

Water softener softliQ:SD

Intended use

The water softener softliQ must only and exclusively be used for the softening and partial softening of cold drinking water.

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

The water softener softliQ:SD18 is designed for the continuous supply of one and two-family homes (max. 4 persons) with soft water.

The water softener softliQ:SD21 is designed for the continuous supply of one to four-family homes (max. 9 persons) with soft water.

The water softener softliQ:SD23 is designed for the continuous supply of one to five-family homes (max. 12 persons) with soft water.

Function

The water softener softliQ:SD works according to the well-proven ion exchange principle.

Based on the consumption of the past four weeks, the system capacity is automatically and continuously adapted to the individual water consumption of the owner/operator/operating company for every day of the week.

The softliQ:SD water softener can be operated in five different modes.

- Eco
Minimum use of resources.
- Comfort (factory setting)
Optimum use of resources and system capacity.
- Power
Maximum performance for highest demands.
- Individual
To enter your individual user profile.
- Fix
To enter a permanently fixed capacity figure without consideration of the past and without adaptation of the capacity figure.

A regeneration is released daily, if at least 50 % of the current system capacity is used up. The time of regeneration is automatically scheduled in a time period where usually no water is consumed. The time of regeneration can also be set at a fixed time. Should water be required during the regeneration process, non-softened water is available.

During each regeneration, only the used-up system capacity is regenerated and only as much salt is used as necessary. For hygienic reasons, the system releases a complete regeneration after four days at the latest.

The intelligence of the softliQ:SD allows for an efficient operation at the lowest salt and power consumption possible.

Grünbeck myProduct app

You can register and control your product conveniently using the myGrünbeck app.

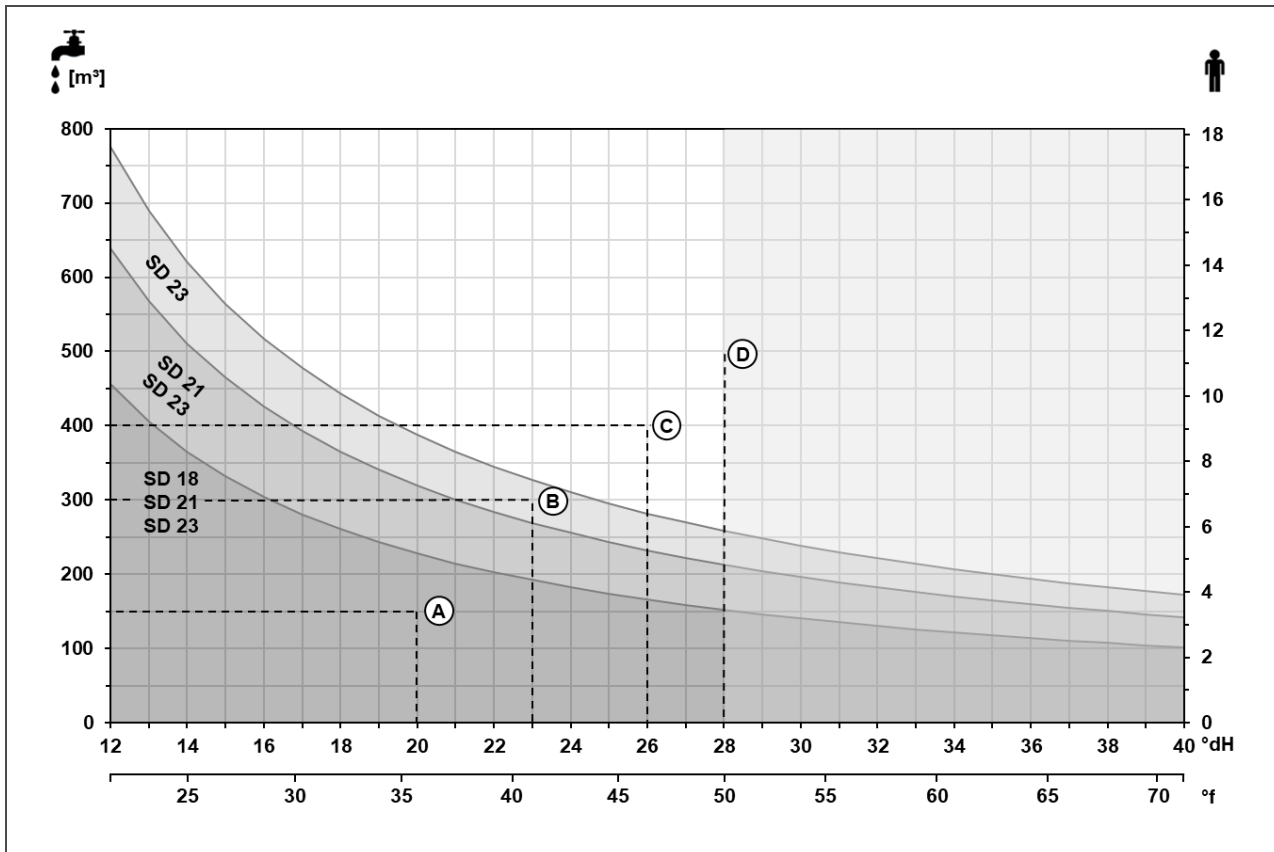
Design

- 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 maintenance 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
- Special ion exchanger resin to meet highest demands on drinking water
- Glass beads for uniform distribution of the water

Scope of supply

- Water softener incl.
 - Connection equipment
 - Water sensor (for softliQ:SD21 and softliQ:SD23)
 - LAN & Wi-Fi interface for internet connection via Cloud (for softliQ:SD18, Wi-Fi only)
 - Illuminated LED ring (for softliQ:SD21 and softliQ:SD23)
 - Salt supply indicator (for softliQ:SD21 and softliQ:SD23)
 - Drain connection DN50 according to DIN EN 1717 (for softliQ:SD23)
- Water test kit "Total hardness"
- Operation manual

Range of application of the softliQ:SD water softener



The chart indicates the operating ranges of the water softeners softliQ:SD and applies to softening to a recommended soft water hardness of 4 °dH.

The vertical axes indicate the annual water consumption in m³ and the number of people in the household at an average water consumption of 121 litres per person per day.

The horizontal axes indicate the raw water hardness in °dH or °f. For the raw water hardness of your drinking water, please contact your water supply company.

Reading examples:

- A Water consumption 150 m³, raw water hardness 20 °dH
→ The softliQ:SD18, softliQ:SD21 and softliQ:SD23 systems can be applied.
- B Water consumption 300 m³, raw water hardness 23 °dH
→ The softliQ:SD23 system can be applied.
- C Water consumption 400 m³, raw water hardness 26 °dH
→ The softliQ:SD systems cannot be applied. We recommend using the water softeners softliQ:MD32 or softliQ:MD38.
- D Starting from a raw water hardness of 28 °dH, the maximum limit value for sodium (200 mg/l) stipulated in the German Drinking Water Ordinance has to be taken into

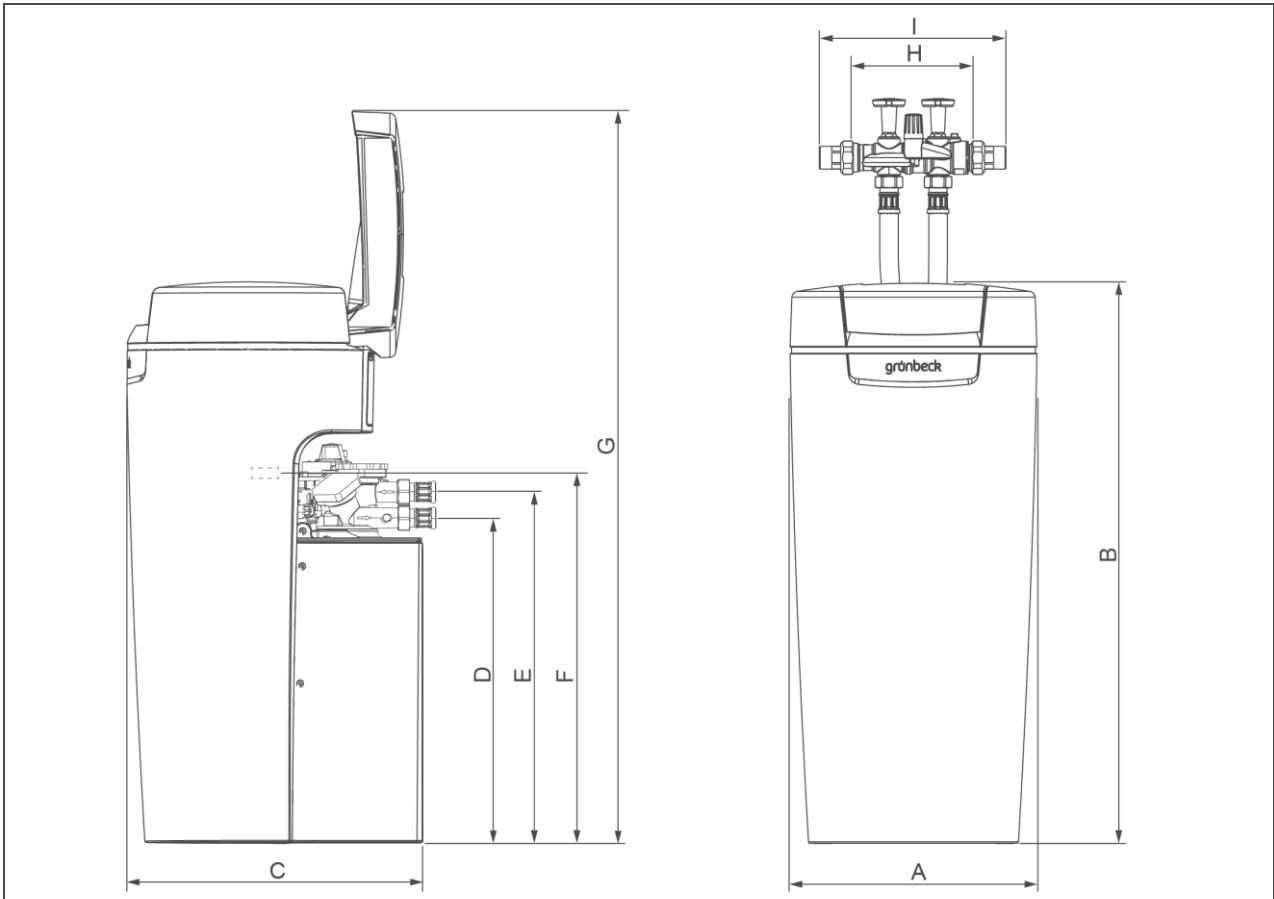
consideration when softening to a soft water hardness of 4 °dH.

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/produktfinder



Technical specifications I



Dimensions and weights		softliQ:SD18	softliQ:SD21	softliQ:SD23	
A	System width	mm	360		
B	System height	mm	815		
C	System depth	mm	430		
D	Connection height of control valve (soft water)	mm	470		
E	Connection height of control valve (raw water)	mm	510		
F	Height of safety overflow of brine tank	mm	520		
G	Height with open lid	mm	1060		
H	Installation length without screw connection	mm	190		
I	Installation length with screw connection	mm	271		
	Operating weight, approx.	kg	65	69	73
	Shipping weight, approx.	kg	22	24	26

Technical specifications II

Connection data		softliQ:SD18	softliQ:SD21	softliQ:SD23
Nominal connection diameter		DN 25 (1" male thread)		
Drain connection		DN 50		
Rated voltage range	V	100 - 250		
Rated frequency	Hz	50 - 60		
Power input (during regeneration, temporarily)	W	8	14	
Power input for softening if display, Wi-Fi and illuminated LED ring are switched off (illuminated LED ring for softliQ:SD21 and softliQ:SD23 only)	W	< 3.5		
Protection/protection class		IP 54/□		
Wi-Fi frequency band	GHz	2.4		

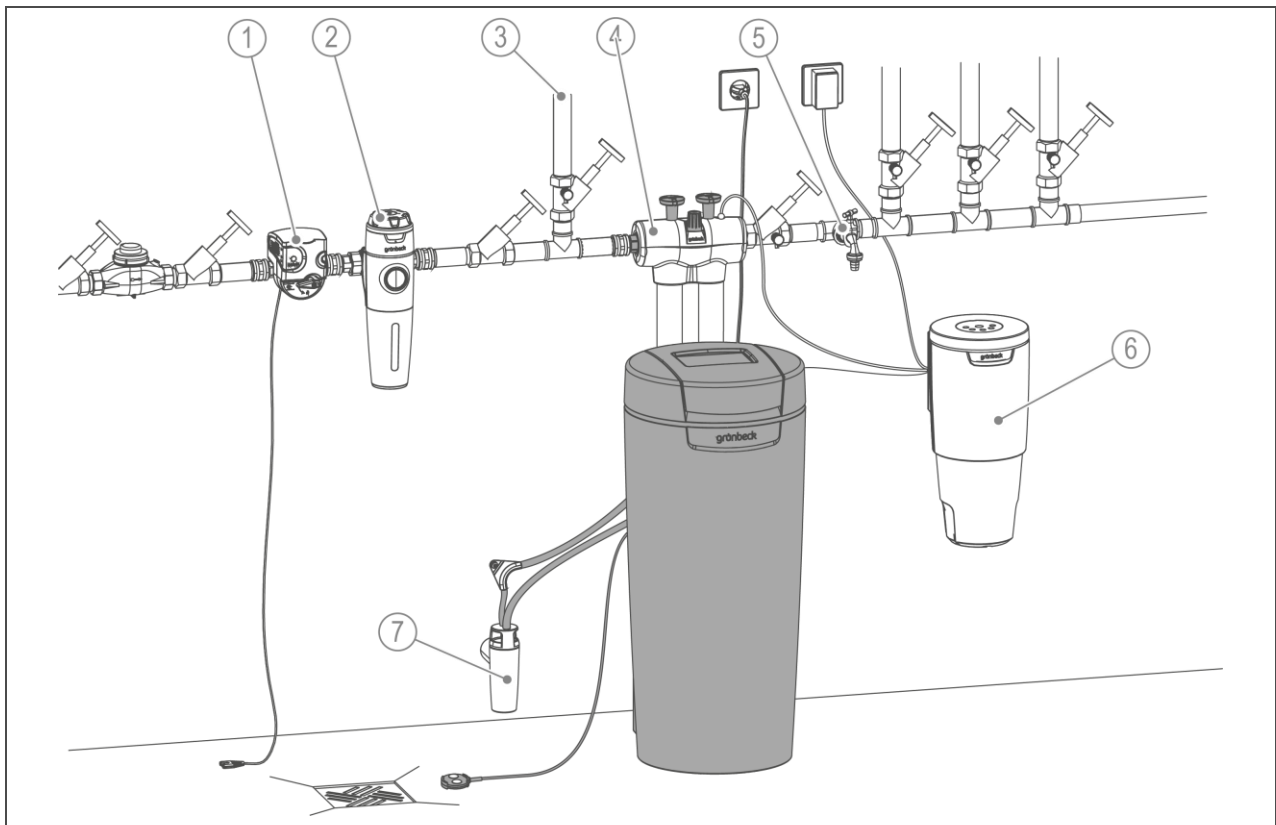
Performance data		softliQ:SD18	softliQ:SD21	softliQ:SD23
Nominal pressure		PN 10		
Rated pressure	MPa/bar	1.0 10		
Min./max. operating pressure (recommended)	bar	2.0/8.0 (4.0)		
Nominal flow (0 °dH, 0 °f, 0 mol/m ³) acc. to DIN EN 14743 at a pressure loss of 1.0 bar (theoretical value)	m ³ /h	1.8	2.1	2.3
Nominal flow at a pressure loss of 1.0 bar following DIN 19636 (raw water hardness 20 °dH (35.6 °f, 3.56 mol/m ³), soft water hardness 8 °dH (14.2 °f, 1.42 mol/m ³))	m ³ /h	3.0	3.5	3.8
Nominal capacity variable	m ³ x°dH m ³ x °f mol	6 - 14 11 - 25 1.1 - 2.5	8 - 20 14 - 36 1.4 - 3.6	9 - 23 16 - 41 1.6 - 4.1
Capacity per kg of regeneration salt	mol/kg	6.7 - 4.5	7.1 - 4.5	
Regeneration time for a complete regeneration	min	20 - 40		
Regeneration (1x per day) in case of a reduction in capacity	%	> 50		

Filling volumes and consumption data		softliQ:SD18	softliQ:SD21	softliQ:SD23
Resin volume	l	5	7.5	9
Salt consumption*	kg	0.15 - 0.55	0.20 - 0.80	0.23 - 0.95
Regeneration salt supply	kg	≤ 35		
Salt consumption per m ³ and °dH per m ³ and °f per mol	kg/(m ³ x °dH) kg/(m ³ x °f) kg/mol	0.025 - 0.040 0.014 - 0.022 0.140 - 0.221		
Flushing water flow	m ³ /h	≤ 0.3	≤ 0.4	≤ 0.6
Total waste water volume*	l	21 - 31	28 - 43	32 - 51
Waste water volume per m ³ and °dH per m ³ and °f per mol	l/(m ³ x °dH) l/(m ³ x °f) l/mol	3.5 - 2.2 1.9 - 1.2 19 - 12		

*For a complete regeneration

General data		softliQ:SD18	softliQ:SD21	softliQ:SD23
Range of application: house size (up to ... people)		1 - 2 (4)	1 - 4 (9)	1 - 5 (12)
Water temperature	°C	5 - 30		
Ambient temperature (drinking water)	°C	5 - 25		
Ambient temperature (technical applications)	°C	5 - 40		
Humidity (non-condensing)	%	≤ 90		
DVGW registration number		DW-91S1CT0491		
SVGW certificate number		1902-6824		
ÜA registration number The Office of the Vienna Provincial Government – City of Vienna		R-15.2.3-21-17496		
Order no.		189 100	189 200	189 300

Installation example



Item	Designation	Item	Designation
1	Safety device protectliQ	2	Drinking water filter pureliQ
3	Garden water pipe	4	Insulating kit softliQ
5	Water withdrawal point	6	Dosing system exaliQ
7	Drain connection DN 50 acc. to DIN EN 1717		

Installation requirements

The softliQ water softeners are DVGW-certified, and thus intrinsically safe. Therefore, no additional safety devices (system separators) are necessary upstream of the product.

Obey the local installation directives, general guidelines and technical specifications. The installation site must be frost-proof and ensure the product's protection from chemicals, dyes, solvents and 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. For applications that are purely technical, the ambient temperature must not exceed 40 °C.

Always install a drinking water filter and, if required, a pressure reducer (e.g. fine filter pureliQ:KD) upstream of the product.

For electrical connection, a Schuko socket is required within a distance of approx. 1.2 m.

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.

Make sure that there is a floor drain at the installation site. In case there is none, install the protectliQ safety device or a protection device with water stop of equal quality.

This prevents water damage in case of leaks.

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

A water withdrawal point must be available near the product.

According to DIN EN 806-5, ion exchanger systems routinely require a functional check to be performed by the owner/operator/operating company and maintenance to be performed by an authorised technical service company.

Accessories

Dosing system
exaliQ:KC6
Order no. 117 400

Dosing system
exaliQ:SC6
Order no. 117 405

Electronically controlled dosing equipment including contact water meter for corrosion protection in case of a negative saturation index or to stabilise the total hardness.

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

- Not possible for softliQ:SD18

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

Electronically controlled dosing equipment including communication interface iQ Comfort for corrosion protection in case of a negative saturation index or to stabilise the total hardness.

- Not possible for softliQ:SD18

Safety device
protectliQ:A20
Order no. 126 400

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.

- Only possible for softliQ:SD23

Drain connection DN 50
Order no. 188 875

For professional installation acc. to DIN EN 1717.

- In case of softliQ:SD23, included in the scope of supply

Insulating kit softliQ
Order no. 188 870

For proper thermal insulation of the connection equipment.

- In case of softliQ:SD23, included in the scope of supply

Extension kit for connection hoses
Order no. 187 860e

To extend the hose to 1.6 m.

Supplementary blending valve
Order no. 187 870

To generate a second blending hardness (e.g. separate pipe to the kitchen, technical applications, etc.).

Supplementary soft water outlet
Order no. 187 875

To easily branch off a 0 °dH pipe (e. g. separate pipe for technical applications, etc.).

Installation kit softliQ
Order no. 188 865

Space-saving combined connection of water softener and filter.

Wall bracket softliQ:SD
Order no. 189000010000

For raised placing (raising the overflow)

Consumables

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

Water test kit
“Total hardness”
Order no. 170 187

Contact

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