

## Technical Bulletin 107

### What is the technique of using the corrosion inhibitor of ZOK 27 after off-line washing?

ZOK 27 contains a corrosion inhibitor to give temporary protection to the gas path surface of a gas turbine compressor.

The corrosion inhibitor has maximum effect when the ZOK 27 dosage (ie 1 part ZOK 27 to 4 parts water) is not rinsed out with water. In order to achieve both a good cleaning effect with ZOK 27 wash, and maximum corrosion inhibition effect the recommended technique is to divide the ZOK 27 dosage into two halves for an off-line wash. The first half dosage is injected into the compressor gas path and after soaking for up to 20 minutes, it is expelled by cranking the engine. This is followed by injecting the second half dosage which is then expelled by cranking the engine. There is no following rinse out with water. The second half dosage acts as a cleaner and a rinse out of the first half dosage. The engine gas path is left to dry leaving a mono-layer of corrosion inhibitor on the gas path surface. This inhibiting effect will remain for at least seven days if the engine is not run. If a longer shut down is required then a refresher wash of ZOK 27 solution can be given to give a further seven days corrosion protection and so on. Only one dosage is required for a refresher wash. The time interval between refresher washes can be much longer depending on the ambient condition at the engine site and depending on if the compressor intake has been blanked, which is helpful.

A further advantage of this technique with ZOK 27 is that rinsing out of the mono-layer of corrosion inhibitor is not required before start-up of the gas turbine engine.