A.R.I. Flow Control Accessories Ltd. Kfar-Charuv 12932 Israel Tel. 972-4-6761988 Fax. 972-4-6763402 www.arivalves.com

0302AusM-DC500-10

# Backflow Preventer **DC-500** -Double Check Valve

Approved under : **USA** : NSF61 (Drinking water), ASSE 1015, AWWA C510, Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California, Listed for Uniform Plumbing Code. **Australia** : AS4020 (Drinking water), Watermark AS2845.1. **France** : ACS.

## Installation

A. The DC-500 must be installed in an accessible location to facilitate periodic field-testing and maintenance.

A. Flush all upstream piping thoroughly to remove foreign matter prior to installing the device.

C. The device may be installed either vertically (for upward flow) or horizontally. It is recommended that the horizontal configuration be chosen for ease of testing and maintenance. A clearance between the lower most portion of the device and flood grade or floor should be provided for ease of maintenance.

D. Assemble the components before positioning into permanent pipe installation.

E. A "Y" strainer can be installed just upstream of the DC-500 assembly to eliminate any debris from entering the device and fouling the check valves.

F. After installing the assembly and with downstream or shut-off valve #2 closed, pressurize the device and bleed air through test cock #1, #2, #3. Then open shut-off valve #2.

**Installation Tips**

(a) Recommendation: Do not install in areas subjected to freezing for a long period of time.

(b) The product must be protected from excessive pressure increases. Pressure increases can be caused by thermal expansion or water hammer. These excessive pressure situations must be eliminated to protect the valve and system from possible damage.

(c) Do not use any pipe glue, oil grease or solvent on any parts unless instructed to do so.

(d) Do not force parts. Parts should fit together freely.

## Maintenance Instructions

**A. Disassembly – DC-500.**

1. Close shut-off valve #2, then close shut-off valve #1.
2. Bleed pressure from the assembly by opening test cock #1, #2, #3.
3. Remove the cover bolts and lift the cover.
4. Remove the retainer.
5. Extract the check valves.

Note: all the disassembled parts may now be cleaned and reassembled or, depending on their condition, discarded and replaced with a new assembly from the repair kit. O-rings should be cleaned or replaced as necessary and lightly greased with the NSF approved silicon based grease.

**B. Assembly – DC-500.**

1. Install the check valves. The valves must be securely in place.
2. Install the retainer.
3. Put on the cover and close the bolts.

**CAUTION:**

**Secure the screws with a recommended torque of**
**2.5 Kg/m. for models DN 15/20/25**
**9 Kg/m. for models DN 32/40/50**

## TROUBLE SHOOTING GUIDE

| Symptom | Cause | Corrective Action |
|---|---|---|
| Check valve fails to hold 6.8 kPa. | a. Outlet shut-off valve not closed completely.<br>b. Outlet check valve fouled with debris. | a. Close outlet shut-off valve or inspect for possible through leakage<br>b. Inspect and clean the seat and seal of outlet check valve. |

## PARTS LIST

| No. | Part |
|---|---|
| 1. | Cover Ass. |
| 2. | Retainer |
| 3. | Outlet Check valve Ass. |
| 4. | Inlet Check valve Ass. |
| 5. | Body Seal |
| 6. | Test Cocks (#1, #2, #3) |
| 7. | Body ass. |
| 8. | Clamp Ass. |
| 9. | Adaptor Ass. |