



# JAY R. SMITH CO.

PLUMBING & DRAINAGE PRODUCTS

959 Alness Street, North York, Ontario M3J 2J1

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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. 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.
- MIP Threaded model - Threaded into female I.P.S. connections in tub and shower valves.
- 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

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



Fixture	Type of Supply Control	Weight in Fixture-Units					
		Public			Private		
		Total	C.W.	H.W.	Total	C.W.	H.W.
Water Closet	Flush Valve	10	10	-	6	6	-
Water Closet	Flush Tank	5	5	-	3	3	-
Pedestal Urinal	Flush Valve	10	10	-	-	-	-
Stall or Wall Urinal	Flush Valve	5	5	-	-	-	-
Stall or Wall Urinal	Flush Tank	3	3	-	-	-	-
Lavatory	Faucet	2	1 1/2	1 1/2	1	1	1
Bathtub	Faucet	4	2	3	2	1 1/2	1 1/2
Shower Head	Mixing Valve	4	2	3	2	1	2
Bathroom Group	Flush Valve Closet	-	-	-	8	8	3
Bathroom Group	Flush Tank Closet	-	-	-	6	6	3
Separate Shower	Mixing Valve	-	-	-	2	1	2
Service Sink	Faucet	3	3	3	-	-	-
Laundry Tubs (1-3)	Faucet	-	-	-	3	3	3
Combination Fixture	Faucet	-	-	-	3	3	3

Pipe Size	P.D.I. Sizing	Smith Fig. No.	Air Charge	Dimensions		Fixture Unit Capacity
				A	B (DIA)	
1/2 (13) IPS	AA	5201	60 psig	5.56(141)	.875(22)	1 to 3
1/2 (13) IPS	A	5205	60 psig	6.875(175)	1.125(29)	4 to 11
3/4 (19) IPS	B	5210	60 psig	8.69(221)	1.38(35)	12 to 32
1 (25) IPS	C	5220	60 psig	12.00(305)	1.38(35)	33 to 60
1-1/4(32) IPS	D	5230	60 psig	12.00(305)	2.13(54)	61 to 113
1-1/2(38) IPS	E	5240	60 psig	14.56(370)	2.13(54)	114 to 154
2 (50) IPS	F	5250	60 psig	16.38(416)	2.13(54)	155 to 330

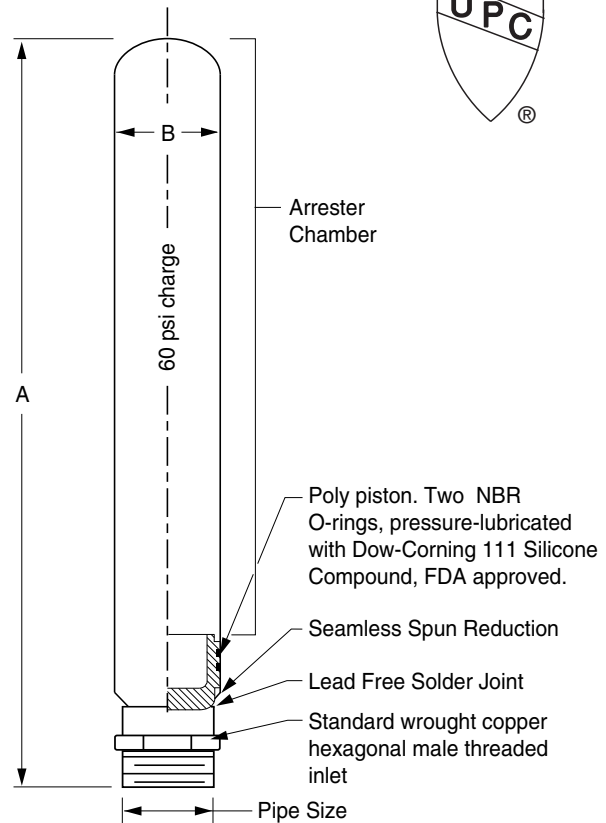
\* For use in residential applications only.  
**PDI (ASSE) WATER HAMMER ARRESTER SIZING CHART**

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

NOTE: Dimensions shown in parentheses are in millimeters.

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

**NOTE: The wetted surface of the product contacted by consumable water contributes less than one quarter of one percent of lead by weight.**



DRAWING NUMBER: S5200 Series-CAN  
 SIZE: A  
 SCALE: NONE  
 DATE: 4-28-92  
 APPROVED BY: SUM  
 CHECKED BY: JIM  
 DRAWN BY: EMB  
 5200 SERIES-CAN  
 FIGURE NUMBER

WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA  
 DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

REV.	DATE	DESCRIPTION	BY	CKD. BY	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER
C	01/19/10	Added Note	JJ	CL			5200 SERIES-CAN
B	07/20/05	Added UPC Logo	JJ	JM			
A	1-14-04	Added P.R.V. Note	TBW	JM			