

# **Winch and Hoist Application Guidelines**

## **Operating Environments**

Special consideration must be given to operating environments that have:

1. Highly corrosive atmospheres.
2. Extremes of temperature, either high or low.
3. High humidity, especially near salt water.
4. Rain or direct exposure to salt or fresh water spray.
5. High levels of air born dirt, dust or sand.
6. Elevations that negatively impact the power source.
7. Hazardous locations include those areas where fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers or flyings. They are classified as shown below.

### **Hazardous (Classified) Locations:**

CLASSES		DIVISIONS		GROUPS
		1	2	
I	Gases, vapors and liquids	Normally explosive and hazardous	Not normally present in an explosive concentration (but may accidentally exist)	A: Acetylene B: Hydrogen, etc. C: Ether, etc. D: Hydrocarbons, fuels, solvents, etc.
II	Dusts	Ignitable quantities of dust normally are or may be in suspension, or conductive dust may be present	Dust not normally suspended in an ignitable concentration (but may accidentally exist). Dust layers are present.	E: Metal dusts (conductive and explosive) F: Carbon dusts (some are conductive,* and all are explosive) G: Flour, starch, grain, combustible plastic or chemical dust (explosive)
III	Fibers and flyings	Handled or used in manufacturing	Stored or handled in storage (exclusive of manufacturing)	Textiles, wood-working, etc. (easily ignitable, but not likely to be explosive)

**Whatever your material handling needs, Allied Power Products, Inc. is ready to help.  
If you are deciding between a winch or a hoist, call our expert sales team at (503) 626-0654.**