

PH 55 - 550 S - The cost-efficient alternative to PH 55-550 HE

Features & Benefits

- ▶ Advanced energy management for lowest operating costs
 - Compressor synchronization
 - Purge nozzle optimization (2 nozzles)
 - PDP control (optional)
- ▶ High reliability and low maintenance costs thanks to unique valve design (patent pending)
- ▶ High-quality desiccant, resulting in a consistent PDP of $-20^{\circ}\text{C}/-3^{\circ}\text{F}$ or $-40^{\circ}\text{C}/-40^{\circ}\text{F}$
- ▶ Spring-loaded desiccant, minimizing the risk of crushing
- ▶ Counter-current regeneration for optimal energy efficiency and guaranteed dry air
- ▶ Designed for transportability & mountability
 - Wall-mounting kit for PH 55-140 S (optional)
- ▶ Advanced controller to monitor machine status at all times
- ▶ Desiccant bags for easy service from the top

General Specifications

- ▶ Heatless adsorption dryers: extruded profile design
- ▶ Dew points achievable: $-20^{\circ}\text{C}/-3^{\circ}\text{F}$ & $-40^{\circ}\text{C}/-40^{\circ}\text{F}$
- ▶ Pressure range: 4-14 barg/58-203 psig
- ▶ Ambient temperature range: $1-45^{\circ}\text{C}/34-113^{\circ}\text{F}$
- ▶ Inlet temperature range: $1-50^{\circ}\text{C}/34-122^{\circ}\text{F}$
- ▶ Power supply: 230VAC 50/60Hz & 115VAC 50/60Hz



Options



Wall mounting kit



PDP control



Incorporating high-quality components, PH heatless adsorption dryers provide you with clean, dry air to extend the life of your equipment and products. Heatless adsorption dryers use dry, expanded purge air to remove moisture from the desiccant material.

PH 55-550 S adsorption dryers are available in 2 PDP variants: -20°C/-4°F and -40°C/-40°F. The unique manifold (patent pending) includes pilot air controlled 3/2-way valves, which switch fast and reliably.

The desiccant is spring-loaded and housed in a robust extruded aluminum body, which can operate up to 14 barg/203 psig (fatigue load). Pre- and afterfilters are delivered as standard with every dryer.

Operating costs are optimized at all times thanks to the availability of compressor synchronization and purge nozzle optimization as standard and PDP control as option. The full machine status can be checked on the display of the controller and the vessel pressure gauges on the unit. The controller indicates whether power supply is connected, towers are pressurized, valves are functioning properly or preventive maintenance needs to be done. In case the optional PDP control is connected, the PDP value can be monitored from the display. Alarms and warnings can also be triggered remote with the available voltage-free contacts.

Technical specifications for PH 55 S up to PH 550 S (standard version, PDP -40 °C)

Specification	Unit	PH 55 S	PH 75 S	PH 95 S	PH 120 S	PH 140 S	PH 190 S	PH 230 S	PH 275 S	PH 350 S	PH 420 S	PH 550 S
Nominal volume flow at dryer inlet	l/s	25	35	45	55	65	90	110	130	165	195	260
	m ³ /hr	90	126	162	198	234	324	396	468	594	702	936
Regeneration air consumption average at max. flow ^{(1) (2)}	%	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Pressure drop at max. flow	barg	0.03	0.059	0.107	0.171	0.251	0.107	0.171	0.251	0.447	0.251	0.494
	psig	0.44	0.86	1.55	2.48	3.64	1.55	2.48	3.64	6.48	3.64	7.16
Connection inlet/outlet	G	1"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
	NPT	1"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Integrated filter model	Super fine filter	TF 2 C S	TF 3 C S	TF 4 C S	TF 5 C S	TF 5 C S	TF 6 C S	TF 6 C S	TF 6 C S	TF 7 C S	TF 8 C S	TF 8 C S
	Dust filter	TF 2 S S	TF 3 S S	TF 4 S S	TF 5 S S	TF 5 S S	TF 6 S S	TF 6 S S	TF 6 S S	TF 7 S S	TF 8 S S	TF 8 S S
Height	mm	1070	1115	1285	1465	1615	1285	1465	1615	1695	1615	1915
	Inch	42.1	43.9	50.6	57.7	63.6	50.6	57.7	63.6	66.7	63.6	75.4
Width	mm	620	620	620	620	620	620	620	620	620	620	620
	Inch	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
Length	mm	401	401	401	401	401	571	571	571	571	738	738
	Inch	15.8	15.8	15.8	15.8	15.8	22.5	22.5	22.5	22.5	29.1	29.1
Mass	KG	87	88	99	114	124	165	197	211	245	298	328
	Lb	191.8	194.0	218.3	251.3	273.4	363.8	434.3	465.2	540.1	657.0	723.1

*1. Flow is measured at reference conditions: 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C & std PDP of -40°C at the outlet.

Flow correction factors due to air inlet pressure Kp												
Operating pressure	barg	4	5	6	7	8	9	10	11	12	13	14
Pressure correction factor	Kp	0.62	0.75	0.87	1	1.12	1.25	1.37	1.5	1.62	1.75	1.87

Flow correction factors due to air inlet temperature Kt												
Temperature	°C	20	25	30	35	40	45	50				
Temperature correction factor	Kt	1	1	1	1	0.84	0.67	0.55				