

High Inlet Temperature Refrigeration Compressed Air Dryer

AG SERIES

Air Dryer with air-cooled after-cooler



AIRGENS®
REFRIGERATED AIR DRYER

**WORKING
PRESSURE
: 12 BAR**



ADVANCE IN COMPRESSED AIR TECHNOLOGY

AIRGENS COMPRESSED AIR DRYER



WHY DO WE NEED COMPRESSED AIR DRYER ?

All compressed air always includes water vapour and impurities. For end user, it is extremely important that the air is free from moisture, particulate contaminants, oil and dust. If these contaminants come into direct contact with the final equipment, the costs for maintenance would be very high. And the device for air treatment, that originally would be practical and economical, then could be very costly.

To ensure that all AIRGENS Air Dryers are running perfectly, various safety protection features has been installed, such as the Refrigerant High pressure protection, Refrigerant Low pressure protection, Current Overload protection and Compressor Overheating protection.

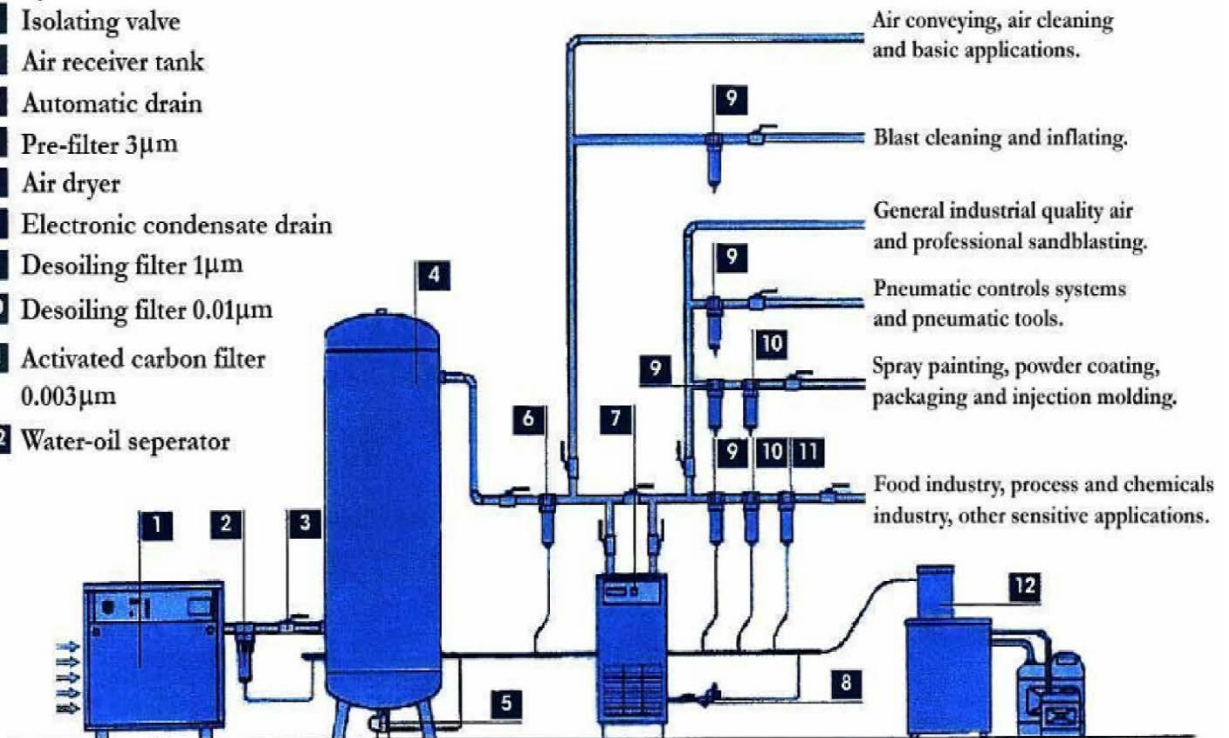
Stable dew point is Guaranteed by the dual automatic balance function building up with the expansion valve and hot gas by-pass valve, and this allows the operation load from zero to full adjustable.

The warm compressed air first enters the pre-cooler to remove the heat before it goes to the air to air heat exchanger to reduces the air temperature down to 2-5° C (Dew Point Temperature) before entering the evaporator where it is cooled to the required temperature. The condensate, separated by the compressed air in the water separator is discharge automatically by the condensate drain. The dry and low temperature air passes through the air to air heat exchanger back to the outlet.

Only reliable parts are used in all AIRGENS Air Dryer to ensure low maintenance and minimization of downtime with the Intelligent Controller that has multifunctional protection to monitor the dryer system. It shows various parameters of operation and is equipped with fully automatic control system for ease of user.

IDEAL COMPRESSED AIR INSTALLATION LAYOUT

- 1 Air compressor
- 2 Cyclonic condensate separator
- 3 Isolating valve
- 4 Air receiver tank
- 5 Automatic drain
- 6 Pre-filter 3µm
- 7 Air dryer
- 8 Electronic condensate drain
- 9 Desoiling filter 1µm
- 10 Desoiling filter 0.01µm
- 11 Activated carbon filter 0.003µm
- 12 Water-oil separator



AG SERIES REFRIGERATED AIR DRYER



SENSITIVE HIGH-LOW PRESSURE SWITCH
ENSURE STABLE REFRIGERANT SYSTEM

REFRIGERANT (FREON) COMPRESSOR
HERMETICALLY SEALED REFRIGERANT COMPRESSOR
EFFECTIVELY ELIMINATE REFRIGERANT FROM LEAKING



MECHANICAL AUTO-DRAIN TRAP
MAINTENANCE FREE AUTOMATIC DRAIN
AUTOMATICALLY DISCHARGE IN A RELIABLE MANNER

OPERATION SPECIFICATIONS



- 1 Air to Air Pre-exchanger*
- 2 Evaporator
- 3 Condensate Separator
- 4 Mechanical Drain**
- 5 Power Supply
- 6 Refrigerating Condenser
- 7 Freon Compressor
- 8 High/Low Pressure Switch
- 9 Switch Board
- 10 Fan Pressure Switch
- 11 Suction Refrigeration Pressure
- 12 Discharge Refrigeration Pressure
- 13 Air Inlet
- 14 Air Outlet

* Model: PHT 030F and above
** Timed Auto Drain (Optional)

TECHNICAL SPECIFICATION



MODEL	FLOW RATE		PORT SIZE	DIMENSION			WEIGHT
	m ³ /min	cfm	(BSP)	LENGTH	WIDTH	HEIGHT	(Kgs)
AG007-HD	0.8	28	1/2 "	700	320	590	40
AG010-HD	1.2	42	3/4 "	705	425	660	48
AG015-HD	1.7	60	1 "	705	425	715	54
AG020-HD	2.5	88	1 "	705	425	765	58
AG030-HD	4.0	141	1-1/2 "	1005	505	855	102
AG050-HD	6.8	240	2 "	1005	505	905	110
AG075-HD	11.0	388	2-1/2 "	1255	575	1115	182
AG100-HD	14.0	494	2-1/2 "	1255	575	1115	182
AG150-HD	18.0	635	DN 80	1405	635	1195	230
AG200-HD	23.0	812	DN 80	1405	635	1245	280
AG250-HD	30.0	1059	DN 80	1405	635	1245	330
AG300-HD	35.0	1236	DN 100	1705	855	1345	550

DUE TO CONTINUOUS IMPROVEMENT OF PRODUCTS, DESIGN AND SPECIFICATION IS SUBJECT TO CHANGE.

Data refer to the performance of the free air output from the compressor (SUCTION 20' and 1 Bar absolute) at the following operating condition:-

1. Pressure Dew point at 7°C (Atmospheric Pressure Dew point -22°C).
2. Ambient Temperature 35°C with Inlet Pressure at 7 barg and 65°C.
3. Maximum Working Condition ; Ambient 45°C, Inlet Air Temperature 80°C and Inlet Air Pressure 12 barg.

Working Pressure	Bar	2	4	6	7	8	10	12
	K1	0.54	0.67	0.8	1.00	1.06	1.15	1.21

Dew Point	° C	3	5	7	10
	K2	0.85	0.92	1.00	1.17

Ambient Temperature	° C	25	28	32	35	38	40	43	45
	K3	1.3	1.24	1.12	1.00	0.93	0.86	0.75	0.65

Inlet Temperature	° C	45	50	55	60	65	70	80
	K4	1.37	1.25	1.17	1.08	1.00	0.92	0.80

The correction factors in the above table should be use as a guide only :

CAPACITY correction factor (Indicative Values)

CAPACITY = RATED VALUE (7 barg) x K1 x K2 x K3 x K4

Distributor: