be
think
innovate

GRUNDFOS

BE responsible

Being responsible is our foundation.

We know that we have a responsibility towards the people who are Grundfos, towards the innovative soul of Grundfos as well as towards the surrounding world. Whatever we do, we make sure that we have a firm and sustainable basis for doing it.

THINK ahead

Thinking ahead makes innovation possible. We encourage a certain Grundfos way of thinking which is founded upon the belief that everyone must contribute by using his or her judgement and foresight. We are looking for commitment and ideas in everything we do in order to make the best solutions. We think — and then we act.

INNOVATE

Innovation is the essence.

It is the innovations that make Grundfos unique. We stand out because of our ability to constantly create new solutions to the ever-changing demands of the pump business. We meet every challenge and we are never afraid of taking the initiative — remaining true to our ideals calls for renewal. Innovation is the soul of Grundfos.

IT IS OUR MISSION – *the basis of our existence – to successfully develop, produce, and sell high quality pumps and pumping systems worldwide, contributing to a better quality of life and a healthier environment.*

A global business

With almost 18,000 employees worldwide, and annual production of 16 million pump units per year, Grundfos is one of the world's leading pump manufacturers. The 80 Grundfos Companies around the globe help bring pumps to every corner of the world, supplying drinking water to Antarctic expeditions, irrigating Dutch tulips, monitoring groundwater beneath waste heaps in Germany, and air conditioning Egyptian hotels.

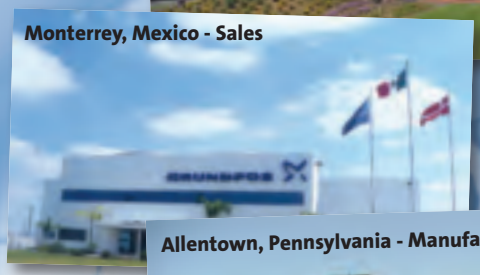
Efficient, sustainable products
Grundfos is constantly striving to make its products more user-friendly and reliable as well as energy-saving and efficient. Our pumps are equipped with ultra-modern electronics allowing output to be regulated according to current needs. This ensures convenience for the end-user, saves a great deal of energy and, in turn, benefits the environment.

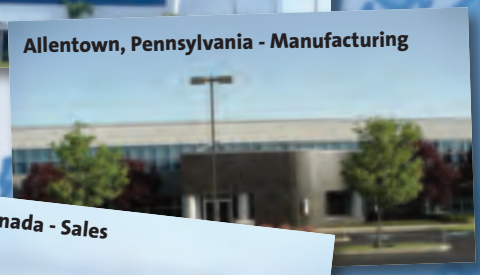
Research and development
In order to maintain its market position, Grundfos takes customer research to heart when improving or developing new products. Our Research and Development department makes use of the latest technology within the pump industry in search of new and better solutions for the design and function of our pump solutions.

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, utilized and removed as wastewater with the help of Grundfos pumps.

Technology and Business Development Center
at Group headquarters in Denmark

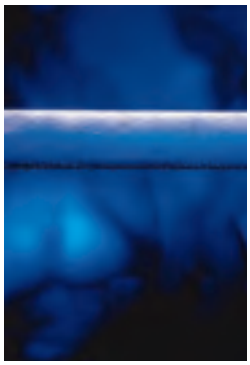
GRUNDFOS NORTH AMERICA

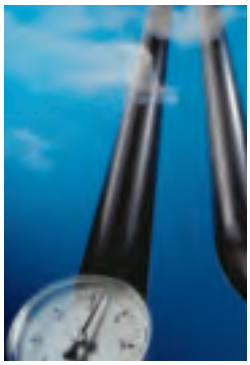




Pumps for all purposes

Grundfos offers high quality products for efficient, energy-saving pump solutions.




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

Chemical dosing pumps and systems, disinfection systems and horizontal and vertical centrifugal pumps for various water and waste-water treatment and industrial process applications.

PRESSURE BOOSTING AND LIQUID TRANSFER

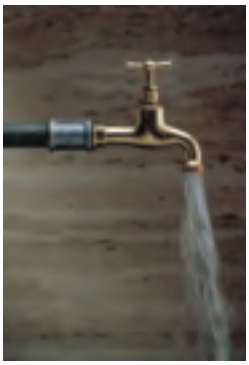
Vertical and horizontal, centrifugal pumps, and pressure boosting systems for liquid transfer and boosting of hot and cold water.

WASTEWATER

Drainage, sump, effluent and sewage pumps for a wide range of applications in residential services, industrial and municipal.

GROUNDWATER SUPPLY

Submersible pumps for groundwater supply, irrigation and groundwater de-watering.



DOMESTIC WATER SUPPLY

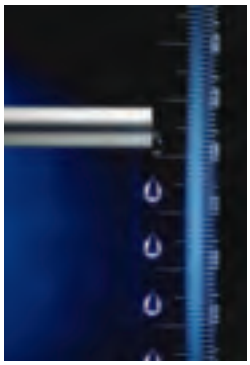
Submersible pumps, jet pumps, multi-stage centrifugal pumps, booster pumps and compact systems for water supply in homes, gardens, and hobby applications.

RENEWABLES

Submersible and above ground pumps for groundwater, irrigation, water transfer and pressure boosting designed to operate from renewable power sources.

ENVIRONMENTAL APPLICATIONS

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



DOSING AND DISINFECTION

Dosing pumps, instrumentation, and disinfection generators for water treatment systems, RO, cooling and heating, swimming pools, process industries, food and beverage, water supply and wastewater.

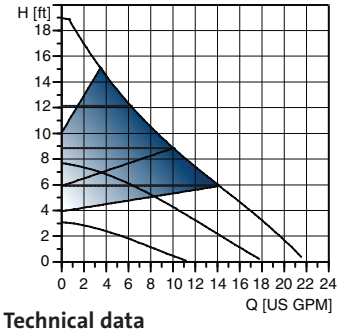
PRODUCT AND APPLICATION OVERVIEW

Product name	Page	Product type / Application	Heating and hot water service systems	Zone valve / Zone control	Cooling and air conditioning systems	Industrial applications	Pressure boosting and liquid transfer	Groundwater supply	Domestic water supply	Sewage and wastewater	Environmental applications	Dosing / Disinfection
ALPHA™	10	Circulator pump, wet-rotor type	●									
Comfort System	10	Instant hot water recirculation kit	●									
Small, Medium UP	10	Circulator pumps, wet-rotor type	●	●								
Small, Medium UPS	11	Circulator pumps, wet-rotor type	●	●								
Large UP, UPS	11	Circulator pumps, wet-rotor type	●	●								
MAGNA	11	Circulator pump, wet-rotor type	●									
TP, TPE	12	Circulator pumps	●	●								
LM, LP	12	Single-stage, In-line centrifugal pumps	●	●	●	●						
DDA, DDC, DDE, DDI, DME, DMX, DMH	12	Digital dosing pumps	●		●	●		●		●	●	●
Instrumentation	13	Compact measuring system										
Oxiperm OCD, OCC, OCG	13	Chlorine dioxide generators	●		●	●				●	●	●
Selcoperm SES	13	Onsite sodium hypochlorite gen.			●			●		●	●	●
MTA, MTC, CRK, MTR, SPK	14	Immersible centrifugal pumps										
CM, CME	14	End-suction multistage pumps	●	●	●	●		●				●
CRN-H, CR-H, CRE-H	15	End-suction multistage pump		●	●	●		●				●
CR, CRI, CRN	15	Multistage centrifugal pumps	●	●	●	●			●		●	
CRE, CRIE, CRNE	15	Multistage centrifugal pumps	●	●	●	●			●		●	
LiqTec™	16	Control and monitoring unit				●						
CME-Plus	16	Pressure booster system (single pump)	●		●	●	●		●			
CRE-Plus	16	Pressure booster system (single pump)	●		●	●	●		●			
Hydro Multi-E	17	Pressure boosting system			●	●			●			
BoosterPaQ® Hydro MPC	17	Pressure boosting system	●	●	●	●			●			
HS	17	Single-stage end suction pump	●	●	●	●						
BM	18	Booster modules				●	●					
BME, BMET	18	High-pressure booster modules				●	●					

Product name	Page	Product type	Heating and hot water service systems	Cooling and air conditioning systems	Industrial applications	Pressure boosting and liquid transfer	Sanitary	Groundwater supply	Domestic water supply	Sewage and wastewater	Environmental applications	Dosing / Disinfection
		Application										
SQ	18	3" submersible pump						●	●			
SQE	19	Constant water pressure system						●	●			
SQFlex / CRFlex	19	Renewable energy pump				●		●	●			
SP	20	4", 6", 8", and 10" submersible pumps						●	●			
MS Motors	20	4", and 6" submersible motors						●	●			
MMS	20	6", 8", and 10" submersible pumps						●	●			
MP1 and SPE-4	21	Environmental pumps									●	
SQE-NE and CU 300	21	Environmental pumps									●	
MP 204	21	Control and monitoring unit			●	●		●	●	●		
CUE	22	Series of frequency converters			●	●		●	●	●		
CIU	22	Fieldbus product	●	●	●	●		●		●		
BMQE	22	Constant pressure boosting system			●	●			●			
MQ	23	Flow based pressure boosting system				●			●			
Jets	23	Shallow and deep well with pressure switch				●			●			
Unilift KP	23	Drainage submersible pump								●		
Unilift CC	24	Drainage submersible pump								●		
Unilift AP12, AP35, AP50	24	Domestic sewage submersible pumps								●		
Unilift AP35B, AP50B	24	Domestic sewage submersible pumps								●		
SL	25	Industrial municipal sewage Submersible								●		
Dedicated Controls	25	Pumping station controller								●		
IO 111	25	Pump sensor and pump control interface								●		

ALPHA™
Variable Speed Circulator

Cast iron, stainless steel, permanent motor, wet-rotor circulator pumps



Technical data

Flow, Q:	0 to 22 gpm
Head, H:	0 to 19 ft
Voltage:	1 x 115V
Min. fluid temp:	min. 36°F
Max. fluid temp:	max. 230°F
Motor:	Single phase, 115V
Working press.:	max. 150 psi

Applications

- Open and closed systems
- Circulation of hot water in heating systems
- Variable head and flow system demands

Features and benefits

Seven hydraulic settings;
- Three fixed speeds
- Three constant pressure
- AutoAdapt™

LED read outs;
- Power (Watts)
- Estimated flow (GPM)

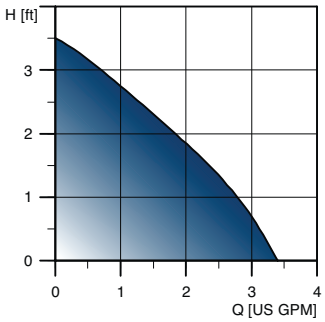
Permanent magnet motor design;
- High starting torque
- 50% power reduction
- Nut capture feature
- Maintenance-free

Description:

- AutoAdapt™ setting automatically adjusts to changing system demands
- Available terminal box

Comfort System
Hot Water Recirculation Kit

Stainless steel wet-rotor circulator pumps



Technical data

Flow, Q:	0 to 3.4 gpm
Head, H:	0 to 3.5 ft
Min. fluid temp:	min. 36°F
Max. fluid temp:	max. 150°F
Motor:	Single phase, 115V
Working press.:	max. 145 psi

Applications

Circulation of hot water in:
- Domestic hot water recirculation
- Ideal for retrofit applications
- IAPMO and ANSI/NSF61 listed

Features and benefits

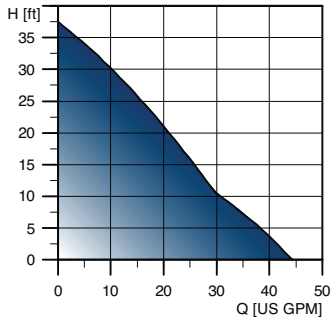
- Maintenance-free
- Low noise
- Low energy
- Wide range
- Corrosion-resistant stainless steel

Description

- UP 15-10SU7P, Timer, Line Cord, Check Valve, 115V, Hot Water Tank Fittings and 1 valve
- Additional Comfort Valves are packaged in multiples of 15

Small, Medium UP
Open & Closed Systems

Cast iron, silicon bronze, stainless steel wet-rotor circulator pumps



Technical data

Flow, Q:	0 to 46 gpm
Head, H:	0 to 37 ft
Min. fluid temp.:	min. 36°F
Max. fluid temp.:	max. 230°F
Motor:	Single phase, 115V
Working press.:	max. 150 psi

Applications

Circulation of hot or cold water in:
- Open and closed systems
- Heating systems
- Cooling and air conditioning systems

Features and benefits

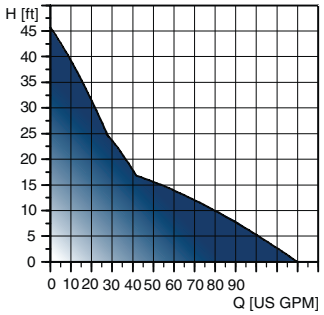
- Maintenance-free
- Low noise
- Low energy
- Wide range

Optional

- Timer
- Line Cord
- Aquastat

Small, Medium, UPS Open & Closed Systems

Cast iron, silicon bronze, stainless steel wet-rotor circulator pumps



Technical data

Flow, Q:	0 to 120 gpm
Head, H:	0 to 46 ft
Min. fluid temp:	min. 36°F
Max. fluid temp:	max. 230°F
Motor:	Single phase, 115V 208/230V
Working press.:	max. 150 psi

Applications

Circulation of hot or cold water in:

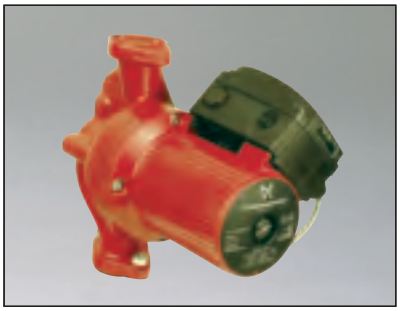
- Open and closed systems
- Heating systems
- Cooling and air conditioning systems
- Drop in replacement service work

Features and benefits

- Maintenance-free
- 3-speed
- Removable check valve
- Nut capture feature
- Low energy
- Wide range

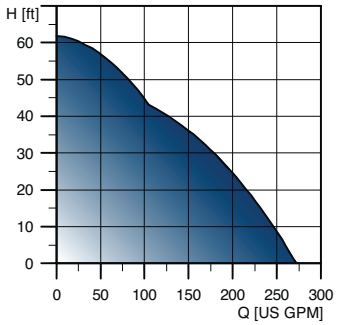
Optional

- Line Cord
- Timer
- Rotated flange



Large UP, UPS

Large multi-speed wet-rotor circulator pumps



Technical data

Flow, Q:	0 to 270 gpm
Head, H:	0 to 62 ft
Fluid temp.:	14 to 230°F
Working press.:	max. 145 psi
Ambient temp.:	32° to 104°F
HP range:	1/3 to 3 hp

Applications

Circulation of liquids in:

- Stationary open or closed central and solar heating systems
- Hot water recirculation systems
- Cooling and air conditioning systems
- Snow melt

Features and benefits

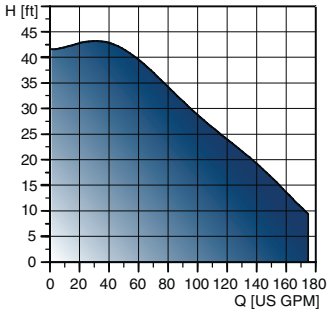
- Quiet, maintenance-free motor with internal thermal protection
- Built-in motor protection
- Industry standard flange-to-flange
- Cast iron or bronze

Optional

- Protection module
- Relay module with fault signal or operating output
- Bronze pump housing

MAGNA

Large permanent magnet, variable speed, wet-rotor circulators with AUTOADAPT™



Technical data

Flow, Q:	0 to 170 gpm
Head, H:	0 to 42 ft
Fluid temp.:	35 to 230°F
Working press.:	max. 175 psi
Ambient temp.:	32° to 104°F
HP range:	1/6 to 1 hp
Motor:	1x230V Permanent Magnet motor with integrated VFD

Applications

Circulation of liquids in:

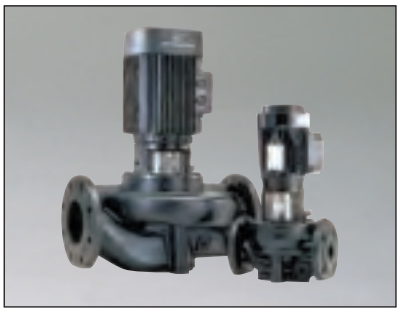
- Heating systems
- Hot water recirculation systems
- Snow melt
- Ideal for systems with varying flow

Features and benefits

- High Efficiency, permanent magnet motor
- Energy Optimization with AUTOADAPT™
- Sensor-less control
- Quiet, maintenance free
- Built-in motor protection
- Cast Iron or stainless steel

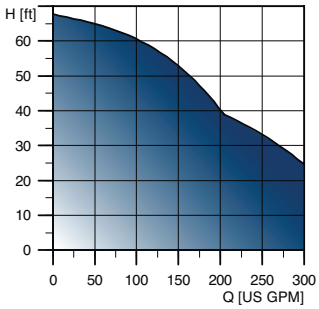
Optional

- MAGNA-LON module
- GENI Module
- CIU available for the fieldbus communication (requires GENI Module)



TP,TPE

Close coupled in-line circulators;
TPE electronically controlled



Technical data

Flow, Q:	0 to 300 gpm
Head, H:	0 to 67.5 ft
Fluid temp.:	5 to 288°F
Working press.:	max. 145 psi
Ambient temp.:	max. 104°F
HP range:	1/3 to 3 hp

Applications

Circulation of hot or cold water in:

- Large heating systems
- District heating plants
- Local heating plants
- Domestic hot water systems
- Cooling and air conditioning systems

Features and benefits

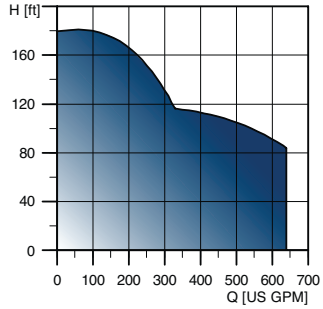
- Cast Iron or bronze
- Stainless steel construction for long life and maintenance-free operation
- Industry standard flange-to-flange
- ODP or TEFC motor flexibility
- Various types of shaft seals depending on liquid, temperature, and pressure

Optional

- Wireless remote control, R100
- Bronze pump housing
- CIU is available for fieldbus communication

LM, LP

Close coupled in-line circulators



Technical data

Flow, Q:	0 to 600 gpm
Head, H:	0 to 180 ft
Fluid temp.:	5 to 250°F
Working press.:	max. 175 psi
Ambient temp.:	max. 104°F
HP range:	3/4 to 20 hp

Applications

The pumps are used for circulation of water in:

- Water supply
- Heating and air conditioning systems
- Pressure boosting
  Liquid transfer applications in:
- Industry
- Agriculture

Features and benefits

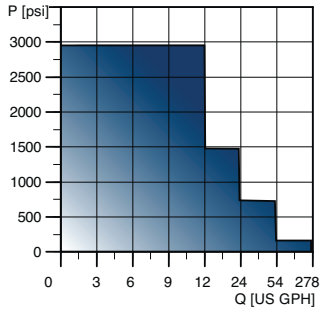
- Maintenance-free with a low starting torque and a high operating efficiency
- Direct-coupled to standard NEMA-C face motor
- 431 stainless steel pump shaft
- High quality stainless steel shaft seal
- Stainless steel impeller

Optional

- Various types of shaft seals depending on liquid, temperature, and pressure

DDA, DDC, DDE, DDI, DME, DMX, DMH

Diaphragm dosing pumps



Technical data

Capacity, Q:	max. 278 gph
(double with duplex configuration)	
Pressure, p:	max. 2900 psi
Liquid temp.:	max. 122°F

Applications

Injection of chemicals in water and waste water treatment systems, washing systems, swimming pools, and plant processes.

Features and benefits

- Precise capacity setting directly in gph or L/hr
- Different motor configuration (AC, DC steeper, synchronous)
- Full diaphragm control
- Digital flow capacity setting
- Control panel with display and one-touch buttons
- Front-or side-fitted control panel
- Manual/pulse/4-20mA control
- Control panel lock
- 4-20 mA control
- Pulse-based batch control
- Timer-based batch control
- Easy calibration/easy priming
- Fieldbus communication module (option)
- Optional alarm relay connection
- Flow measurement and autocal options available

Instrumentation

Compact measuring systems

For the convenient measurement and control of:
- Chlorine
- Chlorine dioxide
- pH
- Redox
- Total chlorine or
- Chlorine independent from pH
- Ozone
- Hydrogen peroxide
- Peracetic acid

Applications

For chlorine, chlorine dioxide, pH, ORP measurement and control. Preassembled systems include multiple analog and relay outputs with PID and flow compensation.

Features and benefits

- Proven potentiostatic three-electrode measuing method directly in the sample water
- Optimized electrode cleaning
- Integrated temperature measurement
- Special measuring chamber with calibration cup for pH single-rod probe and redox electrode
- Non-wearing and counter electrode
- Easy exchange of the reference electrode
- Compound loop control available

Oxiperm OCD, OCC, OCG

Chlorine dioxide generators

Technical data

Dilute acid - chlorite generation:
Oxiperm OCD-162 5-60 g/h (.25 - 3.00 lb/day)
Oxiperm OCD-164 30-2000 g/h (1.5 - 105 lb/day)
Concentrated acid - chlorite generation:
Oxiperm OCC-164 150 g/h - 10 kg/h (8 - 525 lb/day)
Chlorite - chlorine generation:
Oxiperm OCG-166 0.75 - 10 kg/h (40 - 525 lb/day)

Applications

Disinfection in water and wastewater treatment systems, utility water, water conditioning, food and beverage and 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

Selcoperm SES

Onsite sodium hypochlorite generators

Technical data

Selcoperm electrolytic Cl_2 generator
up to 2000 + kg/h (440 lb/h)

Applications

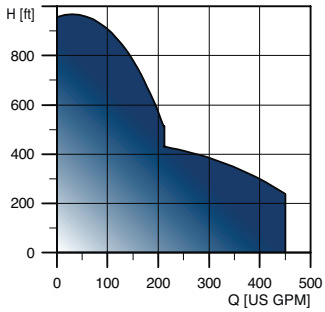
Disinfection in water and wastewater treatment systems, groundwater supply, utility water, water conditioning, food and beverage and plant processes.

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

MTA, MTC, CRK, MTR, SPK

Multistage centrifugal immersible pumps



Technical data

Flow, Q:	max. 450 gpm
Head, H:	max. 970 ft
Liquid temp.:	– 4°F to +194°F
Working press.:	max. 362 psi

Applications

The pumps are suitable for liquid transfer in:

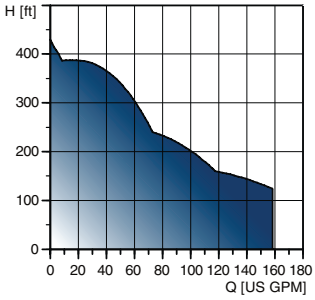
- EDM machine tools
- Grinding machines
- Machining centers
- Cooling units
- Industrial washing machines
- Filtering systems
- Lathes
- Chip conveyors
- Condensate

Features and benefits

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

CM

Compact horizontal multistage pumps



Technical data

Flow, Q:	max. 154 gpm
Head, H:	max. 425 ft
Liquid temp.:	-4°F to +248°F
Working press.:	max. 145 psi

Applications

The pumps are suitable for liquid transfer in:

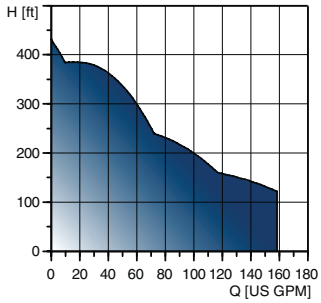
- Washing and cleaning
- Water treatment
- Temperature control
- Pressure boosting
- Distilling systems
- Comprised machinery

Features and benefits

- Compact design
- Wide performance range
- Variety of material versions
- Low noise
- High reliability
- Service-friendly
- Customized solutions

CME

Compact horizontal multistage pumps-integrated VFD



Technical data

Flow, Q:	max. 154 gpm
Head, H:	max. 425 ft
Liquid temp.:	-4°F to +248°F
Working press.:	max. 145 psi

Applications

The pumps are suitable for liquid transfer in:

- Washing and cleaning
- Water treatment
- Temperature control
- Pressure boosting
- Distilling systems
- Metering/mixing

Features and benefits

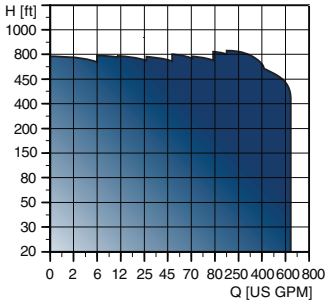
- Compact design
- Wide range performance
- Variety of material versions
- Low noise
- High reliability
- Service-friendly
- Customized solutions
- Controlled operation
- Constant pressure
- Energy savings
- Increased comfort
- Pump and application monitoring

Optional

- Wireless remote control, R100

CR-H, CR(N)-H, CRE-H, CR(N)E-H

Horizontal end-suction multistage pumps



Technical data

Flow, Q:	max. 210 gpm
Head, H:	max. 995 ft
Liquid temp.:	-22°F to +248°F
Working press.:	max. 435 psi

Applications

The pumps are suitable for liquid transfer in:

- Pressure boosting
- Industrial processes
- Boiler feed
- Liquid transfer
- Irrigation
- ANSI B73.1 replacement

Features and benefits

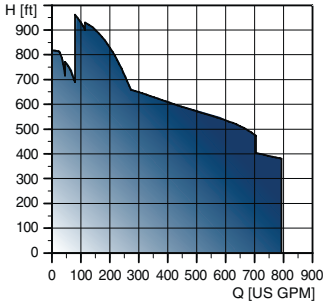
- Low profile horizontal design
- Cartridge shaft seal
- Maximized efficiency
- Service-friendly
- Dimensional replacement of ANSI pumps

Optional

- Grundfos baseplate
- Wireless remote control, R100

CR, CRI, CRN

Vertical in-line multistage pumps



Technical data

Flow, Q:	max. 792 gpm
Head, H:	max. 995 ft
Liquid temp.:	– 22°F to +248°F
Working press.:	max. 435 psi

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 feed systems

Features and benefits

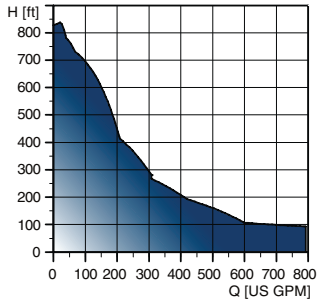
- Reliability
- High efficiency
- Service-friendly
- Space-saving
- Suitable for slightly aggressive liquids

Optional

- Dry-running protection and motor protection via LiqTec™

CRE, CRIE, CRNE

Multistage centrifugal pumps electronically controlled



Technical data

Flow, Q:	max. 790 gpm
Head, H:	max. 820 ft
Liquid temp.:	– 22°F to +248°F
Working press.:	max. 435 psi

Applications

The pumps are suitable for liquid transfer in:

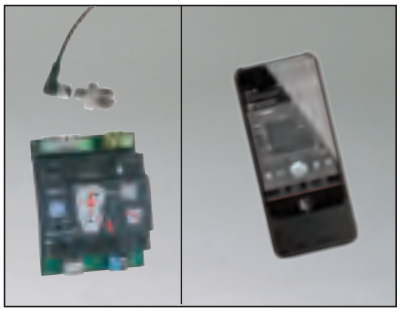
- Washing systems
- Cooling and air conditioning systems
- Water supply systems
- Water treatment systems
- Fire fighting systems
- Industrial plants
- Boiler feeding systems

Features and benefits

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

Optional

- Wireless remote control, R100



LiqTec™

Control and monitoring unit

Applications

- Monitoring and protection of pumps and processes

Features and benefits

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

Note

- Available for CR only

R100

Wireless remote control

Applications

- All pumps and electronics designed for wireless communication

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 via USB

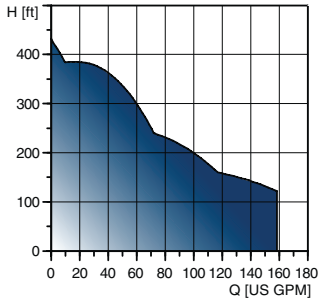
Note

Products that can communicate with the R100:

- MLE, CRE, CU 300, CU 301, CME, Multi-E, MAGNA, TPE

CME-Plus

Single pump system



Technical data

Flow, Q:	max. 154 gpm
Head, H:	max. 425 ft
Liquid temp.:	-4°F to +248°F
Working press.:	max. 145 psi

Applications

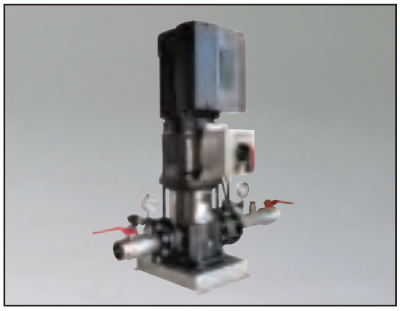
- Residential/commercial buildings
- Irrigation
- Water supply systems
- Industrial applications
- Constant pressure
- Pressure boosting

Features and benefits

- Constant pressure, variable speed control
- Simple installation
- Low-energy consumption
- Reduced maintenance

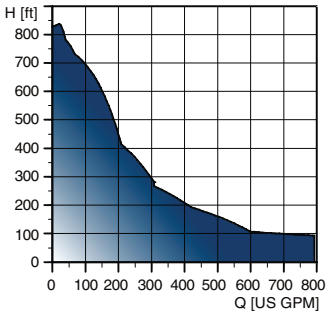
Optional

- External communication supports other fieldbus protocols such as Modbus, Profibus, LON, BACnet and more.



CRE-Plus

Single pump system



Technical data

Flow, Q (1 pump system):	max. 790 gpm
Head, H:	max. 820 ft
Liquid temp.:	-22°F to +248°F
Working press.:	max. 435 psi

Applications

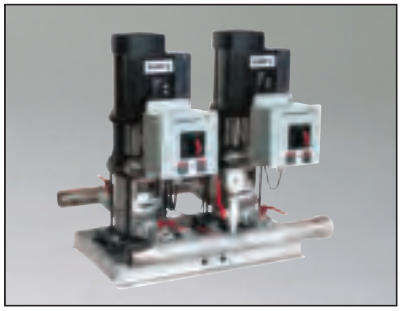
- Residential/commercial buildings
- Irrigation
- Water supply systems
- Industrial applications

Features and benefits

- Constant pressure, variable speed control
- Simple installation
- Low-energy consumption
- Reduced maintenance

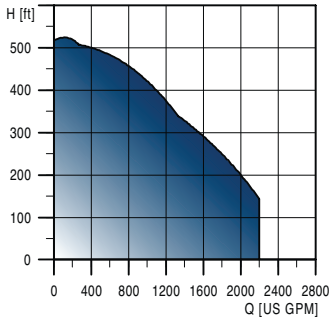
Optional

- External communication supports other fieldbus protocols such as Modbus, Profibus, LON, BACnet and more.



Hydro Multi-E

Multiple packaged pump system



Technical data

Flow, Q (4 pump system):	max. 2200 gpm
Head, H:	max. 535 ft
Liquid temp.:	+32°F to +176°F
Working press.:	max. 232 psi

Applications

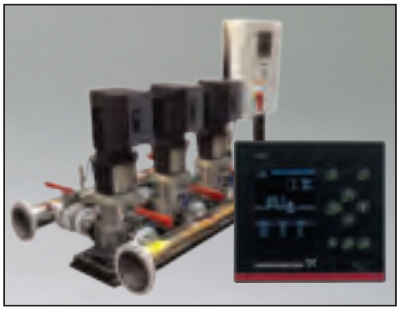
- Residential/commercial buildings
- Water supply systems
- Industrial applications
- HVAC applications

Features and benefits

- Constant pressure, all variable speed control
- Simple installation
- Low-energy consumption
- Wide range

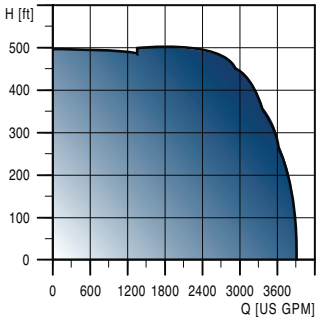
Optional

- External communication supports other fieldbus protocols such as Modbus, Profibus, LON, BACnet and more.



BoosterpaQ® Hydro MPC

Advanced packaged pump system



Technical data

Flow, Q (4 pump system):	max. 2540 gpm
Flow, Q (6 pump system):	max. 3800 gpm
Head, H:	max. 500 ft
Liquid temp.:	+32°F to +176°F
Working press.:	max. 232 psi

Applications

BoosterpaQ systems are suitable for pressure boosting in:

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

Features and benefits

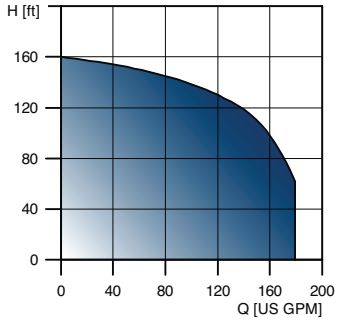
- Constant pressure
- Simple installation
- Low-energy consumption
- Wide range
- Many advanced control functions
- Intuitive control interface

Optional

- Supports other fieldbus protocols such as Modbus, Profibus, LON, BACnet and more.

HS

Single-stage end suction pumps



Technical data

Flow, Q:	max. 175 gpm
Head, H:	max. 160 ft
Liquid temp.:	max. 180°F continuous
Working press.:	max. 125 psi

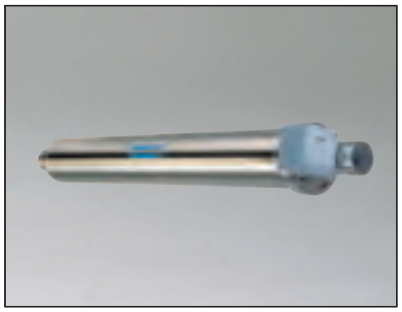
Applications

The pumps are suitable for liquid transfer in:

- Water circulation
- Pressure boosting
- Filter systems
- Cooling systems
- Water supply
- Other industrial systems

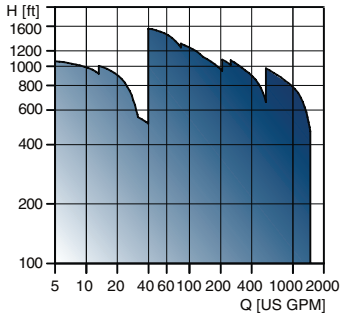
Features and benefits

- Wide range
- Compact design
- Standard motor
- Carbon/ceramic shaft seal
- Bronze impeller



BM

4”, 6”, and 8” booster modules



Technical data

Flow, Q:	max. 1320 gpm
Head, H:	max. 1595 ft
Liquid temp.:	+32°F to +104°F
Working press.:	max. 1160 psi

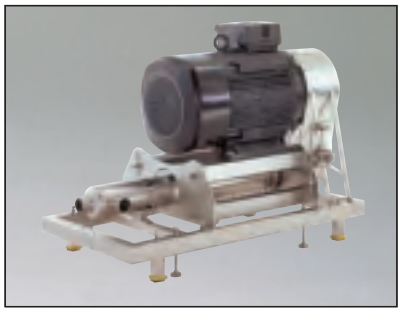
Applications

The booster modules are suitable for pressure boosting in:

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

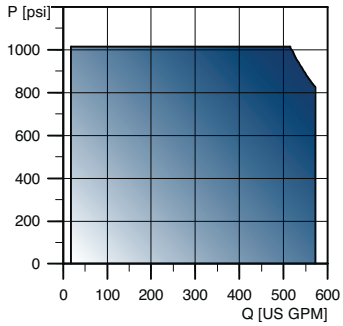
Features and benefits

- Low-noise
- Simple installation
- Modular design
- Compact design
- Sealless



BME, BMET

High-pressure booster systems



Technical data

Flow, Q:	max. 570 gpm
Pressure, p:	max. 1015 psi
Liquid temp.:	+32°F to +104°F
Working press.:	max. 1160 psi

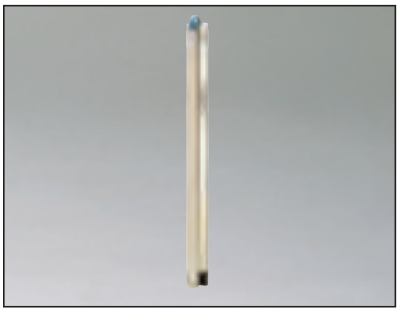
Applications

The booster systems are suitable for pressure boosting in:

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

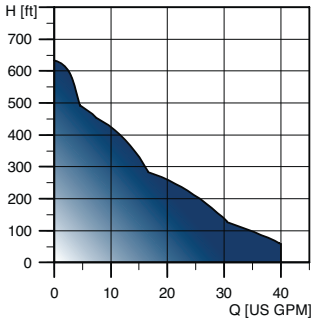
Features and benefits

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



SQ

3” submersible pump



Technical data

Flow, Q:	max. 40 gpm
Head, H:	max. 640 ft
Liquid temp.:	+32°F to +104°F
Instal. depth:	max. 500 ft

Applications

The pumps are suitable for:

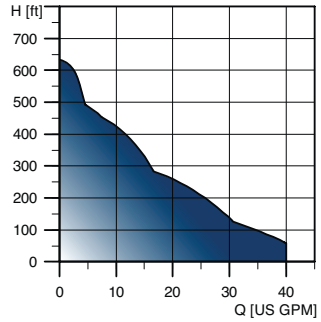
- Domestic water supply
- Irrigation in horticulture and agriculture
- Groundwater de-watering
- Industrial applications

Features and benefits

- Integrated dry-running protection
- Soft start
- Over, and undervoltage protection
- High-starting torque
- Overload protection

SQE Constant Pressure System

SQE pump and CU 301 Control Unit



Technical data

Flow, Q:	max. 40 gpm
Head, H:	max. 640 ft
Liquid temp.:	+32°F to +104°F
Instal. depth:	max. 500 ft

Applications

The pumps are suitable for:

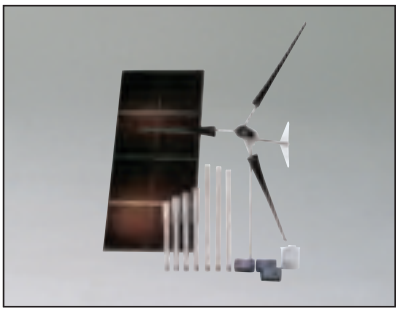
- Domestic water supply
- Irrigation in horticulture and agriculture
- Groundwater de-watering
- Industrial applications

Features and benefits

- Constant water pressure under varying demands.
- Integrated dry-running protection
- Soft start
- Over-and undervoltage protection
- High-starting torque
- Overload protection

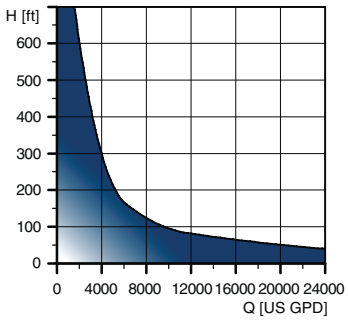
Optional

- CU 301 can be monitored and controlled via R100



SQFlex

Renewable energy based water supply system



Technical data

Flow, Q:	max. 85 gpm
Head, H:	max. 820 ft
Liquid temp.:	+32°F to +104°F
Voltage supply:	30-300 VDC or 1 x 90-240 V, 50/60 Hz
Instal. depth:	max. 492 ft

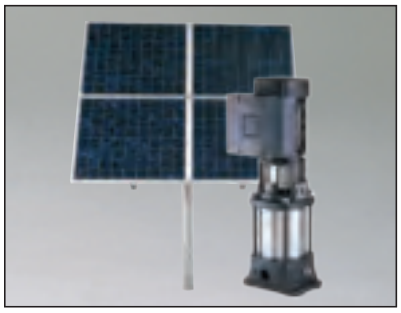
Applications

The SQFlex systems are suitable for water supply in remote locations, such as:

- Livestock watering
- Farms and irrigation of greenhouses
- Camps
- Conservation areas
- Remote homes and cabins

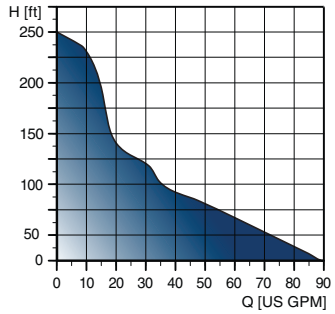
Features and benefits

- Energy supply: solar modules, wind turbine, AC generator
- Simple installation
- Reliable water supply
- Virtually no maintenance
- Expansion possibilities
- Cost-efficient pumping
- Integrated controls/inverter



CRFlex

Renewable based above ground water boosting and transfer pump



Technical data

Flow, Q:	max. 80 gpm
Head, H:	max. 230 ft
Liquid temp.:	+32°F to +250°F
Voltage supply:	110-415 VDC or 1 x 90-240 V, 50/60 Hz

Applications

The CRFlex systems are suitable for water boosting and transfer in remote locations, such as:

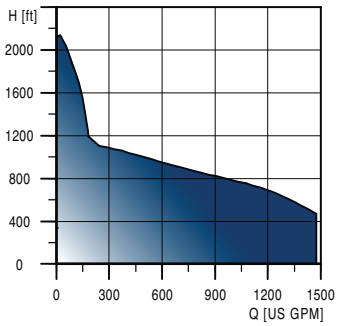
- Livestock watering
- Farms and irrigation
- Camps
- Conservation areas
- Villages

Features and benefits

- Energy supply: solar modules, wind turbine, AC generator
- Simple installation
- Reliable water supply
- Virtually no maintenance
- Expansion possibilities
- Cost-efficient pumping
- Integrated controls/inverter

SP

4", 6", 8" and 10" submersible pumps



Technical data

Flow, Q:	max. 1,400 gpm
Head, H:	max. 2,100 ft
Liquid temp.:	+32°F to +140°F
Instal. depth:	max. 1968 ft

Applications

The pumps are suitable for:

- Groundwater supply to waterworks
- Irrigation in horticulture and agriculture
- Groundwater de-watering
- Pressure boosting
- Industrial applications
- Domestic water supply

Features and benefits

- High efficiency
- Stainless steel components provide long service life
- Motor protection via CU 3
- Variable frequency drive compatible motors

Optional

- Motor protection via MP 204
- Performance data can be monitored via CU 3/R100/PC Tool MP 204

MS motors

Stainless steel 4" and 6" submersible motors.

Motor sizes

4" motor:	0.5 to 10 hp
6" motor:	7.5 to 40 hp

Applications

The Grundfos MS submersible motors can be fitted on all Grundfos pumps and can be used in the high-pressure booster modules, types 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
- Variable frequency drive compatible motors

Optional

- Material variations available

Control Box SA-SPM5

Product range

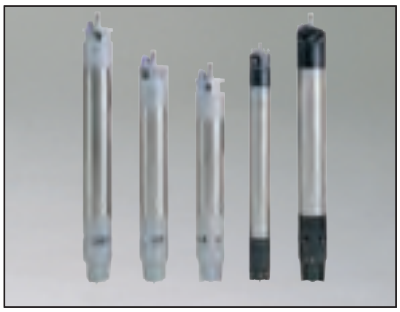
- Standard: 0.5 hp to 5 hp
- Delux: 1.5 hp to 5 hp
- CSCR: 1 hp

Enclosure

- NEMA Type 3R
- Gray epozy coated
- 18-gauge steel construction

Features and benefits

- Pull handle disconnect
- Safety shield
- UL-recognized mallory start capacitor
- UL-recognized general electric
- Voltage relay
- Progressive knockouts
- 0.5 hp to 1 hp PumpSaver ready



MMS

Stainless steel 6", 8", and 10" submersible motors.

Motor sizes

6" motor:	50 hp
8" motor:	40 to 150 hp
10" motor:	100 to 250 hp

Applications

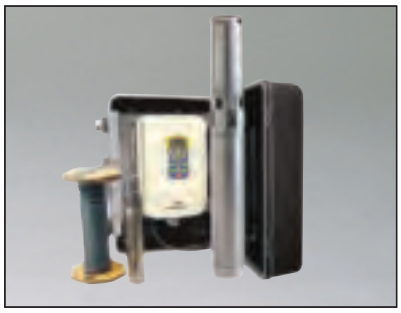
The Grundfos MMS submersible motors can be fitted on all Grundfos pumps and is for use in standard groundwater systems.

Features and benefits

- Standardized NEMA head and shaft end on 6 and 8 inch. Keyed shaft for Grundfos pumps on 10 inch
- Built in port for pt100 temperature probe
- Wet wound motor for greater cooling
- Variable frequency drive compatible motors

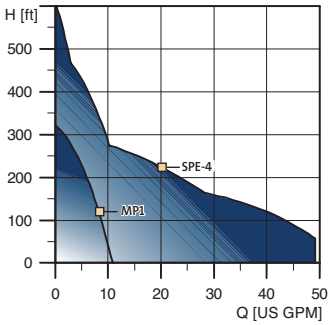
Optional

- All stainless version in 316 or 904L



MP1 and SPE-4

Environmental pumps



MP1 Technical data

Flow, Q:	max. 10.5 gpm
Head, H:	max. 312 ft
Liquid temp.:	+32°F to +95°F

SPE-4 Technical data

Flow, Q:	max. 50 gpm
Head, H:	max. 600 ft
Liquid temp.:	+32°F to +104°F

Applications

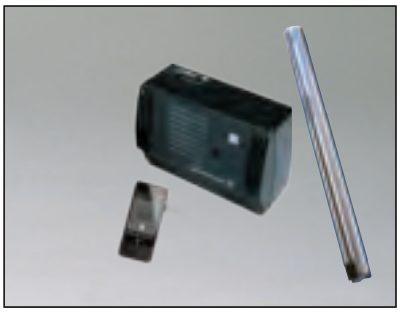
The pumps are suitable for:
- Sampling and purging
- Remediation
- De-watering

MP1 Features and benefits

- Light and compact design
- Fits into 2“ boreholes
- Provides precise, accurate, and reproducible groundwater samples

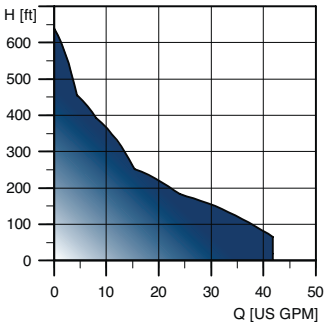
SPE-4 Features and benefits

- Constructed of virgin Teflon®
- Fit into 4” boreholes
- All stainless steel construction



SQE-NE and CU 300

Environmental pumps



Technical data

Flow, Q:	max. 42 gpm
Head, H:	max. 640 ft
Liquid temp.:	+32°F to +104°F
Instal. depth:	max. 500 ft

Applications

The pumps are suitable for:
- Pumping up contaminated groundwater
- Sampling
- Remedial pumping
- De-watering

Features and benefits

SQE-NE

- All of the features of the SQE, but designed for environmental applications
- All 316 SS construction
- Inert composites
- External sensor control of pump
- Flexible configuration capabilities
- Monitoring, configuration and control via R100 or PC Tool CU 300

MP 204

Control and monitoring units

Applications

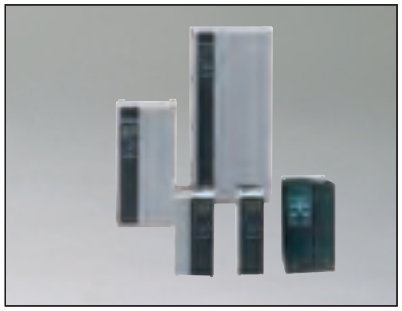
- Monitoring and protection of pump installations

Features and benefits

- Protection against dry running, motor over temperature, overload, overvoltage, undervoltage, current and phase imbalance
- Constant monitoring of power consumption

Optional

- Connection to large control systems via bus communication
- Connection of sensors enabling control based on sensor signals
- Configure setup and monitor operating data via R100



CUE, CU 321

The CUE is a series of frequency converters designed for speed control of a wide range of Grundfos pumps. Typical uses include constant pressure, constant level, and constant flow.

Comprehensive range

- 1-phase, 1x200-240 V, 50/60 Hz (1.5 - 10 hp)
- 3-phase, 3x200-240 V, 50/60 Hz (1 - 60 hp)
- 3-phase, 3x380-500 V, 50/60 Hz (0.75 - 300 hp)
- 3-phase, 3x525-600 V, 50/60 Hz (1 - 10 hp)
- 3-phase, 3x525-690 V, 50/60 Hz (10 - 300 hp)

Applications

- Water supply and pressure boosting
- Heating and air-conditioning
- Process and sanitary applications
- Groundwater

Features and benefits

- Intuitive start-up guide
- Smart user interface
- Automatic direction of rotation
- Low flow stop function
- Soft start
- Duty/standby
- Motor bearing supervision

CIU

Fieldbus Products

The Grundfos family of fieldbus products serve as translators between the Grundfos GENIbus protocol and Modbus, BACnet, LonWorks, and Profibus. These devices allow for easy integration of Grundfos E-Products into SCADA systems. Additionally, a GSM version will be available which provides cell- phone text messaging of any alarms that may occur.

Technical data

Supply voltage:	24-240 VAC/VDC
Power consumption:	max. 11W
Ambient temp.:	-4 to 113°F
Enclosure class:	NEMA 3R

Product type

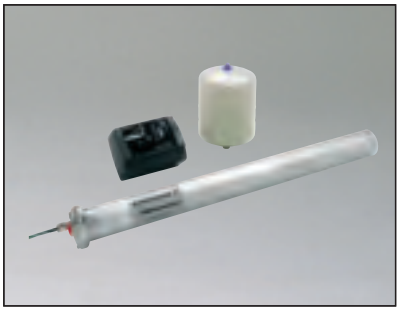
- CIU (Communication Interface Unit) stand-alone enclosure

Applications

- Modbus RTU
- Profibus DP
- LonWorks - LonMark functional profile 8120
- BACnet

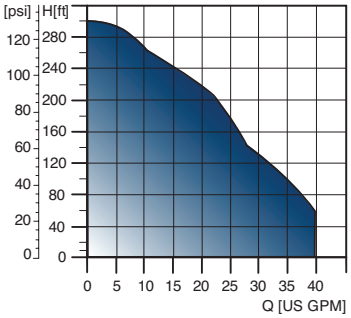
Grundfos products supported

- E-Pumps- CRE, TPE, MAGNA, Multi-E
- Pump Controls- BoosterpaQ Hydro MPC, Control MPC, MP204
- VFD's- CUE



BMQE

Constant pressure system



Technical data

Flow, Q:	max. 39 gpm
Head, H:	max. 300 ft
Liquid temp.:	+32°F to +95°F
Working press.:	max. 347 psi
Inlet press.:	min. 8 psi

Applications

BMQE systems are suitable for pressure boosting in:

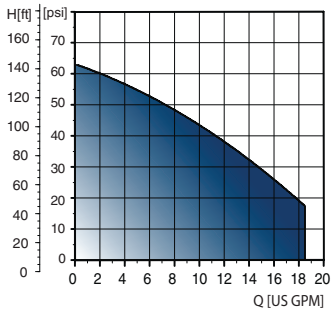
- Water supply systems
- Irrigation systems
- Water treatment systems

Features and benefits

- Constant water pressure under varying demands
- Simple installation
- High efficiency
- Integrated variable speed
- Soft start
- Integrated dry-running protection
- Overload and over temperature protection

MQ

Flow based pressure boosting system



Technical data

Flow, Q:	max. 18 gpm
Head, H:	max. 63 psi
Liquid temp.:	+32°F to +95°F
Working press.:	max. 109 psi
Inlet press.:	max. 40 psi

Applications

The MQ pump is designed for water supply and pressure boosting in:

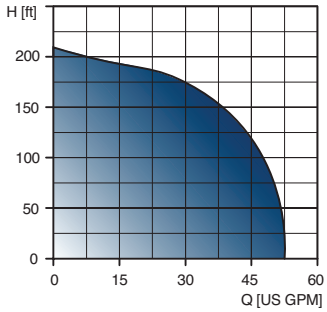
- Homes
- Cabins, cottages
- Farms as well as gardens of potable water and rain water.
- Large filter systems

Features and benefits

- Complete system
- Easy installation
- Simple operation
- Self-priming
- Built-in protective functions
- Automatic reset
- Available outdoor cover

Jets

Basic Line Jet



Technical data

Flow, Q:	max. 50 gpm
Head, H:	max. 210 ft
Motor power:	1/2 to 3 hp

Applications

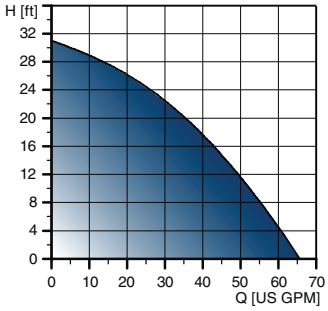
Shallow well, deep well and convertible pump applications. Self-priming centrifugal pumps suitable for domestic water supply systems, light agricultural and industrial water transfer applications.

Features and benefits

- Dual voltage motors 115/230 volts
- Full range of HP's
- Nozzle and Venturi clean out port
- Totally enclosed fan-cooled motors
- Quiet operation
- Available in cast iron and stainless steel models
- Built-in thermal overload for motor protection
- Self-priming and excellent suction lift
  - Up to 25 ft depth to water shallow well
  - Up to 90 ft depth to water deep well

Unilift KP

Submersible Drainage Pump



Technical data

Flow, Q:	max. 65 gpm
Head, H:	max. 32 ft
Liquid temp.:	32°F to 122°F
Particle size:	max. 0.4"
Material:	Stainless Steel

Applications

The pumps are suitable for:

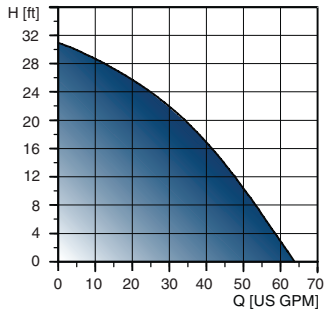
- Raw water, drainage and untreated wastewater containing solids no larger than 0.4" from households, farms, and small industry.

Features and benefits

- Hermetically-sealed stator house
- Automatic or manual operation
- Installed as a permanent or portable pump

Unilift CC

Submersible drainage pump



Technıcal data

Flow, Q:	max. 62 gpm
Head, H:	max. 30.8 ft
Liquid temp.:	32°F to 104°F
Particle size:	max. 0.4”
Material:	Composite
Suction	down to 0.12”

Applications

The pumps are suitable for:

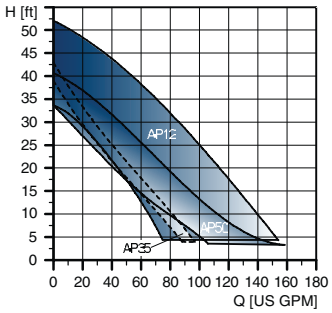
- Raw water, drainage and untreated wastewater containing solids no larger than 0.4” from households, farms, and small industry.

Features and benefits

- Corrosion-free, lightweight composite sleeve
- Strong stainless steel strainer
- Stainless steel inside for maximum strength
- Removes water to as low as 0.12”

Unilift AP12, AP35, AP50

Submersible effluent & domestic sewage pumps



Technical data

Flow, Q:	max. 155 gpm
Head, H:	max. 52 ft
Liquid temp.:	32°F to 131°F
Particle size:	max. 0.5” to 2.0”
Material:	Stainless steel

Applications

The pumps are suitable for:

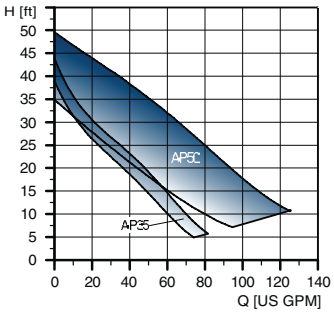
- Raw and dirty water, drainage and untreated water, solids up to 2”

Features and benefits

- Field replaceable cable
- High-quality stainless steel
- Robust construction
- Pumps up to 2.0” solids

Unilift AP35B, AP50B

Submersible effluent & domestic sewage pumps



Technical data

Flow, Q:	max. 136 gpm
Head, H:	max. 49 ft
Liquid temp.:	32°F to 104°F
Particle size:	max. 1.4” to 2.0”
Material:	Stainless steel

Applications

The pumps are suitable for:

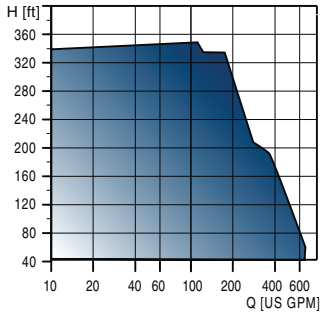
- Raw and dirty water, drainage and untreated water, solids up to 2”

Features and benefits

- Field replaceable cable
- High-quality stainless steel
- Robust construction
- Pumps up to 2.0” solids

SL

Submersible wastewater pumps



Technical data

Flow, Q:	max. 675 gpm
Head, H:	max. 350 ft
Liquid temp.:	max. 302°F
Particle size:	max. 2” to 4”
Working press.:	max. 232 psi

Applications

The pumps are suitable for liquid transfer in:

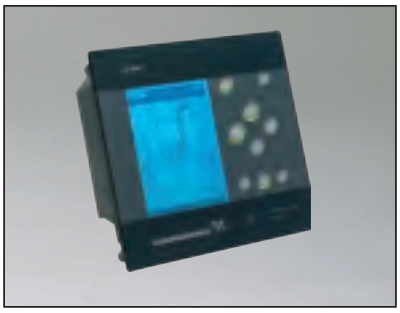
- Food and beverage
- Water treatment systems
- Life science/pharmaceutical
- Personal care

Features and benefits

- Reliability
- Hygienic design
- Service-friendly
- CIP/SIP capable

Optional

- Motor support
- Mechanical seal configuration



Dedicated Controls - CU361

Monitoring and control for sewage pumps

Features and benefits

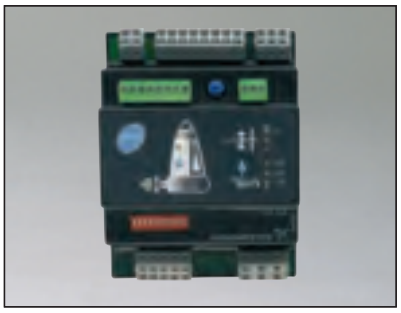
- Full graphical display
- Menu structure known from PC systems
- Dynamic buttons with light-guiders
- Important data accessible onsite
- Less time to commission, less time to trouble-shoot

Basic functions

- Start-up wizard
- Pump alternation
- Parallel running of both pumps on second start level
- Pump start and stop delays
- Random start levels
- User defined inputs and outputs

Advanced Functions

- Energy optimization, continuously monitored
- Pump groups
- Daily emptying
- Predictive clogging functions, flush/reverse
- Overflow log
- Discharge flow estimate (Grundfos patented)
- Connects to SCADA Networks



IO 111

Interface between pump sensors and Dedicated Controls

Features and benefits

- Warning indication
- Reset button
- Pump running indicator

Basic functions

- Motor temperature sensor located in motor windings
- Water in Oil sensor located in oil chamber
- Moisture Humidity sensor located inside motor housing
- Stator Insulation Resistance sensor located in motor

WHY E-SOLUTIONS?

BECAUSE SPEED CONTROL IS AT THE HEART OF THE MATTER

At Grundfos, we continuously strive to develop pump solutions that work efficiently and minimize energy consumption for the benefit of our customers and the surrounding environment.

Our full line of E-solutions with variable-speed functionality is a good example of how we think about sustainability.

LESS SPEED, MORE SAVINGS

There are several good reasons for choosing a Grundfos E-solution with speed control over a conventional fixed-speed pump.

In most applications where output needs vary during the day or with the seasons, substantial energy savings can be gained by regulating the pump's speed according to the pump demand.

The frequency converter adjusts the speed to meet the pump demand so that energy is never wasted. The result is energy savings of up to 50% annually. Simple and quick installation and commissioning also contribute to reducing total life cycle costs.

INCREASED COMFORT

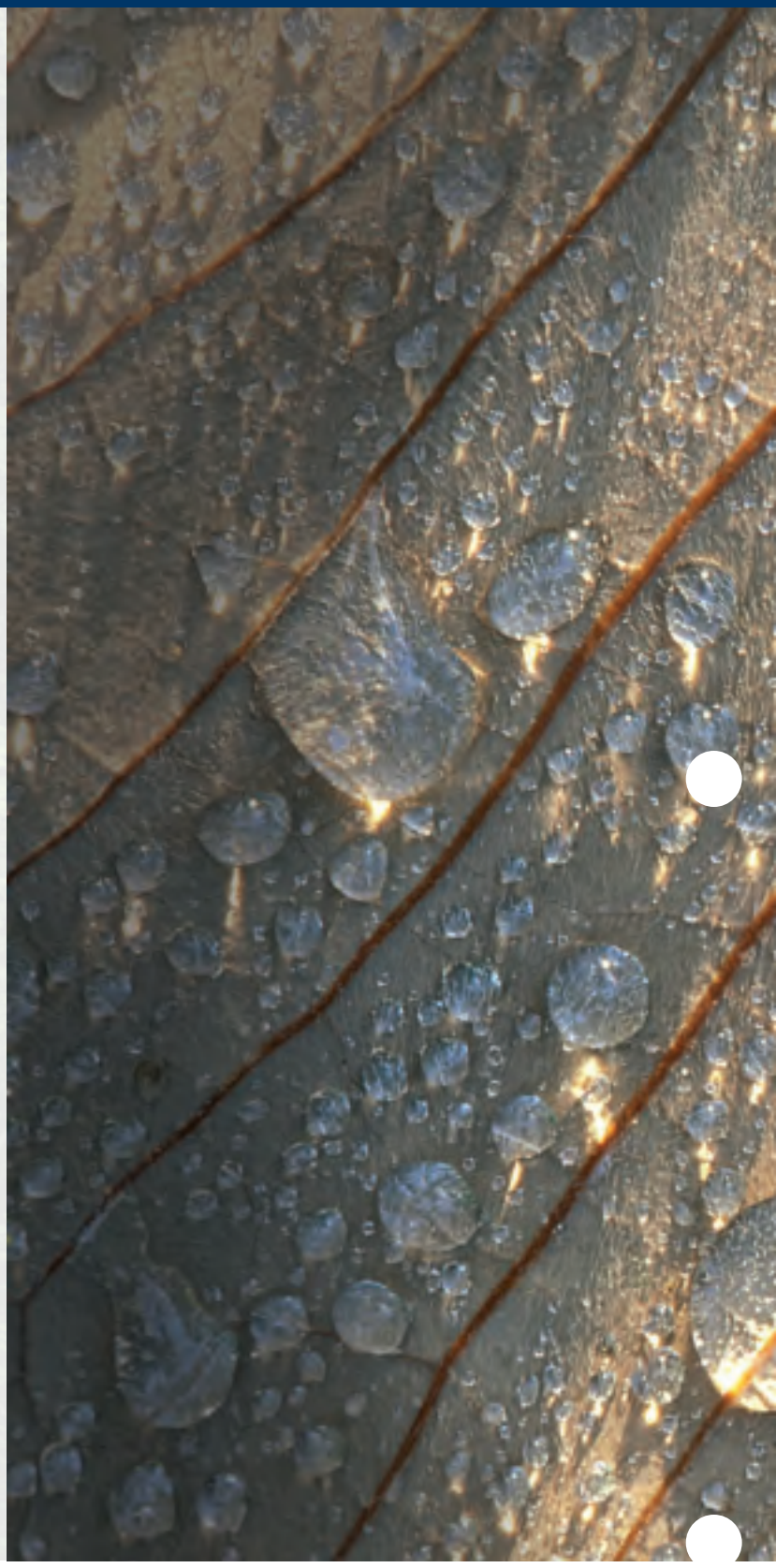
Grundfos E-solutions offer all the comfort you expect from a high-quality pump solution.

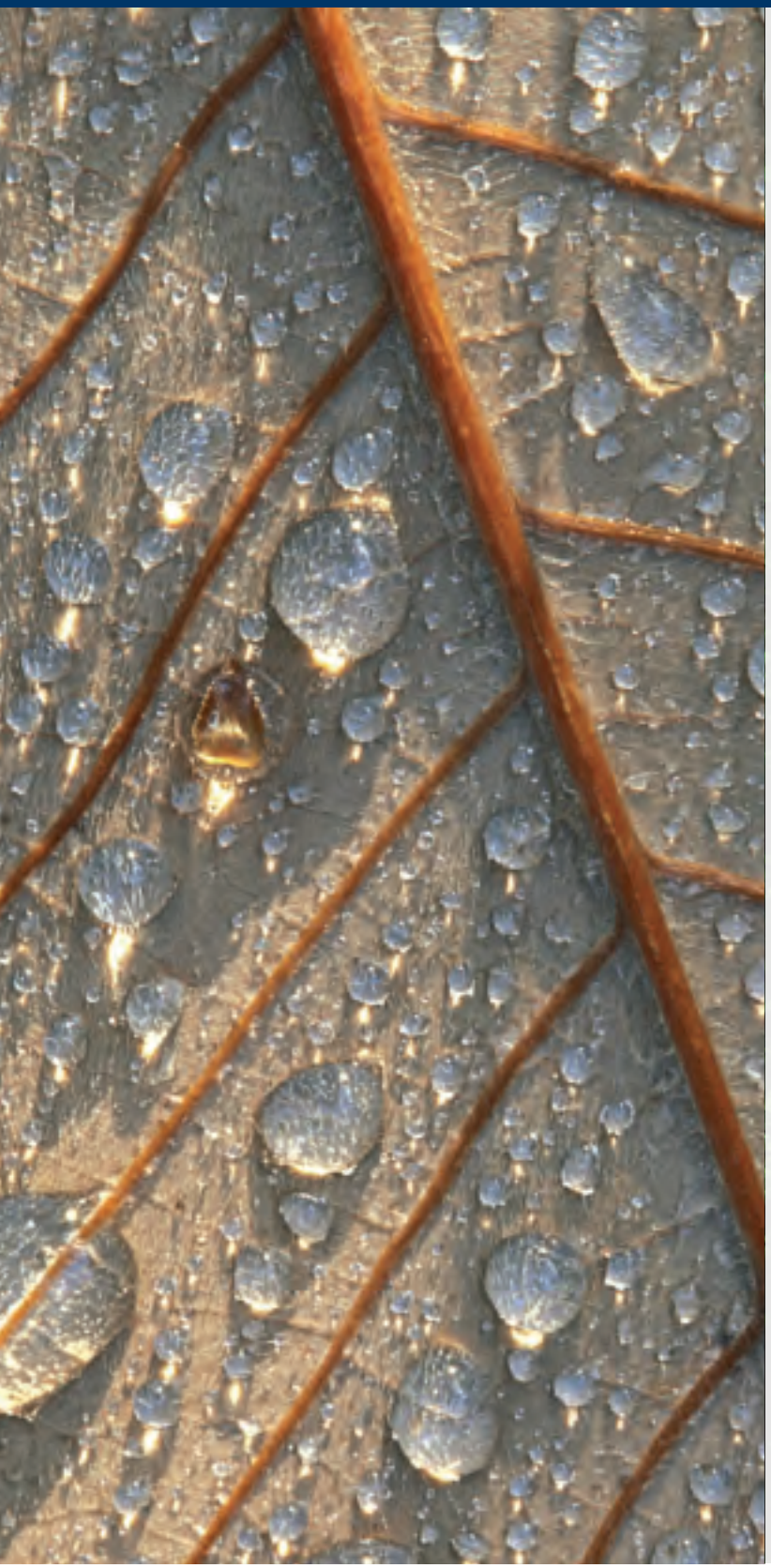
The E-solutions soft-start feature eliminates water hammer and flow noise from valves caused by excessively high pressure.

COMPLETE PROCESS CONTROL

E-solutions are renowned for their unique functionality. You have total control of your pump application and processes at all times.

The advanced pump functionality provides extensive possibilities for complete process control.





E-SOLUTIONS FEATURES AND FUNCTIONALITY

Grundfos E-solutions cover most pump types, applications, and power supplies. Whether you choose an integrated E-pump or a wall-mounted CUE solution, you get the special E-pump features and functionality:

- Built-in PID controller for constant pressure, constant liquid level in a tank, constant flow, or constant temperature operation
- Automatic stop function for water supply applications
- Proportional pressure function for circulator pump applications
- External control of setpoint is available
- Optional external communication supports other fieldbus protocols including: Modbus, Profibus, LON, BACnet & more

BENEFITS IN SHORT

- Reduced life cycle costs
- Substantial energy savings
- Reduced CO_2 emissions
- Easy installation and commissioning
- Advanced features and functionality
- Increased comfort
- Remote control and monitoring
- All components from one supplier

The Grundfos Service Commitment

Every Grundfos product is built to set new standards in performance and reliability. Our products are backed by a proven and extensive commitment to service, evidenced by:

- International service support
- Service kits and parts
- 10-year availability of spare parts
- Repairs made to production standards
- Complete testing services
- Service tools and technical documentation

After-Sales Service Options

1. Extensive spare parts kits availability with service manuals, installation guides, and tools.
2. Factory-authorized service centers in Canada, Mexico, and the United States.
3. Factory service at one of our sales locations in:

Apodaca, N.L. Mexico • Oakville, Ontario, Canada
Fresno, California, USA • Allentown, Pennsylvania, USA

Authorized North and Central America Service Centers

To find the authorized service center nearest you:

Visit our website at
www.grundfos.com

NOTES

L-GPU-SL-001 Rev. 11-12

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