

Diesel Engine Safety Overview



IS YOUR SITE AT RISK? *IT'S YOUR OBLIGATION TO PROVIDE A SAFE WORK SITE*

Oil and gas production, refining, petrochemical processing, and mining are all industries where flammable hydrocarbon emissions or leaks may occur in a diesel engine's operating environment.

If you work in or provide services to these industries and you are around a diesel engine, you need to be aware of the risk to your crew and equipment.



Diesel engines do not usually incorporate a throttle valve to limit air into the engine, as their speed is primarily driven by the rate of fuel flow. The risk occurs when the diesel engine is operating in an environment that contains airborne hydrocarbons or other combustibles. This can occur from any number of sources, such as gas pocket vents, fuel leaks, atomized oil spray, or even grain dust. In this state, the engine experiences uncontrolled combustion, which may lead to an overspeed condition and catastrophic engine failure or backfire. The risk continues to rise from there, as the engine's behavior can then translate to ignition of the local atmosphere, which has been shown to cause explosions. In addition to the potential for explosion, the equipment driven by the engine may also experience unpredictable behavior and become a risk to personnel in the vicinity.



Since the early 2000's, the North American oil and gas industry has seen dozens of deaths and hundreds of injuries related to diesel engine overspeed events. In that time period, the same industries have also lost hundreds of millions in equipment damage and financial losses. This is entirely preventable.

PowerHalt – Air Intake Emergency Shut off valve by Pacbrake will starve the engine of air: safely and effectively shutting it down, protecting your crew and equipment.