Precision Plumbing Products
"Specify with Confidence - Install with Pride"®

Stainless Steel Bellows Model SBHA LEAD-FREE*

Water Hammer Arrestor (sizes A thru F)®

*This product contains a weighted average lead content less than 0.25% for wetted surfaces.

☐ **Installation** ☐ **Maintenance Instructions**

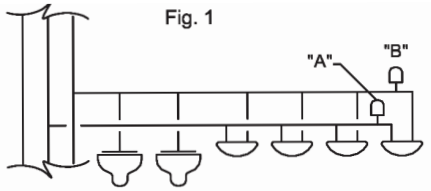
INSTALLATION

1. Flush lines thouroughly prior to installation of Model SBHA.
2. Determine size of Water Hammer Arrestor based on fixture units then refer to charts for proper devices.
3. The Model SBHA should be located as close to the source of shock as possible; one each on the hot and cold water lines. Use only Teflon Tape to seal pipe threads.
4. To insure proper performance, the Model SBHA should be installed so that there is an unobstructed path to the arrestor.
5. Threading the Model SBHA into the determined location should be done with an appropriate sized wrench on the nipple.

The fixture unit valves shown in Table II represent the standard ratings used by engineers to size water distribution systems and are also used to size water hammer arrestors. Match total fixture units to correct model of water hammer arrestors required from Table I. All sizing data in this brochure are based on flow velocities of 10 F.P.S. or less. The sizing method was designed with a maximum velocity of 10 F.P.S. to offer assurance that the Water Hammer Arrestor is capable of handling shock of maximum intensity that may be encountered.

EXAMPLE - Fig 1
C.W. = 22 Fixture Units
Needs - SBHA-750B

H.W. = 6 Fixture Units
Needs - SBHA-500A



LONG RUNS OF PIPING TO REMOTE EQUIPMENT

When long runs of piping are employed to serve a remote item of equipment, the Water Hammer Arrestor should be located as close as possible to the point of quick closure (see Fig. 4).
The size and quantity of Water Hammer Arrestor to be installed in branch lines is shown in Table III. Ideally, the flow pressure in branch lines serving fixtures should never exceed 55 PSIG. Pressure reducing valves should be installed to maintain proper pressure. When, however, flow pressures of 65 to 85 PSIG are used, the next larger size Water Hammer Arrester should be selected (see Table III).

Table III

FOR FLOW PRESSURES UP TO 85 PSIG								
LENGTH OF PIPE	Nominal Pipe Diameter							
	1/2"		3/4"		1"		1 1/4"	
	*	**	*	**	*	**	*	**
25'	A	B	A	B	B	C	C	
50'	A	B	B	C	C			
75'	B	C	C					
100'	C							
125'	C							

* Flow Pressure up to 65 psig
** Flow Pressure over 65 psig and up to 85 psig

SIZING AND SELECTION

1. Determine number of fixture units from Table II.
2. Determine shock arrestor size from Table I.
3. Finally, match arrestor to size and length of pipe run from Table III

TABLE 1

MODEL SBHA (SIZES)	500A	750B	1000C	1250D	1500E	2000F
FIXTURE UNITS	1 TO 11	12 TO 32	33 TO 60	61 TO 113	114 TO 154	155 TO 330

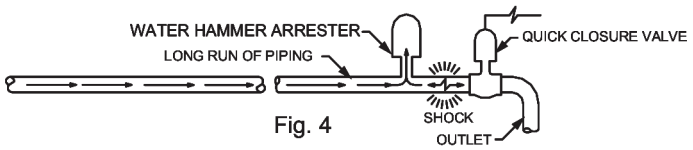


Fig. 4

TABLE II FIXTURE UNITS SIZING INFORMATION

FIXTURE	TYPE OF SUPPLY CONTROL	FIXTURE-UNITS			
		PUBLIC		PRIVATE	
		C.W.	H.W.	C.W.	H.W.
Water Closet	Flush Valve	8	-	5	-
Water Closet	Flush Tank	5	-	2.5	-
Pedestal Urinal	Flush Valve	4	-	-	-
Stall or Wall Urinal	Flush Valve	4	-	-	-
Lavatory	Faucet	1 1/2	1 1/2	1	1
Bathtub	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	Mixug Valve	-	-	1	2
Service Sink	Faucet	3	3	-	-
Laundry Tubs (1-3)	Faucet	-	-	3	3
Combination Fixture	Faucet	-	-	3	3

MULTI-FIXTURE BRANCH LINES

Rule 1 - Branch lines of 20 feet or less.
Water Hammer Arrestor should be placed at the end of the branch line between the last two fixtures served (see fig. 2). Select required model using fixture unit sizing.

Rule 2 - Branch lines exceeding 20 feet.
An additional Water Hammer Arrestor should be placed as shown (see fig. 3). Select required models using fixture unit sizing. The sum of the fixture unit ratings of units X and Y shall be equal to or greater than the demand of the branches.

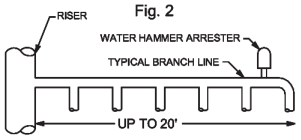


Fig. 2

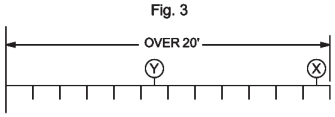


Fig. 3

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