

# ECO SCROLL

OIL-FREE AIR COMPRESSOR  
04-15 KW





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

**FS-CURTIS WAS FOUNDED ON BOTH.**

**More than 160 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



# POWERFUL AND EFFICIENT ECOLOGICALLY CONSCIOUS

## ENVIRONMENTALLY FRIENDLY AND HIGHLY RELIABLE

FS-Curtis ECO Scroll oil-free air compressors are ISO 8573-1 CLASS 0 certified compressors which are energy efficient, easy to operate and maintain, quiet and compact.

FS-Curtis ECO Scroll oil-free scroll compressors provide 100% oil-free air for critical applications in industries such as electronics, pharmaceutical, hospitals, printing, automotive, universities, dental applications, water aeration, food and beverage.



# 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.**

- **Electronic** - Oil-free air is needed to activate tools, control valves and actuators. Also, moving components with oil-free air is crucial as they could be compromised by residue very easily.
- **Pharmaceuticals** - Coatings are sprayed on tablets using compressed air. If oil-free compressor is not used, oil in the air would be directly deposited on the tablets causing rejections or health risks. If oily, exhaust air from automated components could contaminate the production line leading to rejected final products and possible health code violations.
- **Hospital** - Supply medical air while operating surgical tools simultaneously and cannot add toxic or flammable contaminants into the compressed air.
- **Printing** - Various automated machines that, if oil is introduced, would compromise final product.
- **Automotive/Aftermarket** - One of the most important aspects of paint application is oil-free air. It alleviates any fish eyes, streaks or any other oil carry over imperfections.

If these occur, costly steps including wet sanding, stripping, sanding and even repainting, have to be taken to correct the problems. Also, no extra high dollar filtration is needed. Cleanup equipment is minimized due to the oil-free air. Due to the 100% duty-cycle, scroll compressors do not suffer catastrophic failures that occur when light run conditions are more frequent.

- **Automotive/Assembly** - For assembly line robotics and high quality paint and clear coat finishes.
- **Universities** - For lab testing in clean room environments.
- **Dental** - Needed for air tools that will come in direct contact with the patient.
- **Water Aeration** - For uses in theme parks where animals and/or humans are in direct contact with the water being aerated.
- **Food and Beverage** - Needed for fermentation, packaging, bottling, cleaning, filling and capping. Assembly line exhausts containing oil would contaminate final products.

# SMART USER-FRIENDLY CONTROLLER

USER-FRIENDLY CONTROL INTERFACE  
WITH AN EASY-TO-READ DISPLAY

- Informative menus allows user to program maintenance alerts for consumables
- Warning/alarm and shutdown gives you multiple protections against damaging implications
- Real-time pressure and temperature reading for real time status monitoring
- Simple and easy to operate, much like a reciprocating compressor



# Scroll **vs.** Rotary Screw

Many customers are opting for rotary screw compressors based on their need for low oil-carryover, low sound, and continuous-duty operation, but scroll compressors perform as well or better than rotary screws in all these areas. In addition, scrolls are not as sensitive to intermittent operation or short-cycling, and are therefore, less risky if you are unsure about your air demand. Although scrolls typically cost a little more up-front, as you can see from the chart below, a scroll can quickly pay for itself purely based on lower maintenance spend.



ES04 (5HP) Scroll Tank Mount		Typical Oil-lubricated (5HP) Rotary Screw	
Initial Investment	Suggested Retail Price \$6,293	Initial Investment	Suggested Retail Price \$5,046
5 Year Life Cycle Parts	\$200.00	5 Year Life Cycle Parts	\$1,490.00
5 Year Life Cycle Service	\$925.00	5 Year Life Cycle Service	\$2,800.00
5 Year Life Cycle Total	<b>\$7,418.00</b>	5 Year Life Cycle Total	<b>\$9,336.00</b>
<b>SCROLL SAVES YOU \$1,918</b>			



# TECHNICAL DATA

MODEL	CAPACITY (CFM)		MOTOR Kw / HP	SOUND LEVEL dBA	DIMENSIONS (base mount) (L x W x H In.)	WEIGHT (base mount) Lbs.
	116 psi	142 psi				
ES04	15.0	12.1	4 / 5	57	25 1/4 x 24 x 35 1/4	331
ES08	30.0	24.3	8 / 10	59	40 x 29 1/2 x 65	660
ES11	45.0	36.5	12 / 15	61	63 x 29 1/2 x 68 1/2	990
ES15	60.0	48.7	15 / 20	63		1210



# FEATURES AND BENEFITS

## Clean, Oil-free Air

High quality air where oil-free air is critical

- Delivers ISO 8573-1 Class 0 clean & efficient compressed air
- No oil contamination

## Whisper Quiet

Designed for quieter operation

- Designed to be installed in applications where quiet setting is important
- Noise level between 57 and 63 dBA
- No inlet valve knocking noise
- Ultra low vibration (5mm/s or less)

## Powerful & Energy Efficient

Built to the highest levels of dependability, reliability & efficiency

- Powered by high efficient motor TEFC IE3
- Exclusive ECO-Series scroll airend
- Fixed and orbital scrolls are precisely meshed
- Centrifugal cooling fan keeps heat exchange efficient and quiet
- Check valves and safety relief valves in line to prevent back pressure to the airend
- 100% duty cycle
- Units are start/stop controlled
- Can be oversized without harm to scroll airend

## Ecologically Conscious

Smart & environmentally conscious design

- Lower carbon footprint with environmentally friendly ISO 8573-1 Class 0 Air
- Unit installation in work space gives you reduced installation costs
- Promotes energy conservation by avoiding the use of oil
- Maintenance friendly
- Less moving parts results in higher reliability
- Small footprint, space saving modular design
- Easy to use electronic controller

## Smart user-friendly controller

User-friendly control interface with an easy-to-read display

- Informative menus allows user to program maintenance alerts for consumables
- Warning/alarm and shutdown gives you multiple protections against damaging implications
- Real-time pressure and temperature reading for real time status monitoring
- Simple and easy to operate, much like a reciprocating compressor
- Password protected parameters keeps system protected
- Full color touch screen with multi unit sequencing (ES08-15)
- Maintenance page illustrations allow for easy fault checks and maintenance warnings (ES08-15)





## CONTINUED COMMITMENT

A company history that dates back more than 160 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 160 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)

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



Distributed By:

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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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