



# naro

## direct expansion refrigerated air dryers

flow capacity: 15 to 2000 scfm (24 to 3210 Nm<sup>3</sup>/hr)

# FEATURES & BENEFITS

## stainless steel heat exchanger

- patented design, corrosion resistant construction and integrated moisture separator, large surface area heat exchanger is truly unique and efficient (models NDX 1750 and larger use multi-module SS design)

## CAREL® microprocessor

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



## scroll compressors

- models NDX 0250 (460/3/60) and up) utilize scroll compressors which minimize power consumption, noise, vibration and moving parts while maximizing reliability and resistance to liquid refrigerant returns

## adjustable timer drain

- standard 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

## easy installation & start up

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

## performance validated filtration

- pre- and after-filter packages available to provide additional energy savings and improved air quality

## refrigerant gauge

- standard refrigerant gauge located above the controller for ease of troubleshooting

## environmentally friendly

- R134a or R407C refrigerant dependent on model

## robust construction

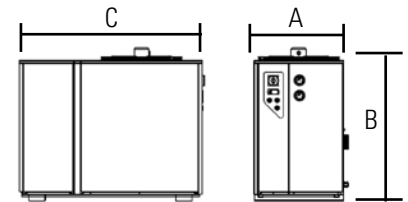
- powder coated galvanized steel panels are corrosion resistant



# SPECIFICATIONS

| dryer model | inlet & outlet <sup>(1)</sup> | rated flow <sup>(2)</sup> |       | absorbed power <sup>(3)</sup> | dimensions (inches) |    |    | approx. weight | power supply (V/Ph/60Hz) <sup>(4)</sup> |       |       |
|-------------|-------------------------------|---------------------------|-------|-------------------------------|---------------------|----|----|----------------|-----------------------------------------|-------|-------|
|             | NPT/FLG                       | scfm                      | Nm³/h | kW                            | A                   | B  | C  | lbs            | 115/1                                   | 230/1 | 460/3 |
| NDX 0015    | ½"                            | 15                        | 24    | 0.22                          | 15                  | 17 | 18 | 55             | •                                       |       |       |
| NDX 0020    | ½"                            | 20                        | 32    | 0.23                          | 15                  | 17 | 18 | 62             | •                                       |       |       |
| NDX 0030    | ½"                            | 30                        | 48    | 0.24                          | 15                  | 17 | 18 | 70             | •                                       |       |       |
| NDX 0045    | ½"                            | 45                        | 72    | 0.25                          | 15                  | 17 | 18 | 77             | •                                       |       |       |
| NDX 0055    | ¾"                            | 55                        | 88    | 0.47                          | 15                  | 19 | 20 | 84             | •                                       |       |       |
| NDX 0085    | ¾"                            | 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    | 1 ½"                          | 175                       | 281   | 0.96                          | 15                  | 26 | 29 | 152            | •                                       |       |       |
| NDX 0215    | 1 ½"                          | 215                       | 345   | 0.94                          | 16                  | 30 | 35 | 196            |                                         | •     |       |
| NDX 0250    | 1 ½"                          | 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    | 2 ½"                          | 550                       | 883   | 2.60                          | 18                  | 35 | 47 | 319            |                                         |       | •     |
| NDX 0725    | 2 ½"                          | 725                       | 1164  | 3.46                          | 18                  | 35 | 47 | 397            |                                         |       | •     |
| NDX 0950    | 2 ½"                          | 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 NDX 0725                                                       | NDX 0950 to NDX 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 nano support for details) |                      |



NDX 0015 to NDX 2000

| pressure correction factors <sup>(5)</sup> |      |      |      |      |      |      |      |      |      |      |       |       |       |
|--------------------------------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| operating 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 <sup>(5)</sup> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 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 <sup>(5)</sup> |      |      |      |      |      |      |
|-------------------------------------------------------|------|------|------|------|------|------|
| inlet temperature (°F)                                | 70   | 80   | 90   | 100  | 105  | 110  |
| correction factor                                     | 1.18 | 1.16 | 1.06 | 1.00 | 0.96 | 0.90 |

- (1) ½" 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
- (6) Intertek UL/CSA 22.2 approval (models NDX 0015 to NDX 0175)
- (7) technical specifications subject to change without notice. Direct inquiries to support@n-psi.com or contact 704.897.2182

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

\*\*applies to models NDX 0725 and below only

# EXPERIENCE. CUSTOMER. SERVICE.

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.



## 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> range of direct expansion refrigerated air dryers are manufactured in our state-of-the-art facility to the highest standards of build quality to ensure equipment reliability and high levels of performance.

## ENVIRONMENTALLY FRIENDLY

Through both product development and manufacturing, we strive to produce high quality products compliant to both local and global environmental legislation. Reduction of carbon footprint through energy saving products and use of environmentally friendly components are our commitment to you.



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