

ADL SERIES

Large Dehumidifying Dryer



Technical Specifications

ADL Series Large Dehumidifying Dryers are designed to dry hygroscopic pelletized plastic material when used in conjunction with an appropriately sized drying hopper. The unique energy-efficient design features Hi-Core™ Technology, which places the electric heating element inside the hollow core of the desiccant canister, allowing regeneration and cooling of the desiccant in less than one hour.

All models are available in three temperature ranges—standard, low and high. With the advanced PLC control, the features can be easily expanded to take advantage of additional energy saving options.

Features

Standard Features

- Standard programmable controller and 1/16 DIN digital temperature control
- Standard unit 180°F to 250°F
- High process and regeneration temperature control safeties
- Ease of maintenance with access process, regeneration, and air filters
- High-pressure centrifugal blower delivers stated airflow under load
- Electrically-actuated air valve
- NFPA79, UL and CUL machinery electrical standards
- “Process high temp” indication light and audible alarm; and sequence shutdown switch
- Dirty filter check, both process and regeneration
- Stainless steel desiccant tanks, filter housings and after-coolers
- Supply voltage: 208, 230, 460 or 575/3/60

Optional Features

- Low temperature operation 120°F - 180°F
- High temperature operation 250°F - 400°F
- Stainless steel plasticizer trap/after-cooler with filter
- Overdrying protection via Material Miser Valve
- Temperature set back (over-drying protection)
- Closed-loop regeneration cooling valve
- 15°F to - 40°F dewpoint meter
- 15°F to - 80°F dewpoint meter
- Sound insulation package for under 85 dba noise level
- Dust collector
- Advanced Controller Option - PLC (AP1) Control
- Remote operator interface
- Ethernet module for remote communication
- Peripheral blowers available
- 400/3/50 voltage (de-rate CFM by 17% for 50hz applications)
- CSA or CF compliant

Advanced Controller

AP1 Controller Features

- Touch Screen Interface provides clear information about desiccant bed regeneration, process temperature, and dew point
- Off-the-shelf programmable controller monitors and controls the drying and conveying system
- Allows simple start-up, shut-down, and adjustment of drying and conveying parameters
- Integral PID temperature control with display of setpoint and actual process temperature
- Display of “actual” dew point
- Alarm indication also includes high temperature conditions, dirty filters, and heater failure
- Dryer “auto shutdown” sequence
- Loop Break Alarm
- 7 Day Timer
- Material Over-drying protection

Specifications

Model	Drying Temp. Range	Throughput Range	Airflow cfm (m3/hr)	Air inlet/outlet OD in. (mm)	Height in. (cm)	Depth in. (cm)	Width in. (cm)	Shipping Weight lbs. (kg)
ADL 1000	180° to 250°F (82°C to 121°C)	1,000 to 5,700 lbs/hr (499 to 2,585 kg/hr)	600 (1015)	8 (203)	67 (170)	98 (249)	63 (160)	2100 (953)
ADL 1450			850 (1440)					2200 (998)
ADL 1700			1000 (1695)					2950 (1338)
ADL 2100			73 (185)	1250 (2120)	10 (254)	81 (206)	116 (295)	4350 (1973)
ADL 2550				1500 (2545)				4700 (2131)
ADL 3400				2000 (3395)				6500 (2948)
ADL 4250				2500 (4245)				7300 (3311)
ADL 5100				3000 (5095)				8450 (3833)
						12 (305)	83 (210)	148 (376)

Electrical Specifications

Model	FLA @ 208/3/60		FLA @ 230/3/60		FLA @ 400/3/50		FLA @ 460/3/60		FLA @ 575/3/60		
	Low Heat	High Heat	Low Heat	High Heat	Low Heat	High Heat	Low Heat	High Heat	Low Heat	High Heat	
ADL 1000	152	207	137	187	79	108	69	94	55	75	
ADL 1450	217	296	196	267	113	154	98	134	78	107	
ADL 1700	249	342	225	309	129	178	112	154	90	123	
ADL 2100	314	430	284	389	163	224	142	194	114	156	
ADL 2550	378	n/a	341	n/a	197	269	171	234	137	187	
ADL 3400	n/a		n/a		n/a	270	366	234	318	188	254
ADL 4250						339	n/a	294	399	236	319
ADL 5100						424		370	494	295	395