WASTEWATER

inovair®
Geared Centrifugal Blowers

THE MOST RELIABLE, COST EFFECTIVE AND EFFICIENT BLOWERS

BLOWER OPTIONS FROM 15-600 HP

LOWEST TOTAL OWNERSHIP COST

Inovair's highly efficient and durable geared centrifugal blowers deliver the industry's lowest total ownership cost. The key is a high-efficiency design that is also affordable, thanks to the use of industry standard components to avoid unnecessary complexity and cost, as well as the company's nearly 30 years of experience designing and manufacturing compact blowers. **Inovair's** proven design approach also simplifies maintenance and produces extreme durability.

VERTICALLY INTEGRATED, MADE IN THE USA

With documented energy savings as high as 45% relative to PD and multistage blowers, and without the electrical complexity and durability issues seen in high speed turbo blowers, **Inovair** offers a unique combination of high efficiency, reliability, and simplicity. Unlike some others, **Inovair blowers** and customers are supported by the advantages of a vertically integrated manufacturer, with **Inovair** controlling all elements of design, production, and service. All of these activities are performed 100% in the USA, at the company's headquarters in Kansas City.

IM-20

25-150 HP

IM-30

Single or Stacked
40-400 HP

IO SERIES

30-100 HP

PROUDLY MADE IN USA

14801 W 114th Terrace, Lenexa, KS 66215 913-469-7244 1-855-INOVAIR inovair.com

IM SERIES MACHINE LINEUP
15-600 HP

IM-10 IM-20 IM-30 IM-30 STACKED IM-40 IM-50

IO SERIES MACHINE LINEUP
15-100 HP

IO-10 IO-20

INDUSTRY STANDARD COMPONENTS

- NEMA Standard Motor
- Allen Bradley PLC
- Off The Shelf Variable Frequency Drive

BEST-IN-CLASS EFFICIENCY

- Precision machined aerodynamic impeller stages
- 10-45% Energy Savings Over Multi-Stage or PD Blowers (~80% Isentropic Efficiency)

DURABLE DESIGN

- Indoor/Outdoor Installation
- Dirt/Dust Tolerant
- Start-Stop Capable
- Durable 20-year design life

LOW MAINTENANCE COST

- Annual Maintenance Interval
- High Capacity Inlet Filters
- Serviceable by Plant Personnel

OPERATING CAPACITY

- 150 to 12,000 scfm
- Up to 22 psi
- Capable of variable level applications

INTEGRATED CONTROL SYSTEM

- Mass airflow (SCFM) based control system
- Automatic temperature compensation
- Automatic pressure compensation for varying liqued levels
- Do feedback based flow control capable

- Allen-Bradley PLC's
- In-house UL Certified 508A panel shop
- Ethernet (TCP/IP Modbus) or hard wire capable
- Easy systems integration

PROUDLY MADE IN USA

INOVAIR CASE STUDIES

*See **Inovair.com** for additional information.*

37% ENERGY SAVINGS, IMPROVED RELIABILITY, OUTDOOR DURABILITY

Application: Aeration Basin

Flow: 3,600 SCFM **Pressure:** 9.5 PSIG **Horsepower:** 200 HP

Description: Western Missouri wastewater plant documented 37% energy savings along with improvements in reliability (reductions in maintenance and unplanned downtime) by replacing its two 150 HP PD blowers (300 HP total) with Inovair's 200HP stacked IM series blowers.

VARYING LIQUID LEVELS TO 15 PSI

Application: Digester Aeration

Flow: 400 - 1,200 SCFM **Pressure:** 7.0-15.0 PSIG **Horsepower:** 125 HP

Description: Southern California wastewater plant sought out Inovair to provide a solution for their varying liquid level digester (at 3,300ft plant elevation). Inovair's compact footprint and ability to operate over widely varying liquid levels were key reasons for choosing Inovair.

HIGH EFFICIENCY SBR SYSTEM, RELIABLE START/STOP OPERATION

Application: Lagoon Aeration

Flow: 2,000 SCFM **Pressure:** 11.38 PSIG **Horsepower:** 125 HP

Description: A plant in Oregon switched from another technology and installed an Inovair IM-30 stacked unit for their BR process. The Inovair blowers have worked flawlessly starting/stopping every 10 minutes since installation. The plant is truly happy with their decision to utilize Inovair and is experiencing improved reliably and lower operating costs.

BETTER FLOW CONTROL AND EFFICIENCY WITH 25% LESS ENERGY

Application: Aeration Basin

Flow: 1,230 SCFM **Pressure:** 8.5 PSIG **Horsepower:** 75 HP

Description: An Ohio plant was looking to replace their (3) 100 HP multi-stage blowers with more efficient blowers, with better flow control. Inovair provided (3) 75 HP IM series blowers with a master control panel. The higher efficiency blowers, along with the improved flow control provided a 25%+ energy savings.

12,000 START-STOP CYCLES

Application: Aeration and Digester Processes

Flow: 600-1,150 SCFM **Pressure:** 6.0 PSIG **Horsepower:** 50 HP

Description: This project resulted in not only substantially energy savings and improved process control, but also substantially improved reliability. A unique aspect of the digester process was a high number of start/stop cycles. Now with over 12,000 start-stop cycles, this case study of blower improvements is even more powerful now than it was when we presented it at the Wisconsin Wastewater Operator's Association conference in 2016.

COMPETITIVE CAPITAL COST, HIGH EFFICIENCY, AND EASY INSTALLATION

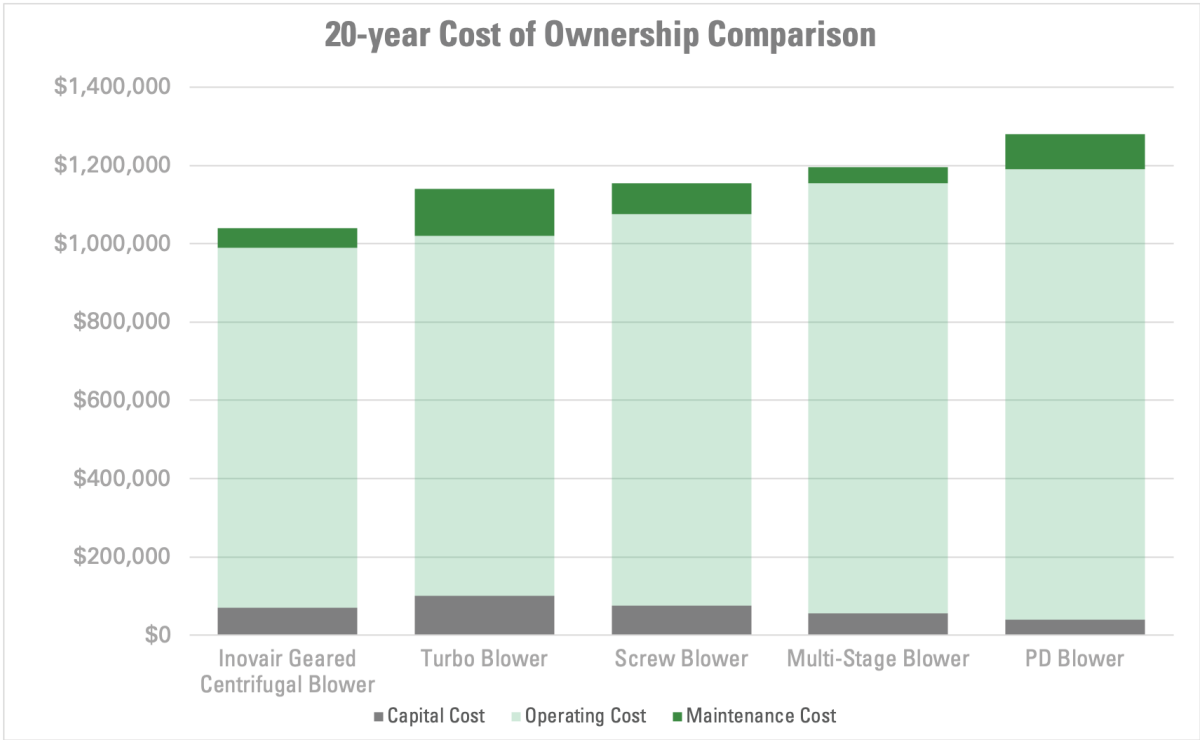
Application: Aeration Basin

Flow: 2,000 SCFM **Pressure:** 7.0 PSIG **Horsepower:** 125 HP

Description: The Inovair IM-30's competitive capital cost, high efficiency, and easy installation provided a wastewater treatment plant in Western Kentucky with the lowest cost of ownership. Inovairs proven stack configuration provided a seamless and efficient flow range (1150 -5,250 SCFM) in a single footprint. This nearly 80% turndown coupled with Inovairs designed and built control system ensures smooth and efficient operation during all flow conditions.

High efficiency, compact size, reduced noise and integrated control systems are areas of significant innovation for aeration blowers in recent years. Inovair has made these improvements not only affordable, but also more reliable. Wastewater plants can now install or upgrade their blowers without the high cost or component complexity of air bearing or mag bearing turbo blowers.

LOWEST COST OF OWNERSHIP



ADVANTAGES OF "MADE IN THE USA"

- INCENTIVES/FUNDING
- INDUSTRY LEADING AVAILABILITY
- US-BASED SUPPORT
- BEST-IN-CLASS SERVICE AND PARTS TURNAROUND
- HIGHEST QUALITY

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SCAN ME

09/23

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