

Hi-Temp™

REFRIGERATED COMPRESSED AIR DRYERS

HTA020 – HTA130

- *Specially engineered for high inlet air temperatures*
- *Eliminates the need for separate aftercooler, separator and drain*



Simplifies High Temperature Compressed Air Treatment

A Complete System For High Temperature Applications

Hi-Temp™ dryers are specifically engineered to provide efficient air treatment at high inlet air temperatures. Inlet air temperature, inlet air pressure and ambient air temperature have a significant effect on air dryer performance with inlet air temperature having the most dramatic effect. Raising the inlet temperature by 20°F approximately doubles the amount of moisture in the air stream and requires a larger dryer and more energy for the same amount of flow. Hi-Temp™ dryers are engineered to accommodate this increased moisture load and include all components necessary to provide compressed air treatment in a single unit. A separate aftercooler, separator and drain are not required when Hi-Temp™ is installed.

As inlet pressure increases, the capacity of an air dryer increases since compressed air can hold less water vapor at higher pressures and requires less energy to dry. Locate the dryer at the highest feasible pressure point in the system to take advantage of this factor.

The most common way to size the Hi-Temp™ dryer for your application is to match it to your air compressor horsepower as follows:

Air Compressor HP	Dryer Model	Standard Flow scfm	Pressure Drop psig
5	HTA020	18	1.50
7½	HTA030	29	2.75
10	HTA040	41	1.65
15	HTA060	55	3.10
20	HTA080	80	3.30
25	HTA110	110	3.10
30	HTA130	133	3.19

Standard rating conditions for Hi-Temp™ dryers – 150 psig inlet air pressure, 180°F inlet air temperature and 100°F ambient air temperature.

If your application is to be sized for conditions other than the standard Hi-Temp™ rating conditions and your flow requirement (SCFM) is known, the following correction factors apply to correct your flow:

Correction Factors (Apply to desired air flow)

Inlet Air Temperature		Ambient Air Temperature	
°F	Correction Factor	°F	Correction Factor
100	0.30	80	0.80
125	0.50	90	0.89
150	0.75	100	1.00
180	1.00	110	1.16
200	1.08	120	1.30

Example:

45 SCFM air flow
175 psig inlet air pressure
150°F inlet air temperature
110°F ambient temperature

Step 1:

Correct for inlet air and ambient temperature effects on capacity, by using the appropriate correction factors listed in the above tables.

$$\text{Air Flow} \times \frac{\text{Inlet Temp. Correction}}{\text{Ambient Temp. Correction}} \times \frac{\text{Temperature Corrected Air Flow}}{\text{Temperature Corrected Air Flow}} = 39 \text{ SCFM}$$

45 SCFM x 0.75 x 1.16 = 39 SCFM

Step 2:

Correct for the inlet air pressure effect on capacity, by using the selection chart on the back of this brochure.

Begin by choosing the required dew point and the compressor's discharge air pressure.

Next, follow this line horizontally and select the dryer with the capacity calculated in step 1, or the next larger model. For the above example, you would select a model HTA040.

Notice in the specifications table on the back of this brochure that approximately 4% more air flow can be accommodated if a 50°F dew point is selected.

HTA FEATURES

	HTA020	HTA030	HTA040	HTA060	HTA080	HTA110	HTA130
Power Switch with Power-on Light	—	—	S	S	S	S	S
6 Foot Plug	S	S	S	S	—	—	—
Accessible J-Box	—	—	—	—	S	S	S
Float Trap Drain	S	S	S	S	S	S	S
Suction Pressure Gauge	S	S	S	S	S	S	S
Inlet Air Temperature Gauge	1	1	1	1	1	1	1
High Temperature Light	1	1	1	1	1	1	1
Low Ambient Control	2	2	2	2	2	2	2
Weatherproof	2	2	2	2	2	2	2
Electronic Drain (Factory Installed)	—	—	O	O	O	O	O
Electronic Drain (Field Installed)	EZDS1	EZDS1	—	—	—	—	—
3-Valve Bypass (Field Installed)	O	O	O	O	O	O	O
Ambient Filter (Field Installed)	O	O	O	O	O	O	O
Cold Coalescer	3	3	3	3	3	3	3
Voltage - 115/1/60, 100/1/50	S	S	S	S	S	—	—
Voltage - 220/1/50	O	O	O	O	O	O	O
Voltage - 208/230/1/60, 200/1/50	—	—	—	—	—	O	O
Voltage - 208/230/3/60, 220/240/3/50	—	—	—	—	—	O	O
Voltage - 460/3/60, 380/420/3/50	—	—	—	—	—	S	S
Recom. Pre-filter (Field Installed)	ZTF80P	ZTF80P	ZTF80P	ZTF80P	ZTF150P	ZTF150P	ZTF150P
Recom. Water/Oil Sep. (Field Installed)	OS300	OS300	OS300	OS300	OS300	OS300	OS300

S = Standard
O = Optional

1. = Included in gauge package option
2. = Included in weatherproof/low ambient package option
3. = Contact factory for detailed specifications

- **Eliminates the need for separate aftercooler, separator and drain - only one piece of equipment to maintain.**
- **Unit is sized for industrial environment inlet air temperatures.**
- **Enhanced and insulated heat exchangers for maximum energy efficiency.**
- **Compact design reduces floor space requirements.**
- **Galvanized internal parts for added corrosion protection.**
- **Low velocity, low pressure drop centrifugal separator for maximum moisture removal.**
- **Uses minimum R22 refrigerant charge for maximum environmental safety. No CFCs used.**
- **Programmable time drain for exact drainage requirements (optional).**
- **Outlet air is reheated to save compressed air power and energy and to reduce pipe sweating.**
- **Oversized refrigerant condenser designed for industrial conditions.**
- **High efficiency, maintenance-free hermetically sealed refrigerant compressor.**
- **Completely factory assembled and tested requiring only compressed air and utility hook-up to install.**



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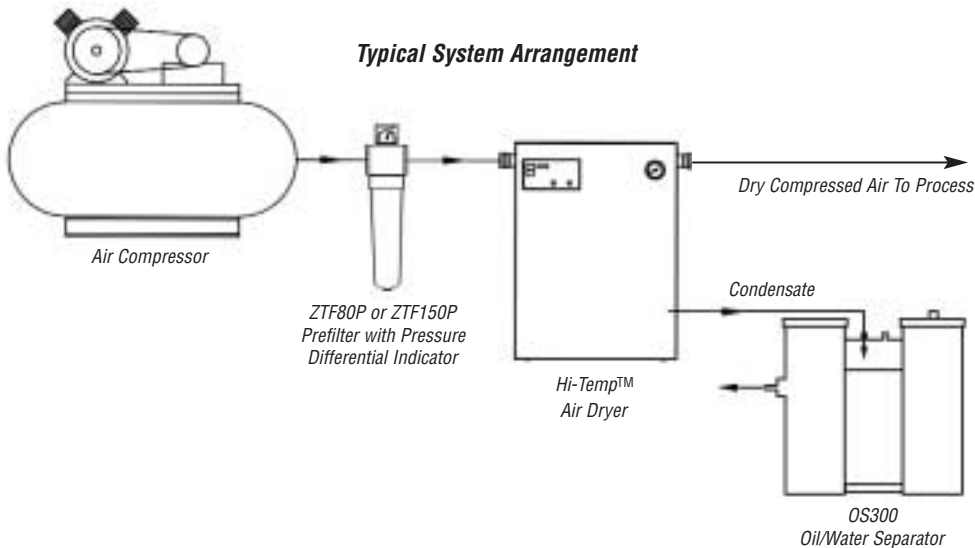
HTA TECHNICAL SPECIFICATIONS

Dew Point	Inlet Air Pressure	Model Capacity scfm *						
		HTA020	HTA030	HTA040	HTA060	HTA080	HTA110	HTA130
38°F/3.3°C PDP	100 psig	14	22	32	42	60	85	103
	125 psig	16	26	37	49	71	97	117
	150 psig	18	29	41	55	80	110	133
	175 psig	20	32	45	60	87	131	144
50°F/10°C PDP	100 psig	15	23	33	43	63	103	105
	125 psig	17	27	38	51	73	120	122
	150 psig	19	30	43	57	82	134	137
	175 psig	21	33	47	62	89	146	149
Length	in	17	17	20	20	20	32	32
Depth	in	20	20	29	29	29	26	26
Height	in	19	19	27	27	27	39	39
Shipping Weight	lbs	100	105	180	185	220	345	365
Air Connection In & Out	NPT	1/2 FPT	1/2 FPT	1 1/4 FPT	1 1/4 FPT	1 1/4 FPT	1 1/4 FPT	1 1/4 FPT
Drain Connection	in	1/8 FPT	1/8 FPT	1/8 FPT	1/8 FPT	1/8 FPT	1/8 FPT	1/8 FPT
Refrigeration Compressor	HP	1/5	3/8	1/3	1/2	1	1 1/2	1 1/2
Operating Power	KW**	.31	.71	.85	1.02	1.69	2.14	2.4

* Performance data obtained in accordance with CAGI Standard No. ADF 100, "Refrigerated Compressed Air Dryers—Methods for Testing and Rating" under the following test conditions: pressure dew point 150 psig, inlet air temperature 180°F/160°F inlet pressure dew point, ambient air 100°F.

**Average kilowatts per hour of dryer operation at full rated capacity. Ratings based on 60 Hz service.

All dryers are designed for maximum operating pressure of 250 psig, and maximum temperature of 200°F.



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COMPRESSED AIR SOLUTIONS®

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