

# NXHE SERIES

TWO-STAGE ROTARY SCREW  
AIR COMPRESSORS  
90-250 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

|  |  |  |   |  |   |  |   |
|--|--|--|---|--|---|--|---|
| <b>1854</b>  | <b>1857</b>  | <b>1876</b>  | <b>1897</b>   | <b>1914</b>  | <b>1940</b>   | <b>1955</b>  | <b>1976</b>   |
| Curtis & Co. – Empire Saw founded in St. Louis, MO, USA            | Earned Agricultural and Mechanical Fair award for excellence and quality | Named Curtis and Co. Manufacturing                                     | Built first reciprocating air compressor that later evolved into the Master Line Series | Supported U.S. Government efforts by producing more than 2 million Howitzer shell forgings | Designed and developed mobile oxygen compressors to be used in Aerospace applications | Merged with U.S. Air Compressor Company, Central Petroleum Company, Lewis Machine Company    | Merged with Toledo Tools as Curtis-Toledo Inc.  |
| <b>1979</b>  | <b>1995</b>  | <b>2005</b>  | <b>2006</b>   | <b>2010</b>  | <b>2015</b>   | <b>2016</b>  | <b>2017</b>   |
| Introduction of Challenge Air Series reciprocating air compressors | Began manufacturing and assembling Rotary Screw Air compressors          | Expanded global market reach by joining forces with Fusheng Industrial | U.S. Headquarters certified as ISO9001:2000 and ISO14001:2004                           | Introduced next generation GSV Variable Speed Rotary Screw compressors                     | Introduced Nx series Fixed and Variable Speed Rotary Screw compressors                | Nx Series named Plant Engineering's 2015 Product of the Year - Gold Award for Compressed Air | Nx Series claims Plant Engineering's Product of the Year - Gold Award 2nd year in a row |

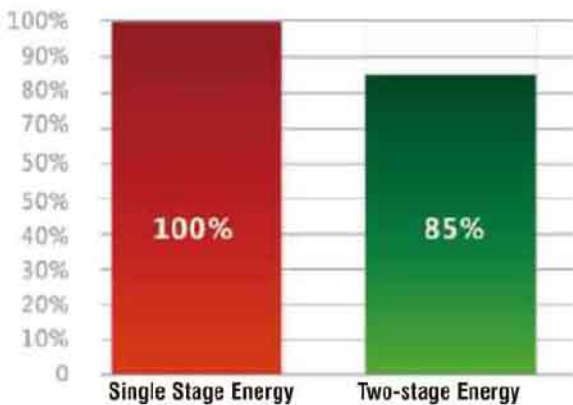
# TWO-STAGE COMPRESSION: SETTING THE STANDARD FOR ENERGY EFFICIENCY

Compared to single stage compressors, a two-stage is much closer to isothermal compression. This is achieved by injection of fresh oil between the stages which reduces the inlet temperature to the second stage. This lower inlet temperature increases efficiency by reducing the compression ratio between the stages. In addition, leakage between the rotor seals is significantly reduced resulting in outstanding volumetric efficiency.



- Two-stage air compressors are closer to the ideal isothermal compression
- Reduced leakage increases volumetric efficiency
- Saves 10-15% of energy compared to single stage compressors
- Increases flow 10-15% compared to single stage compressors
- Lower pressure differential increases efficiency and reliability
- Low heat load
- Easy maintenance and service
- Lowest life-cycle cost of any compressor on the market

**WHEN COMPARED TO SINGLE STAGE, TWO-STAGE COMPRESSORS CAN SAVE UP TO 15% IN ENERGY CONSUMPTION AND OFFERS 15% MORE FLOW.**







## TECHNICAL DATA

| MODEL    | MOTOR     | CAPACITY FAD (CMM) |      | DIMENSIONS (base mount)<br>(L x W x H mm) | WEIGHT (base mount)<br>KG |
|----------|-----------|--------------------|------|---|---------------------------|
|          |           | 7KG                | 8KG  |   |                           |
| NxHE-90  | 90 / 125  | 19.5               | 18.2 | 2900 x 1860 x 1945                        | 4300                      |
| NzHE-110 | 110 / 150 | 23.5               | 22   |   | 4350                      |
| NzHE-132 | 132 / 175 | 27.6               | 26.1 |   | 4490                      |
| NzHE-160 | 160 / 200 | 34                 | 32.3 | 3520 x 2290 x 2030                        | 8818                      |
| NzHE-200 | 200 / 250 | 43.1               | 40.5 | 4200 x 2300 x 2300                        | 7006                      |
| NzHE-220 | 220 / 300 | 47.5               | 44.5 |   |                           |
| NzHE-250 | 260 / 350 | 54.3               | 51.5 |   |                           |

\*Data provided is preliminary



## NX SERIES FEATURES AT A GLANCE

### eCOOL® Technology

The ultimate in system protection and reliability

- Protects critical components from compressor-generated heat
- Compartmentalized air flow design and oversized aftercooler
- Extends component life and reduces downtime

### Energy-efficient Two-stage airend

Energy-saving and Eco-friendly

- Patented airend design integrates the first and second stage rotors into one airend
- Oil is injected between the first and second stages to cool the air and optimize efficiency
- Splitting the compression cycle into Two-stages reduces the axial and

thrust loading to which improves service life of airend and bearings

- Two-stage compression significantly reduces noise

### Effectively integrated overall design

Designed for low cost of ownership, easy service & little down time

- Safe, efficient air filter system
- Independent bearing lubrication
- High efficiency, easy-to-maintain oil separator
- IE3 high efficiency motor
- End face sealed to prevent leakage
- Connections utilize o-ring face seals for leak-free performance
- Asbestos-free gaskets protect operator health

# FIT-S CONTROLLER

## TAKE CONTROL OF YOUR WORLD.

With the premium FIT-S, a color screen displays graphs which capture and track factual, Historical data can be retrieved at any time at the touch of the screen.

### Data trending keeps your finger on the pulse of your entire compressed air system.



- Simple Touchscreen Control
- Intuitive Navigation
- Capture Real-time and Historical Data Trending



## Trending and Graphing Capabilities

Graph information can be conveniently downloaded to SD card for historical records, troubleshooting and quality control measures.

### One-Touch Status Review At A Glance:

**Main Screen:** Displays image of compressor with red dot indicator spotlighting issues in the system, which reduces time in trouble shooting.

**Pressure:** Continuously tracks pressure range by day, week and month. This allows quick identification of pressure variations that affect plant operations.

**Temperature:** Real-time monitoring and trending of critical oil temperature enable early identification of potential shutdown and downtime.

**Usage:** Tracks how long machine is on, off or in standby. This allows you to analyze usage factor in your plant based on the operation of your compressor.

**Maintenance:** Tracks and displays hours of usage of critical components—oil filter, inlet filter, air/oil separator and motor—and timetable for replacement and/or maintenance.



## eCOOL<sup>®</sup> TECHNOLOGY

### A COOL INNOVATION

Compressors generate heat. FS-Curtis' exclusive eCOOL technology provides protection from heat and reduces thermal stress.

By combining smart compressor layout with intelligent component selection, eCOOL technology maximizes cooling airflow for greater energy efficiency, improved reliability and increases service life up to 50% longer for motors and electrical components and up to 30-50% longer for bearings, hoses and seals.



**eCool technology maximizes cooling airflow for greater energy efficiency, improved reliability and extended service life.**





# 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.

- **Woodworking**
- **Industrial Manufacturing**
- **Printing**
- **Packaging**
- **Glass/Plastics**
- **Power Generation**
- **Textiles**
- **Mining**





## 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 | 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)



AUTHORIZED FS-CURTIS DEALER:

