

RNHI SERIES

HIGH INLET TEMPERATURE REFRIGERATED AIR
DRYERS 20-125 SCFM





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

FS-CURTIS WAS FOUNDED ON BOTH.

More than 165 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 1857 1876 1897 1914 1940 1955 1976

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.

1979 1995 2005 2006 2010 2015 2016 2017

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

BRING ON THE HEAT

**TRUST FS-CURTIS DRYERS FOR CLEAN, DRY,
CONSISTENT-QUALITY COMPRESSED AIR.**

FS-Curtis compressors and RNHI 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 RNHI Series refrigerated compressed-air dryers. RNHI 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, RNHI 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.



HIGH INLET TEMPERATURE REFRIGERATED AIR DRYERS



FS-Curtis RNHI High Inlet Temperature refrigerated air dryers are designed to efficiently dry compressed air with inlet temperatures up to 180°F. With six pre-engineered sizes to choose from, the RNHI is the ideal drying solution for auto service centers and general shop air applications that use piston type air compressors 5.0 to 30 horsepower.

- Moisture removal to ISO 8573-1: 2010 Quality Class 6 (50°F) pressure dew point
- Certified for quality and safety to UL1995/CSA 22.2 No. 236-95
- Environmentally friendly R-134a and R-407c refrigerants
- Stainless steel brazed plate heat exchangers with integral demister separator ensure optimal heat transfer for the life of the dryer
- Widely spaced Inlet/Outlet connections, flow direction stamped into cabinet, for ease of installation and filter mount
- Adjustable timed electric drain – valve open and closed time – reliably discharges condensate from the dryer
- Instrumentation with lighted compressor On/Off switch, dew point temperature indicator and fault light
- Top mount fan, upward condenser air flow allows installation in tight spaces
- Bottom base rail with pre-drilled mounting holes for secure floor mount
- Quick release front panel for ease of access to dryer internals for routine maintenance

TECHNICAL DATA

MODEL	FLOW CAPACITY SCFM ¹	POWER REQUIREMENTS		IN / OUT CONNECTIONS	REFRIGERANT TYPE ²	MAXIMUM WORKING PRESSURE ³	MAXIMUM INLET TEMPERATURE ³	AMBIENT TEMPERATURE RANGE ³	DIMENSIONS IN			WEIGHT	
		V/ph/Hz	kW						NPT	PSIG / BAR	°F / °C	°F / °C	H
RNHI20	20	115/1/60	0.69	3/4"	R-134a				29.94	14.94	18.12	100	45
RNHI25	25	115/1/60	0.69	3/4"	R-134a				29.94	14.94	18.12	100	45
RNHI35	35	115/1/60	0.99	3/4"	R-407c	42-227 psig	40°F-180°F	40°F-110°F	29.94	14.94	18.12	106	48
RNHI50	50	115/1/60	0.83	1"	R-407c	3.0-16.0 bar	4°C-82°C	4°C-43°C	41.75	18.06	18.31	125	57
RNHI75	75	115/1/60	1.13	1"	R-407c				41.75	18.06	18.31	130	59
RNHI125	125	230/1/60	1.97	1"	R-407c				46.5	18.06	18.31	153	69

¹ Rating conditions are 180°F inlet temperature, 125 psig inlet pressure, 100% inlet relative humidity, 100°F ambient temperature.

² Refer to dryer data plate for refrigerant charge.

³ To ensure optimal performance, do not operate continuously in conditions below or above max/min specifications.

Add -FP to any model to include the Filter Pack. Filter Pack consists of the following: (1) FS-Curtis CF7 Particulate Filter and (1) FS-Curtis CF5 Oil Coalescing Filter. Maximum temperature for air entering the filters should not exceed 150°F (66°C).



Capacity Correction Factors

CAPACITY FOR FLOWS BASED ON 180°F, 82°C INLET

MODEL	FLOW CAPACITY SCFM ¹ @ 175		RECOMMENDED AIR COMPRESSOR SIZE		FLOW CAPACITY SCFM ¹ @ 150		RECOMMENDED AIR COMPRESSOR SIZE		FLOW CAPACITY SCFM ¹ @ 125		RECOMMENDED AIR COMPRESSOR SIZE		FLOW CAPACITY SCFM ¹ @ 100		RECOMMENDED AIR COMPRESSOR SIZE	
	PSIG (12 KG/CM ²)		HP		PSIG (11 KG/CM ²)		HP		PSIG (9 KG/CM ²)		HP		PSIG (7 KG/CM ²)		HWS Oil/Water Separator	
	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz
RNHI20	23	20	5	5	22	18	5	5	20	17	5	5	18	15	5	5
RNHI25	29	24	7.5	7.5	27	23	7.5	7.5	25	21	7.5	5	23	19	5	5
RNHI35	41	31	10	7.5	38	29	10	7.5	35	27	10	7.5	32	24	7.5	7.5
RNHI50	58	58	15	15	54	54	15	15	50	50	15	10	45	45	10	10
RNHI75	87	71	20	20	81	66	20	15	75	61	20	15	68	5	15	15
RNHI125	145	121	30	30	135	112	30	30	125	104	30	25	114	95	25	20

For typical applications where there is NO aftercooler installed upstream

¹ Capacity @ 180°F (82°C) inlet temperature, 160°F (71°C) inlet pressure dew point, 95°F (35°C) ambient temperature, 50°F (10°C) outlet pressure dew point, and less than 5 psig (0.35 kg/cm²) pressure drop.

CAPACITY FOR FLOWS BASED ON 100°F, 38°C INLET

MODEL	FLOW CAPACITY SCFM ¹ @ 175		RECOMMENDED AIR COMPRESSOR SIZE		FLOW CAPACITY SCFM ¹ @ 150		RECOMMENDED AIR COMPRESSOR SIZE		FLOW CAPACITY SCFM ¹ @ 125		RECOMMENDED AIR COMPRESSOR SIZE		FLOW CAPACITY SCFM ¹ @ 100		RECOMMENDED AIR COMPRESSOR SIZE	
	PSIG (12 KG/CM ²)		HP		PSIG (11 KG/CM ²)		HP		PSIG (9 KG/CM ²)		HP		PSIG (7 KG/CM ²)		HP	
	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz
RNHI20	32	27	10	7.5	30	25	7.5	7.5	28	23	7.5	7.5	25	21	7.5	5
RNHI25	40	33	10	10	37	31	10	7.5	34	29	10	7.5	31	26	7.5	7.5
RNHI35	55	43	15	10	51	40	15	10	47	37	10	10	43	33	10	10
RNHI50	78	78	20	20	73	73	20	20	67	67	15	15	61	61	15	15
RNHI75	118	96	25	25	110	90	25	25	102	83	25	20	92	75	20	20
RNHI125	197	164	40	40	183	152	40	30	170	142	40	30	155	129	30	25

For typical applications where an aftercooler is installed upstream

¹ Capacity @ 100°F (38°C) inlet temperature, 100°F (38°C) inlet pressure dew point, 100°F (38°C) ambient temperature, 50°F (10°C) outlet pressure dew point, and less than 10 psig (0.7 kg/cm²) pressure drop.

As an extra measure of protection, FS-Curtis will provide additional coverage beyond the standard 2-year warranty. Purchase a dryer with Filtration Package and the annual purchase of a maintenance kit and receive 3 years additional protection, parts and labor, a total of 5 years. All major components are covered.





CONTINUED COMMITMENT

A company history that dates back more than 165 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 165 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)



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

ISO 9001

ISO 14001

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