

# **RP-500**

# **Reduced Pressure Assembly**

**LEAD FREE Composite Backflow Preventer** 



Sizes: 1/2" 3/4" 1" 11/4" 11/2" 2"

### **Description**

A.R.I. RP-500 Reduced Pressure Backflow Preventer provides maximum protection against back-pressure and back-siphonage backflow. The RP-500 consists of two independently acting check valves and a relief valve. The RP-500 and ball valves are constructed from lead free and corrosion resistant internal components. The A.R.I. RP-500 is designed to streamline the number of working parts, making maintenance and repair fast with lower cost. The unique top-entry cover allows quick access to both check modules and relief valve. These A.R.I. reduced pressure backflow preventers are available in 1/2" thru 2""sizes.

## **Standards Compliance**

ASSE 1015, AWWA C511, NSF 61-G, WaterMark (Australia), ACS (France), CSA B64.4, USC FCCC-HR Foundation for Cross Connection Control and Hydraulic Research at University of Southern California, Listed to Uniform Plumbing Code.











### **Features & Benefits**

- Patented Modular Design with 10 Year Limited Warranty
- Top Loaded access for quick maintenance and repair
- Component design means minimal parts to stock
- Lead Free NSF 61-G Certified & Theft Deterrent
- Sizes: 1/2" 3/4", 1", 11/4", 11/2", 2"
- Made of *Composite* plastic material, resistant to corrosion
- Internal control system ensures reliability and safety
- Easy and quick installation
- Lightweight & UV resistant
- Low Pressure-Loss
- Meets USC, ASSE, AWWA, NSF and Int. Standards
- Variety of installation options

## **Performance**

- Max. Working Pressure..... 150 PSI
- Max. Working Temperature.... 110 F
- Hydrostatic Test Pressure..... 350 PSI
- Temperature...... 33F 110F

### **Materials**

- Body...... Polyamide 6.50% Glass Reinforced Nylon
- Cover.....Polyamide 6.50% Glass Reinforced Nylon
- Polymers...... Noryl, NSF Listed
- Elastomers......Silicone
- Springs.....Stainless Steel

### **Specification**

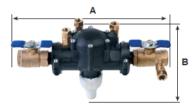
Reduced Pressure Backflow Preventer shall protect against backflow by either back-pressure or back-siphonage from a cross-connection between potable water systems and substances that are high health hazards. The body of the device shall be constructed from nylon composite lead free material. It shall consist of two (2) mechanically independent, spring loaded, center stem guided check valves (modules). It shall also have a hydraulically dependent differential pressure relief valve with the sensing passage set in an integral lead free body, with a single access cover. The assembly shall have four (4) vertical test cocks and two (2) shut-off valves which are quarter-turn, full-port, resilient seated and ball type. The relief valve shall have removable seat ring. The check valves (modules) shall be held into place by a retainer and the check valve (modules) shall be non-interchangeable with silicone discs.





## **Dimensions & Weight**

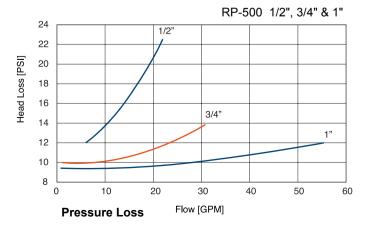
Nominal Size	Dime A	ension B	Weight Lbs
1/2"	12.5"	6.10"	3.0
3/4"	12.5"	6.10"	3.2
1"	12.5"	6.10"	5.3
11/4"	18.5"	10.6"	11.5
11/2"	19.0"	10.6	12.7
2"	20.3"	10.6"	14.3



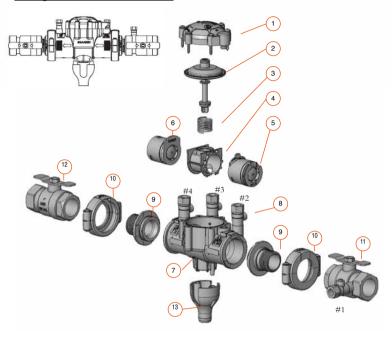
## **Parts Component List**

No.	Part
1.	Cover Assembly
2.	Relief Valve Assembly
3.	Relief Valve Spring
4.	Retainer
5.	Inlet Check Valve Assembly
6.	Outlet Check Valve Assembly
7.	Body Assembly
8.	Test Cocks (#1, #2, #3, #4)
9.	Adaptor Assembly
10.	Clamp Assembly
11.	Inlet Shut-off Valve
12.	Outlet Shut-off Valve

Drainage Funnel



## **Exploded View**

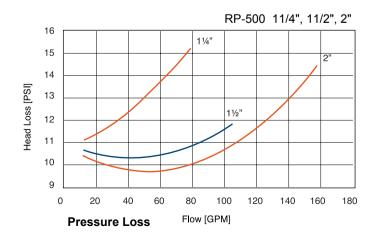


### **Rated Flow**

(Established by Approval Agencies)

Capacity thru Schedule 40 Pipe (GPM)					
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec	
3/4"	8	12	17	25	
1"	13	20	27	40	
1-1/4"	23	35	47	70	
1-1/2"	32	48	63	95	
2"	52	78	98	157	

## **Pressure Loss**





# DC-500

# **Double Check Assembly**

**LEAD FREE Composite Backflow Preventer** 



Sizes: 1/2" 3/4" 1" 11/4" 11/2" 2"

### **Description**

The DC-500 Double Check Assembly designed to provide protection and durability against backflow caused by backsiphonage or backpressure. DC-500 Nylon Composite Assembly has two independent, easily replaceable check modules.

The DC-500 is recommended in places where the degree of hazzard is low and doesn't necessitate the use of a high hazzard device like the RP-500. Backflow may cause infiltration of chemicals, fertilizers and/or other pollutants into potable water systems. The DC-500 is reliable and easily maintained without the need for special tools.

### Features & Benefits

- Patented Modular Design with 10 Year Limited Warranty
- Top Loaded access for quick maintenance and repair
- Component design means minimal parts to stock
- Lead Free NSF 61-G Certified & Theft Deterrent
- Sizes: 1/2" 3/4", 1", 11/4", 1½", 2"
- Made of Nylon Composite plastic material, resistant to corrosion
- Internal control system ensures reliability and safety
- Easy and quick installation
- Lightweight & UV resistant
- Low Pressure-Loss
- Meets USC, ASSE, AWWA, NSF and International Standards
- Variety of installation options

## **Standards Compliance**

DC-500 approved by the following Standards:

ASSE 1015, AWWA C511, NSF 61-G, WaterMark (Australia),

ACS (France), CSA B64.4, USC FCCC-HR Foundation for Cross

Connection Control and Hydraulic Research at University of

Southern California, Listed to Uniform Plumbing Code.











## **Performance**

- Max. Working Pressure..... 150 PSI
- Max. Working Temperature.... 110 F
- Hydrostatic Test Pressure..... 350 PSI
- Temperature...... 33F 110F

#### **Materials**

- Body...... Polyamide 6.50% Glass Reinforced Nylon
- Cover.....Polyamide 6.50% Glass Reinforced Nylon
- Polymers...... Noryl, NSF Listed
- Elastomers......Silicone
- Springs.....Stainless Steel

### **Specification**

Double Check Backflow Preventer shall protect against backflow by either back-pressure or back-siphonage from a cross-connection between potable water systems and substances that are low health hazards. The device shall be constructed from lead free Nylon Composite material compliant with NSF-61-G.

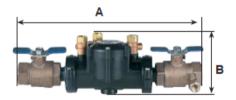
It shall consist of two (2) mechanically independent, spring loaded, center stem guided check valves. Top access cover. The assembly shall have four (4) vertical test cocks and two (2) lead free shut-off valves which are quarter-turn, full-port, resilient seated ball type. The check valves shall be held into place by a retainer and the check valve modules shall be non-interchangeable with silicone discs.





## **Dimensions and Weights**

Nominal			Weight
Size	Din	nension	Lbs
1/2" 3/4"	12.5"	6.10"	3.2
1"	12.5"	6.10"	5.3
11⁄4"	18.5"	10.6"	11.5
1½"	19.0"	10.6	12.7
2"	20.3"	10.6"	14.3



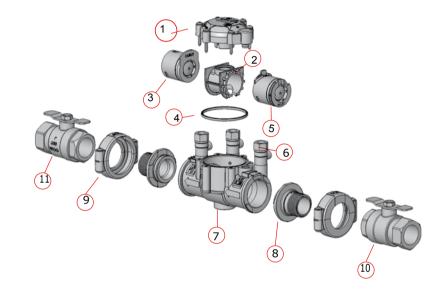
## **Parts Component List**

No.	Part	
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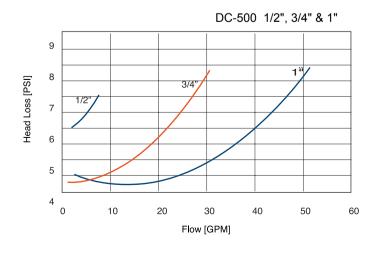
- Cover Assembly
- 2. Retainer
- 3. Inlet Check Valve Assembly
- 4. Body Seal
- 5. Outlet Check Valve Assembly
- 6. Test Cocks (#1, #2, #3)
- 7. Body Assembly
- 8. Adaptor Assembly 9. Clamp Assembly
- 10 Inlet Shut Off Valve
- 11. Outlet Shut Off Valve

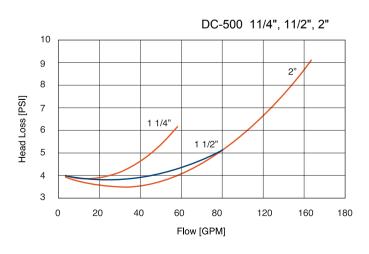


## **Components Exploded View**



#### **Pressure Loss Curves**





UBS United Backflow Solutions, LLC