

REMOTE AREA CHEATSHEET

METRIC VERSION

A quick-reference guide for remote area adjustments and minimum width under the Density/Area Method of Hydraulic Calculations in NFPA 13. This is not a cumulative document; refer to NFPA 13 for all the requirements. Originally posted March 2022. For more resources like this, visit meyerfire.com/subscribe

^AQUICK-RESPONSE REDUCTION:

The quick-response area reduction is a benefit for the earlier activation of quick-response sprinklers during a fire. Use the maximum ceiling height for this reduction. The quick-response reduction is only allowed for:

- Wet-pipe systems
- Light or Ordinary Hazard occupancies
- No unprotected ceiling pockets over 3 m²
- No unprotected areas above cloud ceilings
- Maximum Ceiling Height of 6.1 m

^BMINIMUM REMOTE AREA WIDTH:

The minimum width of a remote area is determined by the formula $w = 1.2\sqrt{VA}$, where w is the minimum required width of the remote area (in m²) and A is the remote area (in square feet). Any fractional sprinkler is required to round up to the next higher whole number. See NFPA 13 Section 22.4.4.1.1 (2007-2010 Editions), 23.4.4.1.1 (2013), 23.4.4.2 (2016), or 27.2.4.2 (2019), or 28.2.4.2 (2022).

^CSLOPE, DRY-PIPE, AND D.I. PRE-ACTION SYSTEMS:

Sloped (over 2 in 12), dry-pipe, and double-interlock pre-action systems require an area increase of 30%. These adjustments are cumulative. See NFPA 13 Section 11.2.3.2 (2002-2016 Editions), or Section 19.3.3.2 (2019), or 19.2.3.2 (2022).

ORIGINAL SIZE	DRY/DI PRE-ACTION	SLOPED
m	(x 1.3) m ²	(x 1.3 ²) m ²
139	181	236
186	242	314
232	302	393
279	362	471
325	423	550
372	483	628
418	543	707
465	604	785

^DHIGH-TEMPERATURE & COMBUSTIBLE-SPACES

Other adjustments, such as use of high-temperature sprinklers or combustible concealed spaces may affect remote area adjustment and minimum sizes. See NFPA 13 for detail.

	REDUCTIONS & MULTIPLIERS	REMOTE AREA SIZE (m ²)	MIN. REMOTE AREA WIDTH ^B (m)
QUICK-RESPONSE REDUCTION ^A	3.1 m ceiling (QR)	84	11.0
	3.4 m ceiling (QR)	86	11.1
	3.7 m ceiling (QR)	88	11.2
	4.0 m ceiling (QR)	90	11.4
	4.3 m ceiling (QR)	92	11.5
	4.7 m ceiling (QR)	94	11.6
	5.0 m ceiling (QR)	96	11.8
	5.3 m ceiling (QR)	98	11.9
	5.6 m ceiling (QR)	100	12.0
	5.9 m ceiling (QR)	102	12.1
	6.2 m ceiling (QR)	105	12.3
QUICK-RESPONSE + SLOPE	3.1 m ceiling (QR + SLOPE)	109	12.5
	3.4 m ceiling (QR + SLOPE)	111	12.7
	3.7 m ceiling (QR + SLOPE)	114	12.8
	4.0 m ceiling (QR + SLOPE)	117	13.0
	4.3 m ceiling (QR + SLOPE)	120	13.1
	4.7 m ceiling (QR + SLOPE)	122	13.3
	5.0 m ceiling (QR + SLOPE)	125	13.4
	5.3 m ceiling (QR + SLOPE)	128	13.6
	5.6 m ceiling (QR + SLOPE)	130	13.7
	5.9 m ceiling (QR + SLOPE)	133	13.8
	6.2 m ceiling (QR + SLOPE)	136	14.0
	139	14.2	
SLOPED ^C / DRY ^C / DOUBLE-INTERLOCK PRE-ACTION ^C / STORAGE ^D	(139 x 1.3)	181	16.2
		186	16.4
		232	18.3
	(139 x 1.3 ²)	236	18.4
	(186 x 1.3)	242	18.7
		279	20.0
	(232 x 1.3)	302	20.9
	(186 x 1.3 ²)	314	21.3
		325	21.6
	(279 x 1.3)	362	22.8
		372	23.1
	(232 x 1.3 ²)	393	23.8
		418	24.5
	(325 x 1.3)	423	24.7
		465	25.9
	(279 x 1.3 ²)	471	26.0
	(372 x 1.3)	483	26.4
		511	27.1
	(418 x 1.3)	543	28.0
	(325 x 1.3 ²)	550	28.1
	557	28.3	
(465 x 1.3)	604	29.5	
	(372 x 1.3 ²)	628	30.1
	(418 x 1.3 ²)	664	30.9
	(465 x 1.3 ²)	707	31.9