HOFFMAN

REVOLUTION PLUS

High-Speed Turbo Blowers

REVOLUTION PLUS

Turbo Blower HRP Series

HOFFMAN® REVOLUTION PLUS

Revolutionary Efficiency

Many of our customers count on us to help them reduce their carbon footprint and energy consumption while improving operational efficiency. The fact that up to 70% of aeration equipment lifecycle operating costs is dedicated to energy usage because energy efficiency is one of our top priorities.

HOFFMAN's REVOLUTION^{PLUS} combines an advanced blower management system with a significantly smaller physical footprint than traditional blowers to set a new standard for blower design, performance, and efficiency.

The REVOLUTION^{PLUS} uses innovation and advanced technology to deliver energy savings of up to 40%; increased reliability with little to no maintenance, and comes factory pre-wired and tested in an ergonomically designed sound enclosure for plug-and-play operation.

A Revolutionary Turbo Blower

- **High-Efficiency -** Provides energy savings of up to 40%
- **Low Noise -** < 85dBA sound rating
- **Simple Maintenance -** User-friendly design simplifies maintenance
- **Innovative Design -** Innovative airfoil bearing extends the life of the unit

A Blower to Fit Your Needs

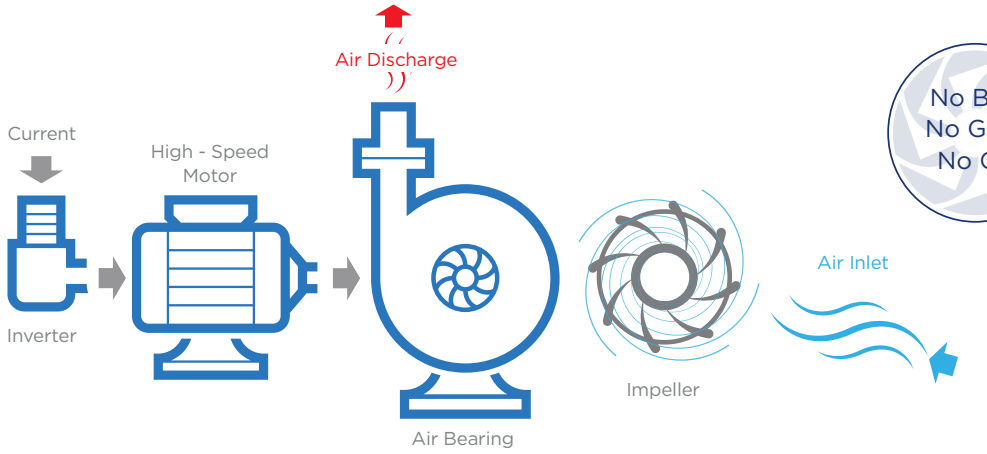
Hoffman produces a variety of turbo blowers with power inputs ranging from 10 to 700 horsepower making them ideal for a wide range of applications.

10 - 75HP

100 - 200HP

250 - 350HP

400 - 700HP



No Belt
No Gear
No Oil

High Efficiency
Low Noise
Simple Maintenance

Wide Range of Applications

Municipal Wastewater Treatment

Industrial Wastewater Treament

Brewing and Distilling

Power Generation

Structure & Components

The REVOLUTION[PLUS] consists of a compression unit equipped with a blow-off valve that releases air, protecting the unit during start/stop, while an inverter controls the rotating speed of the blower's high-speed motor. Housed in a robust, sound-insulated enclosure, the REVOLUTION[PLUS] features a Programmable Logic Controller (PLC); allowing operators to actively monitor, control, and adjust the speed to meet changing process demands and operating conditions.

- High-Speed Direct Coupled Motor.
- Latest Airfoil Bearings.
- No Belt. No Gears. No Oil.

Features & Benefits

Low noise level construction to mitigate noise pollution.

Simple maintenance schedule (inspection every 3 years - excluding air filters).

Simple package installation with enclosure leveling feet.

Blower can operate separate from controller, up to 100 feet maximum.

Gasketed access panels for electronics and air-end prevent damage caused by exterior dust and debris

1 Touch Screen HMI
- Enables operator to manage blower system settings and parameters
- Monitors operational condition

2 Inverter
- Changes motor rotational speed, flow rate, and pressure conditions according to PLC values

3 PLC
- Communicates system operational data to HMI
- Maintains normal operating condition and and safeguards blower equipment

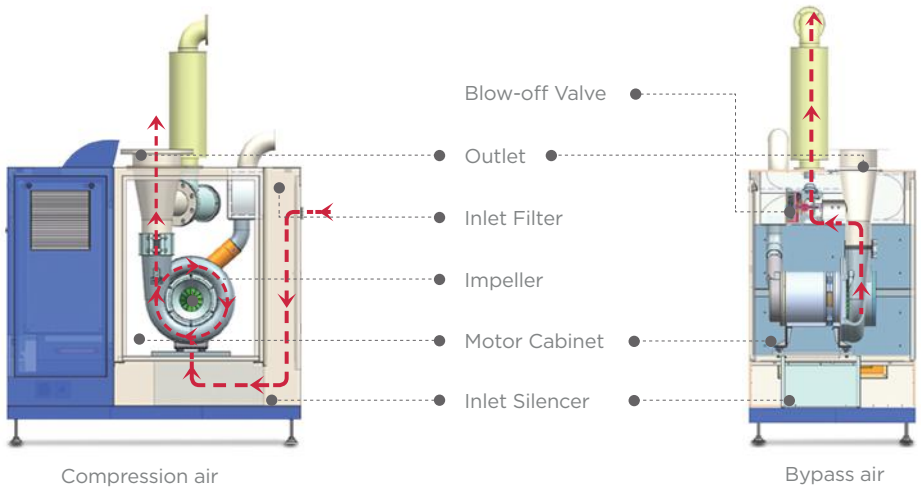
4 Cooling Air Silencer
- Reduces sound from air-end
- 2-path structure inside

5 Blow-off Valve
- Protects air-end when starting and stopping blower
- Prevents damage to air-end from surge conditions
- Pneumatically driven using system discharge pressure

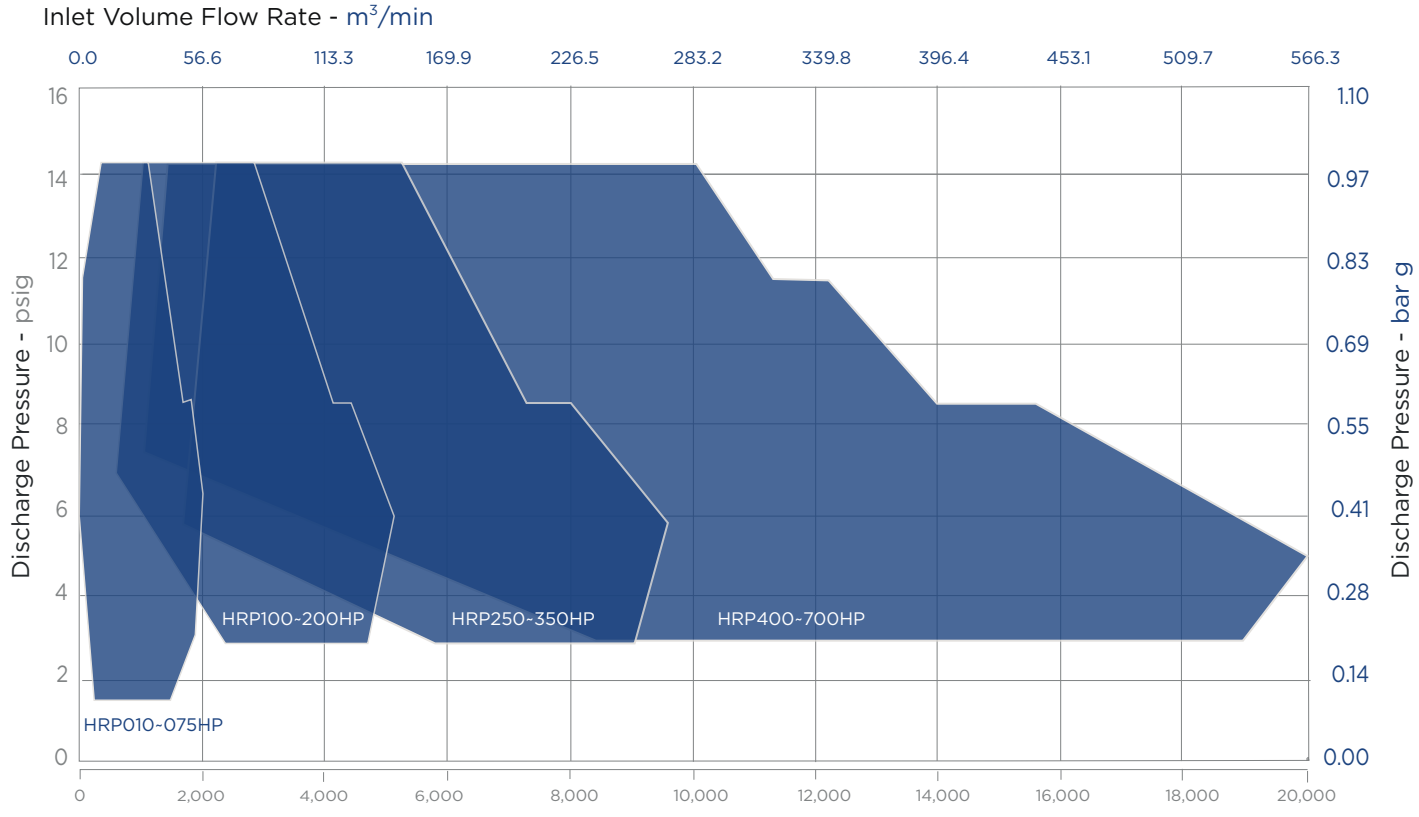
6 Air-End
- High-efficiency centrifugal blower design
- Compresses ambient air for continuous flow positive pressure applications
- Uses airfoil bearing, allowing oil-free operation
- Air-cooled or water-cooled

7 Inlet Silencer
- Reduces air-end noise through inlet
- C-type shape

Air Flow



Performance



REVOLUTION PLUS

Technical Specifications

Power HP (kW)		10 (7)	20 (15)	30 (22)	50 (37)	75 (56)	100 (75)	125 (93)	150 (112)	200 (149)	250 (186)	300 (224)	350 (261)	400 (298)	500 (373)	600 (447)	700 (522)	
PSIG (Bar(g))	8.5 (0.59)	247 (7)	459 (13)	742 (21)	1,201 (34)	1,730 (49)	2,472 (70)	3,002 (85)	3,602 (102)	4,379 (124)	5,650 (160)	6,992 (198)	8,016 (227)	8,652 (245)	11,159 (316)	13,773 (390)	15,821 (448)	CFM (m^3/min)
	10 (0.69)	-	-	671 (19)	1,059 (30)	1,483 (42)	2,048 (58)	2,543 (72)	3,037 (86)	3,743 (106)	4,909 (139)	5,898 (167)	6,780 (192)	7,134 (202)	9,676 (274)	11,619 (329)	13,349 (378)	
	11.4 (0.78)	-	-	600 (17)	953 (27)	1,342 (38)	1,907 (54)	2,366 (67)	2,825 (80)	3,390 (96)	4,591 (130)	5,509 (156)	6,321 (179)	6,674 (189)	9,041 (256)	10,842 (307)	12,466 (353)	
	12.8 (0.88)	-	-	-	848 (24)	1,201 (34)	1,730 (49)	2,119 (60)	2,543 (72)	3,072 (87)	3,991 (113)	4,909 (139)	5,650 (160)	5,898 (167)	7,663 (217)	9,429 (267)	10,842 (307)	
	14.2 (0.98)	-	-	-	777 (22)	1,095 (31)	1,589 (45)	1,942 (55)	2,331 (66)	2,825 (80)	3,673 (104)	4,520 (128)	5,191 (147)	5,580 (158)	7,240 (205)	8,899 (252)	10,241 (290)	
Weight lb. (kg)		441 (200)	1,080 (490)	1,091 (495)	1,124 (510)	1,279 (580)	1,720 (780)	1,742 (790)	1,918 (870)	2,028 (920)	3,086 (1,400)	3,263 (1,480)	3,307 (1,500)	4,850 (2,200)	8,157 (3,700)	8,510 (3,860)	8,598 (3,900)	
Pipe in. (mm)		3 (80)	6 (150)	6 (150)	6 (150)	8 (200)	10 (250)	10 (250)	10 (250)	12 (300)	14 (350)	14 (350)	14 (350)	16 (400)	20 (500)	20 (500)	20 (500)	
Size in. (mm)	Width	26 (650)	36 (920)	36 (920)	36 (920)	36 (920)	40 (1,020)	40 (1,020)	40 (1,020)	40 (1,020)	51 (1,300)	51 (1,300)	51 (1,300)	67 (1,700)	71 (1,800)	71 (1,800)	71 (1,800)	
	Length	26 (650)	57 (1,450)	57 (1,450)	57 (1,450)	57 (1,450)	63 (1,600)	63 (1,600)	67 (1,700)	67 (1,700)	79 (2,000)	79 (2,000)	79 (2,000)	98 (2,500)	138 (3,500)	138 (3,500)	138 (3,500)	
	Height	40 (1,020)	59 (1,500)	59 (1,500)	59 (1,500)	59 (1,500)	62 (1,580)	62 (1,580)	70 (1,780)	70 (1,780)	75 (1,900)	75 (1,900)	75 (1,900)	80 (2,040)	87 (2,200)	87 (2,200)	87 (2,200)	

Conditions: 14.7 PSIA (1 Bar), 68°F (20°C), 36% RH
Data and dimensions subject to change without notice

TECHNICAL DETAILS	
Inlet Configuration	Louver or Flange
Discharge Configuration	Vertical/Horizontal ANSI 150 lb
Bearing Type	Airfoil, bump
Lubrication	Not Required
Air Seal	Labyrinth Type
Enclosure/Blower Vibration	< 0.055 in/sec RMS / < 0.079 in/sec RMS
Enclosure IP Grade	IP54 Standard (IP55 Optional)
Motor Type (< 30HP)	Aluminum Rotor Induction Motor
Motor Type (50 - 75HP)	Copper Rotor Induction Motor
Motor Type (> 100 HP)	Permanent Magnet Synchronous Motor
Motor Starter	Inverter - Variable Frequency Drive
Motor Cooling Media	Air (< 200HP) ; Glycol/Water Mixture (> 200HP)
Input Power	360 - 460V, 3 Phase, 50/60 Hz
Motor HP Rating (Single Core)	10 - 350 HP
Motor HP Rating (Dual Core)	400 - 700 HP
Network Communication	Modbus TCP/IP

The REVOLUTION^PLUS

Differentiate	***D***	Latest airfoil bearing technology, < 85dBA sound rating
Evolve	***E***	Over 150 years of industry-leading brands that others try to copy, Blower Evolution—HOFFMAN REVOLUTION
Listen	***L***	Voice of the customer to increase efficiency, make carbon footprint smaller, and simplify operation and controls
Innovate	***I***	Advanced technologies that optimize aerodynamic and motor efficiencies with proprietary real surge, not predicted surge
Velocity	***V***	Manufactured and tested to provide a new standard in performance
Execute	***E***	Engineered as a breakthrough product technology setting new industry standards
Results	***R***	A product design achieving up to 40% savings with a significantly reduced carbon footprint

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Please recycle after use.