

ADSORBER HM 1

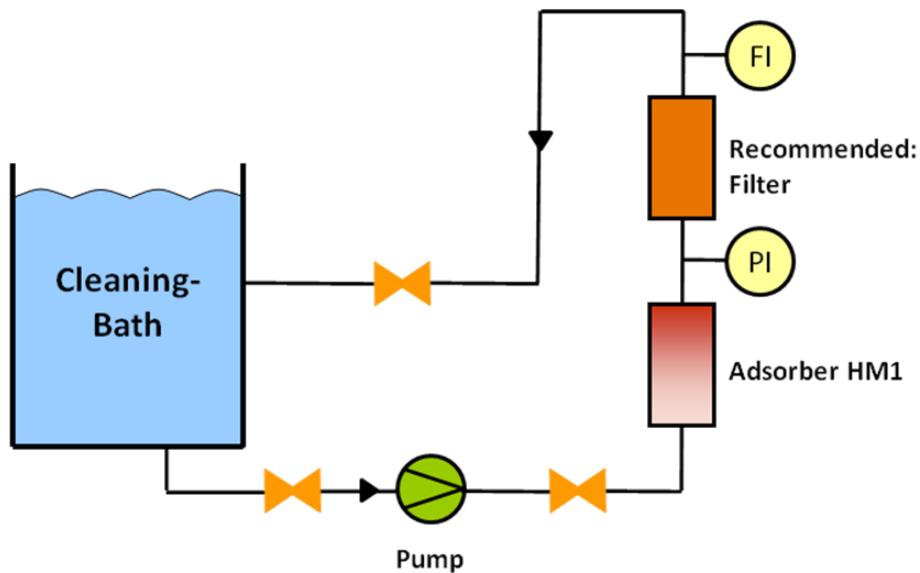
Heavy Metal Adsorber for Cleaning Baths



ZESTRON's Adsorber HM 1 was developed for the adsorption of heavy metals from cleaning media used in automated cleaning processes across the electronics manufacturing industry. Adsorber HM 1 can be fully regenerated and due to its constant adsorption rate, it enables a continuously high cleaning performance. Known concerns such as the recontamination of heavy metals on less noble metal and components or the development of local galvanic elements can now be circumvented. Another benefit of ZESTRON's Adsorber HM 1 is its ability to significantly reduce the drag-over of heavy metals into the rinse section of the cleaning process. This in turn helps in meeting stringent environmental regulations for the discharge of waste water streams.

Technical Data	
Density without media (g/ml)	0,75
Pressure loss factor (kPa x h/m)	0,81
Allowable pressure loss (kPa) / (psi)	320 /46.4
Application temperature (°C / °F)	20-80 / 68-176
Recommended pump characteristics (l/min / bar) / (gallon/min / psi)	80/0,7 / 21/10
Recommended flow rate FI (l/h) / (gallon/h)	300-400 / 80-105
Adapter thread Adsorber HM 1 cartridge (")	¾
Height of Adsorber HM 1 cartridge (mm)	700
Diameter of Adsorber HM 1 cartridge (mm)	240
Recommended filter cartridge (in ") i.e. "Cuno", "US Filter", etc.	9 ¾

Process set-up:



Advantages of the Adsorber process:

Due to the adsorption of heavy metals in cleaning baths the following process advantages can be achieved:

- A stable cleaning process with superior cleaning results is guaranteed
- No recontamination of heavy metals on less precious metals or components
- Adsorber HM 1 helps to meet the official waste water regulations by minimizing the drag over of heavy metals

Process recommendation – Cleaning step					
Agitation	Cleaning	Rinsing	Drying	Suitable Adsorber	Suitable Filter
Spray in air equipment	VIGON® A 200	DI-Water	Hot- or circulating air	Adsorber HM 1/ A 200	Polypropylen Melt-Blow candle filter, 10 µm
Spray in air equipment	VIGON® A 201			Adsorber HM 1/ A 201	
Spray in air equipment	VIGON® A 250			Adsorber HM 1/ A 250	
Spray under immersion or ultrasonic	VIGON® US			Adsorber HM 1/ US	
Spray in air, Spray under immersion or ultrasonic	VIGON® PE 200			Adsorber HM 1/ PE 200	
	VIGON® PE 190A			Adsorber HM 1/ PE 190A	
Spray in air equipment	VIGON® PM 105			Adsorber HM 1/ PM 105	
Spray under immersion or ultrasonic	ZESTRON® FA ⁺			Adsorber HM 1/FA ⁺	
Spray under immersion or ultrasonic	ZESTRON® LP ⁺			Adsorber HM 1/ LP ⁺	
Spray in air equipment	ATRON® AC 205	Adsorber HM 1/ AC 205			

Environmental, health and safety regulations:

Given appropriate handling no additional precautionary steps are required. However, direct contact with the contents of the adsorber is not recommended.

Adsorber lifetime and monitoring:

Depending on the loading of heavy metals in the bath the adsorber lifetime may vary between several weeks up to a couple of months. The cartridge must be sent to ZESTRON for maintenance at least once a year.

The adsorber lifetime can be easily monitored through commercially available and standardized test kits (i.e. Copper test Merckoquant® 1.10003). Should you have any question, please consult with ZESTRON's Application Technology Labs at: +49-841/635-140.

Storage:

Store Adsorber HM 1 in the original cartridge at a temperature between 5-40 °C (41-104 °F). The product has a minimum shelf life of 5 years in factory sealed cartridges with water-based cleaning agents and 2 years with solvent based cleaning agents.

Exchange cartridges:

Loaded cartridges can be returned to the manufacturer and can be replaced with fully regenerated ones.

Availability/Scope of supply

The Adsorber HM 1 can be used in cleaning steps with VIGON® A 200, VIGON® A 201, VIGON® A 250, VIGON® PE 200, VIGON® PE 190 A, VIGON® PM 105, VIGON® US, ATRON® AC 205, ZESTRON® FA⁺ and ZESTRON® LP⁺.



Part.-No.:	Product name	Comments: For the cleaning step
5030	Adsorber HM 1/A 200	For cleaning process with VIGON® A 200
5031	Adsorber HM 1/A 200 (Replacement cartridge)	For cleaning process with VIGON® A 200
5048	Adsorber HM 1/A 201	For cleaning process with VIGON® A 201
5049	Adsorber HM 1/A 201 (Replacement cartridge)	For cleaning process with VIGON® A 201
5040	Adsorber HM 1/A 250	For cleaning process with VIGON® A 250
5041	Adsorber HM 1/A 250 (Replacement cartridge)	For cleaning process with VIGON® A 250
5032	Adsorber HM 1/US	For cleaning process with VIGON® US
5033	Adsorber HM 1/US (Replacement cartridge)	For cleaning process with VIGON® US
5044	Adsorber HM 1/PE 200	For cleaning process with VIGON® PE 200
5045	Adsorber HM 1/PE 200 (Replacement cartridge)	For cleaning process with VIGON® PE 200
5046	Adsorber HM 1/PE 190A	For cleaning process with VIGON® PE 190 A
5047	Adsorber HM 1/PE 190A (Replacement cartridge)	For cleaning process with VIGON® PE 190 A
5038	Adsorber HM 1/PM 105	For cleaning process with VIGON® PM 105
5039	Adsorber HM 1/PM 105 (Replacement cartridge)	For cleaning process with VIGON® PM 105
5042	Adsorber HM 1/AC 205	For cleaning process with ATRON® AC 205
5043	Adsorber HM 1/AC 205 (Replacement cartridge)	For cleaning process with ATRON® AC 205
5034	Adsorber HM 1/FA ⁺	For cleaning process with ZESTRON® FA ⁺
5035	Adsorber HM 1/FA ⁺ (Replacement cartridge)	For cleaning process with ZESTRON® FA ⁺
5036	Adsorber HM 1/LP ⁺	For cleaning process with ZESTRON® LP ⁺
5037	Adsorber HM 1/LP ⁺ (Replacement cartridge)	For cleaning process with ZESTRON® LP ⁺

Initial implementation: With your first order, ZESTRON highly recommends to purchase the Adsorber HM 1 (ready to use 26L/6.8 gallons cartridges) along with a replacement cartridge.

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