

Desiccant Dryers

DKC | HHL | HHS SERIES

BENEFITS AND FEATURES

- Flow rate from 9 m³/h to 9,300 m³/h
- Heatless regeneration system
- Compact design, DKC suitable for wall mounting
- Space-saving, integrated pre-filter and dust filter are included in the delivery
- Particularly easy to service: desiccant can be active for an extremely long period (up to 5 years)
- Easy operation and service
- Pressure indicator for tower pressure
- Front-mounted operator panel
- Fully-assembled with necessary pipes and electrical wiring – ready for use

The heatless regenerative adsorption dryers in the HHL Series are equipped with level 1 control as standard and operate in a 10 minute cycle with a pressure dew point of -40 °C.



Pressure dew point standard setting HHL/HHS (outlet)	Pressure dew point	Inlet temperature
4 minute cycle	-70° C	+35° C
10 minute cycle	-40° C	
16 minute cycle	-20° C	
24 minute cycle	+3° C	

Technical Data	DKC	HHL	HHS
Inlet / Outlet	Top right - left	Rear position	
Load dependent control (Level 2)	–	○	●
Integrated filter package		●	
Condensate drain for pre-filter	Float drain	Elektronic Level controlled	
Vessel certifications		CE	
Special certifications	ABS, DNV, LRS, GL, ASME, ASME U-Stamp, etc.	–	○
IP rating	IP 23	IP 54	

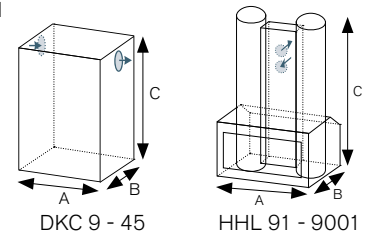
General Data	DKC	HHL	HHS
Medium	Compressed air		
Drying system	Twin-tower adsorption		
Regeneration system	Heatless		
Pre-filter	0.01 µm		
After-filter	1 µm		
Vessel material	C Steel		
Housing material	C Steel		
Colour	RAL 5015 (blue)		
Location	Indoors		
Mounting	Wall mounting/ freestanding	Freestanding	

Design Data*	Min.	Nom.	Max.
Operating pressure	DKC	4 bar (g)	10 bar (g)
	HHL/HHS 91 - 901	5 bar (g)	16 bar (g) (HHL901: 10 bar(g))
	HHL 1051 - 9001	4 bar (g)	
Inlet temperature	DKC	+2°C	+50° C
	HHL/HHS 91 - 901 HHL 1051 - 9001	+2°C	+35°C
Ambient temperature	+2°C	+25°C	+45° C
Pressure dew point	-40°C		
R.H. at inlet	100% saturated		

* The correction factors on the back need to be used to select the correct unit for other operating conditions.

Model	Flow Rate*	Connection	Dimensions			Weight	el. Connection	Pre-filter	After-filter
			A	B	C				
	m ³ /h		mm			kg	V/Ph/Hz		
DKC 9	9	3/8"	869	170	777	41	230/1/50	F03-B-HF	F03-B-PF
DKC 17	17					49.5			
DKC 25	25					57.3			
DKC 35	35					74.2			
DKC 45	45	1/2"	950	217	850	78	230/1/60	F04-B-HF	F04-B-PF
HHL 91	90	3/4"	750	750	1,950	184	95-240/1/50	F06-B-HF	F06-B-PF
HHL 141	140	221							
HHL 271	270	402							
HHL 351	350	425							
HHL 521	520	1 1/2"	1,150	1,990	1,990	553	95-240/1/60	F10-B-HF	F10-B-PF
HHL 681	680					657			
HHL 901	900	2"	849	2,000	816			F14-B-HF	F14-B-PF
HHL 1051	1,050	2 1/2"	1,500	1,320	2,011	950	95-240/1/50	F14-B-HF	F14-B-PF
HHL 1351	1,350			1,420	1,995	1,270			
HHL 1651	1,650	3"	1,500	1,470	2,147	1,570	95-240/1/60	F15-B-HF	F15-B-PF
HHL 1951	1,950			1,520	2,175	1,650			
HHL 2351	2,350	DN 100	1,700	1,720	2,193	2,075	95-240/1/60	HF5-60	HF6-60
HHL 2700	2,700			1,770	2,210	2,300			
HHL 3600	3,600	DN 150	1,950	1,920	2,200	3,230	95-240/1/60	HF5-64	HF6-64
HHL 5201	5,200			2,400	2,164	2,390			
HHL 7101	7,100	DN 150	2,690	2,334	2,709	5,750	95-240/1/60	HF5-72	HF6-72
HHL 9001	9,000			2,820	2,594	2,568			

* ISO 7183, based on the intake volume of the compressor at +20°C and 1 bar (g), operating pressure 7 bar (g), inlet temperature +35°C, ambient or cooling water temperature +25°C, pressure dew point -40°C / 100% RH
 Technical data and specification are subject to change without prior notice



Correction factors for operating pressure and inlet temperature (F _i)															
DKC 9 - 45		Operating pressure bar (g)													
		4	5	6	7	8	9	10							
Inlet temperature °C	+25	0.39	0.56	0.77	1.00	1.13	1.25	1.38							
	+30														
	+35														
	+36														
	+37														
	+38														
	+39														
	+40								0.38	0.55	0.75	0.98	1.10	1.23	1.35
	+45								0.37	0.53	0.72	0.94	1.06	1.18	1.29
	+50								0.34	0.50	0.67	0.88	0.99	1.10	1.21

Correction factors for operating pressure and inlet temperature (F _i)														
HHL 91 - 9001		Operating pressure bar (g)												
		4	5	6	7	8	9	10	11	12	13	14	15	16
Inlet temperature °C	+35	0.63	0.75	0.88	1.00	1.06	1.12	1.17	1.22	1.27	1.32	1.37	1.41	1.46
	+36	0.62	0.74	0.87	0.99	1.05	1.11	1.16	1.22	1.27	1.31	1.36	1.40	1.45
	+37	0.62	0.74	0.86	0.99	1.05	1.10	1.16	1.21	1.26	1.31	1.35	1.40	1.44
	+38	0.61	0.74	0.86	0.98	1.04	1.10	1.15	1.20	1.25	1.30	1.34	1.39	1.43
	+39	0.61	0.73	0.85	0.97	1.03	1.08	1.14	1.19	1.24	1.28	1.33	1.37	1.41
	+40	0.60	0.72	0.84	0.96	1.02	1.07	1.13	1.18	1.22	1.27	1.31	1.36	1.40
	+41	0.59	0.71	0.83	0.95	1.01	1.06	1.11	1.16	1.21	1.26	1.30	1.34	1.38
	+42	0.59	0.71	0.82	0.94	1.00	1.05	1.10	1.15	1.20	1.24	1.29	1.33	1.37
	+43	0.58	0.70	0.81	0.93	0.99	1.04	1.09	1.14	1.19	1.23	1.27	1.32	1.36
	+44	0.57	0.69	0.80	0.92	0.97	1.02	1.07	1.12	1.17	1.21	1.26	1.30	1.34
	+45	0.56	0.68	0.79	0.90	0.96	1.01	1.06	1.11	1.15	1.19	1.24	1.28	1.32
	+46	0.56	0.67	0.78	0.89	0.94	1.00	1.04	1.09	1.13	1.18	1.22	1.26	1.30
	+47	0.55	0.66	0.77	0.88	0.93	0.98	1.03	1.07	1.12	1.16	1.20	1.24	1.28
	+48	0.54	0.65	0.76	0.86	0.92	0.97	1.01	1.06	1.10	1.14	1.18	1.22	1.26
	+49	0.53	0.64	0.74	0.85	0.90	0.95	1.00	1.04	1.08	1.12	1.16	1.20	1.24
	+50	0.52	0.62	0.73	0.83	0.88	0.93	0.97	1.02	1.06	1.10	1.14	1.17	1.21

Selection example		Calculation	
Compressor capacity (V ₁)	720 m ³ /h	$V_2 = \frac{V_1}{F_i} = \frac{720}{1.07} = 672.9 \text{ m}^3/\text{h}$	Selection: HHL 681
Operating pressure (F ₁)	11 bar (g)		
Inlet temperature (F ₁)	47°C		
V ₂	Required dryer capacity		



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