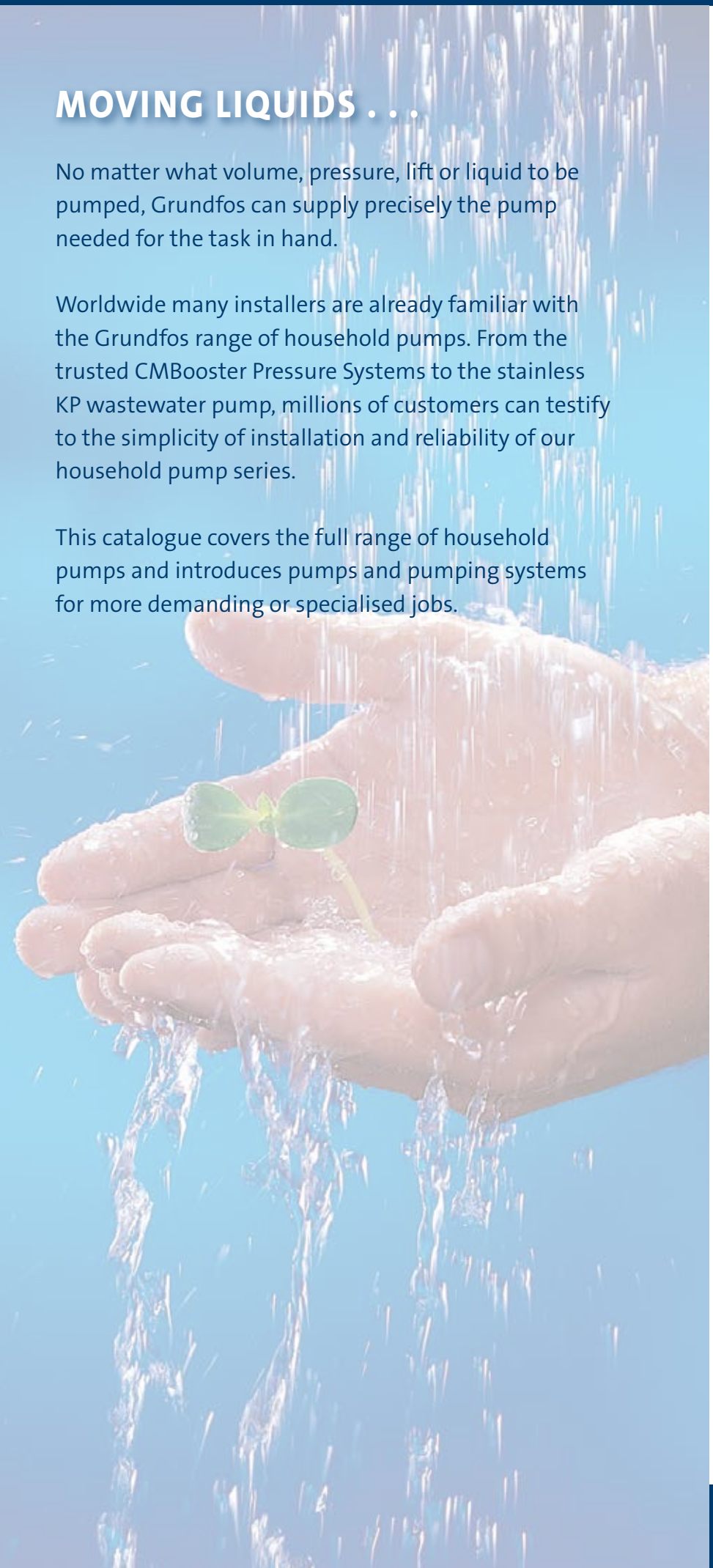
One range of quality pumps is all you need



MOVING LIQUIDS . . .

No matter what volume, pressure, lift or liquid to be pumped, Grundfos can supply precisely the pump needed for the task in hand.

Worldwide many installers are already familiar with the Grundfos range of household pumps. From the trusted CMBooster Pressure Systems to the stainless KP wastewater pump, millions of customers can testify to the simplicity of installation and reliability of our household pump series.

This catalogue covers the full range of household pumps and introduces pumps and pumping systems for more demanding or specialised jobs.

WATER SUPPLY

RAINWATER HARVESTING

PRESSURE SYSTEMS

SELF PRIMING

SUBMERSIBLE

WASTEWATER AND DRAINAGE

HOT WATER AND HEATING

HOUSEHOLD B-LINE

SELF-PRIMING

Ideal for one or multiple tap outlets to your garden, toilet and laundry, the Grundfos JPRain range offers a reliable solution to help you utilise your collected rainwater in the best possible way.

PRESSURE SYSTEMS

This range of Grundfos pumps and tanks are designed for any pumping application involving clean and non-aggressive water in household, small scale irrigation and booster applications.

SUBMERSIBLE

Grundfos submersible pumps are easy to handle and suitable for a variety of applications such as domestic water supply, irrigation and pressure boosting.

WASTEWATER AND DRAINAGE

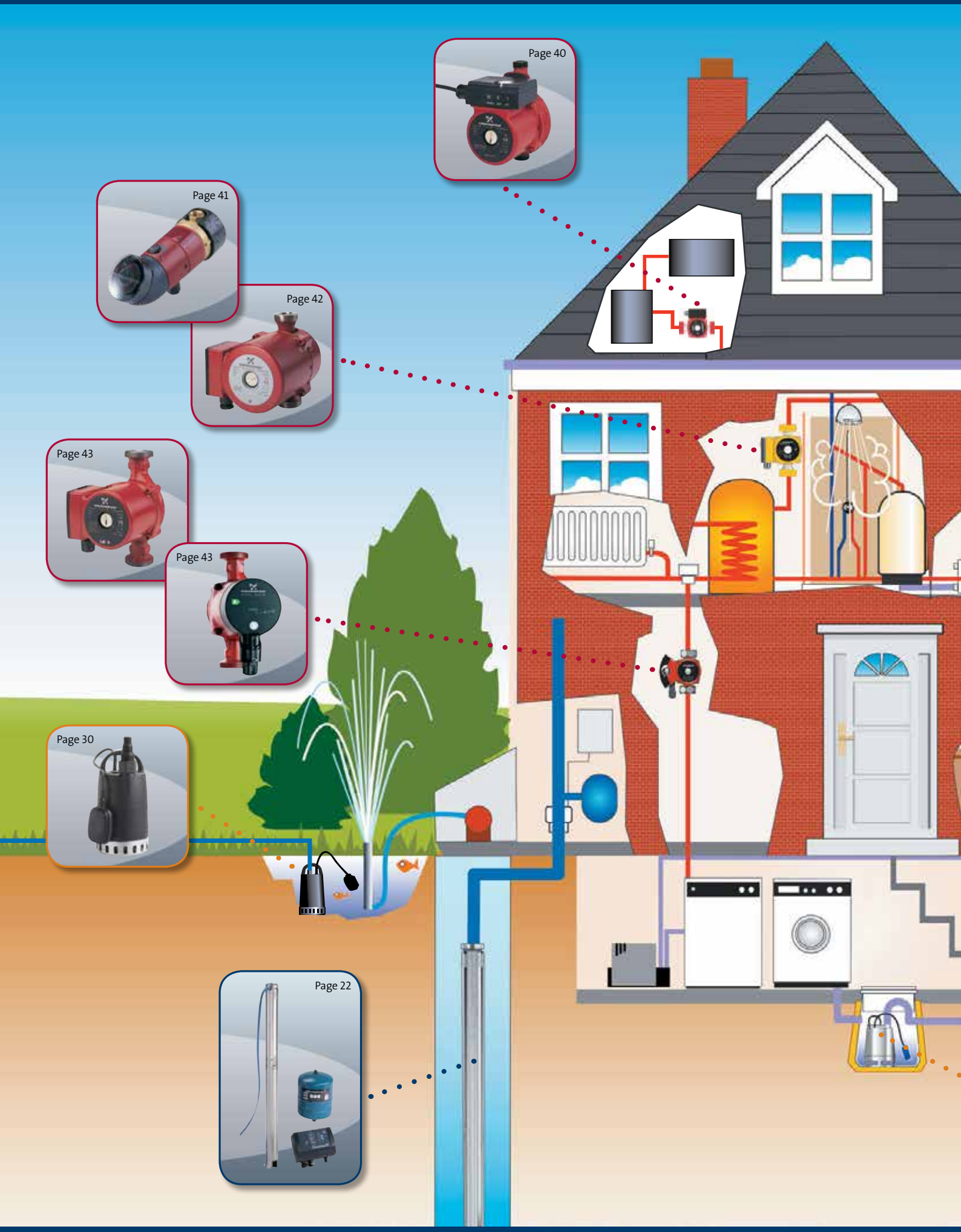
Grundfos wastewater and drainage pumps are designed to make pumping from household applications as simple and efficient as possible.

HOT WATER AND HEATING

The Grundfos range of circulators for heating and hot water re-circulation are available in a variety of materials and finishes to cover even the most exceptional tasks.

HOUSEHOLD B-LINE

A range of quality pumps for home and garden.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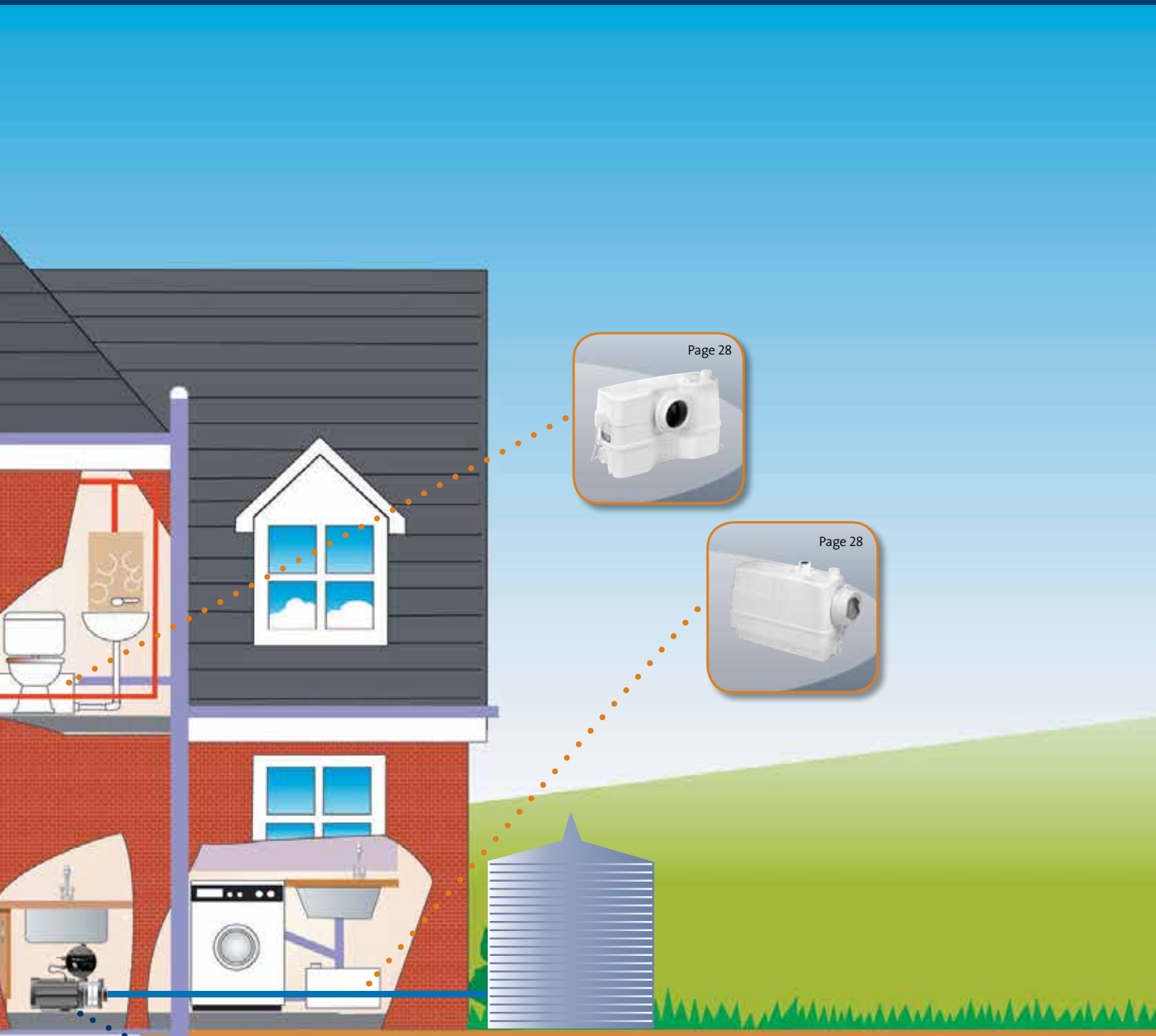

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WATER SUPPLY

Making water work

Grundfos has water supply pumps for a wide range of domestic applications such as raw water supply, pressure boosting, irrigation and dewatering. Each product ensures constant supply of fresh water to your home and garden, while offering different features and benefits in relation to performance, comfort and convenience.

APPLICATIONS

The new Grundfos PMRain is an interconnect device that allows you to utilise your harvested rainwater for toilet flushing and laundry applications, with the added benefit of mains water backup. The new PMRain also features a tank only garden outlet, to ensure you only use rainwater for your garden watering.

The PMRain is used in conjunction with a Grundfos pump. The pump itself is only activated when rainwater is being drawn from the tank. It does not operate when switched to mains.

The PMRain automatically starts when a demand is sensed – for example the flushing of a toilet or filling a washing machine - and will switch over to mains water when your tank is empty or in the case of an electrical failure.

Grundfos has incorporated a specially designed valve eliminating the need for an in-tank float – drastically decreasing installation time.

FEATURES

- The easiest, quickest system to install - no float!
- Does not require any regular maintenance
- Dual check valve for backflow prevention
- Suitable for above and below ground tanks
- Will automatically switch to mains water in the event of power failure
- Water source indicator lights
- Complete control with tank only garden supply

CONSTRUCTION

- The Grundfos PMRain has WaterMark Approval
- Always install under cover to protect from the elements
- The Grundfos PMRain, JPRain, JP and SB all comply with AS/NZS 4020 – Testing of products in contact with drinking water

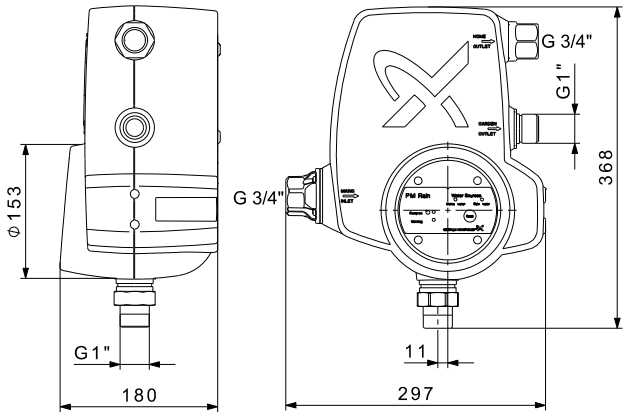
APPLICATIONS

- Surface Mount for above ground tanks
  The PMRain interconnect device can be fitted to one of our reliable JP or JPRain range of pressure pumps, making it suitable for above ground tanks.
- Submersible for above and below ground tanks
  The PMRain interconnect device can be fitted to a submersible SB pump for in tank pump installations with either a wall or tank mount kit, making it a great solution for above and below ground tanks.

TECHNICAL FEATURES

- Maximum Flow Rate – Pump 75 Lpm
- Maximum Mains Pressure – limited to 200 kPa
- Maximum Water Temperature 40°C
- Maximum Ambient Temperature 40°C
- Mains water inlet size via dual check valve ¾” BSP (F)
- Voltage 240 V, 50 Hz
- Rainwater inlet size 1” (M)
- Home only outlet size ¾” (F)
- Garden only outlet size 1” (M)

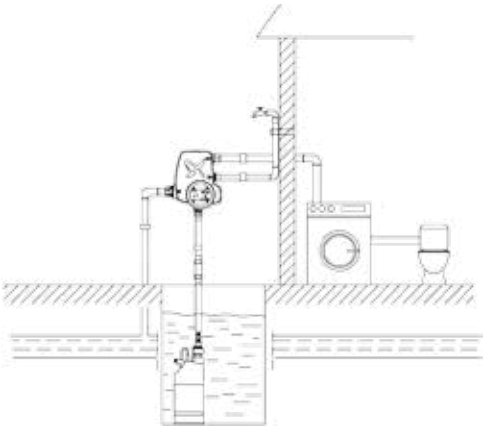
DIMENSIONS

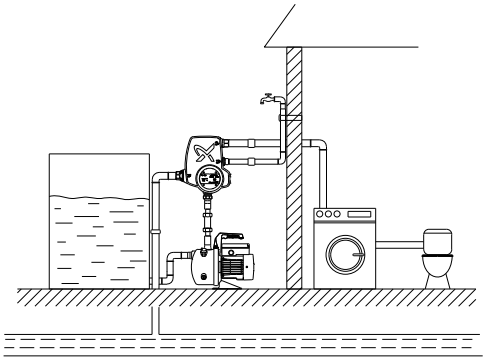


SB Pump with PMRain

JP Pump

INSTALLATION





INSTALLATION GUIDE

		Above Ground Tank	Above Ground Tank	Below Ground Tank
Type of House	Outlets	Basic Solution	Grundfos Quality Solution	Grundfos Quality Solution
Single Storey	1 x Toilet, Laundry and Outside Tap	JPRain2 PMRain		
	2 x Toilets, Laundry and Outside Tap	JPRain3 PMRain		
	3 x Toilets, Laundry and Outside Tap	JPRain4 PMRain	JP5 PMRain	SB 3-35 PMRain
	4 x Toilets, Laundry and Outside Tap	JPRain4 PMRain	JP6 PMRain	SB 3-45 PM Rain
Double Storey	1 x Toilet, Laundry and Outside Tap	JPRain3 PMRain		
	2 x Toilets, Laundry and Outside Tap	JPRain4 PMRain	JP5 PMRain	SB 3-35 PMRain
	3 x Toilets, Laundry and Outside Tap	JPRain4 PMRain	JP6 PMRain	SB 3-45 PMRain

APPLICATIONS

The Grundfos CME is a compact booster pump for water supply and boosting in domestic and light commercial applications. The integrated speed controller enables the CME to keep constant pressure in the pipe system.

FEATURES

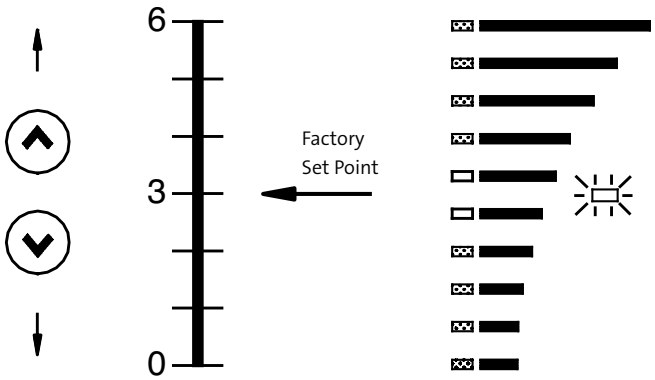
- Constant pressure via integrated speed control
- Dry run protection with auto-restart
- Easy installation & operation
- Quiet operation (55 dBA)
- Stainless steel construction for long life
- Built-in thermal protection (1 x 240 V)
- Inbuilt non-return valve

CONSTRUCTION

- Stainless steel shaft, impellers and pump housing
- Composite terminal box and fan cover
- All wet components are 304 Stainless Steel

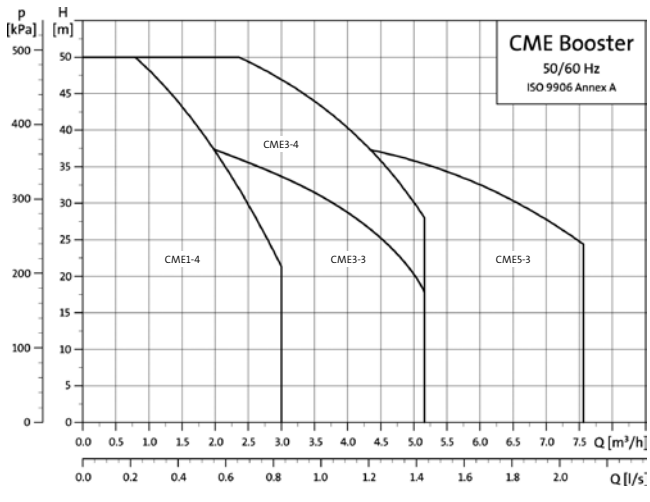
CONTROL PANEL

The CME pump can be operated manually by means of the control panel.



Set the desired setpoint by pressing the ↑ or ↓ buttons. The light fields on the control panel will indicate the setpoint set. Continuously pressing the ↓ button will stop the pump.

PERFORMANCE



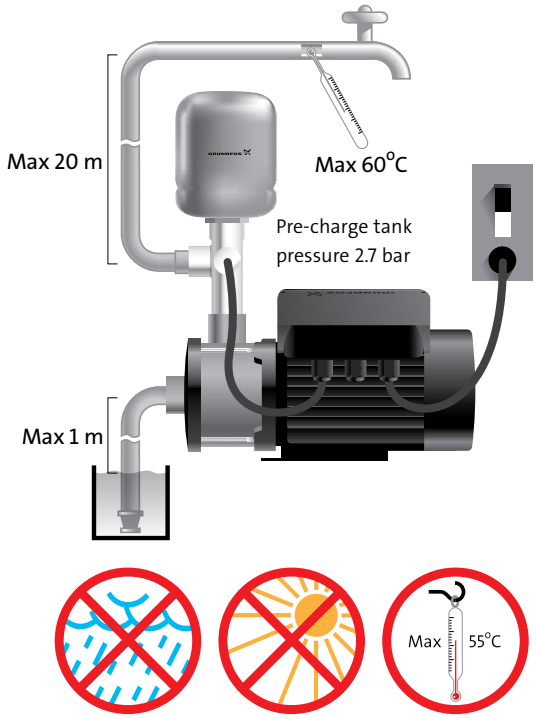
SELECTION

Current CH-PC Model	Suitable Replacement CME*
CH2-50 PC	CME1-4
CH2-60 PC	CME3-3
CH4-40 PC	CME3-3
CH4-50 PC	CME3-4
CH4-60 PC	CME3-4
CHIE4-60	CME3-4
CHIE8-20	CME5-3

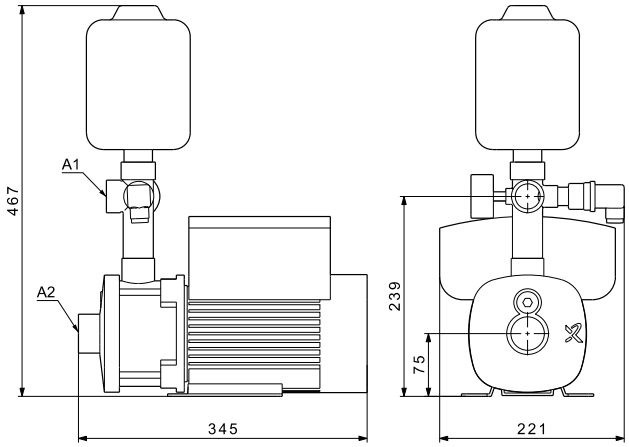
*calculated at 3 bar

INSTALLATION

NOTE: Pump must be mounted in a pump shed or building.



DIMENSIONS



TECHNICAL FEATURES

Pump	P2 (kW)	1ph In (A)	Water temp	Connections inlet (A2)	Connections outlet (A1)	Weight (kg)
CME1-4	0.55	3.4	0/60°C	1"F	1"F	22
CME3-3	1.10	6.6	0/60°C	1"F	1"F	23
CME3-4	1.10	6.6	0/60°C	1"F	1"F	24
CME5-3	1.10	6.6	0/60°C	1 1/4"F	1"F	23

APPLICATIONS

The Grundfos CM Booster is a horizontal multistage centrifugal pump designed for domestic and light industrial applications. It is suitable for pressure boosting from above ground rainwater tanks or from mains water.

FEATURES

- Quiet operation
- Compact design
- Robust construction
- Dry run protection
- Easy installation
- Adjustable cut in pressure (PM2)
- Generator friendly

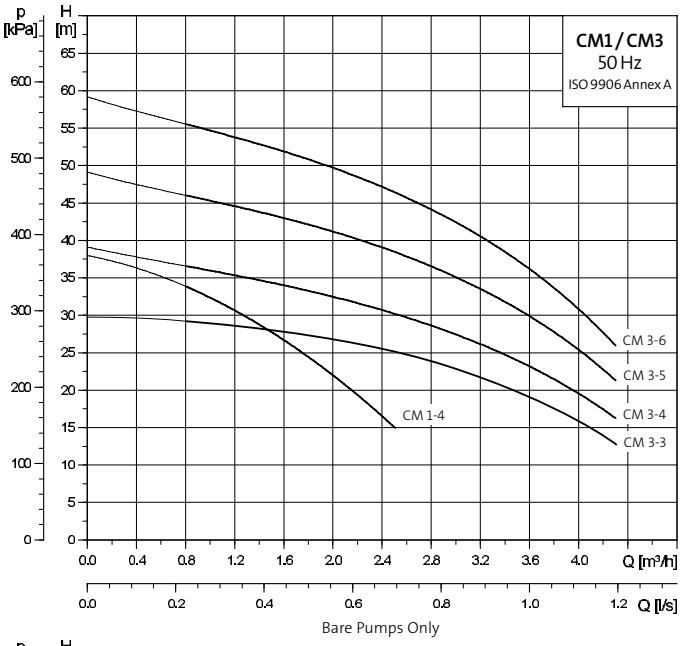
CONSTRUCTION

- All wetted parts stainless steel
- Hard wearing carbon / ceramic seal
- IP55 Motor
- Complies with AS/NZS 4020 - testing for products for use with drinking water

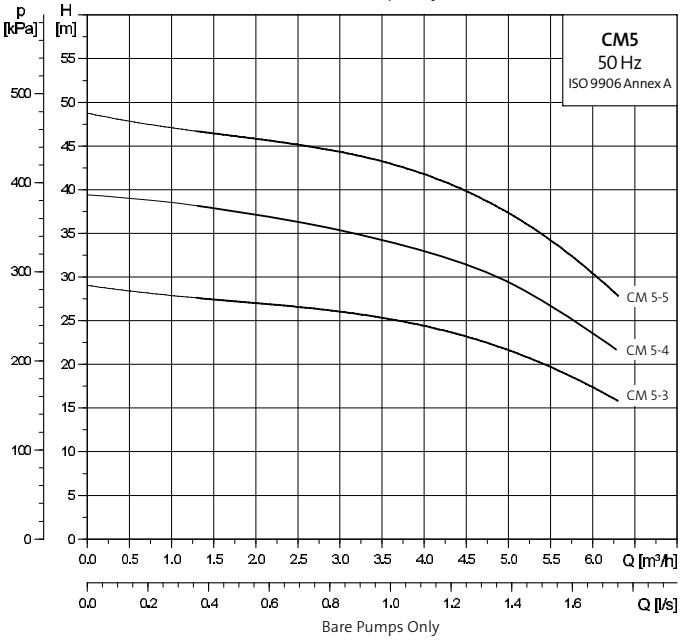
PERFORMANCE

Pumps	Discharge Pressure (**kPa**/psi)						
	150	**200**	**250**	**300**	**350**	**400**	**450**
	22	29	36	44	51	58	65
	Output (l/min)						
CMB 1-4	40	33	26	18	-	-	-
CMB 3-3	65	50	26	-	-	-	-
CMB 3-4	-	63	53	38	20	-	-
CMB 3-5	-	69	61	52	41	26	-
CMB 3-6	-	-	68	63	55	47	36
CMB 5-3	99	79	44	-	-	-	-
CMB 5-4	-	100	85	67	30	-	-
CMB 5-5	-	-	102	92	80	62	24

As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute



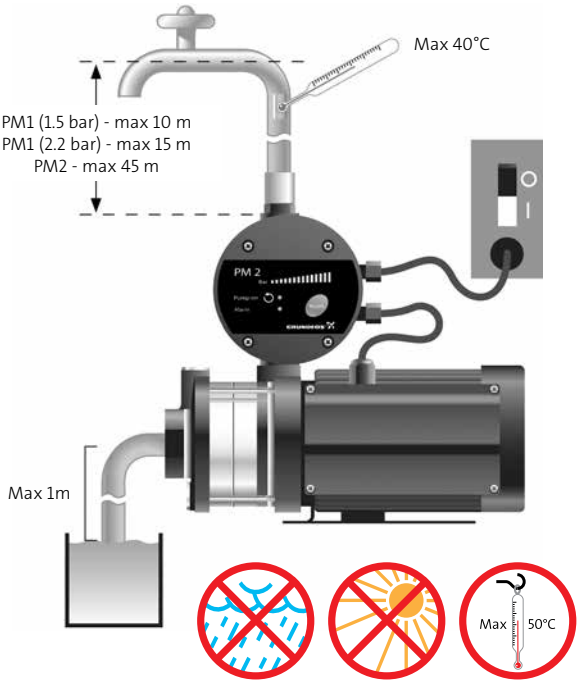
Bare Pumps Only



Bare Pumps Only

INSTALLATION

NOTE: Pump must be mounted in a pump shed or building.



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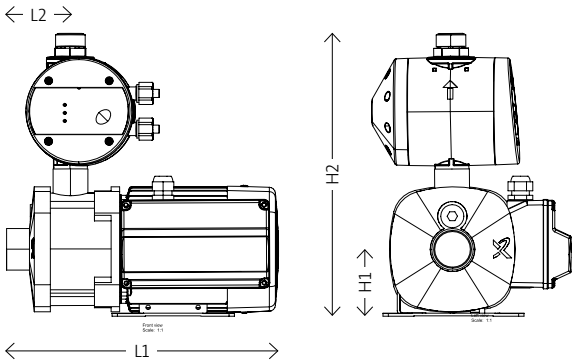


SELECTION

Current CH-PC Model	Suitable Replacement CM Booster**
CH2-30 PC	CMB 1-4
CH2-40 PC	CMB 3-3
CH2-50 PC	CMB 3-4
CH2-60 PC	CMB 3-5
CH2-60 PC	CMB 3-6
CH4-40 PC	CMB 5-3
CH4-50 PC	CMB 5-4
CH4-60 PC	CMB 5-5

**calculated at 3 bar

PRESSURE MANAGER COMPARISON

Model	PM 1	PM 2
Power on indication	•	•
Pump running indication	•	•
Alarm indication	•	•
Dry-running protection	•	•
Free position in installation	•	•
Suitable for generator supply	•	•
Rotary outlet connection	•	•
Integrated non-return valve	•	•
Cycling alarm	•	•
Integrated pressure sensor from Grundfos Direct Sensors™		•
Adjustable start pressure		•
Start / stop with 1 bar differential pressure		•
Auto restart after dry running		•
Max. run time 30 min. (safety)		•
Pressure indication		•
Internal pressure tank		•

TECHNICAL FEATURES

						Dimensions (mm)							
Model	P2 (kW)	1ph In (A)	Water Temp	Connection Size Inlet (A2)	Connection Size Outlet (A1)	L1	L2 (centre of PM to outlet)	H2	H1	B2 (bolt hole centres)	Control	Weight (kg)	CH Equivalent
CMB 1-4	0.5	3.1	0/40°C	1"F	1"M	323	89.5	317	75	125	PM1	13.8	CH2-30PC
CMB 3-3	0.5	3.1	0/40°C	1"F	1"M	5.5	71.5	317	75	125	PM2	13.6	CH2-40PC
CMB 3-4	0.5	3.1	0/40°C	1"F	1"M	323	89.5	317	75	125	PM2	14.0	CH2-50PC
CMB 3-5	0.5	3.1	0/40°C	1"F	1"M	341	107.5	317	75	125	PM2	14.4	CH2-60PC
CMB 3-6	0.67	4.4	0/40°C	1"F	1"M	417	143.5	317	75	125	PM2	16.34	CH2-60PC
CMB 5-3	0.5	3.1	0/40°C	1¼"F	1"M	305	71.5	317	75	125	PM2	13.6	CH4-40PC
CMB 5-4	0.67	4.4	0/40°C	1¼"F	1"M	363	89.5	317	75	125	PM2	15.3	CH4-50PC
CMB 5-5	0.9	5.4	0/40°C	1¼"F	1"M	381	107.5	317	75	125	PM2	16.8	CH4-60PC

APPLICATIONS

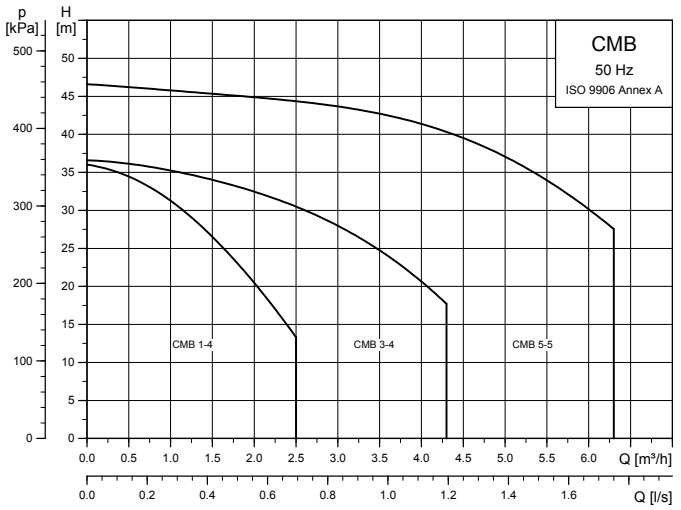
The Grundfos CMBasic pressure system is a compact booster pump for water supply in domestic and light commercial water applications.
The unit consists of a Grundfos CM cast iron pump and a Grundfos PM1 pressure manager that allows the pump to start and stop automatically according to demand.

FEATURES & BENEFITS

- Compact design to cater for most spaces
- Use of stainless steel impellers provides the longest possible life
- Dry-running protection saves your pump from damage if your water supply runs out
- Anti-cycling alarm informs homeowners of potential pipe leakage, saving water and protecting the pump
- Suitable for generator operation

CONSTRUCTION

- Stainless steel impeller, intermediate chambers and shaft
- Cast iron housing
- Hard wearing carbon / ceramic seal
- IP55 motor
- Voltage: 1 x 240 V, 50 Hz

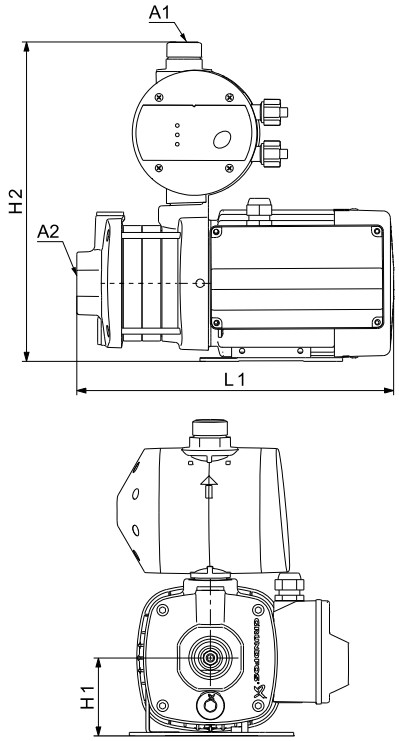


PERFORMANCE

PUMPS	Discharge Pressure (**kPa**/psi)						
	150	**200**	**250**	**300**	**350**	**400**	**450**
	22	29	36	44	51	58	65
	Output (l/min)						
CMBasic 1-4 PM1 (1.5 bar)	40	33	26	18	-	-	-
CMBasic 3-4 PM1 (1.5 bar)	-	63	53	38	20	-	-
CMBasic 5-5 PM1 (2.2 bar)	-	-	102	92	80	62	24

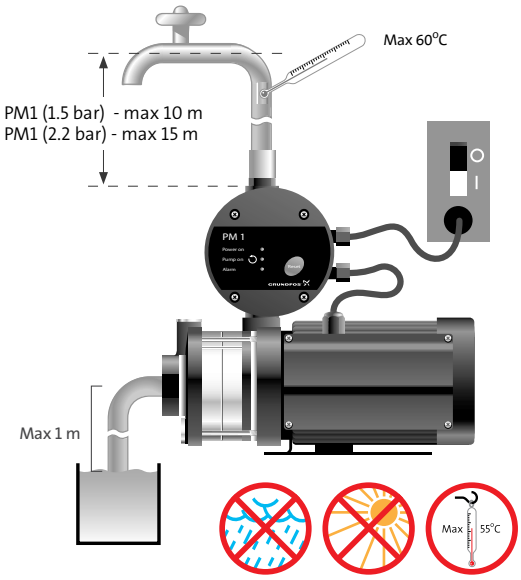
As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute

DIMENSIONS



INSTALLATION

The CMBasic is easy to install. Simply connect the device to the pipe work, ensure the pump is full of water and plug into a socket. The system is then operational.



TECHNICAL FEATURES

			CONNECTIONS		DIMENSIONS			
Model	1 ph In (A)	P2 (kW)	Outlet (A1)	Inlet (A2)	L1 (mm)	H1 (mm)	H2 (mm)	Weight (kg)
CMBasic 1-4	3.1	0.5	1"M	1"F	323.5	75	301	13.3
CMBasic 3-4	3.1	0.5	1"M	1"F	323.5	75	301	13.3
CMBasic 5-5	5.4	0.9	1"M	1¼"F	341.5	75	301	16

APPLICATIONS

The Grundfos CM-PS fixed speed range of booster systems are based on the robust CM multistage centrifugal pump.

Equipped with the Grundfos CM pump, the CM-PS range offers maximum flexibility, controlled by pressure switch with pressure tank and hose available separately.

Available in 240 volt single phase or 415 volt three phase and with flows up to 15 m^3/h and working pressures up to 950 kPa, the CM-PS is ideal for water supply, irrigation and wash down applications.

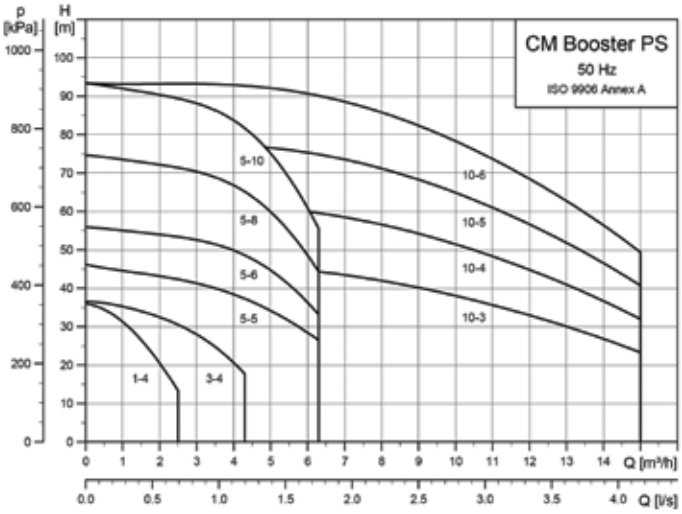
FEATURES & BENEFITS

- Quiet operation for increased comfort.
- Compact design to cater for most spaces.
- Robust construction providing the longest possible life.
- Simple to install, saving you time and money.
- No external motor protection required. (single phase only)

CONSTRUCTION

- All wetted parts made from stainless steel.
- Carbon / ceramic mechanical seal.
- Complete with 5 – way discharge tee and pressure gauge.
- Single-phase CM-PS pump incorporates current and temperature dependent motor protection.
- Three-phase CM-PS pump requires external motor protection. (pressure switch and pump unwired)
- IP55 motor. Insulation Class F.
- Voltage: 1 x 240 V, 50 Hz
  3 x 415 V, 50 Hz

PERFORMANCE



Pressure losses in fitting and hose are not included.

Maximum suction lift 1m.

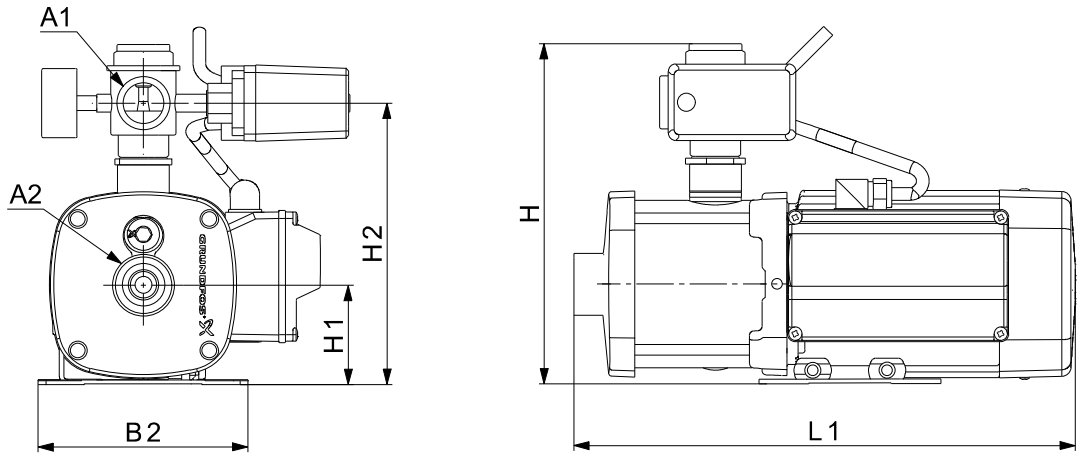
PRESSURE TANKS

Nipple and hose are available separately.

Pump	Recommended tank size
CM-PS 1-4	<80 L
CM-PS 3-4	<200 L
CM-PS 5-6 CM-PS 5-8 CM-PS 5-10	<300 L
CM-PS 10-3 CM-PS 10-4 CM-PS 10-5 CM-PS 10-6	<500 L

Model	Capacity (L)	Max Pressure (kPa)	Connection Size (mm)	Mounting Type
GT-H-18PN16	18	1600	25 M	Pipe
GT-H-60	60	1000	25 F	Free Standing
GT-H-80	80	1000	25 F	Free Standing
GT-H-80PN16	80	1600	25 F	Free Standing
GT-D-100	100	1000	25 F	Free Standing
GT-D-130	130	1000	25 F	Free Standing
GT-D-170	170	1000	32 F	Free Standing
GT-D-200PN16	200	1600	32 F	Free Standing
GT-D-240	240	1000	32 F	Free Standing
GT-D-300	300	1000	32 F	Free Standing
GT-D-450	450	1000	32 F	Free Standing

DIMENSIONS



TECHNICAL FEATURES

1 x 240 V, 50 Hz

					DIMENSIONS (mm)					CONNECTIONS		
Pumps	Imax (A)	P2 (kW)	pstart [bar]	Water temp (°C)	H	H1	H2	L1	B2	Inlet (A2)	Outlet (A1)	Weight (kg)
CM-PS 1-4	3.1	0.5	2.0	0/70	255	75	208	323.0	158	1”	1”	18.0
CM-PS 3-4	3.1	0.5	2.5	0/70	255	75	208	323.0	158	1”	1”	18.0
CM-PS 5-5	5.4	0.9	3.0	0/70	255	75	208	381.0	158	1 ¼”	1”	20.7
CM-PS 5-6	8.4	1.3	4.0	0/70	270	90	223	466.5	178	1 ¼”	1”	27.6
CM-PS 5-8	8.4	1.3	4.5	0/70	270	90	223	502.5	178	1 ¼”	1”	30.0
CM-PS 5-10	11.0	1.9	6.5	0/70	270	90	223	538.5	178	1 ¼”	1”	31.0
CM-PS 10-3	11.0	1.9	3.0	0/70	323	100	261	450.0	199	1 ½”	1 ½”	33.5

3 x 415 V, 50 Hz

					DIMENSIONS (mm)					CONNECTIONS		
Pumps	Imax (A)	P2 (kW)	pstart [bar]	Water temp (°C)	H	H1	H2	L1	B2	Inlet (A2)	Outlet (A1)	Weight (kg)
CM-PS 5-5	3.0	1.45	3.3	0/70	255	75	208	401.0	158	1 ¼”	1”	22.0
CM-PS 5-6	3.0	1.45	3.8	0/70	255	75	208	437.0	158	1 ¼”	1”	22.3
CM-PS 5-8	3.0	2.36	5.5	0/70	270	90	223	502.5	178	1 ¼”	1”	30.0
CM-PS 5-10	4.7	2.20	7.5	0/70	270	90	223	578.5	178	1 ¼”	1”	31.0
CM-PS 10-3	4.7	2.20	3.0	0/70	323	100	261	490.0	199	1 ½”	1 ½”	33.0
CM-PS 10-4	6.75	3.20	4.5	0/70	323	100	261	537.0	199	1 ½”	1 ½”	36.0
CM-PS 10-5	6.75	3.20	5.5	0/70	323	100	261	597.0	199	1 ½”	1 ½”	36.0
CM-PS 10-6	8.20	4.00	6.7	0/70	323	100	261	597.0	199	1 ½”	1 ½”	39.0

APPLICATIONS

The JP pump is a horizontal, self-priming, centrifugal pump for pumping clear water and other non-aggressive liquids.

This compact unit, which can be used in a fixed position or transported as required, is easy to maintain and is simple and economical to run.

FEATURES

- JP5 MP is coupled by a union to the reliable Mondial Press control
- Suction lift: up to 8 metres, including suction
- Carry handle
- Supplied with lead, plug and start/stop switch

CONSTRUCTION

- Stainless steel pump housing and impeller. AISI 304
- Paint application by electrophoresis ensures the motor has excellent corrosion resistance
- Carbon/ceramic seal (CVBP)
- IP44 motor. Insulation Class F
- Single-phase models effectively protected against any accidental overload by built in thermal protection in the terminal box
- Voltage 240 V, 50 Hz

PERFORMANCE

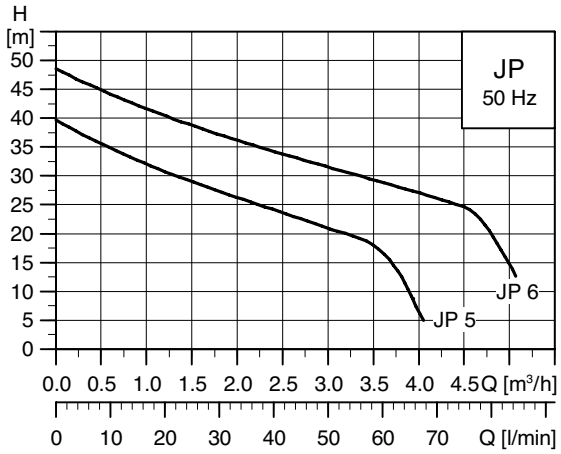
Pumps	Discharge Pressure (**kPa**/psi)	Suction Lift (metres)			
		0	2	4	6
		Output (l/min)			
JP5 L	**200**/29	52	45	39	33
	250/36	38	29	23	16
JP6 L	**250**/36	72	65	57	48
	300/44	53	45	37	31

As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute

TECHNICAL FEATURES

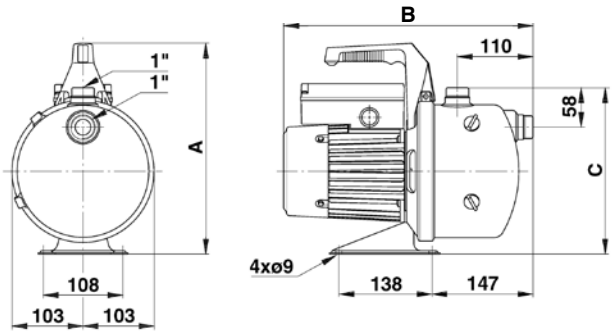
Pumps	P2 (kW)	1 ph In (A)	Water temp (°C)	Connections Inlet	Connections Outlet	Weight (kg)	Dimensions (mm) A	B	C
JP5	0.48	3.4	0/55	1"M	1"M	8.5	306	364	240
JP6	0.92	6.2	0/55	1"M	1"M	11.8	306	401	240

JP5 MP & JP5 / JP6



Performance based on zero suction lift

DIMENSIONS / INSTALLATION



The JP pump can be fitted with a Presscontrol for automatic operation. Automatic start/stop of the pump when the tap is opened/closed and dry running protection.

APPLICATIONS

The SB pump is a submersible booster pump for the pumping of clean water ideal for rainwater systems, treated grey water irrigation, operating sprinklers, and pumping water from tanks.

The pump is available in two main versions:

- with integrated suction strainer (1 mm mesh)
- with side inlet which includes a flexible suction hose with floating suction strainer (1 mm mesh).

FEATURES

- Silent alternative to surface pumps
- Built in thermal overload protection
- Float switch option used for automatic operation or dry-running protection of the pump

CONSTRUCTION

- Composite and stainless steel materials (resistant to corrosion)
- Anti-debris stainless steel strainer
- IP68 motor, Class B
- Voltage 240 V, 50 Hz

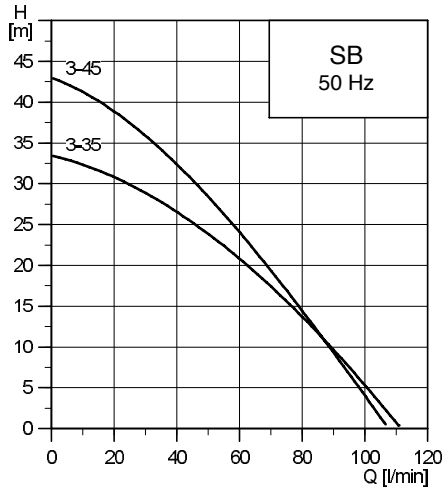
PERFORMANCE

Pumps	Discharge Pressure (**kPa**/psi)			
	200	**250**	**300**	**350**
	29	36	44	51
	Output (l/min)			
SB 3-35AW	65	43	24	-
SB 3-35A	65	43	24	-
SB 3-45AW	70	58	44	35
SB 3-45A	70	58	44	35

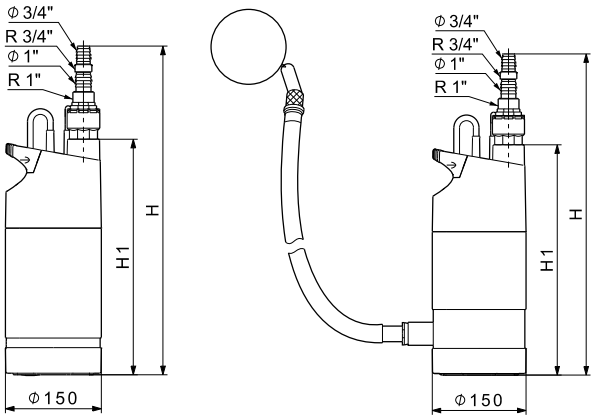
As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute

TECHNICAL FEATURES

Pumps	Cable (m)	P1 (kW)	1 ph In (A)	Outlet	Dimensions D	Dimensions H
SB 3-35	15	0.80	3.8	1"F	150	397
SB 3-45	15	1.05	4.8	1"F	150	397



DIMENSIONS / INSTALLATION



APPLICATIONS

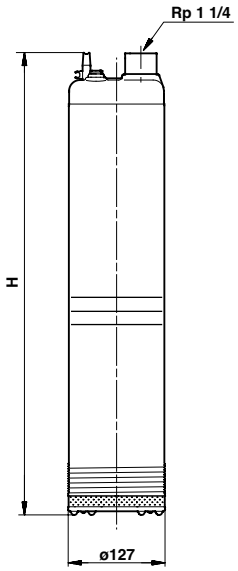
The SPO pump is designed for water supply, drainage, and pressure boosting in domestic homes and week-end cottages.

FEATURES

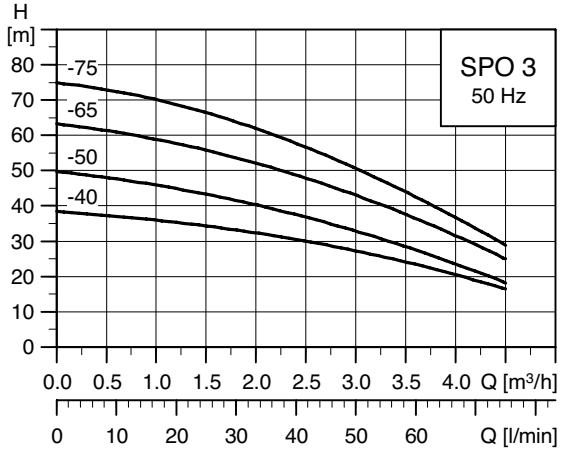
- 304 stainless steel hydraulic parts for a long life
- Double mechanical shaft seal ensures trouble free operation
- Easy to dismantle suction strainer allows cleaning if the strainer becomes clogged
- Supplied with cable, plug and built-in capacitor, and "quick-installation-guide" which makes installation quick and easy

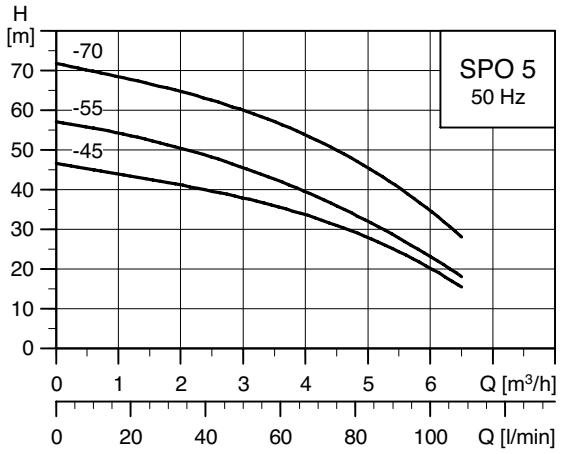
CONSTRUCTION

- Stainless steel impellers, chambers and shaft. (AISI 304)
- Single phase models with built-in thermal protection
- Maximum liquid max: 40 °C
- Max. pressure: 10 bar
- Voltage: 240 V, 50 Hz
- "A" model supplied with float switch



2 YEAR WARRANTY



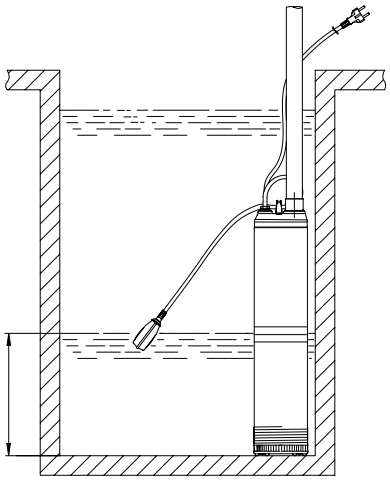


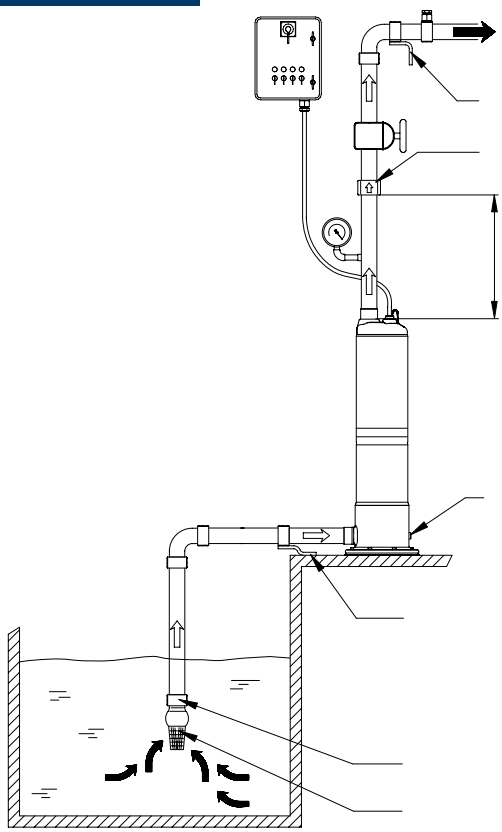
TECHNICAL FEATURES

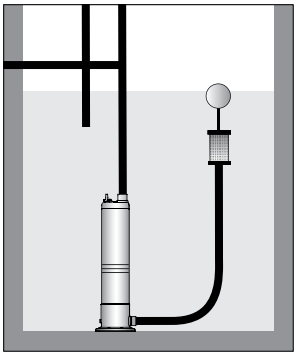
Pumps	Cable (m)	P2 (kW)	1 ph In (A)	Water temp	Outlet	H (mm)	Weight (kg)	l/min	10	20	30	40	50	60	70	90	100	110
								m³/h	0.6	1.2	1.8	2.4	3.0	3.6	4.2	5.4	6.0	6.6
SPO 3-40 (A)	20	0.75	4.80		1 ¼"F	546	16.8		37	36	33	30	27	23	19	-	-	-
SPO 3-50 (A)	20	0.75	5.90		1 ¼"F	546	16.9		47	45	42	37	33	28	22	-	-	-
SPO 3-65	20	1.00	7.30		1 ¼"F	606	18.7		61	58	53	48	43	37	29	-	-	-
SPO 3-75	20	1.20	9.60		1 ¼"F	626	20.9	m Head	72	70	63	58	51	44	35	-	-	-
SPO 5-45 (A)	20	0.75	5.80	40°C maximum	1 ¼"F	546	17.2		45	44	42	40	37	35	32	26	20	14
SPO 5-55	20	1.00	7.00		1 ¼"F	606	19.0		55	53	51	48	45	42	38	28	23	17
SPO 5-70	20	1.20	9.10		1 ¼"F	626	21.2		70	68	65	63	60	56	52	42	35	26

A = with level switch

INSTALLATION







APPLICATIONS

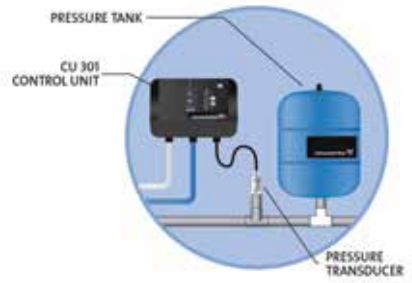
The unique and compact design of the SQN/SQEN makes it suitable for a variety of applications including domestic water supply, light irrigation and pumping water for livestock.

FEATURES

- Borehole diameter 76 mm minimum
- Light weight for ease of installation
- Built-in dry run protection
- Constant pressure option (SQEN/CU301)

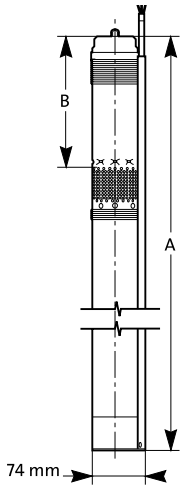
CONSTRUCTION

- Stainless steel housing (AISI 316)
- Composite impellers and chambers
- Built-in non return valve



DIMENSIONS / INSTALLATION

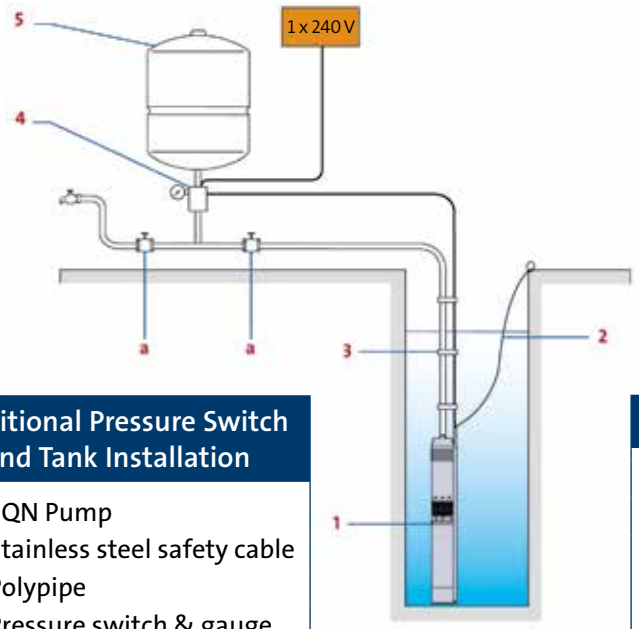
SQ pumps do not require either a starter or dry run protection. Vertical or Horizontal installation (cooling sleeve recommended). Submersion depth: maximum 150 m and minimum 0.5 m below the static level of the water.



TECHNICAL FEATURES / PERFORMANCE

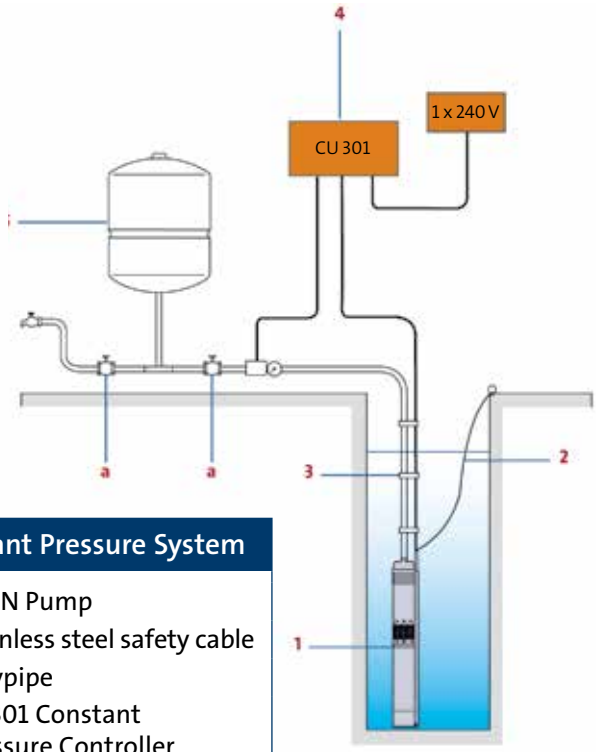
Pumps (selected domestic models)	P2 (kW)	Full Load (A)	Outlet size	Weight (kg)	Dim A (mm)	Discharge Pressure (kPa/psi)	Pumping water level (metres) 9	12	15	18	21	24	27	30
							Output (litres per min)							
SQN or SQEN 1-80	1.15	8.4	1 ¼"F	5.6	825		28	27	26	25	24	23	22	21
SQN or SQEN 2-55	0.70	5.2	1 ¼"F	5.8	741		44	41	39	37	34	30	27	-
SQN or SQEN 2-70	1.15	8.4	1 ¼"F	6.4	768		49	47	46	45	43	41	40	38
SQN or SQEN 2-85	1.15	8.4	1 ¼"F	6.5	825		53	51	50	49	48	47	46	44
SQN or SQEN 3-40	0.70	5.2	1 ¼"F	5.8	741		48	43	36	-	-	-	-	-
SQN or SQEN 3-55	1.15	8.4	1 ¼"F	6.4	768	**300**/43	60	58	56	53	50	46	43	39
SQN or SQEN 3-65	1.15	8.4	1 ¼"F	6.8	825		67	65	63	61	60	57	55	53
SQN or SQEN 3-105	1.85	12.0	1 ¼"F	7.4	942		-	-	73	71	70	69	68	67
SQN or SQEN 5-50	1.68	11.2	1 ½"F	6.1	824		95	91	86	80	75	67	63	50
SQN or SQEN 5-70	1.85	12.0	1 ½"F	6.4	941		111	109	106	103	100	98	95	91
SQN or SQEN 7-40	1.68	11.2	1 ½"F	7.1	860		111	103	93	83	70	-	-	-
SQN or SQEN 7-55	1.80	12.0	1 ½"F	8	860		135	125	118	111	104	96	86	75

As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute



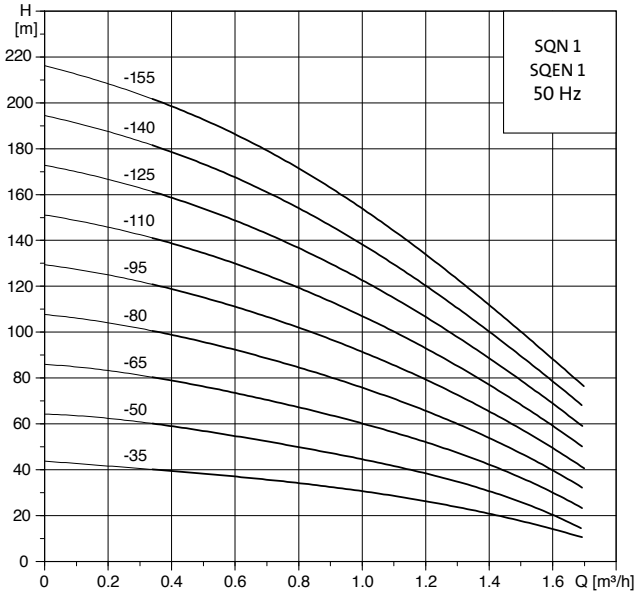
Traditional Pressure Switch and Tank Installation

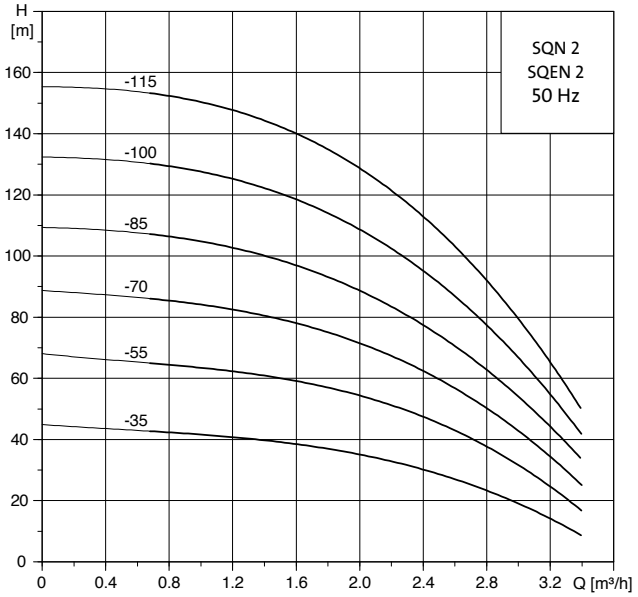
1 SQN Pump
2 Stainless steel safety cable
3 Polypipe
4 Pressure switch & gauge
5 Pressure tank
a Isolation valve

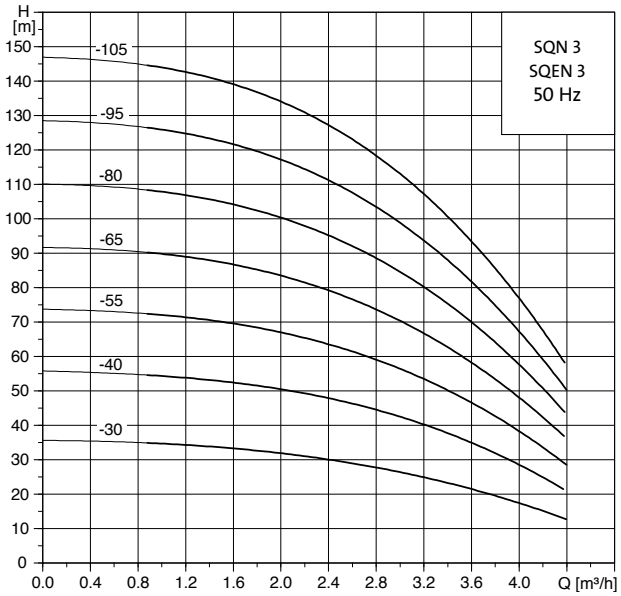


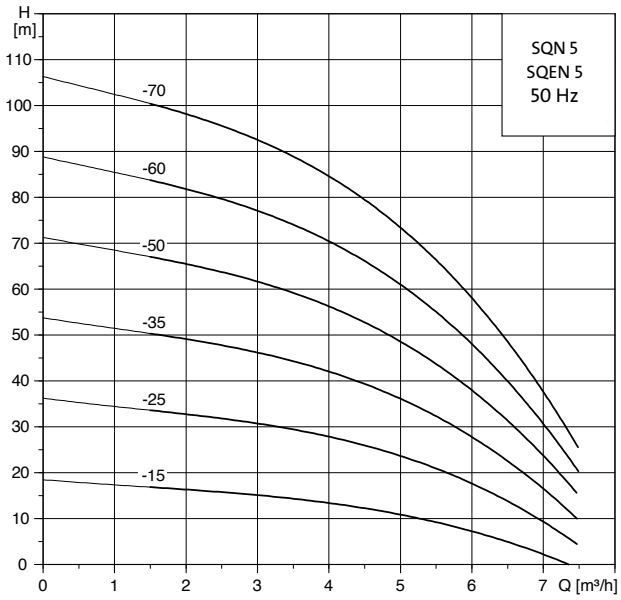
Constant Pressure System

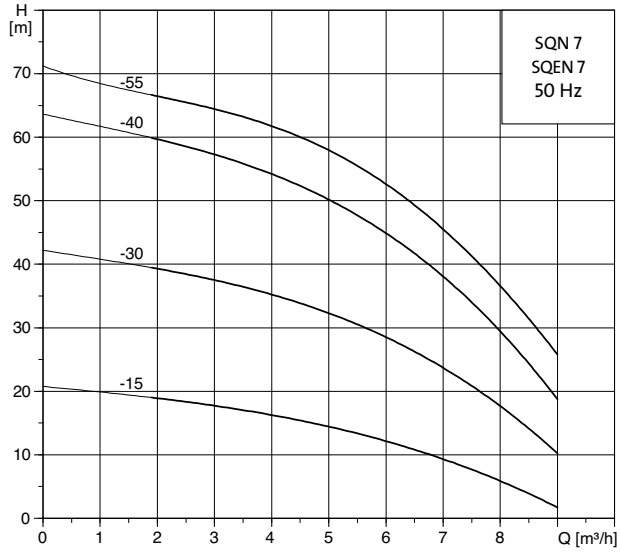
1 SQEN Pump
2 Stainless steel safety cable
3 Polypipe
4 CU301 Constant Pressure Controller
5 Pressure Tank
a Isolation valve


H [m]
SQN 1
SQEN 1
50 Hz
-155
-140
-125
-110
-95
-80
-65
-50
-35
Q [m³/h]


H [m]
SQN 2
SQEN 2
50 Hz
-115
-100
-85
-70
-55
-35
Q [m³/h]


H [m]
SQN 3
SQEN 3
50 Hz
-105
-95
-80
-65
-55
-40
-30
Q [m³/h]


H [m]
SQN 5
SQEN 5
50 Hz
-70
-60
-50
-35
-25
-15
Q [m³/h]


H [m]
SQN 7
SQEN 7
50 Hz
-55
-40
-30
-15
Q [m³/h]

APPLICATIONS

Grundfos pressure tanks are for cold water and are ideally suited and approved for use with drinking water.

The range assures reliable supply in both domestic and industrial applications.

FEATURES

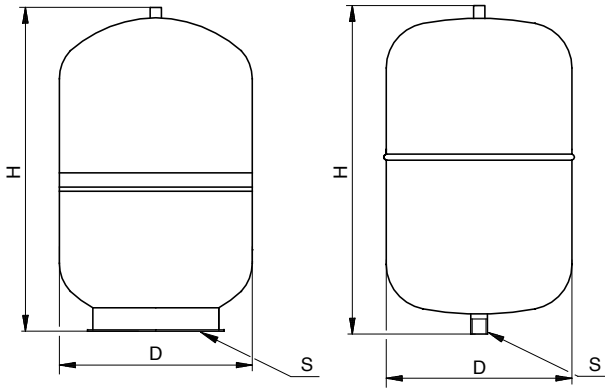
- Potable water application
- Can be used with any Grundfos pump
- Five year warranty
- Tank capacity up to 450 litres on request
- Water Mark approved*

CONSTRUCTION

- The tanks have a non-toxic butyl rubber diaphragm, dividing the tank chamber in two compartments. The upper compartment contains compressed atmospheric air. The lower compartment has a liner in polypropylene (PP) and is filled with water from the pump
- Vertical installation
- Pre-charge pressure: 150 kPa / 22 psi

Note: the tank pressure must be checked at least twice a year. Set the tank pressure 10% below the pump cut-in pressure

DIMENSIONS / INSTALLATION



TECHNICAL FEATURES

Tanks	Capacity (litres)	Water temp (°C)	Max Operating pressure (kpa)	Mounting type	Connection inlet	Dimensions (mm)		Weight (kg)
						D	H	
GT-H-8*	8	0/90	1000	Pipe	1"M	202	303	2.3
GT-H-18*	18	0/90	1000	Pipe	1"M	279	367	4.6
PTF60*	60	0/90	1000	Foot	1"F	397	557	11.0
GT-H-80*	80	0/90	1000	Foot	1"F	397	755	16.0
GT-C 80 PN8.6 Composite	80	0/90	860	Foot	25 mm	418	852	11.0
GT-C 130 PN8.6 Composite	130	0/90	860	Foot	25 mm	418	1227	15.0
GT-C 250 PN8.6 Composite	250	0/90	860	Foot	1 ¼"F	542	1303	26.0

WASTEWATER

Taking wastewater to new levels

The reliable range of Unilift pumps take all the worry out of domestic drainage, whether it's clean or grey water, effluent or sewage.

The SOLOLIFT2 range of domestic lifting stations provide reliable handling of wastewater for any combination of toilet, sink, shower and washing machine. They make it simple to install extra bathroom facilities in locations remote from the main sewer connection.

APPLICATIONS

SOLOLIFT2 lifting stations are practical, compact, and ready to install solution for discharging domestic effluent that cannot reach the main sewage pipe directly.

- The SOLOLIFT2 units grind and evacuate sewage and wastewater quickly
- They are the ideal solution for the renovation or modernization of existing buildings where the location may be remote from the main soil pipe with out the need for costly pipe installations
- Enables installations of toilets and showers where a natural slope cannot be established.
- The SOLOLIFT2 is ready to install offering easy installation and maintenance
- Wall hung and freestanding models cater to every space

FEATURES & BENEFITS

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

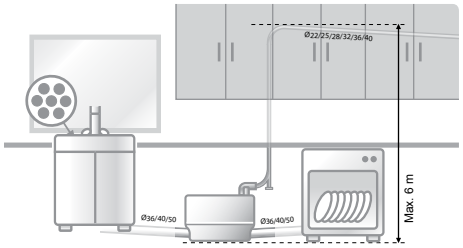
CONSTRUCTION

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

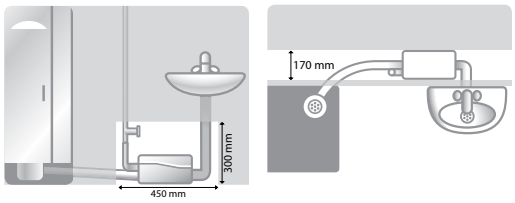
TECHNICAL FEATURES

Pumps	Diameter (mm)		Power (W)	Dimensions (mm)		Weight (kg)					
	Discharge	Inlet (connections)		H	L		l/min	30	45	55	60
SOLOLIFT2 WC-1	22/25/28/32/36/40	1 x 32/36/40	620	347	453	7.2		8	7.2	5.8	3.5
SOLOLIFT2 WC-3	22/25/28/32/36/40	1 x 32/36/40 2 x 36/40/50	620	347	453	7.5		8	7.2	5.8	3.5
SOLOLIFT2 CWC-3	22/25/28/32/36/40	1 x 32/36/40 2 x 36/40/50	620	368	495	7.0	m Head	8	6.8	5.0	2.5
SOLOLIFT2 C-3	22/25/28/32/36/40	1 x 32/36/40 2 x 36/40/50	640	255	373	6.5		8	7.2	6	5.4
SOLOLIFT2 D-2	22/25/28/32/36/40	2 x 32/36/40	280	147	299	4.2		4.5	3.38	1.98	-

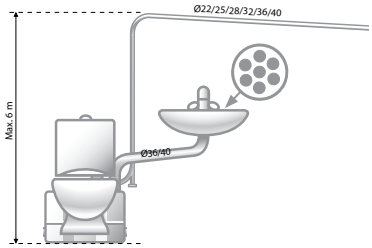
SOLOLIFT2 C-3 for washing machines, dishwasher, kitchen sink, bathtub, shower and washbasin



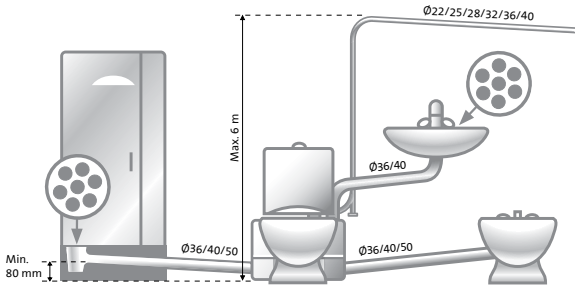
SOLOLIFT2 D-2 for shower and wash basin



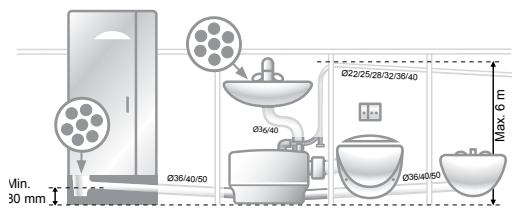
SOLOLIFT2 WC-1 for single toilet and washbasin



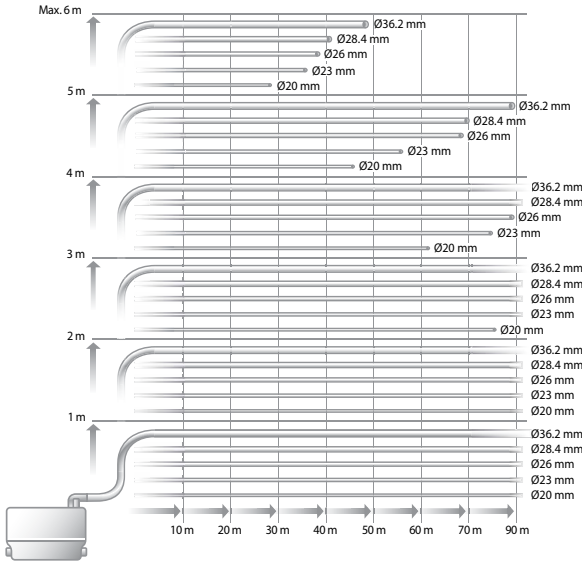
SOLOLIFT2 WC-3 for toilet, washbasin, bidet and a shower



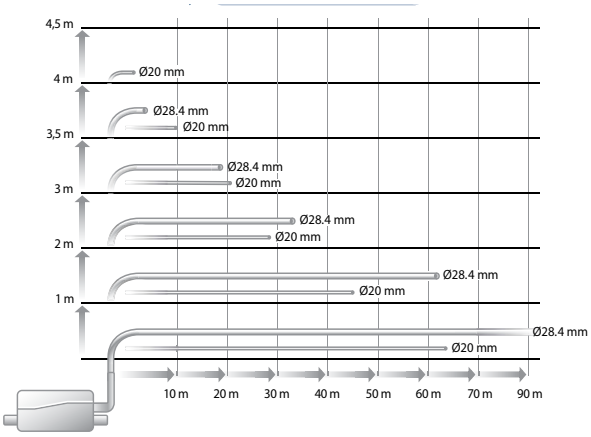
SOLOLIFT2 CWC-3 for wall-hung toilet, washbasin, bidet and a shower



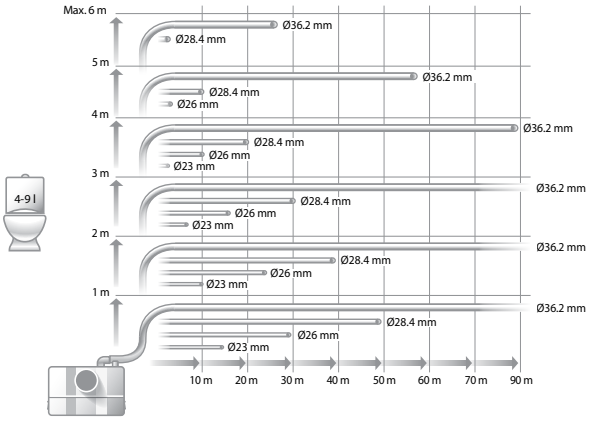
DIMENSIONS / INSTALLATION



SOLOLIFT2 C-3



SOLOLIFT2 D-2



SOLOLIFT2 WC-1 SOLOLIFT2 WC-3 SOLOLIFT2 CWC-3

APPLICATIONS

Unilift CC are multi-purpose submersible drainage pumps designed to handle clean water, groundwater and grey wastewater with particles up to 10mm.

It must be completely or partly submerged in the liquid.

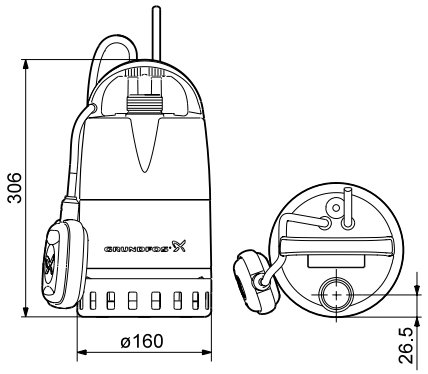
FEATURES

- Low-suction ability - down to 3mm when the strainer is removed
- Self venting valve in the pump allows for optimal operation
- Adaptor for easy connection and non-return valve included
- Easy float switch adjustment to control start/stop levels
- Ceramic shaft seal with triple seals for efficient motor protection
- Includes built-in thermal overload protection

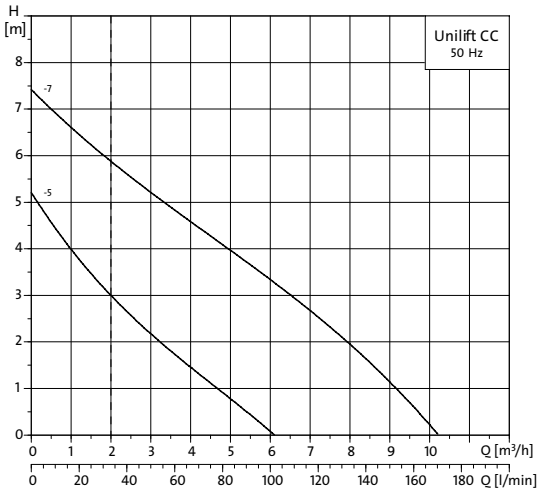
CONSTRUCTION

- Composite and stainless steel materials
- Robust stainless steel strainer, which allows free passage for particles up to 10mm
- Ceramic seal
- IP68 motor, Class B

DIMENSIONS

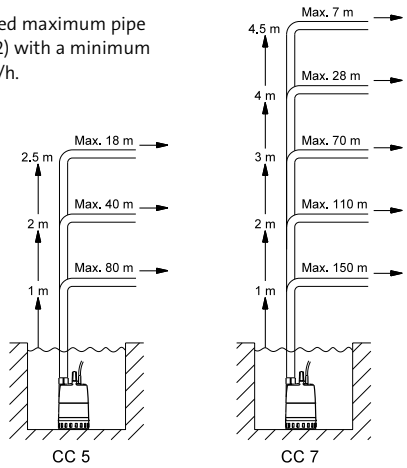


TECHNICAL FEATURES



PERFORMANCE

Recommended maximum pipe length (DN32) with a minimum flow of 2 m^3/h.



Installation depth: maximum of 10m below the water level.

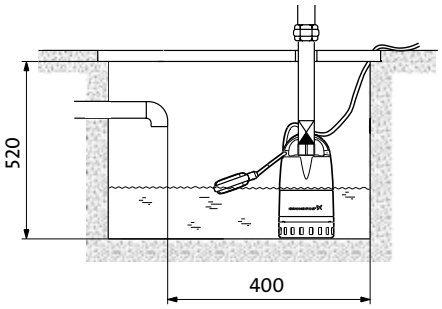
Pumps	Cable (m)	P1 (kW)	1 ph In (A)	Water temp (°C)	Outlet	Dimensions (mm) H	Dimensions (mm) B1	Weight (kg)	l/min	0	30	60	90	120	150
									m^3/h	0	1.8	3.6	5.4	7.2	9
Unilift CC5 A1	10	0.25	1.0	0/40	1 ¼"M	306	160	4.3	m Head	5.2	3.2	1.8	0.5	-	-
Unilift CC7 A1	10	0.38	1.8	0/40	1 ¼"M	306	160	4.6		7.4	6.1	4.8	3.8	2.6	1.1

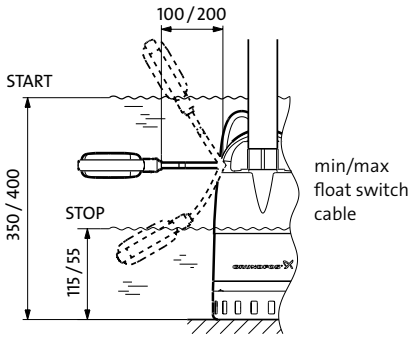
*70°C max. for 2 minutes at intervals of at least 30 minutes.

INSTALLATION

SPACE REQUIREMENTS

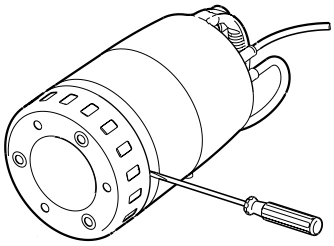
The pumps are supplied with 10 metres of cable. If the pump is installed in a pit, the minimum dimensions must be as in the drawing. The UNILIFT CC is equipped with a float switch with adjustable cable length.

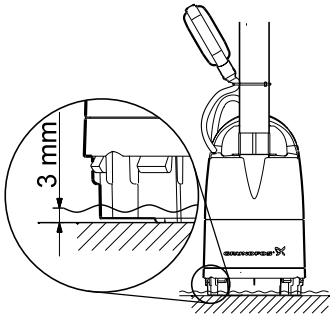




LOW SUCTION

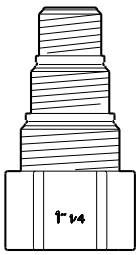
It is possible to obtain low suction by removing the suction strainer with a screwdriver. This makes the pump capable of pumping down to a liquid level of 3mm. The self-prime level is 5mm.

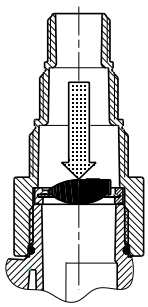


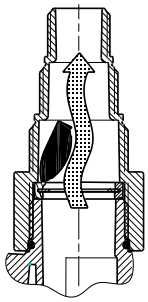


COMPONENTS INCLUDED

The pump is delivered with an adapter for connection and a non-return valve. The adapter has ¾", 1" and 1 ¼" external threads. The adapter has to be cut to fit the actual discharge pipe. The non return valve can be fitted in the adapter. It prevents backflow when the pump is stopped.







APPLICATIONS

KP and AP12 pumps are portable, multipurpose, submersible stainless steel pumps for the transfer of clear, non-aggressive water, slightly soiled water and wastewater. These pumps work equally well automatically and manually and are designed for either fixed installation or mobile use.

- Lifting wastewater from washing machines, showers, wash basins, located below the drain pipe
- Drainage of flooded cellars, sumps etc
- Drainage or filling of swimming pools or tanks
- Transfer of liquids in agriculture, horticulture and industry
- Pumping water from shallow wells

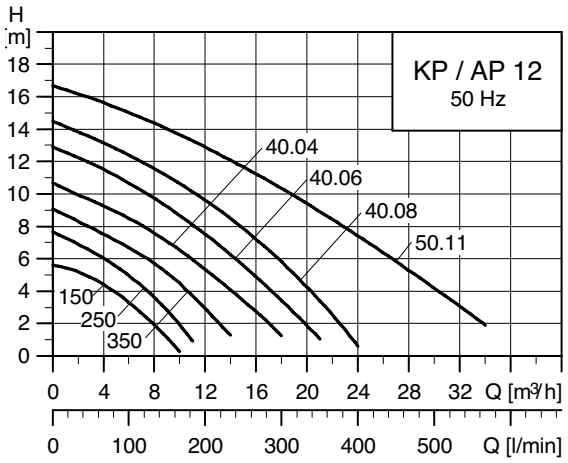
FEATURES

- Compact design
- Stainless steel construction (AISI 304)
- Wide range, with automatic and manual versions. KP available with a standard float (A1) or a vertical float (Niro)
- Easy maintenance of the strainer and power/float cable

CONSTRUCTION

- Semi-open impeller
- IP68 motor
- Insulation Class F
- 1 x 240 V pumps include capacitor and thermal overload protection
- 3 x 415 V automatic pumps (A3) include control box with contactor, overload and 10 m float switch
- 3 x 415 V manual pumps (3) require a starter incorporating correct motor overload protection

2 YEAR WARRANTY

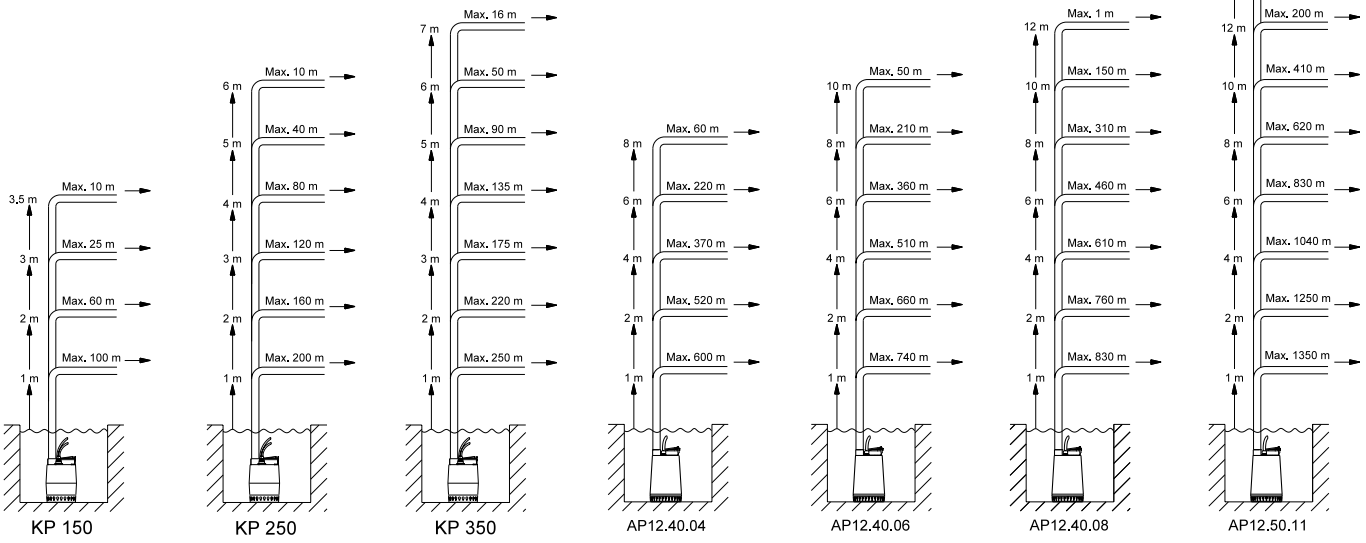


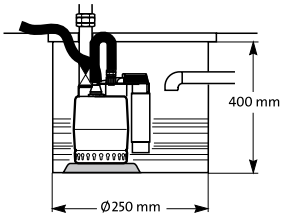
TECHNICAL FEATURES

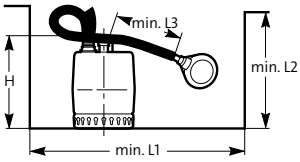
Pumps	Cable (m)	P2 (kW)	1 ph In (A)	3 ph In (A)	Water temp (°C)	Outlet	Dimensions (mm) H	B1	L1	L2	L3	l/min	0	50	100	150	200	300	400	500
												m^3/h	0	3	6	9	12	18	24	30
Unilift KP 150	5	0.14	1.3	no	0/50	1 ¼"F	225	149	350	400	70		5.2	3.9	2.7	-	-	-	-	-
Unilift KP 250	5	0.25	2.2	no	0/50	1 ¼"F	225	149	350	400	70		7.5	6.7	5.0	2.8	-	-	-	-
Unilift KP 350	5	0.35	3.2	no	0/50	1 ¼"F	235	149	350	410	70		9.0	7.9	6.7	5.1	2.9	-	-	-
Unilift AP12-40-04	10	0.40	3.0	1.2	0/55	1 ½"F	321	216	550	600	100	m Head	10.7	9.6	8.5	7.1	5.4	1.3	-	-
Unilift AP12-40-06	10	0.60	4.4	1.6	0/55	1 ½"F	321	216	550	600	100		12.9	11.9	10.7	9.2	7.5	3.4	-	-
Unilift AP12-40-08	10	0.80	5.9	2.1	0/55	1 ½"F	346	216	550	600	100		14.5	13.5	12.4	11.1	9.6	5.8	0.8	-
Unilift AP12-50-11	10	1.10	8.5	-	0/55	2"F	357	241	550	600	100		16.0	15.2	14.3	13.2	12.1	9.5	6.6	3.5
Unilift AP12-50-11	10	1.10	-	3.2	0/55	2"F	357	241	550	600	100		16.7	15.9	15.0	14.0	12.9	10.4	7.4	4.2

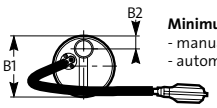
*70 °C max. for 2 minutes at intervals of at least 30 minutes.

DIMENSIONS / INSTALLATION

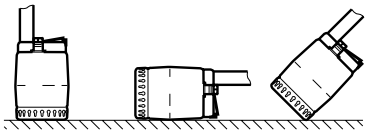








Minimum level of liquid:
- manual operation: 14 mm
- automatic operation: 100 mm



Installation depth: maximum of 10 m below the water level.

APPLICATIONS

The AP35 and AP50 pumps are submersible pumps, specially designed for pumping wastewater and domestic sewage or any other non-aggressive liquid containing solid matter up to 50 mm.

They can be used as a fixed or mobile installation, vertically or horizontally (discharge outlet facing up).

- Lifting domestic wastewater from washing machines, toilets etc
- Draining sumps
- Agricultural and industrial transfer of liquids

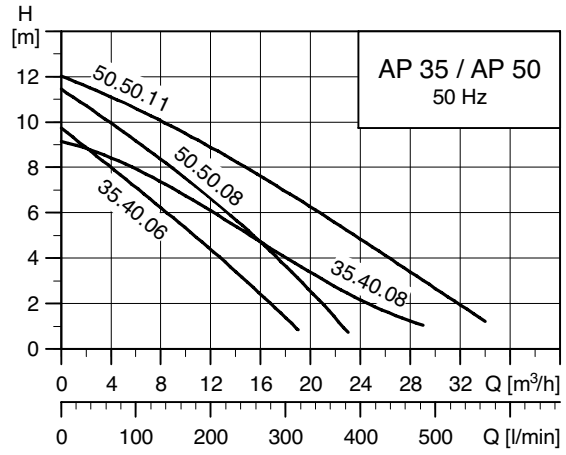
FEATURES

- Single-phase models supplied with float switch
- Motor cooling provided in all conditions by cooling jacket
- Solid handling capacity: 35 mm for AP35 and 50 mm for AP50
- Easy service of power cable and float
- Pumped liquid temperature up to 70 °C, for limited operating period (2 minutes per 30 minute period)

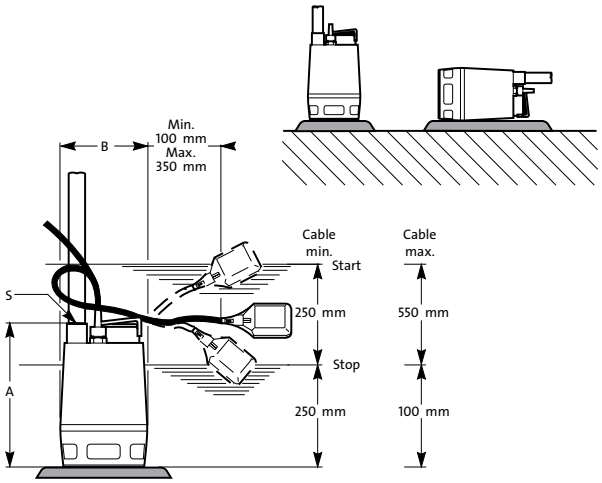
CONSTRUCTION

- Stainless steel volute, pump housing and impeller
- IP68 motor
- Insulation Class F
- Semi-open vortex impeller
- Silicon carbide mechanical seal (AP35)
- Tungsten carbide mechanical seal (AP50)
- Voltage: 240 V with float switch (A)

2 YEAR WARRANTY



DIMENSIONS / INSTALLATION



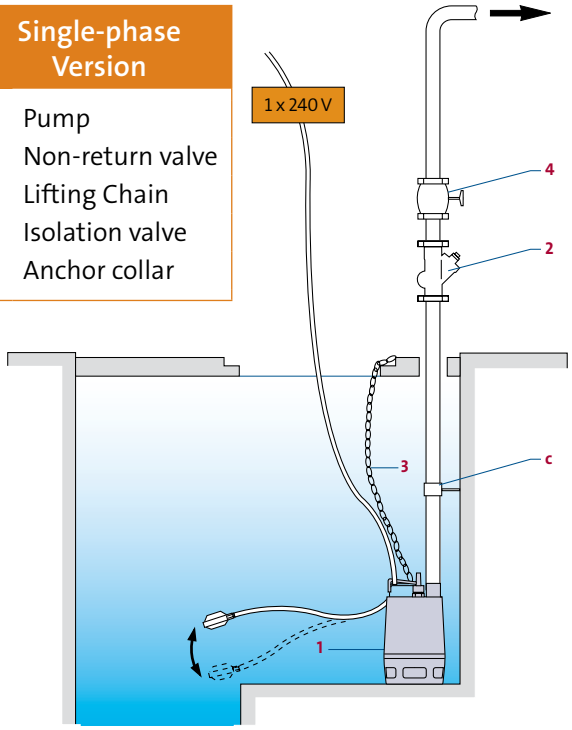
Installation depth: max. 10 m below the water level.

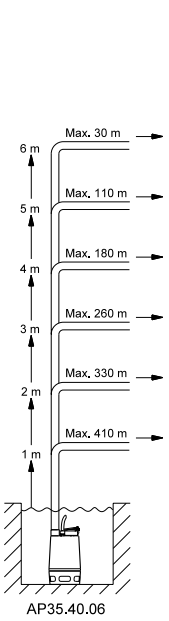
TECHNICAL FEATURES

Pumps	Cable (m)	P2 (kW)	1 ph In (A)	Water temp (°C)	Outlet	Dimensions (mm) A	Dimensions (mm) B	l/min	0	100	200	300	400	500
								m³/h	0	6	12	18	24	30
Unilift AP35-40-06-A1	10	0.6	4.0	0/55	1 ½"F	376	216		9.7	7.1	4.4	1.4	-	-
Unilift AP35-40-08-A1	10	0.7	5.5	0/55	1 ½"F	410	216	m Head	11.4	9.2	6.6	3.6	-	-
Unilift AP50-50-08-A1	10	0.8	5.9	0/55	2"F	436	241		9.1	7.9	6.1	4.0	2.2	-
Unilift AP50-50-11-A1	10	1.1	8.0	0/55	2"F	436	241		11.8	10.2	8.3	6.3	4.2	2.0

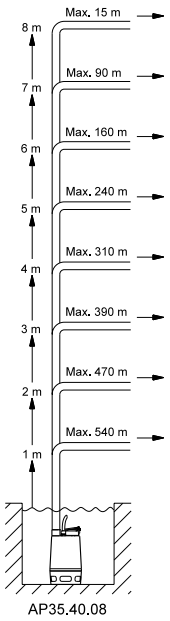
Single-phase Version

1 Pump
2 Non-return valve
3 Lifting Chain
4 Isolation valve
c Anchor collar

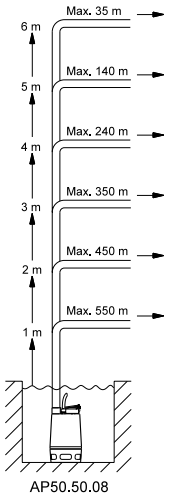




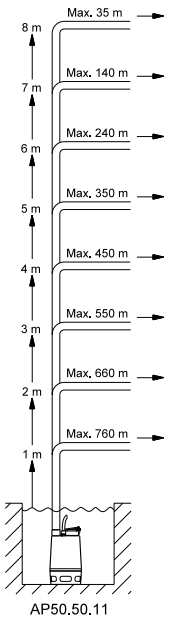
AP35.40.06



AP35.40.08



AP50.50.08



AP50.50.11

APPLICATIONS

The AP35B and AP50B submersible pumps are specially designed for lifting domestic sewage or any other non-aggressive liquid containing solid matter up to 50 mm.

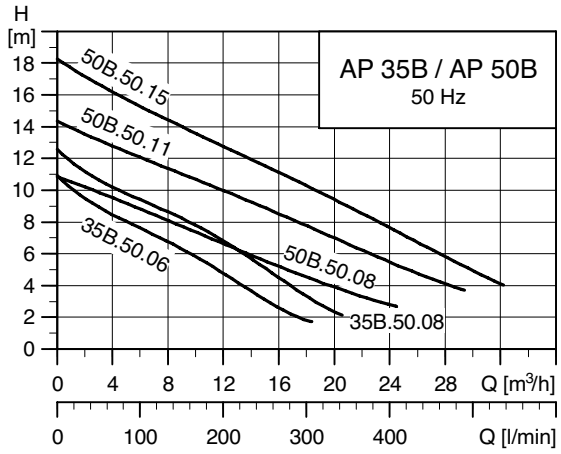
They can be installed vertically or horizontally.

FEATURES

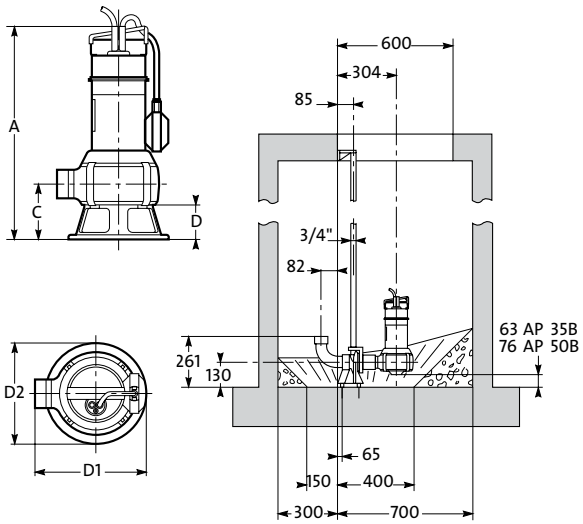
- Single-phase models supplied with float switch and standard electric plug
- Auto Coupling available as an accessory for installation on a guide bar enabling positioning/removal of the pump from outside the hole
- Solid handling capacity: 35 mm for AP35B and 50 mm for AP50B
- Unique clip assembly system enabling immediate access to the impeller without disassembly tools
- Easy service of the power cable and float

CONSTRUCTION

- Stainless steel volute, pump housing and impeller
- IP68 motor
- Insulation Class F
- Vortex impeller
- Silicon carbide mechanical seal
- Voltage: 240 V with float switch (A1) or 3 x 415 V



DIMENSIONS / INSTALLATION



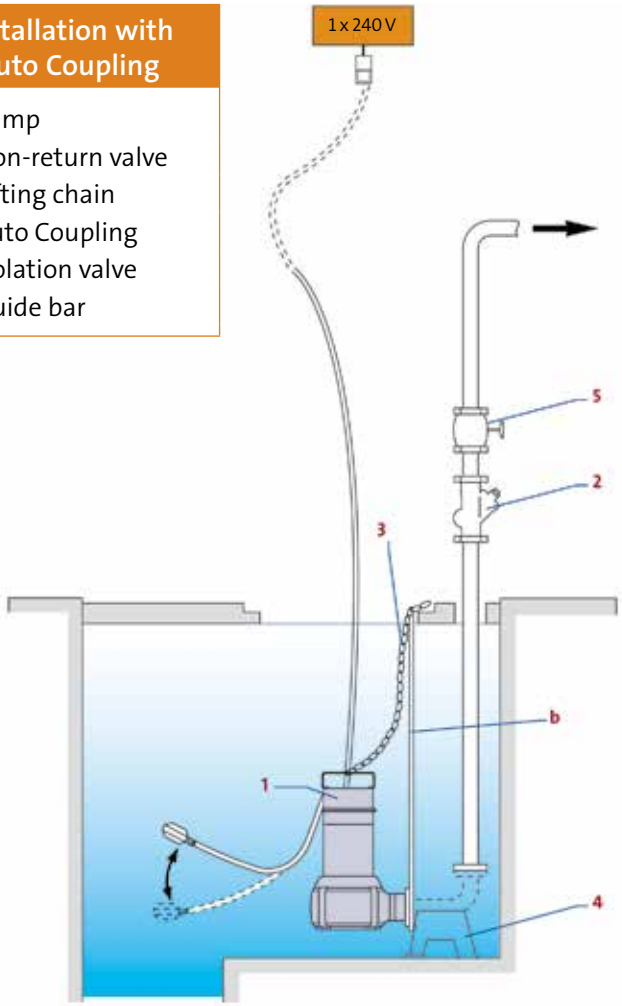
Installation depth: max. 10 m below the water level.
In continuous operation the pump must be continuously submersed.

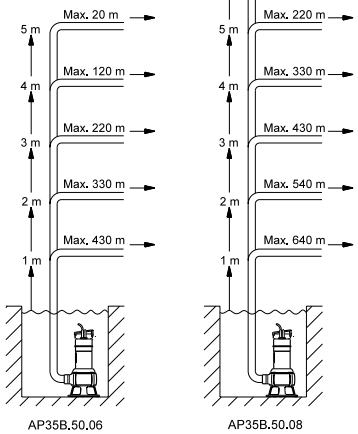
TECHNICAL FEATURES

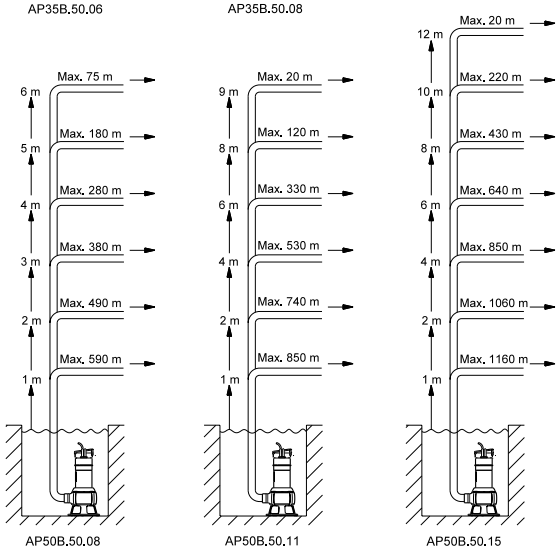
Pumps	Cable (m)	P2 (kW)	1 ph In (A)	3 ph In (A)	Water temp (°C)	Outlet	Dimensions (mm) A	C	D	d1	d2	l/min	0	100	200	300	400	500
												m³/h	0	6	12	18	24	30
Unilift AP35B-50-06-A1	10	0.66	4.0	-	0/40	2"F	443	116	73	234	210		10.5	7.4	4.5	1.7	-	-
Unilift AP35B-50-08-A1	10	0.71	5.5	-	0/40	2"F	468	116	73	234	210		12.5	9.4	6.8	3.4	-	-
Unilift AP50B-50-08-A1	10	0.74	5.4	-	0/40	2"F	443	116	73	234	210	m Head	11.0	8.9	6.7	4.5	2.8	-
Unilift AP50B-50-11-A1	10	1.10	8.0	-	0/40	2"F	468	116	73	234	210		14.0	11.5	9.5	7.2	4.9	-
Unilift AP50B-50-11-3	5	1.30	-	2.8	0/40	2"F	468	116	73	234	210		14.3	12.1	10.0	7.8	5.5	-
Unilift AP50B-50-15-3	5	1.50	-	3.0	0/40	2"F	468	116	73	234	210		18.3	15.2	12.8	10.2	7.6	5.0

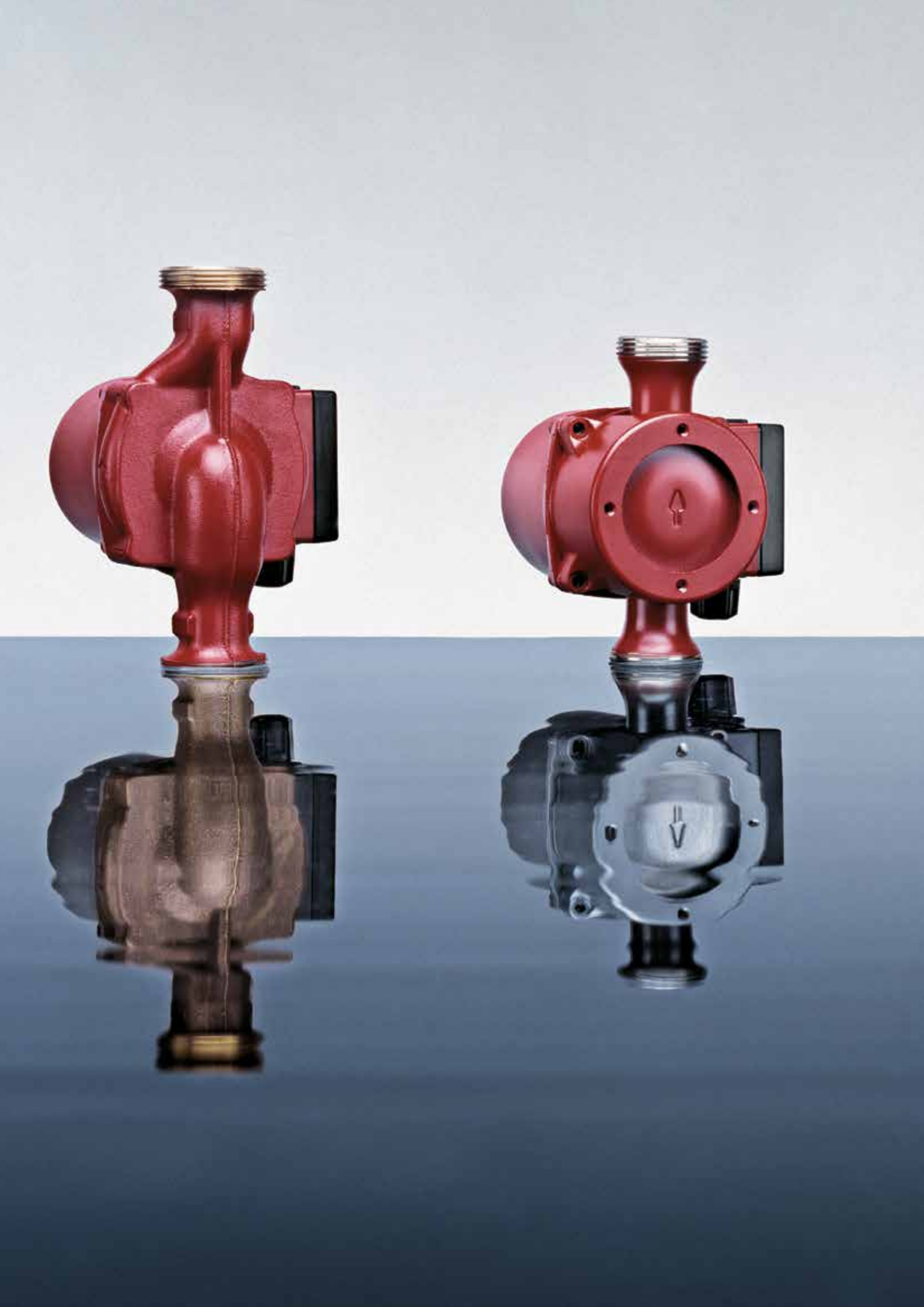
Installation with Auto Coupling

1 Pump
2 Non-return valve
3 Lifting chain
4 Auto Coupling
5 Isolation valve
b Guide bar









HOT WATER AND HEATING

Beyond Expectations

With over 50 million Grundfos hot water or heating circulators already successfully installed around the world, you can be sure that you're in good company.

Since 1959, Grundfos has developed a series of pumps to suit every conceivable household hot water and heating need - and we continue to be the professionals' first choice pump supplier around the globe.

Add convenience and save money with heating and hot water circulation solutions from Grundfos. There are solutions for both new and existing homes.

APPLICATIONS

Home booster: the pump increases the pressure so that the required pressure is available at showers, taps etc for domestic water. The pump is used in open systems and can be connected directly to the water main.

FEATURES

- Easy installation
- Low noise
- Water-cooled system
- Leakage free
- Energy saving
- Space intelligent

CONSTRUCTION

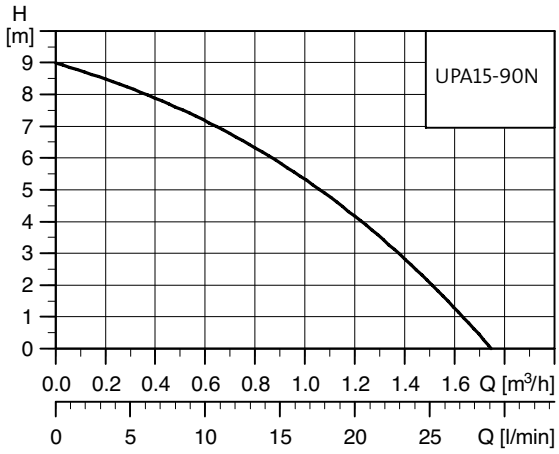
- Stainless steel body
- Built in flow switch

TECHNICAL FEATURES

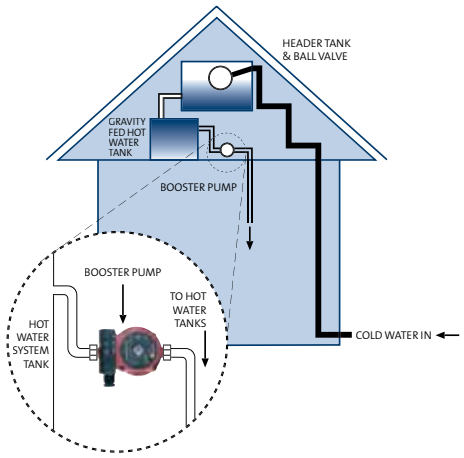
Model		UPA15-90N
Voltage	V	240
P1	W	120
In	A	0.48
Enclosure & Insulation class		IP42/H
Maximum liquid temperature	°C	90
Recommended minimum suction Head	mm	850
Port to port dimension	mm	160
Union set provided		¾"M
Net weight	kg	2.50

2 YEAR WARRANTY

PERFORMANCE



INSTALLATION



UPA needs minimum inlet pressure of 0.5 m

Selector in position		The pump ...
I	Off	is switched off
II	Auto	starts and stops automatically
III	Manual*	runs continuously (also if tapping points are turned off

*pin must be removed for access to this setting

APPLICATIONS

Hot Water Recirculation: Grundfos Comfort system ensures that there is always hot water available when it is needed and prevents water wastage resulting from the draining of cold water.

The Grundfos Comfort system uses the cold water supply line as the “return-line” to the water heater. A Comfort pump is used to create a pressure differential that allows the cold water in the hot water supply line to by-pass (at low volume) into the cold supply line through a patented thermostatically controlled valve that is mounted under the sink furthest from the water heater.

Comfort pumps are suitable for solar hot water systems.

FEATURES

- Easy installation
- Instant hot water
- No waste of precious drinking water
- Energy effective pump with the built-in timer and thermostat (BUT model)

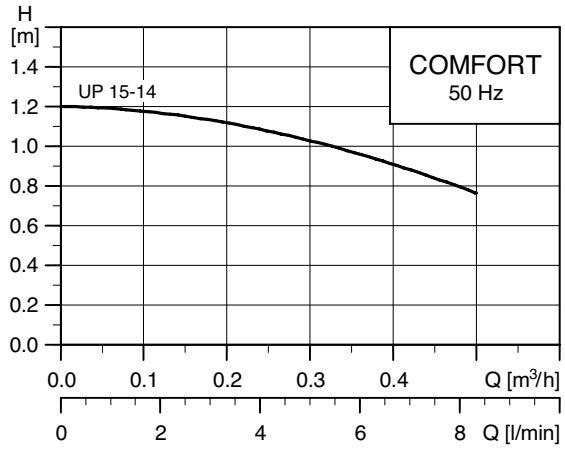
TECHNICAL FEATURES

Comfort system including the Comfort UP15-14 BUT pump (with lead, timer and thermostat) and valve kit		
Voltage	V	240
P1	W	25
In	A	0.11
Enclosure & Insulation class	-	IP42/F
Pump port to port dimension	mm	80
Pump connection to pipe	-	½”F
Valve Connection	-	½”M
Net weight	kg	1.16

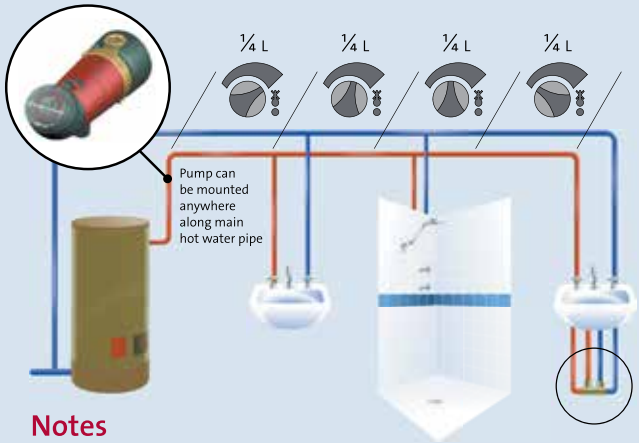
2 YEAR WARRANTY

UP15-14 BUT pump with valve kit

PERFORMANCE



INSTALLATION



Notes

- It is normal to experience a small volume of warm water at the cold tap closest to the Comfort System Valve.
- Set timer to operate 30 minutes before hot water demand and adjust thermostat accordingly.

Cold Water
Hot Water
L Length of hot water pipe

APPLICATIONS

The UPN circulator Pumps in stainless steel are specifically designed for household hot water systems, and solar hot water applications.

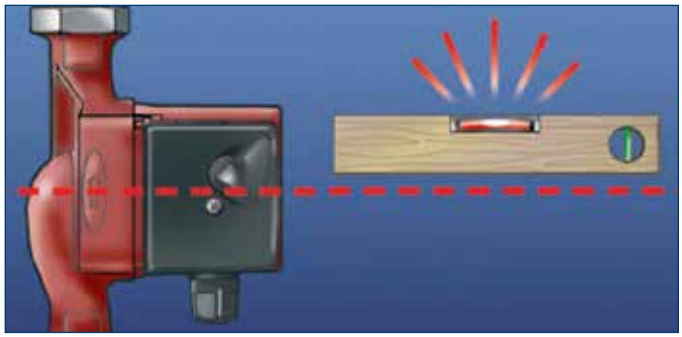
FEATURES

- Meets requirements of AS/NZS 4020 “Testing of products for use in contact with drinking water”. No risk to water quality thanks to the main components being stainless steel (pump housing, bearing plate, stator and rotor can (stainless steel AISI 304)
- Interchangeable with most of the installed bronze models (150 mm port to port)
- Especially designed for hot water application UP20-60N model can also be used with chilled water from +2 °C

TECHNICAL FEATURES

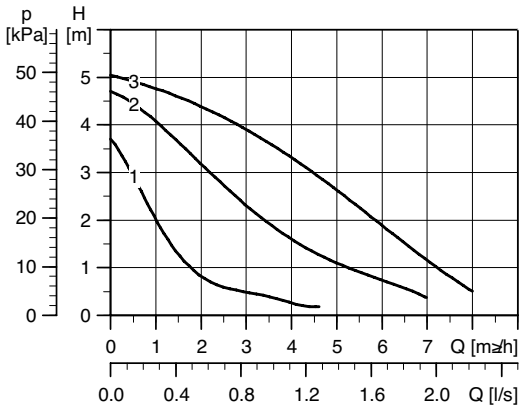
Model		UP20-60N
Voltage	V	1 x 240
P1	W	90
In	A	0.37
Enclosure & Insulation class		IP44/F
Liquid temperature range	°C	+2 C to +110
Port to port dimension	mm	150
Union set (pn 52-99-82)		¾”F
Net weight	kg	2.8

INSTALLATION

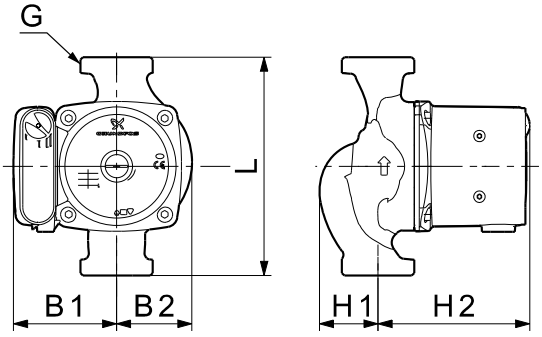


2 YEAR WARRANTY

PERFORMANCE



DIMENSIONS



APPLICATIONS

The circulator pumps in cast iron pump housing version are specifically designed for heating systems. For underfloor heating systems, it is advisable to use the bronze version, type ALPHA 2 B and UPS B, as the pumped liquid may often become aerated, causing an ordinary cast iron pump housing to corrode.

FEATURES

- UPS can be operated at three speeds
- ALPHA 2 automatically controls the differential pressure by adjustment of pump performance to the actual heating demand, without the use of external components

TECHNICAL FEATURES

The ALPHA 2 and UPS pumps are of the canned rotor type, i.e. pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid.

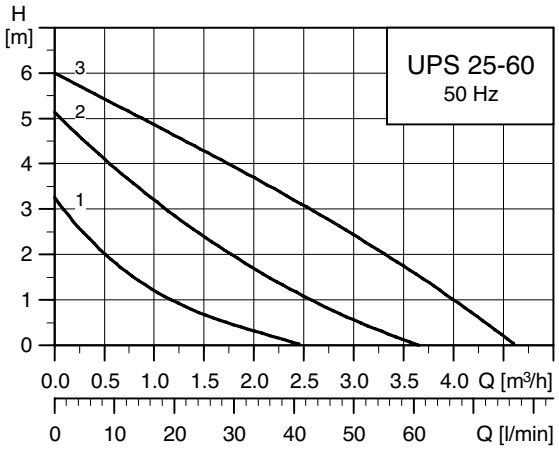
Pumps		UPS25-60	ALPHA 2 25-60
Voltage	V	1 x 240	1 x 240
P1 (max speed)	W	105	90
In	A	0.44	0.40
Enclosure & Insulation class		IP44/F	IP42/F
Liquid temperature range	°C	+2 C to +110	+2 C to +110
Port to port dimension	mm	130 or 180	180
Union set		1"F	1"F
Net weight	kg	2.6	2.6

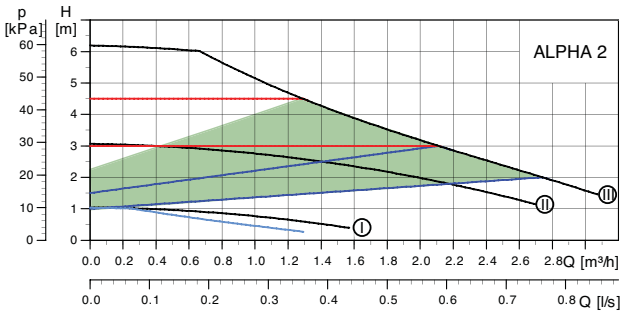
INSTALLATION

2 YEAR WARRANTY

UPS and ALPHA 2

PERFORMANCE





HOUSEHOLD B-LINE

Performance, Quality and Value

This range of high quality and robust pumps are manufactured for use in private dwellings, farms and small industry. Hardwearing materials and reliable design ensures long product life and years of trouble-free operation.

APPLICATIONS

Ideal for one or multiple tap outlets to your garden, toilet and laundry, the Grundfos JPRain range offers a reliable solution to help you utilise your collected rainwater in the best possible way.

FEATURES

- 3 models: JPRain, JPRain MP, JPRain PT
- Self priming from bore and rainwater tank
- Strong suction capacity
- Automatic on/off switch
- Built in thermal protection
- Suitable for above or underground rainwater tanks
- Handles small sandy impurities with ease

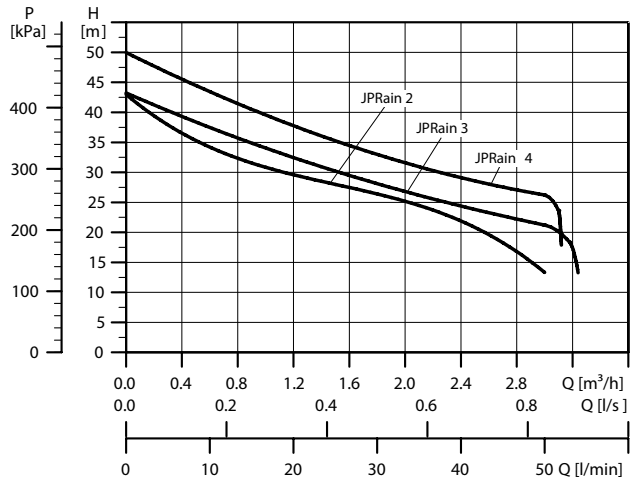
CONSTRUCTION

- Technopolymer pump body
- Carbon/ceramic mechanical seal
- AISI 304 stainless steel shaft
- IP44 motor
- Insulation Class F, with built-in overload protection
- Voltage 240 V

PERFORMANCE

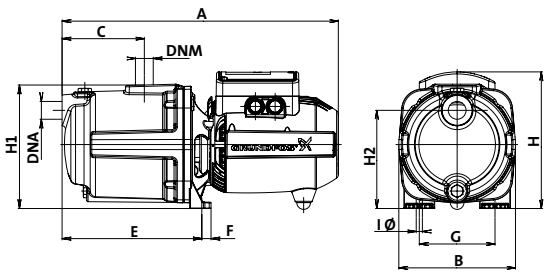
Pumps	Discharge Pressure (**kPa**/psi) - based on zero suction lift						
	150	**200**	**250**	**300**	**350**	**400**	**500**
	22	29	36	44	51	58	72
	Output (l/min)						
JPRain 2 PT08	46	39	30	-	-	-	-
JPRain 3 PT18	-	58	40	29	-	-	-
JPRain 4 PT18	-	-	58	44	29	-	-
JPRain 2 MP	40	34	26	-	-	-	-
JPRain 3 MP	-	51	35	26	-	-	-
JPRain 4 MP	-	-	51	39	26	-	-

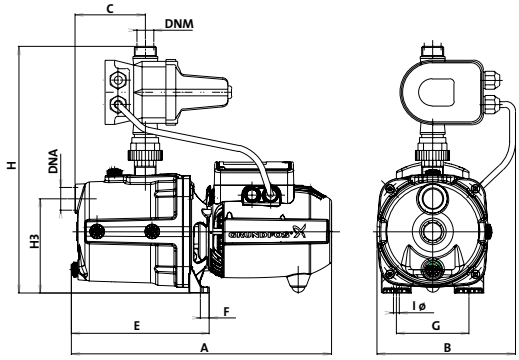
As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute



Bare pumps only - there is a pressure drop when using the MP versions.

DIMENSIONS





TECHNICAL FEATURES

JPRain The JPRain without any automatic controllers will operate manually by switching the pump on and off at the power point.

Pump type	Dimensions (mm)											
	A	A1	B	C	E	F	G	H	H3	Iø	DNA	DNM
JPRain 2	410	390	178	122	192	14	111	200	144	9	Rp 1	Rp 1
JPRain 3	410	390	178	122	192	14	111	200	144	9	Rp 1	Rp 1
JPRain 4	429	409	178	122	197	14	111	213	144	9	Rp 1	Rp 1

JPRain MP The JPRain MP is a complete system which automatically switches on and off according to demand. The controller also has dry run protection to stop the pump if the tank runs dry. When small system leaks are present the MP will prevent cycling of the pump.

Pump type	Dimensions (mm)										
	A	B	C	E	F	G	Iø	H	H3	DNA	DNM
JPRain 2 MP	410	212	122	192	14	111	9	360	144	Rp 1	Rp 1
JPRain 3 MP	410	212	122	192	14	111	9	360	144	Rp 1	Rp 1
JPRain 4 MP	429	212	122	197	14	111	9	360	144	Rp 1	Rp 1

JPRain PT The JPRain PT fitted with a pressure switch and tank will start and stop automatically when a tap is opened or closed. The system will draw water from the pressure tank first when only a small amount of water is needed. JPRain PT is supplied with a non-return valve which is to be fitted to the pump inlet.

Pump type	Dimensions (mm)										
	A	B	C	E	F	G	Iø	H	H3	DNA	DNM
JPRain 2 PT	410	212	122	192	14	111	9	570	144	Rp 1	Rp 1
JPRain 3 PT	410	212	122	192	14	111	9	570	144	Rp 1	Rp 1
JPRain 4 PT	429	212	122	197	14	111	9	570	144	Rp 1	Rp 1

Pump type	Voltage (V)						
		P_1	P_2	P_2	Iø	Capacitator	
		Max [kW]	[kW]	[hp]	[A]	[µF]	Vc]
JPRain 2	1 x 240	0.72	0.44	0.6	3.12	12.5	450
JPRain 3	1 x 240	0.85	0.60	0.8	3.4	12.5	450
JPRain 4	1 x 240	1.13	0.75	1.0	4.7	16.0	450

APPLICATIONS

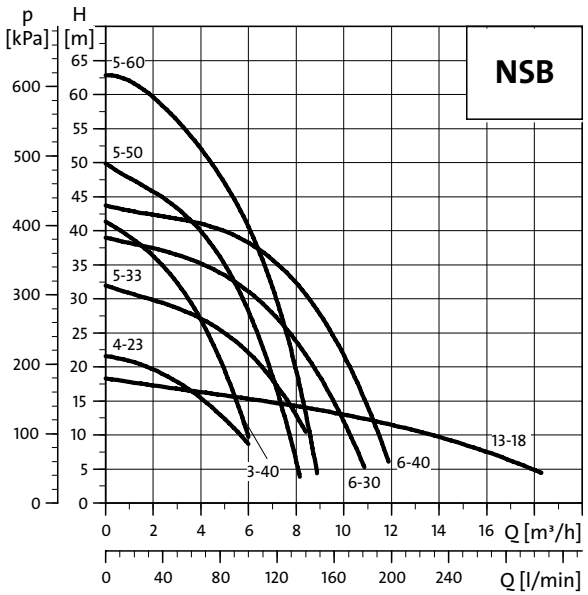
The single phase NSB range are ideally suited for water transfer, pressure boosting, tank filling, wash down applications and reticulation irrigation.

FEATURES

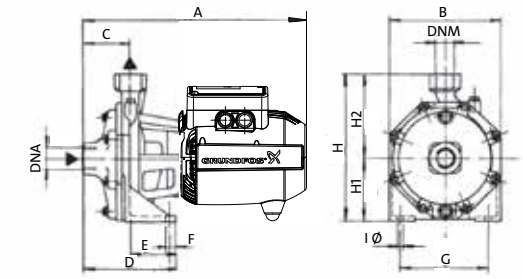
- Wide range - single and twin impeller models
- Heavy duty design for long life
- Compact and easily adapted to existing installation
- Easy installation: supplied with lead and plug
- Low noise level, quiet operation

CONSTRUCTION

- Cast iron pump body and motor support treated against corrosion
- Technopolymer impeller. Carbon/ceramic mechanical seal mounted on stainless steel rotor shaft extension
- Motor: Rotor mounted on oversized greased sealed-for-life ball bearing. Built-in thermal and current overload protection
- 1 x 240 V, 50 Hz, 2 poles, 2900 rpm, IP44, Class F



DIMENSIONS



TECHNICAL FEATURES / PERFORMANCE

Pumps	1x240V		Water temp (°C)	Connections		Dimensions (mm)			Weight	Discharge Pressure (**kPa**/psi)							
										100	**150**	**200**	**250**	**300**	**350**	**400**	**500**
										15	22	29	36	44	51	58	72
	P2 (kW)	In (A)		inlet	outlet	A	B	H	(kg)	Output (l/min)							
NSB4-23	0.37	3.0	0/50	1"F	1"F	275	160	205	10.3	92	69	24	-	-	-	-	-
NSB5-33	0.75	6.0	0/50	1"F	1"F	300	185	235	14.7	-	123	107	84	20	-	-	-
NSB13-18	0.75	4.6	0/50	1 ½"F	1 ½"F	312	169	210	14.0	237	105	-	-	-	-	-	-
NSB3-40	0.75	5.5	0/50	1"F	1"F	342	180	235	16.1	-	90	83	72	55	38	-	-
NSB5-50	1.10	8.3	0/50	1 ¼"F	1"F	370	210	268	23.3	127	118	112	106	92	82	62	-
NSB5-60	1.85	12.8	0/50	1 ¼"F	1"F	370	210	268	23.8	-	137	131	123	117	110	100	71
NSB6-30	1.10	7.1	0/50	1 ½"F	1"F	387	205	233	21.5	172	156	144	127	103	59	-	-
NSB6-40	1.85	9.0	0/50	1 ½"F	1"F	461	205	233	25.9	190	178	170	154	140	118	73	-

As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute

APPLICATIONS

Ideal for emptying ponds, fountains, swimming pools, for pumping water from septic tanks and for drainage jobs in and around home and garden.

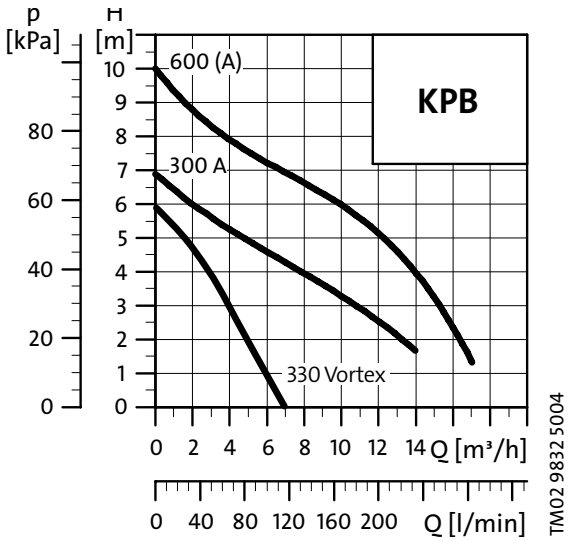
FEATURES

- Float switch for automatic pump operation
- Easy to handle
- Built-in thermal protection (1 x 240 V)
- KPB Vortex 330 handles particles up to 25 mm

CONSTRUCTION

- Technopolymer pump body and impeller
- Submersible motor 1 x 240 V, IP68, Class F, with built-in overload protection and capacitor

KPB 600A, KPB300A and KPB Vortex 330



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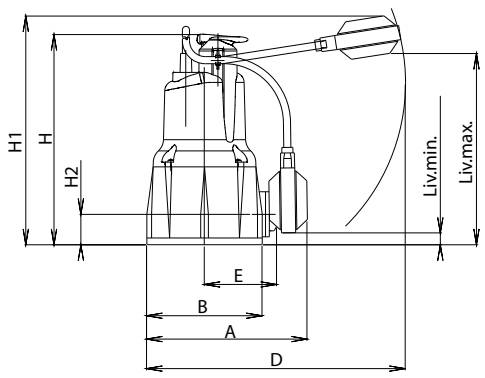


TECHNICAL FEATURES / PERFORMANCE

Pumps	Cable (m)	P2 (kW)	1 ph In (A)	Water temp (°C)	Outlet	Dimensions A	B	D	H	Weight (kg)	l/min	0	50	100	150	200	250
											m³/h	0	3	6	9	12	15
KPB300A	5	0.22	1.5	0/35	1 ¼"F	185	140	225	275	4.5	m/Head	7.0	5.5	4.6	3.7	2.5	-
KPB600A	5	0.55	3.4	0/35	1 ¼"F	200	160	225	376	6.7		10.0	8.3	7.2	6.3	5.2	3.3
KPB Vortex 330	5	0.18	0.9	0/40	1 ¼"F	205	165	250	300	4.5		6.0	4.0	1.0	-	-	-

As a guide 1 tap = 10 litres per minute • 1 sprinkler = 15 litres per minute

WHAT PUMP DO I NEED? 1

Application		Household water supply
		Drainage
		Irrigation
		Water transfer
		Other
Water source		Above ground tank
		Underground tank
		River
		Dam
		Other
Power supply		240 V single phase
		415 V three phase
Water requirement	**Household**	
		House only
		House and garden
		Showers (number)
		Sprinklers (number)
	Sprinklers (type)	
		Evaporative airconditioner connected
	Irrigation	
		Sprinklers (number)
	Sprinklers (type)	
		Automatic Operation
		Manual Operation
	Drainage and Water transfer	
		Lift from pump (A) to point of discharge (B)
Details of existing pipeline		Size (mm)
		Type (Polyethylene/PVC/Copper/Steel)
		Length (m)

HOW MUCH FLOW (Q)? 2

Water pressure systems	✔	
Weekend cottage		10 to 20 L/min
Small home		20 to 30 L/min
Average home		30 to 50 L/min
Large home		50 to 90 L/min
Average water consumption	No.	
Standard shower head		15 L/min
Water saving shower head		6-7 L/min
Household standard tap		10-15 L/min
Tap with aerator or flow restrictor		4-6 L/min
Lawn sprinkler		10-15 L/min
Drainage and effluent		See your Grundfos dealer

CALCULATE THE FLOW RATE 3

Q = ( ) L/min

HOW MUCH PRESSURE (P)? 4

P = Pump Head

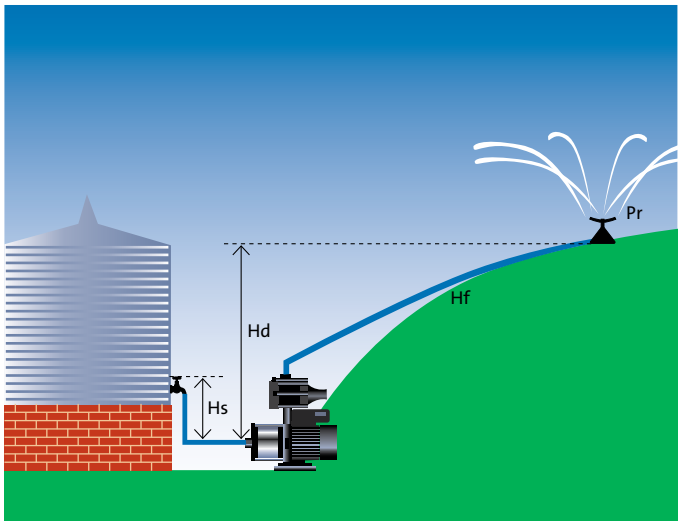
Hd = Height difference between the pump and the highest point of use

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

Hf = Friction loss or pipe resistance to water flow (see chart at right for Poly Pipe friction loss)

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

Flow Rate			Friction loss - PN12.5 High Density Polyethylene pipe (m/100 metres of pipe)					
L/min	m^3/hr	L/sec	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
12	0.7	0.2	10.9	3.7	1.1	0.4	0.1	-
24	1.4	0.4		13.4	3.9	1.3	0.4	0.1
36	2.2	0.6			8.3	2.8	0.9	0.3
48	2.9	0.8			14.2	4.8	1.6	0.5
60	3.6	1.0				7.2	2.4	0.8
72	4.3	1.2				10.1	3.3	1.1
84	5.0	1.4				13.5	4.4	1.5
96	5.8	1.6					5.7	1.9
108	6.5	1.8					7.1	2.3
120	7.2	2.0					8.6	2.8



CALCULATE THE PRESSURE 5

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

Example

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

Hs = 2 m

Hd = 15 m

Hf = 3.6 m
(50 m of 40 mm Poly Pipe - see Friction Loss Chart above)

Pr = 15 m (150 kPa)

P = 15 - 2 + 3.6 + 15 = 31.6 m = 310 kPa = 44 psi

USEFUL CONVERSION

From \ To								
Flow Conversion								
		litres per minute		litres per second		cubic metres per hour		gallons per min
1 L/min	=	1	=	0.017	=	0.06	=	0.22
1 m^3/hr	=	16.7	=	0.28	=	1	=	3.7
1 L/sec	=	60	=	1	=	3.6	=	13.2
1 gpm	=	4.5	=	0.076	=	0.27	=	1
Example								
60 L/min	=	60 L/min	=	1 L/sec	=	3.6 m^3/h	=	13.2 gpm
Pressure Conversion								
		metres of head		kilopascal		pounds/$inch^2$		bar
1 m	=	1	=	9.8	=	1.4	=	0.1
1 kPa	=	0.1	=	1	=	0.14	=	0.01
1 psi	=	0.7	=	6.9	=	1	=	0.07
1 bar	=	10.2	=	100	=	14.5	=	1
Example								
200 kpa	=	20 m	=	200 kPa	=	28 psi	=	2 bar

BE > THINK > INNOVATE >

Being responsible is our foundation
Thinking ahead makes it possible
Innovation is the essence

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