

# Spencer®

## Blowers & Vacuum Systems with an Engineering Edge

Since 1892, The Spencer Turbine Company has specialized in innovative solutions for air and gas handling challenges. Today, Spencer continues as a worldwide leader in highly engineered products that meet the demands of the industrial, municipal, institutional, and commercial markets.

Spencer's comprehensive product line includes single and multistage centrifugal blowers, gas boosters, central vacuum systems, mobile vacuum units, separators, regenerative blowers, electrical control panels, tubing and fittings, vacuum accessories and other related products. Products are available in standard models as well as in custom designs for specific requirements.

### Some typical Spencer customers include:

- Chemical and petrochemical plants where highly customized equipment is required to handle the processing of nasty gases
- Food processing plants that must quickly remove wet and dry spills around equipment
- Plants in the process industries where housekeeping using central vacuum systems with explosion proof safety features are vital to reducing the risk of combustible dust explosions
- Water and wastewater treatment facilities that require continuous-duty aeration blowers and digester gas boosters
- Electronics and aerospace cleanrooms that need powerful vacuum systems to maintain required levels of cleanliness
- Biogas plants requiring a booster blower to transfer the purified gas for use as a renewable energy source.
- Hospitals and critical care facilities needing vacuum systems for general housecleaning, sanitizing systems, laser fume removal and waste anesthetic gas disposal from operating rooms
- Schools that want to reduce cost of intermittent duty vacuums and improve their indoor air quality with central vacuum systems
- Restaurants, office complexes, healthcare facilities and other buildings where available natural gas street pressures call for a gas booster to meet required pressure levels for boilers, heaters and ovens
- Carwashes, car rental agencies and detailing shops that need long-life, dependable, rugged vacuum cleaning power
- OEM manufacturers looking for reliable, customized air handling modules that suit their product parameters

Look to Spencer when you need innovative solutions for air and gas handling challenges. From bare blowers, to vacuum units, to custom skid mounted package systems, complete with controls, Spencer can design and manufacture equipment that will meet your specific needs. For further information, please call us or visit our website at [www.spencerturbine.com](http://www.spencerturbine.com).





## Fabricated Multistage Centrifugal Blowers and Vacuum Producers

Three types of multistage machines: Standard overhung, four-bearing overhung and four-bearing outboard. With casing diameters from 14" to 88" (36 cm to 2.24 m), they can handle volumes to 30,000 ICFM (50977 m<sup>3</sup>/hr), pressure to 20 PSIG (138 kPa) and vacuum to 15" Hg (5182 mm H<sub>2</sub>O). Their fabricated housings allow use of specialized metals to counter abrasion, corrosion or high temperatures.



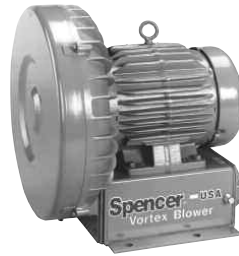
## Cast Multistage Centrifugal Blowers

Spencer's Power Mizer<sup>®</sup> multistage cast centrifugal blowers have rugged cast iron and cast aluminum components for heavy-duty service. With uniquely shaped impellers and peak adiabatic efficiency up to 80%, these blowers are a preferred solution for energy efficient performance in 24/7 applications. A range of models to 35000 ICFM (59465 m<sup>3</sup>/hr), 28 psig (193 kPa) is available.



## Special Fabricated Blowers, Gas Boosters and Vacuum Producers

Custom designs to cope with the most difficult gas handling applications, including corrosive and toxic gases such as sulfides, flue and stack gases, halogens and acids. Temperatures to 1100 °F (593 °C), casing design pressures to 1000 PSIG (6895 kPa), operating pressures to 500 PSIG (3447 kPa).



## Regenerative Blowers

Vortex<sup>®</sup> single-stage regenerative blowers are ideal for compact installation to deliver clean, oil-free air. Quiet, pulsation-free, low maintenance operation with up to 645 SCFM (1096 m<sup>3</sup>/hr) volume, 3.9 PSIG (27 kPa) pressure, 7.6" Hg (2621 mm H<sub>2</sub>O) vacuum. Standard models equipped with UL Listed, CSA approved and CE compliant, TEFC motors.



## Hermetically Sealed Gas Boosters

Besides shaft seal gas boosters, Spencer offers multistage gas boosters having the blower and motor sealed in a hermetic vessel to eliminate shaft leakage. The Spencer hermetic design provides a continuous gas flow around the explosion-proof motor, cooling the motor and extending its life. UL Listed for natural gas available.



## Special Regenerative Blowers

Spencer Vortex<sup>®</sup> regenerative blowers are available as customized units. Blowers can be modified for special applications requiring different surface treatments including Teflon<sup>®</sup> coatings, anodizing, white epoxy paint, stainless steel paint and custom paint colors. Bases can be fabricated from stainless steel and drilled with inspection ports. Special motors include explosion-proof, premium efficiency and chem duty.



## Digester Gas Booster Skid Packages

Custom designed systems to move digester gas and raise its pressure to desired levels. Spencer packages are piped, prewired and packaged with all system accessories on a compact skid. To deal with corrosive gases, the system is equipped with a multistage hermetically sealed gas booster featuring a stainless steel housing, anodized aluminum impellers and an Inconel electrical connector.



## High-Pressure Belt Drive Blowers

Spencer's four-bearing overhung design, when belt-driven at speeds up to 5000 RPM, develops very high pressures and more than three times the volume achieved within a 24" (61 cm) casing. Ideal for OEM applications. Volumes to 1800 SCFM (3058 m<sup>3</sup>/hr), pressure to 8 PSIG (55 kPa), vacuum to 10" Hg (3455 mm H<sub>2</sub>O).



## Natural Gas Booster Skid Packages

The GasCube<sup>®</sup> – Spencer's new UL Listed hermetic natural gas booster skid package series – is the answer for efficiently delivering gas at higher pressure. It allows for a fast and easy installation that boosts pressure levels by as much as 83" WC (20.7 kPa) with volumes as high as 240,000 CFH (6796 m<sup>3</sup>/hr).



## Single-Stage Centrifugal Blowers and Vacuum Producers

Used in OEM air handling equipment and in plant and process applications requiring uniform airflow, either pressure or vacuum, over an entire volume range. Typical uses: Pneumatic conveying, exhausting, combustion air delivery, ventilation, materials handling, air curtains, drying. Volumes to 50,000 SCFM (84950 m<sup>3</sup>/hr), pressure to 3.5 PSIG (24 kPa).

# Blowers & Vacuum Systems with an Engineering Edge



## Central Vacuum Systems

The total answer for plantwide dirt and debris pickup, material recovery, floor cleaning, fume removal, liquid pickup and hazardous or recyclable materials collection. Each system has a centrally located vacuum producer with specially selected separators and collectors. These units are connected via tubing lines to inlet valves located throughout the facility, for access wherever needed.



## Pneumatic Conveying Systems

Dilute phase, high-volume, low-pressure conveying systems for free-flowing materials – everything from powders, pellets and grain to fly ash and sawdust. The pickup, transport and collection equipment is specially designed and manufactured by Spencer for each conveying application.



## Self-Contained Vacuum Cleaning Equipment

Industravac® stationary and mobile models for machine-side scrap removal, high-velocity dust collection and other demanding applications. Wheeled units can be easily moved for factory house-keeping. Stationary models may also be used for central vacuum systems, connected by tubing to a series of inlet valves. A range of Industravac sizes is available for one to 15 operators.



## One or Two Operator Vacuum Units

Spencer FastVac® is a compact, heavy-duty vacuum system ideal for general cleaning applications with one or two operators using 15' x 1-1/2" (4.6 m x 38 mm) flexible hoses. The system features a Vortex® regenerative vacuum producer, two-stage separator, cartridge filter and quick-release dirt can, all interconnected and mounted on a steel floor stand. Stationary or mobile models are available.



## Vacuum Units with Universal Components

Spencer's V-Jet™ Series has universal components, making it easy to add fans or increase casing size to boost vacuum performance as needs change. The design features a compact footprint and quiet operation and is available in models for up to ten operators. The V-Jet vacuum is pre-engineered for quick delivery, shipping within ten working days of ordering.



## Separators

Spencer offers a vast array of separator types and sizes to suit your contaminant conditions and recovery or disposal needs. Standard and high-efficiency cyclone centrifugals; stationary and portable liquid separators; tubular bag, Jet-Clean® and cartridge separators; even special immersion units for flammables and other sensitive materials are available.



## Wet Separators

Wet Separators are complementary and compatible additions to Spencer central vacuum systems. They are constructed of corrosion-resistant materials and designed especially for liquid recovery as required in floor drying and spill pickup applications.



## Tubing and Fittings

These parts are used in both vacuum and pressure systems where smooth flow and low restriction are important. They are available in carbon steel, galvanized, stainless steel and aluminum in 2-1/8" to 14" (54 mm to 355 mm) diameters for every system size and configuration. Stock includes tubing, elbows, YL and TY branches, couplings, reducers and tubing to pipe adapters.



## Vacuum Hose and Tools

For compatible use with Spencer central vacuum cleaning systems and mobile vacuum units. Spencer stocks hundreds of accessory items: hoses, wands, wall and floor tools, inlet valves, racks, couplings and special-purpose tools for intensive industrial, commercial and institutional cleaning. For both 1-1/2" (38 mm) and 2" (51 mm) diameter systems.



## Custom Electrical Control Panels

Spencer's in-house engineering design and manufacturing capabilities offer custom control panels equipped with microprocessors, PLCs, data acquisition instruments, remote process controls, and multiple blower sequencers. These all can be tied to SCADA Systems for central control. UL and CUL Listed are available.

# Services & Technical Support

## Representative Network

Besides its direct sales offices, Spencer has a network of skilled manufacturers' representatives covering all of North America, supplemented by independent representatives worldwide. It's the industry's largest representative organization for knowledgeable on-site assistance.

## System Design Services

Spencer's authorized representatives, backed by the in-house engineering staff, evaluate your application and recommend an effective system based on processing volume, facility layout and future needs. They are also available during installation, start-up and operation.

## Custom Fabrication

Spencer's in-house design and application engineers develop special air and gas handling equipment. We use custom aluminum, Monel®, Hastelloy®, stainless steel, brass, titanium, and other specialized metals to deal with hot, high-pressure or corrosive gases.



## Repair and Maintenance

Spencer provides complete in-house and field service for all Spencer products. The service group is available for startup, maintenance, and customer personnel training to maintain and operate your Spencer equipment.

## Research and Testing Laboratory

Application studies, product development and testing programs are conducted by in-house professional engineers. More than a century of air and gas handling expertise has created a unique capability for high-efficiency, cost-effective solutions.




Spencer Corporate Headquarters and Manufacturing Plant, Windsor, CT USA

GasCube®, FastVac®, Industravac®, Power Mizer®, and Vortex® are registered trademarks of The Spencer Turbine Company.

**For product selection assistance, please email [marketing@spencer-air.com](mailto:marketing@spencer-air.com) or visit our website at [www.spencerturbine.com](http://www.spencerturbine.com) to locate the Spencer representative in your area.**

*Blowers & Vacuum Systems with an Engineering Edge*

The  **Spencer Turbine Company, 600 Day Hill Road, Windsor, CT 06095 USA**

TEL 800-232-4321 ♦ 860-688-8361 ♦ FAX 860-688-0098 ♦ [www.spencerturbine.com](http://www.spencerturbine.com)

