

# ORION BDC

## SIZE

3/4", 1", 3", 4"

## DESCRIPTION

This is a double check assembly. Production was originally under the Toro name and began approximately in 1976. Orion bought this design and produced it from 1980-2000. Febco bought the rights to produce this design in 2000 and discontinued production in 2001. The BDC uses a vertical piping configuration where water goes in the bottom and comes back down out of the bottom. The 3/4" and 1" size are constructed inside and out of celcon plastic except for the base and top cover which are made of bronze. These sizes also have ball valves built into the base of the unit. The body of the 3" and 4" sizes are constructed of a bronze base with stainless steel check canisters with a bronze top cover. Internal parts are constructed of plastic and bronze. All check seats on all sizes are replaceable. All check springs are contained when the cover is removed.

## BASIC REPAIR KIT

The rubber repair kit contains all rubber discs and O-rings

### SIZE

3/4"-1"

3"

4"

### KIT NO

80-0422 ◆

80-0689 ◆

80-0669 ◆

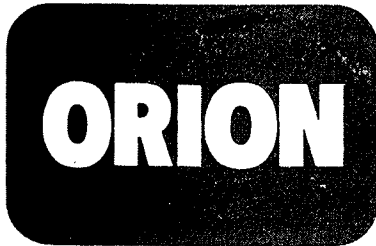
## IMPORTANT FEATURES

~Vertical piping orientation

~Replaceable check seats

~Contained check springs

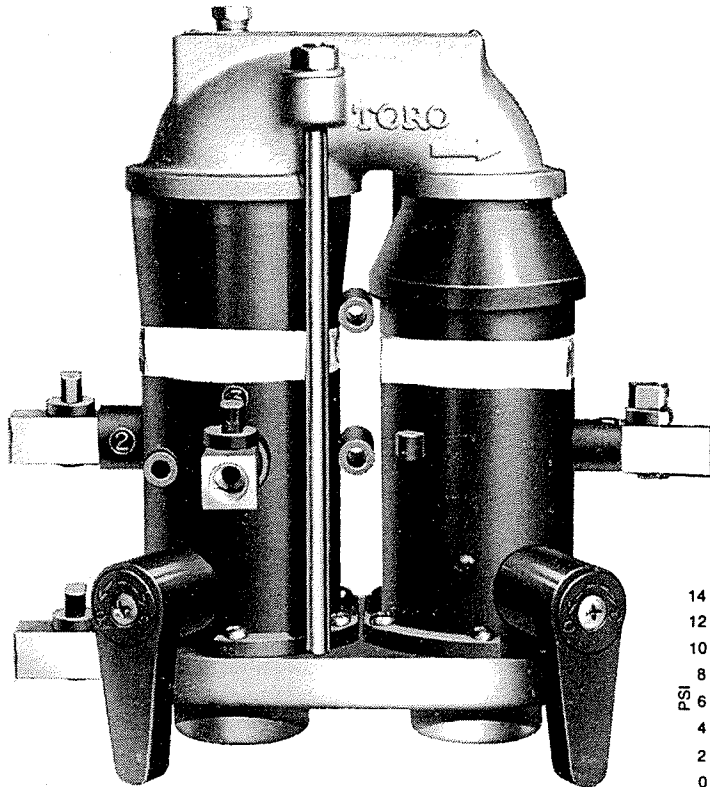




# Backflow Preventers

# 3/4" & 1"

## Double Check Model BDC



### Characteristics

Compact — lightweight — only six pounds.

Base-mounted integral ball valves.

Minimal pressure loss.

Body and internal parts of corrosion-resistant engineering plastic.

Operating pressure 150 psi.

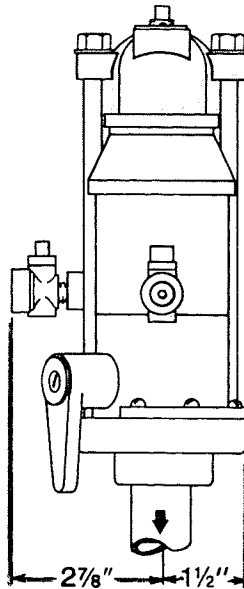
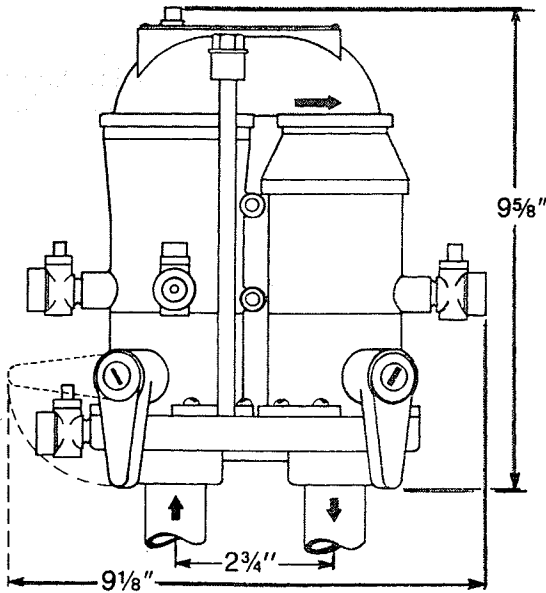
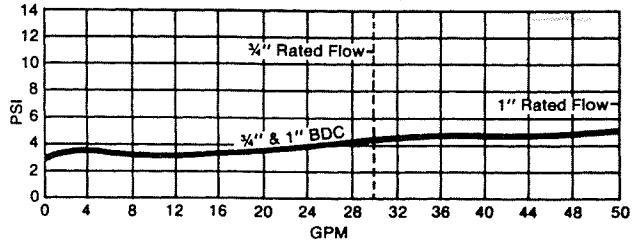
Operating temperature 150°F maximum.

Meets performance specifications of AWWA C-506.

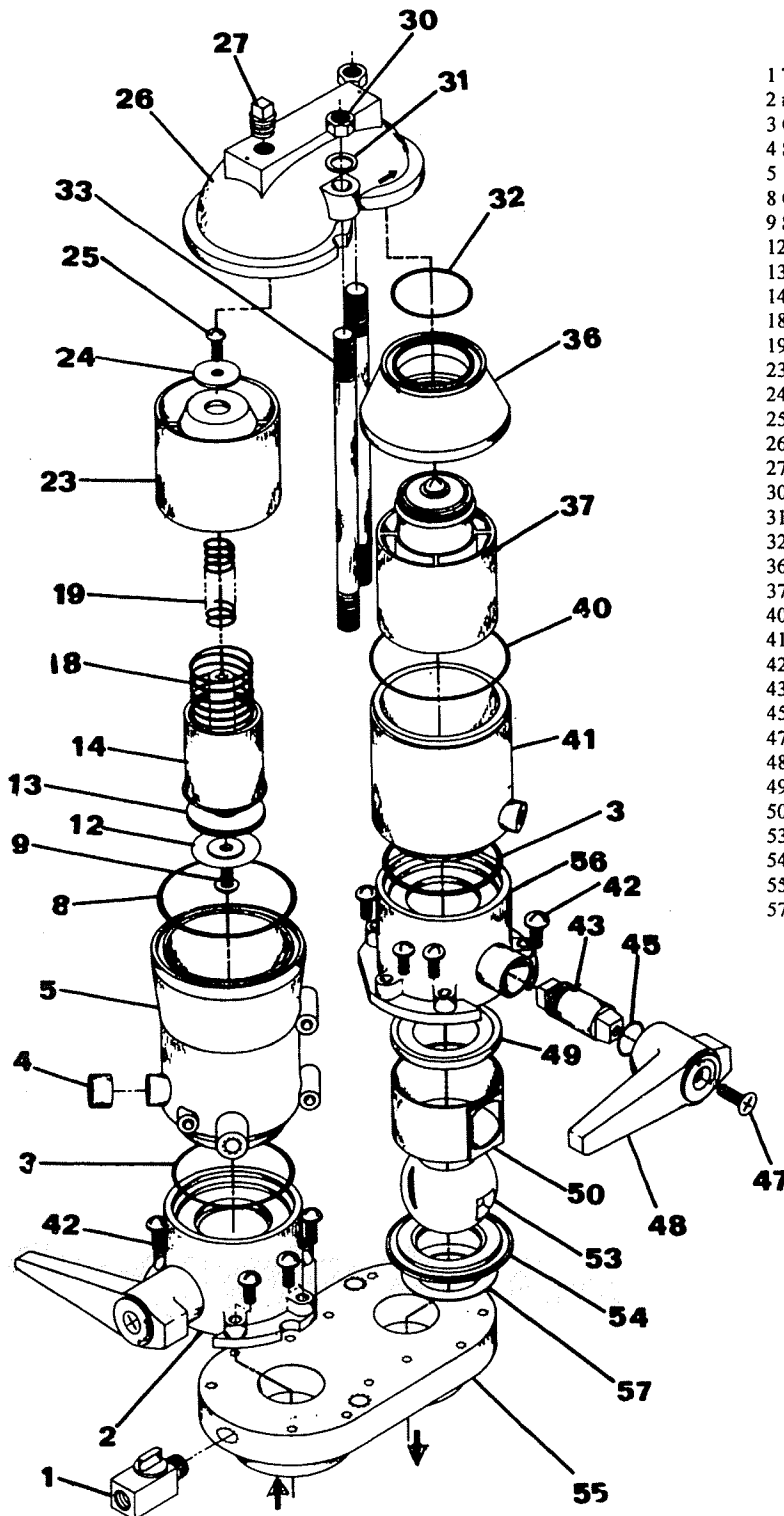
Approved by USC Foundation for Cross Connection Control.

I.A.P.M.O., A.S.S.E. and S.B.C.C.I. Listed

ORION BACKFLOW PREVENTERS  
MODEL BDC 3/4" & 1"

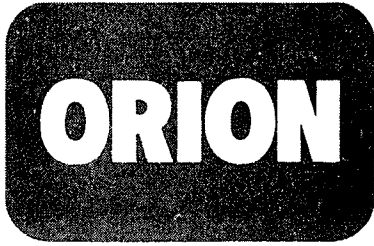


ORION INDUSTRIES



- 1 Test Cock
- 2 #1 Shut Off
- 3 O'Ring
- 4 Support
- 5 #1 Ck Body
- 8 O'Ring
- 9 Screw
- 12 Disc Retainer
- 13 Ck Disc
- 14 DiscHolder
- 18 Spring
- 19 Spring
- 23 Spring Retainer
- 24 Washer
- 25 Screw
- 26 Cover
- 27 Plug
- 30 Nut
- 31 Washer
- 32 O'Ring
- 36 #2 Ck Seat
- 37 #2 Ck Assy
- 40 O'Ring
- 41 #2 Ck Body
- 42 Screw
- 43 Ball Valve Stem
- 45 O'Ring
- 47 Screw
- 48 Handle
- 49 Seal
- 50 Ball Ring
- 53 Ball
- 54 Seal
- 55 Base
- 57 Support

**BDC 3/4-1"**



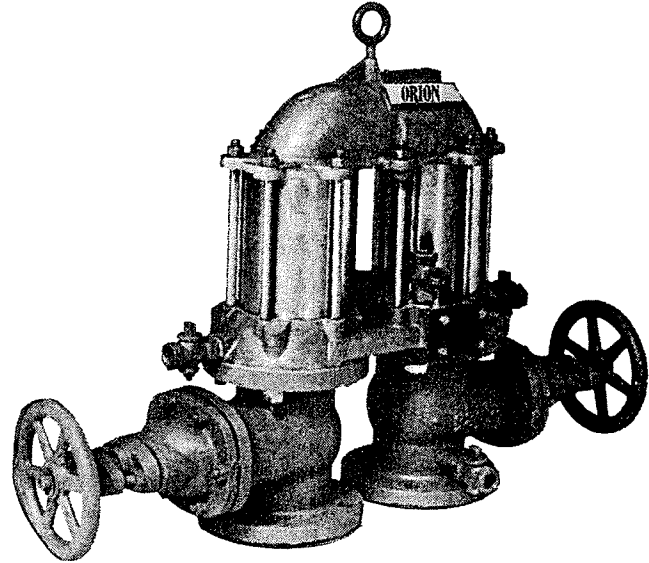
# Backflow Preventers

# 3"

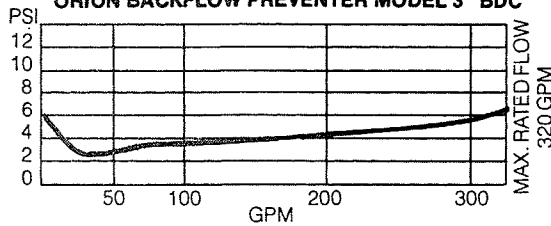
## Double Check Model BDC

### Characteristics

- Compact — lightweight — only 66 pounds (without valves).
- Flexible, multi-directional bottom mount permits time saving installation.
- Valve options: NRS gate valves, OS & Y gate valves, Butterfly valves and Less valves.
- Internal parts of corrosion resistant engineering plastic, copper alloy and stainless steel.
- Copper alloy base and cover, stainless steel casing.
- Low friction loss.
- Operating pressure 150 psi.
- Operating temperature 150°F max.
- Meets performance specifications of AWWA C-506 and USC Foundation for Cross Connection Control.
- IAPMO, ASSE and S.B.C.C.I. Listed.



ORION BACKFLOW PREVENTER MODEL 3" BDC

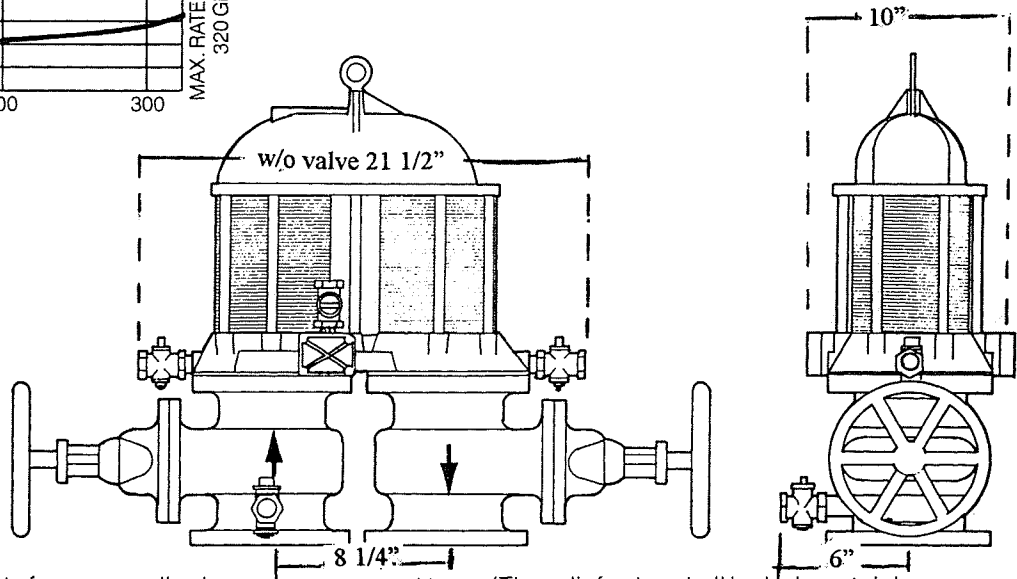


Valves	w/valves
NRS	162 lbs.
OS&Y Open	170 lbs.
Butterfly	86 lbs.

Note: See opposite side for dimensions.

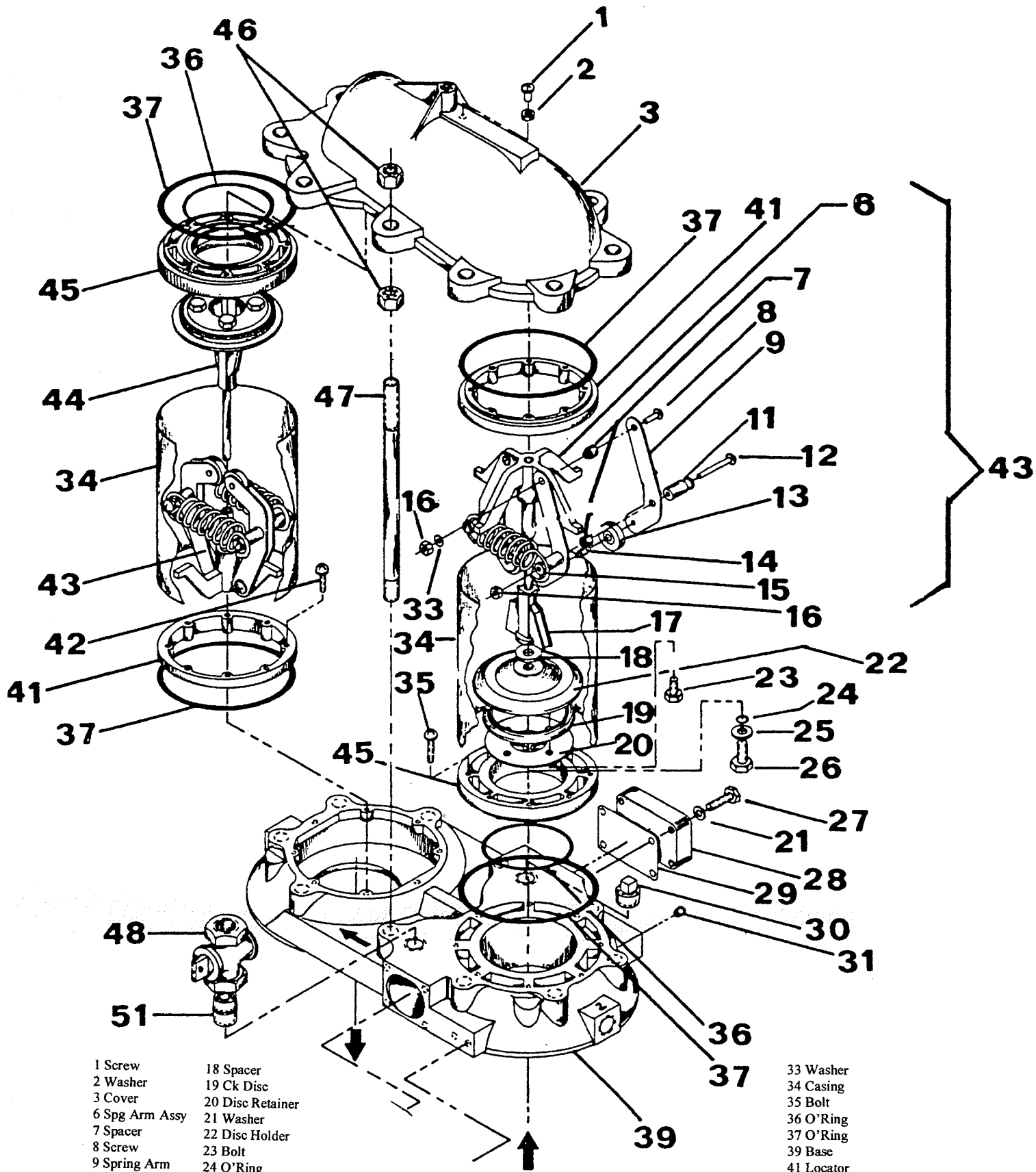
### Purchasing Specifications

The preventer(s) shall consist of a copper alloy base fitted with two check valves (and a relief valve\*). The unit housing shall be quickly and easily removable for in-line servicing of check valves which shall be a modular construction. The preventer(s) shall be equipped with shut-off valves on the up-stream and down-stream ports. The check valves shall be of the



poppet type. (The relief valve shall include a stainless steel spring coupler to prevent spitting caused by pressure variation.) The preventer shall be equipped with four test cocks suitably placed for field testing the device.

\*Words enclosed by parentheses apply only to reduced pressure devices.



- 1 Screw
- 2 Washer
- 3 Cover
- 6 Spg Arm Assy
- 7 Spacer
- 8 Screw
- 9 Spring Arm
- 11 Spring Rod
- 12 Screw
- 13 Roller
- 14 Roller Pin
- 15 Ck Spring
- 16 Nut
- 17 Cam Assy
- 18 Spacer
- 19 Ck Disc
- 20 Disc Retainer
- 21 Washer
- 22 Disc Holder
- 23 Bolt
- 24 O'Ring
- 25 Washer
- 26 Bolt
- 27 Bolt
- 28 Base Cap
- 29 Gasket
- 30 Plug
- 31 Plug

- 33 Washer
- 34 Casing
- 35 Bolt
- 36 O'Ring
- 37 O'Ring
- 39 Base
- 41 Locator
- 42 Screw
- 43 Spring Arm Assy
- 44 Cam Assy
- 45 Ck Valve Seat
- 46 Nut
- 47 Stud
- 48 Test Cock
- 51 Nipple

BDC 3"



# Backflow Preventers 4"

## Double Check Model BDC

### Characteristics

Compact — lightweight — only 88 pounds (without valves).

Flexible, multi-directional bottom mount permits time saving installation.

Valve options: NRS gate valves, OS & Y gate valves, Butterfly valves and Less valves.

Internal parts of corrosion resistant engineering plastic, copper alloy and stainless steel.

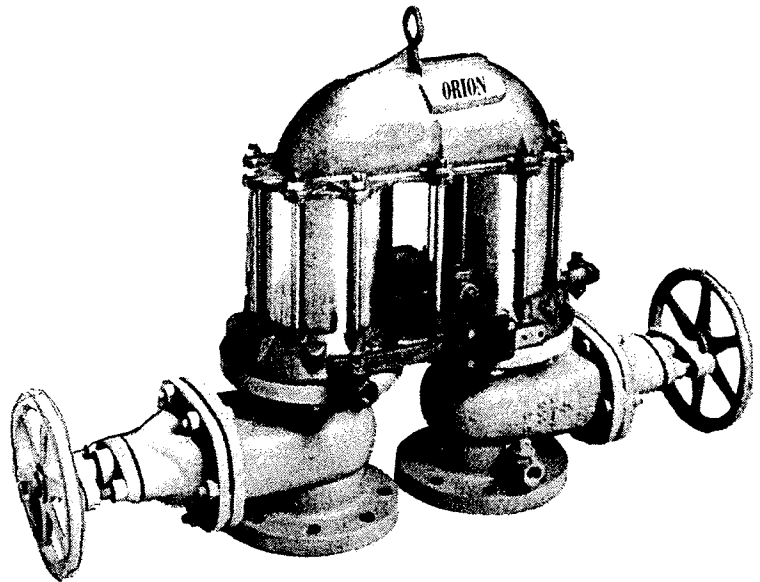
Copper alloy base and cover, stainless steel casing.

Operating pressure 150 psi.

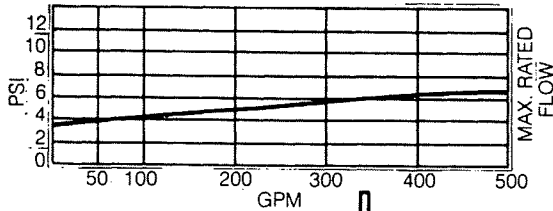
Operating temperature 150° max.

Bottom mount permits installation in vertically upward running pipeline.

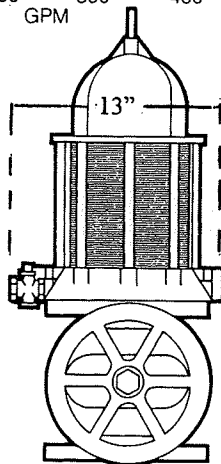
Meets performance specifications of AWWA C-506. Approved by USC Foundation for Cross Connection Control. IAPMO, ASSE and SBCCI listed.



ORION BACKFLOW PREVENTER MODEL 4" BDC



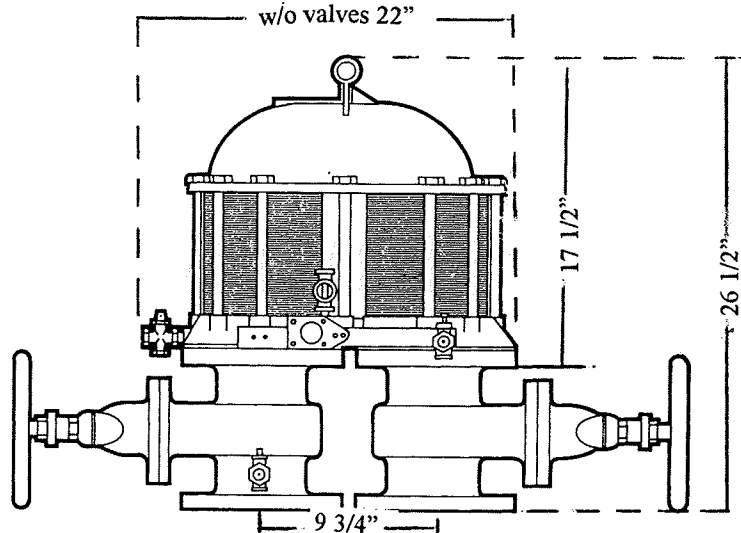
Valves	w/valves
NRS	250 lbs.
OS&Y Open	268 lbs.
Butterfly	115 lbs.



Note: See opposite side for dimensions.

### Purchasing Specifications

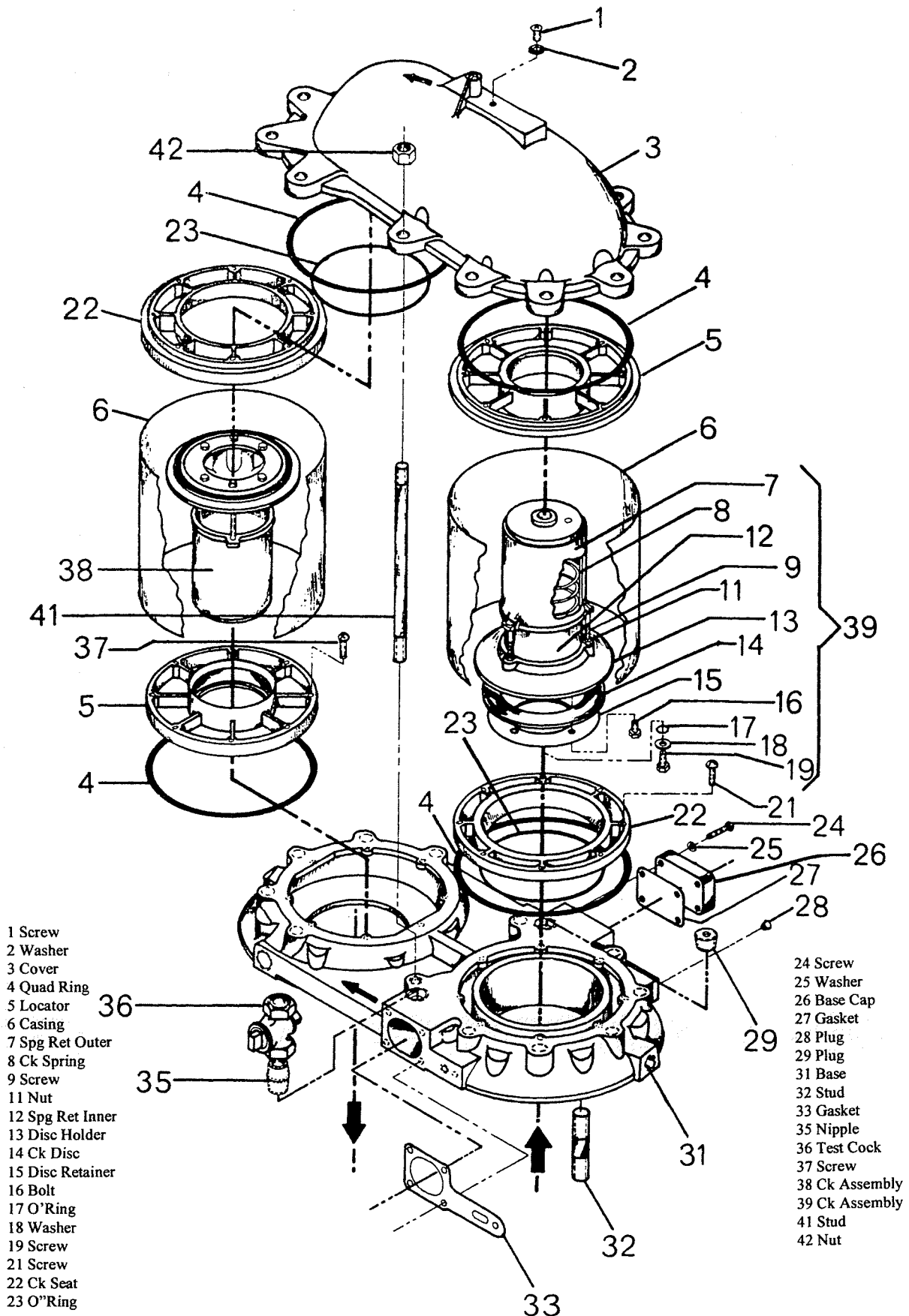
The preventer(s) shall consist of a copper alloy base fitted with two check valves (and a relief valve\*). The unit housing shall be quickly and easily removable for in-line servicing of check valves which shall be a modular construction. The preventer(s) shall be equipped with shut-off valves on the up-stream and down-stream ports. The check valves shall be of the



poppet type. (The relief valve shall include a stainless steel spring coupler to prevent spitting caused by pressure variation.) The preventer shall be equipped with four test cocks suitably placed for field testing the device.

\*Words enclosed by parentheses apply only to reduced pressure devices.

ORION INDUSTRIES



BDC 4"