Odor Scrubber **Monitor**

Monitoring H_2S Removal Efficiency in Scrubbers and Biofilters

MSA
The Safety Company



Application

With the increased concern about clean air, many wastewater treatment plants have added scrubber systems and biofilters to control odors and pollution from hydrogen sulfide (H_2S) and other waste biogases. Known for its rotten egg smell, H_2S is a colorless, clear toxic gas that is a potential danger to employees and frequently is the source of obnoxious odor complaints from nearby downwind residents and businesses. There are a number of benefits derived from H_2S scrubber gas monitoring systems. These gas monitoring systems ensure odor scrubbers meet EPA requirements, provide early warning alerts to the potential breakthrough of carbon bed scrubbers, help control chemical feeds for wet scrubbers to conserve expensive chemicals and help eliminate odor complaints from the community.

The MSA Scrubber Monitoring System is a pre-engineered solution for monitoring H_2S at strategic points before and after both wet or dry scrubbers or biofilter system. The system provides the user valuable real-time H_2S removal efficiency data that provides plant operations critical information for optimum control. For monitoring higher H_2S levels before the scrubber or biofilter, the system is flange-mounted and operates within a closed loop so that no gas is vented into the atmosphere. For large-diameter piping and scrubber stack and biofilter exit streams that have lower H_2S levels – the sample is removed from sample tap through a water-stop filter and heated sample line and delivered to a system enclosure typically mounted with 100 feet away from monitoring point.

Built to withstand harsh outdoor environments and high-moisture samples, MSA Scrubber Monitoring System is housed in a heated NEMA 4X enclosure and includes an X5000 gas monitor, pump, filter, calibration port and 3-way valve. Maintenance and calibration are simple procedures. If an obstruction occurs in the sample line, the unit provides a flow failure indication. MSA's Sample Tap Assembly is designed to eliminate high moisture at the pick-up point on vertical stacks. All sample tubing outside of the scrubber should be heat traced to further reduce moisture development within the system.

Please contact MSA for customization of this product to include: (1) adding an additional sensor gas-type to the X5000 transmitter; (2) monitoring two sample streams independently in a single enclosure (dual zones); and (3) meeting requirements for NEC Class 1, Div. 2 electrical classification.

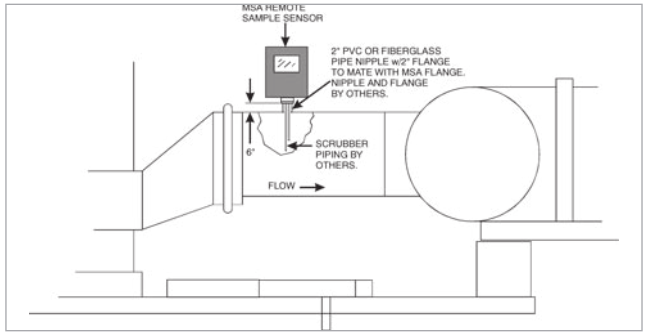
Benefits

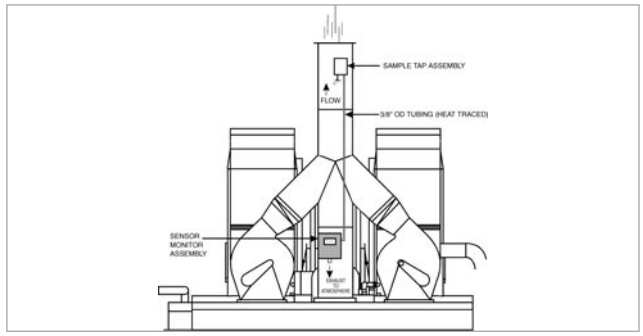
- Ensures that your scrubber is working and meeting EPA requirements
- Indicates break-through for carbon bed scrubbers
- Controls chemical feeds for wet scrubbers
- Conserves expensive chemicals
- Eliminates complaints from the community

Ultima X5000 Gas Monitor Advantage

The ULTIMA X5000 Gas Monitor takes gas detection to a whole new level.

- New design featuring an Organic LED (OLED) display and bright status LEDs for extreme visibility
- An industry first—a touch-button interface for an intuitive user experience and tool-free operation
- TruCal technology actively monitors the sensor integrity and compensates for environmental factors that cause regular electrochemical sensors to drift
- XCell TruCal sensors automatically self-check 4x/day
- Three year warranty on XCell® Sensors
- SafeSwap enables safe and quick replacement of gas sensors without turning off the instrument
- Dual sensor capability doubles the sensing power with half of the footprint of a single gas transmitter
- Bluetooth wireless technology allows mobile device to act as an HMI screen and controller. The X/S Connect App is designed with high security standards and provides real-time information to your mobile device
- Check status and get alerts up to 75 ft. (23 m) away
- Reduce set-up time by at least 50%





Note: This is a representative description of this product and its potential applications. Contact MSA Custom Products at customproducts@MSAnet.com for information oncustomizing this unit to fit a specific need.

Specifications

SENSOR MEASURING RANGES XCELL H_2S	0–10 ppm, 0-50 ppm, 0-100 ppm *(consult factory for higher ranges)*
SIGNAL OUTPUT	4-20 mA, HART, HART 7 device description language available
BLUETOOTH (OPTIONAL)	Bluetooth Low Energy (BLE) v4.3 or higher
TYPICAL SENSOR LIFE XCELL SENSORS	5 years
OPERATING TEMPERATURE RANGE WITHOUT HEATER WITH HEATER	32°F to 113°F (0°C to 45°C) -20°F to 120°F (-29°C to 49°C)
POWER SUPPLY	120 VAC, 60 Hz, 2-16 amps, or 24 VDC (optional)
RELAY CONTACTS	5 amps @ 120 VAC or 30 VDC Warning, alarm, horn, fault, flow failure
APPROVALS CLASSIFICATION	General purpose
ENCLOSURE RATING	NEMA 4X
SENSOR WARRANTY X5000 TRANSMITTER XCELL SENSORS	 2 years 3 years
DIMENSIONS	17"H x 15"W x 9"D

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice.

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07-0609-MC / 11.2019
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