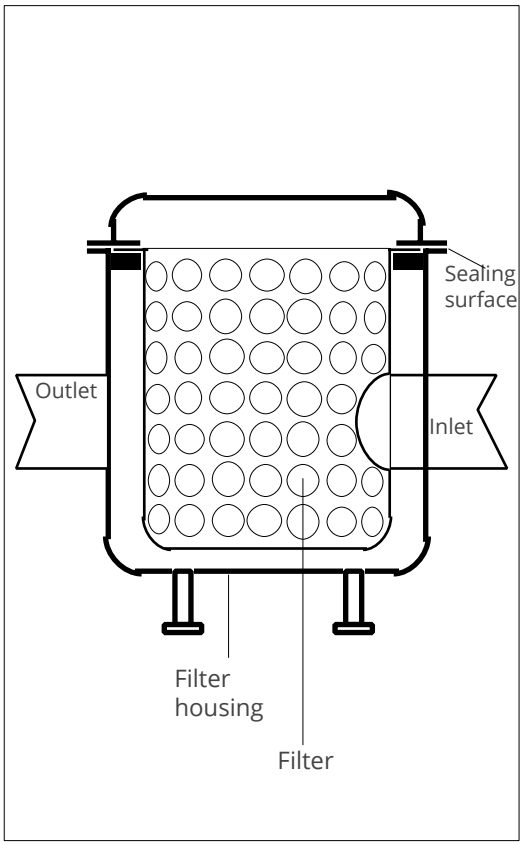
Sea water filters - corrosion

APPLICATION DATA SHEET No. 114



Sea water filters are very varied in appearance, but despite this they contain the same components internally: a filter housing, a filter, an inlet, an outlet, and a sealing surface between filter and housing.

Sea water filters are naturally exposed to erosion / corrosion and bimetallic corrosion.

The method described below is a long lasting method for refurbishment with proper surface preparation at a grit blasting facility.

1. Disassemble the filter and blast acc. to Wencon surface preparation, next page.

2. Fill corroded spots with Wencon Cream or Rapid. If the sealing surface of the filter is corroded, make first an application of a thin layer of Wencon.

3. After the first layer has semi-hardened mix and apply Wencon Coating, white. Apply with a radiator brush from which a half of the bristles have been cut away. When the coat has cured to a sticky consistency, apply a final coat of Wencon Coating, blue.

4. Now clean carefully the sealing surface of the filter and apply a layer of Wencon Release Agent. Then apply a suitable layer of Wencon Cream or Rapid on the sealing surface of the filter housing and fit the filter into place. A new sealing surface is thus established. After curing, the filter can be lifted out again and a gasket can be fitted. In a number of cases the gasket will not be necessary.

Alternative products: Wencon Ceramic products

Wencon surface preparation

Choose the relevant surface preparation, depending on the nature of the job.

Surface preparation using dry blasting methods:

Application with Wencon products on a dry surface, at minimum 3°C above dew point.

1. Blast the machine part to SA 2,5 using sharp-edged blasting media, to a roughness of min. 75 microns.
2. Leave the part for sweating out salts in a warm place for at least 12 hours or heat it up to 30 - 40°C (86-104 °F) using gas torches.
3. Blast again to SA 2,5, prior to the application.
4. For parts containing a lot of water and salt, it may be necessary to repeat point 2 and 3, until the surface remains light grey, for at least 2 hours after blasting.
5. For optimal adhesion of Wencon products, always use Wencon Bio Cleaner or Wencon Cleaner prior to application. Follow one of below two methods:

5.1 **Wencon Bio Cleaner**

Wet surface: Apply Wencon Bio Cleaner and let it work for 5-10 min. If necessary use a brush, to make sure the surface is clean. Rinse off with clean water and wipe off with an absorbing cloth.

Dry surface: Apply Wencon Bio Cleaner and let it work for 5-10 min. If necessary use a brush, to make sure the surface is clean. Rinse off with clean water and dry with an absorbing cloth or with compressed air for a completely dry surface. Hereafter any Wencon products can be applied.

5.2 **Wencon Cleaner**

After surface preparation, apply Wencon Cleaner with a brush and allow the product to evaporate before applying other Wencon products. Wencon Cleaner is non-flammable. Use only in large or well ventilated rooms.

Surface preparation using wet/damp methods:

Water jet the entire surface with water and sand to a standard equal, to SA 2,5 as described above.

If the surface is left wet after surface preparation, is it important to dry out the surface or alternatively use a Wencon UW product.

Surface preparation for emergency/temporary applications:

If above surface preparation methods are not possible, it may be necessary to use one of below methods:

- Blasting
- Grinding
- Needle Gunning

In emergency / temporary applications it may be difficult to prepare the surface according to above methods. In any case, it is important to clean the surface to SA 2,5 and 75 microns roughness. If possible dry the surface before applying. If not possible, use Wencon UW products.

For further information on Wencon surface preparation, please contact our Area Sales Managers.