Adsorption dryers

HAD series

For the removal of condensate and steam, ABAC offers a range of adsorption dryers that are able to provide perfectly dry air and constant efficiency.

Applications

HAD 650-1300

1. Large vessels for optimum air speed and reliable drying. The unit is rather low with respect to its capacity due to the flanges that are built into the tanks.
2. Air outlet connection
3. Robust frame, including fork lift slots for easy installation.
4. Pressure Dew Point sensor (HAD/CD).
5. Pressure Dew Point digital display (HAD/CD).
6. Two manometers integrated in the control panel, indicating the pressure inside the two tanks.
7. Purge nozzle for regeneration.
8. Galvanised pipes with flanged connections.
9. Inlet valves - long service interval.

HAD 115-645

1. Base frame makes it easy to transport by fork lift.
2. Pressure gauge – tower A
3. Pressure gauge – tower B
4. Optional dew point control sensor (CD).

HAD 7-60

1. The pre-filter removes the coalescence particles and liquids from the air flow.
2. The removable front panels allow easy access for maintenance operations without having to disconnect the pipes.
3. The post-filters integrated in the dryer remove any remaining particles from the air flow.
4. The electronic controls housed in an IP65 box allow to control the:
   - regeneration cycle
   - regulation status
   - default diagnosis
   - remotely default ratio
5. Multi-port inlet and outlet

Type	Part number	Maximum working pressure	Working pressure	Air treatment capacity (in the reference conditions)		Standard dew point	G 0,1 mg/m3 oil 99.97% - 1 µm 99.87% - 0.01 µm	C 0,01 mg/m3 oil 99.999% - 1µm 99.992% - 0,01 µm	S 99.97% - 1 µm 99.87% - 0.01 µm	discharge fittings	dimensions	Weight
		bars	bars	l/min	m³ /h	°C	pre-filters included		post-filters included	gas	W x D x H	kg
HAD 7 STD	8102822304	16	7.0	114	7	-40	n.d.	C 45	Built into the dryer	3/8"	281 x 92 x 445	13
HAD 11 STD	8102822312	16	7.0	168	10	-40	n.d.	C 45			281 x 92 x 504	14
HAD 18 STD	8102822320	16	7.0	282	17	-40	n.d.	C 45			281 x 92 x 635	17
HAD 25 STD	8102822338	16	7.0	426	26	-40	n.d.	C 45			281 x 92 x 815	20
HAD 40 STD	8102822346	16	7.0	708	42	-40	n.d.	C 45			281 x 92 x 1065	24
HAD 60 STD	8102822353	16	7.0	990	59	-40	n.d.	C 90			281 x 92 x 1460	31
HAD 115 STD	8102327106	14.5	7.0	1920	115	-40	n.d.	C 125	S 125	1"	550 x 242 x 998	64
HAD 145 STD	8102327114	14.5	7.0	2400	144	-40	n.d.	C 180	S 180		550 x 242 x 998	64
HAD 160 STD	8102327122	14.5	7.0	2700	162	-40	n.d.	C 180	S 180		550 x 242 x 1243	78
HAD 215 STD	8102327130	14.5	7.0	3900	234	-40	n.d.	C 290	S 290		550 x 242 x 1611	98
HAD 250 STD	8102327148	14.5	7.0	4500	270	-40	n.d.	C 290	S 290		550 x 358 x 998	133
HAD 325 STD	8102327155	14.5	7.0	5400	324	-40	n.d.	C 505	S 505		550 x 358 x 1243	158
HAD 360 STD	8102327163	14.5	7.0	6300	378	-40	n.d.	C 505	S 505		550 x 358 x 1611	256
HAD 470 STD	8102327171	14.5	7.0	7800	468	-40	n.d.	C 505	S 505		550 x 358 x 1611	256
HAD 575 STD	8102327189	14.5	7.0	9600	576	-40	n.d.	C 685	S 685	1 ½"	550 x 520 x 1611	310
HAD 645 STD	8102327197	14.5	7.0	11400	684	-40	n.d.	C 685	S 685		550 x 520 x 1611	310
HAD 650 STD 11	8102823120	11	7.0	10800	648	-40	G 685	C 685	S 685		1040 x 840 x 1760	445
HAD 650 STD 14.5	8102823138	14.5	12.5	12900	774	-40	G 685	C 685	S 685		1040 x 840 x 1760	445
HAD 650 CD 11	8102823146	11	7.0	10800	648	-40	G 685	C 685	S 685		1040 x 840 x 1760	445
HAD 650 CD 16	8102824235	14.5	12.5	12900	774	-40	G 685	C 685	S 685		1040 x 840 x 1760	445
HAD 800 STD 11	8102823153	11	7.0	13200	792	-40	G 935	C 935	S 935		1040 x 840 x 1760	445
HAD 800 STD 14.5	8102823161	14.5	12.5	15900	954	-40	G 935	C 935	S 935		1040 x 840 x 1760	445
HAD 800 CD 11	8102823179	11	7.0	13200	792	-40	G 935	C 935	S 935		1040 x 840 x 1760	445
HAD 800 CD 16	8102823187	14.5	12.5	15900	954	-40	G 935	C 935	S 935		1040 x 840 x 1760	445
HAD 1080 STD 11	8102823195	11	7.0	18000	1080	-40	G 1295	C 1295	S 1295	2"	1046 x 894 x 1876	600
HAD 1080 STD 16	8102823203	14.5	12.5	21600	1296	-40	G 1295	C 1295	S 1295		1046 x 894 x 1876	600
HAD 1080 CD 11	8102823211	11	7.0	18000	1080	-40	G 1295	C 1295	S 1295		1046 x 894 x 1876	600
HAD 1080 CD 16	8102823229	14.5	12.5	21600	1296	-40	G 1295	C 1295	S 1295		1046 x 894 x 1876	600
HAD 1300 STD 11	8102823237	11	7.0	21600	1296	-40	C 1295	C 1295	S 1295		1100 x 923 x 1914	650
HAD 1300 STD 16	8102823245	14.5	12.5	25800	1548	-40	C 1295	C 1295	S 1295		1100 x 923 x 1914	650
HAD 1300 CD 11	8102823252	11	7.0	21600	1296	-40	C 1295	C 1295	S 1295		1100 x 923 x 1914	650
HAD 1300 CD 16	8102823260	14.5	12.5	25800	1548	-40	C 1295	C 1295	S 1295		1100 x 923 x 1914	650

Standard characteristics and options	HAD 7-60	HAD 115-645	HAD 650-1300
Flow rate at 7 bar (-40 °C)	114-990 l/min	1920-11400 l/min	10800-21600 l/min
Dew point	Standard -40 °C	Standard -40 °C	Standard -40 °C
Working pressure range	4-16 bar	4-14.5 bar	4-11 bar and 11-14.5 bar
Voltages	12-24 V - DC 50/60 Hz	115-230 V - AC 50/60 Hz	230V - AC 50/60 Hz
	100-115-230 V - AC 50/60 Hz		

Options:

	Model with -70 ° C		Model with discharge function	
Type	Part number	Description	Part number	Description
HAD 115-HAD 470	0000020851	PDP -70 °C (D25 - D100)	0000020850	Model with PDP sensor (D25-D100)
HAD 650	0000020511	PDP -70 °C (D150)	Available spare parts	
HAD 800	0000020611	PDP -70 °C (D185)		
HAD 1080	0000020711	PDP -70 °C (D250)		
HAD 1300	0000020811	PDP -70 °C (D300)		

The filters are supplied unassembled, together with the dryer:

HAD 7-60: The pre-filter can be connected directly to the dryer.

HAD 115-1300: the filters must be installed on the air distribution line.

In case of different working pressure than that specified in the reference conditions,

use the correction factors table.

Reference conditions:

- Working pressure: see the technical data table.
- Operating temperature: 35 ° C
- Relative humidity: 100%

Limit conditions:

HAD 7-HAD 60

- Working pressure: min./max. bar 4-16
- Operating temperature: min./max. ° C 1.5-50
- min./max. ambient temperature: 5-50 ° C

HAD 115-HAD 645

- Working pressure: min./max. bar 4-14.5
- Operating temperature: min./max. 2-50 ° C
- min./max. ambient temperature: 2-45 ° C

HAD 650-HAD 1300

- Working pressure: min./max. bar

4-11 (pressure/ 11 HAD design)

11-14.5 (pressure/ 16 HAD design)

- Operating temperature: min./max. 2-50 ° C
- min./max. ambient temperature: 2-40 ° C

Correction factor	HAD/16 design pressure													
Input pressure - bar	4	5	6	**7**	8	9	10	11	12	13	14	14.5	15	16
HAD 7-HAD 60	0.62	0.75	0.87	**1**	1.12	1.25	1.37	1.5	1.62	1.75	1.87	1.93	2	2.12
HAD 115-HAD 470	0.62	0.75	0.87	**1**	1.12	1.25	1.37	1.5	1.62	1.75	1.87	1.93	-	-
Correction factor	**HAD/11 design pressure**								**HAD/16 design pressure**					
Input pressure - bar	4	5	6	**7**	8	9	10	11	11	12.5	13	14	14.5	-
HAD 650-HAD 1300	0.47	0.68	0.84	**1**	1.11	1.2	1.3	1.38	0.89	1	1.04	1.11	1.15	-
Correction factor														
Infeed air temperature °C	20	25	30	**35**	40	45	50	-	-	-	-	-	-	-
HAD 7-HAD 60	1.07	1.06	1.04	**1**	0.88	0.78	0.55	-	-	-	-	-	-	-
HAD 20-HAD 1300	1	1	1	**1**	0.84	0.71	0.55	-	-	-	-	-	-	-
Correction factor														
Dew point in pressure °C	**-40**	-70	-	-	-	-	-	-	-	-	-	-	-	-
HAD 7-HAD 1300	**1**	0.7	-	-	-	-	-	-	-	-	-	-	-	-