



NEXT GENERATION ROTARY LOBE BLOWER PACKAGE.
SMARTER CONTROLS. PROVEN RELIABILITY.

HOFFMAN Defender Plus™





DEFENDER LOBE

Key Advantages

- **Efficient tri-lobe rotor technology** for smooth, pulse reduced airflow.
- **Quiet operation** through optimized silencers and sound attenuating enclosure.
- **Simple installation** and compact footprint.
- **Flexible operation** at fixed or variable speed.
- **Adapt output to process** demand for improved efficiency.
- **Continuous duty** design for municipal service.
- **Front access** maintenance for reduced downtime.

The Evolution of the Defender Platform

The HOFFMAN Defender Plus™ Rotary Lobe Blower Package represents the next generation of the Defender family. Designed to convey air at low pressures, Defender Plus combines a proven positive displacement rotary lobe blower with modern controls, a compact package layout, and noise-reducing technologies for a quieter installation.

With a global history of supplying blower solutions for demanding wastewater environments, HOFFMAN combines rugged mechanical design with intelligent package engineering, resulting in a blower system optimized for efficiency, reliability, and lifecycle value.

The Ideal Solution for Municipal Wastewater

Specifically engineered for the demands of wastewater treatment facilities, the Defender Plus delivers consistent airflow, reliable operation, and the flexibility needed for variable process conditions. The continuous-duty operation of the Defender Plus supports stable biological performance across changing loads. Designed with plant operators in mind, it helps minimize downtime while simplifying day-to-day operation and maintenance. This makes it an ideal choice for facilities seeking dependable performance with long-term operational confidence.



Wastewater Applications

- **AERATION PROCESSES**
- **GRIT & CHANNEL AERATION**
- **PRIMARY SEDIMENTATION SUPPORT**
- **FILTER AND SAND BACKWASHING**
- **AERATION OF ELEVATED STORAGE TANKS**
- **LAGOONS AND EQUALIZATION BASIN MIXING**
- **WET WELL MIXING**
- **DENITRIFICATION PROCESSES**
- **ICE PREVENTION**

Customer Benefits

- Highly reliable, continuous duty operation
- Operator friendly controls and service access
- Wide turndown capability for changing demand
- Reduced noise levels for plant environments
- Robust design for harsh operating conditions
- Long service life with low maintenance costs



Defender Plus
Lobe Frame 3



Package Design & Construction

Integrated, Compact & Built to Last

The Defender Plus is a fully integrated blower package consisting of a rotary lobe blower, electric motor, belt drive, control system, silencers, and enclosure, that specifically engineered as a single, factory assembled solution.

Core Package Features

TRI-LOBE BLOWER

Positive displacement design delivers smooth, low pulsation airflow.

FRAME FLEXIBILITY

Frame 3 and 4 models cover a wide capacity and pressure range.

CAST IRON HOUSING

Single piece cylinder ensures strength, tight clearances, and heat dissipation.

HELICAL GEARING

Helical timing gears reduce vibration and enable quiet, precise operation.

HEAVY DUTY COMPONENTS

High strength shafts and long life bearings support severe duty reliability.

DUAL LUBRICATION

Splash lubrication on both ends ensures consistent component protection.

RIGID BASE

Boxed steel base improves stability and simplifies installation and transport.

Noise Optimized Design

ACOUSTIC ENCLOSURE

Noise-reducing enclosure with insulated panels reduces overall noise for improved plant environments.

DISCHARGE SILENCING

Optimized discharge silencer minimizes exhaust noise while maintaining efficient airflow.

INLET SILENCING

Tunable inlet filter/silencer balances airflow and acoustic performance for quieter operation.

LOW PULSATION

Reduced pulsation lowers noise levels while helping protect downstream piping and equipment.



Defender Plus
Lobe Frame 3

Performance & Flexibility

Wide Operating Range for Demanding Applications

The Defender Plus series offers flexible performance to meet the needs of municipal and industrial installations. Designed to perform reliably across a wide range of operating conditions, the system delivers consistent efficiency and dependable output even in the most demanding environments.



Defender Plus Frame 3

- **Maximum Pressure**
Up to 14.5 PSI
- **Horsepower Range**
Approximately 25 to 125 HP
- **Maximum Vacuum**
Up to 15 inHg
- **Airflow Capacity**
Approximately 650 to 1400 CFM



Defender Plus Frame 4

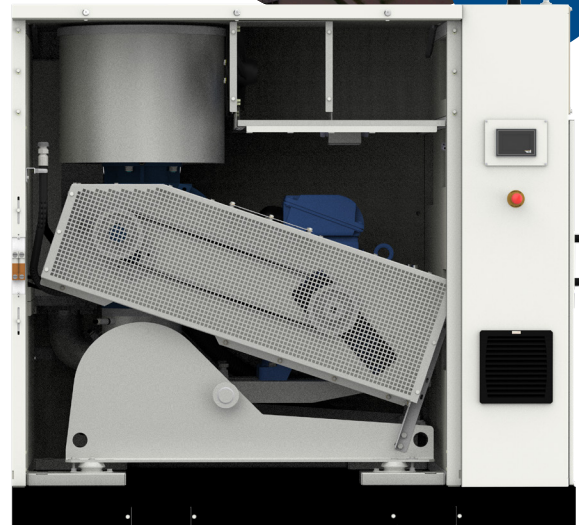
- **Maximum Pressure**
Up to 14.5 PSI
- **Horsepower Range**
Approximately 60 to 300 HP
- **Maximum Vacuum**
Up to 15 inHg
- **Airflow Capacity**
Approximately 1400 to 3400 CFM

Designed for Simple, Front Access-Maintenance

Every aspect of the Defender Plus is engineered to reduce service time and operating costs. A fully accessible, front-service design simplifies routine maintenance and minimizes disruption to daily operations. Built with plant efficiency in mind, it helps operators keep systems running with confidence.

Maintenance Features

- All routine maintenance accessible from the front.
- External oil level checks, with blower running or stopped, and easy oil change via accessible fill and drain hoses.
- Automatic belt tensioning system and simple belt replacement without special tools.
- Reduced downtime and lower total cost of ownership.
- Reinforced roller bearings for long service life
- Leak resistant sealing for continuous duty.
- Robust enclosure protects components and operators.



Defender Plus Lobe Frame 3

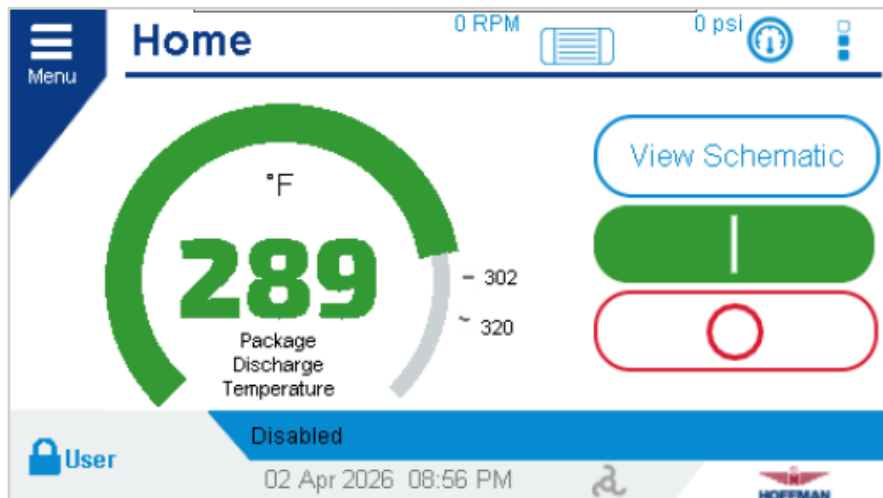
PERFORMANCE SPECIFICATIONS

Frame	Model	MAX PRESSURE DATA				MAX VACUUM DATA			
		PRESSURE PSI (G)	CAPACITY CFM	MOTOR BHP	NOISE DB(A)	PRESSURE inHg	CAPACITY CFM	MOTOR BHP	NOISE DB(A)
3	DF LOBE+ 65	14.5	810	75	77	—	—	60	—
	DF LOBE+ 66	10	1150	75	77	15	1090	60	73
	DF LOBE+ 75	14.5	940	100	76	15	935	60	76
	DF LOBE+ 85	14.5	1680	120	77	15	1370	75	74
	DF LOBE+ 86	10	1390	100	77	15	1765	100	78
	DF LOBE+ 95	14.5	1525	125	77	15	1525	100	75
4	DF LOBE+ 86	10	1825	125	76	—	—	100	—
	DF LOBE+ 105	14.5	1980	200	78	15	1980	100	76
	DF LOBE+ 106	10	2770	200	78	15	2648	150	78
	DF LOBE+ 115	14.5	2370	250	77	15	2370	125	76
	DF LOBE+ 125	14.5	3050	300	78	15	3050	150	78
	DF LOBE+ 126	10	3120	250	78	15	4237	250	77
	DF LOBE+ 135	14.5	3180	300	78	15	3180	150	76

Performances related to atmospheric air: absolute pressure 14.7 psi, temperature 68° F, relative humidity 36%

Smart Control Connectivity For Intelligent Operation

The Defender Plus features a modern, user-friendly control platform that simplifies operation, protects equipment, and provides clear system insight.



GOVERNOR CONTROLLER

- Touchscreen interface with intuitive navigation.
- Real time operating data and diagnostics.
- Display of temperature, pressure, and system status.
- Historical trend data for key performance metrics.
- Service interval tracking and maintenance reminders.
- Automatic shutdown to protect equipment.

ICONN™ REMOTE CONNECTIVITY

- Remote monitoring and alarm notifications.
- Data logging and system insights.
- Easy integration into plant SCADA systems.
- Proactive maintenance and process optimization.



INTUITIVE MONITORING

A modern touchscreen interface with real-time data, diagnostics, and clear visuals simplifies daily operation and reduces operator training time.



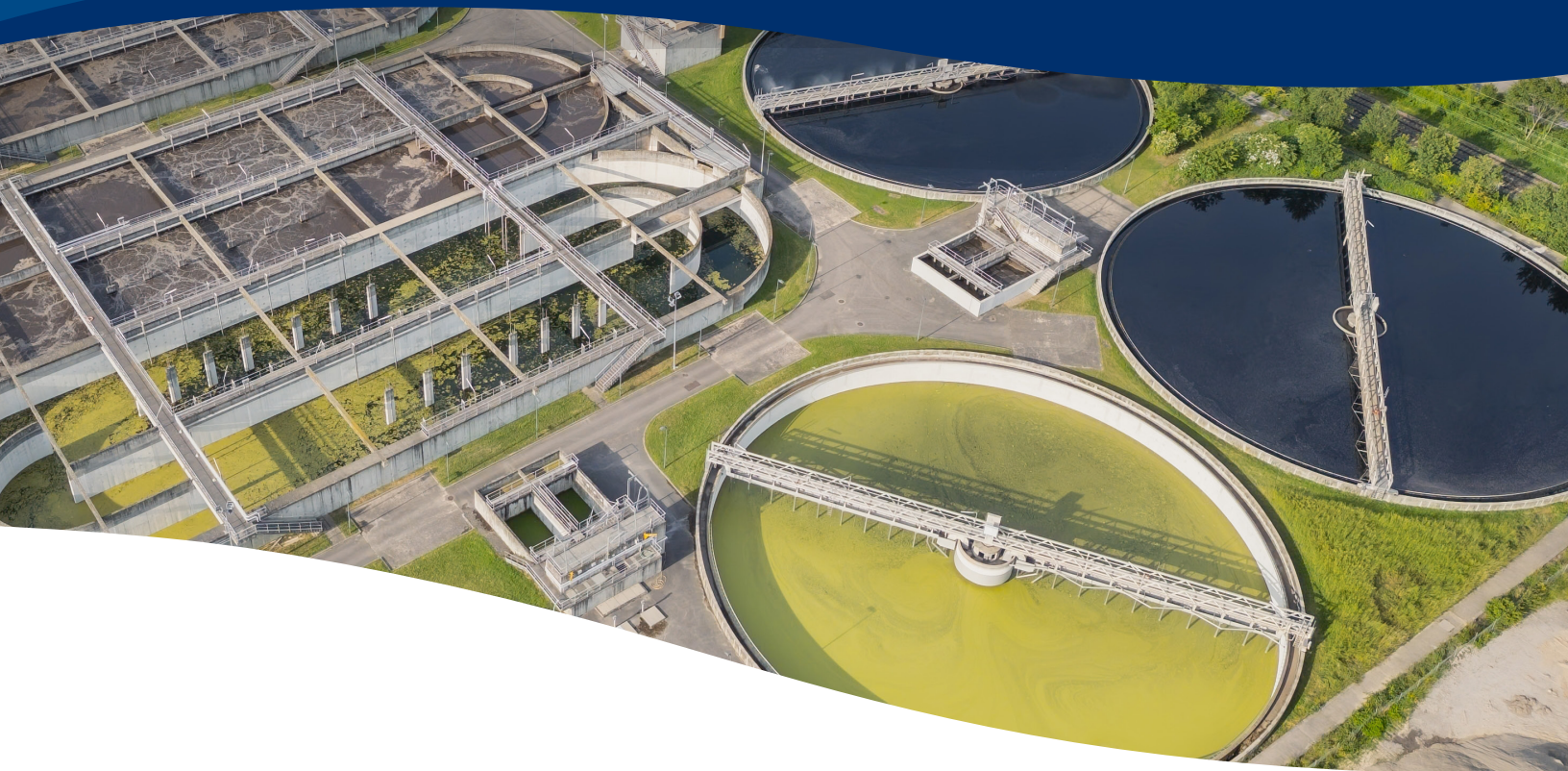
PROTECTION & RELIABILITY

Built-in safeguards, including automatic shutdowns, service tracking, and alarms, help protect critical equipment and maximize system uptime.



REMOTE CONNECTIVITY

Connected control ecosystem that extends system visibility beyond the facility, enabling smarter decisions, faster response, and long term operational confidence.



OEM PARTS & SERVICE NETWORK

Certified Support You Can Rely On

HOFFMAN & LAMSON provides comprehensive service, support, and OEM parts through a global network of certified service and distribution centers, ensuring your Defender Plus blower package performs reliably throughout its lifecycle.

The HOFFMAN & LAMSON Advantage:

- OEM parts and service expertise
- Application focused engineering support
- Long term product reliability
- Trusted brand in wastewater and process air

**Engineered for Performance.
Backed by Support You Can Trust.**



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