

COMPACT FILTER FOR SELECTIVE HEAVY METAL REMOVING

series MH-04 - MH-30
efficiency 0,1 - 2,0 m³/h

Heavy metals are the elements, which mass density amounts to more than 4,5 g/cm³.

Heavy metals include:

- * Chromium - Cr
- * Zinc - Zn
- * Cadmium - Cd
- * Cobalt - Co
- * Manganese - Mn
- * Copper - Cu
- * Molybdenum - Mo
- * Nickel - Ni
- * Lead - Pb
- * Mercury - Hg
- * Selenium - Sn
- * Vanadium - V
- * Wolfram - W
- * Iron - Fe
- * Selenium - Sn



Some heavy metals, called microelements, are necessary for proper functioning of the living organisms, others do not have physiological role, but there are also metals and their compounds, which are redundant or even harmful for plants and human beings. Such metals are called toxic elements and compounds.

The amount of microelements in living organisms is usually trace, typical of each species. Deficiency or excess may harm the organisms.

The toxic metals contaminate the environment. The strongest toxic properties are shown by inorganic metal compounds, which easily dissolve and decompose, due to their abilities to permeate through cell membranes and penetrate bodily organs. They accumulate chiefly in kidneys, adrenal glands, liver, lungs, even in skin and hair. Such accumulation of toxic substances may lead to high blood pressure, cancer, kidney, liver or brain damage, or even mental aberration.

Heavy metals also contaminate the environment – soil, water, air and, directly or indirectly – together with food – get into human and animal organisms.

Our special filters, for removing heavy metals are used for some sewage sorts treatment, e.g. in electroplating plants. These systems are used in industrial plants, where heavy metal concentration exceeds acceptable level. Apart from these systems, selective ion exchange process may be conducted, as the standard water purification, supplement.

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Model		MH-04	MH-06	MH-11	MH-15	MH-20	MH-25	MH-30
Media	Cation exchanger quantity [L]	4	6	11	15	20	25	30
	Type [inch]	7 x 13	7 x 17	8 x 17	7 x 35	8 x 35	9 x 35	10 x 35
Valve type		255	255	255	255	255	255	255
Regenerant tank	Volume [L]	10	15	13	37	35	33	30
	Salt quantity [L]	6	8	17	24	22	19	17
Flow ^I	Minimal [m ³ /h]	0,1	0,15	0,2	0,4	0,5	0,6	0,7
	Nominal [m ³ /h]	0,2	0,4	0,5	0,7	0,9	1,0	1,1
	Maximal [m ³ /h]	0,4	0,9	1,2	1,5	1,7	1,8	2
Ion exchange capacity	Max [val]	8	12	16	30	40	50	60
	Min [val]	4,8	7,2	9,6	18	22	30	40
Regenerant consumption ^{II}	33% HCl [kg]	1,6	2,4	4,4	6,0	8	10,0	12
	33% NaOH [kg]	1,8	2,7	4,95	6,75	9	11,0	13,2
Water quantity in cycle ^{III}	Max [m ³]	2,6	4	5,3	10	14	16,6	19
	Min [m ³]	1,6	2,4	3,2	6	8	10	13
Backwash capacity ^{IV} [l/min.]		3,8	4,5	5,3	5,3	6,0	6,0	6,8
Recommended backwash time [min.]		10						
Spad Pressure drop [bar]		0,2			0,3			
Working pressure [bar]		1,8 - 8						
Feed water temperature [°C]		1 - 38						
Power supply [V]		12						
Water connection [inch]		1						
Dimensions	A [m]	0,40	0,67	0,67	1,12	1,12	1,12	1,12
	B [m]	0,40	0,40	0,40	0,40	0,40	0,40	0,40
	C [m]	0,30	0,30	0,30	0,30	0,30	0,30	0,30

Unit calculator:

3,8 liter/min = 1 GPM

1 inch = 2,54 cm

1 bar = 1 atm = 15 PSI

1 mval/liter = 5 °F = 2,8 °N = 50 mg CaCO₃/dm³

Explanations:

¹ for household purposes

² regeneration, II-stages: I - 10% HCl; II - 2% NaOH

³ for heavy metal contents of 3 mval/l. (np. Zn²⁺ = 100 mg/l.)

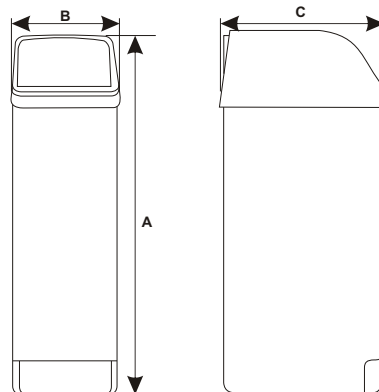
⁴ depending on water quality and flow

The components are TUV and PZH certified, conform to the EU directives



We also offer:

- Softeners and Iron Removers
- Special filters
- UV lamps
- Reverse osmosis
- Chemicals dosing systems
- Demineralizers
- Galvanic waters treatment



*Due to the fast technology development we reserve the right to change technical data without prior notice