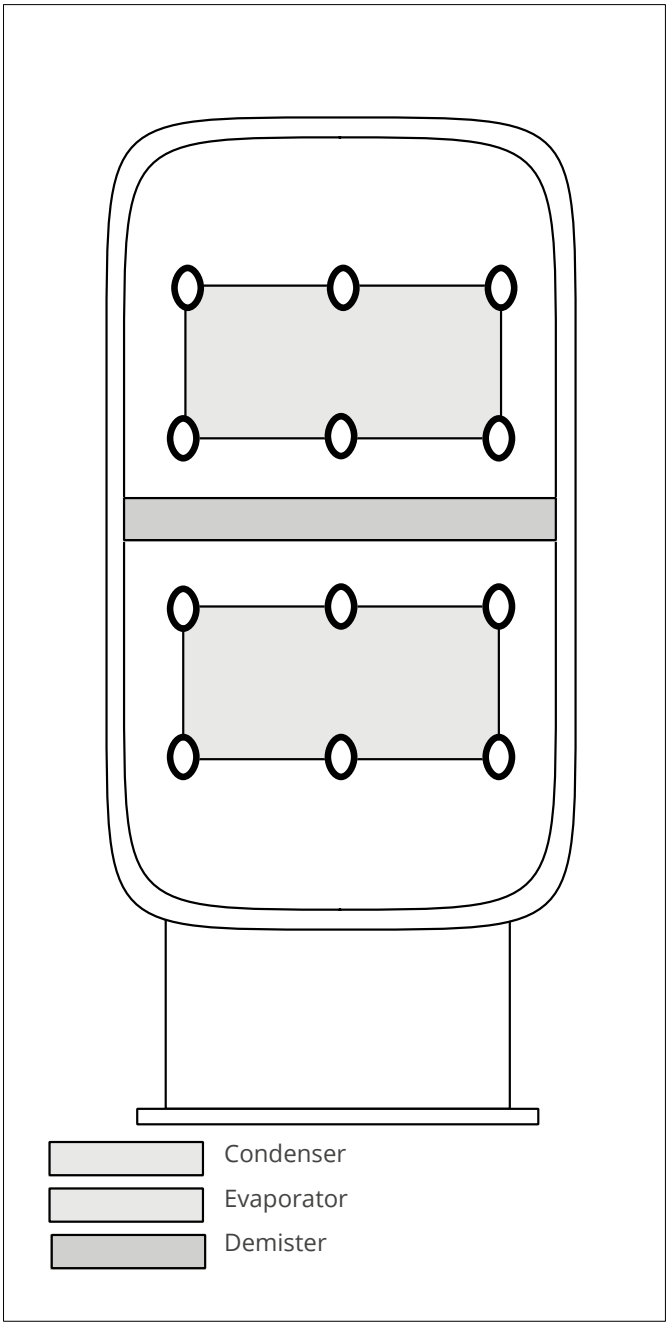
Fresh water generators - corrosion

APPLICATION DATA SHEET No. 116



Fresh water generators made of coated mild steel, often suffer from salt water penetration, through the coating. The severe conditions inside the generator, might cause corrosion problems. It is ideal to have the coating repaired just after having noticed the damage.

Wencon Hi-Temp is suitable for this repair it will adhere to all common coatings like epoxy, polyester and even thermoplastics.

1. Tear off loose and damaged coating.

2. Grit blast or grind the affected area including an overlap of min. 5 cm (2 inch).

3. Clean the area acc. to Wencon surface preparation, next page.

4. Apply the Wencon Hi-Temp as described in the instructions for use. Apply two times, each approx. 300 µ (3/10 of a millimetre).

5. After curing, the surfaces should be cleaned using the Wencon Cleaner, and the application is finished.

Variations

If the generator body is badly corroded, use Wencon Cream or Wencon Rapid to rebuild the surface, before the Wencon Hi-Temp is applied.

Wencon Hi-Temp is not approved for use in combination with potable water, but in cases, where there is a demand or requirement for such, apply a layer of approved two-component paint as a top coat. Apply this final layer before the Wencon Hi-Temp has fully cured to assure the best possible adhesion.

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.