Directive D-0802.3
Preservation, Packing, Storage and Inspections for Variable Speed Drives for an extended storage period from 24 to 36 months

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Products: R-Coupling, S-Coupling, Vorecon, Torque Converter, Heat Exchanger, WinDrive, HyDrive

Departments: Sales, Design dept., Development, Quality Assurance, Projecting, Service

Subject areas: Preservation, packing, storage

Confidentiality: released for external use (customers / subsuppliers)
## Contents

1. Preservation and Packing  
2. Storage  
   2.1 General long-term storage requirements  
   2.2 Storage requirements  
3. Inspections  
   3.1 Customs inspections  
   3.2 Receiving inspection  
   3.3 Follow-up inspections  
4. Notifications of Damage
1 Preservation and Packing

These instructions describe the requirements to be fulfilled by preservation, packaging, storage and inspections for an extended storage period from 24 to 36 months from the date of packaging.

Note
On account of the long storage time, Voith Turbo recommends monitoring the relative humidity and temperature inside of variable speed drives by means of Voith HTDL (Humidity Temperature Data Logger).

Internal and external preservation as well as packing will be performed as per the "Preservation and Packaging Instructions", Directive D-0800 (Document 9163625-006212), corresponding to Packing No. 3 (storage up to 24 months), but deviating to that, the following will be done:

- Crate material: Plywood or 24 mm planking
- Shrink-wrapped in addition into a second aluminum compound foil. Insert desiccant between the two foil layers (desiccant according to DIN 55473 / desiccant quantity to DIN 55474).
- Provide humidity control windows (d=90 mm) with moisture indicator (30, 40, 50 % RH)\(^1\) which can be read from the outside, into the second aluminum compound foil; fit a swiveling cover\(^2\) to the box/crate located in front of the control window.
2 Storage

2.1 General long-term storage requirements

Any equipment has to be easily accessible for maintenance work:

- Reading off of humidity indicators
- Mending of packaging
- Checking of packing documents

It is only allowed to stack or place the equipment and crates side by side so that the air circulation around the equipment and crates is not impaired.

2.2 Storage requirements

Immediately on arrival at the consignee, the equipment has to be stored in a dry, weatherproof building.

1) Recommendation: Product: humidity control window, large (Art. No. Z004101 with 3701), manufacturer: CLARIANT, Ostenriederstraße 15, 85368 Moosburg/GERMANY; or similar product

2) Recommendation: Product: swiveling cover with vent holes, form B 180 (Art. No. 143 32 01 00), manufacturer: CLARIANT, Ostenriederstraße 15, 85368 Moosburg/GERMANY; or similar product
3 Inspections

3.1 Customs inspections

If crates/packings are opened when they are inspected by the customs, the consignee has to ensure that these are put back in their original packing condition immediately after the inspection (see Chapter 1).

3.2 Receiving inspection

On receipt of the goods, the consignee has to document:

- Completeness
- Condition of equipment/packing
- Value indicated by the indicators If the indicators already show a pink color, re-preservation is required immediately. The measures are determined by Voith Turbo and/or their authorized persons.

3.3 Follow-up inspections

Inspection of any humidity indicator has to be recorded. Use the following table for the inspection:

<table>
<thead>
<tr>
<th>Value indicated by the indicators</th>
<th>Check intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>blue</td>
<td>every 3 months</td>
</tr>
<tr>
<td>40 % pink</td>
<td>every 2 weeks</td>
</tr>
<tr>
<td>50 % pink</td>
<td>Re-preservation is required!</td>
</tr>
</tbody>
</table>

The measures to be taken at an indication of 50 % pink are specified by Voith Turbo and/or their authorized persons.
4 Notifications of Damage

The following has to be included in notifications of damage:

- Package No.
- Delivery data
- Description of damage
- Photo documentation
- Damage certificate, if possible
- Storage conditions
- Inspection report on arrival
- Reports of previous inspections, if any.

If damages are found on the equipment, corresponding measures have to be agreed immediately at any rate with Voith Turbo; if necessary, immediate steps are to be taken to prevent more extensive damages.