

# HPSA HPSA-CT

*Desiccant Air Dryers*

**HI-LINE**  
INDUSTRIES



 **MADE IN  
BRITAIN**

## ADDITIONAL MODELS – HPSA 70 AND HPSA 100

The incredibly reliable HPSA range has been proven over twenty-plus years.

Due to the high-quality design, the use of the best possible components and its simplicity, the HPSA has become 'bulletproof' as described by its many users.

So by popular demand, we have increased the range to include two new models: 70 cfm and 100 cfm.

We have several end users who have requested smaller capacity HPSA for specific applications.

As always here at Hi-line our 'customer is king' so we are pleased to introduce our latest 'duo'!



**HPSA 70**

**HPSA 100**



**HP-HPSA**

## HIGH PRESSURE HEATLESS DRYERS – HP-HPSA

High-Pressure Heatless Dryers, HP-HPSA are part of our bespoke range, anything above 11 bar becomes by its PED Status a 'special' although it's still the same proven technology just running at high pressure.

The control air is at 7 bar but with elevated pressures up to 450 bar for specific applications such as P.E.T. blowing and mouldings, R + D applications, breathing air and diving applications, speciality gas blending and laser cutting.

## Class '0' Oil Free

To achieve Class '0' the air needs to be oil free, this can be achieved with an HPSA-CT. With the third tower filled with high quality carbon. Even on a fully oil lubricated screw, vane or piston compressor the HPSA-CT will achieve better than ISO 8573-1 :201 0 Class 1.

This will give a total concentration of oil of less than 0.003 mg/m<sup>3</sup>, which is significantly less than is normal in atmospheric air in our home and work places. Suitable for food production, medical air and anywhere that oil free air is specified.

## Breathing Air

The versatile HPSA-CT was first designed as a Breathing Air Purifier and to conform to International Breathing Air Standards.

In Europe BS EN12021 & EN12021 :2014 and CGA G-7.1-2011 Grade D in the USA.

## Europe BS EN12021 & EN12021:2014

<b>Odour</b>	The gas shall be free from unsatisfactory odour or taste.
<b>Oxygen</b>	[21 ± 1]%
<b>Carbon Dioxide</b>	≤ 500 PPM
<b>Carbon Monoxide</b>	≤ 5 PPM
<b>Oil</b>	≤ 0.5 mg/m <sup>3</sup>
<b>Water Airline &lt;40Bar</b>	Where the apparatus is used and stored at a known temperature the pressure dewpoint shall be at least 5°C below likely lowest temperature. Where the conditions of usage and storage of any compressed air supply is not known the pressure dewpoint shall not exceed -11 °C.

In the HPSA-CT all of the above values are greatly over achieved by using a mixed bed in the third tower consisting of Hopcalite, Activated Carbon and 13 X Molecular Sieve. Providing the operator with high quality breathing air at an affordable price, whilst being compliant with British & European Legislation.

## CARBON TOWER – HPSA-CT

The HPSA-CT (Carbon Tower) is a three-stage dryer with the Carbon Tower added after the adsorption dryer.

Clean dry air passes through the CT and adsorbs gases and aerosols dependant on requirements and Zeolites selected.

This makes the HPSA-CT extremely flexible and can be used in many specific applications.

- Pre-filtration sub-micron Oil Removal as standard
- After Filter for Particulate Removal

Safety valves as standard

Pressure Gauges

HDCI Energy Management  
Dewpoint Control

Dewpoint Hygrometer Probe

Exhaust Mufflers

Stainless Steel Ball Valve Control

**HPSA CT**

Stainless Steel Pipework



Technical Specifications - HPSA Carbon Tower Range									
HPSA-CT Type	Capacity				Conn	Wgt Kg	Dimensions		
	Scfm	Nm <sup>3</sup> /h	Nm <sup>3</sup> /min	l/s			W	D	H
HPSA - CT70	80	136	2.30	38	1" BSP	135	870	620	1340
HPSA - CT100	100	170	2.83	47	1" BSP	195	950	620	1540
HPSA - CT135	135	230	3.82	64	1 ½" BSP	390	1125	700	2020
HPSA - CT165	165	280	4.67	78	1 ½" BSP	465	1125	700	2230
HPSA - CT225	225	383	6.37	106	1 ½" BSP	560	2175	910	2200
HPSA - CT280	280	476	7.92	132	1 ½" BSP	675	2175	910	2500
HPSA - CT350	350	595	9.91	165	2" BSP	720	1920	910	1970
HPSA - CT450	450	765	12.74	212	2" BSP	765	1920	910	2350
HPSA - CT565	565	960	15.99	266	2 ½" BSP	1050	2280	1100	2200
HPSA - CT735	735	1250	20.81	347	3" PN16	1350	3150	830	2360
HPSA - CT850	850	1250	24.06	401	3" PN16	1425	3250	830	2610
HPSA - CT1130	1130	1920	31.14	533	4" PN16	1800	3400	850	2870

Larger HPSA-CT dryers are available on application



## HPSA - HEATLESS PRESSURE SWING ADSORPTION

This proven technology is designed and built in our Burton upon Trent factory by a highly skilled team of engineers working to EU engineering standards. Although we have a standard range of product available off the shelf for next day delivery, we can build bespoke dryers to suit specification applications and private label them for OEM customers.

HPSA dryers are sold as "Plug and Play" and come skid mounted with their own filtration package with pre and after filtration as standard.

These dryers use positively driven valves and full flow non-return valves and have no "shuttle valves" as fitted within inferior quality dryers.

Designed for a long trouble free service life, each HPSA uses Dri-Zorb 27 desiccant media which delivers constant low dewpoints whilst using the lowest possible amount of regeneration air.

The digital control panel which has LED display as standard, can be upgraded to include digital dewpoint display and dewpoint control. It can communicate with most BMS systems and compressors for automatic stop /start or timed duty.

All Hi-line products are supported by a Nationwide network of Hi-line Service Engineers, for the service and maintenance of air dryers of all brands of manufacture, both Adsorption and Refrigeration.

<b>Medium:</b>
Compressed air / nitrogen
<b>Medium temperature:</b>
max. +50 °C
<b>Ambient temperature:</b>
min. +4 °C, max. +50 °C
<b>Medium:</b>
min. 4 bar (g), max. 11 bar (g)
<b>Power supply:</b>
230 V/ 115 V AC/ 50 - 60 Hz, 24 V DC or pneumatic
<b>Electrical power consumption:</b>
approx. 40 W
<b>Dewpoint (PDP):</b>
-20C, -40 °C or -70 °C

Technical Specifications- HPSA Desiccant Dryers								
Dryer Type	Capacity			Conn	Wgt Kg	Dimensions		
	Scfm	Nm³/m	Nm³/h			W	D	H
HPSA-70	75	2.12	128	1"	90	580	620	1340
HPSA-100	100	2.83	169	1"	130	630	620	1540
HPSA-135	135	3.82	230	1 ½"	260	750	700	2020
HPSA-165	165	4.67	280	1 ½"	310	750	700	2230
HPSA-225	225	6.37	383	1 ½"	370	1450	910	2200
HPSA-280	280	7.92	476	1 ½"	450	1450	910	2500
HPSA-350	350	9.91	595	2"	480	1280	910	1970
HPSA-450	450	12.74	765	2"	510	1280	910	2350
HPSA-565	565	15.99	960	2 ½"	700	1520	1100	2200
HPSA-735	735	20.81	1250	3"PN16	900	2350	830	2360
HPSA-850	850	24.06	1445	3"PN16	950	2350	830	2610
HPSA-1130	1130	31.14	1920	4"PN16	1200	2350	850	2870

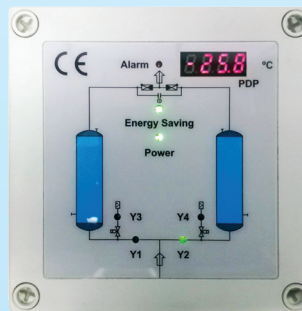
Larger heatless dryers are available, however please consider zero loss option HBP dryers above 1000m³/hr. Compressed Air CAPACITY @ 7 Barg 35°C.

## General Information

- One Year Warranty (parts & labour)
- Electrical Panel to 17th Edition IEE Regs
- Stainless Steel Pipework
- Independent Switching Valves
- EU Standard Coded Vessels
- Fully Automatic Self Contained
- HDC1 Digital Dewpoint Controller
- Painted RAL 5015
- Vessel Pressure Gauges
- IP 65 Protection
- Exhaust Silencers
- Made in the U.K.
- Skid Mounted
- Pre & After Filters Included

## Optional Equipment

- AEMS - Automatic Energy Management System
- Includes: Digital Dewpoint Readout  
High Humidity Alarm  
Set & Demand Regeneration
- Dewpoint to -70 degrees C
- Control Air Filter with AEMS
- Auto Start/Stop Control



HDC 1 Dewpoint Controller



Filtration package as standard



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