

ZEKS
COMPRESSED AIR SOLUTIONS®

NCE Series: 11-64 SCFM
NCH Series: 75-200 SCFM
HTB Series: 15-100 SCFM

NC Series™ HTB Hi-Temp™

Non-Cycling Refrigerated
Compressed Air Dryers



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ZEKS Meets The Needs Of Compressed Air Users...

Because of its adaptability and versatility, compressed air is commonly used to power tools and equipment, in production and finishing processes and to control valves and instruments. If left untreated, concentrations of water, compressor lubricant aerosols and particles present in the air can damage tools, spoil finished product and increase the need for repair and maintenance.

NC Series™ and HTB Hi-Temp air dryers from ZEKs remove water and impurities, helping compressed air users optimize production processes with high quality air. All dryer models include innovations and features that maximize operating efficiency and reliability while minimizing the cost of ownership.

NC Series™

With a comprehensive list of standard features and innovative operation, NCE and NCH 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.
- **Fan Speed Control** - The condenser fan has a speed control feature that enables the refrigeration circuit to meet varying load conditions, reducing energy consumption in low load conditions. 150NCH and 200NCH models are equipped with a reliable hot-gas bypass valve.
- **Microprocessor Control** - Dryer functions and drain operation are microprocessor-controlled. The controller utilizes a temperature sensor to maximize dryer efficiency and to safeguard against fault conditions. An illuminated display provides visual indication of dryer operating status.



With nine models available in capacities from 11-200 SCFM, these dryers are ideally suited to air systems with 2.5-40 compressor horsepower.

Models 150NCH (L) and 32NCE (R) shown.

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, moisture 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.



Model HTB100 shown.

NC Series™ and HTB Hi-Temp Standard Features

- **Integral Heat Exchanger/Separator**
- **Condenser Fan Speed Control**
- **Fully Hermetic Refrigeration System**
- **NEMA 12 Electrical Design**
- **Environmentally Friendly Refrigerant**
- **Precooler/Reheater (Air-to-Air Exchanger)**
- **Automatic High Pressure Refrigerant Cut-Out**
- **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 controlled condenser fan speed
 - Fault message indication
 - Drain timing/Drain test interface
- **Reliable Electric Solenoid Drain**
- **Galvanized Internal Structural Components**
- **Powder-Coated Cabinet**
- **Compact Design/Quiet Operation**
- **ETL Listed for UL1995**

Available Options

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

Technical Specifications - NC Series™

MODEL	FLOW CAPACITY SCFM*	DIMENSIONS			SHIPPING WEIGHT LBS.	IN/OUT AIR CONNECTION		MAX. OPERATING PRESSURE	REFRIG. COMPRESSOR HP	OPERATING kW**	AVAILABLE VOLTAGES
		W IN.	D IN.	H IN.			DRAIN CONNECTION				
11NCE	11	12	14.25	16.12	40	3/8" FPT	6 mm	203 psig	1/10	.22	115-1-60
15NCE	15	15.5	17	17.5	40	3/8" FPT	6 mm	203 psig	1/10	.22	
25NCE	25	15.5	17	17.5	78	1/2" FPT	6 mm	203 psig	1/6	.27	
32NCE	32	15.5	17	17.5	62	1/2" FPT	6 mm	203 psig	1/4	.49	
64NCE	64	16.6	20.3	22	78	3/4" FPT	6 mm	203 psig	1/2	.66	
75NCH	75	15.2	19.7	24.2	94	3/4" NPT	1/4" Nylon Tube	200 psig	1/3	.82	115/1/60 230/1/60
100NCH	100	15.2	19.7	24.2	99	3/4" NPT	1/4" Nylon Tube	200 psig	1/2	1.11	
150NCH	150	19.7	30.2	37.5	154	1-1/2" NPT	1/4" Nylon Tube	200 psig	1/2	1.15	
200NCH	200	19.7	30.2	37.5	170	1-1/2" NPT	1/4" Nylon Tube	200 psig	1	1.66	

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

** Average kilowatts per hour of dryer operation at full rated capacity. Value for 115 V shown in table.

11-200 NC Series™ Correction Factors for other-than-standard conditions.

Inlet Air Pressure	psi	70	85	100	115	130	145	160	175	190	205
	P-Factor	.82	.93	1	1.07	1.12	1.16	1.19	1.21	1.23	1.25
Air Inlet Temperature	°F	80	90	100	110	120	130	140			
	T-Factor	1.3	1.18	1	.8	.6	.42	.25			
Ambient Air Temperature	°F	80	90	100	105	110	122				
	A-Factor	1.1	1.05	1	.93	.83	.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 ÷ 105°F Ambient

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

Technical Specifications - HTB Hi-Temp

MODEL	FLOW CAPACITY SCFM*	DIMENSIONS			SHIPPING WEIGHT LBS.	IN/OUT AIR CONNECTION		MAX. OPERATING PRESSURE	REFRIG. COMPRESSOR HP	OPERATING kW**	AVAILABLE VOLTAGES
		W IN.	D IN.	H IN.			DRAIN CONNECTION				
HTB015	15	15.2	19.7	25.6	84	1/2" NPT	6 mm	203 psig	1/6	.27	115-1-60
HTB025	25	15.2	19.7	25.6	86	1/2" NPT	6 mm	203 psig	1/4	.49	
HTB035	35	15.2	19.7	25.6	86	1/2" NPT	6 mm	203 psig	1/4	.49	
HTB060	60	16.6	22.3	30.3	126	3/4" NPT	6 mm	203 psig	1/2	.66	
HTB080	82	16.6	22.3	30.3	137	3/4" NPT	6 mm	203 psig	1/2	.75	
HTB100	100	16.6	22.3	30.3	148	1" NPT	6 mm	203 psig	2/3	1.14	

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

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

15-100 Hi-Temp Correction Factors for other-than-standard conditions.

Inlet Air Pressure	psi	70	85	100	115	130	145	160	175	190	205
	P-Factor	.82	.93	1	1.07	1.12	1.16	1.19	1.21	1.23	1.25
Air Inlet Temperature	°F	120	140	150	160	170	180	200			
	T-Factor	1.25	1.1	1	.93	.83	.75	.5			
Ambient Air Temperature	°F	80	90	95	105	110	122				
	A-Factor	1.22	1.07	1	.75	.6	.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 ÷ 105°F Ambient

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



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