

NXHE II SERIES

TWO-STAGE ROTARY SCREW
AIR COMPRESSORS

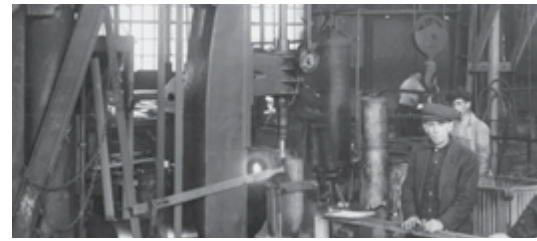
90-250 kW





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

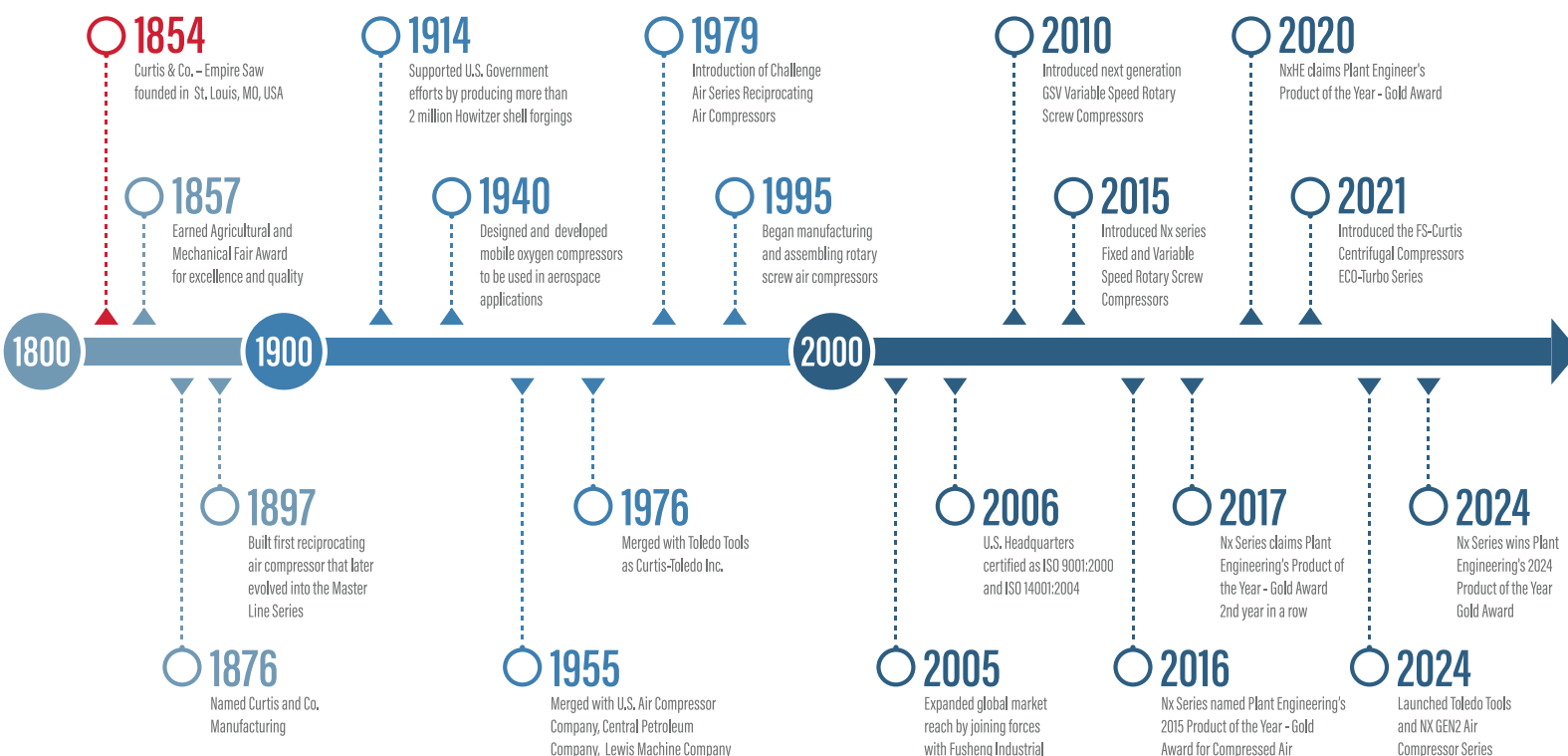
**FS-CURTIS WAS
FOUNDED ON BOTH.**



One-hundred and seventy 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





Li-ion battery industry

Pressure: 0.4 ~ 0.7MPa

Dew point: $\leq -40^{\circ}\text{C} \sim -70^{\circ}\text{C}$

Dust particles: ≤ 4.5 microns



Car manufacturing

Pressure: 0.4 ~ 0.7MPa

Dew point: $\leq -2 \sim 10^{\circ}\text{C}$

$\leq -40^{\circ}\text{C}$ (Spray painting)

Dust particles: ≤ 4.5 microns

Oil content: $< 0.01\text{ppm}$



Electronic Manufacturing

Pressure: 0.4 ~ 0.7MPa

Dew point: $\leq -40^{\circ}\text{C}$

Dust particles: ≤ 4.5 microns

Oil content: $< 0.01\text{ppm}$

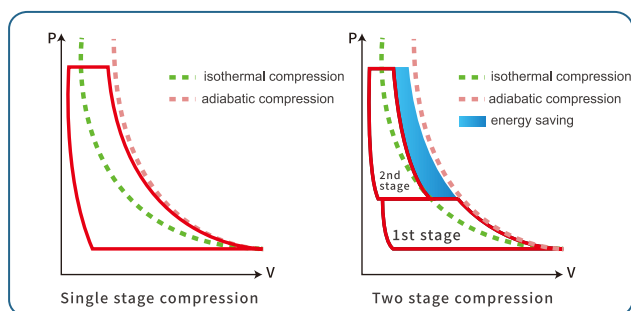


Solar photovoltaic industry

Pressure: 0.85MPa

Dew point: $\leq -40^{\circ}\text{C}$

Dust particles: ≤ 4.5 microns



Compare to single stage compression, high temperature air compressed at first stage of two stage compressor is cooled down by oil and air being constant compressed to reduce second stage inlet temperature. Entire compression process is close to isothermal compression which reduces energy loss. Pressure ratio for each stage of two stage compression is decreased and leakage between rotor seal is reduced significantly. Outstanding increased air end volumetric efficiency optimized cost-efficiency ratio when operated in continuous full load.

NXHEII series More outstanding two-stage compression

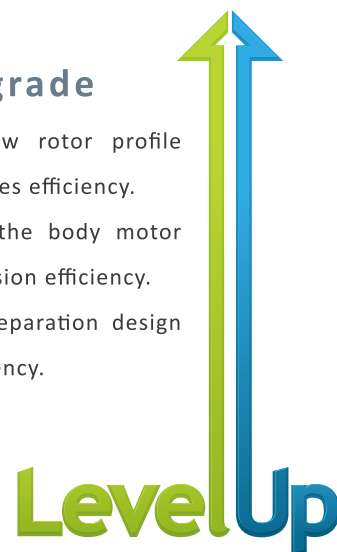


Efficiency upgrade

The design of the new rotor profile comprehensively improves efficiency.

The coaxial design of the body motor ensures higher transmission efficiency.

Air cooled oil cooled separation design for higher exhaust efficiency.





AIR-END

More energy-efficient

The upgraded design of the rotor profile has improved compression efficiency and optimized the spray design, reducing the resistance of the spray while better utilizing the effectiveness of the coolant, making the compression process closer to isothermal compression. The entire air compressor unit has a lower specific power value.

Cancel the traditional coupling design and adopt a coaxial design for the body motor, eliminating transmission losses and making the motor and host seamlessly integrated, making it more sturdy and reliable.



More efficient motor drive

A more efficient oil cooled motor with higher energy efficiency performance, higher energy efficiency, higher protection level, and more reliable operation.



**IE4
Motor**

Power frequency model
IP66 IE4
Oil cooled induction motor

**IE5
Motor**

Variable frequency machine
IP66 IE5
Oil cooled permanent magnet variable frequency motor

Smaller footprint

Clever and more reasonable layout, with significantly reduced footprint compared to the old model, and sufficient maintenance space.



Unique Cooling Flow Field

■ Air-cooled models use centrifugal fan which direct cooler air from external to cool cooler. Hot air is exhausted from top of assembly directly. Meanwhile suction hole of centrifugal air blower located inside machine exhausts hot air directly to keep lower temperature within compressor and reduce operation noise. Only cover removal is needed for cleaning air cooling cooler instead of removing/installing air duct cover.

■ Water cooling model features heavy duty cooler with excellent cooling result and is suitable for high temperature environments. Compressed air passed at a time without pressure drop. Water goes inside of tube while air goes outside. Straight tube design is easy to clean.



Independent design of air aftercooling and oil cooler

- Both air-cooled and water-cooled models have independent air coolers and oil coolers.
- The temperature of the finished compressed air can be reduced as much as possible, without considering the emulsification caused by low oil temperature.
- More reasonable utilization of space, with built-in heat recovery and other devices.

VSD Control fan

- VSD control fan design, fans are activated depending on the ambient temperature and running temperature. This design can adapt the temperature difference between different regions and is more efficiency.



High efficiency, easy to maintain oil separator

- The supersized oil separator design features a larger separation area that reduce the pressure drop during the air/oil separation while providing better filtration, thus making the compressed air system more efficient.

A patented rotating shaft design is adopted on the separator cover. The replacement of oil separator is made much easier.



GoService platform(optional)



- Compressor IoT Smart Service platform on Cloud enables integration of monitoring, troubleshooting and maintenance. Send compressor fault information and operation status to specified technician via SMS and e-mail timely.

- 192.168.1.10 (x1Torus) - RealFlow VNC Viewer

Shutdown

Operating hours: 0小时

Unloaded pressure: 7.50 bar

Loaded pressure: 6.00 bar

0.0 %

Discharge pressure: 0.05 bar

Discharge temperature: 18.3 °C

MENU

FACTORY

START / STOP

Forced Unload

16:15 7025.04.02

NXHEII Series two-stage screw air compressor (air-cooled model)

Model	Delivery (m ³ /min)	Working pressure (MPa)	Motor power (kW)	Air outlet size	Indicative dimensions (mm)			Weight (kg)
					Length	Width	Height	
NXHEII90A-7	19.9	0.7	90	DN80	2400	1800	2000	3700
NXHEII90A-8	18.6	0.8						
NXHEII90A-10	15.7	1.0						
NXHEII90A-12	13.8	1.25						
NXHEII110A-7	23.9	0.7	110	DN80	2400	1800	2000	3800
NXHEII110A-8	22.3	0.8						
NXHEII110A-10	19.3	1.0						
NXHEII110A-12	16.8	1.25						
NXHEII132A-7	29.0	0.7	132	DN100	2800	2000	1998	4300
NXHEII132A-8	27.1	0.8						
NXHEII132A-10	23.4	1.0						
NXHEII132A-12	20.5	1.25						
NXHEII160A-7	36.0	0.7	160	DN100	2800	2000	1998	4500
NXHEII160A-8	33.6	0.8						
NXHEII160A-10	29.6	1.0						
NXHEII160A-12	26.0	1.25						
NXHEII200A-7	45.0	0.7	200	DN100	3200	2100	2100	6800
NXHEII200A-8	42.0	0.8						
NXHEII200A-10	37.8	1.0						
NXHEII200A-12	33.0	1.25						
NXHEII250A-7	57.0	0.7	250	DN100	3200	2100	2100	7000
NXHEII250A-8	53.0	0.8						
NXHEII250A-10	47.0	1.0						
NXHEII250A-12	42.0	1.25						

NXHEII Series two-stage screw air compressor (water-cooled model)

Model	Delivery (m³/min)	Working pressure (MPa)	Motor power (kW)	Air outlet size	Indicative dimensions (mm)			Weight (kg)
					Length	Width	Height	
NXHEII90W-7	19.9	0.7	90	DN80	2400	1800	2000	3600
NXHEII90W-8	18.6	0.8						
NXHEII90W-10	15.7	1.0						
NXHEII90W-12	13.8	1.25						
NXHEII110W-7	23.9	0.7	110	DN80	2400	1800	2000	3700
NXHEII110W-8	22.3	0.8						
NXHEII110W-10	19.3	1.0						
NXHEII110W-12	16.8	1.25						
NXHEII132W-7	30.0	0.7	132	DN100	2800	2000	1998	4100
NXHEII132W-8	28.0	0.8						
NXHEII132W-10	24.5	1.0						
NXHEII132W-12	21.8	1.25						
NXHEII160W-7	37.5	0.7	160	DN100	2800	2000	1998	4300
NXHEII160W-8	34.3	0.8						
NXHEII160W-10	31.0	1.0						
NXHEII160W-12	27.6	1.25						
NXHEII200W-7	47.0	0.7	200	DN100	3200	2100	2100	6400
NXHEII200W-8	43.0	0.8						
NXHEII200W-10	38.8	1.0						
NXHEII200W-12	35.0	1.25						
NXHEII250W-7	59.0	0.7	250	DN100	3200	2100	2100	6600
NXHEII250W-8	55.0	0.8						
NXHEII250W-10	49.8	1.0						
NXHEII250W-12	44.8	1.25						



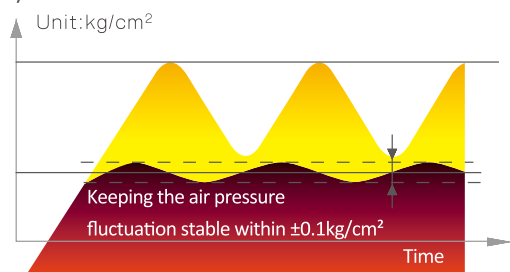
More efficient and energy-saving frequency conversion

The dual permanent magnet motor is directly driven, more sensitive in capturing subtle load changes in the compressor. The first and second speed ratio regulation is more flexible, convenient, and precise, ensuring stable and efficient exhaust pressure in the entire system.

Integrated structure, oil cooled permanent magnet motor and screw host are fully matched to form a closed whole permanent magnet motor that directly drives the rotor, reducing mechanical failure rate and vulnerable parts, and reducing mechanical noise; Not only does it achieve higher transmission efficiency, but it also has a compact structure.

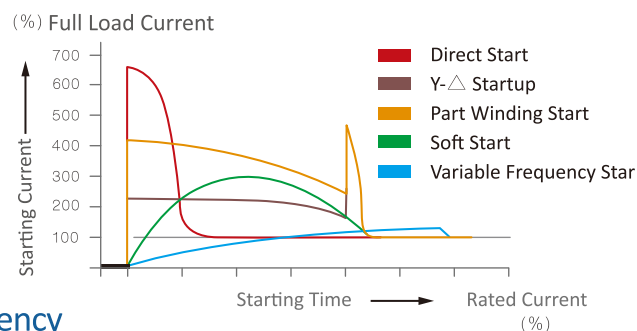
Constant pressure air supply

Variable frequency control can instantly respond to changes in customer's airflow demand, keeping the air pressure fluctuation stable within $\pm 0.1 \text{ kg/cm}^2$, eliminating the need for the traditional air compressor's set value of $1\text{-}2 \text{ kg/cm}^2$ for empty load and full load difference.



Variable frequency startup

Soft startup with variable frequency, smooth linear operation without the high current of traditional direct startup or star-delta startup. Reduces impact on electrical circuits, significantly extending the service life of electromagnetic contactors, motors, and compressor



NXHEVII Series permanent magnet variable frequency two-stage screw air compressor (Air-cooled model)

Model	Delivery (m³/min)	Working pressure (MPa)	Motor power (kW)	Air outlet size	Indicative dimensions (mm)			Weight (kg)
					Length	Width	Height	
NXHEVII90A	4.14~19.9	0.7-1.25	90	DN80	2400	1800	2000	3700
NXHEVII110A	5.04~23.9	0.7-1.25	110	DN80	2400	1800	2000	3800
NXHEVII132A	6.15~29.0	0.7-1.25	132	DN100	2800	2000	2000	4200
NXHEVII160A	7.80~36.0	0.7-1.25	160	DN100	2800	2000	2000	4400
NXHEVII200A	9.90~45.0	0.7-1.25	200	DN100	3200	2100	2100	6850
NXHEVII250A	12.60~57.0	0.7-1.25	250	DN100	3200	2100	2100	7150

NXHEVII Series permanent magnet variable frequency two-stage screw air compressor (Water-cooled model)

Model	Delivery (m³/min)	Working pressure (MPa)	Motor power (kW)	Air outlet size	Indicative dimensions (mm)			Weight (kg)
					Length	Width	Height	
NXHEVII90W	4.14~19.9	0.7-1.25	90	DN80	2400	1800	2000	3700
NXHEVII110W	5.04~23.9	0.7-1.25	110	DN80	2400	1800	2000	3800
NXHEVII132W	6.54~30.0	0.7-1.25	132	DN100	2800	2000	2000	4200
NXHEVII160W	8.28~37.5	0.7-1.25	160	DN100	2800	2000	2000	4400
NXHEVII200W	10.50~47.0	0.7-1.25	200	DN100	3200	2100	2100	6850
NXHEVII250W	13.44~59.0	0.7-1.25	250	DN100	3200	2100	2100	7150

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 170 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 170 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.



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