Selection for Long Piping Runs

The majority of sizing and selection applications will involve single and multiple fixture branch lines. These are easily handled with Table IV. The remainder of applications involves individual runs of piping to a remote item of equipment. The properly sized water hammer arresters for such applications can be determined by Table V and Table V-A.

TABLE V FOR WATER PRESSURES UP TO 65 P.S.I.G.

P.D.I. Water Hammer Arrester Sizes									
Length of	Nominal Pipe Diameter								
Pipe	1/2"	3/4"	1″	1-1/4"	1-1/2"	2"			
25	Α	Α	В	С	D	Е			
50	Α	В	С	D	Е	F			
75	В	С	D	AE	F	EF			
100	С	D	Е	F	CF	FF			
125	С	D	F	AF	EF	EFF			
150	D	E	F	DF	FF	FFF			

Ideally the flow pressure in branch lines serving fixtures should never exceed 60 P.S.I.G. Pressure reducing valves should be installed to maintain proper pressure. However, when flow pressures of 65 to 85 P.S.I.G. are used, the next larger size water hammer arrester should be selected. Refer to Table V-A.

All sizing data in this section are based on flow velocities of 10 F.P.S. or less. The certification testing was conducted with a velocity of 10 F.P.S. to offer assurance that P.D.I. approved units were capable of handling shocks of maximum intensity that may be encountered.

TABLE V-A
FOR WATER PRESSURES OVER 65 P.S.I.G. AND UP TO 85 P.S.I.G.

P.D.I. Water Hammer Arrester Sizes									
Length of	of Nominal Pipe Diameter								
Pipe	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"			
25	В	В	С	D	Е	F			
50	В	С	D	E	F	CF			
75	С	D	E	F	CF	FF			
100	D	Е	F	CF	EF	EFF			
125	D	E	CF	DF	FF	BFFF			
150	E	F	CF	FF	DFF	FFFF			

When long runs of piping are employed to serve a remote item of equipment, the water hammer arrester should be located as close as possible to the point of quick closure. At this location, the water hammer arrester will control the developed energy and prevent the shock wave from surging through the piping system.

NOTE: For best performance results, the ABSORBOTRON® II should always be installed in an upright position and located as close as possible to the fixture or equipment closure valve.



