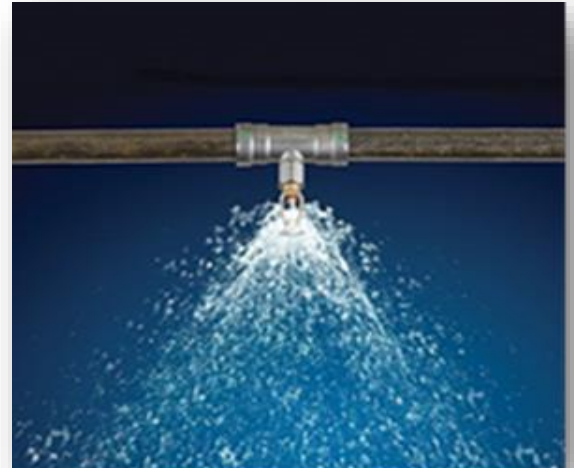
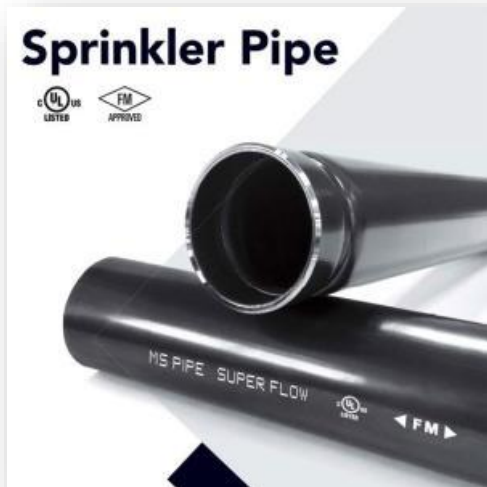




METALS

14023 NE 8th Street, Bellevue, WA 98007, USA

FIRE PROTECTION SPRINKLER PIPES



Technical specifications

- FM approved
- UL Certified
- Meets NFPA 13 and 14 standards
- Grooved or non-grooved (Victaulic groove Specs.)
- ASTM grades A53/A135/A795 Grade A Type E Schedule 40, 10 and 7
- Tight mill tolerances
- Suitable for welding or roll grooving
- Rated working pressure 300psi
- Corrosion resistant
- Consistent High quality steel
- 'Clear varnish' coating for superior weldability
- Custom lengths available upon request

[MS PIPE] Product Submittal Data for Fire Sprinkler Pipe (2024.03.21)

1. Designation

ASTM A53/A135/A795 Grade A Type E

2. Scope

The specification covers welded black and red painted steel pipe (round), intended for mechanical and pressure applications as well as ordinary users in steam, water, gas, and airlines. MS PIPE's UL/FM fire sprinkler pipe for the fire protection application is suitable for joining by rolled grooved/threaded fittings and welding.

3. Dimensions and Weights

| Size | New Super Flow (SCH 7) | | | Super Flow (SCH 7) | | | SCH 10 | | SCH 40 | |
|--------|------------------------|-----------------|------|--------------------|-----------------|------|--------------|-----------------|--------------|-----------------|
| | W.T. (in) | U.W. (lb/ft) | CRR | W.T. (in) | U.W. (lb/ft) | CRR | W.T. (in) | U.W. (lb/ft) | W.T. (in) | U.W. (lb/ft) |
| 1" | - | - | - | - | - | - | 0.109 | 1.41 | 0.133 | 1.68 |
| 1-1/4" | 0.066 | 1.12 | 1.86 | 0.083 | 1.40 | 3.70 | 0.109 | 1.81 | 0.140 | 2.28 |
| 1-1/2" | 0.066 | 1.29 | 1.48 | 0.095 | 1.83 | 4.42 | 0.109 | 2.09 | 0.145 | 2.72 |
| 2" | 0.075 | 1.84 | 1.76 | 0.095 | 2.32 | 3.58 | 0.109 | 2.64 | 0.154 | 3.66 |
| 2-1/2" | 0.083 | 2.48 | 1.37 | 0.083 | 2.48 | 1.37 | 0.120 | 3.53 | 0.203 | 5.80 |
| 3" | 0.084 | 3.07 | 1.03 | 0.090 | 3.28 | 1.27 | 0.120 | 4.34 | 0.216 | 7.58 |
| 4" | 0.097 | 4.57 | 1.00 | 0.101 | 4.75 | 1.13 | 0.120 | 5.62 | 0.237 | 10.80 |

Chemical Requirements

| Type E | C | Mn | P | S | Cr* | Mo* | V* |
|---------|-------|-------|-------|--------|------|-------|-------|
| Grade A | 0.25↓ | 0.95↓ | 0.05↓ | 0.045↓ | 0.4↓ | 0.15↓ | 0.08↓ |

4. Tensile Requirements

- Tensile strength : min. 48,000 psi (330 MPa)
- Yield strength : min. 30,000 psi (205 MPa)
- Elongation in 2 in. : Refer to ASTM A53/A53M Table 2

5. Permissible Variation

- Weight : ± 10%
- Diameter : NSP 1-1/2 or smaller (± 1/64 in), NPS 2 or larger (± 1%)
- Thickness : ± 12.5%

6. End Finish

- Plain ends : NPS 1-1/2 or smaller (Manufacturer's option, unless otherwise specified.)
: NPS 2 or larger for SCH40/80 (Beveled to an angle of 30°, +5°, -0° with root face of 1/16 in. ± 1/32 in.)
- Threaded ends : ANSI B 1.20.1
- Couplings : Specification A865

7. Bending Test (Cold) for NPS 2 or Smaller

| | <u>Degree of bend</u> | <u>Diameter of mandrel</u> |
|-----------------|-----------------------|----------------------------|
| - Standard | 90° | 12x pipe OD |
| - Close coiling | 180° | 8x pipe OD |

8. Flattening Test

Unless the marking is specified in the purchase order, each length of the pipe shall be legibly and continuously marked on the outside surface with the following: Manufacturer, Buyer, Super Flow (SCH7 only), Specification, Type of pipe, Size, Rated Working Pressure and CRR (SCH7 only), UL Listing and FM Approval (for fire sprinkler pipe), Heat no., Date, and Country of Origin.