



## Installation, Operating & Maintenance Instructions

### WCS and FCS Series 'Silent' Check Valves

#### Introduction:

The Colton WCS and FCS series 'silent' check valves are spring loaded and center guided, providing reliable, low maintenance service for a wide range of conditions. The WCS series is a short body, wafer style designed to fit between line flanges and the FCS series is a full body, flanged, globe pattern style designed to bolt up to line flanges.

#### Warning:

Piping systems can be dangerous - safety precautions must be observed. Before removing your check valve from service, make sure that it has been isolated, the pressure released and, where necessary, the fluid between the isolation valves has been drained to an acceptable receptacle.

#### Installation:

Ensure that all machined surfaces are free of defects and the inside of the check valve is free of foreign objects. Foreign matter such as pipe scale, metal chips, welding slag, etc., can obstruct disc movement or damage the disc or the seating surface.

The Colton WCS and FCS series 'silent' check valves can be installed in horizontal or vertical (upward flow) piping with the flow in the direction of the arrow on the body.

**Note:** *all flat faced cast iron flanged check valves are to be sealed with a full face flange gasket.* Utilization of a ring gasket on flat faced cast iron flanges can result in cracked flanges that will not be covered by warranty.

When pressurizing the system, increase the pressure gradually and check for leakage at all joints.

#### Maintenance:

Design features minimize wear and maintenance requirements. However, extended use with fluids having suspended solids can cause binding at the disc guide, interference with spring action and wire drawing of the seating surfaces. Also, use of a check valve at a fraction of its capacity can cause disc flutter and excessive wear.

To disassemble, remove the seat and the disc and spring can then be removed. Examine the spring for cleanliness, remove any scale build-up on the disc stem and stem guides. Elliptical wear on the stem or the guides will require replacement. Ensure that all flow passages in the body are free and clear.

Adequate metal has been provided on the seat and disc to permit resurfacing when necessary. We recommend that no more than a total of .06" be removed from the seat and disc combined.