

## Grooved Couplings or Fittings

Grooved couplings are used to join pipe and fittings in both wet and dry sprinkler systems. Unless otherwise noted, these couplings are intended to provide some flexibility in piping systems. Typical applications are in sprinkler risers, in feed mains passing through walls from one building area to another, in locations subject to earthquakes, in the discharge line from aboveground pump suction in new connections to existing feed mains and in air or water fire service lines subject to excessive vibration or difficult alignment.

Unless otherwise noted, these couplings are limited to use with rolled or cut groove-ended pipe, valves and fittings, at a minimum rated working pressure of 175 psi (1205 kPa) and are suitable for aboveground service. Higher rated pressures are noted in the text of the listing. Selection of pipe schedules for use with grooved pipe couplings should be made according to applicable FM Global Property Loss Prevention Data Sheets installation standards. These pipe schedules determine system pressure ratings and may take precedence over the higher rated working pressures listed for couplings.

Installation must be made according to the manufacturer's instructions and requirements. Where couplings are used to join FM Approved pipe, the pipe manufacturer's installation instructions and requirements must also be observed. Grooves should be made according to ANSI/AWWA C606 (latest edition), "Grooved and Shouldered Joints", unless otherwise specified.

FM Approved grooved pipe couplings joining steel pipe may be used in underground service, subject to the installation restrictions placed upon the pipe and to the coupling manufacturer's recommendations and requirements.

Unless otherwise stated in the listing, these couplings have been evaluated for a maximum ambient temperature of 225°F (107°C), suitable for use in normal warehouse protection. For special applications, temperatures, or environments, the manufacturer's recommendations and requirements are to be followed.

## Grooved Couplings, Standard-Flexible

These couplings join pipe, valves or fittings having equal nominal-sized diameters.

### Model XGQT2

Pipe Description	Rated Working Pressures for Model XGQT2 Flexible Coupling by Pipe a, b, c																	
	Nominal Pipe Size																	
	1 (33.7)	1-1/4 (42.7)	1-1/2 (48.3)	2 (60.3)	2-1/2 (73.1)	(76.1)	3 (88.9)	(108)	4 (114.3)	(133)	(139.7)	5 (141.3)	(159)	(165.1)	6 (168.3)	(216.3)	8 (219.1)	(267.4)
Schedule 40, Cut Groove	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)		300 (2070)	300 (2070)		300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)
Schedule 40, Roll Groove	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)		300 (2070)	300 (2070)		300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)
Schedule 30, Cut Groove																	300 (2070)	
Schedule 30, Rolled Groove	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)		300 (2070)	300 (2070)		300 (2070)	300 (2070)		300 (2070)	
Thinwall Pipes, Rolled Groove																		
Schedule 10, Rolled Groove	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)		300 (2070)	300 (2070)		300 (2070)	300 (2070)			
0.188" Wall, Rolled Groove																300 (2070)	300 (2070)	300 (2070)
Lightwall Pipes, Rolled Groove																		
Schedule 5 Pipe, Rolled Groove																		
Japanese Standard JIS G3454, Cut Groove	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)	300 (2070)		300 (2070)		300 (2070)			300 (2070)		300 (2070)		300 (2070)
Japanese Standard JIS G3454, Rolled Groove	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)	300 (2070)		300 (2070)		300 (2070)			300 (2070)		300 (2070)		300 (2070)
Chinese Standard GB/T 3091-2008, Cut Groove	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)		300 (2070)	300 (2070)		300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)

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<b>10</b> <b>(273)</b>	<b>(318.5)</b>	<b>12</b> <b>(323.9)</b>
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300 (2070)	300 (2070)	300 (2070)

<b>Chinese Standard GB/T 3091-2008, Rolled Grooved</b>	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)		300 (2070)	300 (2070)		300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)
<b>Chinese Standard GB/T 3091-2008, Rolled Groove</b>	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)		300 (2070)		300 (2070)	300 (2070)		300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)

**Remarks:**

a.) Minimum schedule cut groove pipe to be joined: 6 inch or smaller, Schedule 40; 8 inch or larger, Schedule 30

b.) Minimum schedule rolled groove pipe to be joined: 6 inch or smaller, Schedule 10; 8 or 10 inch - 0.188 inch (5 mm) wall; 12 inch - 0.250 in. wall

c.) All couplings in table above, Approved when supplied with a Grade E EDPM gasket using standard gasket lubricant

d.) FM Approved for use with rolled groove GB/T3091-2008 steel sprinkler pipe with comparable wall thicknesses to Schedule 40 steel sprinkler pipe per ASME B36.10-2004 specifications

e.) FM Approved for use with rolled groove GB/T3091-2008 steel sprinkler pipe with comparable wall thicknesses to Schedule 10 steel sprinkler pipe per ASME B36.10-2004 specifications

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<b>New/Updated Product Listing:</b>	Yes
<b>Listing Country:</b>	China
<b>Certification Type:</b>	FM Approved