DRAWING NUMBER

SUPERSEDED OR VOID DATA

Р

NONE

**APPROVED** 

CHECKED BY

DRAWN BY: **EMB** 

FIGURE NUMBER

WE CAN ASSUME NO RESPONSIBILITY FOR USE

DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA)
TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com





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.



		Weight in Fixture-Units					
Floring	Type of Supply	Public			Private		
Fixture	Control	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	P.D.I.	Smith	Air	Dimensions		Fixture Unit	
	Size	ize   Sizing   Fig. No.   Charge		Charge	Α	B (DIA)	A) Capacity	
*	1/2 (13) IPS	AA	5201	60 psig	5.56(141)	.8750(22)	1 то 3	
	1/2 (13) IPS	Α	5205	60 psig	6.875(175)	1.125(29)	4 to 11	
	3/4 (19) IPS	В	5210	60 psig	8.69(221)	1.38(35)	12 to 32	
	1 (25) IPS	С	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	Nominal Pipe Diameter								
Pipe	1/2"(13)	3/4"(19)	1"(25)	1 1/4"(32)	1 1/2"(38)	2"(51)			
25'(7.62m)	A	A	В	С	D	É			
50'(15.24m)	Α	В	С	D	E	F			
75'(22.86m)	В	С	D	AE	F	EF			
100'(30.48m)	С	D	E	F	CF	FF			
125'(38.10m)	С	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.

<u></u>	UPC
	-B
	Observed to the control of the contr
A 	
	Poly piston. Two EPDM O-rings, pressure-lubricated with Dow-Corning 111 Silicone Compound, FDA approved.
	Seamless Spun Reduction
	Lead Free Solder Joint
<b>V</b>	Standard wrought copper adapter with wrench hex
	Pipe Size

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