

# Intuitive Touchscreen Precise Drying

The EnergySmart® Dryer with TouchView™ Technology combines traditional drying with an intuitive full-color, touchscreen control that allows you to easily navigate and adjust all dryer system settings. This new, powerful control is designed for variable throughputs of 400 to 5,000 lbs/hr {181 to 2,268 kg/hr}.

All EnergySmart Dryers feature Optimizer™ Mode technology that automatically adjusts the dryer's blower to match your processing machine. This ensures that you make high-quality, consistent product while dramatically reducing your energy cost.

Optional loading, trending and recipe control screens further expand the capabilities of your EnergySmart Dryer System.



## Take Charge of Your Process and Energy Usage

The EnergySmart® Dryer with TouchView™ Technology allows you to fine-tune your system settings to achieve consistent drying results. System overview screens and profile temperature readouts display the current status of your process for simple and easy adjustment.

Molecular sieve desiccant that is bonded to a fiberglass substrate and formed into a continuously rotating wheel is the heart of the EnergySmart Dryer. Every desiccant wheel provides consistent drying temperatures and dewpoints levels that are critical to your drying process.

EnergySmart® Dryer options include: an insulated hopper, a gas or an electric heater, dust collector(s), positive displacement pump(s), receiver(s), a cyclone and a patented DM-II drying monitor package.

### ▶ Easy-to-use, full-color touchscreen

You'll have more visibility and control of your drying system than ever before. View and control critical drying parameters such as airflow, dewpoint and temperature with intuitive screen navigation.

### ▶ Real-time viewing of your process

View the drying temperatures, air flow, dewpoints and differential pressure of your process provided by sensors located throughout your drying system. Each sensor's profile is stored to the dryer control's memory for historical trending and fine tuning of the dryer.

### ▶ Slash energy waste; reduce energy bill

The Optimizer™ mode works with the dryer's variable frequency drive (VFD) to automatically adjust the dryer's blower output to the processing machine. This feature reduces the blower output, minimizing the total amount of energy needed to dry at variable throughputs.

### ▶ Early warning-constant monitoring

The TouchView™ Technology control constantly monitors temperature and air flow. Any external changes that could effect your process are immediately displayed in time for you to adjust them.

### ▶ Two Year top-to-bottom warranty

A full two-year warranty from top-to-bottom and a 3-year warranty for the desiccant wheel ensures long life. You can expect high performance and reliable operation from your Conair equipment.



## Features

- Variable frequency drive (VFD)**  
 The VFD allows for automatic adjustment of the airflow to the dehumidifying drying circuit of the EnergySmart® Dryer.
- Optimizer™ mode**  
 Automatically controls the material temperature profile of the drying material based on environmental changes that may occur during processing.
- Dewpoint monitor**  
 Allows the user to monitor the performance of the dryer by providing a digital dewpoint read-out of the supply and return air.
- DM-II drying monitor**  
 Automatically monitors the temperature profile inside the drying hopper. Working with the Optimizer™ mode, the DM-II drying monitor helps maintain the drying system's performance.
- Dewpoint control**  
 Allows the dryer to lock onto and track an operator selected dewpoint level. This feature helps prevent over drying of moisture sensitive materials such as Nylon.



## Options

- Trending screens**  
 View and record live data on the operation of the system.
- Recipe screens**  
 View, save and upload application specific recipes for drying materials.
- Loading screens**  
 View, configure and activate secondary loading controls.
- Communications**  
 The dryer can be networked to industrial control systems. TCP/IP and PROFINET communications are available, depending on the control type. (Allen-Bradley or Siemens)
- Audible and visual alarm**  
 A combination of a blinking red alarm light and a horn alerts you to any shut down alarm condition.

## How it Works: Wheel Dryer Technology

The core of the EnergySmart® Dryer is the Munters® unique fluted desiccant rotor, which contains molecular sieve desiccant. The molecular sieve has been grown into the rotor's porous fiberglass substrate, preventing the possibility of desiccant break down and dusting over time. The desiccant rotor revolves slowly, passing through three cycles with each revolution.

### 01

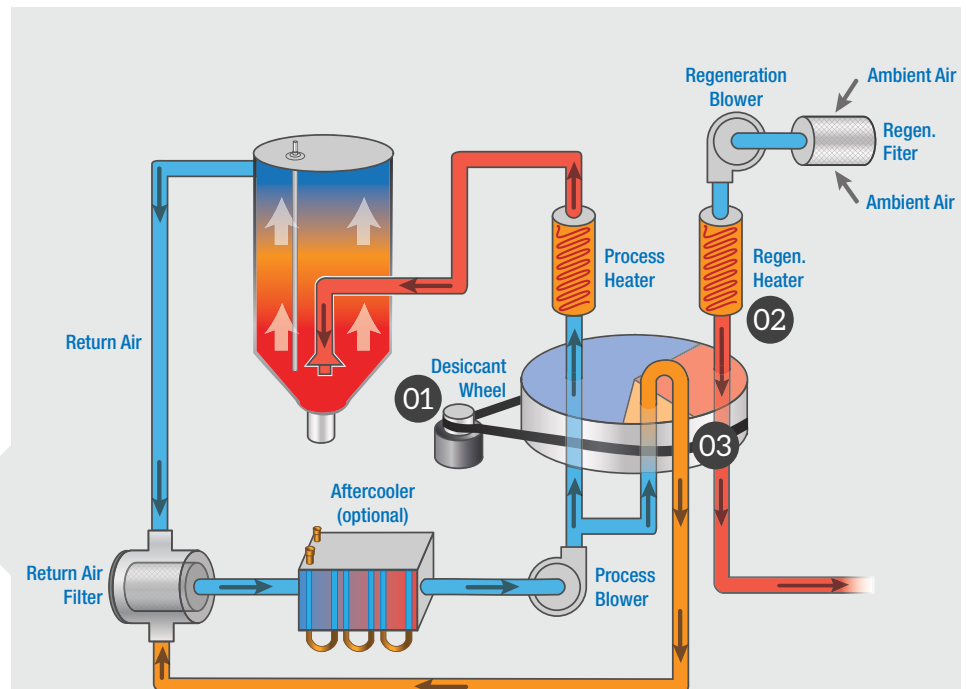
First, the dry air is dehumidified in the adsorption cycle, capturing and removing moisture from the drying air stream.

### 02

Next, the desiccant passes into the high temperature regeneration cycle where the absorbed moisture is heated and purged out of the desiccant to the atmosphere.

### 03

The desiccant is then advanced to the post regeneration cooling cycle and cooled with closed loop dry air. All EnergySmart® Dryers feature this unique closed loop cooling technology to eliminate moisture that can cause defects in parts.



**Note:** Dryers W600-W5000 that are central dryers do not have process heaters. Heater Packs, Hopper Temperature Controllers (HTC's), or GasTrac Dryers (CGT's) are used at the hopper for heating the process air. See the Hopper Temperature Controller (HTC) and GasTrac Dryer (CGT) specification sheets for further technical information. Even though Heater Packs are remote from the dryer, they are controlled by the dryer.



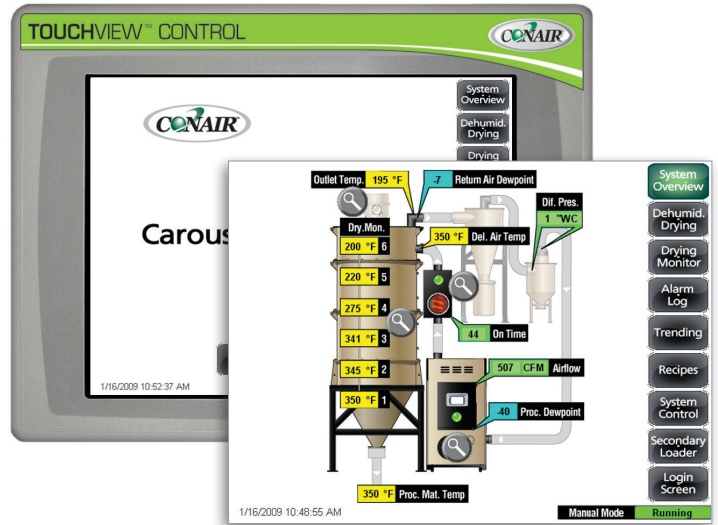
# Control Features

## TouchView™ Technology

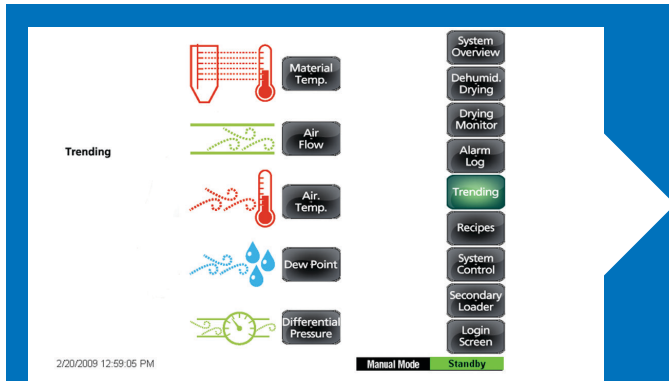
The touchscreen control eliminates confusing alarm codes and hard-to-navigate parameters and replaces them with full-color, easy-to-read graphics and status indicators.

Each screen of the control displays all parameters and allows each to be individually altered for maximum control over your process. Drying and dewpoint monitors track your process and provide early warnings to indicate a problem before it is too late.

The Variable Frequency Drive (VFD) and Optimizer™ mode streamline your process to maximize energy savings and increase profits.



# Optional Control Features



## Trending Screens

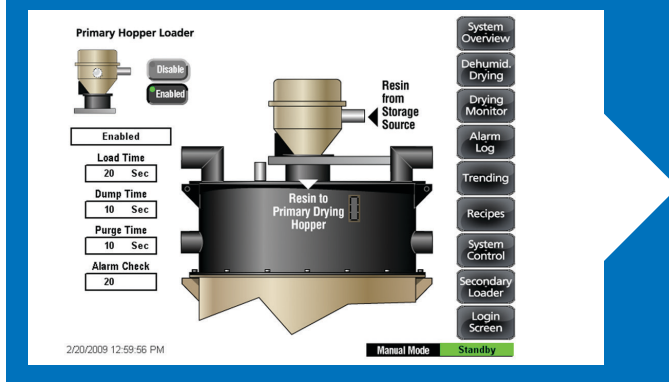
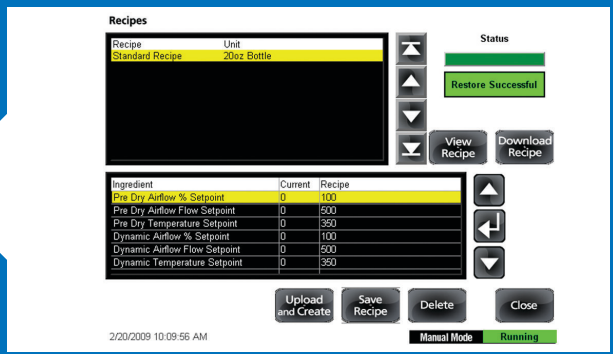
Optional trending readout screens are available to view your drying status from one central location. Easy-to-read screens graph material temperature, air flow, air temperature, dewpoint and differential pressure making the monitoring of your drying system super simple.

Color-coded lines on each graph are dedicated to sensors located throughout the system. Keys located below the graph indicate what sensor is providing the information.

## Recipe Management

Save current dryer settings for a specific material with the optional recipe management screen. Saved recipes can be instantly recalled when you are processing the same type of material.

Up to 99 dryer recipes can be stored to the dryer's control. Recipes that are used with the dryer's Optimizer™ mode can be saved and later reused for worry-free and efficient material drying. Improve the identification of each recipe by individually saving it with a name that is unique to the type of material that your are processing.

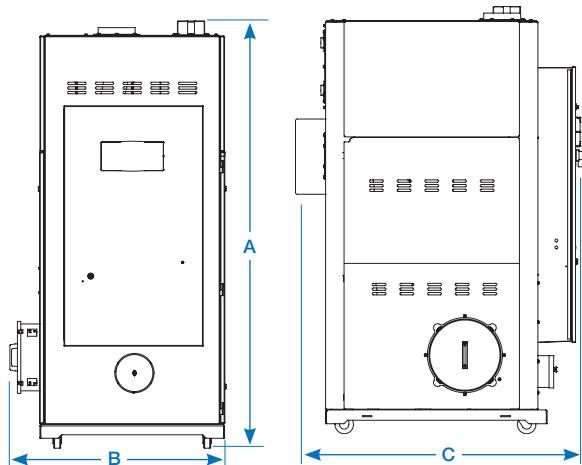


## Hopper Loader Control

Control up to two optional receivers with the addition of the hopper loader control feature. Load time, pump time, purge time and alarm checks can all be altered from the loader screens, eliminating secondary loading controls and allowing all software to be contained inside one electrical enclosure. Large user-friendly icons and text make setting loader functions simple and easy. The second loader control screen can operate a loader at the throat of a processing machine or to fill an auxiliary hopper.



# Specifications



Allen-Bradley Control



Siemens Control

Choose between two control platforms

## Application Notes

All dryers are supplied with an aftercooler/intercooler as standard. The aftercooler/intercooler reduces the temperature of the return air from the drying hopper, improving the efficiency of the desiccant. The aftercooler/intercooler should be connected with the proper water flow rate and temperature to attain the optimal throughput.

### When to use central models

Models W600 - W5000 EnergySmart® Dryers are all configured as central dryers. Central dryers do not have process heaters. Central models dehumidify the process air, which is then heated to the correct set point by a Heater Pack, Hopper Temperature Controller (HTC) or GasTrac Dryer (CGT).

### When to use additional filtration

The standard return air cartridge filter is sized for the airflow of each dryer model and is suited for most applications. You should consider adding an optional dust collector and/or volatile trap if:

- The material contains excessive fines. An additional dust collector or cyclone will extend time between filter cleaning.
- The material produces volatiles during drying which condense into a waxy or oily residue. A volatile trap will help to protect the desiccant.

## Installation Notes

Wiring between process air heater, Heater Pack, and dryer where control for this heater is located is not included. Maximum wire length between dryer and heat source is 100 feet {30 meters}. Consult Conair or a qualified electrician to determine gauge of wire required for distance. Maximum physical distance between dryer and hopper is 20 feet {6 meters}.

Models	W600*	W800*	W1000*	W1300*	W1600*	W2000*	W2400*	W3200*	W4000*	W5000*
<b>Performance characteristics (with full hopper)</b>										
Drying temperature	All models 100° - 375°F { 38° - 191°C } with options									
Dewpoint	All models -40°F {-40°C}									
<b>Dimensions inches {cm}</b>										
A - Height	93.8 {238.3}			92.2 {234.2}			98.3 {249.7}			
B - Width	49.3 {125.2}			53.9 {136.9}			58.2 {147.8}			
C - Depth	72.4 {183.9}			106.6 {270.7}		108.3 {275.0}		123.6 {313.9}		
Outlet/inlet hose diameter	8.0 {20.3}			12.0 {30.5}						
<b>Approximate weight lbs {kg}</b>										
Installed	1300 {590}		1400 {636}		1600 {726}			2000 {907}		
Shipping	1495 {678}		1515 {687}		2620 {1188}			3385 {1535}		
<b>Voltage standard/central full load amps ††</b>										
400 V/3 phase/50 Hz †	90.3 / 35.4	117.8 / 35.4	182.0 / 72.2	189.3 / 79.5	216.9 / 79.6	253.7 / 89.0	288.3 / 96.1	377.5 / 103.0		
460 V/3 phase/60 Hz	80.2 / 32.4	104.8 / 32.4	160.5 / 64.9	167.8 / 72.2	192.2 / 72.7	224.3 / 80.9	255.6 / 88.3	334.3 / 95.4		
575 V/3 phase/60 Hz	63.6 / 25.4	82.7 / 25.4	127.0 / 50.6	132.7 / 56.3	152.3 / 56.8	176.4 / 61.8	200.9 / 67.2	263.1 / 72.3		
<b>Water requirements (for aftercooler/intercooler or optional precooler) §</b>										
Recommended temperature ††	45° - 85°F {7° - 29°C}									
Water flow gal./min. {liters/min.}	6 - 25 {22.7 - 94.6} ††			12 - 40 {45.4 - 151.4} ††			15 - 50 {56.8 - 189.3} ††			
Water connections NPT	1 1/2 inch									

## Specification Notes

\* Dryers W600-W5000 that are central dryers do not have process heaters. Heater Packs, Hopper Temperature Controllers (HTC's), or GasTrac Dryers (CGT's) are used at the hopper for heating the process air. See the Hopper Temperature Controller (HTC) and GasTrac Dryer (CGT) specification sheets for further technical information. Even though Heater Packs are remote from the dryer, they are controlled by the dryer.

† The first full load amps number listed includes current to operate the dryer and the heat supply controlled by the dryer. The second full load amps number is current required for the dryer only, when operated as a central dryer with heaters (more than one) controlled and powered remotely.

†† Dryers running at 50 Hz will have 17% less airflow, and a 17% reduction in material throughput.

§ When drying below 150°F {66°C} a precooler is required.

\*\*Temperatures above or below the recommended levels may affect dryer performance. Tower, chiller or municipal water sources can be used.

†† Higher chilling water temperatures will require a greater flow rate.

†† FLA data for reference purposes only. Does not include any options or accessories on equipment. For full FLA detail for power circuit design of specific machines and systems, refer to the electrical diagrams of the equipment order and the nameplate applied to the machine.

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

