Water Hammer Arresters

Buying Information



Piston Design
Simplicity of design allows for the highest quality and longest life of any arrester type. Endurance tested to 500,000 cycles without failure.

Made in America
Arresters are made in the USA with all-American copper, brass and stainless steel materials.

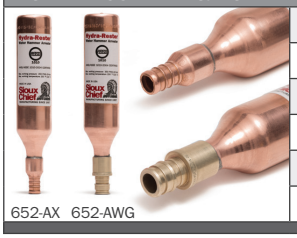
Certified
Arresters are certified by ASSE to the ASSE 1010 Standard, satisfying the requirements of all model codes.

Connection Options
Sioux Chief's unique ability to provide a wide variety of connection options saves the installer time and money, while eliminating costly transition joints.

CATEGORY	ITEM NO.	DESCRIPTION	LEAD FREE COMPLIANT	PKG	MIN. QTY.	CASE QTY.
STRAIGHT						
	660-SB	1/2" Male Sweat	✓	B	50	50
	660-S	1/2" Male Sweat, Clamshell	✓	Cl	6	6
	660-G2B	1/2" MIP Thread	✓	B	50	50
	660-G2	1/2" MIP Thread, Clamshell	✓	Cl	6	6
	660-V82B	1/2" Male CPVC	✓	B	50	50
	660-X2B	1/2" PEX F1807 Crimp	✓	B	50	50
	660-GVPX2B	1/2" PEX F3347	✓	B	50	50
	660-WG2B	1/2" PEX F1960 Grip	✓	B	50	50
TEE						
	660-HB	3/4" Female Swivel Hose Thread × 3/4" Male Hose Thread		B	25	25
	660-H	3/4" Female Swivel Hose Thread × 3/4" Male Hose Thread, Clamshell		Cl	6	6
	660-HPK2	3/4" Female Swivel Hose Thread × 3/4" Male Hose Thread, 2/Bag		BI	20	20
	660-TKB	Female Swivel Ballcock Nut × Male Ballcock Thread		B	25	25
	660-TK	Female Swivel Ballcock Nut × Male Ballcock Thread, Clamshell		Cl	6	6
TUB/SHOWER TEE						
	660-TS	1/2" MSWT Open End Branch x 1/2" FSWT	✓	B	25	25
	660-TSWG	1/2" Male Sweat x 1/2" PEX F1960 Grip	✓	B	25	25
	660-TSX	1/2" Male Sweat × 1/2" PEX F1807 Crimp	✓	B	25	25
	660-TS8	1/2" × 8" Stub Out × 1/2" Female Sweat	✓	B	25	25
	660-TSWG8	1/2" x 8" Stub Out x 1/2" PEX F1960 Grip	✓	B	25	25
	660-TS88	1/2" × 8" Double Stub Out × 1/2" Female Sweat	✓	B	25	25
	660-TSX88	1/2" × 8" Double Stub Out × 1/2" PEX F1807 Crimp	✓	B	25	25
PEX TEE						
	660-GTW2B	1/2" PEX F1960 Grip	✓	B	25	25
	660-GTX2B	1/2" PEX F1807 Crimp	✓	B	25	25
	660-GTX2	1/2" PEX F1807 Crimp, Clamshell	✓	Cl	6	6
COMPRESSION TEE						
	660-GTC0B	1/4" O.D. Comp. Tee	✓	B	25	25
	660-GTC0	1/4" O.D. Comp. Tee	✓	Cl	6	6
	660-GTC1B	3/8" O.D. Comp. Tee for Supply Tube	✓	B	25	25
	660-GTC1	3/8" O.D. Comp. Tee for Supply Tube, Clamshell	✓	Cl	6	6
FEMALE COMPRESSION TEE						
	660-GTR0B	1/4" O.D. Comp. × 1/4" O.D. Female Comp.	✓	B	25	25
	660-GTR0	1/4" O.D. Comp. × 1/4" O.D. Female Comp., Clamshell	✓	Cl	6	6
	660-GTR1B	3/8" O.D. Comp. × 3/8" O.D. Female Comp.	✓	B	25	25
	660-GTR1	3/8" O.D. Comp. × 3/8" O.D. Female Comp., Clamshell	✓	Cl	6	6
	660-GTRB	5/8" O.D. Comp. × 5/8" O.D. Female Comp.	✓	B	25	25
	660-GTR	5/8" O.D. Comp. × 5/8" O.D. Female Comp., Clamshell	✓	Cl	6	6

Packaging: B = Bulk C = Cut Case I = Individually Bar-Coded

HydraRester™

CATEGORY	ITEM NO.	CONN SIZE	UNIT SIZE	LENGTH	WIDTH	FIXTURE UNIT VALUE	VOLUME	LEAD FREE COMPLIANT	PKG	MIN QTY.	CASE QTY.
MIP THREAD											
	652-A	1/2"	A	6-1/2"	1-3/8"	1–11	5 in³	✓	BI	1	16
	653-B	3/4"	B	8-3/4"	1-3/8"	12–32	7 in³	✓	BI	1	16
	654-C	1"	C	11"	1-3/8"	33–60	11 in³	✓	BI	1	16
	655-D	1"	D	10-1/8"	2-1/8"	61–113	20 in³	✓	BI	1	4
	656-E	1"	E	12-5/8"	2-1/8"	114–154	29 in³	✓	BI	1	4
	657-F	1"	F	15-1/8"	2-1/8"	155–330	36 in³	✓	BI	1	4
MALE SWEAT/PRESS FITTING											
	652-AS	1/2"	A	8-1/2"	1-3/8"	1–11	5 in³	✓	BI	1	16
	653-BS	3/4"	B	10"	1-3/8"	12–32	7 in³	✓	BI	1	16
	654-CS	1"	C	12-1/2"	1-3/8"	33–60	11 in³	✓	BI	1	16
	655-DS	1"	D	11"	2-1/8"	61–113	20 in³	✓	B	1	4
	656-ES	1"	E	13-1/2"	2-1/8"	114–164	29 in³	✓	B	1	4
	657-FS	1"	F	16"	2-1/8"	156–330	36 in³	✓	B	1	4
CPVC SOCKET ASTM D2846[1]											
	652-AC	1/2"	A	7-1/2"	1-3/8"	1–11	5 in³	✓	BI	1	16
	653-BC	3/4"	B	9-1/2"	1-3/8"	12–32	7 in³	✓	BI	1	16
	654-CC	1"	C	12"	1-3/8"	33–60	11 in³	✓	BI	1	16
ASTM F1807 PEX & ASTM F1960 PEX[1]											
 652-AX 652-AWG	652-AX	1/2"	A	6-1/2"	1-3/8"	1–11	5 in³	✓	BI	1	16
	653-BX	3/4"	B	8-3/4"	1-3/8"	12–32	7 in³	✓	BI	1	16
	654-CX	1"	C	11"	1-3/8"	33–60	11 in³	✓	BI	1	16
	652-AWG	1/2"	A	6-1/2"	1-3/8"	1–11	5 in³	✓	BI	1	16
	653-BWG	3/4"	B	8-3/4"	1-3/8"	12–32	7 in³	✓	BI	1	16
	654-CWG	1"	C	11"	1-3/8"	33–60	11 in³	✓	BI	1	16

1: PEX and CPVC connection specifications are limited to those called out in their respective ASTM Standards for Fittings.

VacuRester™

CATEGORY	ITEM NO.	CONN SIZE	LENGTH	WIDTH	LEAD FREE COMPLIANT	PKG	MIN QTY.	CASE QTY.
MIP THREAD								
	652-AD	1/2"	6-1/2"	1-3/8"	✓	BI	1	16
	657-FD	1"	15-1/8"	2-1/8"	✓	BI	1	4

Preventing Cavitation

Cavitation[2] is a phenomenon that is related to water hammer, but is not controlled in the same way. The VacuRester is engineered specifically to control the problem of cavitation. Similar in design to a piston-style water hammer arrester, the operation of a VacuRester is functionally opposite that of a conventional water hammer arrester. The VacuRester's piston starts high in the barrel and travels down during activation. When installed directly downstream of a quick-closing valve, the VacuRester will allow a more gradual stop of the water flow, to prevent cavitation in high-flow, long-run plumbing systems.

2 Cavitation can occur in certain water supply systems and is dependent upon factors including flow velocity, pipe length, and quick valve closure.

CATEGORY	ITEM NO.	CONNECTION	HEIGHT	VOLUME	PKG	MIN QTY.	CASE QTY.
COPPER							
	658-1503	3" MIP (ANSI B1.20.1)	23.25"	150 in^3	BI	1	1
	658-2002	2" MIP (ANSI B1.20.1)	29.25"	200 in^3	BI	1	1
	658-2004	4" MIP (ANSI B1.20.1)	24.50"	200 in^3	BI	1	1
	658-4004	4" MIP (ANSI B1.20.1)	42.50"	400 in^3	BI	1	1
	658-4004F2	4" Class 150 Flange (ANSI B16.24)	41.75"	400 in^3	BI	1	1
STAINLESS STEEL							
	658S2002	2" MIP (ANSI B1.20.1)	24.25"	200 in^3	BI	1	1
	658S2004F2	4" Class 150 Flange (ANSI B16.24)	24.00"	200	BI	1	1
	658S4004F2	4" Class 150 Flange (ANSI B16.24)	40.00"	400	BI	1	1

Field Charging

The Sioux Chief MegaRester™ water hammer arrester can be charged or recharged with air after installation by following the instructions below:

- Determine the charge pressure: Arresters are shipped with a 60 PSIG factory air charge. This pressure works well for average piping systems. However, for optimum performance in a particular system, the arrester's air charge should be equal to the flow pressure of the system at or near the culprit valve. For example, if the water pressure is 40 PSIG near the valve while the valve is on and the water is flowing, then the arrester's air charge should be 40 PSIG, plus or minus 5 PSIG.
- Turn the water pressure OFF and open a valve on the line to allow the water pressure to drop to ZERO in the water line. Note: Do NOT attempt to pressurize the chamber while the water pressure is still on. This will not add the correct air pressure charge to the chamber.
- Attach an air hose to the air valve on top of the MegaRester and pressurize the chamber until the Mega-Rester gauge reads the charge pressure determined in the initial step.
- Turn the water pressure back ON. Since the static pressure of any water line is almost always higher than the flow pressure, the MegaRester gauge will now read a higher pressure (than previously charged to) while the water line valve is OFF. This difference is okay – Do not let air out to drop the charge pressure. When the water line valve is turned ON, the pressure in the water line and the arrester chamber will drop to the observed flow pressure.

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