## **GRUNDFOS A WIDE RANGE OF QUALITY PUMPS**







## A global business

With over 10,000 employees and annual production of some 8 million pump units a year, Grundfos is one of the world's leading pump manufacturers. More than 50 companies right across all the continents of the globe 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 userfriendly 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 customeroriented 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 millions who benefit from water that is procured, utilised and removed as wastewater with the help of Grundfos pumps.

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## **Pumps for all purposes**

No matter for which purpose an efficient and energysaving pump solution is required, Grundfos offers a high-quality solution.











# Heating and hot water service systems

Circulator pumps for circulation of hot water in central and district heating systems and circulation in domestic hot water service systems.

# Cooling and air-conditioning systems

Circulator pumps for circulation of cold water and other liquids in cooling and air-conditioning systems.

## Industrial applications

A wide range of multistage pumps for the transfer of water, cooling lubricants and other liquids in industrial and process systems.

## Pressure boosting and liquid transfer

Vertical and horizontal, centrifugal pumps and pressure boosting systems for liquid transfer and boosting of hot and cold water.

## Groundwater supply

Submersible pumps for ground-water supply, irrigation and groundwater lowering.











## Domestic water supply

Submersible pumps, jet pumps, multi-stage centrifugal pumps and compact systems for water supply in homes, gardens and hobby applications.

## 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.

## Environmental applications

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

## Dosing

Dosing pumps for wastewater treatment systems, swimming pools and industry.

## Renewable energy systems

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

## PRODUCT AND APPLICATION OVERVIEW

Product name	Page	Application	Heating and hot water service systems	Cooling and air-conditioning systems	Industrial applications	Pressure boosting and liquid transfer	Groundwater supply	Domestic water supply	Sewage and wastewater	Environmental applications	Dosing	Renewable energy systems
GRUNDFOS ALPHA	8		•	•								Н
GRUNDFOS COMFORT	8		•	•		$\vdash$						Н
UPS Series 100	8	Circulator pumps, canned-rotor type	•	•								Н
UPS Series 200	8	91	•	•								Н
UPE Series 2000	9		•									П
ТР	9	Circulator pumps, close-coupled type	•	•								П
LM, LP, CLM	9		•	•	•	•						П
TPE Series 2000	10	Single-stage centrifugal pumps	•	•								П
TPE, LME, LPE, CLME	10		•	•	•	•						П
Delta Control 2000	11	Controllers	•	•								П
NM, NP, DNM, DNP	11		•	•	•	•						П
NB, NBG	12		•	•	•	•						П
NK, NKG	12	Single-stage standard pumps	•	•	•	•						П
NME, NPE, DNME, DNPE	12		•	•	•	•						П
NBE	13		•	•	•	•						П
NKE	13		•	•	•	•						П
SPK, CHK, MTH, CRK, MTR, MTA	13	Multistage centrifugal pumps			•							П
SPKE, CRKE	14				•							П
DME, DMS, DMM	14	Dosing pumps, diaphragm type			•						•	П
GP	15	Swimming-pool pumps			•							П
WPU	15	Whirlpool pump units			•							П
сні, сній	15	Multistage centrifugal pumps		•	•	•			•			
CHIE	16			•	•	•			•			

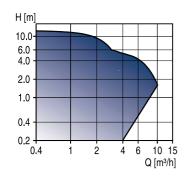
Product name	Page	Application	Heating and hot water service systems	Cooling and air-conditioning systems	Industrial applications	Pressure boosting and liquid transfer	Groundwater supply	Domestic water supply	Sewage and wastewater	Environmental applications	Dosing	Renewable energy systems
CR, CRI, CRN	16			•	•	•		•		•		
CRT	17	Multistage centrifugal pumps			•	•				•		
CV, CPV, CPH	17			•	•	•						
CRE, CRIE, CRNE	18			•	•	•		•		•		
Hydro Booster sets	18	Pressure boosting systems			•	•		•				
Control 2000	18	Controllers			•	•						
вм, вмв	19	Booster modules			•	•						
BMQ, BMQE-NE	19				•	•						
BME, BMET	19	High-pressure booster modules			•	•						
SQ, SQE	20	3" submersible pumps					•	•				
SP, SP-G	20	4"-6"-8"-10"-12" submersible pumps					•	•				
SQE-NE, SP-NE, MP 1	21	Environmental pumps								•		П
SQFlex	22	Water supply systems										•
JP	22	Self-priming jet pumps						•				П
CH, CHN	23				•	•		•				П
MQ	23	Multistage centrifugal pumps				•		•				П
CHV	23				•	•		•				
CHV booster	24	Pressure boosting systems			•	•		•				П
Tanks	24	Diaphragm and bladder tanks			•			•				П
KP, AP - stainless steel	24	Drainage pumps							•			
AP, APG - cast iron	25	Effluent and sewage pumps							•			П
DW	25	Contractor pumps							•			
Lifting stations	25	Complete pumping stations							•			П
S, SA, SEN pumps	26	Effluent and sewage pumps							•			П

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## **GRUNDFOS ALPHA UPS, UP Series 100**

Circulator pumps, canned-rotor type



#### **Technical data**

 $\begin{array}{lll} \mbox{Flow, Q:} & \mbox{max. 10 m}^{3}/\mbox{h} \\ \mbox{Head, H:} & \mbox{max. 12 m} \\ \mbox{Liquid temp.:} & -25^{\circ}\mbox{C to +110}^{\circ}\mbox{C} \\ \mbox{Operat. pres.:} & \mbox{max. 10 bar} \end{array}$ 

#### **Applications**

Circulation of hot or cold water in

- · Heating systems
- Domestic hot water systems
- · Cooling and air-conditioning systems

### Features and benefits

- Maintenance-free
- Low-noise
- Low-energy
- Wide range

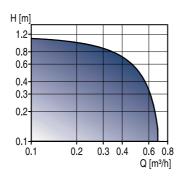
#### **Optional**

- Automatic performance adjustment
- Simple installation external plug for electrical connection
- Single-speed or 2- or 3-speed performance adjustment
- · Twin-head versions



## GRUNDFOS COMFORT UP-N, UP-B Series 100

Circulator pumps, canned-rotor type



#### **Technical data**

 Flow, Q:
 max. 0.68 m³/h

 Head, H:
 max. 1.1 m

 Liquid temp.:
 +2°C to +95°C

 Operat. pres.:
 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

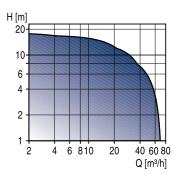
#### **Optional**

- 24-hour timer
- · Adjustable thermostat



### **UPS Series 200**

Circulator pumps, canned-rotor type



#### **Technical data**

Flow, Q:  $max. 70 m^3/h$ Head, H: max. 18 mLiquid temp.:  $-10^{\circ}\text{C to } +120^{\circ}\text{C}$ Operat. pres.: 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
- Single-phase with built-in protection module
- Wide range

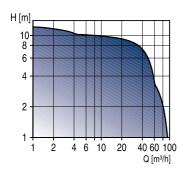
#### **Optional**

- Protection module
- Relay module with fault signal or operating output
- Bronze pump housing
- · Twin-head versions
- Communication via GENIbus or LON



## GRUNDFOS MAGNA UPE Series 2000

Circulator pumps, canned-rotor type - electronically controlled



#### **Technical data**

 Flow, Q:
 max. 90 m³/h

 Head, H:
 max. 12 m

 Liquid temp.:
 +15°C to +110°C

 Operat. pres.:
 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
- Low-energy
- Wide range
- Automatic performance adjustment
- Simple installation no extra equipment or fittings required
- Safe selection

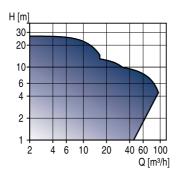
#### Optional

- · Bronze pump housing
- Twin-head versions
- Wireless remote control, R100
- · Communication via GENIbus or LON



#### TP

Circulator pumps, close-coupled type



#### Technical data

 Flow, Q:
 max. 95 m³/h

 Head, H:
 max. 27 m

 Liquid temp.:
 - 25°C to +140°C

 Operat. pres.:
 max. 16 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 motor
- Service-friendly
- Various types of shaft seals depending on liquid, temperature and pressure

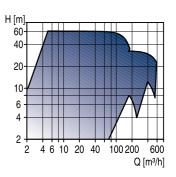
#### **Optional**

- Bronze pump housing
- Twin-head versions



## LM, LP, CLM

Single-stage centrifugal pumps



#### **Technical data**

Flow, Q: max. 600 m³/h Head, H: max. 60 m Liquid temp.: – 40°C to +140°C Operat. pres.: max. 20 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- District heating plants
- Cooling and air-conditioning systems
- Industrial plants

### Features and benefits

- Adaptable to any application and performance
- DIN 24 960 shaft seal
- Wide range
- Standard motor
- Service-friendly

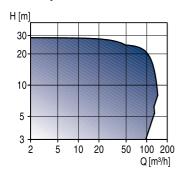
#### **Optional**

- Various types of shaft seals depending on liquid, temperature and pressure
- Twin-head versions
- · Bronze impeller (CLM only)



### **TPE Series 2000**

Single-stage, centrifugal pumps - electronically controlled



#### **Technical data**

Flow, Q: max. 130 m $^3$ /h Head, H: max. 28 m Liquid temp.:  $-25^{\circ}$ C to +140 $^{\circ}$ C Operat. pres.: 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

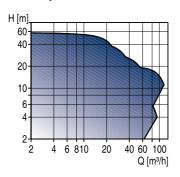
#### **Optional**

- Parallel operation
- Wireless remote control, R100
- Communication via GENIbus or LON



## LME, LPE, CLME, TPE

Single-stage, centrifugal pumps - electronically controlled



#### **Technical data**

Flow, Q: max.  $160 \text{ m}^3/\text{h}$ Head, H: max. 60 mLiquid temp.:  $-25^{\circ}\text{C}$  to  $+140^{\circ}\text{C}$ Operat. pres.: 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 or LON



### R100

Wireless remote control

#### **Applications**

All pumps designed for wireless communication

- Simple and quick installation of the pump
- Reading out of various operating and fault signals
- Printing out of status information



## PMU 2000, PCU 2000

Pump controllers

#### **Applications**

#### **PMU 2000**

- Parallel connection of up to eight pumps
- Central reading out of various status information

#### **PCU 2000**

- · Fault indication for each pump
- External setpoint influence
- Start/stop of system

#### Features and benefits

- Communication via BUS
- · Simple and quick installation



### **Delta Control 2000**

**Pump controllers** 

#### Technical data

No. of pumps: max. 4 Power output: 75 kW Encl. class: IP 54

#### **Applications**

Delta Control 2000 are used for parallel connection of pumps in

- · Heating systems
- · Cooling and air-conditioning systems

#### Features and benefits

Complete control panel

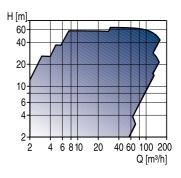
## Optional

• External communication



#### NM, NP, DNM, DNP

Single-stage standard pumps



#### **Technical data**

Flow, Q: max. 160 m³/h
Head, H: max. 62 m
Liquid temp.: - 25°C to +140°C
Operat. pres.: max. 16 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Washing systems
- · District heating plants
- · Cooling and air-conditioning systems
- Industrial plants

#### **Features and benefits**

- Standard dimensions according to ISO or DIN standards
- Compact design
- Flexible pump range
- Standard motor
- Adaptable to any application and performance
- DIN 24 960 shaft seal

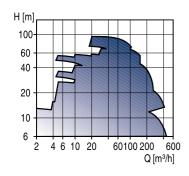
#### **Optional**

 Various types of shaft seal depending on liquid, temperature and pressure



#### NB, NBG

Single-stage standard pumps



#### **Technical data**

Flow, Q: max.  $460 \text{ m}^3/\text{h}$ Head, H: max. 96 mLiquid temp.:  $-10^{\circ}\text{C to } +140^{\circ}\text{C}$ Operat. pres.: max. 16 bar

#### **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

#### Features and benefits

- Standard dimensions according to EN and ISO standards
- Compact design
- · Flexible pump range
- Standard motor
- Adaptable to any application and performance
- DIN 24 960 shaft seal

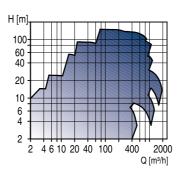
#### **Optional**

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



#### NK, NKG

Single-stage standard pumps



#### **Technical data**

Flow, Q:  $max. 2000 m^3/h$ Head, H: max. 150 mLiquid temp.:  $-10^{\circ}\text{C to } +140^{\circ}\text{C}$ Operat. pres.: max. 16 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- District heating
- · Water supply
- Airconditioning
- Cooling plants
- Industry
- Fire fighting
- Environment engineering

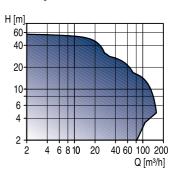
#### Features and benefits

- Standard dimensions according to EN or ISO standards
- Wide range
- Robust design
- Heavy-duty
- · Flexible motor range



## NME, NPE, DNME, DNPE

Single-stage standard pumps - electronically controlled



#### **Technical data**

 Flow, Q:
 max. 157 m³/h

 Head, H:
 max. 57 m

 Liquid temp.:
 - 25°C to +140°C

 Operat. pres.:
 max. 16 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Washing systems
- District heating plants
- · Cooling and air-conditioning systems
- Industrial plants

#### Features and benefits

- Standard dimensions according to ISO or DIN standards
- Compact design
- Flexible range
- Standard motor
- Adaptable to any application and performance
- · Many control facilities
- DIN 24 960 shaft seal

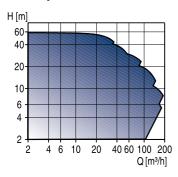
#### **Optional**

- Various types of shaft seal depending on liquid, temperature and pressure
- Wireless remote control, R100



### **NBE**

Single-stage standard pumps - electronically controlled



#### **Technical data**

 Flow, Q:
 max. 189 m³/h

 Head, H:
 max. 58 m

 Liquid temp.:
 - 10°C to +140°C

 Operat. pres.:
 max. 16 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- Washing systems
- Water supply systems
- · District heating plants
- Cooling and air-conditioning systems
- Industrial plants

#### Features and benefits

- Standard dimensions according to EN standards
- Compact design
- Adaptable to any application and performance
- DIN 24 960 shaft seal
- · Many control facilities

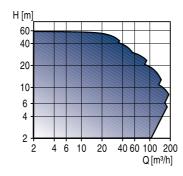
#### **Optional**

- Various types of shaft seal depending on liquid, temperature and pressure
- · Cast iron or bronze impeller
- Wireless remote control, R100



### **NKE**

Single-stage standard pumps - electronically controlled



#### Technical data

 Flow, Q:
 max. 190 m³/h

 Head, H:
 max. 59 m

 Liquid temp.:
 - 40°C to +160°C

 Operat. pres.:
 max. 16 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Washing systems
- Water supply systems
- District heating plants
- Cooling and air-conditioning systems
- Industrial plants

#### Features and benefits

- Standard dimensions according to DIN standards
- Wide range
- Robust design
- Heavy-duty
- Many control facilities

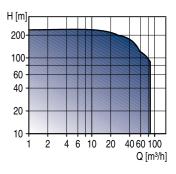
#### **Optional**

• Wireless remote control, R100



## SPK, CHK, MTH, CRK, MTR, MTA

Multistage centrifugal immersible pumps



#### Technical data

 Flow, Q:
 max. 85 m³/h

 Head, H:
 max. 238 m

 Liquid temp.:
 - 20°C to +90°C

 Operat. pres.:
 max. 25 bar

#### **Applications**

The pumps are suitable for liquid transfer in

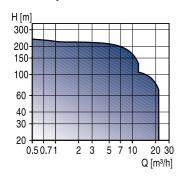
- Spark machine tools
- Grinding machines
- · Machining centres
- Cooling units
- Industrial washing machines
- Filtering systems
- Lathes
- Swarf conveyors

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



#### SPKE, CRKE

Multistage centrifugal immersible pumps - electronically controlled



#### **Technical data**

 Flow, Q:
 max. 22 m³/h

 Head, H:
 max. 245 m

 Liquid temp.:
 - 10°C to +90°C

 Operat. pres.:
 max. 25 bar

#### **Applications**

The pumps are suitable for

- · Boiler feeding
- Pumping of cooling lubricants
- · Water treatment

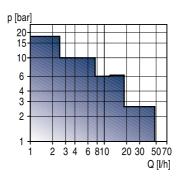
### Features and benefits

- Wide range
- Reliability
- · Wireless remote control, R100



#### DME, DMS

Compact diaphragm dosing pumps



#### **Technical data**

Capacity, Q: max. 48 l/h Pressure, p: max. 18 bar Liquid temp.: max. +50°C

#### **Applications**

Injection of chemicals in water and waste water treatment systems, washing systems, swimming pools and process plants

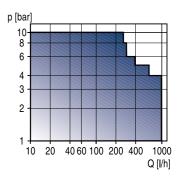
#### Features and benefits

- Precise capacity setting directly in ml or l
- Stepper or synchronous motor drive
- Full diaphragm control
- Stroke speed or -frequency capacity control
- Operation panel with display and one-touch buttons
- Front- or side-fitted operation panel
- Manual/pulse control
- · Control panel lock
- 4-20 mA control
- Pulse-/Timer- based batch control
- Anti-cavitation function
- Easy calibration function
- Fieldbus communication module (option)



### **DMM**

Motor-driven diaphragm dosing pumps



#### **Technical data**

Capacity, Q: max. 990 l/h
Pressure, p: max. 10 bar
Liquid temp.: max. +50°C

#### **Applications**

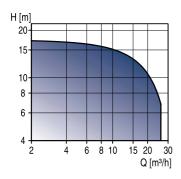
Injection of chemicals in water and waste water treatment systems, washing systems, swimming pools and process plants

- Sturdy design
- Stroke length capacity control
- Leakage-free
- Motor control option with display and one-touch buttons and following control options:
  - Pulse control
  - Pulse division/multiplication
  - Analog 0/4-20 mA control



#### **GP**

Swimming-pool pumps



#### **Technical data**

 Flow, Q:
 max. 26 m³/h

 Head, H:
 max. 17.5 m

 Liquid temp.:
 – 0°C to +40°C

 Operat. pres.:
 max. 3 bar

#### **Applications**

The pumps are suitable for

 Circulation of swimming-pool water in small and medium sized swimming-pools

#### Features and benefits

- Built-in motor protection
- Stainless steel shaft
- Low sound level
- Self-priming down to 2 m
- Corrosion resistant materials
- No need for special service tools
- · Quick and easy to repair

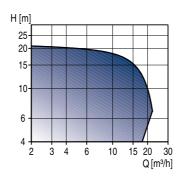
### **Optional**

- Integrated heating unit
- Level sensor
- Control panels



#### **WPU**

Whirlpool pump units



#### **Technical data**

 $\begin{array}{lll} \text{Flow, Q:} & \text{max. 22 m}^3/\text{h} \\ \text{Head, H:} & \text{max. 21 m} \\ \text{Liquid temp.:} & \text{0°C to +40°C} \\ \text{Operat. pres.:} & \text{max. 2.5 bar} \\ \end{array}$ 

#### **Applications**

The pumps are suitable for

- · Spa and whirlpool baths
- Therapeutic baths

#### Features and benefits

- · Wide operating range
- All-in-one, compact and robust design
- Programming and monitoring via PC
- Connection for external control panel
- Speed controlled motor provides advanced water pulsation
- Dry-running and thermal overload protection
- Excess heat from motor cooling directed to bath water

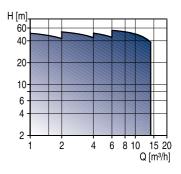
#### **Optional**

- · Integrated heating unit
- Level sensor
- · Control panels



## CHI, CHIU

Multistage centrifugal pumps



#### Technical data

Flow, Q:  $max. 14 m^3/h$ Head, H: max. 57 mLiquid temp.:  $- 15^{\circ}C$  to  $+110^{\circ}C$ Operat. pres.: max. 10 bar

#### **Applications**

The pumps are suitable for liquid transfer in

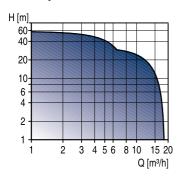
- Water treatment
- Industrial washing and dishwashing machines
- Pressure boosting of process water
- Heating and cooling in industrial processes
- Air-conditioning
- Airwashing, moisturization, humidification (softened water)
- Water supply and pressure boosting (potable water, also slightly chlorinated)

- Compact design
- Wide range
- Suitable for slightly aggressive liquids
- Low noise
- Leakage-free (CHIU only)



### **CHIE**

Multistage centrifugal pumps - electronically controlled



#### **Technical data**

Flow, Q: max. 18 m³/h
Head, H: max. 58 m
Liquid temp.: - 15°C to +110°C
Operat. pres.: max. 10 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Cooling systems
- Industrial washing systems
- Aquafarms
- Fertilizer systems
- Dosing systems
- Industrial plants

#### Features and benefits

- Compact design
- Wide range
- Suitable for slightly aggressive liquids
- Many control facilities

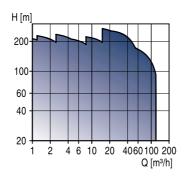
#### **Optional**

• Wireless remote control, R100



#### CR, CRI, CRN

Multistage centrifugal pumps



#### **Technical data**

Flow, Q: max. 120 m³/h
Head, H: max. 270 m
Liquid temp.: - 40°C to +180°C
Operat. pres.: max. 30 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Washing systems
- Cooling and air-conditioning systems
- · Water supply systems
- Water treatment systems
- · Fire fighting systems
- Industrial plants
- Boiler feeding systems

### Features and benefits

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

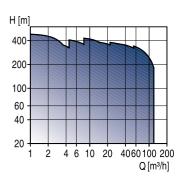
#### **Optional**

 Dry-running protection and motor protection via LiqTec



## CR, CRN high pressure

Multistage centrifugal pumps



#### **Technical data**

 Flow, Q:
 max. 120 m³/h

 Head, H:
 max. 480 m

 Liquid temp.:
 – 30°C to +120°C

 Operat. pres.:
 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

- Reliability
- High pressures
- Service-friendly
- Space-saving
- Suitable for slightly aggressive liquids
- Single pump solution enabling high pressure

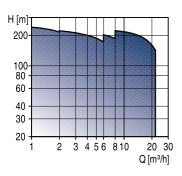
#### **Optional**

 Dry-running protection and motor protection via LiqTec



### **CRT**

Multistage centrifugal pumps



#### **Technical data**

Flow, Q: max.  $26 \text{ m}^3/\text{h}$ Head, H: max. 270 mLiquid temp.:  $-20^{\circ}\text{C to } +120^{\circ}\text{C}$ Operat. pres.: 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-frindly
- Space-saving

#### **Optional**

 Dry-running protection and motor protection via LiqTec



## LiqTec

Control and monitoring unit

#### **Applications**

 Monitoring and protection of pumps and processes

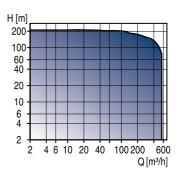
#### Features and benefits

- Protection against dry running and too high motor temperatures
- Manual or automatic restarting possible from a remote PC
- Simple installation plug and play technology
- · Robust sensor



## CV, CPV, CPH

Multistage centrifugal pumps



#### **Technical data**

 Flow, Q:
 max. 560 m³/h

 Head, H:
 max. 200 m

 Liquid temp.:
 - 15°C to +120°C

 Operat. pres.:
 max. 20 bar

#### **Applications**

The pumps are suitable for liquid transfer in

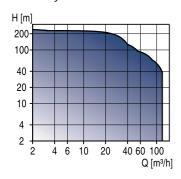
- · Washing systems
- Cooling and air-conditioning systems
- · Water supply systems
- Water treatment systems
- · Fire fighting systems
- Industrial plants
- Boiler feeding systems

- Low-speed (4-pole motors)
- Heavy-duty
- Low-noise
- Vertical and horizontal installation



#### CRE, CRIE, CRNE

Multistage centrifugal pumps - electronically controlled



#### **Technical data**

 Flow, Q:
 max. 120 m³/h

 Head, H:
 max. 240 m

 Liquid temp.:
 – 30°C to +150°C

 Operat. pres.:
 max. 30 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Washing systems
- Cooling and air-conditioning systems
- · Water supply systems
- Water treatment systems
- Fire fighting systems
- Industrial plants
- Boiler feeding systems

#### Features and benefits

- Wide range
- Reliability
- In-line design
- · High efficiency
- Service-friendlySpace-saving
- Many control facilities

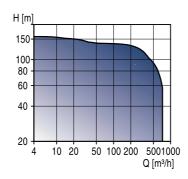
#### **Optional**

• Wireless remote control, R100



## Hydro 2000, Hydro 1000 Hydro Solo, Hydro Multi-E

Complete pressure boosting systems



#### **Technical data**

Flow, Q: max. 720 m³/h Head, H: max. 160 m Liquid temp.: 0°C to +70°C Operat. pres.: max. 16 bar

#### **Applications**

Hydro 2000 are suitable for pressure boosting in

- · Water supply systems
- Irrigation systems
- Water treatment systems
- · Fire fighting systems
- Industrial plants

#### Features and benefits

- Constant pressure
- Simple installation
- Low-energy
- Wide range

#### **Optional**

• External communication, Control 2000



### **Control 2000**

**Pump controllers** 

#### **Applications**

Control 2000 is suitable for parallel connection of pumps in

- Water supply systems
- Irrigation systems
- Water treatment systems
- · Fire fighting systems
- Industrial plants

#### Features and benefits

· Complete control panel

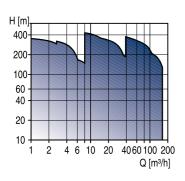
#### **Optional**

• External communication



### BM, BMB

4"-6"-8" booster modules



#### **Technical data**

Flow, Q: max. 260 m³/h Head, H: max. 470 m Liquid temp.: 0°C to +40°C Operat. pres.: max. 80 bar

#### **Applications**

The booster modules are suitable for pressure boosting in

- Reverse osmosis systems
- · Water supply systems
- Water treatment systems
- · Industrial plants

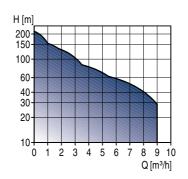
#### Features and benefits

- · Various material versions
- Low-noise
- Simple installation
- Modular design
- Compact design
- Leakage-free



#### **BMQ, BMQE-NE**

3" booster modules



#### Technical data

 $\begin{array}{lll} \mbox{Flow, Q:} & \mbox{max. 9 m}^3/\mbox{h} \\ \mbox{Head, H:} & \mbox{max. 215 m} \\ \mbox{Liquid temp.:} & \mbox{0°C to +40°C} \\ \mbox{Operat. pres.:} & \mbox{max. 30 bar} \end{array}$ 

#### **Applications**

The booster modules are suitable for pressure boosting in

- Reverse osmosis systems
- · Water supply systems
- Water treatment systems
- Industrial plants

#### Features and benefits

- Simple installation
- Modular design
- Compact design
- Integrated dry-running protection
- Soft start
- Over- and undervoltage protection

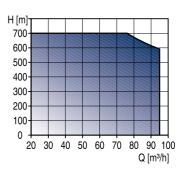
#### **Optional**

• BMQE-NE can be protected, monitored and controlled via CU 300/R100



## **BME, BMET**

High-pressure booster systems



#### Technical data

 $\begin{array}{lll} \mbox{Flow, Q:} & \mbox{max. 95 m}^{3}/\mbox{h} \\ \mbox{Head, H:} & \mbox{max. 700 m} \\ \mbox{Liquid temp.:} & \mbox{0°C to +40°C} \\ \mbox{Operat. pres.:} & \mbox{max. 70 bar} \end{array}$ 

#### **Applications**

The booster systems are suitable for pressure boosting in

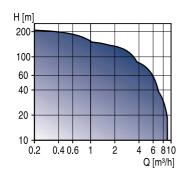
- Reverse osmosis systems
- · Water supply systems
- Water treatment systems
- · Industrial plants

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



#### SQ, SQE

3" submersible pumps



#### **Technical data**

 $\begin{array}{lll} \mbox{Flow, Q:} & \mbox{max. 9 m}^3/\mbox{h} \\ \mbox{Head, H:} & \mbox{max. 210 m} \\ \mbox{Liquid temp.:} & \mbox{0°C to +40°C} \\ \mbox{Instal. depth:} & \mbox{max. 150 m} \\ \end{array}$ 

#### **Applications**

The pumps are suitable for

- · Domestic water supply
- 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

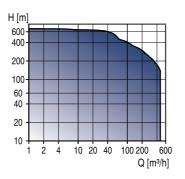
#### **Optional**

 SQE can be protected, monitored and controlled via CU 300/R100



## SP A, SP, SP-G

4"-6"-8"-10"-12" submersible pumps



#### **Technical data**

 Flow, Q:
 max. 470 m³/h

 Head, H:
 max. 670 m

 Liquid temp.:
 0°C to +60°C

 Instal. 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

#### **Optional**

 Data can be monitored and controlled via CU 3/R100



#### **MS** motors

Stainless steel 4" and 6" submersible motors.

#### **Motor sizes**

4" motor: 0.37 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

#### **Optional**

• Material variants available



### **MMS** motors

Stainless steel 6",8",10",12" rewindable submersible motors.

#### **Motor sizes**

6" motor: 3.7 to 37 kW 8" motor: 22 to 110 kW 10" motor: 75 to 190 kW 12" motor: 147 to 250 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

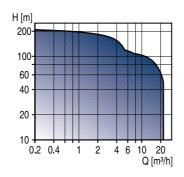
#### **Optional**

- Material variants available
- · PA windings
- Mechanical shaft seal SiC/SiC
- Overtemperature protection via Pt100



## **SQE-NE, SP-NE**

**Environmental pumps** 



#### **Technical data**

 $\begin{array}{lll} \mbox{Flow, Q:} & \mbox{max. 22 m}^{3}/\mbox{h} \\ \mbox{Head, H:} & \mbox{max. 215 m} \\ \mbox{Liquid temp.:} & \mbox{0°C to +40°C} \\ \mbox{Instal. depth:} & \mbox{max. 600 m} \end{array}$ 

#### **Applications**

The pumps are suitable for

- Pumping up contaminated groundwater
- Sampling
- · Remedial pumping

#### Features and benefits

#### SQE-NE

• Same features and benefits as SQE

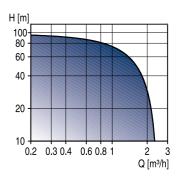
### SP-NE

• Same features and benefits as SP



### MP 1

**Environmental pumps** 



#### **Technical data**

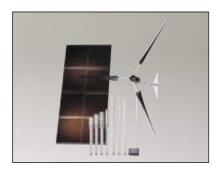
 $\begin{array}{lll} Flow, \, Q: & max. \, 2.4 \, \, m^3/h \\ Head, \, H: & max. \, 95 \, \, m \\ Liquid \, temp.: & 0°C \, to \, +35°C \end{array}$ 

#### **Applications**

The pumps are suitable for

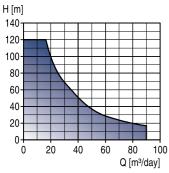
Sampling

- Compact design
- Fit into 50 mm boreholes



### **SQFlex**

Renewable-energy based water supply systems



#### **Technical data**

Flow, Q: max. 90 m3/day Head, H: max. 120 m Liquid temp.: max. 0°C to +40°C Voltage supply: 30-300 VDC or

1 x 90-240 V, 50/60 Hz

Instal. 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



## CU 3, CU 300, CU 301

Control and monitoring units

#### **Applications**

· Monitoring and protection of pump 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

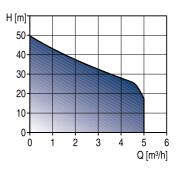
#### **Optional**

- · Connection to large control systems via bus-communication
- Connection of sensors enabling control based on sensor signals



### JΡ

Self-priming jet pumps



#### **Technical data**

Flow, Q: max. 5 m<sup>3</sup>/h Head, H: max. 48 m Liquid temp.: 0°C to +55°C Operat. pres.: max. 6 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Households
- Gardens
- · Hobby activities
- · Agriculture
- Horticulture
- · Small industries

#### Features and benefits

- · Self-priming
- Stable operation even in case of air pockets in the liquid

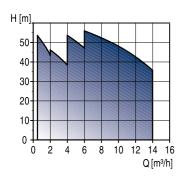
#### **Optional**

- Automatic start/stop when equipped with Presscontrol
- · Booster sets for small-scale water supply



### CH, CHN

Multistage centrifugal pumps



#### **Technical data**

Flow, Q: max. 14 m³/h Head, H: max. 55 m Liquid temp.: 0°C to +90°C Operat. pres.: max. 10 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- · Pressure boosting
- Domestic water supply
- · Cooling systems
- · Air-conditioning systems
- Horticultural irrigation
- Small industrial water supply systems

#### Features and benefits

- Compact design
- Robust design
- Full stainless steel design (CHN only)
- Low noise

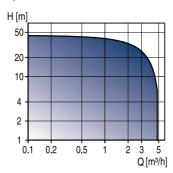
#### **Optional**

- · Booster sets for domestic water supply
- Automatic start/stop when equipped with Presscontrol



### MQ

Multistage centrifugal self-priming pumps



#### Technical data

Flow, Q: max. 5 m³/h Head, H: max. 48 m Liquid temp.: 0°C to +35°C Operat. pres.: max. 7.5 bar

#### **Applications**

The pumps are suitable for liquid transfer in

- Private homes
- · Holiday cottages
- Farms
- Green houses

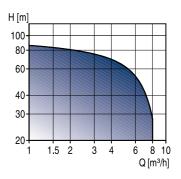
#### Features and benefits

- All-in-one pressure booster unit
- Easy to install
- Easy to operate
- Self-priming
- Dry-running protection with automatic reset
- Low noise
- Maintenance free



### **CHV**

Multistage centrifugal pumps



#### Technical data

 $\begin{array}{lll} \mbox{Flow, Q:} & \mbox{max. 8 m}^3/\mbox{h} \\ \mbox{Head, H:} & \mbox{max. 93 m} \\ \mbox{Liquid temp.:} & \mbox{0°C to +90°C} \\ \mbox{Operat. pres.:} & \mbox{max. 12 bar} \end{array}$ 

#### **Applications**

The pumps are suitable for liquid transfer in

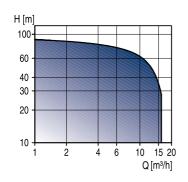
- · Pressure boosting
- Domestic water supply
- Cooling systems
- Air-conditioning systems
- Horticultural irrigation
- Small industrial water supply systems

- Compact design
- Robust design
- Low noise
- Space-saving



### **CHV** booster

Vertical pressure booster systems



#### **Technical data**

Flow, Q: max. 16 m³/h Head, H: max. 93 m Liquid temp.: 0°C to +40°C Operat. pres.: max. 10 bar

#### **Applications**

The booster systems are suitable for pressure boosting in

- Small waterworks
- · Small blocks of flats
- Hotels
- Stores
- Light industry
- Hospitals
- Schools
- Large houses

#### Features and benefits

- One- or two-pump system
- · User-friendly controllers
- Reliability
- High efficiency
- · Service-friendly

#### **Optional**

- · Overpressure protection
- Dry-running protection



#### **Tanks**

Diaphragm and bladder tanks

#### **Technical data**

Tank size: 19-1000 l Liquid temp.: max. +70°C Operat. pres.: max. 7 bar

#### **Applications**

The diaphragm and bladder tanks are used in

- · Water supply systems in housing
- · Pressure boosting systems in housing
- Agriculture
- Horticulture
- · Industrial systems

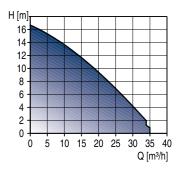
#### Features and benefits

- · Optimal water supply
- Reduced number of pump starts
- Ideal for drinking water



## KP, AP, AP35B, AP50B - stainless steel

Drainage pumps



#### **Technical data**

 $\begin{array}{lll} \mbox{Flow, Q:} & \mbox{max. 35 m}^3/\mbox{h} \\ \mbox{Head, H:} & \mbox{max. 18 m} \\ \mbox{Liquid temp.:} & \mbox{0°C to +55°C} \\ \mbox{Particle size:} & \mbox{max. } \mbox{\emptyset 50 mm} \end{array}$ 

#### **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

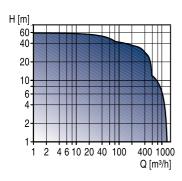
### Optional

AP35B and AP50B are suitable for installation on auto-coupling



## AP, APG - cast iron

Effluent and sewage pumps



#### **Technical data**

Flow, Q: max. 1320 m³/h Head, H: max. 67 m Liquid temp.: 0°C to +40°C Particle size: max. ø130 mm

#### **Applications**

The pumps are suitable for

- Pumping large quantities of effluent and sewage water
- · Liquid transfer in general

#### Features and benefits

- Wide range
- Service-friendly
- Wide field of applications
- Various types of impellers

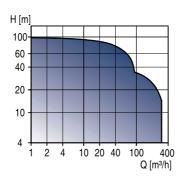
#### **Optional**

- Various fittings
- Controllers for level control monitoring and protection of the pumps.



### **DW**

Contractor pumps



#### **Technical data**

Flow, Q: max. 360 m³/h Head, H: max. 100 m Liquid temp.: 0°C to +40°C

#### **Applications**

The pumps are suitable for liquid transfer in

- Tunnels
- Mines
- Quarries
- · Gravel pits
- Fish ponds
- · Building sites

#### Features and benefits

- Extremely hard-wearing due to specially selected materials
- Simple installation
- Service-friendly



## Lifting stations

Complete pumping stations

#### **Applications**

The lifting stations are suitable for use in

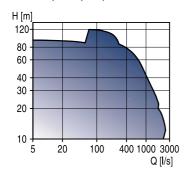
- Single- and multi-family houses
- Weekend cottages and summer houses
- Restaurants
- Small hotels
- Sewage systems in the open country
- Percolation systems

- · Ready for installation
- Maintenance-free
- Flexible pipe connection



## S pumps

Supervortex pumps, single- or multichannel impeller pumps



#### **Technical data**

Flow, Q: max. 2500 l/s (9000 m<sup>3</sup>/h) Head, H: max. 120 m Liquid temp.: 0°C to +40°C Discharge **DN 80** diameter:

## **Applications**

The pumps are suitable for the following applications

to DN 800

- 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**

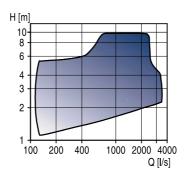
#### **Optional**

- · Control and protection systems
- External cooling water
- External seal flush system



### SA pumps

Submersible axial-flow pumps



#### **Technical data**

Flow, Q: max. 3500 l/s (12600 m<sup>3</sup>/h) Head, H: max. 9 m Liquid temp.: 0°C to +40°C

Column pipe

diameter: 700 to 1400 mm

#### **Applications**

The pumps are suitable for the following applications

- Transfer of raw water
- Pumping of water from sewage treatment plants
- Storm water pumping
- Irrigation
- Pumping of water in marine installations
- · Industrial applications

#### Features and benefits

- · High efficiency stainless steel propeller
- Totally submerged installations
- **Built-in motor protection**
- · Flexibility of installation

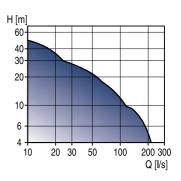
#### **Optional**

- · Control and protection systems
- Motor operation control



#### **SEN**

Submersible stainless steel pumps



#### **Technical data**

Flow, Q: max. 215 l/s (774 m<sup>3</sup>/h) max. 50 m Head, H: Liquid temp.: 0°C to +40°C Discharge diameter: DN 80 to DN 250

#### **Applications**

The pumps are suitable for the following applications

- Transfer of wastewater and raw water
- Pumping of highly aggresive liquids
- Pulp and paper industries

#### Features and benefits

- Smart Trim
- Operation with/without cooling jacket
- Submerged or dry installation
- Different types of impellers
- **Built-in motor protection**
- Various executions in stainless steel
- Liquids with a pH value between 2 and 14

#### **Optional**

- · Control and protection systems
- External cooling water
- · External seal flush system



## BE > THINK > INNOVATE >

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