



# Adsorption Dryers

Pneumatech offers four different adsorption dryer technologies. Heatless dryers (PH) have the lowest initial investment cost, while zero-purge adsorption dryers (PB ZP) the lowest lifecycle cost. Heater purge (PE) and blower purge (PB) dryers balance between both.

No matter what your preference is, Pneumatech guarantees stable, dry air at the lowest operating costs and with excellent control and monitoring capabilities for each dryer you select.

**PE 760 - 3390 S -**  
Heated purge adsorption dryers

# PE 760 - 3390 S - Heated purge adsorption dryers

## Features & Benefits

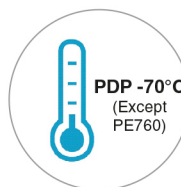
- ▶ Advanced energy management for lowest operating costs
  - Compressor synchronization
  - PDP control (optional)
  - Regeneration & cooling temperature control
- ▶ High-quality, high-efficient desiccant, selected for the right application
  - PDP -40°C/-40°F (std): Activated Alumina<sup>(1)</sup>
  - PDP -70°C/-94°F (option): Molecular sieves and Activated alumina
- ▶ Minimal risk of crushed desiccant thanks to the sonic nozzle and the large vessel diameter
- ▶ Counter-current regeneration for optimal energy efficiency and guaranteed dry air
- ▶ High reliability and robust design
- ▶ Low noise levels while purging
- ▶ Designed for transportability
- ▶ High efficient heaters, designed for maximum lifetime and minimal risk
- ▶ Optimal control and monitoring thanks to the Purelogic™ controller



## General Specifications

- ▶ Heated purge adsorption dryers: welded vessel design
- ▶ Dew points achievable: -40°C/-40°F & -70°C/-94°F
- ▶ Pressure range: 4-10 bar/58-145 PSI
- ▶ Ambient temperature range: 1-40°C/34-104°F
- ▶ Inlet temperature range: 1-45°C/34-113°F
- ▶ Power supply: 400V 50Hz; 440-460V 60Hz

## Options



PDP -70°C  
(Except PE760)

PDP -70°C  
(Except PE760)



In and outlet filters



Wooden packaging  
(Std on PE760)



PDP sensor kit



Vessel insulation  
(required for  
PDP-70°C option)



Vessel safety  
valves  
(Std on PE760)

<sup>1</sup>For PE760S (-40°C PDP) Desiccant used is silica gel WR & NWR.



With distinctive, patented technology, PE adsorption dryers provide you with a dry air solution; at a lower initial investment cost than PB blower purge dryers and a lower lifecycle cost than PH heatless dryers. PE dryers use heated purge air to remove moisture from the desiccant material.

PE 760S-3390S adsorption dryers are capable of drying air to a PDP of -40°C/-40°F as standard and -70°C/-94°F as option. The desiccant is housed in welded vessels, which are coated and can

operate up to 10 bar/145 PSI (fatigue load). Mounted pre and after filters can be ordered as an option.

The Purelogic™ is the central brain of the adsorption dryer. It optimizes operating costs thanks to the availability of regeneration temperature control, PDP control (optional) and compressor synchronization; ensures maximum reliability by monitoring the most important parameters of the dryer; and offers impressive control and monitoring capabilities.

Technical specifications for PE 760S up to PE 3390S (standard version, PDP -40 °C)							
Specification	Unit	PE 760 S	PE 1020 S	PE 1330 S	PE 2060 S	PE 2670 S	PE 3390 S
Nominal volume flow at dryer inlet <sup>(1) (2)</sup>	l/s	360	480	630	970	1260	1600
	m³/hr	1296	1728	2268	3492	4536	5760
Average purge air consumption	%	10	10	10	10	10	10
Pressure drop at max. flow	Bar	0.27	0.17	0.17	0.17	0.17	0.11
	PSI	3.92	2.47	2.47	2.47	2.47	1.60
Inlet and outlet connections	PN16	DN 50	DN 80	DN 80	DN 100	DN 100	DN 150
Optional pre & after filter sizes <sup>(3)</sup>	General purpose coalescing filter	9 G S	10 G S	11 G S	2F G HE	3F G HE	4F G HE
	High efficiency coalescing filter	9 C S	10 C S	11 C S	2F C HE	3F C HE	4F C HE
	Particulate filter	9 S S	10 S S	11 S S	2F S HE	3F S HE	4F S HE
Mass	Kg	820	1130	1410	2280	2750	3560
	Lb	1808	2491	3109	5027	6063	7848
Height	mm	1829	2558	2612	2702	2684	2603
	inch	72	101	103	106	106	102
Width	mm	1075	930	930	1085	1085	1342
	inch	42	37	37	43	43	53
Length	mm	2200	1764	1884	2359	2472	2708
	inch	87	69	74	93	97	107

1. Flow is measured at reference conditions: 1 Bar(a) and 20°C at operating pressure of 7 bar (g), inlet temperature 35°C & std PDP of -40°C at the outlet.

2. Dryer designed for mentioned volume flow, based on average duty of 80%.

3. Filters are sized at reference conditions. Consult the AML of the filters for sizing outside the reference conditions.

Correction factor Kp x Kt for PDP-40							
T inlet	Working pressure Bar(Psi)						
°C (°F)	4.5 (65)	5 (73)	6 (87)	7 (102)	8 (116)	9 (131)	10 (145)
<=20 (68)							
25 (77)	0.89	"1,00"					
30 (86)	0.74	0.87					
35 (95)	0.59	0.7	0.88				
40 (104)	0.42	0.5	0.62	0.71	0.8	0.89	0.98
45 (113)	0.29	0.34	0.43	0.49	0.55	0.61	0.67

Notes for PDP-40 variants

1) Correction factor are for 100% saturated compressed air

Correction factor Kp x Kt for -70 PDP							
T inlet	Working pressure [Bar_g]						
°C	4.5	5	6	7	8	9	10
<=20 (68)							
25	0.89	"1,00"					
30	0.74	0.87					
35	0.59	0.70	0.88				
40	0.45	0.53	0.67	0.76	0.86	0.95	
45	0.34	0.40	0.51	0.58	0.65	0.73	0.80

Notes for PDP-70 variants

1) Correction factor are for 80% saturated compressed air



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