

Going Green with Storage Sprinklers

“You can create pressure; you can’t create water.”

- A booster fire pump connected to a public water supply will provide pressure.
- A water tank will be required when you have an insufficient supply. This takes away valuable square footage of property and removes thousands of gallons of water from normal usage.

Using the HL-22 ESFR for water savings:

Sprinkler	System Demand* gpm (lpm)	Total Demand* gpm (lpm)	Total* Gallons (Liters)
For FM Global Requirements Ceiling/Roof to 45' (13.7 m) – Minimum 50 psi (3.5 bar) per ESFR			
K – 25 ESFR	2,140 (9,730)	2,390 (10,865)	143,400 (542,830)
K – 22 ESFR	1,900 (8,640)	2,150 (9,770)	129,000 (488,320)
For NFPA 13 and UL Listing Requirements Ceiling/Roof to 45' (13.7 m) – Minimum 40 psi (2.8 bar) per ESFR			
K – 25 ESFR	1,915 (8,710)	2,165 (9,840)	129,900 (491,725)
K – 22 ESFR	1,700 (7,730)	1,950 (8,870)	117,000 (442,890)

**For comparison only. Hose Demand = 250 gpm (1,137 lpm). Duration = 1 hour. Actual flows and demands will be higher based upon actual hydraulic calculations.*

Using the N252 EC Storage/CMSA Sprinkler saves water and job costs:

- Saves 30% to 50% in the number of sprinklers installed
- Provides water savings over all other sprinklers for Class 1-4 and cartoned, unexpanded plastics

How the N252 EC compares to the lowest flow ESFR sprinklers and CMSA sprinklers for cartoned, unexpanded plastics in racks without in-rack sprinklers for ceilings/roofs up to 35' (10.6 m)?

Sprinkler	Maximum Spacing ft ² (m) ²	Storage Hgt. ft (m)	Ceiling/ Roof Hgt ft (m)	System Demand* gpm (lpm)	Total Demand* gpm (lpm)	Total* Gallons (Liters)
K – 19.6 CMSA	100 (9.3)	25 (7.6)	30 (9.1)	940 (4,270)	1,190 (5,410)	71,400 (324,590)
K – 14/17 ESFR	100 (9.3)	25 (7.6)	30 (9.1)	1,200 (5,455)	1,450 (6,590)	87,000 (395,510)
N252 EC K – 25.2	196 (18.2)	25 (7.6)	30 (9.1)	830 (3,770)	1,080 (4,910)	64,680 (294,040)
K – 25.2 CMSA	100 (9.3)	30 (9.1)	35 (10.7)	1,656 (7,530)	1,906 (8,670)	114,360 (519,900)
K – 14/17 ESFR	100 (9.3)	30 (9.1)	35 (10.7)	1,452 (6,600)	1,702 (7,740)	102,120 (464,250)
N252 EC K – 25.2	144 (13.4)	30 (9.1)	35 (10.7)	1,275 (5,800)	1,525 (6,930)	91,500 (415,970)

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