

Water softener softliQ:SC

Designated application

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

The water softener softliQ:SC protects water pipes and connected water-carrying systems from scaling resp. from malfunctions and damage caused by scaling.

The water softener softliQ:SC18 is designed for the continuous supply of 1 to 2 family homes with soft water.

The water softener softliQ:SC23 is designed for the continuous supply of 3 to 5 family homes with soft water.

Function

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

Based on the consumption values of the past three days, the system capacity is automatically adjusted to the individual water consumption of the operator.

The water softener softliQ:SC can be operated in two different operating modes.

- Eco
Minimum energy input with normal consumption behaviour
- Power
Maximum output for the highest demands.

A regeneration is released daily, if at least 50 % of the current system capacity is used up. The point of regeneration automatically is placed in a time period where usually no water is consumed. The point 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 salt only as much as necessary is used. For hygienic reasons, the system releases a full regeneration after four days at the latest.

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

Design

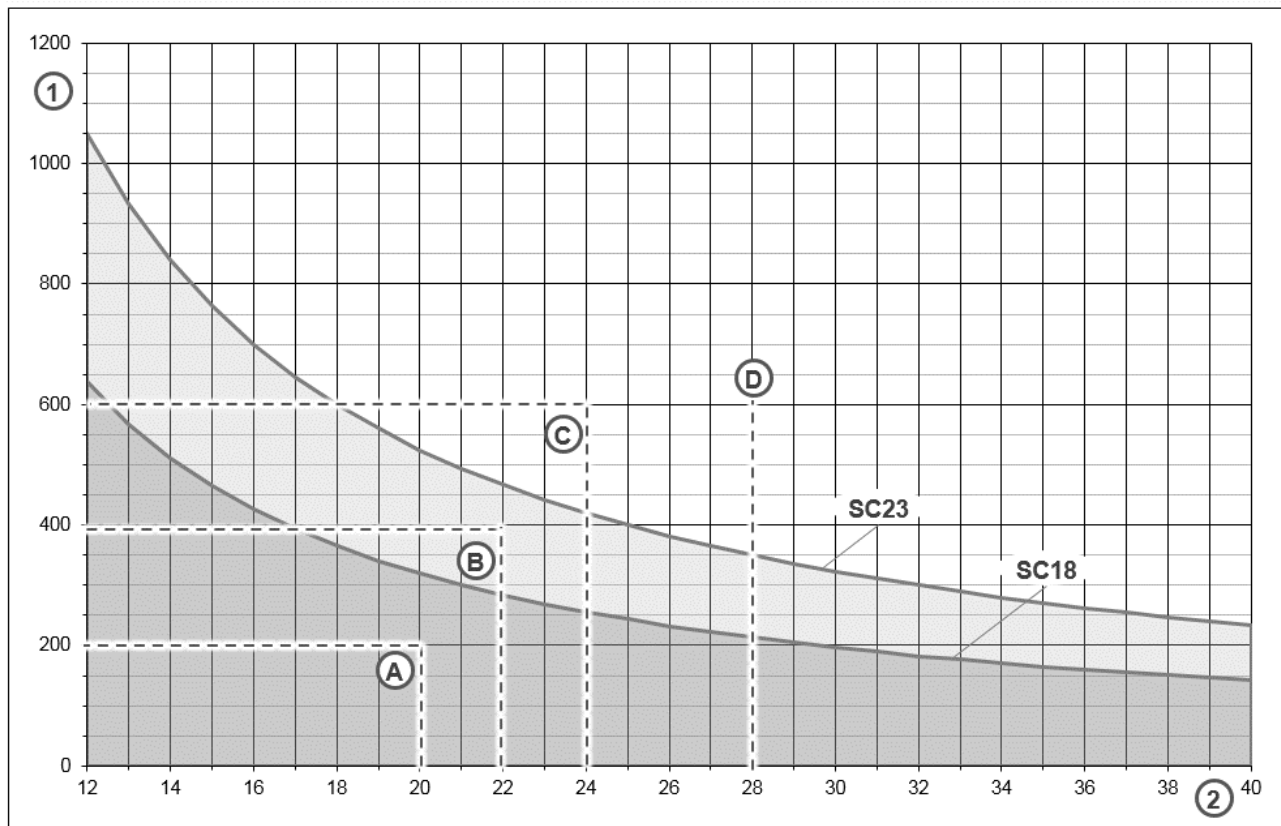
- Compact design requiring only little floor space and making optimum use of the space available
- Ergonomic system design for convenient operation
- Removable brine tank for hygienic and easy cleaning
- Integrated support tray to safely fill the brine tank
- Removable service lid for quick and convenient access to the control valve
- Lid of brine tank featuring a Soft-Close function for smooth closing

- Compact and easily accessible brine valve for easy maintenance
- Integrated safety float for increased protection in case of a power failure
- Exchanger with special distribution system for efficient salt utilisation
- Special ion exchanger resin to meet highest drinking water demands
- Glass beads for dead-leg-free water distribution
- Intelligent control unit for efficient operation
- 2.8" TFT colour display for clear signalling
- 4 capacitive keys, illuminated subject to the context, for straightforward operation
- Guided start-up program for an easy and safe start-up
- Programmable digital input
- Voltage-free fault signal contact to connect a delivery pump for regeneration water
- Wi-Fi interface for up-to-date display and operating options
- myGrünbeck app for convenient checks, operation and setting
- SC23: Green, illuminated LED ring for a visual signal during water treatment and fault signals
- SC23: Visual pre-alarm salt supply for timely feedback signal "Refill salt"

Scope of supply

- Water softener incl. connection equipment
- Water test kit "Total hardness"
- Operation manual

Range of application of softliQ:SC water softener



The diagram illustrates the operating range of the softliQ:SC water softener. The diagram applies for softening to a recommended soft water hardness of 3 - 5 °dH.

Starting from a raw water hardness of 28 °dH, softening to a soft water hardness of 3 - 5 °dH (position (D) in the diagram) requires taking into consideration the maximum admissible limit value for sodium (200 mg/l) as stipulated in the German Drinking Water Ordinance.

Should your raw water hardness exceed 28° dH, please contact your local Grünbeck partner who will find

an ideal solution together with you. For your local contact person, please go to www.gruenbeck.de.

The section highlighted in grey is the admissible operating range of the softliQ:SC water softeners. If the intersection of raw water hardness and water volume per year is located in the grey section, the softliQ:SC may be applied.

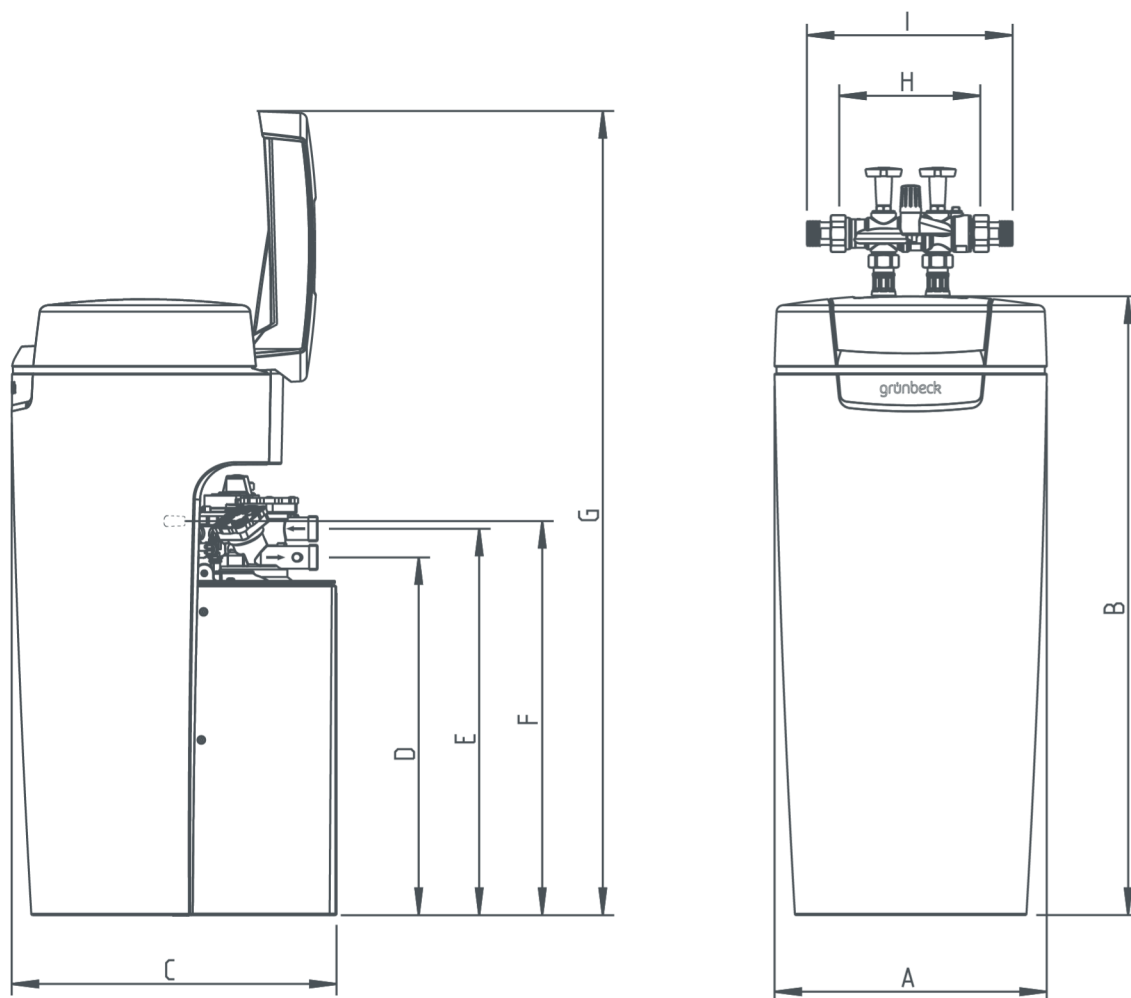
Example on how to read the diagram:

- Raw water hardness 20 °dH, water consumption of 200 m³

per year
→Position (A) in the diagram, softliQ:SC18 may be applied

- Raw water hardness 22 °dH, water consumption of 400 m³ per year
→Position (B) in the diagram, softliQ:SC23 may be applied
- Raw water hardness 24 °dH, water consumption of 600 m³ per year
→Position (C) in the diagram, we recommend to use the water softener softliQ:MC

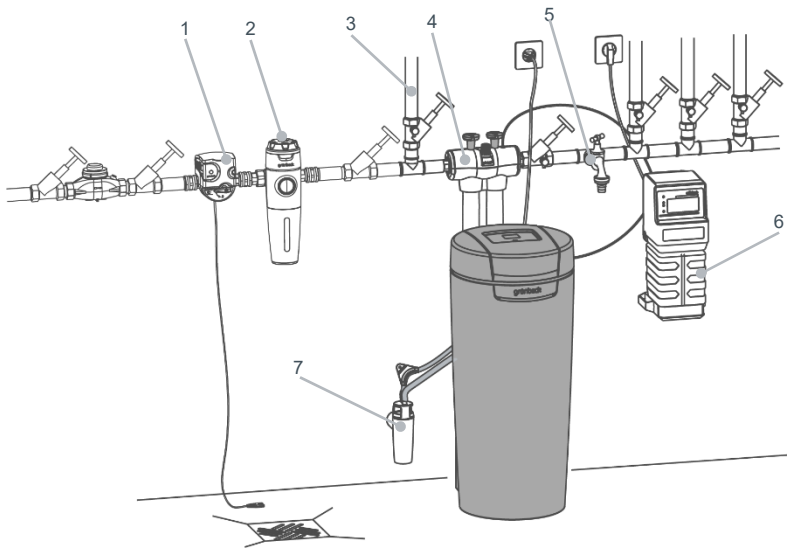
Technical specifications I



Dimensions and weights		SC18	SC23	
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	73
	Shipping weight, approx.	[kg]	22	26

Technical specifications II

Connection data		SC18	SC23
Nominal connection diameter		DN 25 (1" male thread)	
Min. drain connection		DN 50	
Rated voltage range	[V]	100 – 250 ~	
Rated frequency	[Hz]	50 – 60	
Rated consumption (during regeneration, temporarily)	[W]	8	13
Power consumption during softening, with display, Wi-Fi and LED illuminated ring switched off (illuminated LED ring for softliQ:SC23 only)	[W]	< 1	
Protection/protection class		IP 54/II	
Performance data			
Nominal pressure		PN 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 2.3
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 3.8
Nominal capacity variable		[m ³ x °dH]	6 – 14 11 – 23
		[m ³ x °f]	11 – 25 20 – 41
		[mol]	1.1 – 2.5 2.0 – 4.1
Capacity per kg of regeneration salt		[mol/kg]	6.7 - 4.5 7.3 - 4.5
Duration of regeneration for a full regeneration		[min.]	25 - 45
Regeneration (1x per day) in case of reduction in capacity		[%]	> 40
Filling volumes and consumption data			
Resin quantity		[l]	5 9
Salt consumption per full regeneration		[kg]	0.15 - 0.55 0.27 - 0.95
Max. capacity of brine tank		[kg]	35
Salt consumption per m ³ and °dH per m ³ and °f per m ³ and mol		[kg/m ³ x °dH]	0.025 – 0.039
		[kg/m ³ x °f]	0.014 – 0.022
		[kg/mol]	0.140 – 0.221
Max. flushing water flow		[m ³ /h]	0.3 0.6
Total waste water volume per full regeneration		[l]	18 - 28 32 - 49
Waste water volume per m ³ and °dH per m ³ and °f per m ³ and mol		[l/m ³ x °dH]	3.0 – 2.0
		[l/m ³ x °f]	1.6 – 1.1
		[l/mol]	16 – 11
General			
Suitable for homes of ... families (up to ... people)		1 - 2 (5)	3 - 5 (12)
Max. water temperature		[°C]	30
Ambient temperature		[°C]	5 - 40
Max. humidity of air (non-condensing)		[%]	90
DVGW registration number		NW-9151CQ0029	
SVGW certificate number		1502-6360	
Order no.		188 500	188 550



- 1) Safety device protectliQ
- 2) Drinking water filter pureliQ
- 3) Garden water pipe
- 4) Insulation set softliQ:SC
- 5) Water withdrawal point
- 6) EXADOS dosing computer
- 7) Drain connection DN 50 acc. to DIN EN 1717 for small-scale water softeners

Installation requirements

Please observe local installation directives, general guidelines and technical specifications.

The installation site must be frost-proof and ensure the system's protection from chemicals, dyes, solvents and vapours.

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

A shock-proof socket is required within a range of approx. 1.2 m of the system.

For the discharge of the regeneration water, a drain connection must be available.

In case the rinsing water is directed to a lifting system, make sure that said device is salt water proof.

The installation room must have a floor drain. If no floor drain is available, an appropriate safety device (e. g. protectliQ) has to be installed.

Downstream of the system, a cold water withdrawal must be available in close proximity.

If the softened water is intended for human consumption in the sense of 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.

Accessories

Dosing computer
EXADOS EK 6 - softliQ
Order no. 115 470

Dosing computer
EXADOS ES 6 - softliQ
Order no. 115 480

Electronically activated dosing technology for corrosion protection in case of a negative saturation index or for hardness stabilisation.

Safety device
protectliQ:A20
Order no. 126 400

Product for protection 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 regeneration water into drain pipes located at a higher level.

Drain connection DN 50
Order no. 188 875

For professional installation acc. to DIN EN 1717

Insulation set softliQ:SC
Order no. 188 870

For professional insulation of the connection equipment.

Extension set 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. for a separate pipe for technical applications, etc.).

Consumables

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

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

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