

# Standard Cleaning and Packaging Process Specification (FC-01)

## Scope

This Specification applies to the standard cleaning, lubrication, assembly and packaging of the FITOK products. Please read and understand this specification carefully to determine whether it meets your system's requirements for cleanliness before using the product.

## Process Requirements

- ⦿ Particles and oil contamination on products from the manufacturing process should be eliminated according to the process requirements.
- ⦿ Components to be assembled should be lubricated to the requirements of the products.
- ⦿ Finished products should be properly packaged to avoid damages during storage and shipment.

## Cleaning and Inspection

- ⦿ Carry out continuous ultrasonic cleaning to eliminate the smudges on the products from the manufacturing process, such as cutting oils, polishing waxes and other dust particles.
- ⦿ After cleaning, carbon steel products should be protected from oxidation and corrosion by plating, conversion coating, or with a light oil film.
- ⦿ Carry out visual inspection with the assistance of bright illumination or violet lighting, or use clean cloth to wipe for inspection.

## Lubrication, Assembly and Testing

- ⦿ To prevent galling, reduce friction, and enhance sealing effect, greases should be applied to threads, mating surfaces, O-rings, and seals. These greases are typically hydrocarbons, halogen-containing hydrocarbon, or silicon oil containing inorganic additives.
- ⦿ Cleaned products should be assembled in a clean and well-lit environment.
- ⦿ Use clean and dry air, nitrogen, or helium to test according to the requirements of the products. Perform water pressure testing with clean running water. Dry the interior and exterior surfaces after passing the test.

## Packaging and Labeling

- ⦿ Finished products should be well packaged to prevent any damage or contamination during shipment and storage.
- ⦿ The functional ports of products, such as the male thread and sealing surface, should be protected with caps and proper plugs.
- ⦿ Protected products should be packaged in boxes in specified standard quantities.
- ⦿ Boxes should be labeled with the part number, quantity and packaging date.
- ⦿ Nuclear grade products should be packaged in accordance with the requirements of ASME NQA-1.

## Reference

### *ASME Standards*

NQA-1 Quality Assurance Requirements for Nuclear Facility Applications