ADW Series

Desiccant Wheel Dryer

Technical Specifications

Since 1957, AEC has been the leader in drying equipment for the plastics processing industry. The ADW Series Desiccant Wheel Dryer leverages the AEC legacy and expertise to provide a system that is suited for most drying applications including extrusion, injection molding, and blow molding.

Desiccant wheel dryers are the new generation of desiccant dehumidifying dryers. They are far more efficient, more compact, and require less maintenance. Traditional dehumidifying dryers use a large volume of molecular sieves in pellet form composed of at least 30% of clay, which tends to degrade very easily over time. The desiccant wheel instead is completely different where the pure molecular sieve is applied to a synthetic substrate rolled into a cylinder forming a honeycomb structure and covered by a steel protection.

Features

Standard Features

- Dryer installed on the drying hopper to save floor space
- Dryer is removable from hopper to allow easier maintenance
- Drying temperatures up to 365°F/185°C
- Constant and adjustable dew points down to -58°F
- Energy usage shown on HMI
- Large backlight controller full text display
- No need for compressed air
- No need for cooling water
- Adjustable process air flow
- Material selection table with pre-set or programmable drying parameters
- Visual and audible alarm
- Weekly timer
- High resolution 7" vertical touchscreen and proven, proprietary PLC technology
- Smart Mode: automatic adaption of the drying process to the production needs by monitoring the return air temperature - no waste of energy or material overdrying
- MPM (Material Protection Management): protects the material from over drying and degradation by monitoring the loading system or return air temperature
- SLS (Safety Loading System): prevents undried material from reaching the production machine by monitoring the drying time
- 5 year warranty on the desiccant wheel, 1 year warranty on parts
- 460V/3 ph/60 hz

Optional Features

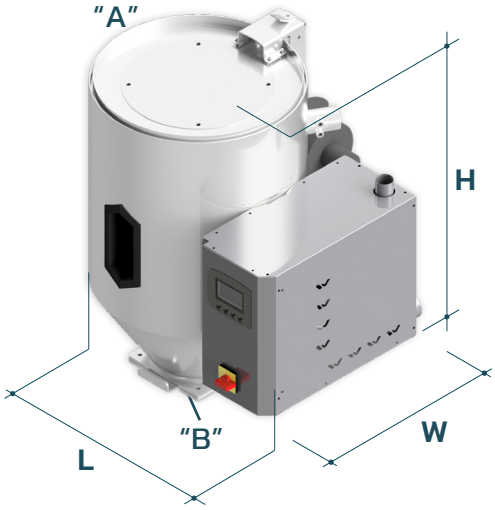
- Internal dew point sensor
- Automatic throughput control with HALO
- Remote control
- Filter sensor to detect filter clogging
- Selection of take off boxes with different diameters
- Integrated brushless conveying system "feeding kit"
- Alternative voltages (230V, 575V)
- Modbus RTU communications

Dimensions

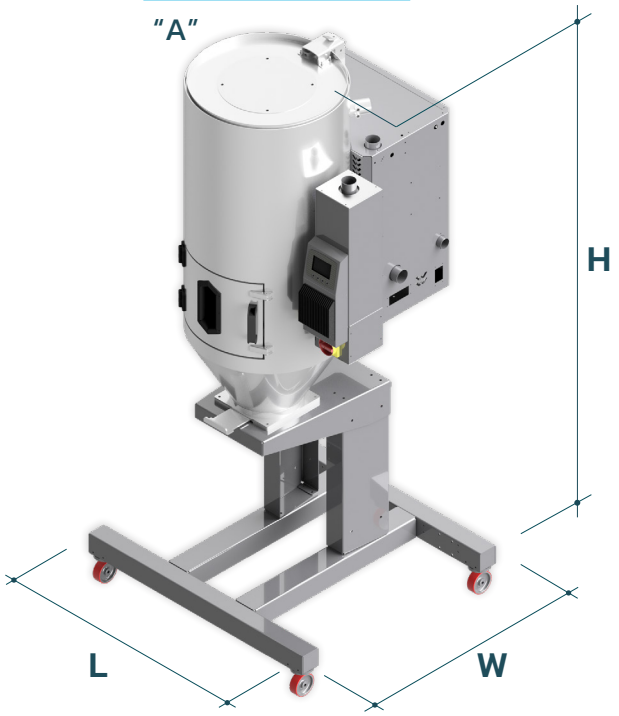
Dryer & Drying Hopper Combinations

Model	Hoppers Ft³	Without Stand L in.	Without Stand W in.	Without Stand H in.	With Stand L in.	With Stand W in.	With Stand H in.	Air Hose in.	Hopper Base Flange Diameter "B" in.	Lid Flange Diameter "A" in.
ADW-50	AH75 - 2.6	31.8	32.6	39.6	37	34.7	67.7	2	8.3"	11"
ADW-50	AH100 - 3.5	31.8	32.6	48.3	37	34.6	76.3	2		
ADW-50	AH150 - 5.3	34.2	36.2	52.6	37	36.7	80.7	2		
ADW-80	AH100 - 3.5	31.8	34.2	48.3	37	34.6	76.3	2		
ADW-80	AH150 - 5.3	34.1	37.8	52.6	37	36.7	82.1	2		
ADW-80	AH200 - 7.1	34.1	37.8	64.8	37	38.3	92.8	2		
ADW-160	AH300 - 10.6	-	-	-	42.1	50.4	98.8	2.5	13.8"	
ADW-160	AH400 - 14.1	-	-	-	42.1	50.4	108.7	2.5		
ADW-160	AH600 - 21.2	-	-	-	48.5	58.3	105.7	2.5		
ADW-160	AH800 - 28.3	-	-	-	48.5	58.3	119.9	2.5		

Without Stand



With Stand



Specfications

ADW Model	UNIT	ADW-50	ADW-80	ADW-160
Process air flow • Cubic Feet per Minute CFM/Cubic Meters per Hour CMH	Min [ft3/ min]/CMH	12/20	18/30	44/75
	Max [ft3/min]	29.5/50	47/80	94/160
Regeneration air flow • Cubic Feet per Minute CFM/Cubic Meters per Hour CMH	Min [ft3/min]	3/5	5.9/10	5.9/10
	Max [ft3/min]	8.9/15	35.5/60	35.5/60
MIN Processing Temperature	[°F]/C	131/55	131/55	131/55
MAX Processing Temperature Standard (MT)	[°F]/C	365/185	365/185	365/185
DEWPOINT	[°F]/C	-49/-45	-49/-45	-58/-50
Drying heater power	[kW]	2.5	3.5	7
Regeneration heater power	[kW]	1.5	1.5	3.5
Heating and regeneration blowers power	[kW]	0.2	0.5	1.6
Total combined power	[kW]	4.2	5.5	12.1
Power supply voltage	(V)	3 phase 460V 50/60Hz	3 phase 460V 50/60Hz	3 phase 460V 50/60Hz
Full load amps	(A)	9.1	9.9	17.9
Inlet / Outlet hose diameter	[in], cm	2, 5.1	2, 5.1	2.5, 6.4
Regeneration hose diameter	[in], cm	1.5, 3.8	1.5, 3.8	2, 5.1
Dryer weight	[lbs], kg	115, 52.2	122, 53.3	353, 160.1