

ECO TURBO

AIR COOLED/WATER COOLED
CENTRIFUGAL AIR COMPRESSOR
185-250 KW





**SOME COMPANIES ARE FOUNDED ON HARD WORK.
OTHERS ARE FOUNDED ON IDEALS.**

FS-CURTIS WAS FOUNDED ON BOTH.

More than 165 years ago, the FS-Curtis way of doing business was established through two key commitments: a dedication to building quality products and a dedication to responsive customer service.

Over the decades, the company and its products have evolved through innovation and new technologies. But those commitments to quality and service remain unchanged. Today, just as in 1854, FS-Curtis customers can depend on our products for reliable, long-term service. Equally as important, they can depend on getting the same from our people.

A HISTORY OF EXCELLENCE

1854

Curtis & Co. – Empire Saw founded in St. Louis, MO, USA

1857

Earned Agricultural and Mechanical Fair award for excellence and quality

1876

Named Curtis and Co. Manufacturing

1897

Built first reciprocating air compressor that later evolved into the Master Line Series

1914

Supported U.S. Government efforts by producing more than 2 million Howitzer shell forgings

1940

Designed and developed mobile oxygen compressors to be used in Aerospace applications

1955

Merged with U.S. Air Compressor Company, Central Petroleum Company, Lewis Machine Company

1976

Merged with Toledo Tools as Curtis-Toledo Inc.

1979

Introduction of Challenge Air Series reciprocating air compressors

1995

Began manufacturing and assembling Rotary Screw Air compressors

2005

Expanded global market reach by joining forces with Fusheng Industrial

2006

U.S. Headquarters certified as ISO9001:2000 and ISO14001:2004

2010

Introduced next generation GSV Variable Speed Rotary Screw compressors

2015

Introduced Nx series Fixed and Variable Speed Rotary Screw compressors

2016

Nx Series named Plant Engineering's 2015 Product of the Year - Gold Award for Compressed Air

2017

Nx Series claims Plant Engineering's Product of the Year - Gold Award 2nd year in a row



SIMPLE AND POWERFUL **EFFORTLESS** **OPERATION,** **HIGHLY EFFICIENT**

LOWER LIFE-CYCLE AND MAINTENANCE COSTS*

The ECO-Turbo Series combines decades of engineering experience from FS-Elliott partnered with the trusted and dependable reputation of FS-Curtis to bring the first in the market reliable, efficient and innovative air-cooled or water-cooled centrifugal compressors.

The turbo compressors of the ECO-Turbo series are suitable for a wide range of applications where 100% oil-free compressed air is required with higher demand ranging from 185 kW to 250 kW drive power at a final compression pressure of up to 125 psi.

The simple and enclosed design of the compressor unit offers high reliability and ensures safe operation even under the most demanding conditions. The FS-Elliott engineered titanium impellers are designed for optimum efficiency and a long life.

ECO-Turbo compressors are easy to install, operate and maintain making them the right choice when air quality is critical for your compressed air application.



*Compared to rotary screw



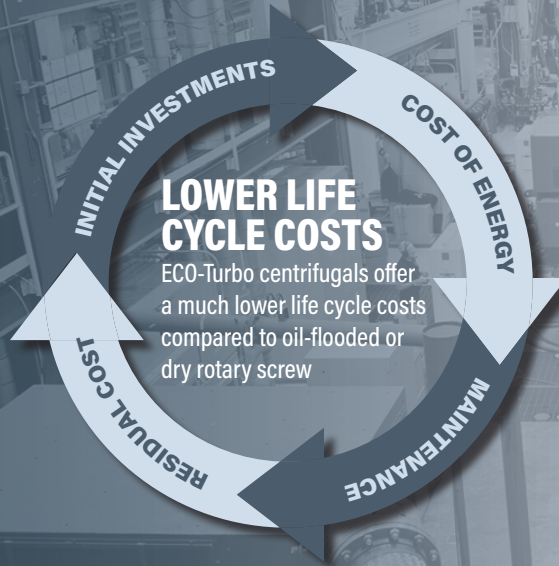
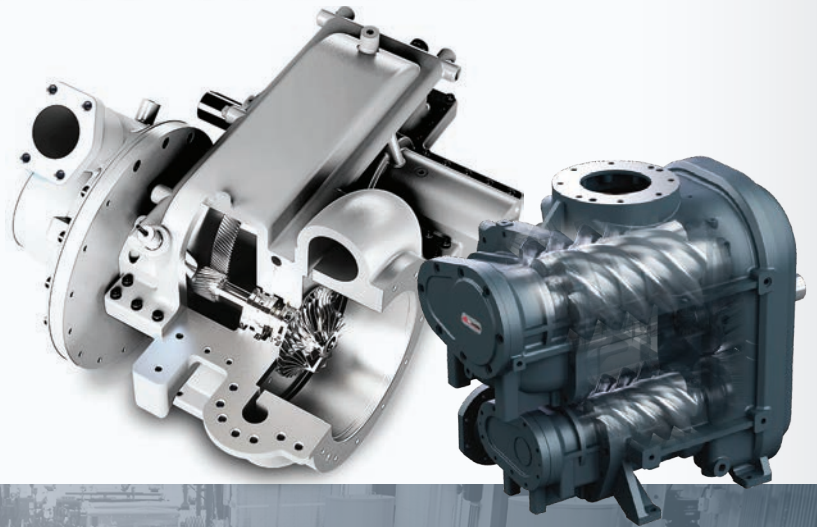
INDUSTRY APPLICATIONS

FS-Curtis has earned the reputation for building the most rugged industrial-duty compressor you can buy. Our professional engineering staff and factory-trained distributor network are committed to supplying you with a complete offering of the very best in compressed air equipment.



WHY CENTRIFUGAL OVER ROTARY?

There are significantly lower life costs and less downtime of the ECO-Turbo when compared to oil-flooded or dry-running rotary screw.



LOWER OPERATING COSTS

Rotary-screw compressors have ~12% higher operating costs in the first 5 years

LOWER DOWNTIME 80 vs 360

ECO-Turbo has less than 80 hours of planned downtime compared to rotaries which require up to 360 hours

NO ADDITIONAL AIR TREATMENT NEEDED FOR OIL SEPARATION

Oil flooded rotaries require additional expensive air treatment for oil separation

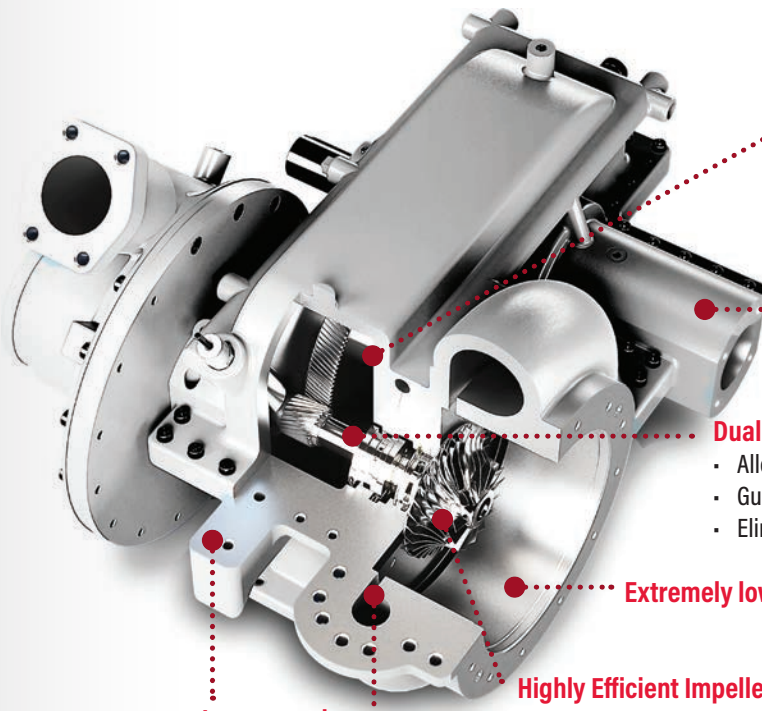
WEAR-FREE TITANIUM ROTORS

Dry and oil-flooded screws have wearing rotors resulting in frequent maintenance



ECO-TURBO AIREND

Expert experience in centrifugal design and manufacturing for the highest efficiencies meets the simplified design for ease of ownership.



Bearings

- Split design for easy maintenance
- Plain bearings on all rotors
- Ensures stability to support the rotor

Designed for air and water cooled

Dual carbon ring seals

- Allow for a compact design
- Guarantee oil-free air quality
- Eliminates any potential vibration

Extremely low maintenance

Highly Efficient Impellers

- 2-stage compression
- Titanium impeller

Low operating cost

Horizontally split gearbox

Design provides quick installation and easy maintenance

iCOMMAND TOUCH PREMIUM CONTROLLER

A new milestone for smart control system of FSI's air compressors --- focusing on energy efficiency and customer experience. With traditional auto-dual and suction throttle modes, the control panel also provides:

- Multi-language HMI with 7-inch touch screen
- Better filter technology to avoid electric noise
- Main motor and fan motor amps monitoring
- Modular design
- Energy Modes:
 - Base Mode (Maximum amp/ design flow)
 - Suction Throttle Mode (Throttle amp/ throttled flow)
 - Turndown is accomplished using an inlet butterfly valve
 - Reducing mass flow intake, the compressor does less work and uses less power
 - Ambient Mode (Additional temperature compensation while throttled)
- Discharge Pressure Control
- Pressure Band Optimization (PBO)
- Auto-Unload

Control System:

- New PLC platform
- Ease of Use
- Energy Efficiency
- Service Intuitive
- Industry Leading Reliability
- Traditional Core Functionality
- Base Mode
- Suction Throttle
- Intermittent
- Auto-Dual
- Extended Capability
- Ambient Compensation Control (ACC)
- Pressure Band Optimization (PBO)



TECHNICAL DATA

Water-Cooled

MODEL	CAPACITY	MOTOR	DISCHARGE PRESSURE	SOUND LEVEL	DIMENSIONS (base mount)	WEIGHT (base mount)
	ACFM	Kw / HP	PSI	dBA	(L x W x H In.)	Lbs.
ET185	1241	185/248	100	75	126 x 73 x 73	11,166
ET200	1249	200/268	125			11,244
ET220	1541	220/295	100			11,354
ET250	1469	250/335	125			11,464

Air-Cooled

MODEL	CAPACITY	MOTOR	DISCHARGE PRESSURE	SOUND LEVEL	DIMENSIONS (base mount)	WEIGHT (base mount)
	ACFM	Kw / HP	PSI	dBA	(L x W x H In.)	Lbs.
ET185	1242	185/248	90	82	126 x 79 x 87	10,835
ET200	1250	200/268	115			10,913
ET220	1512	220/295	100			11,023
ET250	1462	250/335	115			11,354



FEATURES AND BENEFITS

Clean, Oil-free Air

The system supplies 100% oil-free compressed air of Class 0 (according to ISO 8573)

Ease of Maintenance

Optimized design with wear-free compression principle offers low maintenance and few downtimes.

- Removable enclosure panels allow for easy access to all maintenance components
- Airend designed with horizontally split gearbox for quick installation and easy maintenance

Featured Advantages

Built to the highest levels of dependability, reliability & efficiency

- 100% Oil-Free compressed air of Class 0 rating
- 2-stages of compression
- Long service life
- Low maintenance costs
- IE3 motor and modern control system for minimum energy consumption
- Premium Efficiency TEFC (IP54, equivalent to NEMA Premium) motor enclosure
- Wear-free, titanium impeller designed from optimum efficiency
- Sound enclosure with removable panels protects compressor from harsh environment

Standard Equipment

Modern premium control

- Provides 3 energy control modes to optimize energy cost during operation
- Low voltage parts

Cooling water connection

- Allows for both air and water-cooling option

Integrated inlet air filter

- Protects aero components with low pressure drop
- Reduced noise

High efficiency coolers

- Compact finned coolers provide excellent heat exchanging performance
- Integrated aftercooler

Inlet and unloading valve

- Work together in suction throttle mode
- Adjust the flow capacity and discharge pressure
- Helps save operation cost

Oil Mist Eliminator

- Ensures oil mist doesn't contaminate the compressor or environment

Optional Equipment:

- Outdoor Rain Protection
- Kit IoT Remote Monitoring
- HOC Solution
- Zero-Loss Auto Drain Trap
- Extended Warranty Program
- Soft starter
- Additional vibration probe on second stage
- Silicone-free components
- Factory performance test certificate





CONTINUED COMMITMENT

A company history that dates back more than 165 years is a company history that, to us, is just the beginning. FS-Curtis is committed to offering a world-class portfolio of products. Through the dependability of our people and our quality-focused manufacturing, FS-Curtis will continue to be the most trusted and dependable name in compressed air serving even more markets through our ever-growing global presence.

You can count on **FS-Curtis** to approach the next 165 years by staying true to the values and strengths that are appreciated by our customers today.

A WORLD OF DIFFERENCE

The FS-Curtis headquarters in St. Louis, Missouri, U.S.A. is the anchor of a larger global network. FS-Curtis builds quality products — and a quality reputation — at locations around the world.

In addition to our manufacturing and packaging locations, a large global network of sales agents and distributors ensures that sales and service support is available around the world, day in and day out.

ST. LOUIS, MO USA (HEADQUARTERS)

PUNE, INDIA | JUNDIAI, BRAZIL | OBERHAUSEN, GERMANY | SHANGHAI, CHINA | TAIPEI, TAIWAN | PITTSBURGH, PA USA (FS-ELLIOTT)
ZHONGSAN, CHINA | BEIJING, CHINA (FUSHENG) | ZHONGSAN, CHINA (FUSHENG) | HO CHI MINH CITY, VIETNAM (FUSHENG)



Distributed By:



CURTIS-TOLEDO, INC.

1905 KIENLEN AVENUE | ST. LOUIS, MO 63133

314-383-1300

WWW.FSCURTIS.COM | INFO@FSCURTIS.COM

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Improvements and research are continuous at FS-Curtis. Specifications may change without notice.

ISO 9001
ISO 14001

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