

ADSORBER HM1 Compact



Heavy Metal Adsorber for Cleaning and Rinsing Bath



The Adsorber HM1 Compact was developed for the adsorption of heavy metals from cleaning and rinsing media used in automated cleaning processes within the electronics manufacturing industry.

Concerns regarding the redeposition of heavy metals (e.g. copper or tin) on less noble metal and components or the development of local galvanic elements can now be avoided through a continuous adsorption process.

Contaminated waste water from the rinsing process can also be treated in accordance with the local requirements and regulations. Due to its compact size, the Adsorber HM1 Compact is particularly suitable for batch cleaning systems.

Technical Data

Filter length	mm	254 (10")
Outer diameter cartridge Ø	mm	64
Inner diameter cartridge Ø	mm	27
Volume	g	200
Supporting bodies and supporting cores	Material	Polypropylene
Casing	Material	Polyethylene
Seals	Material	EPDM
Recommended application temperature	°C / °F	20 – 70 / 68 – 158
Recommended flow rate	l/min	5 – 15
Recommended filter housing for the Adsorber HM1 Compact	10" filter housing without center post	Polyethylene or stainless steel with sealing for "double open end" (DOE) filter cartridge
Recommended operating time in the machine	Weeks	Approx. 1- 3
Approved for use with the following cleaning agents	VIGON® A 200, VIGON® A 201, VIGON® A 250, VIGON® US, VIGON® PE 180, VIGON® PE 190A, VIGON® PE 200, ATRON® AC 205	
The following metal ions can be removed by the Adsorber HM1 Compact	Copper, tin, lead, iron, cobalt, cadmium, zinc, nickel, mercury, antimony, bismuth	

Advantages of the Adsorber process

- Prevents recontamination of heavy metals on less noble metals or components.
- Fulfills legal waste water regulations regarding heavy metals in the disposal of the rinse bath.
- Extended bath life time due to lower heavy metal loading.
- Higher process reliability and improved stability of cleaning processes.
- Disposal method: cartridge can be disposed of locally and does not need to be returned to ZESTRON.

Product Features & Cleaning Standards



100% compliance with EU guidelines
(RoHS 1, 2 & 3, WEEE)

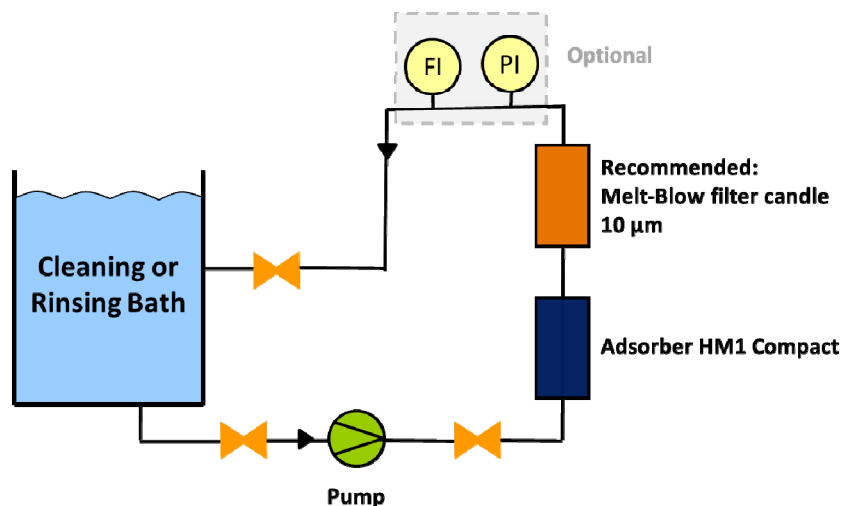


Product is free of any critical substances according to
SIN & SVHC lists

Area of application – Process set-up

The Adsorber HM1 Compact can either be installed in a bypass cycle or directly in the existing filter housing contained within the cleaning or rinsing cycle.

Process schemata in a bypass cycle:



Key:
FI= Flow indicator
PI= Pressure indicator

Availability, Storage & Disposal

1 cartridge	✓
3 cartridges	✓
8 cartridges	✓

- The product can be ordered in 1, 3, and 8 piece packages.
- Store Adsorber HM1 Compact in the original packaging at a temperature between 5 - 30°C / 41 - 86°F.
- The product has a minimum shelf life of 2 years in factory sealed packaging.
- Cartridges are not reusable. Please observe local disposal regulations when disposing the cartridge.

Further product information

Filter recommendation

We recommend applying a polypropylene or nylon (depending on the used cleaning agent) Melt-Blown candle filter (10 µm) downstream of the Adsorber HM1 Compact (reference diagram).

The Adsorber HM1 Compact requires a standard 10" filter housing: including a seal for filter cartridges, a "double open end" (DOE) structure, and without a center post. Possible suppliers: Schwegmann Filtration-Technik or Fuhr Filtertechnik.

Product life expectancy

The Adsorber lifetime is application dependent. Based on the heavy metal loading within the bath, the Adsorber may become saturated anywhere from several days to several weeks. In the case of a high heavy metal input we recommend the use of the Adsorber HM1 cartridge (26 liters).

Should you have any questions, please consult with ZESTRON's Tech Support: techsupport@zestron.com.

Environmental, health and safety regulations:

Given appropriate handling no additional precautionary steps are required.