

Desiccant Dryers

HHL SERIES

BENEFITS AND FEATURES

- Flow rate from 90 m³/h to 9000 m³/h
- Heatless regeneration system
- Space-saving, integrated pre-filter and dust filter included in the delivery
- Constant and low pressure dew point down to -70°C
- “Low service” pneumatic valves
- Large surface silencers providing low level of noise
- HQ activated alumina desiccant can be active for an extremely long period (up to 5 years)
- Front mounted control panel
- Adjustable regeneration air flow and dew point temperature with Level 1 standard control panel
- New updated control panel with LX controller optional with pressure dew point controlled saving system providing high economics savings of purge air and modern features for monitoring MODBUS port



Technical Data	HHL
Inlet/outlet	Rear position
Load dependant control (Level3)	○
Integrated filter package	●
Condensate drain for pre-filter	Electronic Level controlled (optional)
Vessel certifications	CE
Special certifications ABS, DNV, LRS, GL, ASME, TRTC032	○
IP Rating	IP 54

Design Data		Min.	Nom.	Max.
Operating pressure	HHL 91-681	5 bar (g)	7 bar (g)	11 bar (g)
	HHL 901-9001	5 bar (g)		10 bar (g)
Inlet temperature	HHL 91-901	+2°C	+35°C	+50°C
	HHL 1051-9001			
Ambient temperature		+2°C	+20°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 operation condition. For other operating conditions and optional features please contact your nearest dealer.

● standard ○ On request – not applicable

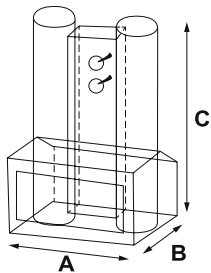
General Data	HHL
Medium	Compressed Air
Drying system	Twin-tower adsorption
Regeneration system	Heatless
Pre-filter	0.01 μm
After-filter	1 μm
Vessel material	C Steel
Housing material	C Steel
Colour	RAL 5015 (blue)
Location	Indoors
Mounting	Freestanding

Pressure Dew Point Standard Setting HHL (outlet)	Pressure Dew Point	Inlet Temperature
4 minute cycle	-70°C	+35°C
10 minute cycle	-40°C	
16 minute cycle	-20°C	

Model	Flow Rate	Connection	Dimensions			Weight	el. Connection	Pre-filter	After-filter
			A	B	C				
	m³/h		mm			kg	V/Ph/Hz		
HHL 91	90	3/4"	750	750	1950	181	95-240/1/50 95/240/1/60	F06-B-HF	F06-B-PF
HHL 141	140	3/4"	750	750	1950	220		F07-B-HF	F07-B-PF
HHL 271	270	1"	1150	750	1980	398		F08-B-HF	F08-B-PF
HHL 351	350	1 1/2"	1150	750	1980	421		F10-B-HF	F10-B-PF
HHL 521	520	1 1/2"	1150	750	1990	531		F11-B-HF	F11-B-PF
HHL 681	680	1 1/2"	1150	750	1990	650		F12-B-HF	F12-B-PF
HHL 901	900	2"	1150	750	2000	815		F14-B-HF	F14-B-PF

HHL 1051	1050	2 1/2"	1500	1320	1910	965	95-240/1/50 95/240/1/60	F14-B-HF	F14-B-PF
HHL 1351	1350	2 1/2"	1500	1420	1921	1275		F15-B-HF	F15-B-PF
HHL 1651	1650	3"	1500	1470	2090	1525		F16-B-HF	F16-B-PF
HHL 1951	1950	3"	1500	1520	2116	1710		F17-B-HF	F17-B-PF
HHL 2351	2350	DIN 100	1500	1720	2136	2080		HF5-60	HF6-60
HHL 2701	2700	DIN 100	1700	1770	2225	2305		HF5-60	HF6-60
HHL 3601	3600	DIN 100	1950	1920	2258	2755		HF5-64	HF6-64
HHL 5201	5200	DN 150	2400	2140	2456	4105		HF5-68	HF6-68
HHL 7101	7100	DN 150	2690	2335	2701	6200		HF5-72	HF6-72
HHL 9001	9000	DN 150	2820	2504	2536	6800		HF5-76	HF6-76

* 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 at +25°C, pressure dew point -40°C / 100% RH. Technical data and specifications are subject change without prior notice.



HHL 91-9001

Correction factors for inlet temperature and operating pressure (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 m³/h	$V_2 = \frac{V_1}{F_1} = \frac{720}{1.07} = 672.9 \text{ m}^3/\text{h}$	Selection: HHL 681
Operating pressure (F ₁)	7 bar (g)		
Inlet temperature (F ₂)	+47 °C		
(V ₂)	Required Dryer Capacity		



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