

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*	Total Demand*	Total Gallons*
For FM Global Requirements Ceiling/Roof to 45' – Minimum 50 psi per ESFR			
K-25 ESFR	2140 gpm	2390 gpm	143,400
K-22 ESFR	1900 gpm	2150 gpm	129,000
For NFPA 13 and UL Listing Requirements Ceiling/Roof to 45' – Minimum 40 psi per ESFR			
K-25 ESFR	1915 gpm	2165 gpm	129,900
K-22 ESFR	1700 gpm	1950 gpm	117,000

**For comparison only. Hose Demand = 250 gpm. 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'?

Sprinkler	Maximum Spacing	Storage Hgt.	Ceiling/Roof Hgt	System Demand*	Total Demand*	Total Gallons*
K-19.6 CMSA	100 sq. ft.	25'	30'	940 gpm	1190 gpm	71,400
K-14/17 ESFR	100 sq. ft.	25'	30'	1200 gpm	1450 gpm	87,000
N252 EC K-25.2	196 sq. ft.	25'	30'	830 gpm	1080 gpm	64,680
K-25.2 CMSA	100 sq. ft.	30'	35'	1656 gpm	1906 gpm	114,360
K-14/17 ESFR	100 sq. ft.	30'	35'	1452 gpm	1702 gpm	102,120
N252 EC K-25.2	144 sq. ft.	30'	35'	1275 gpm	1525 gpm	91,500

**For comparison only. Hose Demand = 250 gpm. Actual flows and demands will be higher based upon actual hydraulic calculations.*