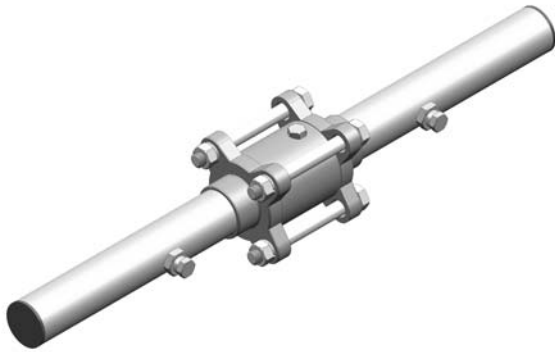




# Check Valve w/Extensions Medical Gas Piping System Installation Instructions



Part Numbers:

6-211400-00 thru 6-211408-00

## Definition of Statements

Statements in these instructions preceded by the following words are of special significance.

**⚠ CAUTION:** Means there is a possibility of damage to unit or other property.

## Installation

Check Valves shall be installed at specified locations per NFPA 99, Standard for Health Care Facilities or CAN/CSA-Z305.1, Canadian Standard for Nonflammable Medical Gas Piping Systems. All valves are supplied clean for oxygen service. Valve is supplied with gas service identification decals.

### ⚠ CAUTION:

Care shall be taken to keep debris out of valves and medical gas pipeline during and after installation.

### Step 1: Location / Orientation

Allow sufficient space to accommodate valve, including gauges as required. Flow direction of check valve is indicated by arrow on center section label.

### ⚠ CAUTION:

Check valve is **not recommended for use on a discharge** of reciprocating or positive displacement compressors or pumps. Pulsating and cyclic flow will damage check valve. Maintain at least 6 pipe diameters straight length of piping between check valve and any other line restrictions, such as elbows, tees, valves, etc., upstream and downstream of check valve.

### Step 2: Installation & Brazer Requirements

Check valves shall be installed using methods and procedures that maintain interior cleanliness of piping system as required by NFPA 99, Standard for Health Care Facilities or CAN/CSA-Z305.1, Canadian Standard for Nonflammable Medical Gas Piping Systems. Brazing shall be performed by individuals who are qualified in accordance with either Section IX,

Welding and Brazing Qualifications, of the ASME *Boiler and Pressure Vessel Code*, or AWS B2.2, *Standard for Brazing Procedure and Performance Qualifications*.

### ⚠ CAUTION:

Excessive heat may destroy valve sealing material. If damage occurs to valve, a repair kit must be installed. Refer to Check Valve Repair Kits listed in this instruction.

### Step 3: Socket Brazing Fittings

Shallow sockets are recommended to be used for brazing fittings that comply with MSS SP-73, *Brazing Joints for Copper and Copper Alloy Pressure Fittings*. Use of shallow socket brazing fittings improves quality of brazement without decreasing its strength, particularly in larger sizes which are more difficult to heat.

### Step 4: Brazing Joints

Braze valve tube extensions to medical gas piping system using brazing filler metals that comply with ANSI/AWS A5.8, *Specification for Brazing Filler Metal*. Use appropriate heat sink techniques (e.g. heat absorbing paste, water saturated fabric or continuous cooling medium) to protect sealing materials in valve or gauge port plugs. Unbolting and removing center valve section is **not recommended**. During brazing, joints shall be continuously purged with oil-free dry nitrogen to prevent formation of copper oxide on inside surface of joint. Flow of nitrogen purge gas shall be maintained until joint is cool to touch.

### Step 5: Gas Service Identification

Select appropriate gas service identification decal (from label strip supplied with valve) and apply it to extension tube. Ensure surface is clean to permit permanent adhesion.

## Installation

### Step 6: Standing Pressure Test

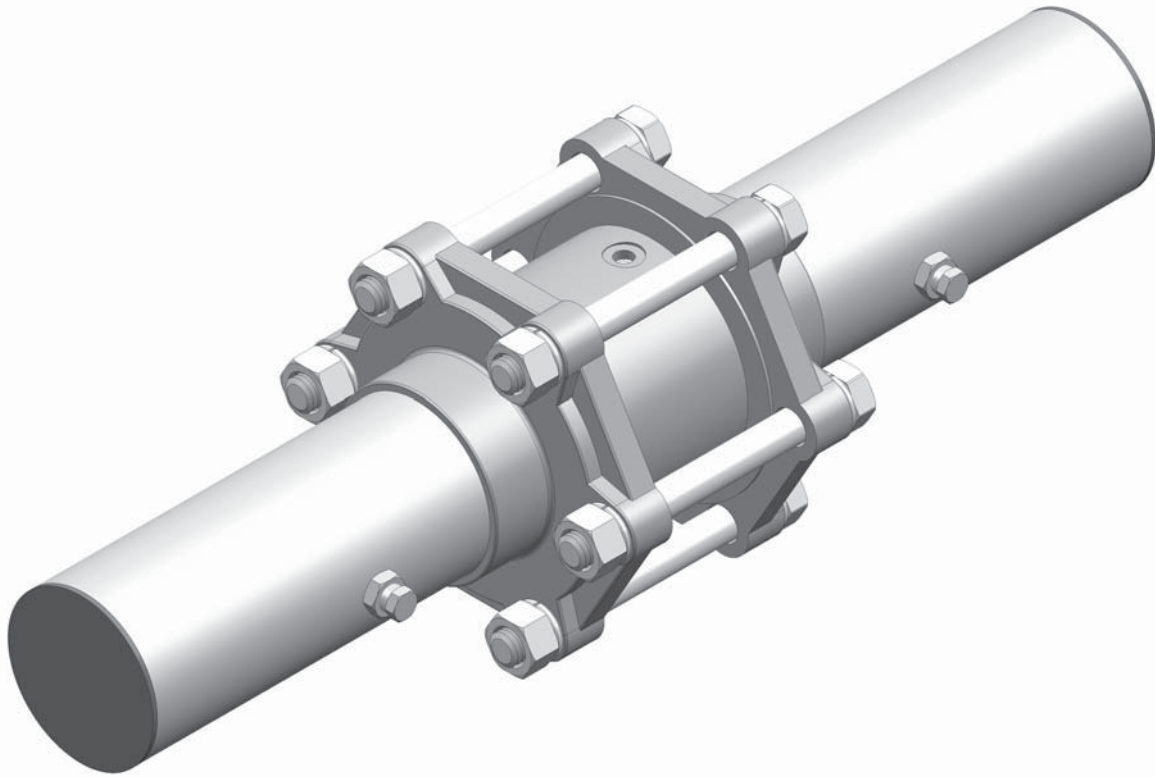
Perform standing pressure test on piping system as specified by NFPA 99 or CAN/CSA-Z305.1.

#### **⚠ CAUTION:**

Check valves are provided with gauge ports. Do not install gauges in ports prior to standing pressure test. This prevents damage from higher pressures of test.

## Check Valve Repair Kits

Valve Size (inches)	Repair Kit Part No.
1/2"	6-290671-00
3/4"	6-290672-00
1"	6-290673-00
1-1/4"	6-290674-00
1-1/2"	6-290675-00
2"	6-290676-00
2-1/2"	6-290677-00
3"	6-290678-00
4"	6-290679-00



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