RN SERIES

NON-CYCLING REFRIGERATED COMPRESSED AIR DRYERS 10-1200 SCFM

FSCURTIS

FS CURTIS
AIR COMPRESSORS

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

QUALITY AIR, RELIABLE PROCESS

GET IT ALL WITH FS-CURTIS DRYERS.

FS-Curtis compressors and RN Series dryers give you a complete professional compressed-air system solution, all backed by the FS-Curtis reputation for rugged dependability

The same commitment to world-class quality found in FS Curtis compressors is also the foundation of RN Series refrigerated compressed-air dryers. RN Series dryers can further extend the operating life of downstream equipment by preventing concentrations of water, lubricant aerosols and airborne particles created during the compression process that can damage equipment, corrode the system and contaminate your product or process. Manufactured to precision specifications for ideal integration with FS-Curtis compressors, RN Series dryers provide a constant dew point that meets the ISO 8573.1 standard to protect your investment, reduce wear and maintenance costs, and maintain your production quality.

THE RIGHT DRYER CHOICE FOR EVERY APPLICATION

There's an RN Series refrigerated air dryer ideal for your FS-Curtis compressor and application needs.

COMPACT. SIMPLE. SMART.

RNP REFRIGERATED DRYERS (10-1200 SCFM)

PREMIUM

Sometimes a simple solution is all you need. With their small design and compact footprint, RNP dryers take the basics to new heights, delivering reliable performance day in and day out you've come to expect from FS-Curtis. They remove maximum moisture to increase efficiency and help you get the most from your equipment.

The perfect blend of technology and simplicity, RNP dryers are easy to operate and maintain. Best of all, they're reliable. You can count on an ISO 8573.1 Air Quality Class 4 to Class 5 pressure dew point for efficient, effective delivery
of clean, dry, consistent-quality compressed air.

- Simple and reliable copper tube-on-tube heat exchange for RNP10-50
- Stainless-steel brazed plate heat exchanger for RNP75-500
- Designed with quality components for extended service life
- At-a-glance control panel dew point indication verifies performance
- Cleanable cabinet filter for RNP100-1200
- R-134a environmentally friendly refrigerant

TECHNICAL DATA

RNP NON-CYCLING REFRIGERATED COMPRESSED AIR DRYERS

MODELS	CAPACITY[1] (scfm)	POWER SUPPLY	INLET/OUTLET (npt. male)	DIMENSIONS (LxWxH-In.)	WEIGHT (Lbs.)
RNP10	10	115/1/60	3/8" OD	13 x 13 x 15	64
RNP15	15				69
RNP25	25		3/4" NPT	15 x 15 x 22	88
RNP35	35				92
RNP50	50			20 x 20 x 22	101
RNP75	75			20 x 19 x 20	110
RNP100	100		1" NPT	30 x 13 x 21	123
RNP125	125				133
RNP150	150				153
RNP200	200	460/3/60	1 1/2" NPT	36 x 17 x 30	183
RNP250	250				211
RNP300	300			38 x 20 x 30	211
RNP400	400		2" NPT	38 x 21 x 30	232
RNP500	500			41 x 25 x 32	262
RNP600	600			32 x 22 x 50	353
RNP800	800		3" FLG	59 x 30 x 42	687
RNP1000	1000		4" FLG	64 x 29 x 45	786
RNP1200	1200			64 x 29 x 45	810

[1]Rated Flow Capacity - Conditions for rating above dryers are: compressed air at dryer inlet: 100 psig and 100°F saturated; ambient temperature: 100°F; operating on 60 Hz power supply.
At rated conditions, pressure drop is less than 5 psi.

BRING ON THE HEAT

RNH (20-125 SCFM)

HIGH TEMPERATURE REFRIGERATED COMPRESSED AIR DRYERS

For compressors with a high discharge temperature, such as reciprocating models without aftercooler, RHN dryers are ideal. They provide a single air treatment system that replaces four separate components — the aftercooler, separator, dryer and filter. You get everything you need in one unit.

The automatic refrigeration temperature control system ensures stable performance for clean, dry, consistent-quality compressed air so that your equipment can operate at peak efficiency. The fan switch helps save energy at low loads, and the cleanable cabinet air filter cuts maintenance costs.

- Handles high inlet temperatures of up to 180° F
- ISO 8573.1 Class 6 dew point
- Stainless-steel brazed plate heat exchanger optimizes the thermal efficiency and saves money by reducing pressure drop
- Integrated 3-micron separator removes solid contaminants and 60% of oil aerosols
- Fan switch allows operation in low ambient temperatures (35° F)
- Cleanable cabinet air filter
- Small footprint design
- Environmentally friendly CFC-free refrigerant

Trust FS-Curtis dryers for clean, dry, consistent-quality compressed air.

TECHNICAL DATA

RNH HIGH-TEMPERATURE REFRIGERATED COMPRESSED AIR DRYERS

MODELS	CAPACITY[1] (scfm)	POWER SUPPLY	INLET/OUTLET (npt. male)	DIMENSIONS (LxWxH-In.)	WEIGHT (Lbs.)
RNH20	23	115/1/60 220-240/1/50	1/2" NPT	13 x 10 x 28	79
RNH25	29				80
RNH35	41				81
RNH50	58		3/4" NPT	17 x 17 x 37	150
RNH75	87				155
RNH100	116	230/1/60	1" NPT	17 x 17 x 46	170
RNH125	145				175

[1]Rated Flow Capacity - Conditions for rating above dryers are: compressed air at dryer inlet: 175 psig and 180ºF; inlet pressure dew point: 160ºF; ambient temperature: 95ºF; outlet pressure dew point: 50ºF; operating on 60 Hz power supply. At rated conditions, pressure drop is less than 5 psi.

CAPACITY CORRECTION FACTORS

To adjust dryer capacity for conditions other than rated, multiply Nominal Capacity with Correction Factors from Tables 1 and 2.

CORRECTION FACTORS FOR INLET AIR TEMPERATURE AND PRESSURE

INLET AIR TEMP. (ºF)	INLET AIR PRESSURE (psi)							
	50	80	100	125	150	175	200	250
90	1.05	1.17	1.23	1.31	1.37	1.42	1.47	1.49
100	0.84	0.95	1.00	1.07	1.13	1.18	1.22	1.24
110	0.69	0.79	0.82	0.91	0.95	0.99	1.03	1.05
120	0.56	0.66	0.70	0.74	0.80	0.84	0.89	0.91

CORRECTION FACTORS FOR AMBIENT TEMPERATURE

AMBIENT AIR TEMP. (ºF)	CORRECTION FACTOR
80	1.12
90	1.06
100	1.00
110	0.94

Example: What is the capacity of a 2,000 scfm model when the compressed air at the inlet to the dryer is 150 psig and 100°F, and the ambient temperature is 90°F

Answer: 2,000 scfm (rated flow from Specifications Table) x 1.13 (correction factor for inlet temperature and pressure from Table 1) x 1.06 (correction factor for ambient temperature from Table 2) = 2,396 scfm

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)

PUNE, 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)

FSCURTIS®

Distributed By:

CURTIS-TOLEDO®, INC.
1905 KIENLEN AVENUE | ST. LOUIS, MO 63133
314-383-1300
WWW.FSCURTIS.COM | INFO@FSCURTIS.COM

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Improvements and research are continuous at FS-Curtis. Specifications may change without notice.

ISO 9001
ISO 14001

CAGI PERFORMANCE VERIFICATION PROGRAM

TRAINING • EDUCATION • EFFICIENCY
COMPRESSED AIR CHALLENGE
SPONSOR