

DRE-Max™ controls a VFD controlled blower to maximize the destruction removal efficiency (DRE) of air-assisted flares.

WHY DO YOU NEED DRE-MAX?

1. Avoid non-compliance: DRE-Max is the answer for operators who have an air assisted flare with a VFD blower that is adjusted manually and may not be burning efficiently, especially if the inlet flow rate is changing over time: not enough air will increase risks of smoke, too much air will increase risks of incomplete combustion and methane venting, even in the presence of a flame. DRE-Max ensures that the right amount of air flow is always automatically sent to ensure the highest destruction efficiency and stay in compliance.

2. Decrease the total amount of emissions by half: Because DRE-Max was proven to achieve at least 99% DRE, it decreases flare emissions by at least 50% compared to regular 98% DRE flares. As a result, an air-assisted flare with DRE-Max can enable doubling the

throughput of oil production in the case of routine flaring (in field test cases we have achieved 99.9% DRE).

HOW DOES DRE-MAX WORK?

DRE-Max takes up to two 4-20 an analog signal from flow meters located on the flow line and applies it to a proprietary algorithm. The algorithm uses the analog inputs and gas analysis to determine the proper airflow and sets the analog output. The analog output tells the VFD to speed up or slow down to get the best air to fuel ratio.

WHAT DO YOU NEED TO MAKE DRE-MAX WORK?

DRE-Max needs an air assisted flare that uses a VFD to control its speed. It needs a flow measurement transmitter for each flow line that outputs its flow rate in a 420 analog signal.

WHAT VALUES NEED TO BE PROGRAMMED IN THE DRE-MAX?

PARAMETER	DESCRIPTION	UNITS	NOTES
HP LOW HEATING VALUE	LOWER HEATING VALUE FOR THE HIGH PRESSURE STREAM	BTU/SCF	NEEDED FROM CUSTOMER
LP LOW HEATING VALUE	LOWER HEATING VALUE FOR THE LOW-PRESSURE STREAM	BTU/SCF	NEEDED FROM CUSTOMER
HP TRANSDUCER SPAN	HIGH PRESSURE SIDE FLOW TRANSDUCER SPAN	MSCFD	NEEDED FROM CUSTOMER OVR EQUIPMENT PROVIDER
HP TRANSDUCER ZERO	HIGH PRESSURE SIDE FLOW TRANSDUCER ZERO	MSCFD	MOST CASES: DEFAULT VALUE
LP TRANSDUCER SPAN	HIGH PRESSURE SIDE FLOW TRANSDUCER SPAN	MSCFD	NEEDED FROM CUSTOMER OR EQUIPMENT PROVIDER
LP TRANSDUCER ZERO	HIGH PRESSURE SIDE FLOW TRANSDUCER ZERO	MSCFD	MOST CASES: DEFAULT VALUE