

# SPRAY NOZZLES

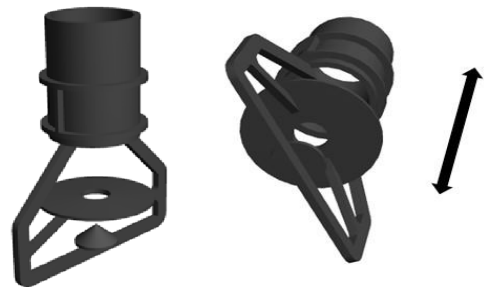
## STAINLESS STEEL EVAPORATIVE CONDENSER ECOSS

Water spray nozzles must be mounted and monitored according to Güntner recommendation. They are responsible for the correct distribution of water in the equipment, and contribute directly to an adequate heat exchange.

### Spray nozzle function:

Spray the water, in order to create a homogeneous mixture with the counter flow of air that passes through the coil, ensuring, this way, the heat performance it has been designed for.

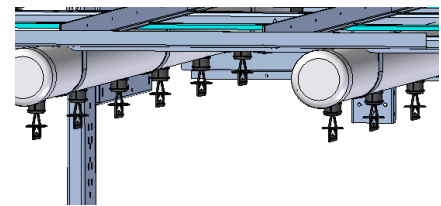
The more voluminous the spraying, the better the heat transfer.



### Recommendation:

The service life of the evaporative condenser depends on how periodic maintenance of the spray nozzles is being managed. The user must be able to evaluate spraying constantly.

A good maintenance practice is to provide the maintenance team with a set of spare water spray nozzles for quick and efficient replacement.



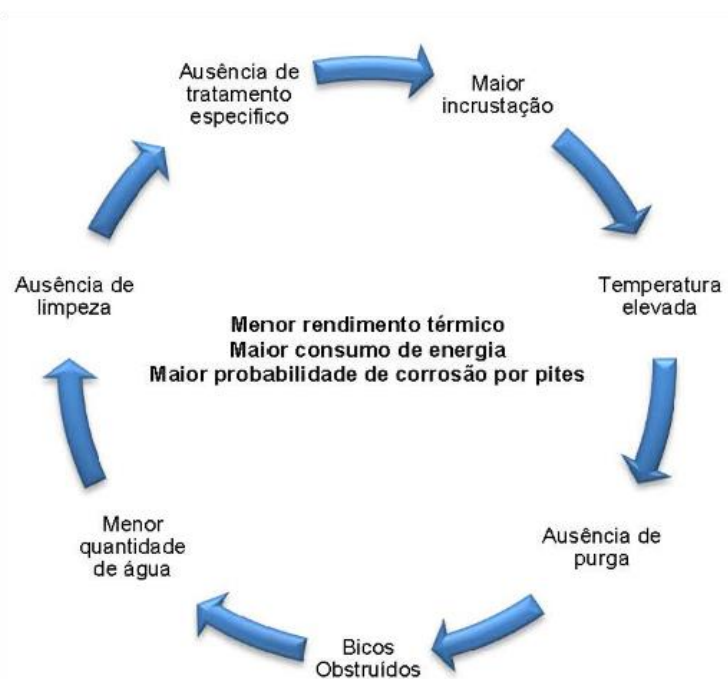
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### Importance of cleaning:

Failure to clean the spray nozzle causes the inefficient water distribution, causing scale at the coil. Consequently, there is an overload in the system, especially in the compressor, causing higher suction and discharge pressures, greater oil drag and loss of capacity.

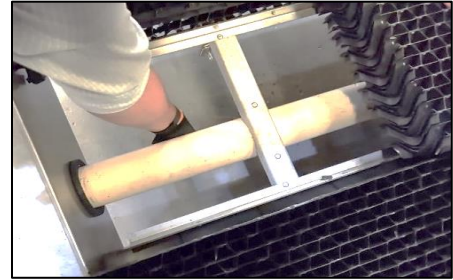
Scale on the coil is the main responsible agent of PITTING corrosion. This corrosion is caused by the deposition of a certain oxidative particle in metals, forming micro-holes with generally reddish aspects.

One of the most critical conditions, which directly influence pitting formation, at high temperatures, is the clogging of the spray nozzles.



**Cleaning procedure:**

1. Turn off the fans;
2. Remove the drift eliminators by pulling them up carefully;
3. With the fans off and the pumps working, visually check the water spray areas with the drift eliminators to observe obstructions, damage, cleaning, correct fitting, scale etc.;
4. Turn off the pumps;
5. To remove the nozzles, just grab their top and bottom and pull them sideways to detach;
6. After the removal, clean the dirt with neutral detergent and a brush with bristles, making sure that the divisions and spray nozzles are well cleaned. After cleaning, the spray nozzles must be unclogged for proper water distribution;
7. If nozzles are missing or there are damaged items, replace them and make sure they are securely fitted;
8. Start the pumps and observe the water distribution. If the distribution is not adequate, turn off the pumps and check again whether the cleaning or fitting were done properly;
9. If item 8 is ok, put the drift eliminators in place, making sure they are securely fitted and have no gaps;
10. Turn on the fans.



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**Important!**

The spray nozzles must be cleaned every 30 days, as indicated in the equipment manual.  
The nozzles must be kept clean, free from any clogs.  
Poor water quality, lack of general maintenance and proper cleaning of the nozzles can be catastrophic for the service life of stainless steel coils.

For more information, refer to our technical department.