

**Water softener
softliQ:PB**



Intended use

The water softener softliQ:PB with additional hygiene function must only and exclusively be used for partial softening of cold drinking water.

The water softener softliQ:PB protects water pipes and connected water-carrying systems from scaling as well as from malfunctions and damage caused by scaling.

The water softener softliQ:PB features a hygiene unit to reduce micro-organisms. The retention rate for *Pseudomonas aeruginosa* and *Escherichia coli* is 99.99 %.

The water softener softliQ:PB20 is designed for the continuous soft water supply in single and multi-family households of max. 5 people.

The service life of the hygiene elements is 250 m³ or 2 years, whichever comes first. After the service life has expired, the hygiene elements must be replaced by technical service personnel. In case of higher water demands or continuous flows, we recommend using modular safeliQ systems.

Foreseeable misuse

The softliQ:PB water softener must not be operated with water originating from private water supply systems.

Function

The water softener softliQ:PB works according to the ion exchange principle.

The hygiene unit fixes micro-organisms (e.g. bacteria) on the hygiene membrane by way of electrostatic interaction. When flowing through the hygiene membrane, the micro-organisms are physically removed from the water. The fixed micro-organisms are inactivated by disinfection at regular intervals.

A regeneration can either be initiated manually by the owner/operating company at any time, or timer-controlled at up to three adjustable times per day, or automatically during a time of low withdrawal. Depending on the remaining capacity of the exchangers (< 50 %), a partial or a complete regeneration takes place.

Thanks to this mode of operation, soft and hygienically treated water is available to owner/operating company at all times.

The system automatically controls the desired soft water hardness subject to the system's flow rate.

For hygienic reasons, the system initiates a disinfection process after four days at the latest.

Grünbeck myProduct app

The softliQ water softener can be controlled and registered with Grünbeck's myProduct app. By means of a mobile end device, the data can be retrieved worldwide.

Design

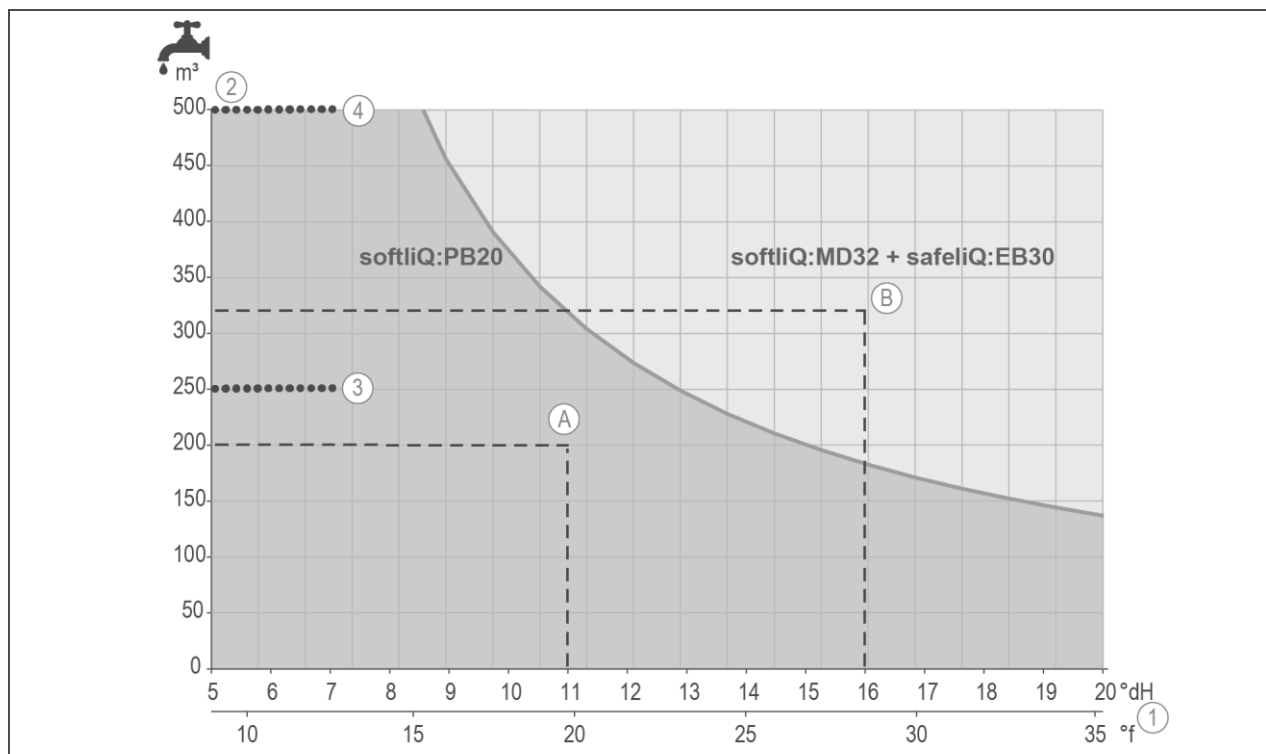
- Compact design requiring little floor space and making optimum use of the space available
- Ergonomic system design for operation and maintenance
- Removable brine tank for hygienic and easy cleaning
- Integrated support tray to safely fill the brine tank
- Removable service lid for quick and convenient access to the control valve
- Compact and easily accessibly brine valve for easy maintenance
- Integrated safety float for increased protection in case of power failures
- Exchanger with special distribution system for efficient salt utilisation
- Electronically controlled blending unit to regulate the soft water hardness
- Special ion exchanger resin to meet highest demands on drinking water
- Glass beads for uniform distribution of the water
- Flame-sterilisable sampling valves for hygienic sampling
- Special hygiene elements to reduce germs

Scope of supply

- Water softener incl. connection equipment
- Water test kit "Total hardness"
- Drain connection DN 50 with siphon acc. to DIN EN 1717
- Operation manual

Range of application of water softener softliQ:PB

When designing the softliQ:PB20/safeliQ:EB30 systems, the expected peak flow rate must be taken into account.



Item	Designation	Item	Designation
1	Softening by x°	2	Water consumption per year
3	Semi-annual replacement of hygiene element	4	Annual replacement of hygiene element

The chart shows the operating range of the water softener softliQ:PB20 and applies to softening to a recommended soft water hardness of 4 °dH.

The vertical axis indicates the annual water consumption in m³.

The horizontal axis indicates the sum of °dH and °f by which the water was softened.

Reading examples:

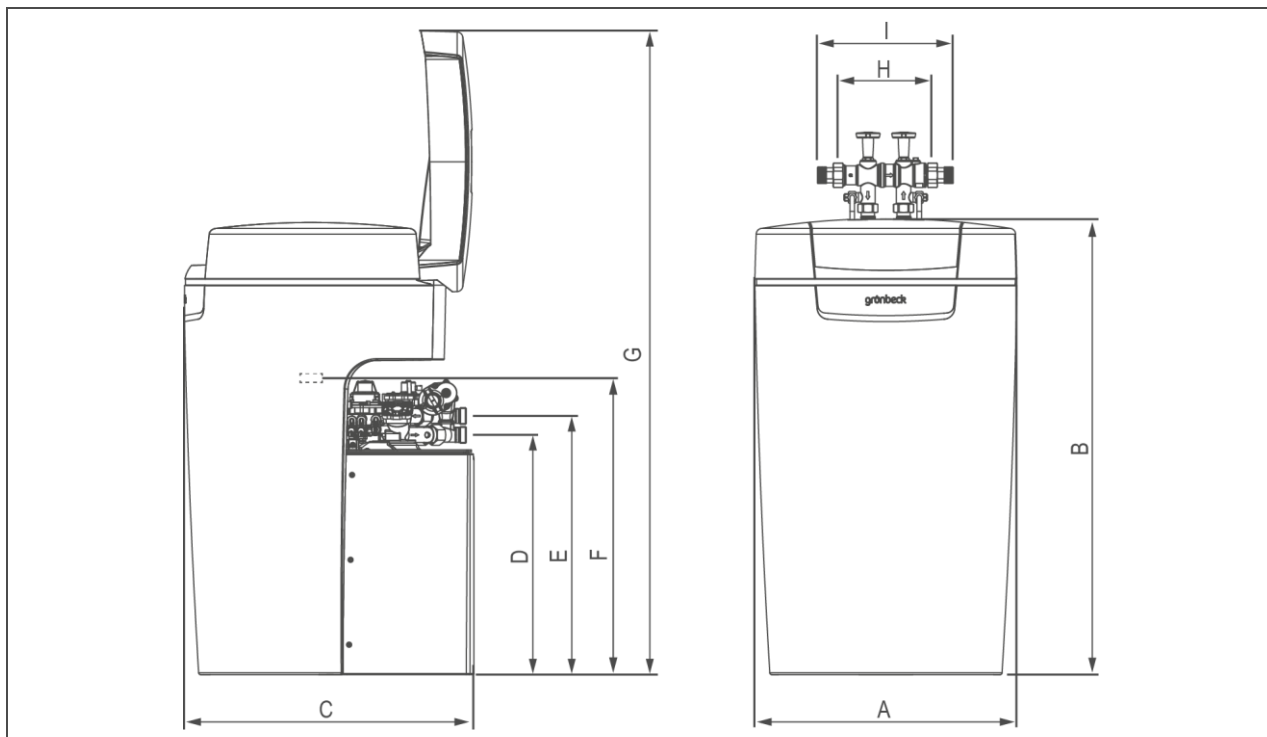
- A Water consumption 200 m³, raw water to be softened by 11 °dH
The softliQ:PB20 system can be used.
- B Water consumption 320 m³, raw water to be softened by 16 °dH
The softliQ:PB20 system cannot be used.
We recommend using water softener softliQ:MD32 in combination with hygiene system safeliQ:EB30.

Should your raw water hardness exceed 28 °dH, please contact your local Grünbeck partner who will assist you in finding a solution. To find your local Grünbeck partner go to www.gruenbeck.com

For assistance in selecting the appropriate system go to: www.gruenbeck.de/productfinder



Technical specifications I

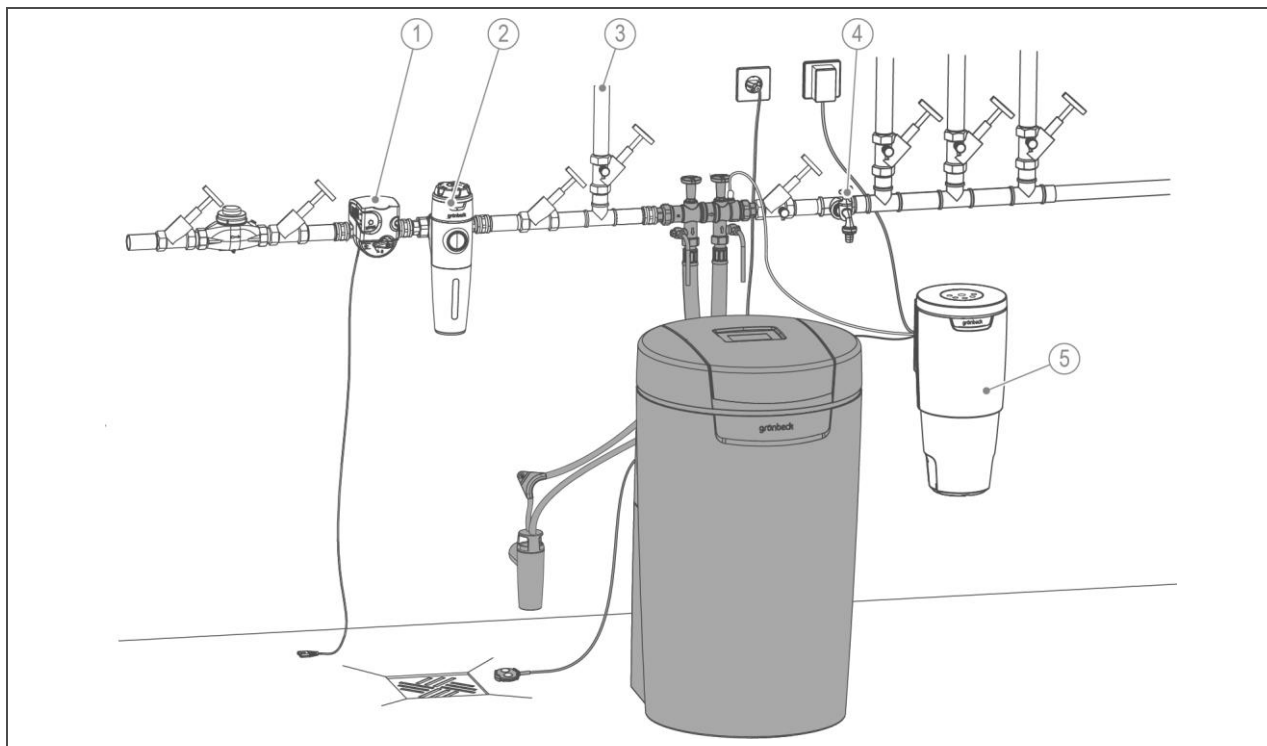


Dimensions and weights		softliQ:PB20
A	System width	mm 525
B	System height	mm 912
C	System depth	mm 580
D	Connection height of control valve (soft water, outlet)	mm 480
E	Connection height of control valve (raw water, inlet)	mm 518
F	Height of safety overflow of brine tank	mm 540
G	Height with open lid	mm 1290
H	Installation length without screw connection	mm 190
I	Installation length with screw connection	mm 271
Operating weight, approx.		kg 145
Shipping weight, approx.		kg 40

Technical specifications II

Connection data		softliQ:PB20
Nominal connection diameter		DN 25 (1" m. thread)
Drain connection		DN 50
Rated voltage range	V	100 – 250
Rated frequency	Hz	50 – 60
Rated load (during regeneration, temporarily)	W	14
Power input during softening, with display, Wi-Fi and illuminated LED ring being switched off	W	< 3.5
Protection/protection class		IP54/II
Wi-Fi frequency band	GHz	2.4
Performance data		softliQ:PB20
Nominal pressure		PN 10
Rated pressure	mPa/bar	1.0/10
Operating pressure (recommended)	bar	2.0 – 8.0 (4.0)
Nominal flow (0 °dH, 0 °f, 0 mol/m³) acc. to DIN EN 14743 at a pressure loss of 1.0 bar	m³/h	2.0
Nominal flow at a pressure loss of 1.0 bar following DIN 19636 (raw water hardness 20 °dH (35.6 °f, 3.56 mol/m³), soft water hardness 8 °dH (14.2 °f, 1.42 mol/m³))	m³/h	2.4
Nominal capacity (both exchangers)	m³ x °dH	2 x 5
	m³ x °f	2 x 9
	mol	2 x 0.9
Capacity per kg of regeneration salt	mol/kg	5.1
Regeneration time for complete regeneration (both exchangers)	min	50
Recommended replacement interval of hygiene elements	years	< 2
Recommended replacement interval of hygiene elements	m³	< 250
Filling volumes and consumption data		softliQ:PB20
Resin volume (per exchanger)	l	3
Salt consumption* (per exchanger)	kg	0.176
Regeneration salt supply	kg	≤ 95
Salt consumption		
	per m³ and °dH	[kg/m³ x °dH]
	per m³ and °f	[kg/m³ x °f]
	per m³ and mol	[kg/mol]
Flushing water flow rate	m³/h	≤ 0.3
Total waste water volume* (per exchanger)	l	31
Number of hygiene elements	piece(s)	2
*In case of complete regeneration		
General		softliQ:PB20
Suitable for homes of ... families (up to ... people)		1 - 2 (5)
Water temperature	°C	5 – 30
Ambient temperature (drinking water)	°C	5 – 25
Max. humidity (non-condensing)	%	90
DVGW registration number		NW-9151DM0062
ÜA registration number		R-15.2.3-21-17496
The Office of the Vienna Provincial Government – City of Vienna		
Order no.		525 460

Installation example



Item	Designation	Item	Designation
1	Safety device protectliQ	2	Drinking water filter pureliQ
3	Garden water pipe	4	Water withdrawal point
5	Dosing system exaliQ		

Installation requirements

Obey the local installation directives, general guidelines and technical specifications.

The functionality of the system is guaranteed when using drinking water as per German Drinking Water Ordinance (TrinkwV). Increased turbidity, within the limit values, can lead to an increased pressure loss and reduce the service life of the hygiene elements.

The softliQ water softener is DVGW-certified, and thus intrinsically safe. A system separator as additional safety device is not required upstream of the product.

The installation site must be frost-proof and protect the product from direct sunlight, chemicals, dyes, solvents and their vapours.

If the softened water is intended for human consumption as defined by the German Drinking Water Ordinance, the ambient temperature must not exceed 25 °C.

A drinking water filter and, if required, a pressure reducer (e.g. fine filter pureliQ:KD) must be installed upstream of the product.

A Schuko socket is required within a distance of approx. 1.2 m of the system. The socket outlet requires permanent power supply and must not be coupled with light switches, emergency heating switches or the like.

A drain connection (DN 50) must be available to discharge the regeneration water.

A floor drain suitable for the respective system size must be available at the installation site. Otherwise, a safety device such as a protectliQ or a safety device with water stop of the

same quality must be installed. Floor drains that discharge to a lifting system do not work in case of a power failure.

Make sure that lifting systems are resistant to salt water or use our delivery pump for regeneration water.

The connection block features a non-return valve on the inlet side. Safety relief valves must therefore be installed in flow direction downstream of the softliQ.

A water withdrawal point must be available near the product.

Accessories

Dosing system
exaliQ:KC6-e
Order no. 117 460

Dosing system
exaliQ:SC6-e
Order no. 117 465

Electronically controlled dosing technology to protect the water pipe against corrosion or to stabilise the total hardness.

Safety device
protectliQ:A25
Order no. 126 405

Product to protect against water damage in one and two-family homes.

For other sizes, please inquire.

Delivery pump for regeneration water
Order no. 188 800

To discharge the regeneration water into drain pipes located at a higher level.

Extension kit
for connection hoses DN 25
Order no. 187 660e

To extend the hose to 1.6 m.

90° connection angle 1" (2 pieces)
Order no. 187 865

To direct the connection hoses closer along the softliQ in case of confined installation conditions.

Installation kit softliQ
Order no. 188 865

Space-saving combined connection of water softener and filter.

Consumables

Regeneration salt (25 kg)
as per EN 973 type A
Order no. 127 001

Water test kit
"Total hardness"
Order no. 170 187

Hygiene element for
softliQ:PA20/PB20
(1 piece)
Order no. 525 469e

Contact

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