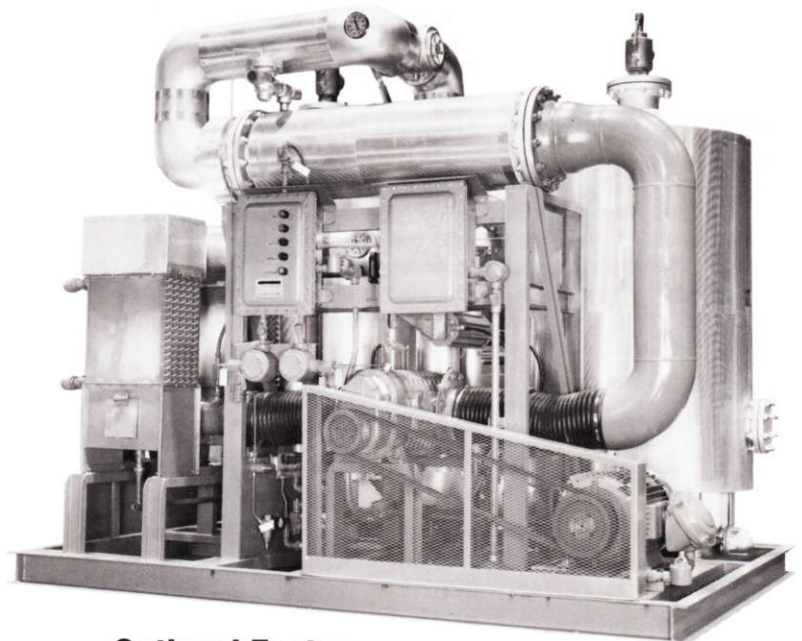


MPL External Heater Dryer Series

The need for clean, pure, moisture-free compressed air and gas is critical. Moisture and contaminants are found in all compressed air and gas systems . . . causing rust and corrosion in your pneumatic tools, contaminating process flows, clogging and damaging delicate pneumatic instrumentation. When freezing temperatures are encountered, condensation trapped in air systems will freeze, causing catastrophic failure in pneumatic lines.

External heater, purge-free, blower type dryers, reflect the state-of-the-art in compressed air drying — and Kahn is the leader. With 8 standard models to handle flows from 200 SCFM to beyond 4500 SCFM, Kahn offers the best choices in compressed air and gas drying.



Standard Features

- No process air or gas is wasted during regeneration.
- All units are completely assembled, pre-piped and pre-wired on a single common heavy structural steel base using ASME vessels coded for 150 PSIG.
- Heavy-duty reactivation blower for long life.
- Counter flow reactivation for maximum removal of adsorbed moisture.
- Automatic shutoff of heater at "break through" for energy savings.
- Thermal switch cycles heater to maintain desired reactivation temperature.
- Electrically interlocked switching and reactivation valves prevent reactivation until switchover has been executed in proper sequence.
- Controlled depressurization and repressurization reduces bed attrition.
- Stainless steel desiccant support screens in each tower provide uniform flow across desiccant and prevent channeling.
- Towers, reactivation piping and heater unit are insulated for high efficiency and personnel protection.
- Pressure and temperature gages for monitoring operation, and dual relief valves for safety.
- Separate desiccant drain and fill ports on each vessel.
- Long life activated alumina desiccant provides - 40° F pressure dewpoints as standard.

Optional Features

- Pressure dewpoints below - 40° F
- NEMA Class 4, 4X, 7, 12 electrics
- Entrainment separators
- Coalescing prefilters
- Afterfilters
- Manual by-passes
- Dewpoint demand system — Energy saving feature
- Failure to cycle alarm
- Easy to read color change dewpoint indicator with isolation valve
- Solid state dewpoint alarm. Available with meter readout
- Instrument panel
- Steam regeneration heater
- Special designs available for flows up to 10,000 SCFM
- Construction for corrosive environments, explosive process gases

See data sheet B/C 3141 for more information on accessories.

Specifications

Model MPL-	Dimensions (Inches)			Appx. Wt. (Lbs)	Line Size (Inches)	Cooling H ₂ O (GPM)	Peak Load (KW)	Average Load (KW)
	Length A	Width B	Height C					
275	65	54	89	1,500	2 NPT	2	11.5	5.2
450	82	54	104	2,300	2 NPT	2	17.7	8.4
750	90	60	104	3,200	2½ NPT	3	26.4	11.0
950	92	66	105	4,000	3FLG	4	33.0	13.6
1500	106	78	105	5,000	4FLG	7	52.0	20.7
2100	106	80	110	6,500	4FLG	10	75.3	31.2
3000	124	98	115	8,500	6FLG	14	98.8	42.0
4500	132	96	117	12,000	6FLG	19	150.7	64.3

*Without Dew Point Demand System

Drying: The inlet gas flows through the 4-way selector valve into tower 1 and passes through the desiccant, becoming progressively dryer as moisture is adsorbed. The air leaves the tower through a second 4-way valve and flows out of the dryer. This simple flow path assures lowest pressure drop with no process flow diverted for regeneration.

Reactivation air flow is circulated by a motor driven blower. This air is heated to 350° F to 400° F and conducted to the tower under reactivation, where moisture is released from the desiccant by the heat. The moisture laden air exits the tower and passes through the cooler, the water separator, and back to the blower. At the end of the heating period, the blower circulates air to cool down the desiccant, restore its adsorptive capacity, and always maintain cool as well as dry air.

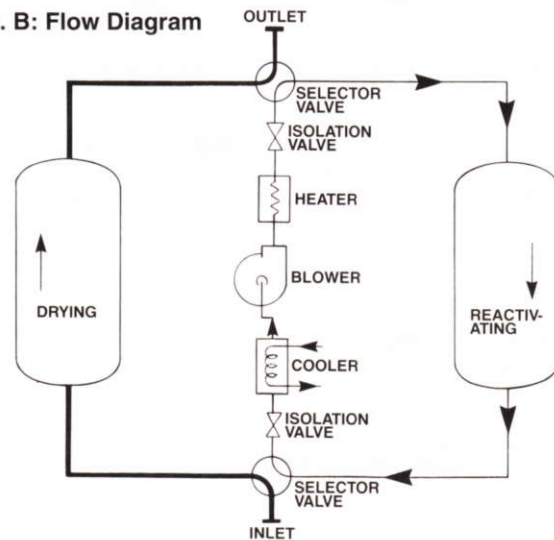
Fig. A: Typical NEMA, 8 Hour Cycle

Tower 1	Time (Hrs)	Tower 2
Drying start	0:00	Depressurization
	0:15	Heating start
	2:15	Cooling start
	3:45	Repressurization
Drying end	4:00	Regeneration end
Regeneration start	4:00	Drying start
(same as above, but with tower functions reversed)		
Regeneration end	8:00	Drying end

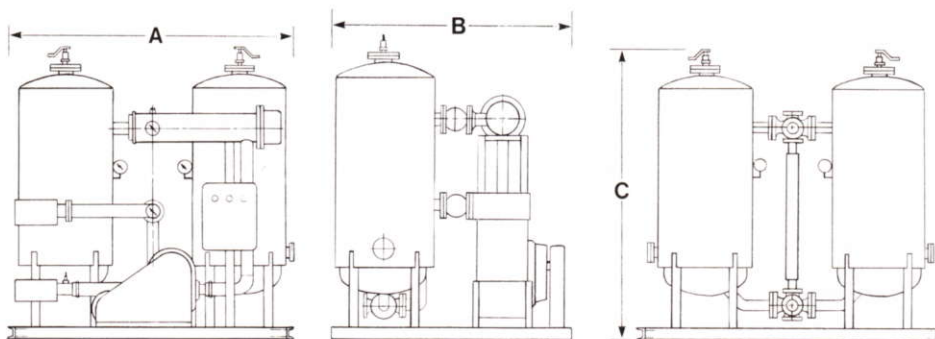
Gentle, even heating by convection assures that the desiccant is completely regenerated without exposing the desiccant or the vessels to excessive thermal or physical stresses.

Automatic control: The operation of the MPL Series dryer is completely automatic. A programmed cam timer automatically switches the towers at 4-hour intervals and starts and stops the heater at preset times (See Figure A). A thermal switch controls the reactivation air temperature. The heater is protected by a flow switch which shuts the heater off if there is insufficient air flow. Gradual depressurization and repressurization of the towers is accomplished by a solenoid operated vent valve.

Fig. B: Flow Diagram



NOTE: The information included herein was correct at the time of publication and supersedes all previously published data. However, it is our policy to continually improve our products to insure ever better performance. Consequently, current Kahn products may incorporate modifications not shown or described on these pages.



Printed in U.S.A. 891

KAHN

KAHN & COMPANY INC. 885 Wells Road, Wethersfield, CT 06109
Phone: (203) 529-8643 Facsimile: (203) 529-1895 Telex: 9-9301