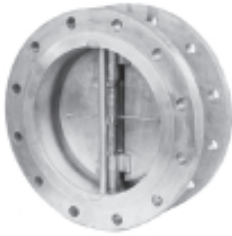


INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTION MANUAL



Equipment Description

Duo-Chek Valves
Retainerless Design



Installation and Operation

1. Remove the valve from carton or packing skid.
2. The protective rust proof coating on the internal parts of steel or cast iron valves should be removed by brushing out with any standard petroleum solvent (Varsol, Kerosene), and air dry. Insure internal parts operate freely.
3. Stainless Steel or Bronze valves need only to be wiped clean and installed.
4. In horizontal flow installation, the hinge pin must be vertical.
5. Insert the valve between two companion flanges of the same series as the valve and place gaskets on flange faces. The arrow on the valve or name plate indicating direction of flow should coincide with line flow. Install studs through companion flanges and tighten, using standard industry practice.
6. In liquid service we recommend valve be installed at least five (5) pipe diameters downstream from a pump discharge and/or other pipe fittings for maximum service life. Consult factory.

Maintenance

Caution! Make sure the valve is not under pressure before starting any maintenance.

Disassembly** (Refer to assembly drawing on next page.)

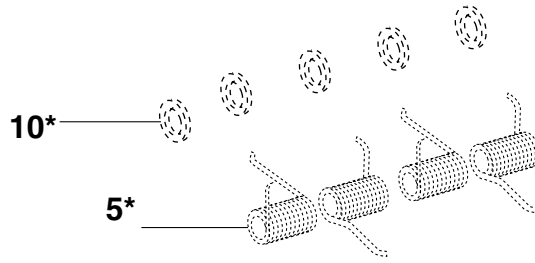
1. Lay valve down with the downstream side of the valve upward.
2. Remove snap ring (7) by inserting pointed tool in gap and lifting from body groove.
3. Lift assembly from body being careful parts stay together holding pin inserts (6) in place.
4. Place assembly on work surface.
5. Remove pin inserts (6) being careful with short hooked spring leg on stop pin (3). Spring(s) (5) may be preloaded and will tend to snap out. **Observe caution.**
5. Remove hinge pin (4), spring(s) (5), plates (2), and all bearings (8), (9), and (10).

Assembly**

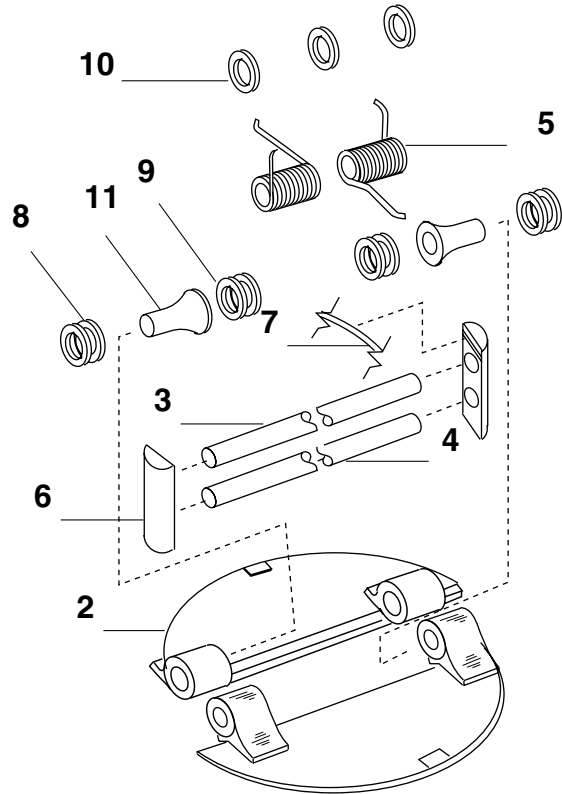
1. Lay body down with downstream side of valve upward. Clean all parts in a suitable solvent.
2. Place both plates (2) with hinge lugs together. If valve is equipped with support sleeves (11), assemble into plate lugs with body bearings (8) as shown.
3. Lay springs (5) in plate recess between lugs with short hooked leg extending upward on valves 6" and larger, (other long leg to contact plate). On smaller valves, spring with two equal legs together, wind legs 180°, and install with legs contacting each plate and hold when inserting hinge pin in step.
4. Insert all bearings provided (8), (9), and (10).
5. Insert hinge pin (3) through plate (2) lugs, bearings and spring coils.
6. Place stop pin (4), making sure that short spring legs are tensioned on pin, opposite each other.
7. Assemble pin inserts (6) on each side of hinge (3) and stop pin (4) against body bearings (8) with snap ring groove on top side.
8. Holding pin inserts (6) in place lift parts assembly and lower into body making sure inserts align with slots in body I.D.
9. Insert snap ring (7) in body and pin insert grooves to retain internal parts in valve.

** No Special tools are required.

Crane Duo-Chek Valves



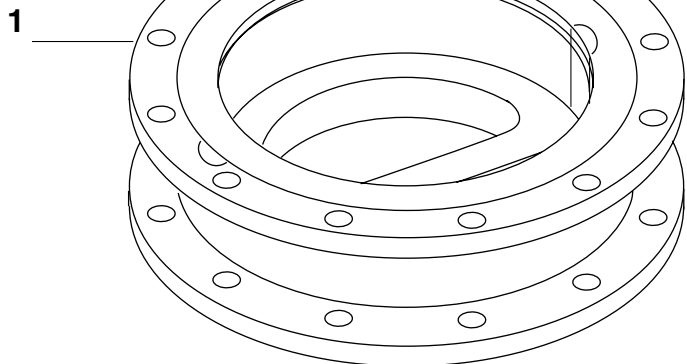
Item No.	No. Req'd	Description
1	1	Body
2	2	Plate
3	1	Stop Pin
4	1	Hinge Pin
5	2*	Spring
6	2	Pin Insert
7	1	Snap Ring
8	2**	Body Bearing
9	4**	Plate Bearing
10	3*	Spring Bearing
11†	2	Support Sleeve



* Some valves require 4 springs & 5 spring bearings

** These quantities may vary according to the valve size

† Not required on valves smaller than 24"



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