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Dixon 61-205

Dixon 61-205 Brass Ball Cone Check Valve Instruction Manual

Model: 61-205 | Brand: Dixon

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Dixon 61-205 Brass Ball Cone Check Valve. Please read this manual thoroughly before installation and operation to ensure safe and efficient use of the product.

2. SAFETY INFORMATION

Always observe general safety precautions when working with plumbing and industrial components. Failure to follow these instructions may result in property damage, injury, or death.

- Ensure system pressure is relieved before installation or maintenance.
- Wear appropriate personal protective equipment (PPE), such as safety glasses and gloves.
- Consult a qualified professional for installation if you are unsure.
- Do not exceed the maximum pressure rating of the valve.

3. PRODUCT OVERVIEW

The Dixon 61-205 is a 1-inch brass ball cone check valve designed for use with water, oil, air lines, or inert gases. It features a male National Pipe Taper (MNPT) inlet and a female National Pipe Taper (FNPT) outlet. This valve provides tight shut-off with liquid media and is engineered for minimum change in velocity due to its straight-through and streamlined design. The reinforced PTFE check is spring-loaded for fast seating action.



Figure 1: Dixon 61-205 Brass Ball Cone Check Valve. This image displays the brass construction of the valve, with a male threaded end on the right and a female threaded end on the left, designed for fluid control in various applications.

Key Features:

- Ball Cone Check Valve Male x Female
- Size: 1 inch
- Pressure Rating: 400 PSI WOG (Water, Oil, Gas)
- Material: Brass
- Tight shut-off with liquid media
- Reinforced PTFE check, spring-loaded for fast seating

4. SETUP AND INSTALLATION

Proper installation is critical for the performance and longevity of the check valve. Follow these steps carefully:

1. **System Preparation:** Ensure the system is depressurized and drained before beginning installation. Isolate the section of the pipeline where the valve will be installed.
2. **Inspect Valve:** Visually inspect the valve for any damage that may have occurred during shipping. Ensure the threads are clean and free of debris.
3. **Thread Sealant:** Apply an appropriate thread sealant (e.g., PTFE tape or pipe dope) to the male NPT threads of the valve. Ensure the sealant is compatible with the media flowing through the system.
4. **Installation Direction:** Install the valve in the correct flow direction. Check valves are directional; the flow should enter the MNPT (male) end and exit the FNPT (female) end. An arrow on the valve body typically indicates the flow direction.
5. **Tighten Connections:** Thread the valve into the pipeline connections. Hand-tighten first, then use a wrench to tighten securely. Do not overtighten, as this can damage the threads or the valve body.
6. **Leak Test:** Once installed, slowly repressurize the system and carefully check all connections for leaks. Address any leaks immediately.

5. OPERATING INSTRUCTIONS

The Dixon 61-205 Brass Ball Cone Check Valve operates automatically based on fluid flow. It is designed to allow flow in one direction and prevent backflow in the opposite direction.

- When fluid flows in the intended direction (from MNPT to FNPT), the pressure of the fluid pushes the ball cone check open, allowing flow.
- When flow stops or attempts to reverse, the spring-loaded PTFE check automatically seats, preventing backflow and maintaining system integrity.
- No manual operation is required for this type of check valve.

6. MAINTENANCE

The Dixon 61-205 check valve is designed for minimal maintenance. However, periodic inspection is recommended to ensure optimal performance.

- **Visual Inspection:** Regularly inspect the valve and surrounding connections for any signs of leaks, corrosion, or physical damage.
- **Performance Check:** Periodically verify that the valve is preventing backflow effectively. If backflow is observed, the valve may need replacement.
- **Cleaning:** If the system media contains particulates, these can accumulate and affect valve operation. If the valve's performance degrades, it may require removal and cleaning, or replacement. Ensure the system is depressurized before any such intervention.
- **Replacement:** Check valves are wear items. If the valve shows signs of wear, leakage, or failure to prevent backflow, it should be replaced with a new one.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Leakage at connections	Improperly tightened connections, insufficient thread sealant, damaged threads.	Depressurize system, retighten connections, reapply thread sealant, or replace damaged components.
Backflow occurring	Check mechanism failure (e.g., debris preventing full closure, worn spring/PTFE check).	Depressurize system, remove and inspect valve for debris or damage. Clean or replace the valve if necessary.
Reduced flow rate	Valve partially obstructed by debris, incorrect valve size for application.	Depressurize system, remove and inspect valve for obstructions. Clean or replace. Verify valve sizing.

8. SPECIFICATIONS

Attribute	Value
Model Number	61-205
Brand	Dixon
Material	Brass
Size	1 inch

Attribute	Value
Pressure Rating	400 PSI WOG
Inlet Connection Type	MNPT (Male National Pipe Taper)
Outlet Connection Type	FNPT (Female National Pipe Taper)
Package Dimensions	5.47 x 3.5 x 2.01 inches
Item Weight	1.3 Pounds
Date First Available	February 8, 2014

9. WARRANTY INFORMATION

Specific warranty details for the Dixon 61-205 Brass Ball Cone Check Valve are not provided in this manual. For information regarding product warranty, please refer to the official Dixon website or contact Dixon customer support directly. Keep your purchase receipt as proof of purchase.

10. CUSTOMER SUPPORT

If you have any questions, require technical assistance, or need to report an issue with your Dixon 61-205 Brass Ball Cone Check Valve, please contact Dixon customer support.

Manufacturer: Dixon

For the most current contact information, please visit the official [Dixon Valve & Coupling Company website](#).

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