

# NX SERIES

DIRECT DRIVE ROTARY  
SCREW AIR COMPRESSORS  
45-90 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

# TECHNICAL DATA

## Direct

MODEL	CAPACITY FAD (CFM)				MOTOR Kw / HP	SOUND LEVEL (175 PSI) dBA	DIMENSIONS (base mount) (L x W x H In.)	WEIGHT (base mount) Lbs.
	100 psi	125 psi	150 psi	175 psi				
NxD45	288	263	246	233	60	72	79 x 50 x 69	2911
NxD55	356	324	293	270	75	74		3035
NxD75	495	436	416	382	100	76	86 x 53 x 73	4020
NxD90	565	492	448	424	125	78		4090

## Variable Speed

MODEL	CAPACITY FAD (CFM) Minimum - Maximum			MOTOR Kw / HP	SOUND LEVEL (100-175 PSI) dBA	DIMENSIONS (tank mounted) (L x W x H In.)	WEIGHT (tank mounted) Lbs.
	100 psi	125 psi	150 psi				
NxV45	288.3 - 63.5	262.7 - 70.5	244.7 - 64.2	45/60	69/72	79 x 49 x 69	2911
NxV55	345.4 - 71.3	314.2 - 94.0	277.4 - 122.3	55/75	71/74		3035
NxV75	498.8 - 120.7	450.8 - 119.7	411.3 - 117.4	75/100	72/76	86 x 63 x 73	4020
NxV 90	567.3 - 120.7	505.5 - 119.7	456.5 - 117.5	90/125	74/78		4090



# 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

## dBa Shield Noise Reduction

Designed for quieter operation

- Extra-thick sound insulation reduces noise
- Can be installed in applications where dBa level is critical
- Laminated oil-proof sound insulation

## Energy Efficiency & Quality Components

Built to the highest levels of dependability, reliability & efficiency

- Premium Efficiency TEFC (IP55 Class F) motor protects compressor from harsh environment
- IE3 Motors increase efficiency
- NEMA-1 electric panel

- Wye-Delta motor starter
- Hi-Efficiency air/oil separator with 1-3 ppm carryover
- 120 volt control voltage
- 100% continuous duty cycle, pulsation free air
- Energy efficient oversized cooler
- Built-in heavy duty air intake filter
- Durable powder-coat painted enclosure
- Leak-free design with o-ring seal fittings & hoses
- Variable Speed Drive optional

## Ease of Maintenance

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

- Easy access to all preventative maintenance components
- Washable cabinet pre-filter
- Controller alerts for maintenance intervals
- Differential pressure indicators for the oil filters, air filter & separator element
- Pivoting separator tank lid allows for easy element change out (75/90kW)



## NXGEN WARRANTY

### Extended Warranty Program

All Nx products are backed by an industry leading warranty:

- Five-year major components warranty
- Ten-year airend warranty

Just register the machine online, Use only FS-Curtis Genuine Parts & Lubricants per the required maintenance schedule, and you will have peace of mind knowing that your machine is backed by the NxGEN Warranty





## 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.



# DemandSmart™

## ENERGY MANAGEMENT SYSTEM

### ENERGY SAVINGS ARE SMART SAVINGS

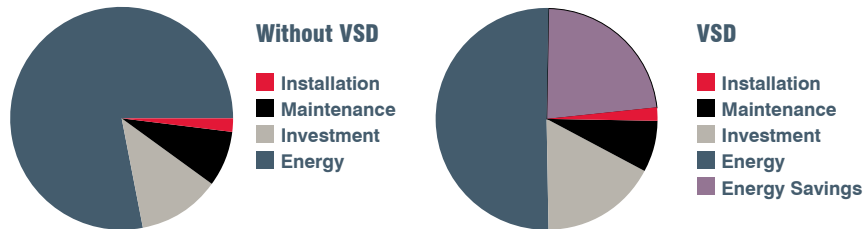
Take control of your energy savings with our optional DemandSmart™ Energy Management System, which includes the controller, variable-speed drive, and airend to create greater overall efficiency. This innovative design maximizes energy savings and reduces overall operating costs.

### INTELLIGENT VARIABLE SPEED DRIVE

One of the ways the DemandSmart system 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.

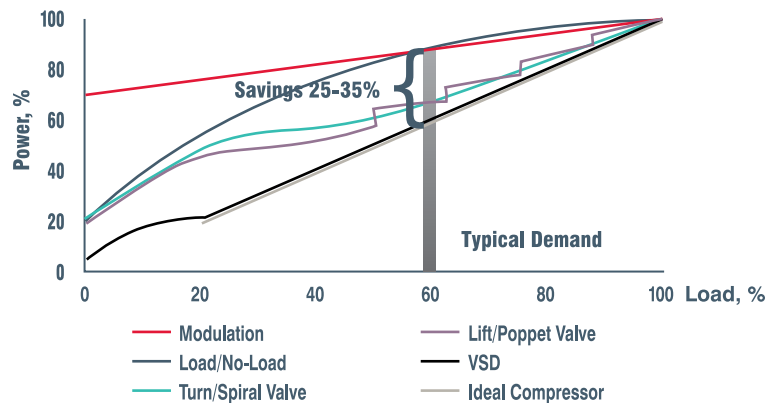
In addition, the soft starting capability of FS-Curtis' VSD reduces inrush current requirement, decreasing your power demand — and, of course, increasing your energy savings.

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
- With DemandSmart technology, the VSD enhances quality by stabilizing air pressure at 1 psi increments
- 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



# iCOMMAND-TOUCH

## TAKE CONTROL OF YOUR WORLD.

With the premium iCommand-Touch, a full-color screen displays graphs which capture and track factual, real-time air usage by the hour, day, week and month. 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.



Continuously tracks pressure, temperature, air quantity and usage to easily diagnose and optimize your plant's 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.

**Air Quantity:** Monitors cubic feet of air usage, pinpointing peak production or down times in your operation.

**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.

**Air Circuit & Oil Circuit:** Quick diagnosis of key component operation within the air and oil circuit



# 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.

- **Large industrial manufacturing**
- **Cement terminals**
- **Power generation**
- **Mining**
- **Aviation testing labs**
- **Textiles**





## 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)



Distributed By:

#### CURTIS-TOLEDO®, INC.

1905 KIENLEN AVENUE | ST. LOUIS, MO 63133

314-383-1300

WWW.FSCURTIS.COM | INFO@FSCURTIS.COM

CORPLITERATURE: FSL-NX4590FLBREV2  
Improvements and research are continuous at FS-Curtis. Specifications may change without notice.

ISO 9001

ISO 14001

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