

Guide to Preventing Corrosion in Lay-Up, Preservation and Mothballing











Introduction



This Guide to Preventing Corrosion in Lay-Up,
Preservation and Mothballing is a resource for
deciding the product and method for preventing
corrosion on equipment. Each preservation project
requires consideration of various factors, including the
intended term of protection, the storage conditions,
the available resources for installation and the value
of the equipment Use this guideline as a starting
point for assessing and understanding product and
installation options. More specific support may
be available for field assessments and installation
under Daubert Cromwell's "Installed Services"
program. Please consult your Daubert Cromwell Sales
Representative prior to starting any of these programs.



This resource provides guidance for mothballing typical plant equipment. It is organized into four parts;

- 1) A Preservation Plan
- 2) Processing Plant Equipment
- 3) Product Reference Charts
- 4) Project Examples.

Making and following a plan is critical to being able to measure the project's success. Success will be measured as having adequate protection to prevent corrosion at the lowest cost.

Adequate protection relates to no corrosion on critical surfaces and as defined by the client. Sometimes cosmetic rust is acceptable if the cost of preservation is greater than the depreciation, rework or replacement costs of the part.

Cost should be compared over the term of the mothballing period. Cost of no preservation or poor protection includes replacement of equipment, parts, labor and downtime. Cost of preservation includes preservation products plus the labor to install and remove them. Of all the costs, the ones least likely to impact the project costs are the preservation

products. However, the selection of those products and their proper installation has the greatest impact on other costs.

As an example, the costs for a gallon of liquid preservative verses wrapping the equipment with VCI might show the VCI bags covering the same area as the liquid to be more expensive. When all costs, including the labor to dip or spray and later remove the coating with solvents or steam cleaning, and the associated waste and handling of the bi-products, then the scale may tip towards the VCI option. On the other hand, lower value parts or ones not practical to wrap may lean the balance towards applying a heavy coating of a long term liquid protector.

This guideline is intended to help you understand the associated costs and to help you make the comparisons that meet your project needs. You will likely realize that not all items will require the same treatment. Let's get started.

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