

## Pickling Bath 302

### For immersion and circulation pickling.

Avesta Pickling Bath 302 is a concentrate that should be diluted with water depending on the stainless steel grade.

#### Standard applications

The pickling bath restores stainless steel surfaces that have been damaged during fabrication operations such as welding, forming, cutting and blasting. It removes weld oxides, the underlying chromium-depleted layer and other defects that may cause local corrosion.

Avesta Pickling Bath 302 is recommended for immersion pickling of small objects and for pickling surfaces that are time-consuming to brush or spray pickle. It can also be used for circulation pickling of pipe systems.

#### Features

- » An efficient, economical and strong concentrate, the 302 can be diluted 1 part of acid to 3 parts of water (25 kg of conc 302 will give 100 kg ready to use product) for immersion pickling of steel grade 304 (1.4301) compared to 1 part of acid to 1 part of water 1 for standard pickling bath products (25 kg of standard conc product will give only 50 kg ready to use product)
- » Working life; the bath fluid is consumed during usage and the effective working life of the bath fluid is determined by the amount of acids and dissolved metals. The bath fluid should hence be analyzed regularly, and new acid should be added when needed in order to obtain an optimal pickling result. We may assist with this analysis service, see also Product Information Data Sheet concerning Avesta Pickling Bath Services.



1200 kg IBCs



240 kg drums



33 kg drums



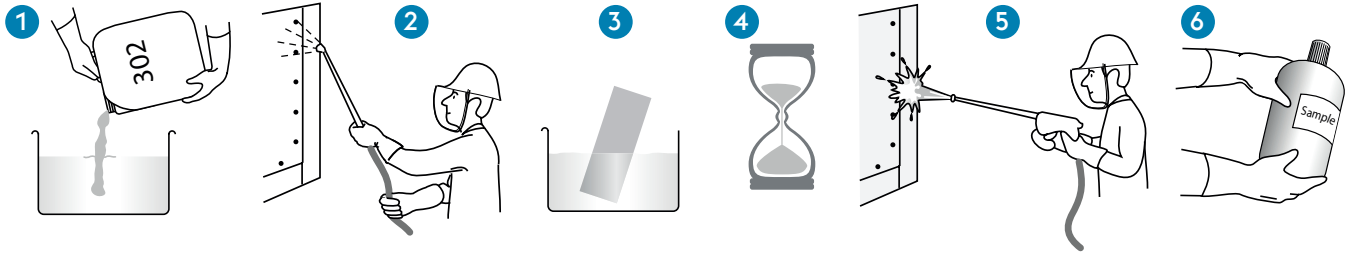
Photo: Immersion pickling with Bath 302



Photo: Result with Bath 302 before and after circulation pickling

Photos: Available in several packages (Sizes may differ from markets)

## Instructions for use



1. For first time use, mix the bath by adding the 302 to the water, not the other way around! The proportions depend on the steel grade to pickle. For standard grades like 304 (1.4301) use 1 part of 302 and 3 parts of water.

2. Pre-clean, remove oil and grease by using Avesta Cleaner 401, and then rinse with water.

3. Immerse the object into the pickling VAT.

4. Allow sufficient pickling time. Use 5 min. to 4 hours depending on temperature of the bath, steel grade and conditions of the bath.

4. Rinse off the pickling residuals by using a high-pressure water jet. Use deionized water for the final rinsing of sensitive surfaces. The waste water should be neutralized before discharge.

5. Take a sample and analyze the bath content of acids and free metals regularly to maintain optimal bath composition and pickling result.

## Packaging

Avesta Pickling Bath 302 is supplied in 33 kg and 240 kg polyethylene containers or 1200 kg IBC polyethylene containers. Availability of different packages sizes may differ between markets.

All packing material follows the UN regulations for hazardous goods.

## Storage

Avesta Pickling Bath 302 should be stored indoors at room temperature. Containers must be kept properly closed, in an upright position and inaccessible to unauthorized persons.

The product is perishable and should not be kept in storage longer than necessary. It has a maximum shelf life of two years when stored at room temperature. Exposure to higher temperatures (>35 °C) may damage the product and reduce the shelf life.

## Worker safety

Hexafluorine<sup>®</sup> should be readily available to all who work with pickling to use as a first rinse to decontaminate small acid splashes of pickling bath, followed by Calcium Gluconate Gel or Solution to be used as a first aid to treat the HF acid burn.

Protective clothing. In general, users should wear acidresistant overalls, gloves and rubber boots. Face visor should be used and, if necessary, suitable respiratory protective devices.

Special conditions may apply from one country to another. Consult our website where updated Safety Data Sheets can be found.

## Waste treatment

The wastewater produced when pickling contains acids and should be treated with Avesta Neutraliser 502 or with slaked lime to a pH-value of 7-10 before discharge. Heavy metals from stainless steel are precipitated as a sludge, and should be sent for deposition according to local regulations.

Empty containers (HDPE) must be cleaned and can then be recycled according to local regulations.

## Other information

For more information, please visit our website:

[www.voestalpine.com/welding](http://www.voestalpine.com/welding), where you can find Safety Data Sheets and other useful information.



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