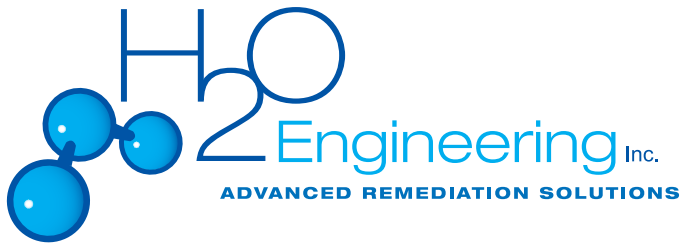


Combo Injection Units



H2O Engineering's Combo Injection units integrate the benefits of both ozone sparging and liquid injection into one system, opening up a multitude of in-situ remediation solutions for our customers.

By releasing ozone intermittently with a synergistic liquid via in-situ oxidation points, results are maximized, saving both time and money on remedial projects. Because liquid injection allows for the integration of various remediation compounds, this broadens the system's capability to effectively impact diverse site conditions and lithologies.

H2O's Combo Injection units are fully enclosed and temperature regulated, allowing for operation in varying climates.

Whether you are interested in a pilot study or full scale site remediation, H2O Engineering's team of professionals is ready to work with you.



MOSU20-52LINJ

Ozone 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

Liquid Injection Features

- Electronic chemical metering LMI pump with adjustable stroke frequency and length
- Variable flow rate (0.1 - 10 GPH)
- Maximum operating pressure of 50 PSI
- 10 or 20 port manifolds available
- Low-level drum switch included

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

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Combo Injection Units

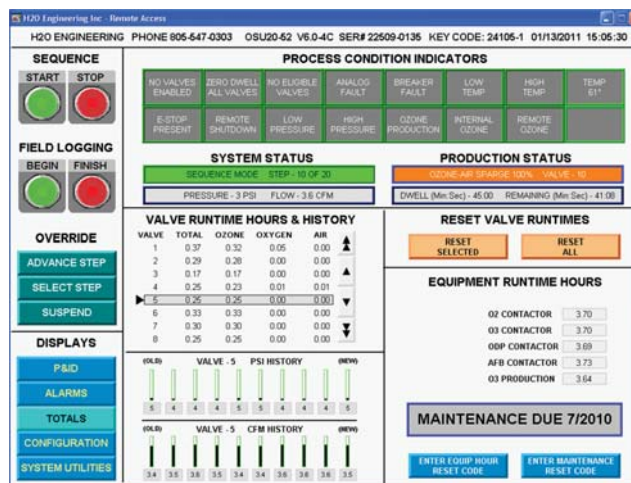
Product #	Ozone Sparge Ports	Liquid Injection Ports	Ozone Gas Concentration (PPMv)	Ozone Generator Output (lbs/day)	Maximum Liquid Injection Rate (gal/hr)	Power Consumption ² (kW)	Max. Operating Flow (CFM)	Max. Operating Pressure ¹ (PSI)
MOSU20-52LINJ	10	10	3,570	2.7	10	2.82	3.8	50
MOSU40-52LINJ	20	20	3,570	2.7	10	2.82	3.8	50
MOSU20-104LINJ	10	10	4,160	5.5	10	4.81	4.2	50
MOSU40-104LINJ	20	20	4,160	5.5	10	4.81	4.2	50
MOSU20-208LINJ	10	10	11,900	11.0	10	9.12	4.7	50
MOSU40-208LINJ	20	20	11,900	11.0	10	9.12	4.7	50

Notes:

1. Maximum breakthrough pressure = 100 PSI.
 2. Air conditioning unit in mobile products consume 1.69 kW during operation.
- All units are 240 VAC, 60 Hz, Single Phase.
All units are trailer enclosed.



MOSU20-52LINJ



TELEMETRY SOFTWARE PACKAGE (OPTIONAL)



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