Hartmann

accessories catalog
water treatment
2021

Hartmann GmbH
Frankenberger Straße 64
09661 Hainichen
Germany

phone: +49 37207 / 407-0
fax: +49 37207 / 407-20
mail: info@hartmann-gmbh.eu
web: www.hartmann-gmbh.eu

table of contents

ACCESSORIES PRETREATMENT

activated carbon

Activated carbon serves as a filter medium and is used in prefilters in reverse osmosis systems and ultrapure water systems. Activated carbon is used to free the process water from suspended matter, hydrocarbons and other compounds from organic chemistry, from pesticides, chlorine as well as odors and flavors. The activated carbon absorbs these substances through adsorption and must therefore be backwashed and cleaned regularly.

Alternatively, you can use exchangeable activated charcoal cartridges which do not require backwashing and which, depending on the frequency of use, can be easily and conveniently exchanged after 3 - 6 months. When using activated charcoal filters, we recommend the subsequent disinfection, which we also have in our product range.

filter fleece

Filter fleece is used as a filter insert or filter sleeve in centrifugal pre-filtration for filtering sediments. It consists of nylon mesh fabric and is available with a filter fineness of 1 to 300 µm. The 150 µm and 300 µm thick filter fleece is easy to replace and wash out. This filtration solution is therefore very resource-saving and extremely economical.

Compared to filter cartridges, filter fleeces can be transported and stored in a much more space-saving manner thanks to their compact dimensions.

Filtration fineness:		
	1 µm	
	5 µm	
	10 µm	
	25 µm	
	50 µm	
	100 µm	
	150 µm	washable nylon
	300 µm	washable nylon

ph stabilizers

The naturally occurring water is predominantly acidic with a pH value of less than 7, which is mainly caused by the pollution of the air with exhaust gases. We know this from „acid rain“, in which water reacts with CO2 to form carbonic acid. To protect instruments and systems, the pH value must be neutralized. Various steps in water treatment also require PH-neutral water, including, for example, the removal of iron or manganese.

Depending on the version, the PH-neutralizer granulate is based either on artificially produced calcium carbonate or on magnesium oxide.

For deacidification with calcium carbonate, artificially produced calcium carbonate (CaCO3) - also called hydro-calcite - is used, as this is more reactive than natural calcium carbonate. The aggressive carbonic acid is bound to equilibrium, but this requires a long exposure time. We therefore recommend this slow form of deacidification for small and only slightly acidic amounts of water.

Magnesium oxide (MgO) is insoluble in water, but it increases the rate of reaction of calcium carbonate. This results in a shorter exposure time, which results in a faster increase in the pH value. This deacidification option is our recommendation for larger or strongly acidic amounts of water.

ACCESSORIES SOFTENING

chlorine cell

The chlorine electrolysis cell is used for automatic disinfection during the regeneration of the softener resin. It is located within the softening system directly on the brine and is operated with electricity.

They work by using electrolysis to generate sodium hypochlorite from the sodium chloride in the regeneration salt, which is used to disinfect the resin. This is necessary because, for safety reasons, it is not possible to use chlorine gas to disinfect the resin bed.

The life of the chlorine cell is approx. 100 regenerations. According to DIN 1988, the chlorine cell must be changed annually.

hardness measuring instruments

Test kit hardness measuring equipment to be able to carry out a quick and inexpensive hardness analysis of the raw water as well as the treated water.

The test is carried out using a drop test. To do this, fill some water into the container provided and add a few drops of the measuring solution. The following color of the water shows the degree of hardness in ° dH (degree of German hardness).

salt tablets

Salt tablets are used to regenerate the ion exchange resin. When the resin has absorbed the calcium and magnesium ions from the water to be softened, it must be regenerated.

brine tank

Brine tanks are used in water softening systems to store salt, which is required for the regeneration of the filter medium.

We have brine tanks in sizes from 125 to 500 L.

ACCESSORIES AFTERTREATMENT

ion exchange resin

Desalination with the help of ion exchangers is one way of producing fully demineralized water (fully demineralized water). The process water flows through a synthetic resin granulate - the ion exchange resin, which removes the salts from the water and binds to the resin. The resin can be regenerated and can therefore be used several times.

The exchange of ions is an equilibrium reaction that takes place until the resin is saturated with the salts absorbed from the water. These salts then have to be rinsed out of the resin again. This happens with cation exchange resins with hydrochloric or sulfuric acid and with anion exchange resins with ammonia solution, caustic soda or sodium carbonate.

The mixed-bed ion exchangers we use contain both cation and anion exchange resins. The cations in the water are exchanged for hydrogen ions (H +), the anions for hydroxide ions (OH-), which react together again to form water.

replacement lamp

Replacement lamp for UV disinfection - very easy lamp replacement: a 5 degree turn is sufficient and the lamp can be removed.

technical specifications:

power:	25 - 90 W
weight:	4,1 - 7,6 kg

conductivity measuring module

The conductivity measuring module is used to monitor the conductivity of the water desalinated by ion exchangers.

It signals the salt content and thus the conductivity of the water by flashing three colored LEDs. It is battery operated (3 Li-Mn batteries) and therefore does not require any additional power supply. The module has a compact design and is screwed into the 3rd opening of the filter head of the ion exchanger.

technical specifications:

working pressure:	max. 6 bar
operating temperature:	max. 60 bar
case diameter x height:	40 x 35 mm
case material:	POM
connection thread:	3/4“ external thread
electrodes:	stainless steel 11.4404
measuring cell body:	POM

signaling the conductivity:

color of the led	**salinity**
green	< 20 µS/cm
yellow	20 - 50 µS/cm
red	> 50 µS/cm

OTHER ACCESSORIES

sewer hose

The waste water hose is required to drain residual liquid from the filter housing.

bypass valve

Our bypass valves are used at various points in water treatment. The valves are specially designed for use on softeners, iron and manganese filters, PH neutralizers and activated carbon filters.

What all bypass valves have in common is that they are used in parallel with a hydraulic component. The flow through this component can be throttled or even blocked completely, since this valve represents a “diversion”.

magnetic valve

Some components of the water treatment (e.g. water softeners, iron filters, PH neutralizers, sediment filters, activated carbon filters) have control outputs to which e.g. a solenoid valve can be connected. This can, for example, cause a change or diversion of the water cycle if a certain water quality is exceeded or not reached in order to react automatically to different conditions of the water quality.

We have solenoid valves for 1 „and 1.5“ connections.

filter key

The filter key is used to be able to dismantle the filter bowl from the filter in order to be able to change the filter cartridge comfortably.

Filter keys include accessories for our sediment filters, UV filters and activated carbon filters and for the fully demineralized water kit.

hopper

The filling funnel is used for the simple manual filling of filter columns with the filter medium, which is available in granulate form. We offer this accessory in sizes 2.5“ and 4“.

connection 1“

This pack of 2 connections is required for the assembly of the connection hose DN20 1“.

connection hose

Flexible and hard-wearing connection hose DN20 for the assembly of water treatment products, consisting of inner carrier material and stainless steel braiding

Diameter 1“

drain valve

Drain valve / ball valve for draining residual liquid from the filter housing.

double nipple with 0-rings

This double nipple is a double-sided connecting element and is intended for connecting two filter housings to one another. In this way, several filters can be connected in series and thus a higher filtration performance can be achieved.

version suitable for screw connection 3/4“

manometer

With the analog manometer, the water pressure in lines and housings can be monitored visually.

If a manometer is used at the inlet of a filter and another manometer is used at the outlet of the same filter, the differential pressure or the pressure reduction of the filter can be checked.

pressure range: 0 - 10 bar
connection: 1/8“

wall bracket

wall bracket 1070

wall bracket for attaching sediment filters and activated carbon filters to the wall;

material: plastic
model: simple

wall bracket 1071

wall bracket for attaching sediment filters to the wall;

material: plastic
model: double

wall bracket stainless steel 1330

corrosion-resistant wall bracket for attaching sediment filters to the wall;

material: stainless steel
model: simple

wall bracket A6010930

Wall bracket for attaching the deionized water kit to the wall;

material: Kunststoff
model: simple

mounting block

mounting block 1“

Mounting block as bypass and bypass valve ● In the event of repairs, the downstream components are supplied with water ● No separate bypass line required ● Cost savings ● Can be combined with softening systems

technical specifications:
model for diameter 1“
length: 166 mm
width: 176 mm

mounting block 1,5“

The assembly block is a bypass and blending valve. It enables the downstream components to continue to be supplied with water in the event of repairs. This eliminates the need for a separate bypass line, which saves costs.

In combination with water softening systems, raw water can be added again through the built-in blending, so that the desired residual hardness results.

technical specifications:
model for diameter 1,5“
length: 216 mm
width: 178 mm

demineralised water

Demineralized water according to ASTM Type III is specially purified water, which is almost free of minerals, lime and other impurities.

It is suitable for laboratory applications, vehicle batteries, as cooling or heating water, for steam irons and also as a cleaning agent. Demineralized water is therefore suitable for use in chemistry, biology and household.

PU: canister 5 L

Hartmann GmbH
Frankenberger Straße 64
09661 Hainichen
Germany

phone: +49 37207 / 407-0
fax: +49 37207 / 407-20
mail: info@hartmann-gmbh.eu
web: www.hartmann-gmbh.eu

2021-07-08
subject to technical changes and errors

medical and laboratory technology
pure water treatment

accessories catalog
water treatment
2021