

## **Corrosion in Autoclaves**

### ***Findings from Recent Inspections***

Inspections of autoclaves in recent months have revealed a disturbing trend. Excessive and extensive corrosion was found on the shells of the autoclave chambers on a number of these autoclaves. Such corrosion if left unchecked could lead to cracks, leakages and even catastrophic failures of autoclaves.

The photographs in the report show the extent of corrosion in some autoclaves that were inspected recently despite the fact that they were made from stainless steel and that they had been in service for a relatively short period of only about 5 to 6 years.

### ***Causes of Corrosion***

It is indeed not normal for an autoclave to exhibit such appalling conditions as shown, after only 5 years of service as most autoclave chambers are made of stainless steel that should not corrode. However, stainless steel is susceptible to chlorine attack that would cause it to corrode quickly. It is suspected that the main cause of the corrosion was the use of tap water (which is chlorinated).

### ***Preventive Measures***

Users of autoclaves are strongly advised to use distilled water for the operation of their autoclaves to prevent similar deterioration that could lead to a catastrophic failure of the autoclave.

Occupational Safety and Health Division  
Ministry of Manpower

**Photographs showing corrosion in autoclaves**





