

Spencer Power Mizer[®] Cast Multistage Centrifugal Blowers

High efficiency aeration blowers
for water and wastewater
treatment systems



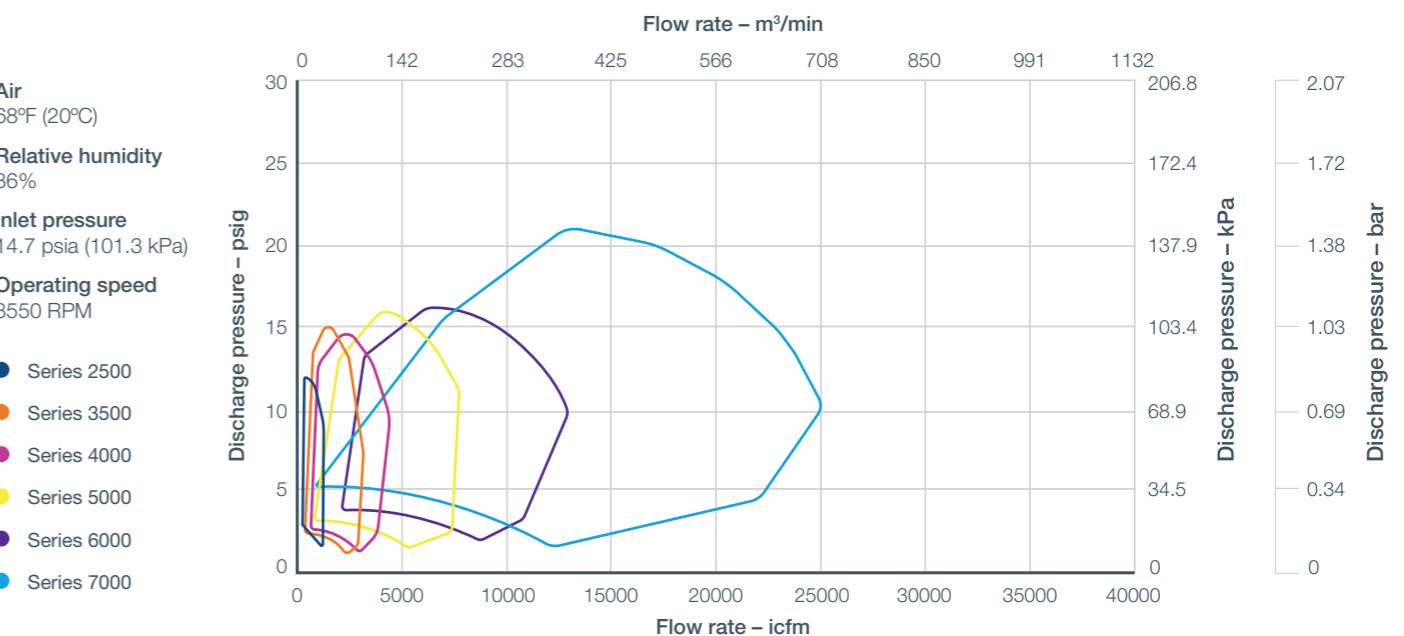


Spencer high-efficiency blowers reduce operating costs and provide quick payback on your investment.

Spencer Power Mizer multistage centrifugal blowers provide high efficiency air delivery for water and wastewater treatment applications such as sewage aeration, odor control, grit chamber aeration, channel aeration and filter backwash.

Spencer was acquired by Howden, a Chart Industries Company in 2021 and the full range of Spencer products is now part of the Howden portfolio.

Blower performance



Low operating sound levels

The inlet section, return channels and discharge section of Spencer Power Mizer blowers are gray cast iron with excellent strength, chemical resistance and sound attenuation. The rotor assembly of Spencer Power Mizer blowers in Series 4000 through Series 7000 contains cast aluminum impellers.

Their three-dimensional blades transfer energy to the airstream with very high efficiency. Blade configurations include radial, backswept and combinations of both, selected by Howden engineers using specialized computer software.



Cast aluminum impeller.

Superior aerodynamics

The air handling components of these blowers were designed in our development laboratory. By avoiding abrupt velocity changes that create turbulence and waste energy, our engineers achieved smoother, more energy-efficient airflow from blower inlet to discharge.

Uniquely shaped impellers, return channels with airfoil-shaped vanes, redesigned inlet and discharge passages and vaneless diffusers all contribute to a peak adiabatic efficiency that is above 80%.

Precisely balanced rotors

Howden's exacting balancing procedures produce an overall vibration level of 0.19 in/sec or less for Series 2500 to 7000. This decreases bearing stress, which improves bearing life and blower reliability.

Spencer Power Mizer blowers offer long-term power savings of tens of thousands of dollars per blower per year. You can often downsize the motor to save even more.

Over a century of experience

Aeration system

Intelligent air delivery systems with advanced aeration technology.

Howden can furnish complete aeration air delivery systems that are process-optimized, energy-efficient and totally integrated.

A typical system starts with Spencer Power Mizer blowers and adds:

- Dissolved oxygen control systems including PLCs programmed with unique direct airflow control logic
- Variable frequency drives with automatic speed adjustment in response to DO changes
- Motor control centers and blower protection panels
- Activated sludge diffusion systems
- Aeration control system engineering

Accessories

There is also a wide range of accessories available such as:

- Standard and custom electrical control panels, UL and CUL listed controls
- Valves and silencers
- Gauges and instruments
- Tubing and fittings of steel, stainless steel, galvanized steel and aluminum

Additional WWT facility products

- Fabricated multistage centrifugal blowers for aeration and incineration
- Hermetically sealed gas boosters and skid packages for digester gas
- Single-stage scroll blowers for compost and odor control

Services

- Custom designs
- Testing and applications laboratory
- Spare parts supply
- In-house and field service for all Howden products



After devoting more than 165 years to air and gas handling equipment, Howden is respected worldwide for its value-added services and quality products.



Three Spencer Power Mizer Series 7000 blowers supplied with Heresite® coated internal parts are installed at a California municipal landfill gas facility for handling extremely corrosive and combustible gases.



Massive Spencer Power Mizer Series 7000 blower with Acoustical Belly Wrap™ ready for shipment to China for a municipal wastewater aeration application.



A bank of three Spencer Power Mizer blowers operating in parallel for wastewater aeration at a large wastewater treatment plant.



Spencer Power Mizer blowers for installation at an Indonesian plant feature two special drive configurations: one has a steam turbine power source; the other has a motor and gear increaser for use with 50 Hz electricity.



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