

Extinguishers: Advantage of Cartridge-Operated Dry Chemical Extinguishers

Although stored-pressure dry chemical extinguishers are the most common, cartridge-operated dry chemical extinguishers are often preferred for industrial use where there is a high risk of fire. These industries include, but are not limited to, oil and gas, chemical, petro-chemical, mining, aviation, and power plants. There are many advantages of selecting cartridge-operated extinguishers over stored-pressure units. Helping your customers select the best extinguishers for all applications is paramount. Having a good understanding of them makes you a valuable partner in the decision-making process.

What's the difference between stored-pressure and cartridge-operated?

Stored-pressure means the extinguisher is always pressurized in its mounting location (it is ready to operate by pulling the pin and squeezing the lever and handle together). Cartridge-operated extinguishers are not pressurized until just prior to use. A carbon dioxide cartridge is mounted in the "receiver" on the outside of the agent storage container. First, the extinguisher operator needs to press the lever above the cartridge. This action punctures the cartridge and pressurizes the extinguisher. Another difference is the control valve is at the end of the hose, rather than at the top of the extinguisher.

Where are cartridge-operated extinguishers installed?

Typical applications include fuel loading racks, heavy construction sites, dip tanks, oil pumping stations, mining equipment, airports, paint lockers, truck and bus parking areas, fuel storage rooms, and industrial and machinery production lines. Heavy-gauge steel containers resist damage and stand up to corrosion. High-quality, heavy-duty extinguisher components are intended to provide years of reliable service in industrial settings. Due to the heavier construction, they are regularly employed where fires are common and rapid recharging is expected.

Tech Tip: Upon arrival, firefighters use dry chemical extinguishers, for quick knockdown, prior to deploying hose lines. Your local fire department likely uses cartridge-operated dry chemical extinguishers. That is because they can be rapidly recharged at the fire scene and used immediately. Stop by the fire house and make sure your local firefighters have the extinguishers they need!

How are cartridge-operated extinguishers recharged in the field?

One of the biggest advantages of cartridge-operated extinguishers is that they can be easily recharged without pressurizing equipment. For industrial customers, you will want to provide them with a supply of recharge agent and spare cartridges. Following the manufacturer's instructions, once the agent container is refilled with dry chemical and the spent expellant gas cartridge is swapped out with a new one, the extinguisher is ready for the next fire or continued firefighting.

Cartridge-Operated Extinguisher Facts:

- You do not need to install verification of service collars on these extinguishers. [10, 7.11.4.3]
- You do not need to completely empty them to check the condition of the agent. [10, A.7.3.3.3]
- Your industrial customers can quickly refill them for immediate repeat use. [10, C.3.6.2]
- Although more expensive initially, they offer greater lifetime value than stored-pressure units.

A cartridge-operated extinguisher can be recharged by your industrial customers in a few short minutes. And they do not need special tools. By contrast, stored-pressure extinguishers are required to be recharged by trained technicians, often at the shop. Next time you have a service call at an industrial location, make sure to have a few cartridge-operated dry chemical extinguishers ready to go. After a brief discussion, your customers will quickly grasp the great value of these extinguishers for their operations.

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