

Heatless Compressed Air Dryer

OPERATING COST COMPRESSED AIR DRYER



Heatless Air Dryer



How Does A Heatless Air Dryer Work

Heatless air / dryer is the simplest form of desiccant type drier for achieving a dew point of -40°C or better for instrument air systems and other gas drying applications .

Process- Wet Incoming Compressed Air Passes Through A Prefilter Where All Liquid Mist Particles Are Coalesced Separated & Collected In The Bottom, Where It Is Discharged In The Drain Via An Auto Drain Valve . After Pre Filter The Air Passes Through An Activated Carbon Filter Where All Oil Vapor Is Adsorbed & The Air Becomes Oil Free . After This The Air Is Directed Towards Adsorber I Where The Compressed Air Passes Upward Through The Desiccant Bed (Activated Alumina Or Molecular Sieves). Air Drying Takes Place By Adsorption. Dry Compressed Air From Chamber I Then Passes Through The Check Valve Assembly And Then Through The After-Filter To The Application Or Work Area.

While Compressed air is drying in chamber I the desiccant in chamber II where the desiccant has been wetted in the previous cycle is being simultaneously regenerated.

For Regeneration The chamber II is depressurised to the atmosphere through the purge valve in the downward direction. A portion of the dry compressed air passes through the needle valve / orifice plate through the desiccant and flushes out the desorbed moisture.

When the regeneration is complete, the purge valve is closed and the tower is slowly repressurised to line pressure for a smooth changeover. A drying period of 5 minutes provides an outlet dew point of -40°C or better (at atmospheric pressure).

SPECIFICATIONS FOR HEATLESS COMPRESSED AIR DRYER

MODEL NO.	M ³ / HR	CFM	PIPE LINE SIZE MM)	Approx. Space Requirement (mm)		
				L	W	H
MHL-01	15	10	15NB	600	600	750
MHL-02	35	20	15NB	600	600	1000

MHL-03	50	30	15NB	600	600	1200
MHL-04	85	50	25NB	700	700	1800
MHL-05	125	75	25NB	700	700	1800
MHL-06	170	100	25NB	800	800	1800
MHL-07	250	150	40NB	800	800	2200
MHL-08	350	200	40NB	1000	1000	2200
MHL-09	500	300	40NB	1200	1200	2400
MHL-10	700	400	50NB	1200	1200	2400
MHL-11	850	500	50NB	1400	1400	2400
MHL-12	1000	600	50NB	1400	1400	2400
MHL-13	1300	750	80NB	1500	1500	2500
MHL-14	1700	1000	80NB	1600	1600	2600
MHL-15	2125	1250	80NB	1600	1600	2600
MHL-16	2550	1500	100NB	2000	2000	3000
MHL-17	3400	2000	100NB	2000	2000	3000
MHL-18	4250	2500	100NB	2000	2000	3000
MHL-19	5100	3000	125NB	2000	2000	3000
MHL-20	5950	3500	150NB	2000	2000	3000
MHL-21	6800	4000	150NB	2000	2000	3000

The above compressed air dryer and gas dryer capacities are rated at an inlet temp. of 40°C, 7Kg/cm² (g)pr. (0.7Mpa) and at an outlet dew point of (-) 40°C

- Supply voltage of 220V-50Hz - Single phase.

- Above data is only for estimation and can be changed without notice. For special systems and higher capacities contact us.

HIGH PRESSURE COMPRESSED AIR / GAS DRYER

For various industrial applications where Compressed Air / Gas at high pressure in dry form is required, Mellcon offers High Pressure Heatless Compressed Air and Gas Dryers. High Pressure air and Gas Dryers are available in Heatless as well as refrigerated type. Some of the High Pressure Compressed Industrial Applications are. :-

- Pet Blowing Machine
- Air Circuit Breaker
- High Pressure Gas Filling
- High Pressure Pneumatics Testing of various equipment and components.
- High Pressure H₂ Gas Dryer for Turbine Cooling
- High Pressure Generator Compressed Air Starting
- High Pressure Process Gas Applications.

Standard Range Of Mellcon High Pressure Compressed Air Dryers Is Given Below. :-

HIGH PRESSURE HEATLESS COMPRESSED AIR DRYERS						
SL.NO.	MODEL NO.	CAPACITY		PRESSURE KG/CM2G	PIPE LINE	APPROX. SPACE REQUIREMENTS (MM)
		CFM	M ³ / HR			
01	HL-HPR-01	35	6	35	15	600 X 600 X 900
02	HL-HPR-02	70	120	35	15	700 X 700 X 1500
03	HL-HPR-03	35	60	70	09	600 X 600 X 900
04	HL-HPR-04	70	120	70	15	700 X 700 X 1200

Above models are designed to give a constant Dew Point of -40 Deg. C. For other capacities, pressure, dew point requirement & heated type of dryers, please contact us. For cost comparison of operating of a Heat of Compression Type Air Dryers Vs. Heated Type/Heatless/Refrigerated Type Air Dryers please [click here](#).

For Higher Pressure upto 400 Bar Please [Click Here](#).

Marketing Dryers

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