

Air Sparge Systems

Regenerative Blower System

The Geotech Air Sparge System is designed to provide positive air pressure into the subsurface thus aiding the volatilization and biodegradation process associated with Soil Vapor Extraction Technology. The Geotech Systems are custom designed to meet your air flow and air pressure requirements.

FEATURES

- Regenerative, Blower with direct coupled explosion proof motor
- Delivery of Oil-less Air into the subsurface
- Heavy Duty Cast Aluminum Manifolds
- Spark Resistant Impellers, housing, covers, muffler towers
- Teflon lip seal in a stainless steel case
- Inlet Particulate Filter

OPTIONS

- Silencers
- Pressure Gauge
- Pressure Switches
- Temperature Gauges
- Temperature Switches
- Pressure Relief Valves
- Discharge Check Valve
- CFM Gauges
- Control Panels to integrate with Soil Vapor Extraction Systems and other equipment

OPERATION

The impeller blades passing the inlet port draw air or other gases into the blower. The impeller blades then, by centrifugal action, accelerate the air outward and forward. Here the "regenerative" principle takes effect as the air is turned back by the annular shaped housing to the base of the following blades where it is again hurled outward. Each "regeneration" imparts more pressure to the air. When the air reaches the stripper section at the outlet (the stripper is the part of the blower located between the inlet and the outlet in which the annulus is reduced in size to fit closely to the sides and tips of the impeller blades), the air is "stripped" from the impeller and diverted out of the blower. The pressures or vacuums generated by the one or two spinning, non-contacting, oil-free impellers are equal to those obtained by many larger multistage or positive displacement blowers.

APPLICATION

By injecting air directly into the groundwater, the Geotech Air Sparge System remediates groundwater by volatilizing contaminants and enhancing biodegradation. Contaminants are removed from groundwater by physical contact with air and are carried up into the unsaturated zone (i.e., soil). As the contaminants move into the soil, a Geotech provided Soil Vapor Extraction System can be used to remove vapors from the subsurface. Consult Geotech Technical Remediation Specialists for your site specific requirements.



SPECIFICATIONS

| Model | Horsepower | Flow Range (ICFM) | Pressure Range - IWG / PSIG |
|--------|------------|-------------------|-----------------------------|
| EN 404 | 1.0 | 0-107 | 0-57" / 2.06 |
| EN 454 | 1.5 | 0-127 | 0-65" / 2.35 |
| EN 513 | 1.5 | 0-78 | 0-88" / 3.18 |
| EN 505 | 2.0 | 0-160 | 0-80" / 2.89 |
| EN 656 | 3.0 | 0-212 | 0-70" / 2.53 |
| EN 707 | 5.0 | 0-295 | 0-85" / 3.07 |
| EN 808 | 7.5 | 0-350 | 0-90" / 3.25 |
| EN 858 | 10.0 | 0-400 | 0-120" / 4.33 |
| EN 909 | 15.0 | 0-600 | 0-120" / 4.33 |

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