

November 2021

# Spence CDS and CDH Series Sanitary Thermostatic Steam Traps

## Introduction

This installation sheet covers the installation and maintenance of the CDS and CDH Series Sanitary steam trap.

## Specifications

### Available Models and Descriptions

CDH-AI-AO: Horizontal inlet and outlet  
CDH-AI: Horizontal inlet, vertical outlet  
CDH-AO: Vertical inlet, horizontal outlet

### Maximum Operating Temperature

338°F / 170°C

### Maximum Operating Pressure

100 psig / 6.9 bar

### Gasket Approvals

FDA, USDA, USPH, 2A Sanitary Standard and NSF

### Options

Electropolish Finish  
SLR Orifice  
B Bellow

### CDH Series Connection

Sanitary Ferrule accommodate 1/2 and 3/4 in. /  
12.7 and 19.0 mm.

## Installation



### WARNING

Personal injury, property damage, equipment damage or leakage due to escaping steam or bursting of pressure containing parts may result if this trap is over pressured or is installed where service conditions could exceed the

limits given in the specifications or where conditions exceed any ratings of the adjacent piping or piping connections. To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices (as required by the appropriate code, regulation or standard) to prevent service conditions from exceeding those limits.

1. Install trap in a vertical line with the inlet at the top and the outlet at the bottom.

### Note

Although this trap functions both horizontally and vertically, the vertical installation allows full self-draining.

2. Install NPS 1/2 to 3/4 / DN 15 to 20 service trap with 3/4 in. / 19.0 mm inlet gasket.

Install NPS 1 to 1-1/2 / DN 25 to 40 service trap with 1-1/2 in. / 38.1 mm inlet gasket.

3. Isolate the sanitary steam trap by using a valve suitable for sanitary steam applications.

## Maintenance



### WARNING

To avoid personal injury, property damage or equipment damage caused by sudden release of pressure or explosion of accumulated gas, do not attempt any maintenance or disassembly without first isolating the trap from system pressure and return lines. Relieve all internal pressure from the steam trap and ensure the trap is cool prior to any maintenance.

# CDS and CDH Series

**Steam traps that have been disassembled for repair must be tested for proper operation before being returned to service. Only parts manufactured by Emerson should be used for repairing steam traps.**

**Due to normal wear or damage that may occur from external sources, this steam trap should be inspected and maintained periodically. The frequency of inspection and replacement of parts depends upon the severity of service conditions or the requirement of local, state and federal rules and regulations.**

**If a leak develops, service to the unit may be required. Failure to correct trouble could result in a hazardous condition. Only a qualified person must install or service the unit.**



## CAUTION

**Do not remove the hot thermostatic element from the steam trap.**

1. Once steam trap is isolated from system pressure and cooled, unscrew and remove the wing nut off the clamp.
2. Remove the clamp.

3. Separate the outlet and inlet parts from the assembly.
4. Remove and inspect the gasket and replace as necessary.
5. Remove the actuator plate.
6. Remove the bellow element and replace as necessary.
7. Remove the steam trap outlet with internal seat, gasket and element for inspection, cleaning and/or replacement.
8. Reassemble using a new gasket and place element assembly into position.
9. Check for leaks after pressurizing system.

### *To reassemble:*

1. Position the bellow valve down on the outlet.
2. Ensure the actuator plate sits into the groove.
3. Spray food grade silicone on both sides of the gasket when replacing.
4. Place the gasket onto the outlet, such that the outer lip of the gasket sits over the outside of the outlet.
5. Place the inlet into the gasket.
6. Wrap the clamp around the inlet and outlet.
7. Hand-tighten the wing nut.
8. Check for leaks after pressurizing the system.

 SpenceValve.com

### Emerson Automation Solutions

#### Americas

McKinney, Texas 75070 USA  
T +1 800 558 5853  
+1 972 548 3574

#### Europe

Bologna 40013, Italy  
T +39 051 419 0611

#### Asia Pacific

Singapore 128461, Singapore  
T +65 6777 8211

#### Middle East and Africa

Dubai, United Arab Emirates  
T +971 4 811 8100

VCIMD-14917 © 2021 Emerson Electric Co. All rights reserved 11/21.  
Spence is a mark owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are property of their prospective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

Emerson Electric Co. does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Emerson Electric Co. product remains solely with the purchaser.