

# Electric Fracturing Fleets

## Application Guide



### Risks

With the demand for natural gas continuing to rise, aging diesel fleets, and the additional economic benefits “fracking”, as it is commonly called has created, electric fracking fleets are beginning to replace traditional diesel fuel fleets.

This evolution to electric fleets improves processes & updates equipment, minimizes emissions & noise pollution, and reduces dust build up common with diesel fleets. However, electric fleets bring different risks to personnel and equipment.

The introduction of electric fracking fleets have therefore introduced unique safety measures to ensure worker’s safety when connecting or disconnecting power for operations. Implementing trapped key interlock solutions into safety measures can protect against these added risks.

These critical areas of application put personnel and equipment at risk and even pose life threatening situations.

### Electric Fleet ‘added’ Risks

High voltage cable failure (arc flash)

Natural gas explosion & fire from gas leak

Electrocution from insufficient grounding

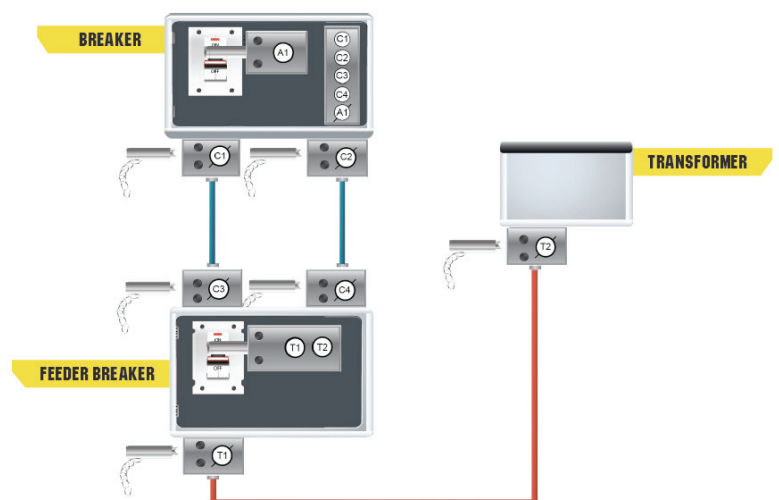
Generators operations & maintenance

### Maintaining Safety At Your Facility

Trapped key interlock safety systems ensure a predetermined sequence of operations are followed each time power is isolated to ensure couplers are de-energized before connecting or disconnecting from the main power source.

Safety solution for powering an electric-fracturing fleet will interlock:

- Main power generation trailer
- MV/LV switchgear
- Transfer feeder breakers
- Coupler connectors on truck power interconnection cables
- Transformers



## Benefits of Trapped Key Interlocking

### Why use a trapped key interlock safety solution?

To **PROTECT** personnel from hazards ensuring predetermined sequences of operations are followed.

To **PREVENT** loss of operations and setback due to equipment damaged by mis-followed operations.

To **PROVIDE** risk control and peace of mind; eliminating human error and ensuring everyone has the right to be safe at work!

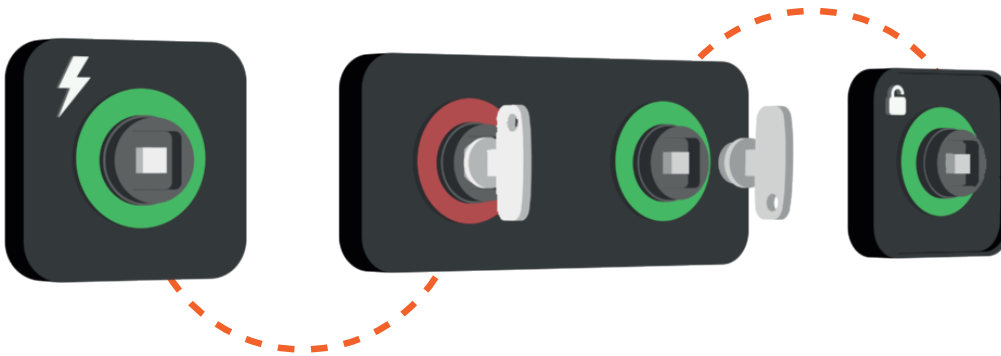
### A trapped key interlock solution is:

**INTEGRATABLE** onto new equipment or retrofit into existing procedures and equipment.

**CUSTOMIZABLE** to your specific safety requirements through the sequenced design and or with custom product.

**RELIABLE** and robust safety solution that can withstand harsh environments, maintaining the integrity of the safety solution.

## How A Trapped Key Interlock Solution Operates



Power is isolated. The key can be removed and taken to the key exchange.

The initiating key from step 1 is inserted into the key exchange, re-releasing the access key(s) and trapping the initiating key.

Access key(s) can be taken to the appropriate access door(s) and personnel can safely perform maintenance and operations.

Power can only be restored when maintenance is complete, trapped key solution is followed in reverse, returning all access keys, and releasing initiating key to restore power.

## No Compromise on Safety

Our team will partner with you to design your safety interlock scheme, build a bill of materials, and coordinate with multiple equipment OEMs to ensure your safety solution is implemented in the field with peace of mind; mitigating risk and eliminating human error.



**CONTACT US TODAY**  
to discuss your next electric-fracturing fleet project.



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