



LOCATION

# INSTALLATION INSTRUCTIONS

## Jay R. Smith Mfg. Co.® PISTON TYPE WATER HAMMER ARRESTER HYDROTROL JUNIOR

Maximum working pressure - Designed to keep residential, commercial, and industrial water lines @ 350 p.s.i. maximum working pressure during pressure surges following quick valve closure. Working TEMPERATURE RANGE - From 33° to 250° F.

### INSTALLATION

The piston unit can be installed in new construction or renovation/remodel by threading into properly sized female I.P.S. fitting (wrench on hex). It can be installed at any angle to accommodate structural limitations, and should be placed as close to the shut-off valve as possible, one on each hot and cold line. The piston unit is seamless, factory charged and is maintenance free and does not require access panels. It cannot be charged in the field.

### TYPICAL INSTALLATIONS

- Properly sized and placed (see tables below) the piston unit can be set in a multiple fixture branch for commercial/institutional/industrial/residential applications.
- As a tee configuration with stub outs in walls behind sinks, lavatories, and water closets.
- In supply lines of clothes washers and dishwashers (AA not recommended for these applications).
- Into cold inlet and hot outlet of water heater for general protection.

### PISTON UNITS Comply with the following:

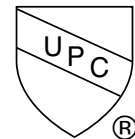
ASSE/ANSI 1010 Water Hammer Arrester Standard

**NOTE:** Systems exceeding 60 PSI(414 kPa) shall be installed with a pressure reducing valve upstream of the unit per ASSE Standard #1010.

Listed:



STD 1010



FILE NO. 4785

FIXTURE UNIT RATING TABLE GENERAL BUILDING AREAS

FIXTURE	TYPE OF SUPPLY CONTROL	WEIGHT IN FIXTURE - UNITS			
		PUBLIC		PRIVATE	
		C.W.	H.W.	C.W.	H.W.
Water Closet	Flush Valve - 1.6 GPF	8	-	5	-
Water Closet	Flush Tank - 1.6 GPF	5	-	3	-
Pedestal Urinal	Flush Valve - 1.06 GPF	4	-	-	-
Stall or Wall Urinal	Flush Valve - 1.06 GPF	4	-	-	-
Stall or Wall Urinal	Flush Tank	2	-	-	-
Lavatory	Faucet	1 1/2	1 1/2	1	1
Bath tub	Faucet	2	3	1 1/2	1 1/2
Shower head	Mixing Valve	2	3	1	2
Bathroom Group	Flush Valve Closet	-	-	8	3
Bathroom Group	Flush Tank Closet	-	-	6	3
Separate Shower	Mixing Valve	-	-	1	2
Service Sink	Faucet	3	3	-	-
Laundry Tubs (1-3)	Faucet	-	-	3	3
Combination Fixture	Faucet	-	-	3	3

Size	Sizing Symbol	Smith Fig. No.	Air Charge	Dimensions		Fixture Unit Capacity
				A	B (DIA)	
* 1/2 (13) NPT	AA	5201	60 psig	5 1/8"(130)	7/8"(22)	1 to 3
1/2 (13) NPT	A	5205	60 psig	6"(152)	1 1/8"(29)	4 to 11
3/4 (19) NPT	B	5210	60 psig	7 1/4"(184)	1 1/8"(29)	12 to 32
1 (25) NPT	C	5220	60 psig	8 3/4"(222)	1 3/8"(35)	33 to 60
1-1/4 (32) NPT	D	5230	60 psig	10 3/16"(259)	1 5/8"(41)	61 to 113
1-1/2 (38) NPT	E	5240	60 psig	11 1/8"(283)	2 1/8"(54)	114 to 154
2 (50) NPT	F	5250	60 psig	13"(330)	2 5/8"(67)	155 to 330

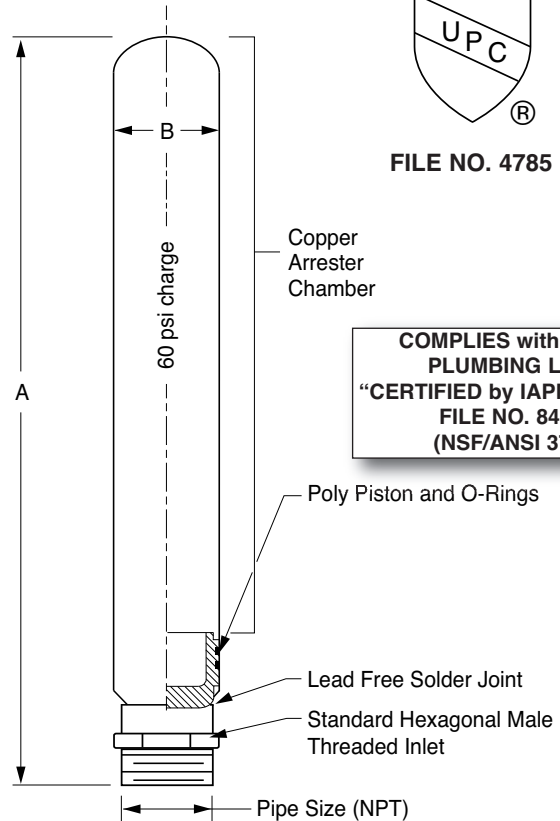
\* For use in residential applications only.

### ASSE/PDI WATER HAMMER ARRESTER SIZING CHART

Length of Pipe	Nominal Pipe Diameter						
	1/2"(13)	3/4"(19)	1"(25)	1 1/4"(32)	1 1/2"(38)	2"(51)	
25'(7.62m)	A	A	B	C	D	E	E
50'(15.24m)	A	B	C	D	E	F	F
75'(22.86m)	B	C	D	AE	F	EF	EF
100'(30.48m)	C	D	E	F	CF	FF	FF
125'(38.10m)	C	D	F	AF	EF	EFF	EFF
150'(45.72m)	D	E	F	DF	FF	FFF	FFF

**NOTE:** Dimensions shown in parentheses are in millimeters.

**IMPORTANT**  
 INSTALL USING WRENCH ON HEX ABOVE THREADS PROTECT PRESSURE CHAMBER FROM DENTING.



COMPLIES with LEAD PLUMBING LAW  
 "CERTIFIED by IAPMO R & T"  
 FILE NO. 8477  
 (NSF/ANSI 372)

DRAWING NUMBER  
 S5200 Series

SIZE  
 A

SCALE:  
 NONE

DATE:  
 4-28-92

APPROVED BY:  
 SJM

CHECKED BY:  
 JM

DRAWN BY:  
 EMB

5200 SERIES

FIGURE NUMBER

WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA

L	8-7-18	Added Notes, Revised Table Revised Table Revised Callout Added File No. 8477 Note	TBW	DP	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER <b>5200 SERIES</b>
K	2-17-17		TBW	TWK			
J	5-10-16		TBW	TWK			
H	10-25-13		TBW	JM			
REV.	DATE	DESCRIPTION	BY	CKD. BY			