

## R<sup>4</sup> direct expansion refrigerated compressed air dryers

flow capacity: 15 - 2000 scfm (24 - 3210 Nm<sup>3</sup>/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 R<sup>4</sup> 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 R<sup>4</sup> refrigerated 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



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 multimodule SSX design



robust construction

powder coated galvanized steel panels are corrosion resistant



environmentally friendly

R134a and R407C refrigerants are recognized as both efficient and safe



**CAREL** microprocessor

functionality monitoring text display includes power on, dew point temperature, drain operation and manual override



automatic expansion valve

the TXV ensures stable dew point performance even in changing ambient condi-



easy installation and start-up

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



scroll compressor

many of the NDX (models NDX 0250 (460/3/60) 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



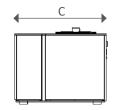
oversized condenser for high ambient temperatures

oversized condenser uses a high pressure fan switch to protect refrigeration circuit

## sizing & specifications

model	inlet & outlet (1)	rated flow <sup>(2)</sup>		absorbed power (3)	dimensions (inches)			approx. weight	po (V,		
	NPT/FLG	scfm	Nm³/h	kW	Α	В	С	lbs	115/1	230/1	460/3
NDX 0015	1/2"	15	24	0.22	15	17	18	55	•		
NDX 0020	1/2"	20	32	0.23	15	17	18	62	•		
NDX 0030	1/2"	30	48	0.24	15	17	18	70	•		
NDX 0045	1/2"	45	72	0.25	15	17	18	77	•		
NDX 0055	3/4"	55	88	0.47	15	19	20	84	•		
NDX 0085	3/4"	85	136	0.49	15	19	20	92	•		
NDX 0110	1"	110	177	0.92	15	26	29	143	•		
NDX 0135	1"	135	217	0.92	15	26	29	143	•		
NDX 0175	1½"	175	281	0.96	15	26	29	152	•		
NDX 0215	1½"	215	345	0.94	16	30	35	196		•	
NDX 0250	1½"	250	401	1.05	16	30	35	222		•	
NDX 0250	2"	250	401	1.47	18	35	47	253			•
NDX 0340	2"	340	546	1.47	18	35	47	253		•	•
NDX 0470	2"	470	754	2.50	18	35	47	297			•
NDX 0550	2½"	550	883	2.60	18	35	47	319			•
NDX 0725	2½"	725	1164	3.46	18	35	47	397			•
NDX 0950	2½"	950	1525	3.60	23	40	47	712			•
NDX 1150	3"	1150	1846	5.04	23	40	47	771			•
NDX 1350	3"	1350	2167	6.54	23	40	47	882			•
NDX 1750	4" Flg	1750	2809	7.20	73	64	40	1433			•
NDX 2000	4" Flg	2000	3210	7.20	73	64	40	1480			•

specifications	NDX 0015 to 0725	NDX 0950 to 2000					
design operating pressure range	0 to 232 psig	0 to 189 psig					
maximum inlet temperature	158°F	158°F					
maximum ambient temperature	110°F to 122°F depending on refrigerant (contact support for details)						





pressure correction fa	ctors (5)														
inlet air pressure (psig)	58	72	87	1	00	115	130	145	160	175	19	90	204*	218*	232
correction factor	0.72	0.82	0.82 0.92		.00	1.06	1.09	1.11	1.15	1.18	1.	19	1.21	1.23	1.26
inlet temperature corr	rection	factors	(5)												
inlet air temperature (°F)	85	90	95	100	105	110	115	120	125	130	135	140	145	150	15
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	0.44	0.40	0.36	0.33
ambient temperature	correct	tion fac	tors (5)												
ambient temperature (°F) 70		80			90		100		105			110			
correction factor		1 18	1 16				1.06		1.00		0.96			0.90	

<sup>\*</sup>applies to NDX 0725 and below only

- (1) 1/2" to 3" are NPT threaded connections, 4" and up are supplied with ANSI flanged connections
- (2) rated flow capacity: conditions for rating dryers are in accordance with ISO7183 (Option A2). Compressed air at dryer inlet: 100 psig (7 bar) and 100°F (38°C); ambient air temperature: 100°F (38°C); operating on 60Hz power supply
- (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. For 575V applications, contact support@n-psi.com for assistance
- (5) 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





<sup>\*2</sup> year warranty with pre-filtration and non-corrosive piping system installed