

Wärtsilä Turbocharger wash



Regular cleaning of turbochargers to remove the build-up of deposits on the turbine and compressor extends the interval between overhauls and keeps the components in good operating condition. The remote-controlled Wärtsilä Turbocharger wash unit eliminates the need for time-consuming scheduled manual washing and reduces the risk of unplanned downtime as well as damage to the engine caused by careless cleaning procedures.

SAFE, STRAIGHTFORWARD AUTOMATED CLEANING

The unit performs an effective, fully automated wash sequence to remove the build-up of fouling deposits on the turbocharger and compressor. This eliminates both the need for manual initiation of the washing sequence and the risk of component damage due to human error – for example, cracked gas inlet casings, deformed nozzle rings, or deformed shroud rings.

The washing sequence is controlled from the PLC or a separate control unit. A counter, which can be set between five and 500 hours, keeps the operator informed of the running hours accumulated so that the washing sequence can be initiated at the appropriate time. The sequence is started from the control and monitoring system (WOIS) in the control room, or from the local control panel.

KEY BENEFITS

- Safe, effective, fully automated removal of fouling
- Reduced risk of unexpected downtime
- Extended interval between turbocharger overhauls
- Reduced maintenance costs

SUITABLE FOR PARALLEL AND ISLAND-MODE OPERATION

In power plants running parallel to the grid, the engine load is automatically reduced by the PLC to keep the temperature of the exhaust gas at the turbine inlet below 430 °C. Water injection and load increase are also performed automatically. The washing sequence lasts for approximately 50 minutes including load ramps and a 10-minute temperature stabilization period before and after water injection.

For marine or island mode power-plant applications, the load must be reduced by the operator to keep the temperature of the exhaust gas at the turbine inlet below 430 °C.

The lower engine load is maintained for 10 minutes before and after the water injection cycle before being increased back to the initial load. The compressor is washed at high load in a separate sequence with a 10-second water injection.

The highly compact unit can be mounted on a wall or on a service platform close to the engine. It is equipped with remote-controlled solenoid valves and connections for the water and compressed air supplies. The unit also comes complete with WOIS/PLC software upgrades and all required hoses and adapters for connecting it to the turbocharger.



The wash unit can be mounted on a wall or on the service platform close to the engine.

WHY CHOOSE WÄRTSILÄ?

Wärtsilä is an original equipment manufacturer and our continuous research and development means that you always get the latest technologies and ensured reliability. We are a full-service provider for engine and turbocharger parts and maintenance through our global network of service and turbocharger workshops.

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