

PIPE AND FITTINGS



General

Pipe and fittings form an integral part of the Fike clean agent suppression system. The performance of the system is dependant on the integrity and reliability of the pipe network to deliver the suppression agent to the protected hazard; therefore, the pipe and fittings used in the piping network must conform to the requirements outlined in NFPA 2001, latest edition.

NOTE: Fike does not manufacture or sell pipe and fittings. These materials must be supplied by others.

Piping

The thickness of the piping wall shall be calculated in accordance with ASME B31.1, Power Piping Code. For Fike clean agent systems, a minimum pipe design pressure of 500 psi (34.5 bar) shall be used.

Fittings

Pipe joints other than threaded, welded, or flanged shall be Listed or Approved.

Fittings shall have a minimum rated working pressure equal to or greater than the minimum piping design pressure of 500 psi (34.5 bar).

Cast-iron or Class 150 fittings **SHALL NOT** be used.

Where grooved fittings are used to join pipe, do not exceed the manufacturer's pressure and temperature ratings. All grooved fittings must be UL Listed.

The following table lists the acceptable pipe types and grades that can be used with pipe configurations utilizing threaded, welded or grooved (rolled or cut) end connections.

Pipe Sch.	NPS (in.)	Wall Thk. (in.)	Grade/Type						
			Grade	A-106C	A-53B/A-106B	A-53B	A-53A/A-106A	A-53A	A-53F
			Type*	S	S	E	S	E	F
40	3/8**	0.091		•	•	•	•	•	•
	1/2	0.109		•	•	•	•	•	•
	3/4	0.113		•	•	•	•	•	•
	1	0.133		•	•	•	•	•	•
	1 ¼	0.140		•	•	•	•	•	•
	1 ½	0.145		•	•	•	•	•	•
	2	0.154		•	•	•	•	•	•
	2 ½	0.203		•	•	•	•	•	•
	3	0.216		•	•	•	•	•	•
	4	0.237		•	•	•	•	•	•
6	0.280		•	•	•	•	•	•	

*S = Seamless; E = ERW; F = Furnace-butt-weld
 **HFC-227ea and HFC-125 systems only.

NOTE: Cast iron pipe, steel pipe conforming to ASTM A120, or nonmetallic pipe **SHALL NOT** be used.

The following table lists the acceptable fittings sizes and Classes that can be used with a Fike clean agent system.

Fitting Size	Fitting Class
Up to 6" NPT	Class 300-lb. threaded malleable or ductile iron
Up to 6" NPT	Grooved type fittings*
All pipe sizes	Class 300-lb. flanged

*Check with grooved fitting manufacturers for pressure ratings.

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