



## ADLG SERIES GAS DEHUMIDIFYING DRYERS

ADLG high-capacity, low-cost gas-fired dryers deliver consistent temperature (+/- 1°F) and -40°F dew point even in high-humidity environments. These dryers are able to reduce energy costs 50% to 85% over electric dryers and will dry high throughput materials centrally or beside the machine.

The unique energy-efficient design features Hi-Core™ Technology, which places the gas-fired heating element inside the hollow core of the desiccant canister, allowing faster regeneration and cooling of the desiccant in less than one hour. All the models are available in three temperature ranges—standard, low and high heat. With the advanced PLC control, the features can be easily expanded to take advantage of additional energy savings options.



ADLG Series Dryer

### STANDARD FEATURES

- Expandable PLC control (AP1) displaying the process temperature and dew point as low as -40°F. Display of process temperature set point and actual
  - Standard units 180°F to 250°F
  - Low temperature units 120°F to 180°F
  - High temperature units 250°F to 400°F
- High process and regeneration temperature control safeties
- 13X desiccant (molecular sieve)
- Easy to access process, regeneration, and combustion air filters
- High-pressure centrifugal blower (peripheral blowers available) delivers stated airflow under load. (High performance dryers are equipped with multiple regenerative blowers.)
- Electrically-actuated air valve
- PLC control including dew point meter with regeneration on demand, 7 day timer, dirty filter indication, airflow monitoring, and temperature set back
- NFPA86, UL, AGA and CGA machinery electrical standards
- Supply voltage (specify): 208, 230, 460, 575/3/60
- Can be run using natural gas or propane
- Dirty filter indication
  - Process air
  - Regeneration air
  - Composition air
- Stainless steel desiccant tanks, filter housings and after-coolers

### OPTIONAL FEATURES

- Low temperature operation 120°F - 180°F
  - Includes a pre-cooler to cool the dry air before entering process air heat exchanger
- High temperature operation 250°F - 400°F
  - Includes insulated process delivery air hose, larger burner/gas heat exchangers, additional electronics to support this operation, return air after-cooler
- Stainless steel plasticizer trap/after-cooler with filter
- Material miser valve (overdrying protection)
- Temperature set back (overdrying protection) may require low temperature option
- Closed-loop regeneration cooling valve includes cooling coil
- 15°F to -40°F dewpoint meter or 15°F to -80°F dewpoint meter
- Sound insulation package for under 85 dba noise level (not required on ADLG 1000, ADLG 1450, and ADLG 1700)
- Dust collector
- AP1+ controller includes PLC features plus 5" x 4" touch-screen
- Remote operator interface
- 400/3/50 voltage (De-rate cfm by 17% for 50 hz applications)
- Ethernet module for remote communication
- CSA approval, UL rating, or CE compliance

## SPECIFICATIONS

Model	Airflow, cfm (m <sup>3</sup> /hr)	Air inlet/outlet OD, in. (mm)	Height, in. (cm)	Depth, in. (cm)	Width, in. (cm)	Shipping weight, lbs. (kg)
ADLG 1000	600 (1015)	8 (203)	67 (170)	98 (249)	63 (160)	2950 (1338)
ADLG 1450	850 (1440)	8 (203)	67 (170)	98 (249)	63 (160)	3050 (1383)
ADLG 1700	1000 (1695)	10 (254)	81 (206)	116 (295)	73 (185)	4125 (1871)
ADLG 2100	1250 (2120)	10 (254)	81 (206)	116 (295)	73 (185)	4850 (2200)
ADLG 2550	1500 (2545)	10 (254)	81 (206)	116 (295)	73 (185)	5050 (2291)
ADLG 3400	2000 (3395)	12 (305)	83 (211)	148 (376)	73 (185)	8125 (3685)
ADLG 4250	2500 (4245)	12 (305)	83 (211)	148 (376)	73 (185)	8875 (4025)
ADLG 5100	3000 (5095)	12 (305)	83 (211)	148 (376)	73 (185)	9050 (4105)

## GAS FLOW REQUIREMENTS

Model	Low heat gas flow rate, CFH	High heat gas flow rate, CFH	Exhaust duct sizes, in. (mm)	Combined flue air flow, cfm
ADLG 1000	159	227	3 (76)	87
ADLG 1450	225	322	3 (76)	123
ADLG 1700	265	378	4 (102)	145
ADLG 2100	331	473	4 (102)	182
ADLG 2550	397	568	5 (127)	218
ADLG 3400	528	756	5 (127)	290
ADLG 4250	661	945	6 (152)	363
ADLG 5100	793	1134	6 (152)	436



The AP1 PLC controlled system includes a touch-screen interface.

## AP1 CONTROLLER FEATURES

- Touch-screen interface provides clear information about desiccant bed regeneration, process temperature, and dewpoint
- 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” dewpoint
- 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

## AP1 CONTROLLER OPTION

- Ethernet module

## ELECTRICAL SPECIFICATIONS

Model	FLA @ 208/3/60	FLA @ 230/3/60	FLA @ 400/3/50	FLA @ 460/3/60	FLA @ 575/3/60
ADLG 1000	36	33	19	16	13
ADLG 1450	47	43	25	22	17
ADLG 1700	48	44	25	22	17
ADLG 2100	61	55	32	28	22
ADLG 2550	75	67	39	34	27
ADLG 3400	120	109	62	54	43
ADLG 4250	150	136	78	67	54
ADLG 5100	191	173	99	87	69