

A FIRE DEPARTMENT CONNECTION CHEATSHEET

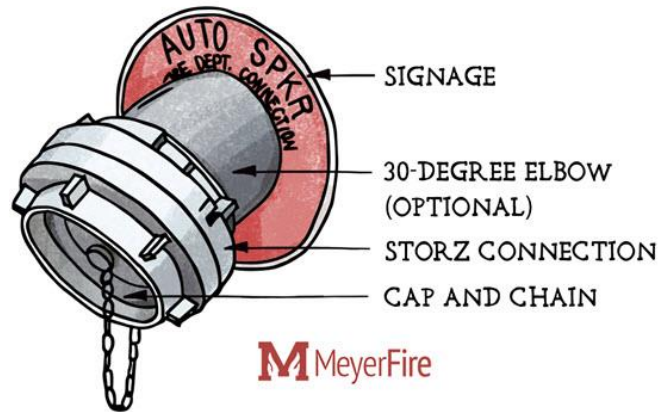
NFPA 13R, NFPA 13, & NFPA 14

NFPA 13R, 13 and NFPA 14 differ slightly in how they each address requirements of the fire department connection.

Below is a summary of requirements from the 2002-2019 editions of NFPA 13 and 13R, and the 2000-2019 edition of NFPA 14.

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	NFPA 13R	NFPA 13	NFPA 14
Purpose	To supplement pressure (not based on system demand) [same as NFPA 13]	To supplement pressure (not based on system demand) [NFPA 13 2019 A.16.12.4]	To provide primary (manual) or secondary (automatic) supply to standpipes [NFPA 14 2019 3.3.4.1.2]
When Required	All buildings except: - single story buildings not exceeding 2,000 sqft (185 m ²) [NFPA 13R 2002 6.6.4.1, 2007 6.7.4.1, 2010-19 6.11.1]	All buildings except: - Remote areas inaccessible for fire department support - large-capacity deluge systems exceeding pump capacity of F.D. - single story buildings not exceeding 2,000 sqft (185 m ²) [NFPA 13 2002 8.16.2.2, 2007-16 8.17.2.2, 2019 16.12.2]	Always required. [NFPA 14 2000 2.8, 2003-19 4.8]
Caps	No requirement.	Approved plugs or caps, secured, with easy removal by fire department. [NFPA 13 2002 6.8.4, 2007-13 6.8.2, 2016 6.7.2, 2019 16.12.3.2]	Approved plugs or caps, secured, with easy removal by fire department. [NFPA 14 2000 2-8.2, 2003 4.8.2.1, 2007-13 4.7.3, 2016 4.8.3, 2019 4.8.3]
Check Valve	In accessible location with automatic drain valve where subject to freezing. [NFPA 13R 2007 6.7.4.4, 2010-19 6.11.4]	In accessible location with automatic drain valve where subject to freezing. [NFPA 13 2002 8.16.2.5 & .6, 2007-16 8.17.2.5 & .6, 2019 16.12.6 & .7]	Installed as close as possible to fire department connection inlets. [NFPA 14 2000 4-3.2, 2003 6.3.2, 2007-13 6.4.2, 2016-19 6.4.2.1] In accessible location with automatic drain valve where subject to freezing. [NFPA 14 2000 4-3.4, 2003 6.3.4, 2007-2019 6.4.4]
Clearance	No specific guidance.	Such that “hose lines can be readily and conveniently attached without interference from nearby objects, including buildings, fences, posts, or other FDCs” [NFPA 13 2002 8.16.2.4.6, 2007-16 8.17.2.1, 2019 16.12.1]	Such that “hose lines can be readily and conveniently attached without interference from nearby objects, including buildings, fences, posts, or other FDCs” [NFPA 14 2000 4-3.5.1, 2003 6.3.5.1, 2007-19 6.4.5.1.1]

Distance to Nearest Hydrant	No specific guidance.	No requirement.	Not more than 100 feet (30.5 m) from nearest fire hydrant, unless approved otherwise [NFPA 14 2019 6.4.5.4, 6.4.5.4.1]
Height of FDC	No specific guidance.	1.5 – 4 ft above grade (500 mm – 1.2 m) [NFPA 13 2002 A.8.16.2, 2007-16 A.8.17.2, 2019 A.16.12]	1.5 – 4 ft above grade (457 mm – 1219 mm) [NFPA 14 2000 4-3.6, 2003 6.3.6, 2007-19 6.4.6]
Location of FDC	No specific guidance.	At nearest point of fire department apparatus accessibility, or at a location approved by the AHJ. [NFPA 13 2002 8.16.2.4.6, 2007-16 8.17.2.4.6, 2019 16.12.5.7]	Located within 50 ft (15.2 m) of street or nearest fire department access. [NFPA 14 2019 7.12.2.3] Visible and recognizable from street or nearest fire department access, or on street side of buildings. [NFPA 14 2000 4-3.5.1, 2003 6.3.5.1, 2007-19 6.4.5.1]
Number of FDCs	At least one. [NFPA 13R 2002 6.6.4.1, 2007 6.7.4.1, 2010-19 6.11.1]	At least one. [NFPA 13 2002-13 6.8.1, 2016 6.7.1, 2019 16.12.3.1]	One for each zone of Class I or III standpipes, unless fire department cannot supply high-zone. [NFPA 14 2000 5-12.1, 2003 7.13.1, 2007-19 7.12.2.1] Two (physically separated) for each zone, for high-rise buildings or multiple attached buildings exceeding 900 ft perimeter distance. [NFPA 14 2000 5-12.2, 2003 7.13.2, 2007-16 7.12.2, 2019 7.12.2.2]
Size of FDC	At least 1-1/2" (38 mm) [NFPA 13R 2002 6.6.4.2, 2007 6.7.4.2, 2010-19 6.11.2]	Riser 3" or smaller: Single 2.5" outlet Riser larger than 3": Two 2.5" outlets [NFPA 13 2007-13 6.8.1.3, 2016 6.7.1.3, 2019 16.12.3.1.3]	One 2-1/2" (65 mm) inlet for every 250 gpm (946 L/min) standpipe demand, or approved large-diameter connection [NFPA 14 2007-19 7.12.3]
Size of Feed to FDC	Pipe with diameter at least as large as the riser. [NFPA 13R 2010-19 A.6.11]	Fire Engine, Pipe Schedule: 4-inch (100 mm) Fire Engine, Hydraulically-Calculated: Size of largest riser Fire Boat: 6-inch [NFPA 13 2002 8.16.2.3, 2007-16 8.17.2.3, 2019 16.12.4]	Must be determined by hydraulically calculated. [NFPA 14 2007-19 8.2.1]
Type of FDC	No specific guidance.	(2) 2-1/2" threaded unless fire department does not conform to NFPA 1963. Must be approved regardless. [NFPA 13 2002 6.8.2 & 6.8.5, 2007-13 6.8.1.1 & 6.8.3, 2016 6.7.1.1 & 6.7.3, 2019 16.12.3.1.1, 16.12.3.3]	(2) 2-1/2" threaded unless fire department does not conform to NFPA 1963. Must be approved regardless. [NFPA 14 2000 2-7, 2003-16 4.8.2 & 4.8.2.2, 2019 4.8.2, 4.8.4]
Where attached to system?	See NFPA 13R. [NFPA 13R 2002 6.6.4, 2007 6.7.4, 2010-19 6.11]	See NFPA 13; not on suction side of fire pump. [NFPA 13 2002 8.16.2.4, 2007-16 8.17.2.4, 2019 16.12.5]	See NFPA 14; not on suction side of fire pump. [NFPA 14 2000 4-3.3, 2003 6.3.3, 2007-19 6.4.3]