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SPRINKLER PROTECTION BASICS: PIPE JOINING REQUIREMENTS

JOINING METHODS:

- Threaded pipe
- Welded pipe
- Mechanical (grooved) couplings
- Brazing/soldering (copper tube)
- Other listed methods

PIPE JOINING REQUIREMENTS:

- Threads on threaded pipe required to comply with ANSI/ASME B.1.20.1.
  - **NOTE:** NFPA 13 recommends that ring gauges be used to verify that the threads comply with ANSI/ASME B.1.20.1 when steel pipe with a wall thickness of less than Schedule 40 is threaded.
- Steel pipe permitted to be threaded or cut grooved under the following conditions:
  - 6 inch or smaller pipe: Schedule 40.
  - 8 inch or larger pipe: Schedule 30.
  - Exception for specially listed steel pipe.
- Welding to comply with AWS D10.9, specification for qualification of welding procedures and welders for piping and tubing, level AR-3.

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- Sprinkler piping required to be shop welded.
  - See NFPA 13 for exceptions.
- Grooved couplings required to be listed.
- Grooved couplings and gaskets used in dry systems are required to be specifically listed for dry system service.
- Copper tube joints required to be brazed, except as follows:
  - Soldered joints permitted in light hazard occupancies under the following conditions:
    a. Wet systems and
    b. Ordinary or intermediate temperature sprinklers are used.
  - Soldered joints permitted in ordinary group 1 hazard occupancies under the following conditions:
    a. Wet systems and
    b. Piping is concealed.

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