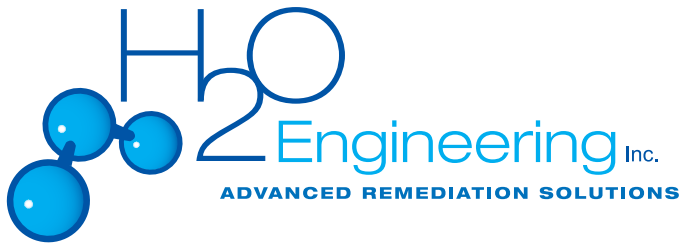


Ozone Sparge Systems



H2O Engineering's ozone sparge technology delivers the highest concentration of ozone gas directly to the contaminated subsurface. Ozone is released in controlled time duration sequences via in-situ oxidation points. This feature can be programmed and recorded by the logic controller.

Effective for short-term "hot spot" remediation or full scale site clean ups, H2O Engineering's ozone sparge units are completely self-contained and are available in trailer and cabinet enclosures. While we have designed our standard units to handle most field conditions, we also offer custom systems to meet extraordinary site demands. Our systems are successfully oxidizing petroleum hydrocarbons and chlorinated solvents such as TPHg, TPHd, BTEX, TCE, and PCE in both groundwater and soil applications.



OSU20-52

Standard Features

- Ozone Generator Output: 1.3 to 43.8 lbs/day, up to 6% concentration by weight
- PSA oxygen concentrator delivers 90% purity
- Ozone delivery pump features all ozone-resistant components
- Maximum ozone sparge pressure of 50 PSI
- Maximum air / breakthrough sparge pressure of 90 PSI
- Automatic regression from ozone to air / breakthrough mode upon high pressure detection
- Programmable Logic Controller (PLC) with Human Machine Interface (HMI)
- Selectable mode for ozone, ozone/air, oxygen, oxygen/air or air per sparge port
- Independent time duration control for each sparge port (programmable from 1 to 120 minutes)
- Independent time accumulators for tracking ozone vs. oxygen vs. air / breakthrough time per valve
- User configurable valve sparge sequence ordering
- Variable ozone output can be individually configured for each valve
- Lag time between sparge cycles (programmable from 1 to 480 minutes)
- Suspend mode for planned nonoperational periods
- Delivery flow and pressure displayed and logged via PLC, viewable from HMI
- Automated maintenance notifications
- Ozone sparge port manifold includes ozone compatible solenoid valves, 1/2" Kynar® compression fittings and analog pressure transmitter
- 10, 20, 30 or 40 port manifolds available
- Distinctive built-in safety features:
 - o Ambient ozone alarm/shutdown sensor
 - o High pressure alarm/shutdown
 - o Built-in thermal protection, high / low temperature alarms
 - o Sensor failure alarm
- Remote shutdown interface signal
- Remote ozone sensor connections
- PLC controlled air conditioning and heating in trailer version
- H2O Telemetry Packages (optional)
- Full one-year warranty includes materials and workmanship
- Service contracts and start-up assistance available
- Start-up Service Kit included

H2O Engineering, Inc.
189 Granada Drive
San Luis Obispo, CA 93401

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Fax: 805-547-0113
www.h2oengineering.com

Ozone Sparge Systems

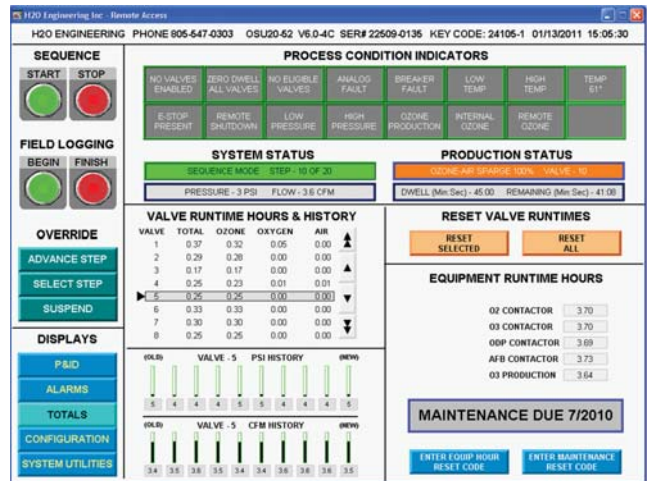
Model ¹	Delivered Ozone Output (lbs/day)	Ozone Gas Concentration (ppmv)	Enclosure Type	Electrical Requirement (vac) ²	Power Consumption (kW) ³	Maximum Operating Flow (cfm)	Maximum Operating Pressure (psi) ⁴
OSUX-26	1.4	2250	Cabinet	240	2.31	3.8	50
OSUX-52	2.7	3570	Cabinet	240	2.82	3.8	50
OSUX-104	5.5	4160	Cabinet	240	4.81	4.2	50
MOSUX-26	1.4	2250	Trailer	240	2.31	3.8	50
MOSUX-52	2.7	3570	Trailer	240	2.82	3.8	50
MOSUX-104	5.5	4160	Trailer	240	4.81	4.2	50
MOSUX-208	11.0	11900	Trailer	240	9.12	4.7	50
MOSUX-520	27.4	22180	Trailer	208/3Ø	25.56	7.3	50

Notes:

1. XX in model number denotes amount of sparge valves
2. All systems are 60 Hz, single phase (unless otherwise noted); all systems require a true neutral
3. Maximum well breakthrough pressure is 90 psi
4. HVAC system in mobile products consumes up to an additional 1.69kW during operation



MOSU20-52



TELEMETRY SOFTWARE PACKAGE (OPTIONAL)



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