

Instruction for cleaning procedure and It's application

1. Selecting Chemicals for Cleaning

When selecting cleaning chemicals, carefully consider their effects on the materials of the equipment's fluid-contacting parts (base metal, weld metal, and heat-affected zones). It is essential to evaluate potential impacts on the equipment and select chemicals with great care.

In addition, to verify the effectiveness of the selected chemicals, it is recommended to take scale samples and conduct dissolution tests before determining the cleaning conditions (chemical type, concentration, temperature, circulation/immersion time, etc.).

Doing so will lead to more effective cleaning results.

(Example: Circulating a 3–5 wt% caustic soda solution at approximately 30–50 °C through a temporarily installed closed-circuit plumbing line on site.)

*Note

The selection of cleaning chemicals shall be determined by the party conducting the cleaning. Kurose Chemical Equipment co., Ltd. of manufacturer shall not be responsible for any decisions regarding the type of chemicals that would be used in each case.

2. Cleaning Methods

There are two main types of cleaning methods: physical/mechanical cleaning and chemical cleaning using cleaning agents.

① Physical/Mechanical Cleaning

This method involves mechanical action, such as brushing with cleaning tools or high-pressure water jet cleaning. High-pressure jet cleaning can generally be classified as follows:

*Low-pressure jet: up to about 10 MPaG

*Ultra-high-pressure jet: up to about 100–200 MPaG

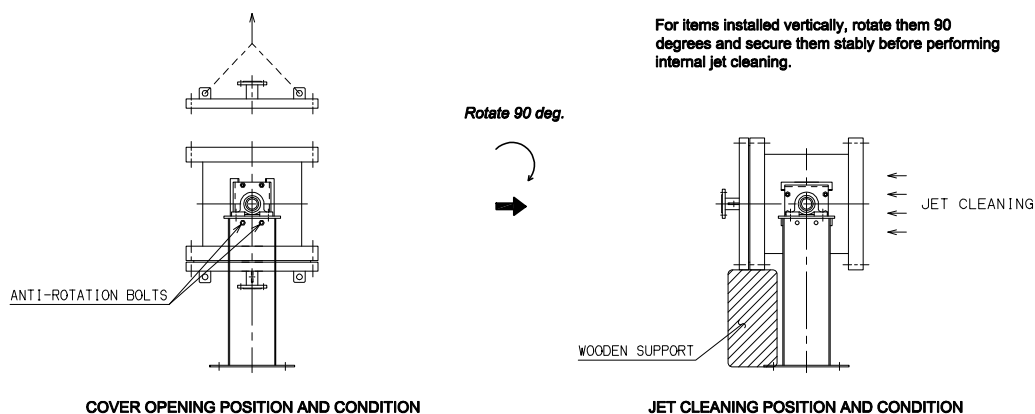
② Chemical Cleaning

As mentioned in term 1., the cleaning conditions (chemical type, concentration, temperature, circulation/immersion time, etc.) and the equipment's installation layout (piping configuration, peripheral equipment, etc.) should be considered when deciding the implementation method - whether performed on-site or at a factory after removing the equipment from site.

Moreover, combining both ① physical/mechanical and ② chemical cleaning methods can achieve better results.

(Example: After soaking and circulating the cleaning chemicals for a certain period, open the cover and perform internal jet cleaning — sequence ②→①.)

Fig. 1. Cover opening and jet cleaning positions



During the procedure of opening one side cover, the cover being opened must always be positioned on the upper side.