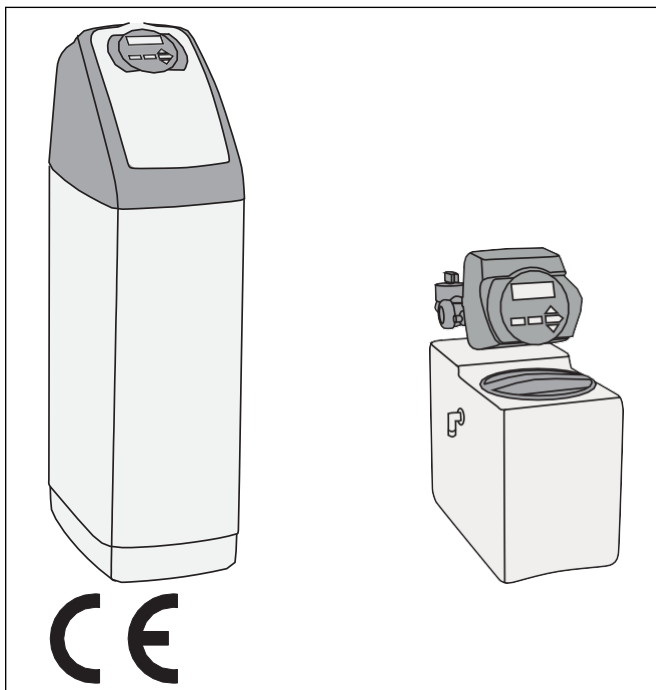




Braukmann KS20S

KaltecSoft Evolution
Softening device

Product Specification Sheet



Construction

The softening device consists of:

- Housing
- Microprocessor
- Control panel with status indicator
- Bottle with monodisperse ion exchanger
- Bypass valve including blending functionality in the valve block
- External transformer
- Disinfection unit
- Reinforced hose with integrated check valve
- Pipe for drain water and regeneration water
- Total hardness testkit incorporated in the packaging

Materials

- High quality synthetic material housing
- All components subject to pressure in glass-fibre-reinforced plastics
- All components to brine in noryl

Application

Calcium carbonate dissolved in water is a valuable mineral but may create serious problems to private households as soon as the water is heated. A solid layer of lime scale, is formed preferably on hot surfaces. This scale lowers the heat efficiency of water heaters and boilers and reduces the life time of expensive appliances connected to the water supply. KaltecSoft is designed to provide a cost efficient solution to protect your water installations.

KaltecSoft combines the proven ion exchange technology with a state-of-the-art control valve. Regeneration is volume controlled to ensure minimum consumption of water and salt. Available in four different sizes KaltecSoft is easy to install and simple to operate.

Special Features

- Proportional salting - Before each regeneration, the device checks the consumed amount of water and regenerates proportionally to the water consumption
- Automatic capacity adjustment
- Compliant with the requirements of the DM174 regulation
- Simple operation
- Easy installation

Range of Application

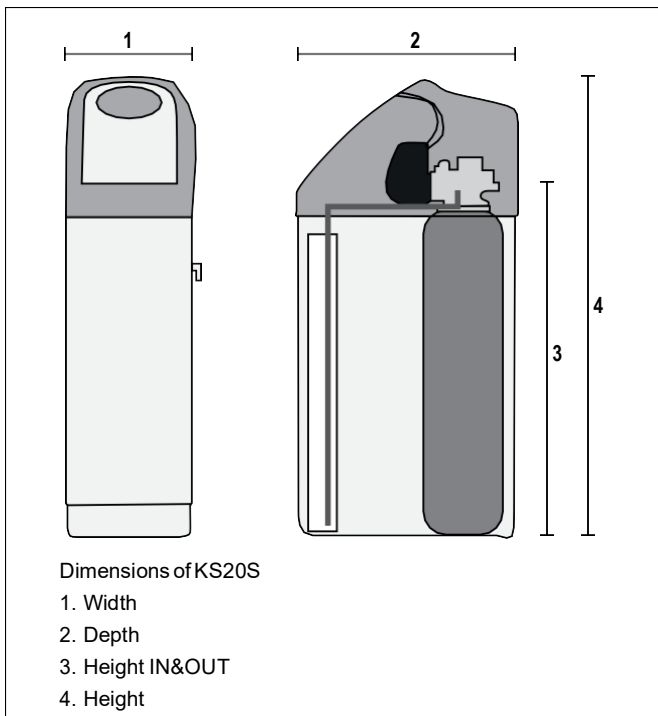
Medium Drinking water
Ambient temperature 2-40 °C
Nominal pressure PN 10

Technical Data

Water temperature 5-35 °C
Opening pressure 1.3 - 10 bar
Pressure loss during max. flow rate 2.0 bar
Mains voltage (ext. transformer) 230 V / 50 Hz
Micro fuse 24 V / 50 Hz
Power consumption 6 W
Protective class IP 51
Connection size 1" internal thread
Connection water 1/2" hose nozzle output

The plant is designed for operation with salt tablets (acc. DIN EN 19604).

Method of Operation



The softening device is controlled by a highly modern microprocessor. Using the integrated consumption counter the microprocessor calculates the individual consumption characteristics and the remaining capacities resulting thereof as well as the optimal time for the regeneration.

Regeneration

The regeneration is done in 4-day intervals, i.e. at the latest 4 days after the last regeneration the next regeneration is initiated (independent of the water consumption). If 97% of the calculated capacity has been exhausted a regeneration is initiated independently of the 4-day interval. During the regeneration, untreated water can be taken out.

Disinfection

The softening device is equipped with a disinfection unit that disinfects all drinking water porting parts of the softening device during each regeneration.

Clean-Feature of KS20S

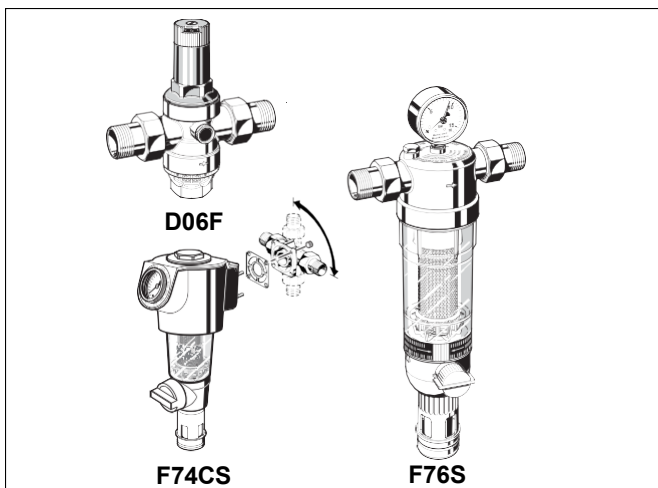
In this cleaning function, a backflow takes place first with a fast rinse cycle before the normal regeneration begins. This is needed especially for water that contains iron and/or a high content of sediments (sand, soil, dirt, etc.).

Applications recommended by Resideo

Type	Size	Resideo recommendations
KS20S-15	5 liters	1 point-of-use application (e.g. one sink)
KS20S-45	14 liters	1-4 family dwelling
KS20S-55	18 liters	3-8 family dwelling
KS20S-85	25 liters	6-21 family dwelling

Option	KS20S-15	KS20S-45	KS20S-55	KS20S-85
Connection size	1" ext	1" ext	1" ext	1" ext
Weight [kg]	14	27	36	45
Dimensions [mm]				
Width	230	320	320	320
Depth	430	530	530	530
Height IN&OUT	380	500	820	360
Height	530	730	1.070	1.190
Max. flow rate [m ³ /h]	0,4	1,7	1,7	2,3
Volume of ion exchanger	5 liter	14 liter	18 liter	25 liter
Exchange capacity	15° Fxm3/8° dHxm3	83° Fxm3/47° dHxm3	104° Fxm3/58° dHxm3	161° Fxm3/90° dHxm3
Salt Consumption	0,5 kg salt/regeneration	1,8 kg salt/regeneration	2,2 kg salt/regeneration	3,4 kg salt/regeneration
Water Consumption during the regeneration	40 liter	85 liter	85 liter	120 liter

Accessories



D06F Pressure reducing valve

Noise protected pressure reducing valve with setting scale. Maximum inlet pressure 16 bar, with brass filter bowl 25 bar, outlet pressure range 1.5 - 6.0 bar
 A = With clear filter bowl up to 40 °C / 16 bar
 B = With brass filter bowl up to 70 °C / 25 bar

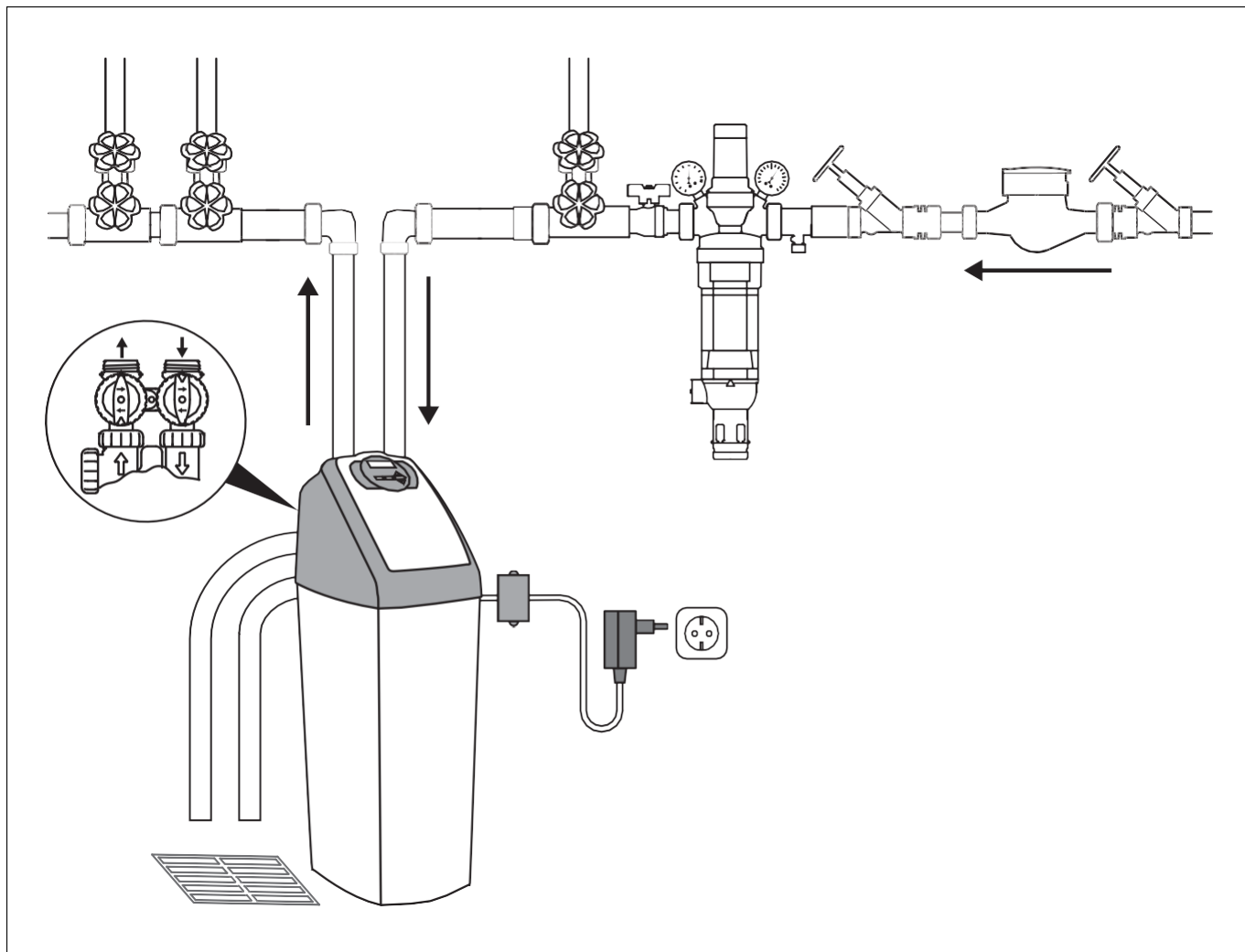
F74CS Primus Plus filter, reverse rinsable

Reverse rinsing fine filter

F76S Fine filter, reverse rinsable

AA= With clear filter bowl
 AAM= With red bronze filter bowl

Installation Example



Installation Guidelines

- All works should only be carried out by a qualified installer.
- Ensure that installation is not subject to freezing or extreme heat.
- Avoid direct exposure to sunlight.
- The softening device should rest on an even surface.
- If the input pressure is more than 5 bar, then a pressure reducer needs to be installed ahead of the softening device according to DIN 1988.
- It should be checked whether a dosing device to prevent corrosion should be added to the plant.
- A filter (e.g. F76S) should be installed no more than 1 meter ahead in flow direction of the softening device to protect the plant.
- The following is needed for operation in the close vicinity of the device:
 - a channel interface (at least DN50)
 - separate mains connection (230 V / 50Hz)
 - floor drain

Maintenance

The maintenance of the softening device KS20S should be performed in two different intervals of 2 and 6 years. The sets of spare parts for the 2 years interval maintenance differ from the size of the KS20S softener. The set of the spare parts for the 6 years interval maintenance is the same for all KS20S softeners.

Typical Applications

KaltecSoft can be fitted wherever limescale needs to be efficiently inhibited.

KaltecSoft can be installed:

- After water meter and filter
- In the cold water feed for a central water boiler

Spare Parts

Sets for maintenance every 2 years

Description	Dimension	Part No.
For KS20S-15		
Injector Asy A Black		EK20S-215A
DLFC 013	1,3 gpm for 3/4"	
Refill Flow Control	0.5 gpm"	
For KS20S-45		
Injector Asy A Brown		EK20S-245A
DLFC 027	2,7 gpm for 3/4"	
Refill Flow Control	0.5 gpm"	
For KS20S-55		
Injector Asy A Violet		EK20S-255A
DLFC 017	1,7 gpm for 3/4"	
Refill Flow Control	0.5 gpm"	
For KS20S-85		
Injector Asy A Red		EK20S-285A
DLFC 022	2,2 gpm for 3/4"	
Refill Flow Control	0.5 gpm"	

Sets for maintenance every 6 years

Description	Part No.
For KS20S-15/45/55/85	
Spacer Stack Asy	EK20S-6UA
Piston Upflow Asy	
Regenerant Piston	
Chlorinator	