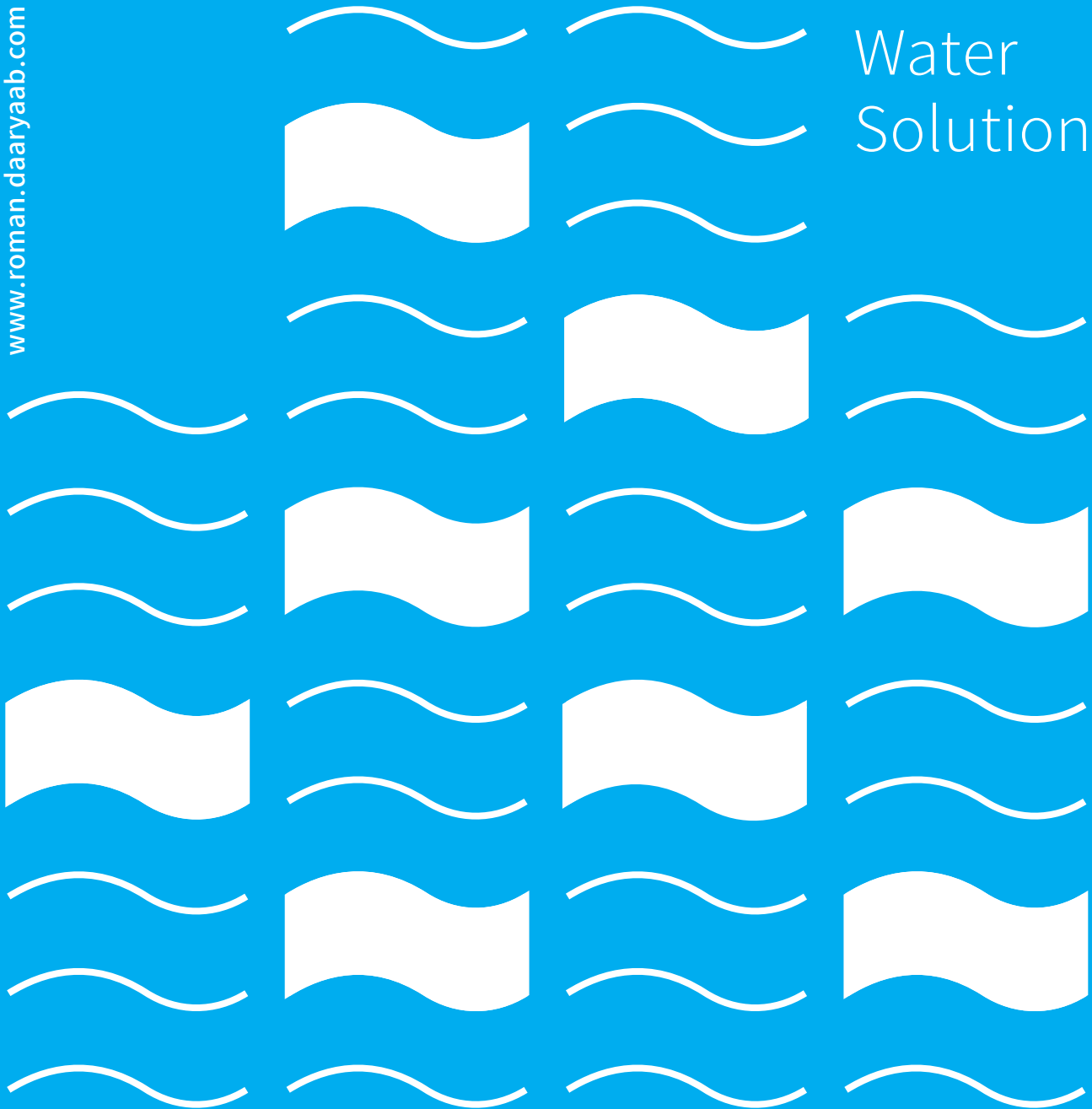


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Water
Solution



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Water solution

 Activated Carbon Filter
powered by **PACKMAN** industrial group



Activated Carbon Filter



Product Description

Activated Carbon Filter with a very porous structure and a very high specific surface is effective in removing a wide range of minerals, chromate, sulfide, chlorine and chloramines. This filter has an acceptable ability to remove color and odor. Another main use of this filter is to remove oil and grease from water. In case of not using sodium bisulfite solution, activated carbon can be used as a reverse osmosis pre-filter to prevent the attack of strong oxidants on the surface of the reverse osmosis membrane. These filters are used in preparation of facility water, industrial wastewater treatment and pre-treatment system, drinking water production, desalination pre-treatment system and also removing free chlorine from water. These filters are in form of vertical cylinders with two heads in different diameters and individually. The diameter of the fitting, quantity of nozzles and filtration velocity are the most important features of activated carbon filters.

The installed geyser on top of the activated carbon filter, uniformes the water flow and causes the water to pass through the activated carbon substrate in a balanced manner.

It should be noted that for the dimensions of filters, especially their diameter, the dimensions and sizes of the sand filters have been used, so the manufacturing process will not suffer any problems or changes.

Manufacturing Standards

ASME Sec VIII, Div. 1 is observed in construction of activated carbon filter tanks.

Torispherical / Elliptical Head

PACKMAN's Activated carbon filter's head is Torispherical or Elliptical. This type of head has a longer life and a higher pressure strength compared to other shapes with the same thickness. The production price per kilo of these heads is can reach to twice the price ratio of the usual heads on the market.

Welding Procedure

In the welding of Activated carbon filters, sub-powder welding machines of ISAB Sweden are used. After constructing the tank and welding the lugs, the



body of the tank is connected to the heads using a submerged welding method. The lower head is welded by protruding of 6-pass nozzle plates from inside and outside, which increases the life of the weld and the strength of the lower head (which supports all the weight of water and resin).

The heads are welded internally and externally, which increases their life & strength. In the root pass, the TIG, argon or other welding methods with the 6010 cellulose electrode is used. The EW7018 electrode is used in the fill pass. The submerged method with EW7018 electrodes is then used in the cover pass.

Water Collection Nozzles

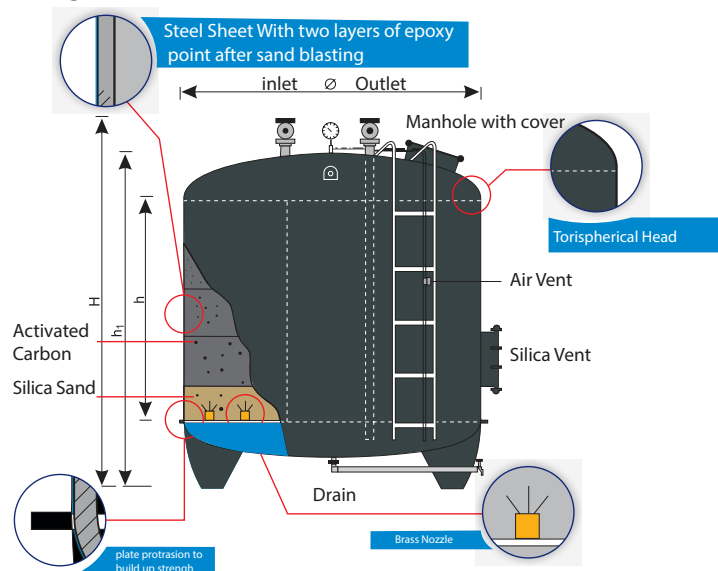
At the bottom of Packman's Activated carbon filters, there is a plate, on which nozzles are placed, which are responsible for collecting purified water. These nozzles are made of brass and about 50 nozzles are placed per square meter of the multimedia filter network surface, which makes the washing done optimally.

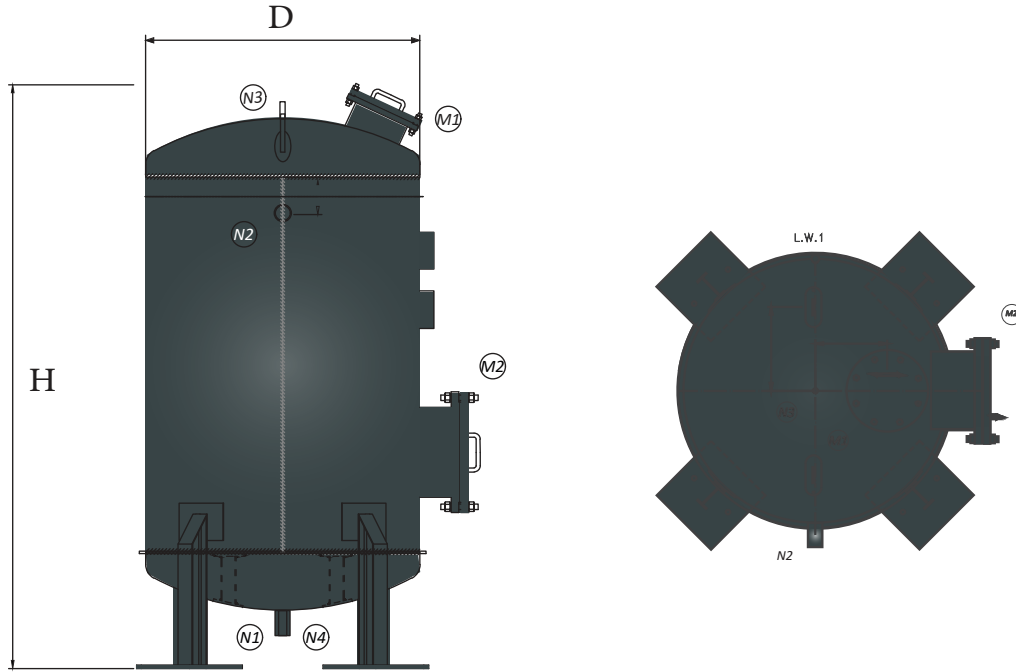
Covering Activated Carbon Filter

Activated carbon filter tanks are acid washed in preparation for paint. The outer coating of these filters is also made of special industrial paint and epoxy in three layers (thickness 275 microns) and 100 microns of color coating is applied from the inside.

Back Wash Piping

Packman's Activated carbon filters have a water return valve, and if backwash piping is needed, it is possible with a written request and re-inquiry.





Model	Unit	PCF -24	PCF -32	PCF -44	PCF -50	PCF -60	PCF -70	PCF -80	PCF -90	PCF -100	PCF -120	
Technical Data												
Capacity Based On Filtration Speed (m3/h)	15	m/h	4.3	7.6	14.3	18.5	26.5	36	47.2	59.7	73.6	106
	17	m/h	4.8	8.6	16.2	21	30	40.9	53.4	67.6	83.4	120.2
	20	m/h	5.6	10	19	24.6	35.4	48.1	62.9	79.5	98.2	141.4
Vessel water Pressure drop	bar	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Working water T emperature	°C	30	30	30	30	30	30	30	30	30	30	
Connectoins Size												
Inlet (N2)	in	1,1/4	1,1/2	2	2,1/2	3	4	5	5	5	6	
Outlet (N1)	in	1,1/4	1,1/2	2	2,1/2	3	4	5	5	5	6	
Man Hole (M2)	in	10	14	14	16	16	16	16	16	16	16	
Hand Hole (M1)	in	8	8	8	10	10	10	10	10	10	10	
Manometer (N3)	in	1/2	1/2	1/2	1/2	1,1/4	1/2	1/2	1/2	1/2	1/2	
Drain (N4)	in	1	1	1	1	1	2	2	2	2	2	
Vessel Dimensions												
Vessel Diameter (D)	mm	600	800	1,100	1,250	1,500	1,750	2,000	2,250	2,500	3,000	
Distance Of Head From Level (H)	mm	1,600	1,800	2,300	2,300	2,500	3,000	3,000	3,000	3,000	3,000	
Carbon Weight												
Carbon	Kg	50	100	200	300	400	500	600	800	900	1200	
Silica	Kg	200	350	700	900	1250	1750	2250	2750	3500	5000	

PACKMAN GROUP

History

The Packman Company was founded in February 1975, and was soon afterwards registered in companies Registration Office. In early years the Packman construction and service branch focused on building installations. Different mega power plants were built by cooperating with Brown Boveri and Asseck companies in 1976.

The company started its official activities in construction of High-Pressure Vessels such as Hot-Water Boilers, Steam Boilers , Storage Tanks, Softeners and Heat Exchangers from 1984.

Packman Company is one of the first companies which supplied the high quality and standard hot water boilers to the customers.

Packman has exported its products to countries such as Uzbekistan, United Arab Emirates and other countries in the Middle East. It is one of the largest producers of hot-water and steam boilers in the Middle East.

Now we are proud to announce that the Packman industrial group has five major sub-brands that have product titles in all field of HVAC equipment and engineering services, and we do not know this success except with the help and support of our customers.

1. Construction Services Industry Association
2. Industry Association
3. Construction Companies' Syndicate
4. Technical Department Association
5. Mechanical Engineering Association
6. Engineering Standard Association

Departements:

Sales Deps:

- ∩ Power Plant & Petrochemical
- ∩ Industrial
- ∩ Hospitally Service
- ∩ Commercial & Residential
- ∩ Sport Complex & Pool

Technical Deps:

- ≡ Manufacturing R&D
- ≡ Innovation Center
- ≡ EPC Execute Unit
- ≡ Product Develop Unit
- ≡ Sales Engineering Dep.

Others:

- ≈ After Sales Service
- ≈ Project Control
- ≈ Financial Office
- ≈ Commercial Office
- ≈ Marketing Department



PACKMAN GROUP Brands



PACKMAN
Industrial Group

Designer & manufacturer of Condensing, Hot Water, Steam, Hot Oil & Waste Heat Boilers, Heat Exchangers, Autoclave Pressure & Storage Vessels & etc



GREENMAN
Green mindset, green future

Engineering & Designing Commercial Greenhouse Plant, CO2 Dosing System, Flue gas Condenser & Special HVAC Systems, Sustainable Agriculture & etc



ROMAN
Water solution

Designer & manufacturer Reverse Osmosis Plant & Package, Water Treatment, Softener & Filters and Chemical Dosing Systems & etc



RAADMAN
a look to the future

Designer & manufacturer of Industrial Mono & Dual Block Gas, LPG, Light & Heavy Oil Burners, Premixed & Postmixed Burners, Watertube burners, Process burners, Special application burners & Combustion Solutions & etc



CHILLMAN
Coolest hvac around

Designer & manufacturer of Air & Water Cooled Chillers, Air Handling Units, Fancoil, HVAC Equipment, Cold Storage Room & etc



1. Isfahan Factory



2. Vilashahr Factory



3. Parand Factory



4. Parand (2) Factory



5. Bonyad Factory

SOME OF Certificates are



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