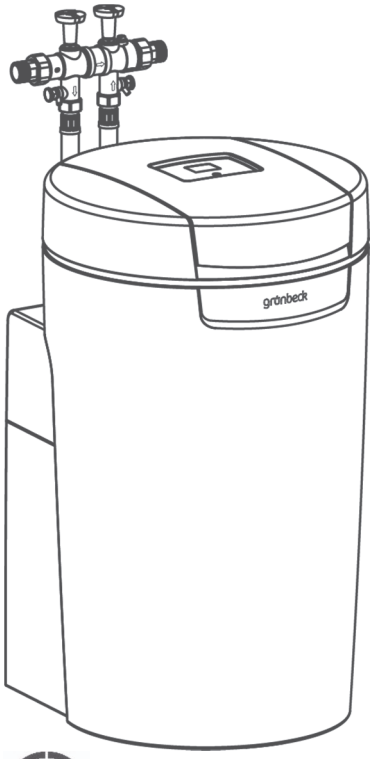


Water softener softliQ:MC

Intended use

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

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

The water softener softliQ:MC is designed for the continuous supply of 1- to 8-family homes with soft water.

Function

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

Based on the consumption of the past four weeks, the system capacity is automatically adapted to the individual water consumption of the operator for every day of the week.

The softliQ:MC water softener can be operated in four different modes.

- Eco
  Minimum use of energy for normal consumption pattern.
- Power
  Maximum performance for highest demands.
- Comfort (factory-setting)
  Optimum use of energy and system output.
- Individual
  To enter your individual user profile.

A regeneration can either be initiated manually by the operator at any time, timer-controlled at up to three configurable times per day or automatically during a time of low withdrawal. Depending on the residual capacity of the exchanger tanks (< 60 %), a partial or a complete regeneration takes place.

Thanks to this mode of operation, soft water is available to the system operator at all times.

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

If no regeneration has taken place for more than 96 hours (four days), a regeneration is performed automatically as stipulated by DIN 19636-100.

Design

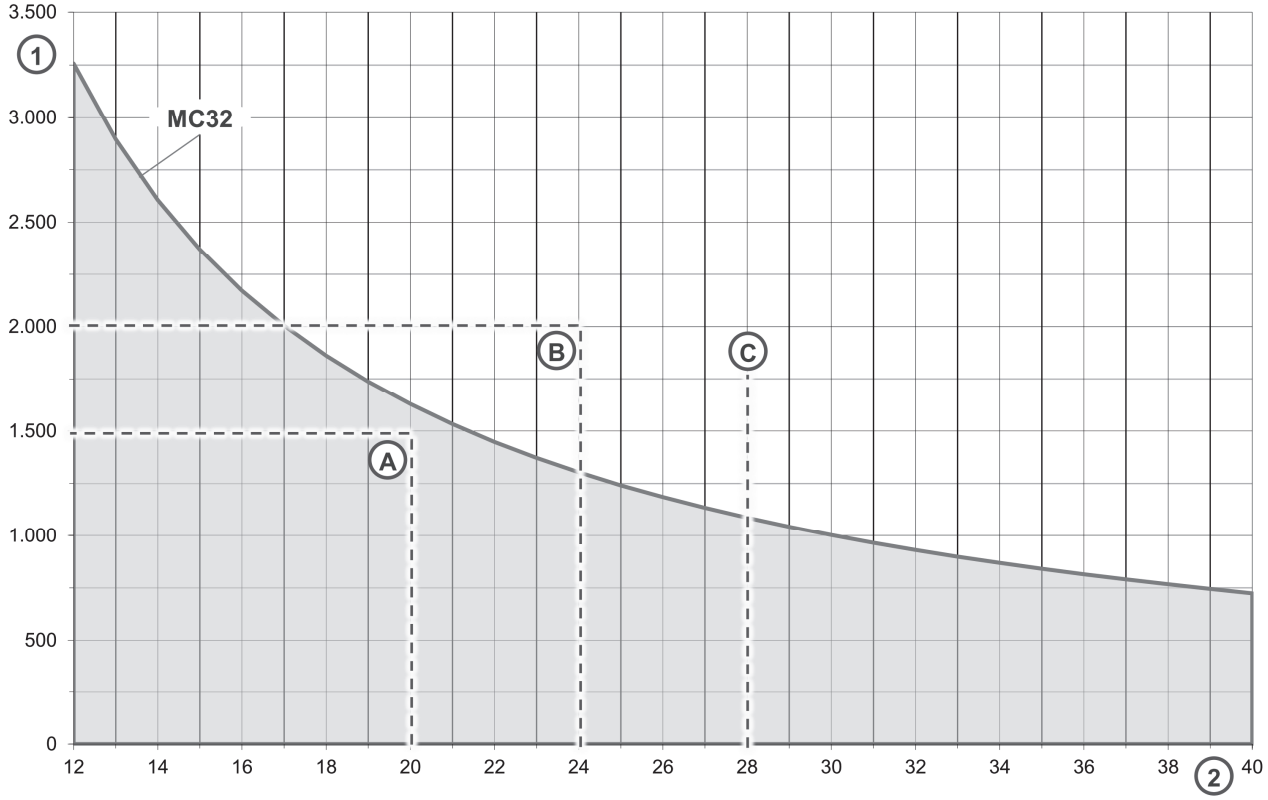
- Compact design requiring little space
- Ergonomic system design for convenient operation
- Integrated support tray to safely fill up to 95 kg of regeneration salt into the brine tank
- Brine tank lid with Soft-Close function for smooth closing
- Removable brine tank for hygienic and easy cleaning
- Compact and easily accessibly brine valve for easy maintenance
- Safety float for increased protection in case of power failure
- Easy to open housing to access the technical system equipment.
- Exchanger with special distribution system for efficient salt utilisation
- Electronically controlled blending unit to regulate the soft water hardness
- Special ion exchanger resin for drinking water
- Intelligent control unit with TFT colour display
- Easy operation by means of four illuminated buttons
- Guided start-up program for easy and safe start-up
- Programmable digital input to integrate the GENO-STOP® safety device into the control unit

- Voltage-free fault signal contact to connect a delivery pump for regeneration water
- Wi-Fi interface for up-to-date display and operating options
- Green, illuminated LED ring to visually signal water treatment and fault indications.
- Automatic reminder to refill salt and low-salt alarm
- myGrünbeck app for convenient checks, operation and adjustment

Scope of supply

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

Range of application of the softliQ:MC water softener



① Water volume in m³ per year

② Raw water hardness in °dH

The chart indicates the operating range of the softliQ:MC water softener. The chart applies to softening to a recommended soft water hardness of 3 - 5 °dH.

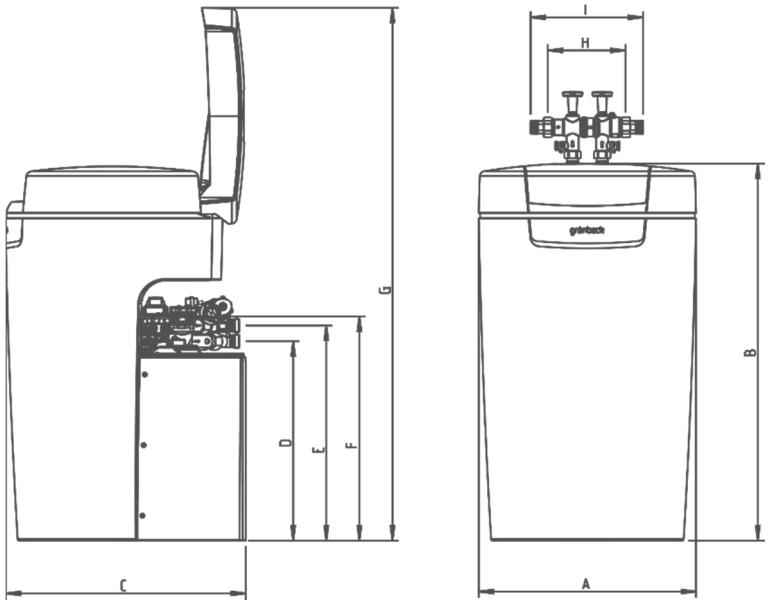
Starting from a raw water hardness of 28 °dH, the maximum limit value for sodium (200 mg/l) stipulated in the German Drinking Water Ordinance has to be taken into consideration when softening to a soft water hardness of 3 - 5 °dH (position (C) in the chart). Should your raw water hardness exceed 28 °dH, please contact your local Grünbeck partner. Working with you, he will identify the perfect solution to your requirements. To find your local Grünbeck partner go to www.gruenbeck.com.

The area marked in grey represents the admissible operating range of the softliQ:MC water softener. If the intersection point of raw water hardness and water volume required per year is located in the grey area, the softliQ:MC water softener may be applied.

Example how to do the reading:

- Raw water hardness 20 °dH, water consumption 1,500 m³ per year
  → Position (A) in the chart, the softliQ:MC32 may be applied
- Raw water hardness 24 °dH, water consumption 2,000 m³ per year
  → Position (B) in the chart, the softliQ:MC32 cannot be applied

Technical specifications I

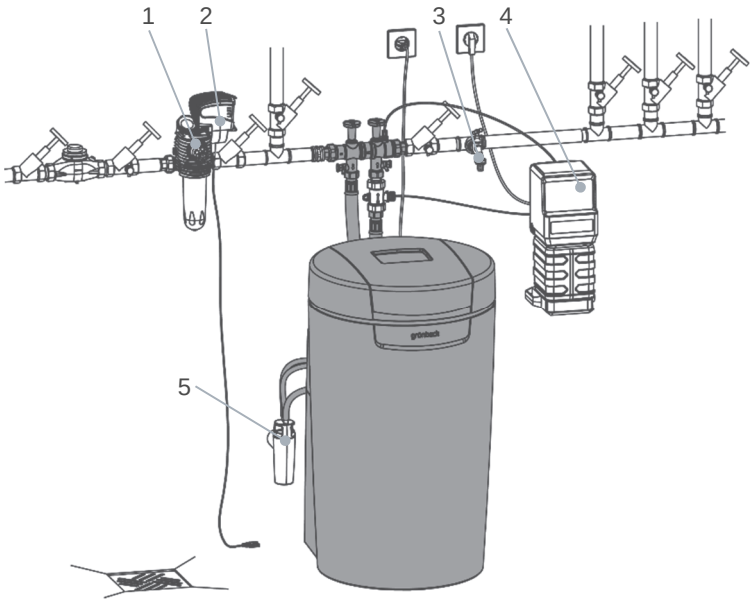


Dimensions and weights		MC32
A System width	[mm]	525
B System height	[mm]	912
C System depth	[mm]	580
D Connection height of control valve (soft water)	[mm]	480
E Connection height of control valve (raw water)	[mm]	518
F Height of safety overflow of brine tank	[mm]	540
G Height with open lid	[mm]	1290
H Installation length without screw connection	[mm]	190
I Installation length with screw connection	[mm]	271
Operating weight, approx.	[kg]	130
Shipping weight, approx.	[kg]	41

Technical specifications II

Connection data		**MC32**
Nominal connection diameter		DN 25 (1" male thread)
Min. drain connection		DN 50
Power supply	[V]/[Hz]	85 - 265/50 - 60 (system operation with protective low voltage)
Connected load (operation = max. / standby[1)])	[W]	14 /< 1.8
Protection/protection class		IP 54/II
Performance data		**MC32**
Nominal pressure		PN 10
Min./max. operating pressure (recommended)	[bar]	2.0/8.0 (4.0)
Nominal flow while blending is closed, at a pressure loss of 1.0 bar [m³/h], as per DIN EN 14743	[m³/h]	3.2
Nominal flow with blending open, 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]	4.3
Variable nominal capacity (both exchangers)	[m³ x °dH] [m³ x °f] [mol]	12 – 28 22 – 50 2.2 – 5.0
Variable nominal capacity (per exchanger)	[m³ x °dH] [m³ x °f] [mol]	6 – 14 11 – 25 1.1 – 2.5
Capacity per kg of regeneration salt	[mol/kg]	7.3 - 4.4
Regeneration time for complete regeneration (both exchangers)	[min.]	50 - 90
Regeneration in case of capacity decrease (with adapted brine volume)	[%]	> 40
Filling volumes and consumption data		**MC32**
Resin volume	[l]	2 x 5
Salt consumption per complete regeneration (both exchangers)	[kg]	0.3 - 1.1
Max. capacity of brine tank	[kg]	95
Salt consumption per m³ and °dH per m³ and °f per m³ and mol	 [kg/m³ x °dH] [kg/m³ x °f] [kg/mol]	 0.025 – 0.039 0.014 – 0.022 0.140 – 0.221
Max. flushing water flow	[m³/h]	0.3
Flushing time	[min.]	2
Total waste water volume per complete regeneration (both exchangers)	[l]	36 - 56
Waste water volume per m³ and °dH (complete regeneration) per m³ and °f (complete regeneration per m³ and mol (complete regeneration)	 [l/m³ x °dH] [l/m³ x °f] [l/mol]	 3.0 – 2.0 1.6 – 1.1 16 – 11
General		**MC32**
Suitable for homes of ... families (up to ... people)		1 - 8 (20)
Max. water temperature	[°C]	30
Ambient temperature	[°C]	5 - 40
Max. humidity of air (non-condensing)	[%]	90
DVGW registration number		NW-9151CR0031
SVGW certificate number		1603-6477
Order no.		**187 120**

[1)] In case display, Wi-Fi and illuminated LED ring are switched off



1) Drinking water filter BOXER® KD
2) GENO-STOP® safety device
3) Water withdrawal point
4) EXADOS® dosing computer
5) Drain connection DN 50 acc. to DIN EN 1717

Installation requirements

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. BOXER® KD) 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.

The softliQ:MC can be operated without a lifting system, if the drain is located no more than 2.2 m above the floor and the pressure of the flowing water is at least 3.0 bar. In this case the regeneration times of the exchanger tanks will be longer.

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. GENO-STOP®) has to be installed.

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:MC
Order no. 115 570

Dosing computer
EXADOS® ES 6 softliQ:MC
Order no. 115 580

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

GENO-STOP® 1“
Order no. 126 875

Safety device for reliable and overall protection against water damage.

Fault indicator for GENO-STOP® 1“
Order no. 126 170

Required to transfer the fault signal from the GENO-STOP® to the softliQ system and to dispatch emails.

Delivery pump for regeneration water
Order no. 188 800

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

Drain connection DN 50
Order no. 188 880

For professional installation acc. to DIN EN 1717

Extension set 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.

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

Grünbeck Wasseraufbereitung GmbH
Josef-Grünbeck-Str. 1
89420 Hoechstaedt/Germany

Phone +49 9074 41-0
Fax +49 9074 41-100

info@gruenbeck.com
www.gruenbeck.com