

MW MODELS MW1 and MW2



Model MW1-0.5

THE ULTIMATE COMPACT, CLEAN DESICCANT WHEEL DRYING SOLUTION

Conair's new MicroWheel dryer is the perfect solution for processes that don't need the capacity of a large dryer and hopper, but still need the efficiency and reliability of Conair's desiccant wheel drying technology.

As the smallest and most compact dryer of its type on the market today, Conair now offers this perfect option for applications requiring a small and efficient dryer/hopper combination. Designed with the medical industry in mind, this dryer features stainless construction, clean operation, and a compact footprint.

NEW WHEEL DRYING TECHNOLOGY IN A MICRO PACKAGE

Previously, small drying jobs would require a dryer and hopper that were oversized for the processing machine, using excess energy and wasting material or hopper space. Some small drying solutions were previously offered only with twin-tower drying or compressed air. Conair's continued success with reliable desiccant wheel drying led to this new, better solution. In comparison with twin-tower drying, the MicroWheel dryer can provide 40% energy savings.

The MicroWheel dryer features a four-stage circuit for lower, and adjustable dewpoint. Each dryer can be configured with a hopper sized to best fit your application. The MW1 models are available with 0.2 - 1.0 ft³ {6 - 30 l} hoppers. The MW2 models are available with 1.0 - 1.75 ft³ {30 - 60 l} hoppers.

■ Application flexibility, less dust, energy-efficient

Designed for flexibility, the MicroWheel can be used with a large variety of materials, with a delivery air temperature range of 131 - 356° F {55 - 180° C}. The delivery air blower automatically adjusts airflow based on application throughput, which saves energy and makes drying more efficient. In addition to being more energy-efficient than compressed air and twin-tower dryers, the MicroWheel does not create the dust that twin-tower desiccant beads produce. This makes the MicroWheel perfect for medical and applications that require clean operation.

■ Easy setup with built-in material database

Changing from one mold or production setup to another is quick and easy. The MicroWheel has a built in material database. Simply select the material type from the list, set your desired rate, and the dryer performs all the necessary calculations for optimum dryer settings. In addition to the up to 30 pre-set materials, user material settings can be saved as well.

■ Built-in intelligence to protect your material

Conair's MicroWheel incorporates intelligent processing technology. The dryer features a Material Protection Management (MPM) system which detects when material is not being used and places the dryer in a stand-by mode, reducing the delivery air temperature until material demand is sensed.

■ Easy to maintain

The MW Series requires no cooling water or compressed air. Gaining access to the interior of the dryer is quick. Filters are easily maintained and the reliable gear drive of the desiccant rotor is maintenance free.



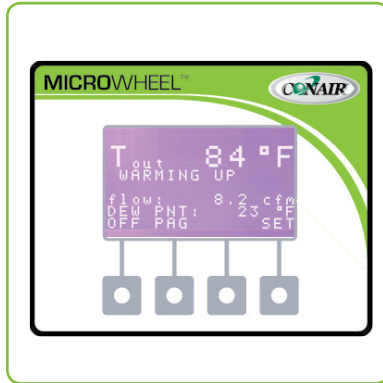
MW Models MW1 and MW2

FEATURES



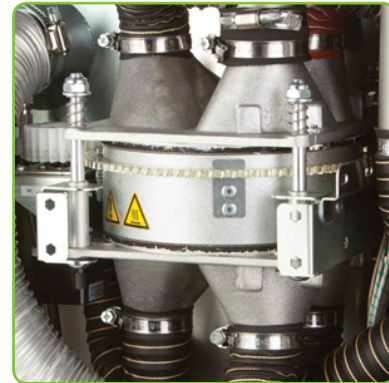
The dryer cabinet internal components.

- Single-phase electrical connection.
- No water or compressed air required.
- Compact hopper-mounted package.
- Clean, efficient operation.
- Easy access for maintenance.
- Designed for precision molders and medical production.



The intelligent MicroWheel dryer control.

- Built-in material database for easy operation.
 - Select the material from list.
 - Set the required rate.
 - Dryer performs all calculations necessary.
- User settings can be easily saved.
- MPM: Material Protection Manager:
 - Detects material not being used.
 - Places the dryer in a stand-by mode.
 - Reduces delivery air temperature.
 - Re-senses material demand.
- Easily view:
 - Drying temperature.
 - Dewpoint.
 - Airflow.
 - Operation status.



The MicroWheel desiccant wheel.

- Proven desiccant wheel operation. The cleanest, most efficient drying medium used today. Continuous wheel rotation provides uniform, spike-free drying that is easily monitored.
- Gear driven. No belt, no chain.
- Full process, regeneration, and cooling stages.
- Dust free, bead-free honey-comb desiccant media.
- Minimal air flow required.
- Air flow is automatically adjusted to match throughput requirements.
- Highly energy efficient.
- Quiet.

OPTIONS

- Loader adapter for Conair TLM or TLR Tube Loaders.
- Alarm kit – red LED light on the control.
- Dew point sensor kit – 4-20 mA dew point sensor installed in the dryer.
- Network connection kit - RS485 Modbus serial for communications.
- Weekly timer kit – auto start/ stop of dryer.
- Filter check kit – for process air filter.
- Remote control kit – to remote the LCD display away from the dryer.
- Color touch screen display – a remote control used with the dryer's LCD display.

- Drain port/throat adapter – stainless steel mounting base with drain port and purge port.



MW MODELS MW1 and MW2

THROUGHPUTS

The following chart shows the throughput range for various material types that are pre-programmed into the dryer control. Note: This is only a guide. Throughputs will vary based on application.

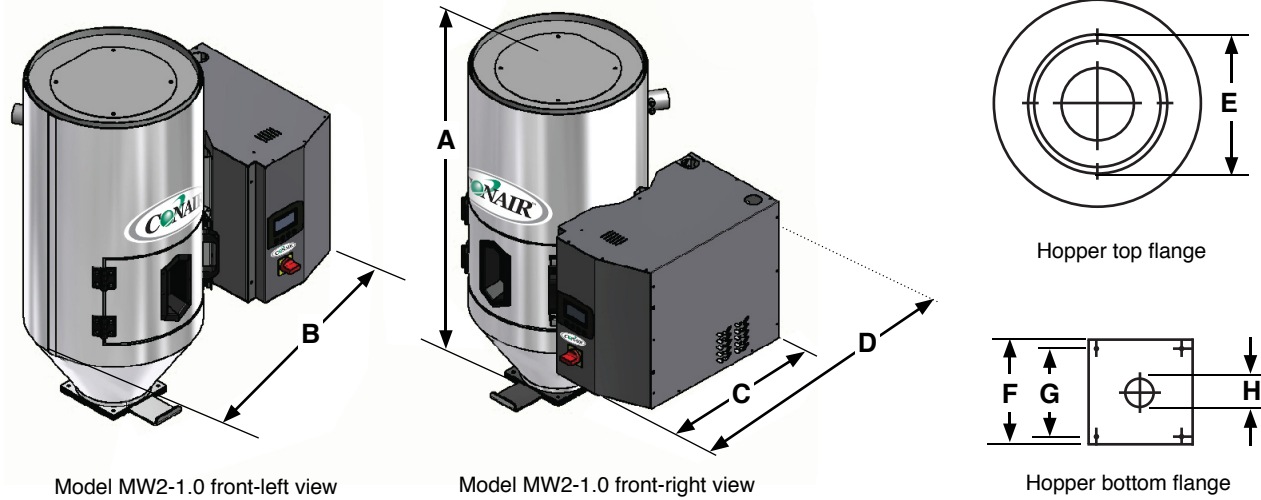
Material	Bulk Density	Residence Time	Temperature	Dew Point	MW1		MW2	
					lb/hr {kg/hr} minimum	lb/hr {kg/hr} maximum	lb/hr {kg/hr} minimum	lb/hr {kg/hr} maximum
Recipe code	lb/ft ³ {Kg/dm ³ }	hours	°F {°C}	°F {°C}				
AS mold	37.5 {0.60}	3	176 {80}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
ABS ext	37.5 {0.60}	3.5	185 {85}	-40 {-40}	2.4 {1.1}	17.6 {8}	8.8 {4}	30.9 {14}
ABS / PC	40.6 {0.65}	3	212 {100}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
ASA	31.2 {0.50}	3	194 {90}	-40 {-40}	2.4 {1.1}	17.6 {8}	11.0 {5}	30.9 {14}
CA	31.2 {0.50}	2.5	158 {70}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	26.5 {12}
CAB	31.2 {0.50}	2.5	158 {70}	-40 {-40}	2.0 {0.9}	15.4 {7}	8.8 {4}	26.5 {12}
CP	37.5 {0.60}	4	167 {75}	-40 {-40}	2.0 {0.9}	13.2 {6}	8.8 {4}	24.3 {11}
EVA	37.5 {0.60}	3	176 {80}	-40 {-40}	1.8 {0.8}	13.2 {6}	6.6 {3}	22.0 {10}
EPDM	32.5 {0.52}	4	176 {80}	-40 {-40}	1.8 {0.8}	13.2 {6}	6.6 {3}	22.0 {10}
LCP	37.5 {0.60}	4	302 {150}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PA 6	40.6 {0.65}	5	167 {75}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	26.5 {12}
PA 66	40.6 {0.65}	5	176 {80}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	28.7 {13}
PA66 + 35FV	53.1 {0.85}	5	176 {80}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PA 12	40.6 {0.65}	3	167 {75}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	26.5 {12}
PA 11	40.6 {0.65}	5	167 {75}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	28.7 {13}
PC	43.7 {0.70}	3	248 {120}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
PC for CD	43.7 {0.70}	4	248 {120}	-40 {-40}	1.8 {0.8}	13.2 {6}	6.6 {3}	22.0 {10}
PC + PBT	43.7 {0.70}	3.5	230 {110}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	28.7 {13}
PE	37.5 {0.60}	3	194 {90}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
PE (40% n.f)	37.5 {0.60}	5	185 {85}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	28.7 {13}
PEEK	37.5 {0.60}	4	311 {155}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	30.9 {14}
PEI	37.5 {0.60}	4.5	311 {155}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PEN	53.1 {0.85}	5	338 {170}	-40 {-40}	2.0 {0.9}	13.2 {6}	6.6 {3}	24.3 {11}
PES	43.7 {0.70}	4	311 {155}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PES	43.7 {0.70}	4	356 {180}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	28.7 {13}
PET	53.1 {0.85}	4	266 {130}	-40 {-40}	2.4 {1.1}	15.4 {7}	8.8 {4}	28.7 {13}
PET ext	53.1 {0.85}	6	338 {170}	-40 {-40}	1.8 {0.8}	13.2 {6}	6.6 {3}	22.0 {10}
PETG	37.5 {0.60}	4.5	149 {65}	-40 {-40}	2.0 {0.9}	13.2 {6}	8.8 {4}	24.3 {11}
PBT	43.7 {0.70}	3.5	257 {125}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PI	37.5 {0.60}	2.5	248 {120}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PMMA	40.6 {0.65}	4	176 {80}	-40 {-40}	2.4 {1.1}	17.6 {8}	8.8 {4}	30.9 {14}
POM	37.5 {0.60}	3	212 {100}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
PP	31.2 {0.50}	2.5	194 {90}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
PP ext	31.2 {0.50}	2	212 {100}	-40 {-40}	3.1 {1.4}	22.0 {10}	13.2 {6}	39.7 {18}
PP GF20	39.3 {0.63}	3	194 {90}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PP GF30	42.5 {0.68}	3	194 {90}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PP (40% t.)	37.5 {0.60}	2.5	194 {90}	-40 {-40}	2.2 {1.0}	15.4 {7}	8.8 {4}	28.7 {13}
PPO	31.2 {0.50}	2.5	221 {105}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
PPS	37.5 {0.60}	3.5	284 {140}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
PS	34.3 {0.55}	2	176 {80}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	37.5 {17}
PSU	40.6 {0.65}	3.5	275 {135}	-40 {-40}	2.6 {1.2}	17.6 {8}	11.0 {5}	33.1 {15}
PSU GF20	52.4 {0.84}	3	302 {150}	-40 {-40}	1.8 {0.8}	13.2 {6}	6.6 {3}	22.0 {10}
PUR	43.7 {0.70}	3	185 {85}	-40 {-40}	2.4 {1.1}	15.4 {7}	8.8 {4}	28.7 {13}
PVC	49.9 {0.80}	1.5	158 {70}	-40 {-40}	4.0 {1.8}	28.7 {13}	15.4 {7}	50.7 {23}
SAN	31.2 {0.50}	2.5	176 {80}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	37.5 {17}
SB	37.5 {0.60}	2	176 {80}	-40 {-40}	2.8 {1.3}	19.8 {9}	11.0 {5}	35.3 {16}
TPE	40.6 {0.65}	3	230 {110}	-40 {-40}	2.0 {0.9}	15.4 {7}	8.8 {4}	26.5 {12}
TPU	40.6 {0.65}	3	194 {90}	-40 {-40}	2.4 {1.1}	17.6 {8}	8.8 {4}	30.9 {14}

Specifications can be found on the following page.



MW MODELS MW1 and MW2

SPECIFICATIONS



Model MW2-1.0 front-left view

Model MW2-1.0 front-right view

Hopper bottom flange

Model number	MW1-0.2	MW1-0.5	MW1-1.0	MW2-1.0	MW2-1.75
Performance characteristics (with full hopper)					
Drying temperature* °F {°C}	131 - 356 {55 - 180}	131 - 356 {55 - 180}	131 - 356 {55 - 180}	131 - 320 {55 - 160}	131 - 320 {55 - 160}
Dewpoint† °F {°C}	-40 {-40}	-40 {-40}	-40 {-40}	-40 {-40}	-40 {-40}
Maximum airflow‡ ft³/min {m³/hr}	8.2 {14.0}	8.2 {14.0}	8.2 {14.0}	14.7 {25.0}	14.7 {25.0}
Dimensions					
A - Overall height inches {mm}	19.5 {495}	24.6 {626}	27.7 {704}	27.7 {704}	38.5 {978}
B - Overall width inches {mm}	18.3 {465}	20.6 {524}	25.1 {637}	28.8 {732}	28.8 {732}
C - Depth of dryer inches {mm}	17.7 {450}	17.7 {450}	17.7 {450}	25.8 {655}	25.8 {655}
D - Overall depth (including filter) inches {mm}	20.7 {526}	21.6 {549}	23.9 {607}	26.8 {681}	26.8 {681}
Hopper capacity ft³ {liter}	0.21 {6.0}	0.53 {15.0}	1.06 {30.0}	1.06 {30.0}	1.77 {50.0}
Air hose diameter inches {mm}	1.5 {38}	1.5 {38}	1.5 {38}	1.5 {38}	1.5 {38}
E - Hopper top flange diameter inches {mm}	5.6 {141.5}	11.0 {280}	11.0 {280}	11.0 {280}	11.0 {280}
F - Hopper bottom flange width inches {mm}	7.3 {185}	7.3 {185}	7.3 {185}	7.3 {185}	7.3 {185}
G - Hopper bottom flange mounting pattern inches {mm}	6.1 {155}	6.1 {155}	6.1 {155}	6.1 {155}	6.1 {155}
H - Hopper bottom flange outlet diameter inches {mm}	2.4 {60}	2.4 {60}	2.4 {60}	2.4 {60}	2.4 {60}
Approximate weight					
Standard installed (hopper empty) lb {kg}	77 {35}	82 {37}	106 {48}	133 {60}	144 {65}
Voltage - full load amps					
220V/1 phase/50hz or 60hz	4.5	4.5	4.5	9.5	9.5

SPECIFICATION NOTES

- * Drying temperature setpoint is set by the user, depending on the material type and the application.
- † Energy usage and calculations are based on a dewpoint of -40°F (-40°C).
- ‡ Airflow range is calculated by the control, based on application.

Specifications may change without notice. Check with a Conair representative for the most current information.

