

NCE Series

Non-Cycling Refrigerated Compressed Air Dryers
11-64 SCFM

HTB Hi-Temp

Non-Cycling Refrigerated Compressed Air Dryers
For High Inlet Temperature Applications
15-100 SCFM



Uses
**Environmentally Friendly
Refrigerant**

ZEKS

Meets The Needs Of Compressed Air Users

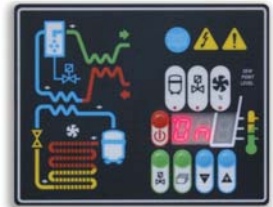
Compressed air is used commonly for powering tools and equipment, in production and finishing processes and to control valves and instruments. Water, compressor lubricant aerosols, and air-borne particulates can damage tools, increase maintenance requirements or spoil finished product. NCE and HTB Series™ Non-Cycling Refrigerated Dryers from ZEKs remove harmful moisture and contaminants from compressed air to guard against process waste and spoilage, and production downtime.

NCE Series

With a comprehensive list of standard features and innovative operation, NCE Series non-cycling dryers deliver value and performance in a compact design.

- **Integral Heat Exchanger/Separator** - Compact and corrosion resistant, this unique assembly provides efficient air drying while minimizing dryer footprint.
- **VSD Fan Operation** - Variable speed condenser fan control modulates fan speed in relation to dryer load. Slowing the speed of the fan under low load conditions saves energy. Additionally, long-term reliability is improved because fewer components are required within the refrigeration circuit.

- **Microprocessor Control** - Dryer functions and drain operation are microprocessor-controlled. LED display provides visual indication of dryer operating status. A touchpad user interface permits easy manipulation of all dryer parameters.



With five models available in capacities from 11-64 SCFM, NCE Series dryers are ideally suited to air systems with 2.5 -10 compressor horsepower.



11NCE

15NCE; 25NCE; 32NCE

64NCE

HTB Hi-Temp

HTB Hi-Temp dryers are specifically engineered to provide efficient air treatment for high-temperature process air applications. Inlet air temperature has a significant effect on air dryer performance. Raising the inlet temperature by 20°F approximately doubles the amount of moisture in the air stream. HTB Hi-Temp dryers have unique features that address the demands of high temperature compressed air for economical delivery of clean, dry air including:

- **Integrated Air-Cooled Aftercooler** – Efficiently lowers inlet air temperature
- **Air to Air Exchanger** – Economically cools air for energy savings
- **Internal Coalescing Filter** – Enhances separation of air and condensate

HTB Series dryers eliminate the need for separate aftercooler, separator and drain - only one piece of air treatment equipment to purchase and maintain.

Six HTB models, from 15-100 SCFM, make selection easy. All are fully-featured, requiring only connection within the compressed air system and utility hookup.



HTB015-HTB100

NCE and HTB Standard Features

- **Integral Heat Exchanger/Separator**
- **VSD Condenser Fan Control**
- **Fully Hermetic Refrigeration System**
- **NEMA 12 Electrical Design**
- **Environmentally Friendly Refrigerant**
- **Precooler/Reheater (Air to Air Exchanger)**
- **Air-cooled Aftercooler** (HTB only)
- **Built-in Coalescing Filter** (HTB only)
- **Microprocessor Control with Touch Pad**
 - Illuminated compressor-running indicator
 - Condensate drain open indicator
 - Indication of full- or variable speed fan operation
 - Fault message indication
 - Drain timing/Drain test interface
- **Reliable Electric Solenoid Drain**
- **Galvanized Internal Structural Components**
- **Powder-Coated Cabinet**
- **Compact Design/Quiet Operation**
- **UL Listed**

Available Options

- **Prefilter - Particulate** (Field installed)
- **Gauge Package** (Field installed)
 - Inlet or outlet air pressure and temperature
- **3-Valve Bypass** (Field installed)

All NCE and HTB Models Use
Environmentally Friendly

**R-134a
Refrigerant**

NCE Series™ Technical Specifications

| MODEL | 11NCE | 15NCE | 25NCE | 32NCE | 64NCE |
|------------------------|----------|----------|----------|----------|----------|
| Capacity SCFM | 11 | 15 | 25 | 32 | 64 |
| Refrigerant | R-134a | R134a | R-134a | R-134a | R-134a |
| (A) Width in. | 12 | 15 3/8 | 15 3/8 | 15 3/8 | 16 9/16 |
| (B) Depth in. | 14 3/16 | 17 | 17 | 17 | 20 5/16 |
| (C) Height in. | 16 1/16 | 17 3/8 | 17 3/8 | 17 3/8 | 21 11/16 |
| Weight lb. | 40 | 40 | 78 | 62 | 78 |
| Air Connection In/Out | 3/8" FPT | 1/2" FPT | 1/2" FPT | 1/2" FPT | 3/4" FPT |
| Condensate Drain | 6 mm | 6 mm | 6 mm | 6 mm | 6 mm |
| Refrig. Comp. HP | 1/10 | 1/10 | 1/6 | 1/4 | 1/2 |
| Max. Work. Press. psig | 203 | 203 | 203 | 203 | 203 |
| Operating KW* | .22 | .22 | .27 | .49 | .66 |
| Voltages | 115-1-60 | 115-1-60 | 115-1-60 | 115-1-60 | 115-1-60 |

Performance data obtained as per ISO 7183, Table 2, Option A2.
Rated at 100 psig, 100°F inlet air, 100°F ambient air.

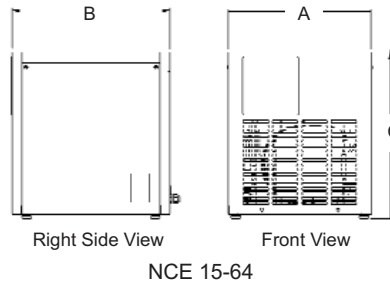
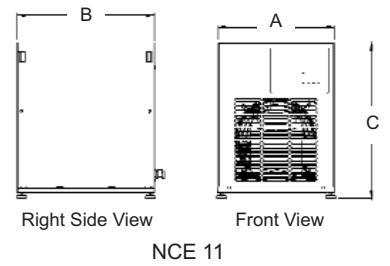
11-64 NCE Correction Factors for other-than-standard conditions.

| Inlet Air Pressure | psi | 70 | 85 | 100 | 115 | 130 | 145 | 160 | 175 | 190 | 205 |
|-------------------------|----------|----|------|------|-----|------|------|------|------|------|------|
| | P-Factor | | 0.82 | 0.93 | 1 | 1.07 | 1.12 | 1.16 | 1.19 | 1.21 | 1.23 |
| Air Inlet Temperature | °F | 80 | 90 | 100 | 110 | 120 | 130 | 140 | | | |
| | T-Factor | | 1.3 | 1.18 | 1 | 0.8 | 0.6 | 0.42 | 0.25 | | |
| Ambient Air Temperature | °F | 80 | 90 | 100 | 105 | 110 | 122 | | | | |
| | A-Factor | | 1.1 | 1.05 | 1 | 0.93 | 0.83 | 0.65 | | | |

Calculation: Corrected Flow = User Flow Rate ÷ P-Factor ÷ T-Factor ÷ A-Factor. Select dryer that meets or exceeds corrected flow capacity.

Example: User's Conditions: 30 SCFM / 85 psig / 110°F inlet / 105°F ambient

Solution: Corrected Flow = 30 SCFM ÷ .93 ÷ .8 ÷ .93 = 43.3 SCFM. **Size to model 64 NCE.**



Hi-Temp™ Technical Specifications

| MODEL | HTB015 | HTB025 | HTB035 | HTB060 | HTB080 | HTB100 |
|------------------------|----------|----------|----------|----------|----------|----------|
| Capacity SCFM | 15 | 25 | 35 | 60 | 82 | 100 |
| Refrigerant | R-134a | R134a | R-134a | R-134a | R-134a | R-134a |
| (A) Width in. | 15 3/16 | 15 3/16 | 15 3/16 | 16 9/16 | 16 9/16 | 16 9/16 |
| (B) Depth in. | 19 11/16 | 19 11/16 | 19 11/16 | 22 5/16 | 22 5/16 | 22 5/16 |
| (C) Height in. | 25 5/8 | 25 5/8 | 25 5/8 | 30 3/8 | 30 3/8 | 30 3/8 |
| Weight lb. | 84 | 86 | 86 | 126 | 137 | 148 |
| Air Connection In/Out | 1/2" NPT | 1/2" NPT | 1/2" NPT | 3/4" NPT | 3/4" NPT | 1" NPT |
| Condensate Drain | 6 mm | 6 mm | 6 mm | 6 mm | 6 mm | 6 mm |
| Refrig. Comp. HP | 1/6 | 1/4 | 1/4 | 1/2 | 1/2 | 2/3 |
| Max. Work. Press. psig | 203 | 203 | 203 | 203 | 203 | 203 |
| Operating KW* | .27 | .49 | .49 | .66 | .75 | 1.14 |
| Voltages | 115-1-60 | 115-1-60 | 115-1-60 | 115-1-60 | 115-1-60 | 115-1-60 |

Performance data obtained as per ISO 7183, Table 2, Option A2.
Rated at 100 psig, 150°F inlet air, 95°F ambient air.

HTB015-HTB100 Correction Factors for other-than-standard conditions.

| Inlet Air Pressure | psi | 70 | 85 | 100 | 115 | 130 | 145 | 160 | 175 | 190 | 205 |
|-------------------------|----------|-----|------|------|-----|------|------|------|------|------|------|
| | P-Factor | | 0.82 | 0.93 | 1 | 1.07 | 1.12 | 1.16 | 1.19 | 1.21 | 1.23 |
| Air Inlet Temperature | °F | 120 | 140 | 150 | 160 | 170 | 180 | 200 | | | |
| | T-Factor | | 1.25 | 1.1 | 1 | 0.93 | 0.83 | 0.75 | 0.5 | | |
| Ambient Air Temperature | °F | 80 | 90 | 95 | 105 | 110 | 122 | | | | |
| | A-Factor | | 1.22 | 1.07 | 1 | 0.75 | 0.6 | 0.28 | | | |

Calculation: Corrected Flow = User Flow Rate ÷ P-Factor ÷ T-Factor ÷ A-Factor. Select dryer that meets or exceeds corrected flow capacity.

Example: User's Conditions: 55 SCFM / 85 psig / 150°F inlet / 105°F ambient

Solution: Corrected Flow = 55 SCFM ÷ .93 ÷ 1 ÷ .75 = 78.8 SCFM. **Size to model HTB080.**

* Average kilowatts per hour of dryer operation at full rated capacity.



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