

# **Axon Marine Filter**

### We have the solution for washing boats when lifted

We can deliver a filter system that meets the new requirements set by the Swedish authorities to avoid pollution of heavy metals when lifting pleasure boats and washing the anti-fouling.

The new guide-lines set by the authorities are created to regulate the emissions and effluents as well as the procedures when washing pleasure boats. It is widely known that washing pleasure boats has polluted the sensitive marine environment for a long time and there is a need to prevent this from continuing and let the coastal areas regain its health. In Sweden, the authorities believe this is so important that the time for implementation is relatively short. For larger marinas, more than 150 washes per year the requirements have to be met during 2014 and for the marinas with 30-150 washes per year, the dead-line is set for 2015. The goal is to have as many as possible completed within this time frame.

Those marinas and boat yards that does not have a washing station with a filter has a lot of work ahead of them.

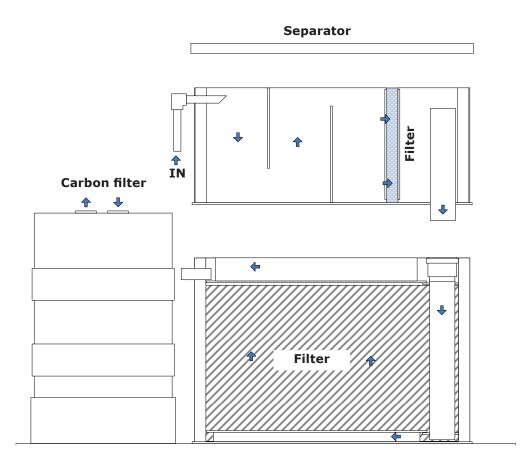
We can deliver a turn-key solution with a complete filter system built in to a shed or as a stand alone filter to be built in at the site.

Axon AMC BTG is a shed built in fiber-concrete and stainless steel, size 1920 x 2250 mm. The shed is insulated and the inner walls and ceiling are covered in varnished birch-laminate. The floor is covered with wet-room flooring mat. Heating, lighting and electricity is installed and ready.





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Separator - sedimentation/coarse filter: 1200 x 690 x 498 mm Filter: 1200 x 690 x 800 mm with 300 liter absorber Carbon filter: 600 x 1000 mm (barrel) with 150 liter carbon Max flow: 1,5 m3/h Recommended flow: 1,0 m3/h



## The filter system that meets the required limits

### Limits per compound:

TBT 200 ng/l Copper 0.8 mg/l Copper filtered 0.4 mg/l Irgarol 0.8 µ/l Zink 2.0 mg/l Zink filtered 1.0 mg/l

### Axon Marine Filter is easy to work with - no service agreement needed

- Summit Green Tech and its supplier offers free-of-charge guidance prior to and during installation and free support after installation.
- No complicated technology to malfunction or disturb the process if not handled properly
- We offer the lowest running cost solution for this type of application
- A complete filter system contains 240 liter absorber and 150 liter active carbon for absorption and adsorption of pollutants.
- Please note that the Axon Marine Filter does not have any problem handling large amounts of oil, which is necessary for this application and most competition can not.

### The only thing needed:

- Install electricity and pipes for the polluted water and a return pipe for the cleaned water.
- Prepare a place to put the filter.
- Connect the pipes to the filter.
- Build a wash platform with drainage and install the pump well.

The standard filter can handle a large pressure washer and the absorber in the filter can handle up to 300 washes before it needs to be exchanged. The absorber is inexpensive and easy to handle.

#### The filter is in either 2 or 3 parts:

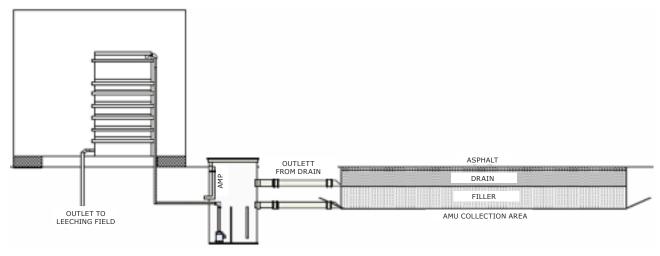
- A pre-filter if desired with a coarse filter to pick up paint-chips, shells, etc.
- The absorber filter that pick up oil, diesel, non-organic compounds, TBT, Irgarol etc.
- The carbon filter picks up possible remains of TBT and Irgarol.



# Build a wash station with our approved technology

Axon has for many years delivered spill protection to the industry using its Geomembrane. Our spill protection is installed 50 cm down in the ground and is covered with a porous material. We use the same technology for the marine filters and it is OK to put asphalt on top. The cost using this method is considerably lower than using concrete, without negotiating the ability to let water through. It is actually better using our method for your company and the environment.

Most of the water should run through the drainage but whatever goes through the surface will be caught on the Geomembrane and led down into the the pump well to be cleaned in the filter. Quick, simple and reliable and at a reduced cost for a complete washing station.



#### With Axon technology we always strive for complete solutions

Therefore we can offer different solutions of filters, where for instance we can lead rain water to the side to avoid having the filter work. Our solutions are obviously clutter-free, i.e. no freestanding container or exposed pipes, everything is either indoors or dug-down into the ground. In a marina you should store and work on the boats, nothing else.

We can offer a prefabricated drain in concrete that can easily be installed together with our collection area covered with asphalt and the filter. Furthermore, we also offer a solution for take care of and re-use the anti-freeze used for winterizing engines. This to further save cost.