be think innovate is our promise to add value to our customers and partners. be think innovate is our promise to ensure reliable operations. be think innovate is our promise to contribute to global sustainability.
A global business

With over 17,000 employees and production of more than 16 million pump units a year, Grundfos is one of the world’s leading pump manufacturers. More than 80 companies in over 55 countries help to bring pumps to every corner of the world – from supplying drinking water to Antarctic expeditions, irrigation of Dutch tulips, groundwater monitoring beneath waste heaps in Germany, to air-conditioning in Egyptian hotels.

Efficient, sustainable products
Grundfos is constantly striving to make its products more user-friendly and reliable – and also energy-saving and efficient, so that both users and the environment benefit from their improvements. Grundfos pumps are equipped with ultramodern electronics, allowing them to regulate their output according to current needs. This not only ensures convenience for the user, but also saves a great deal of energy.

Research and development
In order to maintain its leading position, Grundfos constantly places a great deal of emphasis on customer-oriented research and development. Customers are consulted when new products are developed or when established products are improved.

Research and development make use of the latest technology within the pump industry, collaborating with universities and higher education institutions in search of new and better solutions for the design and function of the products.

Corporate values
The Grundfos Group is based on values such as sustainability, openness, trustworthiness, responsibility, and also on partnership with clients, suppliers and the whole of society around us, with a focus on humanity that concerns our own employees as well as the many million who benefit from water that is procured, utilised and removed as wastewater with the help of Grundfos pumps.
<table>
<thead>
<tr>
<th>Heating and hot water service systems</th>
<th>Cooling and air-conditioning systems</th>
<th>Pressure boosting and liquid transfer</th>
<th>Industrial applications</th>
<th>Dosing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulator pumps for circulation of hot water in central and district systems and circulation in domestic hot water service systems.</td>
<td>Circulator pumps for circulation of cold water and other liquids in cooling and air-conditioning systems.</td>
<td>Vertical and horizontal centrifugal pumps and pressure boosting systems for liquid transfer and boosting hot and cold water.</td>
<td>A wide range of pumps for the transfer of water, cooling lubricants and other liquids in industrial and process systems.</td>
<td>Dosing pumps for wastewater treatment systems, swimming pools and industry.</td>
</tr>
</tbody>
</table>
Domestic water supply
Submersible pumps, jet pumps, multistage centrifugal pumps and compact systems for water supply in homes, gardens and hobby applications.

Environmental applications
Purpose-built submersible pumps for remedial pumping of contaminated groundwater and for sampling for water quality analyses.

Groundwater supply
Submersible and dry installed pumps for groundwater supply, irrigation and groundwater lowering.

Renewable-energy systems
Renewable-energy based water supply systems suitable for remote locations not connected to the electricity supply grid.

Sewage and wastewater
Drainage, effluent and sewage pumps, for a wide range of applications in building services as well as transfer of raw sewage in municipal sewage systems.
<table>
<thead>
<tr>
<th>Page</th>
<th>Product name</th>
<th>Heating</th>
<th>Cooling</th>
<th>Pressure Boosting / Liquid Transfer</th>
<th>Industrial Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Grundfos MAGNA, UPE Series 2000</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Grundfos UP, UP(S)-N Series 100</td>
<td>●</td>
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<td>Grundfos UPS Series 200</td>
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<td>7</td>
<td>TP</td>
<td>●</td>
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<td>TPE Series 1000</td>
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<td>NB, NBC(E)</td>
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<td>CR, CRI, CRN</td>
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<td>●</td>
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<td>CRE, CRIE, CRNE</td>
<td>●</td>
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</tr>
<tr>
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<td>CR, CRN high pressure</td>
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<td>●</td>
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<tr>
<td>10</td>
<td>CRT</td>
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<td>11</td>
<td>Hydro MPC</td>
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<td>11</td>
<td>Hydro Multi-B E(S)</td>
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<td>11</td>
<td>BM, BMB</td>
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<td>12</td>
<td>BME, BMET</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Smart Digital Sets - DDA, DDC, DDE</td>
<td>●</td>
<td>●</td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>DMH</td>
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<td>Oxiperm Pro</td>
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</tr>
<tr>
<td>14</td>
<td>MAXA, MAXANA</td>
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</tr>
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</tr>
<tr>
<td>15</td>
<td>SQ, SQE</td>
<td>●</td>
<td>●</td>
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</tr>
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<td>15</td>
<td>SQFlex</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>SP-A, SP, SP-G</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>MS Motor</td>
<td>●</td>
<td>●</td>
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</tr>
<tr>
<td>16</td>
<td>MMS Motors</td>
<td>●</td>
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</tr>
<tr>
<td>17</td>
<td>MP 1</td>
<td>●</td>
<td>●</td>
<td>●</td>
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</tr>
<tr>
<td>17</td>
<td>SQE-N, SP-NE</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>MQ</td>
<td>●</td>
<td>●</td>
<td>●</td>
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</tr>
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<td>18</td>
<td>KP, AP, AP35B, APS08B – stainless steel</td>
<td>●</td>
<td>●</td>
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</tr>
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<td>●</td>
<td>●</td>
<td></td>
</tr>
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<td>SL1, SLV</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
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<td>S Range</td>
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<td>●</td>
<td>●</td>
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</tr>
<tr>
<td>19</td>
<td>KPL, KWM</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<td>●</td>
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<td>●</td>
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<td>Diffusers</td>
<td>●</td>
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<td>Control MPC</td>
<td>●</td>
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<td>●</td>
<td>●</td>
</tr>
<tr>
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<td>CUE</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>21</td>
<td>CU 3, CU 300, CU 301</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>21</td>
<td>R100</td>
<td>●</td>
<td>●</td>
<td>●</td>
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</tr>
<tr>
<td>22</td>
<td>MP 204</td>
<td>●</td>
<td>●</td>
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</tr>
<tr>
<td>22</td>
<td>LiqTec</td>
<td>●</td>
<td>●</td>
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</tr>
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<td>Tanks</td>
<td>●</td>
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</table>
GRUNDFOS MAGNA, UPE Series 2000
Circulator pumps, canned rotor type – electronically controlled

Technical Data
Flow (Q) max. 12 m³/h
Head (H) max. 10.5 m
Liquid temperature 2 °C to 95°C
Operating pressure max. 10 bar

Applications
Circulation of hot water in
• Heating systems in blocks of flats, schools, hospitals, hotels, industry etc.

Features and benefits
• Low noise level
• Low energy consumption, Energy labelling: Class A
• Wide range
• Automatic performance adjustment
• Simple installation (no extra equipment or fittings required)
• Safe selection.

Options
• Stainless steel pump housing
• Twin-head versions
• Wireless remote control, R100
• Communication via GENIbus or LON

GRUNDFOS UP, UP(S)-N Series 100
Circulator pumps, canned-rotor type

Technical Data
Flow (Q) max. 10 m³/h
Head (H) max. 7 m
Liquid temperature -25°C to 110°C
Operating pressure max. 10 bar

Applications
Circulation of hot or cold water in
• Domestic hot water recirculation
• Heating systems
• Domestic hot water systems
• Cooling and air-conditioning systems

Features and benefits
• Maintenance-free
• Low-noise
• Low-energy
• Wide range
• Corrosion-resistant stainless steel, brass pump housing

Options
• 24-hour timer

GRUNDFOS UPS Series 200
Circulator pumps, canned-rotor type

Technical Data
Flow (Q) max. 54 m³/h
Head (H) max. 18.5 m
Liquid temperature -10°C to 120°C
Operating pressure max. 10 bar

Applications
Circulation of hot or cold water in
• Heating systems
• Domestic hot water systems
• Cooling and air-conditioning systems

Features and benefits
• Maintenance-free
• Built-in thermal switch
• Low-noise
• Low-energy
• Energy labelling up to class B
• Single-phase with built-in protection module
• Wide range

Options
• Protection module
• Relay module with fault signal or operating output
• Bronze pump housing
• Twin-head versions
• Communication via GENIbus or LON
TP
Single-stage in-line pumps

Technical Data
Flow (Q) max. 1270 m³/h
Head (H) max. 225 m
Liquid temperature 150 °C
Operating pressure max. 25 bar

Applications
Circulation of hot or cold water in
- Heating systems
- District heating plants
- Local heating plants
- Domestic hot water systems
- Cooling and air-conditioning systems

Features and benefits
- Compact design
- Wide range
- Standard IE3/IE2 motor
- Service-friendly
- Various types of shaft seals depending on liquid, temperature and pressure

Options
- Bronze pump housing
- Bronze impeller
- Stainless steel impeller
- Twin-head versions

TPE Series 1000
Single-stage in-line pumps with MGE motor

Technical Data
Flow (Q) max. 576 m³/h
Head (H) max. 95.5 m
Liquid temperature -25°C to 120°C
Operating pressure max. 16 bar

Applications
The pumps are suitable for liquid transfer in
- District heating plants
- Cooling and air-conditioning systems
- Industrial plants

Features and benefits
- Low-energy
- Adaptation to existing operating conditions
- Simple installation
- Many control facilities
- Wireless remote control, R100
- Communication via GENIbus, BACnet MS/TP, LON, Modbus RTU or Profibus DP

Options
- Parallel operation
- Wireless remote control, R100
- Communication via GENIbus or LON
- Twin-head versions

TPE Series 2000
Single-stage in-line pumps with MGE motor

Technical Data
Flow (Q) max. 235 m³/h
Head (H) max. 42 m
Liquid temperature -25°C to 120°C
Operating pressure max. 16 bar

Applications
Circulation of hot or cold water in
- Heating systems
- Domestic hot water systems
- Cooling and air-conditioning systems

Features and benefits
- Low-energy
- Adaptation to existing operating conditions
- Simple installation
- Many control facilities
- Wireless remote control, R100
- Communication via GENIbus, BACnet MS/TP, LON, Modbus RTU or Profibus DP
Applications
The pumps are suitable for liquid transfer in:
• District heating plants
• Heating systems for blocks of flats
• Air-conditioning systems
• Cooling systems
• Washdown systems
• Other industrial systems

Technical Data
Flow (Q) max. 3060 m³/h
Head (H) max. 183 m
Liquid temperature 100°C
Operating pressure max. 16 bar

Features and benefits
• Standard dimensions according to EN / ISO standards
• Compact design
• Flexible pump range
• Standard motor
• Adaptable to any application and performance
• EN 12 756 shaft seal

Options
• Various types of shaft seal depending on liquid, temperature and pressure
• Cast iron or bronze impeller

Applications
The pumps are suitable for liquid transfer in:
• District heating plants
• Heating systems for blocks of flats
• Air-conditioning systems
• Cooling systems
• Washdown systems
• Other industrial systems

Technical Data
Flow (Q) max. 1310 m³/h
Head (H) max. 157 m
Liquid temperature 120°C
Operating pressure max. 16 bar

Features and benefits
• Standard dimensions according to EN / ISO standards
• Compact design
• Flexible pump range
• Standard motor
• Adaptable to any application and performance
• EN 12 756 shaft seal

Options
• Various types of shaft seal depending on liquid, temperature and pressure
• Cast iron or bronze impeller

Applications
The pumps are suitable for liquid transfer in:
• District heating plants
• Heating systems for blocks of flats
• Air-conditioning systems
• Cooling systems
• Washdown systems
• Other industrial systems

Technical Data
Flow (Q) max. 1480 m³/h
Head (H) max. 160 m
Liquid temperature 120°C
Operating pressure max. 16 bar

Features and benefits
• Standard dimensions according to EN / ISO standards
• Compact design
• Flexible pump range
• Standard motor
• Adaptable to any application and performance
• EN 12 756 shaft seal

Options
• Various types of shaft seal depending on liquid, temperature and pressure
• Cast iron or bronze impeller

HS
Horizontal split case pumps

NB, NBG(E)
End-suction close-coupled pumps according to EN 733 / ISO 2858

NK, NKG(E)
End-suction long-coupled pumps according to EN 733 / ISO 2858
**CM, CME**

Compact horizontal end-suction pumps

**Technical Data**

- Flow (Q) max.: 35 m³/h
- Head (H) max.: 120 m
- Liquid temperature: -20°C to 120°C
- Operating pressure max.: 16 bar

**Applications**

- Washing & cleaning
- Water treatment
- Temperature control
- Pressure boosting

**Features and benefits**

- Reliability - Peace of mind
- Compactness - Fits in everywhere
- Flexibility - Customise to the needs
- Noiseless - Out of mind

**Options**

- Cast iron - AISI 304 (W.no 1.4301) - AISI316 (W.no 1.4401)
- All versions with integrated frequency converter CME or stand alone CM +CUE
- Connections: NPT- RP-ANSI-JIS- DIN-Vitaulic- Clamps

---

**SPK, CHK, MTH, CRK, MTR, MTA**

Multistage centrifugal immersible pumps

**Technical Data**

- Flow (Q) max.: 104 m³/h
- Head (H) max.: 267 m
- Liquid temperature: -20°C to 90°C
- Operating pressure max.: 25 bar

**Applications**

- Machine tools
- Components washing machines
- Chiller units
- Industrial washing machines
- Filter and conveyor systems
- Temperature control
- Boiler feed
- General pressure boosting

**Features and benefits**

- Flexible installation length
- Wide range
- Reliability
- Service-friendly
- Simple installation

**Options**

- Dry-running protection and motor protection via LiqTec

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**CR, CRI, CRN**

Vertical multistage centrifugal pumps

**Technical Data**

- Flow (Q) max.: 184 m³/h
- Head (H) max.: 267 m
- Liquid temperature: -30°C to 120°C
- Operating pressure max.: 30 bar

**Applications**

- The pumps are suitable for liquid transfer in
  - Washing systems
  - Cooling and air-conditioning systems
  - Water supply systems
  - Fire fighting systems
  - Industrial plants
  - Boiler feeding systems

**Features and benefits**

- Reliability
- High efficiency
- Service-friendly
- Space-saving
- Suitable for slightly aggressive liquids

**Options**

- Dry-running protection and motor protection via LiqTec
CRE, CRIE, CRNE
Vertical multistage pumps with MGE motor

Technical Data
Flow (Q) max. 183 m³/h
Head (H) max. 271 m
Liquid temperature 120 °C
Operating pressure max. 24 bar

Applications
The pumps are suitable for liquid transfer in
• Washing systems
• Cooling and air-conditioning systems
• Water supply systems
• Fire fighting systems
• Industrial plants
• Boiler feeding systems

Features and benefits
• Wide range
• Reliability
• In-line design
• High efficiency
• Service-friendly
• Space-saving
• Many control facilities

Options
• Wireless remote control, R100

CR, CRN High Pressure
Vertical multistage centrifugal pumps

Technical Data
Flow (Q) max. 146 m³/h
Head (H) max. 482 m
Liquid temperature -30°C to 120°C
Operating pressure max. 50 bar

Applications
The pumps are suitable for liquid transfer in
• Washing systems
• Water treatment systems
• Industrial plants
• Boiler feeding systems

Features and benefits
• High corrosion resistance
• Reliability
• High efficiency
• Service-friendly
• Space-saving

Options
• Dry-running protection and motor protection via LiqTec

CRT
Vertical multistage centrifugal pumps

Technical Data
Flow (Q) max. 26.5 m³/h
Head (H) max. 236 m
Liquid temperature -25°C to 120°C
Operating pressure max. 25 bar

Applications
The pumps are suitable for liquid transfer in
• Process water systems
• Washing in cleaning systems
• Sea water systems
• Pumping of acids and alkalis
• Ultra filtration systems
• Reverse osmosis systems
• Swimming baths

Features and benefits
• High corrosion resistance
• Reliability
• High efficiency
• Service-friendly
• Space-saving

Options
• Dry-running protection and motor protection via LiqTec
Hydro MPC
Turnkey booster systems

Technical Data
Flow (Q) max. 1100 m³/h
Head (H) max. 162 m
Liquid temperature 5°C to 70°C
Operating pressure max. 16 bar

Applications
Hydro MPC are suitable for pressure boosting in
• Water supply
• Heating
• Air-Condition
• Water treatment

Features and benefits
• Constant pressure
• Simple installation
• Low energy
• Application optimised software

Options
• External Communication

Hydro Multi-B E(S)
Turnkey booster systems

Technical Data
Flow (Q) max. 78 m³/h
Head (H) max. 113 m
Liquid temperature 0°C to 60°C
Operating pressure max. 16 bar

Applications
• Offices
• Schools
• Hotels
• Apartment blocks
• Shopping centres

Features and benefits
• Constant pressure
• Simple installation
• Low-energy
• Wide range
• Small footprint
• Reliable

Options
• External communication, Control 2000

BM, BMB
4”, 6”, 8” booster modules

Technical Data
Flow (Q) max. 327 m³/h
Head (H) max. 390 m
Liquid temperature 40°C
Operating pressure max. 70 bar

Applications
The booster modules are suitable for pressure boosting in
• Reverse osmosis systems
• Water supply systems
• Water treatment systems
• Industrial plants

Features and benefits
• Various material versions
• Low-noise
• Simple installation
• Modular design
• Compact design
• Leakage-free
BME, BMET
Booster module with external motor

Technical Data
- Flow (Q) max.: 95 m³/h
- Head (H) max.: 700 m
- Liquid temperature: 40°C
- Operating pressure max.: 70 bar

Applications
The booster systems are suitable for pressure boosting in
- Reverse osmosis systems
- Water supply systems
- Water treatment systems
- Industrial plants

Features and benefits
- High-pressure/high-flow
- Low-energy
- Simple installation
- Compact design

SMART Digital Sets
DDA, DDC, DDE
Diaphragm dosing pump with internal stepper motor drive

Technical Data
- Flow (Q) max.: 30 l/h
- Liquid temperature: -10°C to 45°C
- Operating pressure max.: 16 bar

Features and benefits
- Internal stroke-speed and frequency control
- Manual, pulse and 0/4-20 mA control
- Batch, timer cycle, timer week control
- FlowControl with selective fault diagnosis, pressure monitoring
- Integrated flow measurement and AutoFlowAdapt
- 0/4-20mA and 2 relay outputs
- Auto deaeration
- Power supply 100-240 V, 50/60 Hz.

Options
- E-box for Profibus DP network.

DMH
Hydraulically driven diaphragm dosing pumps with external motor

Technical Data
- Flow (Q) max.: 2000 l/h
- Liquid temperature: 50°C
- Operating pressure max.: 200 bar

Applications
- Drinking water treatment
- Wastewater treatment (settlement/sludge treatment)
- Pulp/paper and textile industries

Features and benefits
- Robust design
- Stroke length adjustment
- Control options:
  - Pulse input
  - Analogue input
  - Level input from storage tank

Options
- Available with API 675 approval
- Available with ATEX approval
DMX
Diaphragm dosing pumps with external motor

Technical Data
Flow (Q) max. 2000 l/h
Liquid temperature 50°C
Operating pressure max. 10 bar

Applications
- Drinking water treatment
- Wastewater treatment (settlement/sludge treatment)
- Pulp/paper and textile industries

Features and benefits
- Robust design
- Stroke length adjustment
- Control options:
  - Pulse input
  - Analogue input
  - Level input from storage tank

Oxiperm
Chlorine dioxide generating and dosing system

Technical Data
Dilute acid - chlorite generation:
Oxiperm OCD-162 5-60 g/h
Oxiperm OCD-164 30-2000 g/h
Concentrated acid - chlorite generation:
Oxiperm OCC-164 150 g/h - 10 kg/h
Chlorite - chlorine generation:
Oxiperm OCG-166 0.75 - 10 kg/h

Applications
Disinfection in
- Water and wastewater treatment systems
- Utility water
- Water conditioning
- Food and beverage processes
- Plant processes

Features and benefits
- Safe and reliable generation of stable sodium hypochlorite solutions on location to minimize risks and costs
- Generation of sodium hypochlorite with salt and electricity, reducing plant operation costs
- Integrated generation system that reduces hydrogen gas exposure
- Interlocked safety devices and control systems for easy operation
- No explosion proof environments required for installation
- Durable, long-lasting equipment requiring a minimum of service

Selcoperm
Onsite sodium hypochlorite generators

Technical Data
Selcoperm electrolytic Cl₂ generator
125 g/h up to 2000 g/h

Applications
Disinfection in
- Water and wastewater treatment systems
- Groundwater supply
- Utility water
- Water conditioning
- Food and beverage processes
- Plant processes

Features and benefits
- Safe and reliable generation of chlorine dioxide through proven methods of superior disinfection
- Easy to use controls and operations
- High efficiency generation of chlorine dioxide with a minimum of by-products
- Low chemical consumption
- Batch and continuous feed generators
- Fieldbus and alarm communication
- Generation using dilute or concentrated precursor chemicals
Euro-HYGIA

Single-stage end-suction sanitary pumps

Technical Data

- Flow (Q) max.: 95 m³/h (250 m³/h on request)
- Head (H) max.: 85 m
- Liquid temperature: 95°C (up to 150°C on request)
- Operating pressure max.: 16 bar

Applications

- Liquid transfer in breweries and dairies
- Mixing in soft drink applications
- Food processing plants
- Pure water systems (WFI)
- Process pumping in pharmaceutical industry
- CIP (Cleaning-In-Place) systems.

Features and benefits

- Unique hygienic design (QHD, EHEDG and 3A standards)
- CIP and SIP capable (DIN EN 12462)
- Customised solutions
- Materials: AISI 316L (DIN EN 1.4404/1.4435)
- Gentle media handling.

Options

- Wireless remote control, R100

MAXA, MAXANA

End-suction process pumps

Technical Data

- Flow (Q) max.: 800 m³/h
- Head (H) max.: 97 m
- Liquid temperature: 95°C (up to 150°C on request)
- Operating pressure max.: 10 bar

Applications

- Gentle pumping of mash and wort for beer filtration (hot side)
- Liquid transfer in dairies
- Water treatment plants
- Chemical and environmental handling systems
- Liquids with high content of solid particles.

Features and benefits

- Optimised hydraulics
- Gentle product handling
- Materials: AISI 316 (DIN EN 1.4404)
- Service and repair friendly.

Options

- Electronically speed controlled versions
- ATEX-certified pumps
- Electro-polished versions
- Double mechanical shaft seals (tandem/back-to-back)

SIPLA

Compact horizontal end-suction pumps

Technical Data

- Flow (Q) max.: 55 m³/h
- Head (H) max.: 78 m
- Liquid temperature: 95°C
- Operating pressure max.: 10 bar

Applications

- CIP return pumping
- Transfer of glycerine
- Transfer of yeast
- Transfer of whey

Features and benefits

- Meets the 3A hygienic standard
- High air-content handling
- Efficient priming.

Options

- Electronically speed controlled versions
- ATEX-certified pumps
- Fully cleanable versions
NOVAlobe
Sanitary rotary lobe pumps

### Technical Data

<table>
<thead>
<tr>
<th>Pump model</th>
<th>Displacement litres/rev</th>
<th>Max. diff. pressure (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOVAlobe 10/0.06</td>
<td>0.06</td>
<td>16</td>
</tr>
<tr>
<td>NOVAlobe 20/0.12</td>
<td>0.12</td>
<td>16</td>
</tr>
<tr>
<td>NOVAlobe 30/0.33</td>
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<tr>
<td>NOVAlobe 40/0.65</td>
<td>0.65</td>
<td>16</td>
</tr>
<tr>
<td>NOVAlobe 50/1.29</td>
<td>1.29</td>
<td>16</td>
</tr>
</tbody>
</table>

### Applications
- Dairy industry
- Food processing plants
- Soft drink applications
- Confectionary and sugar
- Pharma/personal care
- Brewery industry

### Features and benefits
- Interchangeable rotor and shaft seal designs
- Various connection types
- Large shaft diameter and compact design for high differential pressure
- Standard surface finish of Ra ≤ 0.8 μm for easy cleanability
- EHEDG-certified cleanability with full drainability in vertical installation

### Options
- Customised shaft seal solution
- Pressure relief valve
- Thermal jacket
- Aseptic front cover

---

SQ, SQE
3” Submersible pumps

### Technical Data

- Flow (Q) max.: 9 m³/h
- Head (H) max.: 230 m
- Liquid temperature: 0°C to 40°C
- Installation depth: max. 150 m

### Applications
- The pumps are suitable for
  - Domestic water supply systems
  - Groundwater supply to waterworks
  - Irrigation in horticulture and agriculture
  - Groundwater lowering
  - Industrial applications

### Features and benefits
- Integrated dry-running protection
- Soft start
- Over- and undervoltage protection
- High efficiency

---

SQFlex
Renewable-energy based water supply system

### Technical Data

- Flow (Q) max.: 90 m³/day
- Head (H) max.: 120 m
- Liquid temperature: 0 °C to 40 °C
- Voltage supply: 30–300 VDC or 1x90–240 V 50 / 60 Hz
- Installation depth: max. 150 m

### Applications
- The SQFlex systems are suitable for remote locations, such as
  - Villages, schools, hospitals, single-family houses
  - Farms and irrigation of greenhouses
  - Game parks and game farms
  - Conservation areas

### Features and benefits
- Energy supply: Solar modules, wind turbine, generator or batteries
- Simple installation
- Reliable water supply
- Virtually no maintenance
- Expansion possibilities
- Cost-efficient pumping
- Dry-running protection
SP, SP A, SP-G

4", 6", 8" 10" Submersible pumps

Technical Data
Flow (Q) max. 417 m³/h
Head (H) max. 800 m
Liquid temperature 60°C
Installation depth max. 600 m

Applications
The pumps are suitable for
• Groundwater supply to waterworks
• Irrigation in horticulture and agriculture
• Groundwater lowering
• Pressure boosting
• Industrial applications

Features and benefits
• High efficiency
• Long service life as all components are stainless steel
• Motor protection via CU 3

Options
• Data can be monitored and controlled via CU 3/R100

MS Motor
Stainless steel 4" and 6" submersible motors

Motor sizes
• 4” motor 0.25 to 7.5 kW
• 6” motor 5.5 to 30 kW

Applications
The Grundfos MS submersible motors can be fitted on all Grundfos SP A, SP pumps and can be used in the high-pressure booster modules, type BM and BMB.

Features and benefits
• Overprotection by means of a built-in Tempcon temperature transmitter
• Standardized NEMA head and shaft end
• Completely encapsulated in stainless steel
• Liquid cooled and has liquid lubricated bearings

Options
• Material variants available

MMS Motor
Stainless steel 6", 8", and 10" rewindable submersible motors

Motor sizes
• 6” motor 3.7 to 37 kW
• 8” motor 22 to 110 kW
• 10” motor 92 to 190 kW

Applications
The Grundfos MMS submersible motors can be fitted on all Grundfos SP and SP-G pumps.

Features and benefits
• Wide range of rewindable motors
• Easily rewinded
• Protection against upthrust
• High efficiency
• 6" and 8" have standardized NEMA head and shaft end
• Mechanical shaft seal ceramic/carbon or SiC/SiC
• PVC or PE/PA windings

Options
• Material variants available
• Overtemperature protection via Pt100
**Applications**

The pumps are suitable for

- Sampling

**Features and benefits**

- Compact design
- Fit into 50mm boreholes

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**Technical Data**

Flow (Q) max. 2.45 m³/h
Head (H) max. 98 m
Liquid temperature 0°C to 35°C

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**Applications**

The pumps are suitable for

- Pumping up contaminated groundwater
- Sampling
- Remedial pumping

**Features and benefits**

- Integrated dry-running protection
- Soft start
- Over- and undervoltage protection
- High efficiency
**KP, AP, AP35B, AP50B – stainless steel**

Drainage, effluent and domestic sewage pumps

**Technical Data**
- Flow (Q) max.: 9 l/s
- Head (H) max.: 15 m
- Liquid temperature: 55°C
- Particle size: max. ø50 mm

**Applications**
The pumps are suitable for:
- Drainage of flooded cellars
- Pumping of household wastewater
- Groundwater lowering
- Emptying of swimming pools and excavations
- Drainage of drain wells
- Emptying of tanks and reservoirs

**Features and benefits**
- Simple installation
- Service- and maintenance-free

**Options**
- AP35 has vortex impeller
- AP50B has vortex impeller
- AP50B has auto-coupling and horizontal outlet

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**DPK**

Drainage pumps

**Technical Data**
- Flow (Q) max.: 70 l/s
- Head (H) max.: 56 m
- Liquid temperature: 0°C to 40°C

**Applications**
The pumps are suitable for draining of:
- Underground building
- Industrial pits
- Storm water pits

**Features and benefits**
- High-pressure capabilities
- Installation flexibility
- Easy to service and maintain

---

**DWK**

Dewatering pump

**Technical Data**
- Flow (Q) max.: 98 l/s
- Head (H) max.: 91 m
- Liquid temperature: 0°C to 40°C

**Applications**
The pumps are suitable for draining of:
- Construction sites
- Excavation sites
- Tunnels
- Underground building
- Industrial pits
- Storm water pits

**Features and benefits**
- Durability
- Ductile/high-chrome impeller
- Easy to operate
- High efficiency
- Compact design
- High-pressure capabilities
**SL1 / SLV**

Sewage pumps

**Technical Data**
- Flow (Q) max.: 80 l/s
- Head (H) max.: 45 m
- Liquid temperature: 40°C

**Applications**
The SL pump is designed for the transfer of:
- Drainage and surface water
- Domestic, municipal and industrial wastewater
- Process water

**Features and benefits**
- High motor efficiency.
- Intelligent adaptive controls
- Integrated analogue sensors
- Lifting handle designed for optimum point-of-balance and correct lifting.
- Patented SmartSeal auto-coupling gasket provides a completely leak-proof connection.
- Double mechanical shaft seal
- Short rotor shaft
- Choice of SuperVortex or S-tube impeller.
- Replaceable wear ring

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**S Range**

Sewage pumps

**Technical Data**
- Flow (Q) max.: 1470 l/s
- Head (H) max.: 2 m
- Liquid temperature: -5°C to 40°C
- Column pipe diameter: DN300, DN500, and DN800

**Applications**
The pumps are suitable for:
- Transfer of wastewater
- Transfer of raw water
- Pumping of sludge-containing water
- Pumping of industrial effluent

**Features and benefits**
- Wide range
- SmartTrim
- Operation with/without cooling jacket
- Submerged or dry installation
- Different types of impellers
- Built-in motor protection
- Stainless steel versions

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**KPL / KWM**

Axial and mixed flow pumps

**Technical Data**
- Flow (Q) max.: 11,700 l/s
- Head (H) max.: 40 m

**Applications**
The pumps are suitable for:
- Flood and storm water control
- Large-volume drainage and irrigation
- Raw-water intake
- Circulation of large quantities of water
- Water-level control in coastal and low-lying areas
- Filling and emptying of dry docks and harbour installations
- Filling or emptying of reservoirs
- Treated sewage
- Cooling-water intake in power stations
- Process and discharge water
- Other low- to medium-head/high-flow applications

**Features and benefits**
- Quality products
- Robust, reliable and cost-effective
- Available in cast iron or stainless steel
- Aluminium bronze or stainless steel propeller
- High-voltage models, up to 10 kV
- Pump and motor size up to 1 MW
**SRP**
Submersible recirculation pumps

**Technical Data**
- Flow (Q) max.: 1880 l/s
- Head (H) max.: 80 m
- Liquid temperature: 40°C
- Discharge diameter: DN 80 to DN 500
- Particle size: max. ø145 mm

**Applications**
The pumps are suitable for
- Re-circulation of sludge within sewage treatment plants
- Storm water pumping

**Features and benefits**
- High efficiency stainless steel propeller
- Totally submerged installations
- Built-in motor protection

**Options**
- Control and protection systems

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**AMD, AMG, AFG**
Mixers and flowmakers

**Technical Data**
The mixers and flowmakers are equipped with propellers made of stainless steel or composite material with a diameter between 180 mm and 2300 mm and a rotation speed between 22 min⁻¹ and 1400 min⁻¹.

**Features and benefits**
- Wide range of flexible installation accessories
- Easy to maintain and service without use of special tools
- Electronic leak sensor in gearbox/shaft seal housing
- Shaft seal protected against abrasive materials
- Self-cleaning stainless steel or polyamide propellers

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**Diffuser**
Aeration system

**Applications**
- Process tanks at municipal or industrial wastewater treatment plant
- SBR or MBR systems
- Stabilisation and equalisation tanks
- Aerobic digestion
- Grit and grease removal
- Flotation

**Features and benefits**
- Complete systems designed specifically to meet process oxygen demands
- Possibility for high diffuser density to give maximum oxygen transfer efficiency
- Custom-made solutions available as fixed or retractable systems
  - Retractable system – for easy maintenance
  - Fixed system – cost-effective in large systems
- Different materials are used for membranes, pipes and supports, according to system operating conditions
- Pre-assembled air distribution systems with one-bolt connections minimise construction time on site
- Mechanically-connected air distribution piping with sliding allows for expansion and contraction due to temperature variations
- Fully adjustable piping supports in stainless steel for flexibility in installation
- Automatic or manual purge systems reduce friction losses in air distribution piping
- Broad range of fine, medium or coarse bubble diffusers in both disc and tubular designs
- Pre-assembled diffuser units minimise installation time and eliminate incorrect assembly on site
- Flexible membranes ensure uniform air distribution over the entire surface across a wide range of air flow rates.
Control MPC
Pump controller

Technical Data
Grundfos Control MPC is a control cabinet with a CU 352 controller that permits monitoring and control of up to six identical pumps connected in parallel.

Control MPC supports communication with monitoring equipment or other external units via a number of different fieldbus protocols:
- Ethernet (VNC server is standard in Control MPC)
- PROFIBUS via CIM modules
- LON via CIM modules
- Modbus via CIM modules
- GSM and GPRS via CIUMmodules
- PLC via IO 351B modules

Features and benefits
- Efficient cascade control
- Large color screen
- Setpoint influence
- Individual pump control
- Alternative setpoints
- Clock program
- Proportional pressure regulation
- Alternation
- Standby pumps
- Pump test run
- Pilot pumps
- Stop at low flow function
- Soft pressure build-up function (minimises risk of water hammer)
- Emergency run
- Flow estimation
- Dry running protection
- Log function

CUE
Frequency converter

Applications
The CUE provides a series of predefined functions which make the converters easy to use in almost all application areas.

Predefined control modes available such as:
- Constant pressure
- Proportional pressure
- Constant level
- Constant flow

CUE offers the following inputs and output:
- RS-485 GENibus
- an analog 0-10 V input for external setpoint
- an analog 0/4-20 mA input for sensor
- four digital inputs for various functions, for instance external start/stop
- two signal relays (C/NO/NC)

Features and benefits
- Protection against dry running and too high motor temperature
- Constant monitoring of pump energy consumption
- Reading out of operating data via R100

Options
- Connection to large control systems via bus-communication
- Connection of sensors enabling control based on sensor signal

CU 3, CU 300, CU 301
Control and monitoring unit

Applications
- Monitoring and protection of pumps installations

Features and benefits
- Protection against dry running and too high motor temperature
- Constant monitoring of pump energy consumption
- Reading out of operating data via R100

Options
- Connection to large control systems via bus-communication
- Connection of sensors enabling control based on sensor signal

R 100
Wireless remote control

Application
- All pumps and electronics designed for wireless communications

Features and benefits
- Simple and quick installation and configuration
- of the pump controls
- Read out of various operating and fault signals
- Troubleshooting
- Print out of status information
MP 204
Control and monitoring unit

Technical Data
- Approvals on nameplate: UL, IEC, EN, CE
- Ambient temperature: -20°C to 60°C
- Rated current: 3 to 120 A
- Mains frequency: 60 Hz
- Rated voltage: 1/3 x 100-480 V
- Enclosure class (IEC 34-5): 20

Applications
- Monitoring and protection of pump installations

Features and benefits
- Protection against dry running
- Protection against too high motor temperature
- Protection against overload
- Protection against overvoltage and undervoltage
- Protection against current and phase imbalance
- Constant monitoring of power consumption

LiqTec
Control and monitoring unit

Technical Data
- Approvals on nameplate: CU, CUL
- Ambient temperature max.: 55°C
- Liquid temperature max.: 120°C
- Operating pressure max.: 40 bar
- Mains frequency: 60 Hz
- Rated voltage: 80-130 V
- Enclosure class (IEC 34-5): IP X0

Applications
- Monitoring and protection of pumps and processes

Features and benefits
- Protection against dry running
- Protection against liquid temperatures exceeding 130°C ±5°C
- Protection against too high motor temperatures
- Manual or automatic restarting possible from a remote PC
- Simple installation - plug and play technology
- If the sensor, sensor cable, electronic unit or power supply fails, the pump stops immediately

Tanks
Diaphragm and bladder tanks

Technical Data
- Tank size: 8-3000 l
- Liquid temperature max.: 99°C
- Operating pressure max.: 16 bar

Applications
- The diaphragm and bladder tanks are used in
  - Water supply systems in housing
  - Pressure boosting systems in housing
  - Agriculture
  - Horticulture
  - Industrial systems

Features and benefits
- Optimal water supply
- Reduced number of pump starts
- Ideal for drinking water