

# NX SERIES

DIRECT DRIVE, FIXED & VARIABLE SPEED  
ROTARY SCREW AIR COMPRESSORS  
15-75 KW



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

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

# A HISTORY OF

**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

## **REAL-WORLD PEOPLE**

When you're successful, we're successful.  
That's why FS-Curtis listens.

Trust and dependability are the foundations of our past  
and the fabric of our future, so you can count on being  
treated with the personal touch you deserve.



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.

# EXCELLENCE

**1976**

**1979**

**1995**

**2005**

**2006**

**2010**

**2015**

Merged with Toledo Tools as Curtis-Toledo Inc.

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



## REAL-WORLD PRODUCTS

Take more than a century of experience building quality compressors, add in a staff that's listening to the needs of the market, and the result is a product lineup that's built for tough working conditions. No wonder so many customers around the world depend on FS-Curtis compressors day in and day out.

# PROVEN PERFORMANCE

## TRUSTED INDUSTRY INNOVATION

Nx Series air compressors from FS-Curtis are valued worldwide for their legendary reliability. Housed in a space-saving design and built for continuous, quiet operation, the Nx Series delivers steady airflow with stable air pressure. The result is outstanding air quality with minimal oil carryover, giving you the performance you need backed by the durability you want.





Nx Series compressors combine efficient operation with outstanding durability in the most demanding environments

## NX SERIES FEATURES AT A GLANCE

### dba SHIELD NOISE REDUCTION

*Designed for quiet operation.*

- Use of centrifugal blower allows low sound and decreased energy usage
- Extra-thick sound insulation reduces noise
- Can be installed in applications where a quiet setting is important

### eCOOL® TECHNOLOGY

*The ultimate in system protection and reliability.*

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

### QUALITY COMPONENTS

*Built to the highest levels of dependability and reliability.*

- Standard TEFC motor protects compressor from surrounding dirty air, increasing the efficiency and prolonging the life of the motor
- Spin-on air/oil separator allows for quick maintenance and results in one-to-three PPM oil carryover. This translates into lower make-up oil costs and higher quality compressed air

### SUPERIOR PACKAGE DESIGN

*Low cost of ownership.*

- Space-saving compact design
- Exclusive FS-Curtis airends feature the latest rotor profile to maximize efficiency
- Simplifies maintenance through easy access to all components

### VARIABLE SPEED DRIVE (OPTIONAL)

- Results in outstanding energy savings day in and day out
- Reduces lifecycle costs

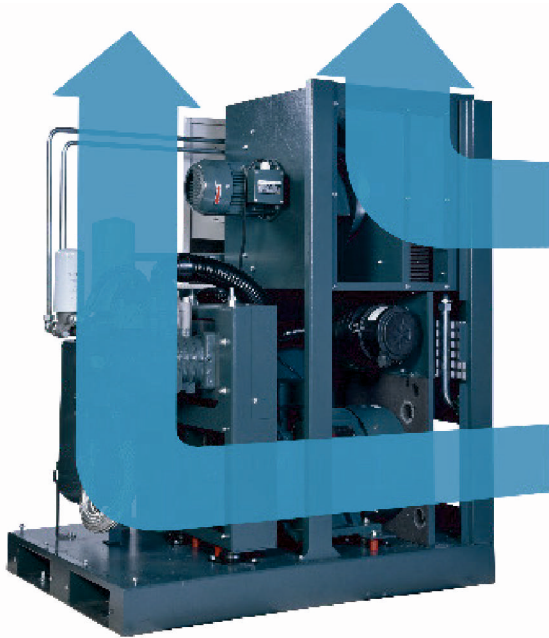
### PRECISION BUILT AIREND

- Exclusive FS-Curtis airends utilize precision cut rotor profiles to maximize proficiency

### INTELLIGENT CONTROLLER

- Intuitive and easy to use
- Precisely delivers compressed air to usage





## eCOOL® 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.

## dBa SHIELD NOISE REDUCTION

### A SOUND INVESTMENT

The Nx series' unique design combines a centrifical fan with airflow baffling and sound insulation for extremely quiet operation. It's so quiet, you can install the unit closer to where you want to use it.

## INTELLIGENT PACKAGE DESIGN

The Nx Series offers a space-saving profile that's easy to install, freeing up more floor space. Exclusive FS-Curtis airends maximize efficiency, along with continuous-duty control. Plus, separator, MPV and thermostatic valve are integrated, which reduces connections by up to 90%.

Heavy-duty industrial hose assemblies have hydraulic fittings, plus they can also be reused. For fast, no-mess replacement, the Nx compressor uses a spin-on air/oil separator.



## ENERGY SAVINGS ARE SMART SAVINGS

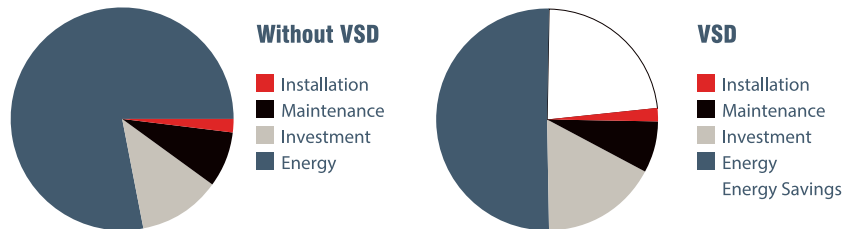
Take control of your energy savings with our optional DemandSmart™ Energy Management System, which includes the controller, variable-speed drive, and airend to create greater overall efficiency. This innovative design maximizes energy savings and reduces overall operating costs.

## INTELLIGENT VARIABLE SPEED DRIVE

One of the ways in Nx Series compressors maximizes energy savings is with a variable speed drive (VSD). The VSD allows you to match your energy usage to current system demands, eliminating the need to overpressure the system, so you'll save money by not wasting energy.

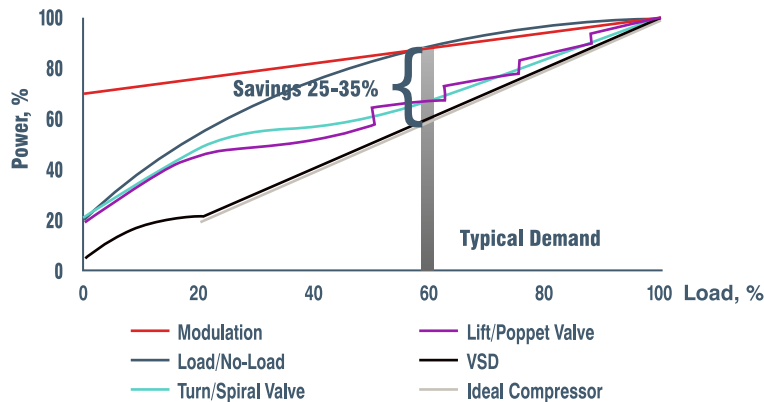
In addition, the soft starting capability of FS-Curtis' VSD reduces inrush current requirement, decreasing your power demand — and, of course, increasing your energy savings.

Nx SERIES WITH  
VSD LIFE CYCLE  
COSTS OVER 5 YEARS



- The VSD — time-proven directly coupled design — offers faster response and greater operational efficiency
- Variable operation slows airend speed, which lowers energy costs and reduces noise
- Matching the operating speed with changes in demand reduces component wear
- The VSD enhances quality by stabilizing air pressure at  $\pm 0.1 \text{ kg/cm}^2$
- Built-in DC choke protects against harmonic disturbances and eliminates the need to source additional corrective devices

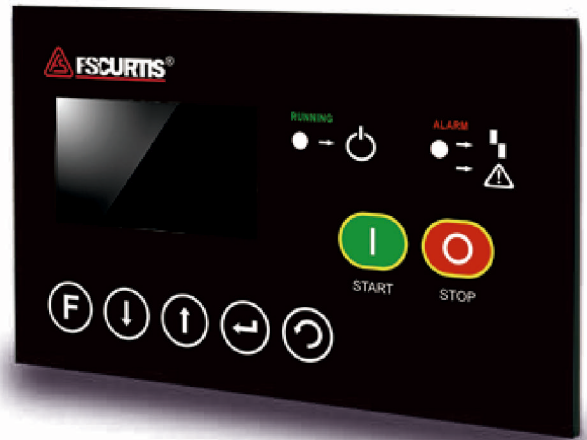
ENERGY SAVINGS WITH VSD  
COMPARING LOAD/NO-LOAD  
POWER CONSUMPTION



# AIMS Plus - Intelligent Controller

## Features and functions (Simplicity / Ingenuity / Reliability)

- Freeze-proofing and no-load running protection.
- Alarm/trip history record in consecutive 30 entries for maintenance and service inquiry.
- Monitoring main motor current.
- Monitoring fan current.
- Setting shutdown time due to unload too long.
- Selection for auto start after resetting power failure.
- Simple and easy-to-operate HMI to show major operation messages.
- Fault messages inquiry.
- Service & Maintenance prompts.
- Load management, with Modbus communication high expandability up to 8 compressor units, sequence setting.
- Language selection: English / Spanish / Portuguese



# TECHNICAL DATA

### Fixed Speed

MODEL	CAPACITY FAD (CFM)				MOTOR	
	7 Bar (g)	8 Bar (g)	10 Bar (g)	12 Bar (g)	KW	HP
NXD-15	88	81	74	64	15	20
NXD-18	113	106	95	85	18.5	25
NXD-22	138	131	113	99	22	30
NXD-30	191	180	159	134	30	40
NXD-37	233	222	198	173	37	50
NXD-45	293	272	254	226	45	60
NXD-55	364	343	307	275	55	75
NXD-75	494	452	417	374	75	100

### Variable Speed

MODEL	CAPACITY FAD (CFM)				MOTOR	
	7 Bar (g)	8 Bar (g)	10 Bar (g)	12 Bar (g)	KW	HP
NXV-15	26-88	24-81	22-74	19-64	15	20
NXV-22	41-138	39-131	34-113	30-99	22	30
NXV-37	70-233	67-222	59-198	52-173	37	50
NXV-45	122-293	121-273	119-254	118-226	45	60
NXV-55	109-364	107-343	89-307	81-275	55	75
NXV-75	148-494	135-452	125-417	112-374	75	100

Noise level 75 +/- 3 dBA when measured as per latest version of ISO2151 in free field conditions.

FAD measured as per latest version of ISO 1217.

Units available upto 185KW, details on request.





## EASY TO WORK WITH

Just as you get personal attention from FS-Curtis when selecting equipment, you're also supported worldwide by great people. You can count on the global FS-Curtis staffs and representatives to listen to your needs and work with you to develop the solution that's best for your situation. Our people are committed to serving you and FS-Curtis provides extensive training in the field and at our St. Louis, Missouri headquarters to ensure that you have the support you need.

In addition, authorized FS-Curtis distributors use genuine FS-Curtis parts, lubricants and filter kits to maximize the service life of your equipment. And with a worldwide network of service centers, you don't need to worry about added downtime waiting for parts.

## QUALITY PARTS MATTER

At FS-Curtis, quality is never compromised. That's why we control production using ISO 9001:2008 and ISO 14001:2004 standards, and it's also why we maintain a large inventory of replacement parts.

Using only genuine FS-Curtis replacement parts not only helps ensure continued reliable service of your equipment, but the large inventory also helps keep parts affordable and available. We're dedicated to maximizing your productivity, and that includes maximizing your uptime.

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Through the dependability of our people and our quality-focused manufacturing, FS-Curtis will continue to be a trusted name serving even more markets through our ever-growing global presence.



## 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.



FS Compressors India Pvt. Ltd

Plot no-S-3, Chakan MIDC, Industrial area, Phase-II, Savardari, Khed, Pune - 410501

Tel: +91-21-35278312 e-mail: [info@fscurtis.in](mailto:info@fscurtis.in)

