

EXPLOSION PROOF SOLUTIONS

Hazardous Locations:

Classified as areas where fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, combustible dust, ignitable fibers or flyings.



- Safe and reliable, built-to-order systems for hazardous environments
- Eliminates the need for 3rd party or field modifications
- Built from the ground up and factory tested by our industry experts
- Quality assurance found with a single manufacturer's warranty
- Available on condensers, condensing units, fluid coolers, chillers



Safe Solutions for Hazardous Environments

Petrochemical • Textiles • Grain Elevators and Mills • Hazardous Storage Applications

Tired of the limited solutions available with rebuilt equipment?

At Century Refrigeration, we understand the value of providing a system solution that has been factory built and tested to provide the highest level of quality for our customers. Our explosion proof equipment is built for longevity and comes standard with UL and ETL certifications.

NEC Hazardous Material Classifications

Class:

Class defines the type of explosive or ignitable substances present in the atmosphere: Class 1 (flammable gas and vapors), Class 2 (flammable dusts) or Class 3 (flammable fibers or flyings.)

Division:

Division defines the likelihood of the hazardous material being present in a working area: Division 1 (hazards exists under normal operating conditions) and Division 2 (hazards exists only through accidental escape.)

Group:

Class I and Class II Divisions are further subdivided into Groups. Each Group defines the explosive characteristics of the material based on its ignition temperature and explosion pressure.

Hazardous Material	Class	Group						
		A	B	C	D	E	F	G
Acetylene	I	✓						
Hydrogen, Manufactured Gas	I		✓					
Diethyl Ether, Ethylene, Cyclopropane, Carbon Monoxide, Hydrogen Sulfide	I			✓				
Gasoline, Hexane, Butane, Naphtha, Propane, Acetone, Toluene, Isoprene, Ethane, Ethanol, Methanol, Octane, Vinyl Chloride	I				✓			
Metal Dust (Aluminum, Commercial Alloys, Magnesium)	II					✓		
Carbon Black, Coal Dust, Charcoal, Coke Dust	II						✓	
Flour, Starch, Grain Dust	II							✓
Fibers, Flyings	III							✓

Features for NEC Compliance

Nema 4 with purge

- Supply an enclosure with purge gas to maintain a positive pressure to prevent entry of flammable gas or vapor, combustible dust or ignitable fiber.

Nema 7

- Enclosure usually constructed of cast iron, cast aluminum, or cast stainless steel with machined cover flange that prevents entry of flammables and is able to withstand an internal explosion to prevent ignition of surroundings.

Sealed Arcing Components

- All arcing components are sealed in approved enclosures to prevent igniting the flammable environment. Any parts outside the panel are compliant with the required classification.

Additional Century Features & Capabilities

Intrinsically Safe Barriers

- Intrinsically safe barriers allow for the use of adjustable items like pressure switches where they can be mounted outside of a Nema 7 or Nema 4 enclosure. This provides for access and adjustment to these components without opening the enclosure.

Through Door Switches and Buttons

- Allows failure resets, push buttons, switches, and indicator lights to be accessible without opening the enclosure. This makes troubleshooting easier and safer by separating the environments inside and outside the enclosure.

Explosion Proof Crankcase Heaters

- A standard feature on all Century Refrigeration equipment that provides compressor protection without compromising NEC requirements.