Reduced Pressure Backflow Prevention Assembly

Sizes 2½" – 3" – 4" – 6" – 8" – 10"

FEATURES

Exclusive Aergap® system protection.

Hot-dipped galvanized, epoxy-coated cast iron, or bronze body.*

Replaceable seats and springs.

Rugged one piece body construction for long, dependable service.

Can be specified with OS&Y or NRS gate valves.

In-line maintenance.

Test cocks for in-line field testing.

Internal sensing passage.

Hot water approval to 140° F.

*Bronze available in 2½"–6" only.

Approvals by: USC, CSA B64.6, ASSE 1013, AWWA, FM; IAMPO listed; UL, ULC classified, U.S. Navy, U.S. Army.

DESCRIPTION

The Hersey Model 6CM Reduced Pressure Backflow Prevention Assembly features the exclusive Hersey Aergap® system. This design provides the highest level of protection against backflow.

The unit consists of two independent spring loaded poppet-type check valve assemblies, and a relief valve, all mounted in a common body. The relief valve is a diaphragm actuated, spring loaded, double seated valve assembly. Two gate valves (either NRS or OS&Y) and four test cocks for field testing complete the basic features. The valve assemblies are of modular design and easily removed from the top of the device for in-line servicing.

OPERATION

Normal operation – The independent, spring loaded check valves remain closed until there is a demand for water. The relief valve remains closed because of the differential between the supply pressure and the reduced pressure in the zone between the check valves.

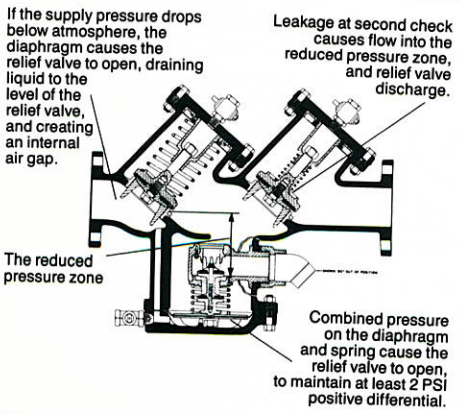
Backpressure – In the event pressure increases downstream, tending to reverse direction of flow, both check valves are closed to prevent backflow. If the second check valve is prevented from closing tightly, leakage into the reduced pressure zone increases the zone pressure to within a few pounds of the supply pressure. This causes the relief valve to open, and backflow is discharged.

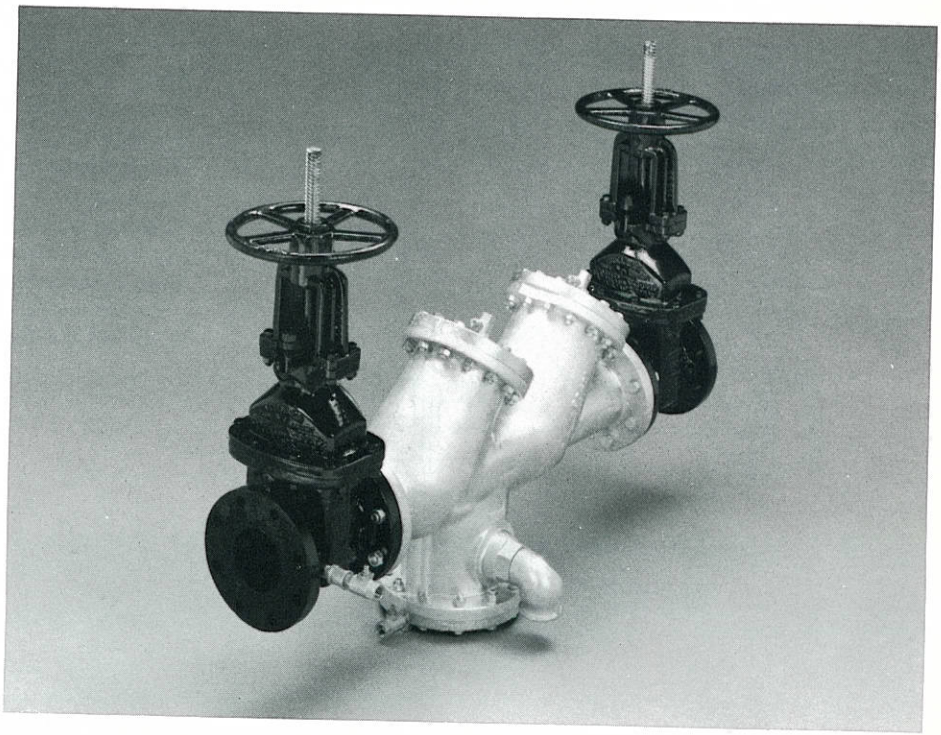
Backsiphonage – If the supply pressure drops to atmosphere or lower than the reduced pressure zone, the relief valve will open, creating an internal air gap at least twice the diameter of the inlet pipe. This air gap is maintained between the first check valve and the second check valve as all the water in the reduced pressure zone is released to the atmosphere.

APPLICATION

For use at cross-connections when the danger from backflow presents a health-hazard.

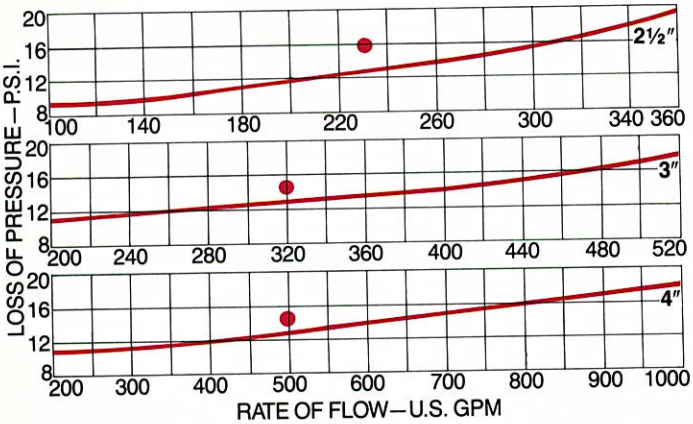
The Aergap® Principle



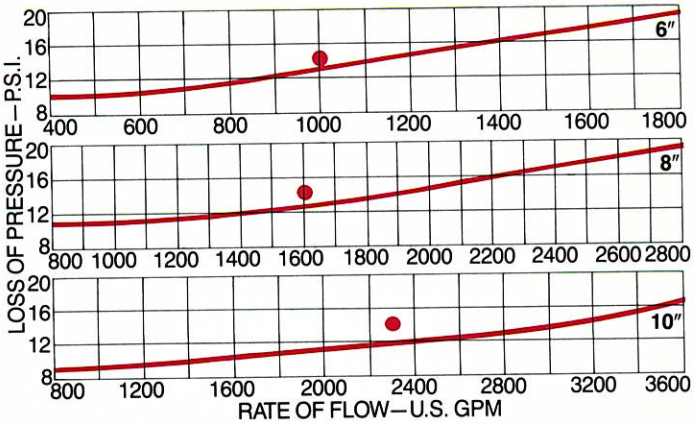


PERFORMANCE (Performance curves are typical only and not a guarantee of performance)

Head Loss – 2½", 3" and 4"



Head Loss – 6", 8" and 10"

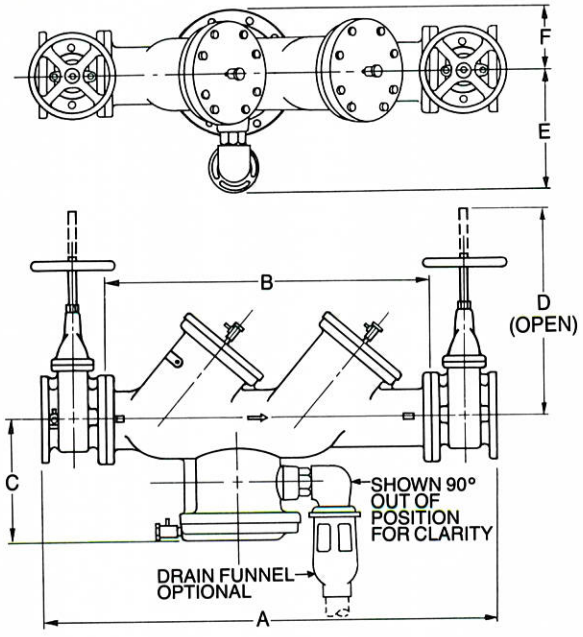


NOTE: ● Maximum Allowable Pressure Loss allowed by USC at indicated flow.

DIMENSIONS

DIMENSIONS	2½"	3"	4"	6"	8"*	10"*
A (bronze)	35"	40"	46½"	62"	–	–
A (iron)	36½"	40"	47½"	62"	75½"	88"
B (bronze)	20"	24"	28½"	41"	–	–
B (iron)	21½"	24⅝"	29½"	41"	52½"	62"
C (bronze)	9¾"	10"	10¾"	12"	–	–
C (iron)	9 13/16"	10"	10¾"	12"	21¼"	22⅜"
D (NRS)	12½"	13⅝"	15¼"	19⅞"	24½"	29¾"
D (OS+Y**)	17⅜"	22 1/16"	25"	32¾"	41½"	48½"
E (bronze & iron)	10⅛"	10⅛"	10⅛"	10⅛"	17⅜"	17⅜"
F (bronze)	4½"	4½"	4¾"	6 3/16"	–	–
F (iron)	5¼"	5¼"	5¼"	6 3/16"	8⅜"	10 3/16"
Size of Test Cocks	½"	½"	½"	¾"	¾"	¾"
Relief Valve Opening	2"	2"	2"	2"	3"	3"

*8" and 10" available in cast iron only
**OS+Y gate valve "D" dimension valve open.



WEIGHTS

SIZE (BRONZE)	2½"	3"	4"	6"
Net Wt. No Valves, Lbs.	130	194	250	548
Net Wt. W/NRS Valves, Lbs.	258	330	430	788
Net Wt. W/OS+Y Valves, Lbs.	218	306	490	875
Gross Wt. No Valves, Lbs.	160	224	280	630
Gross Wt. W/NRS Valves, Lbs.	288	360	470	870
Gross Wt. W/OS+Y Valves, Lbs.	260	362	530	905

SIZE (IRON)	2½"	3"	4"	6"	8"	10"
Net Wt. No Valves, Lbs.	160	206	293	532	1266	1955
Net Wt. W/NRS Valves, Lbs.	264	330	476	874	1876	2769
Net Wt. W/OS+Y Valves, Lbs.	270	340	490	876	1926	2966
Gross Wt. No Valves, Lbs.	190	236	328	622	1370	2100
Gross W/NRS Valves, Lbs.	294	360	526	964	1980	3084
Gross W/OS+Y Valves, Lbs.	300	370	540	966	2030	3136

MATERIALS AND SPECIFICATIONS

Body ..... hot-dipped galvanized or epoxy coated cast iron; 2½"–10"
Body ..... bronze; 2½"–6"
Working parts ..... bronze and stainless steel
Springs ..... stainless steel*
Diaphragms ..... reinforced elastomer
Valve discs ..... silicone rubber
Maximum rated working pressure ..... 175 psi
Hydrostatic test pressure ..... 350 psi
Temperature range ..... 33°–140°F
(Available up to 180°)

*8" and 10" first check springs are carbon steel vinyl-coated.