, 50 Hz
- Enclosure class: IP68
- Insulation class: F
- Cable type: H07RN-F
- Approvals and markings: VDE, LGE, UL and CSA

OPERATING CONDITIONS

- Liquid temperature: 0 °C to 55 °C
- Max. particle size: AP 35 - Ø35 mm, AP 50 - Ø50 mm
- pH concentration: 4 to 10
- Max. installation depth: 10 m

FEATURES

- Robust design: The materials of the pump ensure excellent corrosion resistance. The pump housing and impeller are made of high-quality stainless steel. Furthermore, the mechanical shaft seal offers high-wear resistance and a long operating life.
- Thermal overload protection: The single-phase version is effectively protected against any accidental overload, by built-in thermal protection. This means that no additional motor protection is required.
- Handy and easily transportable: The carry handle mounted on the pump housing makes it handy and easily transportable.
- Option for automatic operation: The pumps are available with float switches for automatic on/off operation.

The Grundfos UNILIFT AP 35 & 50 is a single-stage, submersible pump with vortex impeller, designed for pumping effluent and sewage, containing particles up to a size of Ø50 mm (Unilift AP 50) and Ø35 mm (Unilift AP 35) depending on the pump size. UNILIFT AP 35 & 50 is available for automatic as well as manual operation and can be used in a permanent installation or as a portable pump. The pump is easily installed, as it is fitted with a carry handle and 10m mains cable. UNILIFT AP 35 & 50 is mostly made of stainless steel, with a stainless steel sleeve for cooling during operation. The stainless steel pump sleeve is made in one piece, with a clipped on suction strainer, for easy removal, in case of maintenance.
The Grundfos UNILIFT AP Basic pumps are single-stage pumps with a vortex impeller. The pumps are designed for pumping dirty water, untreated wastewater containing particles up to a size of Ø50 mm, depending on the pump size.

All UNILIFT AP Basic pumps are made of stainless steel with a composite baseplate. The UNILIFT AP Basic range is designed for submerged operation, either free-standing or on the base plate. In addition the pumps are suitable for installations on auto couplings, which allows easy access to the pump for maintenance and other purposes. All UNILIFT AP Basic pumps can be supplied with or without float switch, for automatic or manual operation.

### FEATURES

**Robust design**
The materials of the pump ensure excellent corrosion resistance. The pump housing and impeller are made of high quality stainless steel. Furthermore, the mechanical shaft seal offers high-wear resistance and a long operating life.

**Thermal overload protection**
The single-phase version is effectively protected against any accidental overload by built-in thermal protection. This means that no additional motor protection is required.

**Option for automatic operation**
The pumps are available with float switches for automatic on/off operation.

**Auto coupling**
UNILIFT AP Basic pumps are suitable for installation on an auto coupling at the bottom of a collecting tank with guide rails going to the top. A guide rail system is available from Grundfos as an accessory.

### OPERATING CONDITIONS

**Liquid temperature**
0 °C to 40 °C

**Max. particle size**
AP35 - 35 mm and AP50 - 50 mm particle size

**pH concentration**
4 to 10

**Max. installation depth**
7 m

### TECHNICAL DATA

**Mains voltage**
1 x 240 V, 50 Hz
3 x 415 V, 50 Hz

**Enclosure class**
IP68

**Insulation class**
F

**Cable type**
H07RN-F

**Approvals and markings**
VDE, LGE, UL and CSA
**PERFORMANCE**

<table>
<thead>
<tr>
<th>Model</th>
<th>Cable length (m)</th>
<th>Power (kW)</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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<td>2&quot; F</td>
<td>A 468</td>
<td>B 73</td>
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</table>

**DIMENSIONS**

**OPERATING CONDITIONS**

- Liquid temperature: 0 °C to 40 °C
- Max. particle size: AP35 - 35 mm and AP50 - 50 mm particle size
- pH concentration: 4 to 10
- Max. installation depth: 7 m

**TECHNICAL DATA**

- Mains voltage: 1 x 240 V, 50 Hz, 3 x 415 V, 50 Hz
- Enclosure class: IP68
- Insulation class: F
- Cable type: H07RN-F
- Approvals and markings: VDE, LGE, UL and CSA
SOLOLIFT2 lifting stations are practical, compact and ready to install solution for discharging domestic effluent that cannot reach the main sewage pipe directly. They have the ability to grind and evacuate sewage and wastewater quickly and efficiently. They offer the ideal solution for the renovation and modernisation of existing buildings, where the location may be remote from the main soil pipe without the need for costly pipe installations. SOLOLIFT2s are able to be installed where a natural slope cannot be installed in a shower or toilet. Further, they are available in wall hung and freestanding models which cater to every space.

FEATURES

- The most powerful, reliable and service friendly lifting station on the market
- Unique, welded, pressure tight tank
- Smart adjustable inlet connectors allow movement of up to 10 mm - easy installation and replacement
- Captive screw fastening, external pressure switch and tank draining enable fast and clean repairs and service

APPLICATIONS

- Discharging domestic effluent that cannot reach the main sewage pipe directly
- Grind and evacuate sewage and wastewater (WC versions)

TECHNICAL DATA

- Maximum liquid temperature: 50°C (90°C SOLOLIFT2 C-3 (30 min))
- Unique, welded, pressure tight tank to ensure safety and reliability particularly in high pressure grey water applications
- Smart adjustable inlet connectors allow movement of up to 10 mm, both vertically and horizontally for easy fitting to existing pipes
- 1.2 metre cable with plug

DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Power (Watts)</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
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<td>SOLOLIFT WC-3</td>
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<tr>
<td>SOLOLIFT D-2</td>
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</tbody>
</table>
SOLOLIFT2 C-3 for washing machines, dishwasher, kitchen sink, bathtub, shower and washbasin

SOLOLIFT2 D-2 for shower and wash basin

SOLOLIFT2 WC-1 for single toilet and washbasin

SOLOLIFT2 WC-3 for toilet, washbasin, bidet and a shower

SOLOLIFT2 CWC-3 for wall-hung toilet, washbasin, bidet and a shower

TECHNICAL DATA

SOLOLIFT2 C-3

SOLOLIFT2 D-2
The UPA Homebooster is a circulator pump designed for pressure boosting hot water systems. The pump provides additional pressure to showers, taps and similar outlet points. The UPA Homebooster is for use in open systems. The pump incorporates a flow switch which starts or stops the pump when a tap is turned on or off.

**FEATURES**

**Increased comfort**
Typically boosting 50 to 75kPa to the existing inlet pressure ensure a steady firm pressure, perfect to boost hot water pressure throughout the home.

**Robust design**
The pump is made of materials that ensure excellent corrosion resistance. Designed for open systems UPA is constructed from quality stainless steel with a high grade composite impeller.

**Quiet operation**
Whisper quiet operation makes the UPA Homebooster suitable to be unobtrusively installed in the roof space.

**Automatic operation**
Built in flow sensor automatically starting with water flow.

**APPLICATIONS**
- Domestic hot water circulation

**OPERATING CONDITIONS**

**System pressure**
6 bar

**Liquid temperature**
2 - 95 degrees

**Ambient temperature**
40 °C

**Relative air humidity**
95 %

**TECHNICAL DATA**

**Mains voltage**
1 x 240 V, 50 Hz

**Enclosure class**
IP42

**Insulation class**
H
The COMFORT range is designed for re-circulation of domestic hot water in one family houses. The COMFORT PM range is the high efficiency choice with an energy usage of only 8 W. The intelligent COMFORT AUTOADAPT PM automatically adapts to the individual hot water consumption pattern in the household and only runs when hot water is needed.

**APPLICATIONS**
- Domestic hot water circulation

**OPERATING CONDITIONS**

- **System pressure**: 10 bar
- **Liquid temperature**: 2 to 110 °C
- **Ambient temperature**: 40 °C
- **Relative air humidity**: 95%

**TECHNICAL DATA**

- **Mains voltage**: 1 x 240 V, 50 Hz
- **Enclosure class**: IP44
- **Insulation class**: F
- **Sound pressure level**: 43 dB
- **Approvals and markings**: AS4020

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP15-14B PM</td>
<td>½” F</td>
<td>A=84 B=13.5 C=133 D=80</td>
<td>1</td>
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</tbody>
</table>
Grundfos UPS(N) pumps are the ideal choice for a wide range of domestic and commercial applications. The UPS(N) pumps are 3-speed wet rotor circulators and come in a wide range of materials and sizes. They feature an integrated pump and motor design ensuring greater ease of installation and durability. Maintenance free and whisper-quiet, these pumps are ideal for a variety of domestic and commercial heating and cooling systems.

FEATURES

Energy efficient
A speed switch on the motor allows the pump to be adjusted to the needs of the application, improving pump efficiency and reducing energy consumption.

Robust design
The pump is made of materials that ensure excellent corrosion resistance. Designed for open systems UPS(N) is constructed from quality stainless steel with a high grade composite impeller. The UPS is constructed from rugged cast iron and is the perfect choice for closed systems.

Quiet operation
Canned motor provides an operating noise level at less than 43 decibels, the UPS is extremely quiet.

Easy installation
The UPS is a compact, inline circulator pump, making it suitable for most installations.

APPLICATIONS

- Circulating hot or cold water in open or closed systems.

PERFORMANCE

![Graph showing performance data]

TECHNICAL DATA

Mains voltage
1 x 240 V, 50 Hz

Enclosure class
IP44

Insulation class
F

Sound pressure level
43 dB

Approvals and markings
UPS(N) AS4020

DIMENSIONS

![Diagram showing dimensions]

<table>
<thead>
<tr>
<th>Model</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS20-60N</td>
<td>¾ &quot; F</td>
<td>A 75 B 51 C 150 D 28 E 102</td>
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OPERATING CONDITIONS

System pressure
10 bar

Liquid temperature
2 to 110 °C

Ambient temperature
40 °C

Relative air humidity
95 %
ALPHA 2(N)

A typical pump in a system runs at full speed day and night. The ALPHA2 (N) from Grundfos adapts to the variable demand while keeping your comfort, saving a considerable amount of electricity. The installation of a GRUNDFOS ALPHA2 (N) pump will decrease the power consumption considerably, reduce noise from radiator valves and similar fittings, and improve the control of the system. The unique Grundfos AUTOADAPT function ALPHA2 (N) will analyse and adjust automatically to your heating and water use demands. Available in in both stainless steel for hot water (open) systems and cast iron for heating (closed) systems.

FEATURES

Robust design
The pump is made of materials that ensure excellent corrosion resistance. Designed for open systems Alpha2 N is constructed from quality stainless steel with a high grade composite impeller. The Alpha2 is constructed from rugged cast iron and is the perfect choice for closed systems.

Quiet operation
Permanent magnet motor provides an operating noise level at less than 43 decibels, the Alpha2 is whisper quiet.

AUTOADAPT
The pump learns the user pattern of the customer and learns from it. It only runs when hot water is needed.

Energy efficient
The reduction in power consumption has been achieved by using the latest permanent magnet motor technology.

OPERATING CONDITIONS

System pressure
10 bar

Liquid temperature
2 to 110 °C

Ambient temperature
40 °C

Relative air humidity
95 %

APPLICATIONS

- Heating systems

TECHNICAL DATA

Mains voltage
1 x 240 V, 50 Hz

Enclosure class
IP44

Insulation class
F

Sound pressure level
43 dB

Approvals and markings
AS4020

DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Connection size</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
<td>Alpha2 (N) 25-60 130</td>
<td>¾ &quot; F</td>
<td>A 130 B 60.5 C 60.5 D 44.5 E 44.5 F 35.8 G 103.5 H 52</td>
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<tr>
<td>Alpha2 (N) 25-60 180</td>
<td>¾ &quot; F</td>
<td>A 180 B 60.5 C 60.5 D 44.5 E 44.5 F 35.8 G 103.5 H 52</td>
<td>2.0</td>
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</table>

PERFORMANCE

![Graph showing performance metrics]
Conversion Charts & Friction Loss Data

UNITS OF PRESSURE

<table>
<thead>
<tr>
<th>CONVERT FROM</th>
<th>CONVERT TO</th>
<th>Kilopascal</th>
<th>Metrehead</th>
<th>Bar</th>
<th>lbs per sq. inch</th>
<th>Feet of Water</th>
<th>Atmosphere</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilopascal</td>
<td>kPa</td>
<td>1</td>
<td>0.102</td>
<td>.01</td>
<td>0.145</td>
<td>0.335</td>
<td>-</td>
</tr>
<tr>
<td>metrehead</td>
<td>m</td>
<td>9.804</td>
<td>1</td>
<td>0.098</td>
<td>1.42</td>
<td>3.28</td>
<td>0.098</td>
</tr>
<tr>
<td>Bar</td>
<td>Bar</td>
<td>100</td>
<td>10.20</td>
<td>1</td>
<td>14.5</td>
<td>33.45</td>
<td>1</td>
</tr>
<tr>
<td>lbs/sq inch</td>
<td>psi</td>
<td>6.895</td>
<td>.704</td>
<td>.069</td>
<td>1</td>
<td>2.307</td>
<td>0.069</td>
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<tr>
<td>Feet of Water</td>
<td>ft</td>
<td>2.98</td>
<td>0.3048</td>
<td>0.03</td>
<td>0.4335</td>
<td>1</td>
<td>0.03</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>ft</td>
<td>100</td>
<td>10.33</td>
<td>1.0</td>
<td>14.7</td>
<td>33.9</td>
<td>1</td>
</tr>
</tbody>
</table>

Multiply By

- Pressure

- Units of Flow Rate

- Units of Volume

Note: The information provided on these pages is for guidance only. Grundfos Pumps Aust Ltd accepts no responsibility for the misuse or misapplication of this information.
### POLYETHENE PIPE FRICTION LOSS
#### METRIC (PE63 - AS/NZS 4310)

<table>
<thead>
<tr>
<th>Flow rate</th>
<th>Friction Loss (metres/100 metres of pipe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/s</td>
<td>GPM</td>
</tr>
<tr>
<td>0.4 5</td>
<td>2.08 3.99 0.73 1.39 0.25 0.48 0.09 0.16</td>
</tr>
<tr>
<td>0.5 7</td>
<td>3.07 5.9 1.08 2.05 0.37 0.7 1.13 0.24</td>
</tr>
<tr>
<td>0.6 8</td>
<td>4.24 8.14 1.49 2.82 0.51 0.97 0.17 0.32</td>
</tr>
<tr>
<td>0.7 9</td>
<td>5.56 10.7 1.95 3.7 0.67 1.27 0.22 0.43</td>
</tr>
<tr>
<td>0.8 11</td>
<td>7.05 13.56 2.47 4.69 0.85 1.61 0.28 0.54</td>
</tr>
<tr>
<td>0.9 12</td>
<td>8.68 16.72 3.04 5.78 1.04 1.98 0.35 0.66</td>
</tr>
<tr>
<td>1 14</td>
<td>10.47 20.17 3.66 6.96 1.26 2.38 0.42 0.8</td>
</tr>
<tr>
<td>1.2 16</td>
<td>14.48 27.93 5.06 9.63 1.73 3.29 0.58 1.1</td>
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<tr>
<td>1.4 18</td>
<td>19.07 36.80 6.66 12.67 2.28 4.33 0.75 1.44</td>
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<tr>
<td>1.6 21</td>
<td>24.21 46.76 8.45 16.09 2.89 5.49 0.96 1.83</td>
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<tr>
<td>1.8 24</td>
<td>29.91 57.79 10.42 19.86 3.56 6.77 1.18 2.25</td>
</tr>
<tr>
<td>2 26</td>
<td>36.13 69.88 12.58 23.99 4.4 8.17 1.42 2.71</td>
</tr>
<tr>
<td>2.5 33</td>
<td>50.44 104.53 18.77 35.82 6.4 12.18 2.11 4.04</td>
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<tr>
<td>3 40</td>
<td>75.05 - 26.05 49.75 8.87 16.89 2.92 5.6</td>
</tr>
<tr>
<td>3.5 46</td>
<td>- 34.39 65.74 11.69 22.29 3.85 7.38</td>
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<tr>
<td>4 53</td>
<td>- 43.77 83.73 14.86 28.35 4.89 9.37</td>
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<td>4.5 60</td>
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<td>5 66</td>
<td>- 65.57 - 22.22 42.44 7.3 14.01</td>
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<tr>
<td>5.5 73</td>
<td>- - 77.96 - 26.40 50.44 8.66 16.63</td>
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<td>6 79</td>
<td>- - - - 30.90 59.07 10.13 19.46</td>
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<td>6.5 86</td>
<td>- - - - 35.72 68.31 11.70 22.49</td>
</tr>
<tr>
<td>7 92</td>
<td>- - - - 40.86 - 13.38 25.72</td>
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</tbody>
</table>

### PVC PIPE FRICTION LOSS
#### (AS/NZS 1477)

<table>
<thead>
<tr>
<th>Flow rate</th>
<th>Friction Loss (metres/100 metres of pipe)</th>
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</thead>
<tbody>
<tr>
<td>L/s</td>
<td>GPM</td>
</tr>
<tr>
<td>0.4 5</td>
<td>- 0.48 0.54 0.25 0.29 0.09 0.1</td>
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<tr>
<td>0.5 7</td>
<td>- 0.79 0.89 0.37 0.42 0.13 0.15</td>
</tr>
<tr>
<td>0.6 8</td>
<td>- 0.97 1.10 0.51 0.58 0.17 0.2</td>
</tr>
<tr>
<td>0.7 9</td>
<td>- 1.27 1.44 0.66 0.77 0.23 0.26</td>
</tr>
<tr>
<td>0.8 11</td>
<td>- 1.61 1.82 0.84 0.97 0.29 0.33</td>
</tr>
<tr>
<td>0.9 12</td>
<td>- 1.98 2.24 1.03 1.19 0.35 0.4</td>
</tr>
<tr>
<td>1 14</td>
<td>- 2.38 2.70 1.24 1.43 0.42 0.48</td>
</tr>
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<td>1.2 16</td>
<td>- 3.29 3.74 1.72 1.98 0.59 0.67</td>
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<td>1.4 18</td>
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<td>1.8 24</td>
<td>- 6.77 7.68 3.52 4.06 1.20 1.37</td>
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<td>2 26</td>
<td>- 8.17 9.27 4.25 4.90 1.45 1.65</td>
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<td>- 12.18 13.83 6.33 7.30 2.15 2.45</td>
</tr>
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<td>3 40</td>
<td>- 16.89 19.18 8.77 10.12 2.97 3.4</td>
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<td>3.5 46</td>
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<td>4.5 60</td>
<td>- - - 18.18 20.99 6.15 7.02</td>
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<td>5 66</td>
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<tr>
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<tr>
<td>7 92</td>
<td>- - - - 13.62 15.99 2.11 2.42</td>
</tr>
<tr>
<td>8 106</td>
<td>- - - - - 19.82 2.68 3.07 0.8</td>
</tr>
<tr>
<td>9 119</td>
<td>- - - - - 24.54 3.31 3.8 0.98</td>
</tr>
<tr>
<td>10 132</td>
<td>- - - - - 29.71 4.0 4.59 1.19</td>
</tr>
<tr>
<td>11 145</td>
<td>- - - - - 4.75 5.46 1.41 1.62</td>
</tr>
<tr>
<td>12 158</td>
<td>- - - - - 5.55 6.39 1.65 1.89</td>
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