

# Features & Specifications

## Product Features

Controller Model	Pressure Dew Point ISO Class 2 -40°C (-40°F)	EMS Control Automatic Energy Savings	Vacuum Fluorescent Text			Languages English Spanish French	Power Recovery Automatic Restart after Power Loss	Dry Contacts Remote Indication of Alarm	Overlay w/ Circuit Graphics & LED Indicators Alarm LEDs with Text Display				Options	
			Digital Dew Point Monitoring	High Humidity Alarm	2 Line, 16 Characters (high visibility in darkness or sunlight)				Tower Status (drying switchover heat, cool, etc.)	Tower Switchover, Failure (low heater temp/high heater temp)	Sensor Over-range & Under-range	Service Reminder	Vessel Insulation	Mounted Pre- and Afterfilters
Standard	S	—	—	—	S	S	S	S	S	S	S	S	0	0
Option A	S	S	—	S	S	S	S	S	S	S	S	S	0	0
Option B	S	S	S	S	S	S	S	S	S	S	S	S	0	0

S=Standard 0=Option

## Engineering Data

Model*	Inlet Flow <sup>1</sup>	Blower	Heater Rated Output	Average	Dimensions (mm)			Approx. Weight	Inlet/Outlet Connections
					H	W	D		
ZP 14.1	14.16	1.75	10	10.1	2667	1346	1778	846	2" NPT
ZP 16.9	16.99	2.55	12	12.7	2743	1397	1803	958	2" NPT
ZP 21.2	21.24	2.55	14	14.8	2896	1524	2108	1114	3" FLG
ZP 25.4	25.49	4.6	16	16.2	2896	1524	2108	1121	3" FLG
ZP 29.7	29.73	6.3	19	19.2	2870	1626	2134	1352	3" FLG
ZP 36.8	36.81	6.3	23	25.7	2997	1676	2159	1622	3" FLG
ZP 42.4	42.48	8.6	28	32.8	2946	2032	2362	2431	3" FLG
ZP 50.9	50.97	11.0	32	35.4	2946	2032	2362	2431	3" FLG
ZP 62.2	62.30	11.0	39	41.9	3150	2159	2642	3637	4" FLG
ZP 73.6	73.62	11.0	45	50.7	3150	2159	2642	3685	4" FLG
ZP 90.6	90.61	CF	53	52.5	3073	2464	2972	4233	6" FLG
ZP 101.9	101.94	CF	58	59.4	3251	2464	2972	4460	6" FLG
ZP 121.7	121.76	CF	70	70.4	3150	2667	3302	5602	6" FLG

<sup>1</sup> Performance data for Desiccant Compressed Air Dryer. Rating conditions are 37.8°C inlet 6.9 bar inlet pressure, 100% relative humidity, 37.8°C ambient temperature, and 0.35 bar pressure drop.

\* Consult factory for larger models.

Table 1

Pressure kgf/cm <sup>2</sup> (psig)	Inlet Temperature °C (°F)						
	60 (15.6)	70 (21.1)	80 (26.7)	90 (32.2)	100 (37.8)	110 (43.3)	120 (48.9)
4.2 (60)	1.03	1.01	0.99	0.80	0.58	0.43	0.32
4.9 (70)	1.10	1.08	1.07	0.94	0.68	0.50	0.37
5.6 (80)	1.17	1.15	1.14	1.08	0.79	0.58	0.43
6.3 (90)	1.24	1.22	1.20	1.18	0.89	0.66	0.49
7.0 (100)	1.30	1.28	1.26	1.24	1.00	0.74	0.55
7.7 (110)	1.36	1.34	1.32	1.30	1.11	0.82	0.61
8.4 (120)	1.42	1.40	1.38	1.36	1.22	0.90	0.67
9.1 (130)	1.48	1.46	1.44	1.42	1.33	0.99	0.74
9.8 (140)	1.53	1.51	1.49	1.47	1.44	1.07	0.80
10.6 (150)	1.58	1.56	1.54	1.52	1.50	1.16	0.87

## Inlet Flow

Inlet Flow capacities shown in the Specifications Table have been established at an inlet pressure of 6.9 bar and a saturated inlet temperature of 38°C. To determine maximum inlet flow at other conditions, multiply the inlet flow from the Specifications Table by the multiplier from Table 1 that corresponds to your operating conditions.

## Dew Point

Outlet pressure dew point at rated inlet conditions of 6.9 bar and 38°C saturated. Dew point varies slightly at other conditions. Consult the factory to determine exact outlet pressure dew point at your operating conditions.

## Operating Conditions

ZP Models	Max. Working Pressure	Min. Operating Pressure	Max. Inlet Air Temp.	Min. Inlet Air Temp.	Max. Ambient Temp.	Min. Ambient Temp.
14.1 - 121.7	bar	bar	49°C	4.4°C	49°C	4.4°C
	10.3	4.1				

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## HCS, HCL and HCT Series Product Specifications

Model	Inlet Flow @ 6.9 bar Nm <sup>3</sup> /min	H	Dimensions			Inlet / Outlet Connections <sup>1</sup>	Weight kg
			W	D			
HCS/HCL/HCT 21.2	21.24	2769	1295	1219	2" NPT	968	
HCS/HCL/HCT 26.3	26.33	2870	1422	1422	2" NPT	1095	
HCS/HCL/HCT 31.9	32.00	2870	1499	1422	3" ANSI Flg.	1304	
HCS/HCL/HCT 38.2	38.23	2997	1524	1422	3" ANSI Flg.	1688	
HCS/HCL/HCT 43.8	43.89	2870	1676	1422	4" ANSI Flg.	1890	
HCS/HCL/HCT 59.4	59.47	2946	1854	1422	4" ANSI Flg.	2004	
HCS/HCL/HCT 84.9	84.95	3099	1981	1651	4" ANSI Flg.	4087	
HCS/HCL/HCT 116.0 <sup>2</sup>	116.10	3150	2362	2235	6" ANSI Flg.	4491	
HCS/HCL/HCT 152.9 <sup>2</sup>	152.91	3200	2591	2337	6" ANSI Flg.	5443	

Maximum Working Pressure: 10.3 bar standard, 17.0 bar optional. Units with higher Maximum Working Pressures are available.

Minimum Operating Pressure: 10.3 bar units - 4.1 bar, 17.0 bar - 8.3 bar.

Maximum Inlet Air or Ambient Air Temperature: 49°C

Pressure Drop at Rated Flow: Less than 0.34 bar

Available Voltages: HCT - 100-120V/1ph/50-60Hz, HCS/HCL - 100-240V/1ph/50-60Hz and 12-24 VDC, NEMA 4 Standard

Dimensions and weights are for reference only. Request certified drawings for construction purposes.

<sup>1</sup> BSP and DIN flanges available

<sup>2</sup> Supplied with Premium Quality Butterfly Switching Valves

## Table 1 - Correction Factors

Operating Pressure	psig bar	60	70	80	90	100	110	120	130	140	150	175	200	225	250
		Multiplier	4.1	4.8	5.5	6.2	6.9	7.6	8.3	9.0	9.7	10.3	12.1	13.8	15.5

### Inlet Flows

Inlet flow capacities are established with inlet conditions of: Inlet air pressure 7 bar, inlet temperature saturated at 38°C. To determine inlet flow at pressures other than 7 bar, multiply inlet flow at 7 bar from Product Specifications by the corresponding multiplier in Table 1.

### Regeneration Flow Rate

The amount of air used during the regeneration phase consists of the amount used while the purge/repressurization valve is open (purge air) plus the volume of air used to repressurize the tower after the purge/repressurization valve closes. Typically the rate shown is averaged over the cycle time. At 100 psig (7 bar), average air use is 14.4% of the inlet flow capacity (13.7% for purge +0.7% for repressurization) for dryers operating on a 10 minute cycle; 15.5% (13.7% for purge +1.8% for repressurization) for dryers operating on a 4 minute cycle. Instantaneous flow rate (air flowing while the purge/repressurization valve is open) varies with cycle selection, Energy Savings setting, and inlet pressure.