

nano

state of
the art



R⁴ direct expansion refrigerated compressed air dryers

flow capacity: 15 - 4750 scfm (24 - 7624 Nm³/hr)



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Leading edge technology and hundreds of years of **experience**...nano-purification solutions, your world-class manufacturer of state-of-the-art compressed air and gas solutions to industry.

Our commitment at nano is to work alongside our **customers** and provide unique solutions with the highest quality products to solve your specific challenges.

A wealth of experience and leading edge products are only part of the equation. nano recognize that world-class customer **service** is the most important component to any successful business.

Experience. Customer. Service... **nano**



clean and dry

Clean and dry compressed air is essential in every efficient and profitable manufacturing and process operation worldwide. Our vast experience includes food, beverage, chemical, laboratory, medical and natural gas applications.

nano understand your needs and has created the nano R⁴ range of high-performance, energy-saving compressed air and gas purification products to provide clean and dry compressed air at an affordable price with unrivaled reliability.



design

Our experienced team of design engineers are always looking for new and unique technologies and products to bring you the highest level of performance and lowest overall operating cost.



research & development

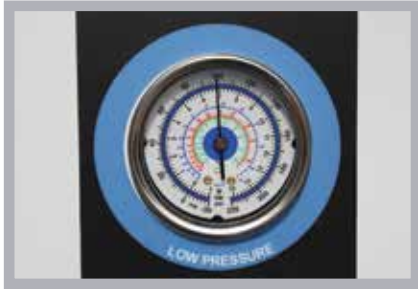
Our R&D team endeavor to provide solutions that go beyond developing an existing product. They are continually researching new technologies which can provide unique advantages over competitive offerings.



manufacture

The reliable and energy saving nano R⁴ refrigeration air dryers are manufactured in a state of the art facility to the highest standards of build quality to ensure reliability and high levels of performance.

nano direct expansion dryers – R⁴ features and benefits in detail



refrigerant gauge standard

refrigerant gauge is located above the controller for ease of troubleshooting



CAREL microprocessor

functionality monitoring text display includes dew point, high and low pressure and drain operation

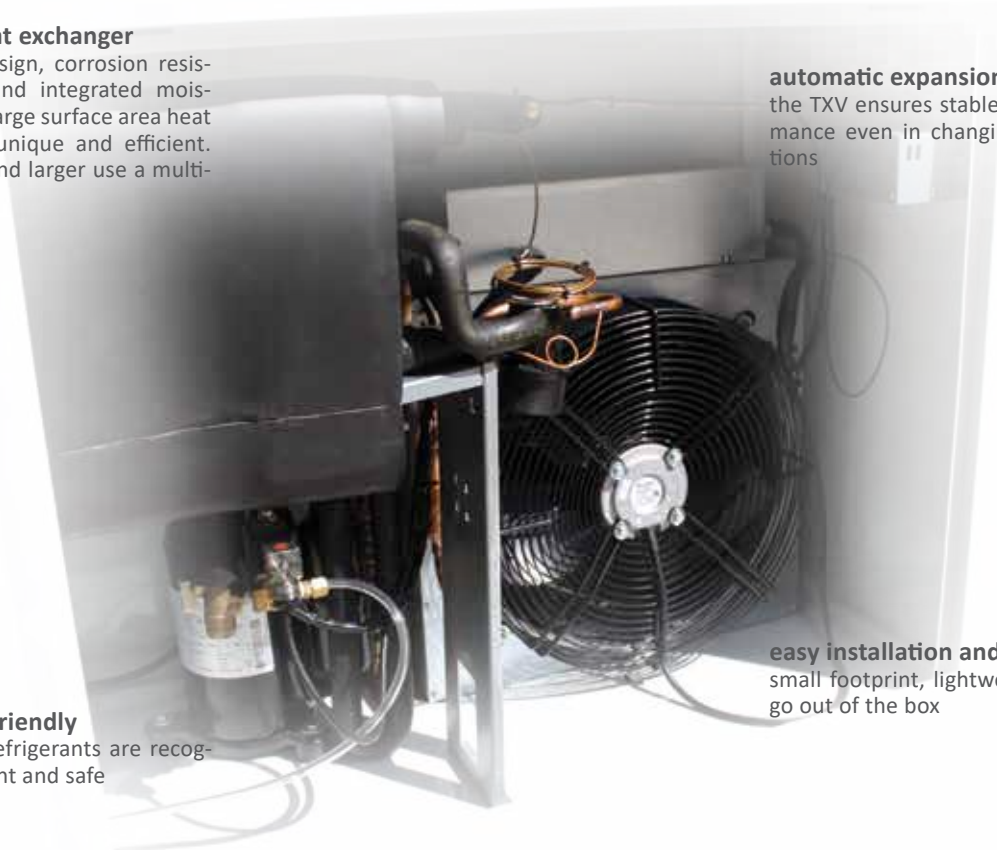


robust construction

powder coated aluminum panels are corrosion resistant

stainless steel heat exchanger

with a patented design, corrosion resistant construction and integrated moisture separator, the large surface area heat exchanger is truly unique and efficient. Models NDX 1750 and larger use a multi-module SSX design



automatic expansion valve

the TXV ensures stable dew point performance even in changing ambient conditions

environmentally friendly

R134a and R407C refrigerants are recognized as both efficient and safe

easy installation and start-up

small footprint, lightweight and ready to go out of the box



digital scroll compressor

many of the NDX (models NDX 0340 and up) utilize scroll compressors. scrolls minimize power consumption, noise, vibration and moving parts while maximizing reliability and resistance to liquid refrigerant returns



adjustable timer drain standard

timed solenoid drain is fully adjustable and extremely reliable



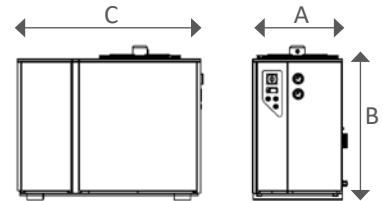
oversized condenser for high ambient temperatures

oversized condenser uses a high pressure fan switch to protect refrigeration circuit and to provide visual high and low pressure alarms

nano R⁴ sizing & specifications

model	inlet & outlet ⁽¹⁾	rated flow ⁽²⁾		absorbed power ⁽³⁾	dimensions (inches)			approx. weight	power supply (V/Ph/60Hz)			
	NPT/FLG	scfm	Nm ³ /h	kW	A	B	C	lbs	115/1	230/1	460/3	575/3 ⁽⁴⁾
NDX 0015	½"	15	24	0.22	15	18	17	55	●			
NDX 0020	½"	20	32	0.23	15	18	17	62	●			
NDX 0030	½"	30	48	0.24	15	18	17	70	●			
NDX 0045	½"	45	72	0.25	15	18	17	77	●			
NDX 0055	¾"	55	88	0.47	15	20	19	84	●			
NDX 0085	¾"	85	136	0.49	15	20	19	92	●			
NDX 0110	1"	110	177	0.89	16	29	26	143	●			
NDX 0135	1"	135	217	0.92	16	29	26	143	●			
NDX 0175	1½"	175	281	0.96	16	29	26	152	●			
NDX 0215	1½"	215	345	1.02	16	34	30	196		●	●	○
NDX 0250	1½"	250	401	1.07	16	34	30	222		●	●	○
NDX 0340	2"	340	546	1.47	18	47	35	253		●	●	○
NDX 0470	2"	470	754	2.50	18	47	35	297			●	○
NDX 0550	2½"	550	883	2.60	18	47	35	319			●	○
NDX 0725	2½"	725	1164	3.46	18	47	35	397			●	○
NDX 0950	2½"	950	1525	3.60	23	47	40	712			●	○
NDX 1150	3"	1150	1846	5.04	23	47	40	771			●	○
NDX 1350	3"	1350	2167	6.54	23	47	40	882			●	○
NDX 1750	4" Flg	1750	2809	6.98	40	73	64	1433			●	○
NDX 2000	4" Flg	2000	3210	7.20	40	73	64	1480			●	○
NDX 2500	6" Flg	2500	4013	13.08	40	73	64	1808			●	○
NDX 3500	8" Flg	3500	5618	14.40	47	102	75	3086			●	○
NDX 4750	10" Flg	4750	7624	26.16	47	102	75	4078			●	○

specifications	NDX 0015 to 0250	NDX 0340 to 4750
design operating pressure range	0 to 232 psig	0 to 189 psig
maximum inlet temperature	158°F	158°F
maximum ambient temperature	110°F - 122°F depending on refrigerant (contact support for details)	



pressure correction factors ⁽⁶⁾													
inlet air pressure (psig)	58	72	87	100	115	130	145	160	175	190	204*	218*	232*
correction factor	0.72	0.82	0.92	1.00	1.06	1.09	1.11	1.15	1.18	1.19	1.21	1.23	1.26

inlet temperature correction factors ⁽⁶⁾															
inlet air temperature (°F)	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155
correction factor	1.27	1.19	1.09	1.00	0.91	0.78	0.71	0.63	0.56	0.52	0.48	0.44	0.40	0.36	0.33

ambient temperature correction factors ^[6]						
ambient temperature (°F)	70	80	90	100	105	110
correction factor	1.18	1.16	1.06	1.00	0.96	0.90

*Only available on NDX 0015 to NDX 0060

- (1) ½" to 3" are NPT threaded connections, 4" and up are supplied with ANSI flanged connections
- (2) in compliance with CAGI (ADF 100) / NFPA (class H): Inlet temperature: 100°F, ambient temperature: 100°F, inlet pressure: 100 psig, pressure dew point: 33°F to 39°F, and pressure drop not to exceed 5 psid. For all other conditions refer to the correction factors above or contact support@n-psi.com
- (3) nominal absorbed power at rated operating conditions using 115/1/60 or 460/3/60 power supply (as applicable). For absorbed power at other voltages or conditions, contact support@n-psi.com
- (4) specify voltage requirements when ordering
- (5) includes 460 Volt to 575 Volt transformer (internally mounted, most models)
- (6) to be used as a rough guide only. All applications should be confirmed by n-psi sizing software. Contact support@n-psi.com for sizing assistance

*2 year warranty with pre-filtration and non-corrosive piping system installed

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publication reference n-psi-R4-04-us