Protect Your Automatic Storage and Retrieval System from Fire Risk

A new cost-effective solution from FM Global

Automatic sprinkler protection, the best defense against fire in most commercial and industrial settings, does not have to be costly. The latest example of this is the updated FM Global Property Loss Prevention Data Sheet 8-34, *Protection for Automatic Storage and Retrieval Systems*.

About ASRS

F'M Global

If you are unfamiliar with automatic storage and retrieval systems (ASRS), imagine warehouse robots that pick goods from tight, tall racks of densely packed storage containers. While these systems boost productivity, they also create a severe fire hazard. Data Sheet 8-34 takes a new approach known as the "modular" in-rack sprinkler arrangement (illustrated below), which may require fewer pipes, lower installation costs and less water pressure.

Previous Data Sheet 8-34 in-rack sprinkler protection arrangement



NEW Data Sheet 8-34 in-rack sprinkler protection arrangement



The new arrangement may prevent fire from spreading beyond the nearest level of in-rack sprinklers, which may eliminate the need for more than one level of in-rack sprinklers in the sprinkler design—greatly reducing potential for fire, water and smoke damage.

Surmounting the Challenge

The structural arrangement of an ASRS unit is a severe challenge to both automatic and manual fire protection. The updated Data Sheet 8-34, based on five years of research, provides for the first time:

- Confirmation to risk managers that fires in ASRS warehouses can be quickly suppressed
- Proven protection designs that minimize the cost of water supplies and piping systems
- Ways to reduce the number of in-rack sprinkler levels, which also increases storage capacity, depending on container type and racking structure

Better Protection at a Lower Cost

Data Sheet 8-34 is the latest in a series of strides we have made in the last several years to improve fire protection on behalf of our clients.

In 2010, we issued a revised version of Data Sheet 8-9, *Storage of Class 1, 2, 3, 4 and Plastic Commodities*, and introduced Data Sheet 2-0, *Installation Guidelines for Automatic Sprinklers*. Both of these inroads, resulting from extensive research, helped our clients to choose solutions that require fewer sprinklers, less piping and lower water pressure.

Five years later, we announced new in-rack protection solutions that take advantage of quick-response, large-orifice sprinklers. These technologies had not been applied within storage racks before. Once again, fewer sprinklers would be needed, lowering costs, water use, and fire and smoke damage.

Like these earlier improvements, Data Sheet 8-34 is one of over 250 FM Global Property Loss Prevention Data Sheets available free of charge, to help businesses, nonprofits and governments protect their property, communities and operations.

For more information, view Data Sheet 8-34 at *fmglobal.com/data sheets*.



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