PumpIRIS Pump idling reduction intelligent system



Reduces carbon emissions and fuel costs while improving wellsite safety

Applications

Hydraulic fracturing and acidizing operations on land

How it improves performance

- ightarrow Reduces pump idling by up to 75%
- \rightarrow Cuts carbon emissions by approximately 7% per year per fleet
- → Improves wellsite safety by reducing fueling operations
- \rightarrow Reduces fracturing pump fuel consumption by 7%
- \rightarrow Increases pump reliability and extends maintenance intervals

How it works

A fracturing or acid pump is equipped with an electric starter, which is coupled to the fleet control system. The PumpIRIS* pump idling reduction intelligent system automatically stops the pump after a predetermined amount of idling; when the pump is needed, the remote starter enables rapid restarting from the control van.

For applications in extreme cold, the control system also remotely monitors engine coolant temperature and battery voltages, turning on the engine automatically to maintain temperature and ensure the pump is ready for operations.

What it replaces

Fracturing pumps are manually started using the tractor power takeoff (PTO) or pony engine power pack.

Traditionally, an operator must start a tractor or hydraulic power pack and communicate to the data van operator to start the frac pump engine from the control van. Because this process takes time, pumps are often left idle between stages to ensure they are ready for the next stage. Idle time between stages increases the total engine hours on a pump, decreasing the engine life and time between servicing. In addition, the idle time also consumes fuel, resulting in a higher CO_2 footprint.

Additional information

Light beacons are mounted on each pump to notify operators that the system is activated for remote starting.



The PumpIRIS system enables automatic shutdown and restarting of pumps without manual operator intervention. The system includes an electric starter and beacon system for each pump.