

Fig. 1: Mobile water softener MEH

### Function

The mobile water softener MEH is a high-quality ion exchanger system for the softening of drinking water. This plastic version is resistant to pressure up to 10 bar and can be used for the treatment of raw water that has drinking water quality according to the German Drinking Water Ordinance (TrinkwV). In nearly all areas of science and technology, water softeners are used to produce soft water. The mobile water softener MEH is designed in particular for the filling and refilling of heating water circuits.

The proper system function, the excellent water quality and the optimum capacity of the mobile water softener MEH is only given, if the exhausted ion exchanger resin is regenerated at regular intervals.

During the softening, all dissolved calcium resp. magnesium ions contained in the water are exchanged for sodium ions by means of ion exchange. The binding sites of the ion exchanger resin prefer calcium resp. magnesium ions and release sodium ions into the water (exchange reaction). This way, all substances causing hardness remain in the water softener. The resulting product is soft water enriched by sodium ions and the process continues until the sodium ions are used up.

### Regeneration

If the indicated softening capacity is reached, the ion exchanger resin must be regenerated again. The required stationary regeneration station MEH is also available (see accessories). The regeneration station MEH features a 5-cycle control valve made of red bronze and a timer-dependent control unit.

Controlled by the timer, the individual regeneration steps run automatically.

During the regeneration, the ion exchanger resin is restored to a fresh operating state by means of regeneration salt (sodium surplus) and then is once again ready for the ion exchange.

### Design

Pressure-resistant exchanger tank, filled with ion exchanger resin and distribution system for an optimum hydraulic flowthrough the system. Mounted on a coated steel pipe cart with pneumatic tires.

Flow stabiliser integrated in the cover, e.g. the water softener MEH cannot be overcharged.

Hose set GENO-therm® with two transition pieces for GEKA couplings.

Built-on deaeration valve and water meter in soft water outlet.

Provision for conditioning via 3/4" male thread.

### Scope of supply

Water softener MEH, ready for operation, mounted on a mobile steel pipe cart. Water test kit for total hardness, water meter, provision for conditioning and operation manual.

### Accessories

#### GENO-therm® filling device Basic

Consisting of: Dirt trap, shut-off flap, system separator acc. to DIN EN 1717, adjustable pressure reducer (0.2 - 4 bar), water meter, housing insulation and fastening material.

**Order no. 707 120**

#### Filling group

Consisting of: Dirt trap for coarse dirt, shut-off flap, system separator, pressure reducer, non-return valves.

**Order no. 707 700**

## Mobile water softener MEH

### Regeneration station for MEH

Drinking water filter BOXER® K 3/4", system separator GENO®-DK-2 Mini, central control valve, brine tank and operation manual.

**Order no. 707 240**

### Blending device GENO-therm®

Bypass valve to add raw water; by means of this fitting, the desired residual hardness can be set without difficulties.

**Order no. 707 056**

### Combined measuring device for pH and conductivity

Digital, combined measuring device to measure the pH value and the conductivity (temperature compensation up to 60 °C)

**Order no. 170 178**

### GENO-therm® analysis case

Consisting of: Combined measuring device to measure the pH value and the conductivity (temperature compensation up to 60 °C), calibrating solutions, water test kit for total hardness and molybdenum test kit.

**Order no. 707 190**

### GENO-therm® analysis case

Molybdenum test kit not included

**Order no. 707 192**

### GENO®-manual pump H

Filler pump for direct dosing of the agent from a canister, incl. 2 m pressure hose and 3/4" union nut

**Order no. 150 210**

### GENO-STOP® for ideal protection against water damage

The new safety device GENO-STOP® provides reliable and comprehensive protection against water damage. The GENO-STOP® may be equipped with up to 2 wired water sensors and with 5 wireless water sensors.

GENO-STOP® 1"

**Order no. 126 875**

- For additional versions, please inquire

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### Water softener HEH 9

Softening cartridge, filled with disposable ion exchanger resin to generate make-up water.

**Order no. 190 570**

### Refill of exchanger resin (4 litres)

Resin refill for water softener HEH 9

**Order no. 190 575**

### Installation requirements

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

The installation site must be frost-proof. The system must be protected from chemicals, dyes, solvents and vapours.

The ambient temperature as well as the radiation temperature next to the system must not exceed 40 °C. The installation room must have a floor drain. If no floor drain is available, a corresponding water stop device has to be installed. The raw water must comply with the stipulations of the applicable Drinking Water Ordinance.

According to DIN EN 1717 and DIN 1988-100, a system separator (e.g. GENO-therm® filling device Basic, GENO®-DK 2-Mini,) must be installed upstream of the mobile water softener MEH. By installing a drinking water filter (e. g. BOXER®) upstream of the mobile water softener MEH, the operating

safety of the ion exchanger resin is increased even more. Without additional conditioning (e. g. GENO®-safe A), the softened water is aggressive and disintegrates non-resistant materials. Therefore, all parts coming into contact with the treated water must be made of suitable materials. These can either be plastic materials or high-quality, stainless steel (e. g. 1.4571).



**Note:** For smaller capacities, we recommend the water softener HEH 9. For more details, please refer to the separate product data sheet H 68.

Technical specifications/Dimensions		Mobile heating filling system MEH
<b>Connection data</b>		
Connection thread		3/4"
Adapters		GEKA
<b>Performance data</b>		
Nominal pressure		PN 10
Min./max. flow pressure	[bar]	2.0/8.0
Nominal flow	[m³/h]	1.4
Nominal capacity	[mol]	26.6
	[m³x°dH]	149
	[m³x °f]	266
Capacity per kg of regeneration salt	[mol/kg]	3.2
Duration of regeneration	[min]	94
<b>Dimensions and weights</b>		
Exchanger tank Ø	[mm]	257
Operating weight, approx.	[kg]	100
<b>Filling volumes and consumption data</b>		
Resin quantity	[l]	40
Freeboard (resin in form of sodium ) approx.	[mm]	230
Salt consumption per regeneration approx.	[kg]	8.2
<b>Ambient data</b>		
Water temperature, min./max.	[°C]	5 - 40
Max. ambient temperature	[°C]	40
<b>Order no.</b>		<b>707 250</b>

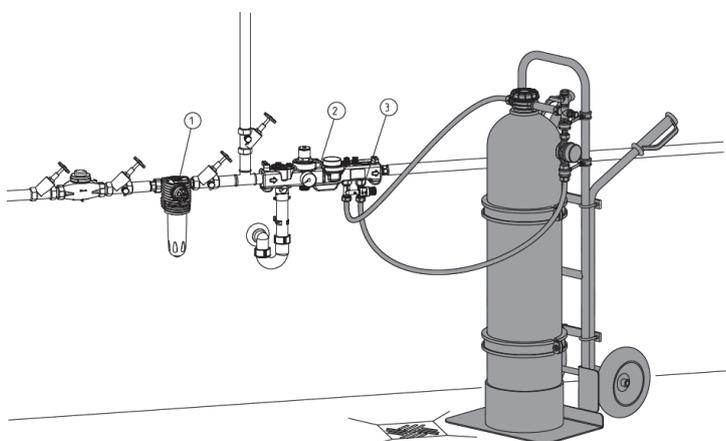


Fig. 2: Flow chart of mobile heating filling system MEH