

# Central Drying Hopper Systems

Conair ResinWorks™ systems offer a perfect level of manufacturing efficiency. By consolidating resin handling and pre-conditioning into a central area, material changes can take place quickly, cleanly, and safely away from the processing machine. Simplified resin dehumidification is the heart of the ResinWorks system, where multiple hoppers are supplied on a common, pre-plumbed, pre-wired sled, and connected to a dehumidifying dryer to provide superior drying and maximum productivity. Individual sleds can be connected to form an efficient, centralized resin drying area supplying large numbers of processing machines with a wide array of dried resins.



## ResinWorks™ System

D600 Dryer shown with RWH33-21, RWH24-12 and RWH 16-6 hoppers, with Optimizer package.

## Rugged Hopper Stands Incorporate Heat/Air Control

ResinWorks™ central drying systems are designed to solve real-world productivity challenges. Energy and time saving features create an efficient central drying system. Starting with simplified shipping and installation, ResinWorks continually improves your bottom line.

Integral supply and return manifolds carry dehumidified air from your central dryer. Individual hoppers are easily isolated for clean out by dual air valves opened and closed with a single hand lever. This 3-position lever located beside the temperature controller provides fool-proof On/Off operation for both heat and airflow. Three phase disconnects at each sled conveniently distribute power to all hoppers.

Stainless steel drying hoppers provide exceptional air distribution and material mass flow. Removable air spreader cone and extra-large access door minimize clean out time. Use the hopper's extra-long sight glass with optional sensor bracket and sensor kits to easily adjust and indicate material level.

- ▶ **Quick-clean hoppers with superior mass flow - no material hang-up points**  
Located within easy operator reach, each hopper includes the industry's largest clean-out doors, a removable cone, and smooth all-stainless steel construction. Hopper design assures that all material is evenly exposed to dry air and heat.
- ▶ **Color touchscreen control option**  
A full-color touchscreen control is available for each hopper station, enabling station control from the hopper or the dryer.
- ▶ **100% insulated**  
From the base of the cone, to the oversized door, to the full body wrap, each hopper is designed to preserve heat and save energy.
- ▶ **Single power drop per sled, plus plug and play air ducting**  
Each ResinWorks sled requires only one power drop. No need for individual drops to each hopper. The cost savings here really add up quickly! And because the process and return air ducting come integrated into the hopper stand, you save time, money, and space. The continuously-welded header pipe system means no leaks!
- ▶ **Super safe hopper control**  
Air is turned on and off with the exclusive ResinWorks control lever. Isolate a hopper for cleanout without shutting down the entire system. Safe. Simple. Foolproof.
- ▶ **Automatic airflow balancing**  
With this design, there will never be any adjustment needed.



## Features

Systems that are conceived, configured and designed to make you more competitive, efficient, productive and profitable.

- **Provides full flexibility** – any material to any machine at any time.
- **Ten minute material changes** – pre-dried, pre-blended material always ready.
- **Clean, neat processing** – removes drying and blending equipment from the machine area.
- **Convey small batches** from dryer or blender to machine.
- **Conveying lines purged** after every cycle.
- **Minimizes labor**, energy, material and inventory costs.



ResinWorks **drying hopper sleds** can accommodate **up to four drying hoppers**, each sized specifically for either multi-machine, long run or single machine, short run operations. The sled is shipped with drying hoppers, heaters, controls, dry air manifolds and purge valves pre-assembled or easy installation.



Integrated supply and return air manifolds replace the externally mounted bulky manifolds for a simplified installation of material conveying lines to each hopper.



The Conair ResinWorks mass flow, stainless steel, drying hopper is equipped with an oversized door for quick, easy clean out and thorough material changes. A full length sight glass with level indication lets you see your material level at a glance.



### ResinWorks with Optimizer AI option

The latest innovation to central drying, The Optimizer option uses AI technology to optimize the drying process in the ResinWorks system. Automatically utilizes the perfect temperatures for varied throughputs, monitors and regulates air flow to each hopper, and prevents over-drying while realizing significant energy savings. Optimizer AI represents the future in intelligent automated auxiliary equipment that reduces energy use and helps processors Make Every Pellet Count.



The new, fully-automatic airflow balancing valve eliminates the need for tedious individual air flow adjustments at each hopper.



Each hopper has a 3-phase disconnect, allowing you to independently shut off one hopper without disrupting production.

## Options



**Adjustable Purge Valve**  
Controls material flow from material source to destination. Easy to clean and install, it has a discharge that rotates 360 degrees to allow complete purge of material lines.

**Slide Gate** - Prevents material leakage when no purge valve or distribution box is specified on the hopper.



**Multiple Sled Connection Kit** allows the connection between multiple sleds for the integral supply, return and conveying manifolds. For each junction between sleds, a kit is required.

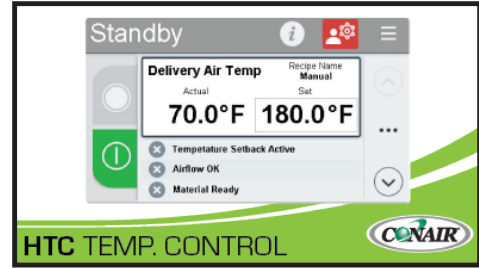
**Communications Modbus** communications ensure that you can successfully connect and communicate.

**Hopper Discharge Drain Port** Facilitates hopper draining and clean out.



**Automatic over-drying protection** - The Temperature Setback feature automatically adapts to throughput conditions to prevent material from over-drying and to save energy when machine throughput is reduced or stopped.

## Control



### HTC Control

#### Features and Options

Display / HMI screen	4-inch color	Energy Usage Meter	●
Temperature/dewpoint trending	●	Audible and Visual alarm	●
Auto start/stop	7 day/time	Drying Monitor	○
English / metric units	●	Material ready notification	●
Password protected	●	Add'l detailed trending screens	●
Temperature Setback (manual/auto)	●	Calculated airflow monitor	○

## Specifications

Models	RWH 10-1	RWH 10-1.5	RWH 14-2	RWH 14-3	RWH 14-4	RWH 18-6	RWH 24-12	RWH 24-18	RWH 33-21	RWH 33-28	RWH 39-35†**	RWH 39-42‡**	RWH 44-58‡**	
<b>Figure Number</b>	<b>Figure 1</b>										<b>Figure 2</b>			
<b>Performance characteristics</b>														
Volume ft³ {liter}	1.0 {28}	1.5 {42}	2.0 {56}	3.0 {85}	4.0 {113}	6.0 {170}	12.0 {340}	18.0 {509}	21.0 {595}	28.0 {793}	35.0 {991}	42.0	58.0	
Capacity @ 35 lb/ft³ lb {kg}	35.0 {16}	52.5 {24}	70.0 {31}	105.0 {48}	140 {63}	210.0 {95}	420.0{191}	630.0{286}	735.0{333}	980.0{445}	1225.0	1470.0	2030.0	
Capacity @ 52 lb/ft³ lb {kg}	52.0 {23}	78.0 {35}	104.0 {47}	156.0 {71}	208.0 {94}	312.0	624.0	936.0	1092.0	1456.0	1820.0	2184.0	3016.0	
Air inlet/outlet OD {mm}	2.5 {64}						5.0 {127}							
Inside diameter OD {mm}	10.0 {254}		14.0 {356}			18.0 {457}		24.0 {610}		33.0 {838}		39.0 {991}		44.0 {991}
Material inlet	IT06						IT07							
Material outlet ID {mm}	2.38 {60}										3.0 {76}			
Material discharge (bottom)	IB02										IB03			
<b>Voltages full load amps§</b>														
Heater kW	4						10				30			
208 V/3 phase/60Hz	11.1						22.7*				N/A			
230 V/3 phase/60Hz	10.1						25.1				N/A			
400 V/3 phase/50Hz	5.8						14.4				43.7			
460 V/3 phase/60Hz	5.0						12.6				37.9			
575 V/3 phase/60Hz	4.0						10.1				30.4			
<b>Standard sled dimensions inches {cm}</b>														
A - Overall height†	65.5 {166}	78.5 {199}	65.5 {166}	78.7 {200}	86.5{220}			110.8{281}	90.4 {230}	115.3{293}	128.7{327}	138.9	144.5 {367}	
B - Height below mounting flange	32.6 {83}		29.3 {74}			25.6 {65}		20.6 {52}		24.0 {61}		27.0 {69}		22.0 {56}
C - Panel height	41.3 {105}						41.8 {106}							
D - Sled width	25.0 {64}						36.0 {91}		45.0 {114}		69.0 {175}		74.0 {188}	
E - Depth	51.3 {130}						59.0 {150}						64.0 {162}	
<b>Approximate weight lb {kg}</b>														
Shipping weight	300 {136}	310 {141}	335 {152}	350 {159}	365 {166}	450 {204}	670 {304}	700 {318}	1000 {454}	1250 {567}	1700 {771}	1750	2000 {907}	

### Specification Notes

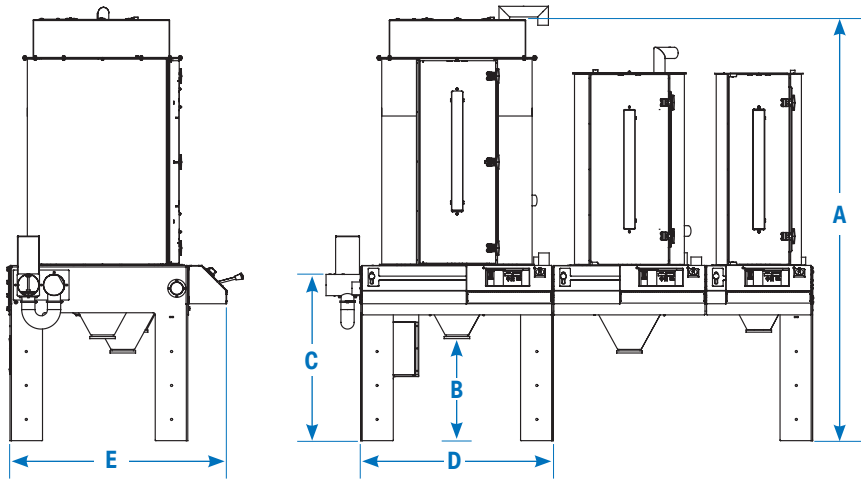
* Uses 230 V heater derated to 7.5 kW.	** The optional gaylord-loading stand (available only on RWH39 and RWH44 sizes) increases overall height by 34 inches {86cm} on RWH39 models and 39 inches {99 cm} on RWH44, and weight by 100 lbs {45 kg}. It provides 60.5 inches {154} clearance below the flange.
† For multi-hopper sled, be sure to use the largest hopper as the reference for the overall height.	Specifications can change without notice. Contact a Conair representative for the most current information.
‡ Conair 39 and 44 inch hoppers are mounted on individual sleds.	
§ FLA ratings are per hopper. FLA ratings for a ResinWorks sled is the sum of the sled's individual hopper FLA ratings plus 1.2 amps.	



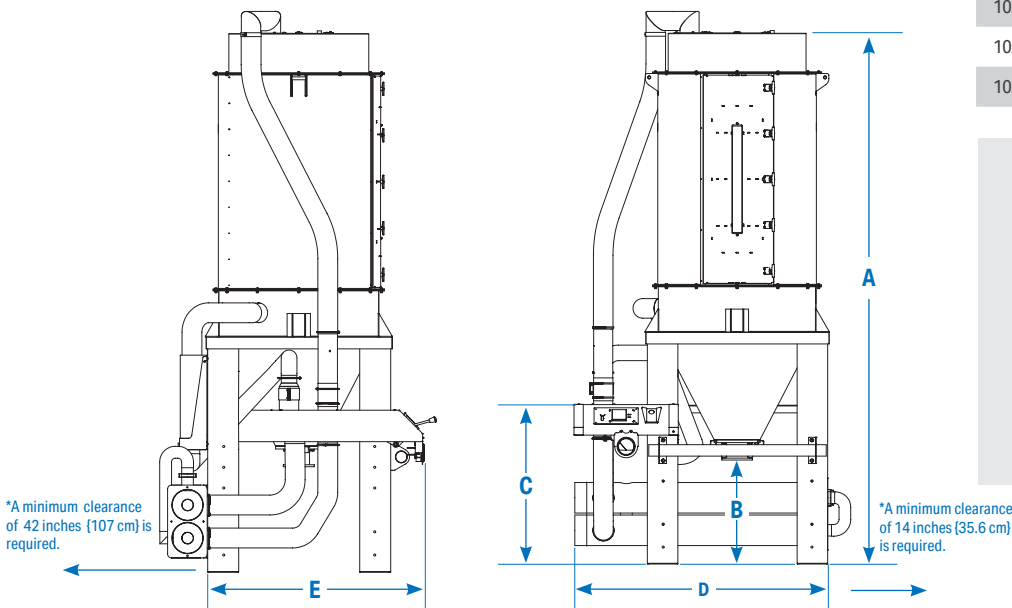
# Specifications

Depending upon hopper requirements, ResinWorks drying systems may be configured with single-hopper sleds, multiple-hopper sleds or a combination of both.

**Multi-Hopper Sled (Figure 1)**



**Single-Hopper Sled (Figure 2)**



**Available Hopper Combinations (Figure 3)**

RWH Hopper Models possible sled combinations				Sled Total Length	
				inches (mm)	ft. (cm)
33				45 (1143)	3.8 (116)
33	33			90 (2286)	7.5 (229)
33	33	24		126 (3200)	10.5 (320)
33	33	10/14/18		115 (2921)	9.6 (293)
33	24			70 (1778)	5.8 (177)
33	24	24		95 (2413)	7.9 (241)
33	24	10/14/18	10/14/18	131 (3327)	10.9 (332)
33	10/14/18	10/14/18	10/14/18	120 (3048)	10.0 (305)
24				36 (914)	3.0 (91)
24	24			72 (1829)	6.0 (183)
24	24	24		108 (2743)	9.0 (274)
24	24	14/18		97 (2464)	8.1 (247)
24	24	10/14/18	10/14/18	122 (3099)	10.2 (311)
24	10/14/18	10/14/18	10/14/18	111 (2814)	9.3 (283)
10/14/18				25 (635)	2.1 (64)
10/14/18	10/14/18			50 (1270)	4.2 (128)
10/14/18	10/14/18	10/14/18		75 (1905)	6.3 (192)
10/14/18	10/14/18	10/14/18	10/14/18	100 (2540)	8.3 (253)

**Note:** Conair 39 and 44 inch hoppers are mounted on their own individual sleds. (see Figure 2)

Use Figure 3 to identify the available hopper combinations that would be right for your operation, and determine the overall width of each multi-hopper sled. More specific dimensions for hoppers can be found on the previous page, in the specifications table.

Hoppers that are 33 inches (84 cm) in diameter and smaller may be joined together onto a single sled and shipped as a unit, installed as a unit and connected into your drying system as a single unit (see Figure 1). This consolidation greatly saves time and expense and once connected to the proper central drying unit, provides an optimum dehumidification system for all of your resins. Hoppers 39 inches (99 cm) and over in diameter are provided on their own individual floor stands (sleds) and each is equipped with air connections, heater, control, etc. (see Figure 2).

