

FALCO 100 with VFD Controlled Dilution Blower



The FALCO 100 with dilution blower and variable frequency drive is the ideal solution for industrial vapor treatment. Process vapors are captured and efficiently destroyed by catalytic oxidation.

Startup and operation are fully automatic. Temperature controllers accurately regulate inlet concentrations by adjusting dilution blower speed. Speed is increased during high mass flow of hydrocarbon and slows during low mass flow, or at standby to save energy. Automatic shutdown results if temperatures exceed limits.

The FALCO 100 has an efficient shell and tube heat exchanger. A bypass valve automatically increases heat recovery during low concentration operation and standby, and reduces heat recovery to accommodate high concentrations.

Components are mounted on frames joined by forklift beams. One frame supports the blower, VFD, and accessories. The second frame supports the FALCO 100. This low profile system weighs only 560 lbs and is 46" wide, 60" long, and 88" tall. This standardized package is easily installed and operated and can be integrated into a wide range of process vapor streams.

Packaged system includes the following:

- FALCO 100 Catalytic Oxidizer
- 2 hp, three phase, explosion proof, regenerative blower
- Schneider Electric variable frequency drive in NEMA 4X enclosure
- Solberg inline process air and dilution filters
- Stainless steel vacuum and pressure gauges
- Stainless steel mounting rails with forklift pockets
- Mounting frames, factory piping and wiring between FALCO, Blower, and VFD
- Factory Mutual approval for use in Class 1, Division 2, Group D Hazardous Locations



FALCO 100 Specifications

- **CAPACITY** 40-120 scfm (dilution air + process flow)
- **MAXIMUM INPUT LOADING** 70 lb/day (0.05 lb/min) petroleum hydrocarbons @ 120 scfm
- **CATALYST DESTRUCTION EFFICIENCY** Up to 99.5%
- **CATALYST TEMPERATURE RANGE** 330-620°C (626-1148°F)
- **CATALYST** Stainless steel monolith. Alumina wash coat and platinum and palladium catalyst. *Alternate catalysts are also available.*
- **HEAT EXCHANGER** 304 stainless steel shell and tube. 70% thermal efficiency @ 60 scfm
- **HEATER (Electric)** 7.3 kW, solid state switching (SCR power control) with high limit
- **CONSTRUCTION** 304 stainless steel and aluminum
- **POWER REQUIREMENTS**
 - Heater: 30.5 amp @ 240 VAC single phase
 - Blower: 13.3 amp @ 240 VAC single phase (3 phase VFD output)
 - Controls: 120 VAC, 3 amp, 60 Hz
Optional: 120 VAC, 3 amp, 50 Hz

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