

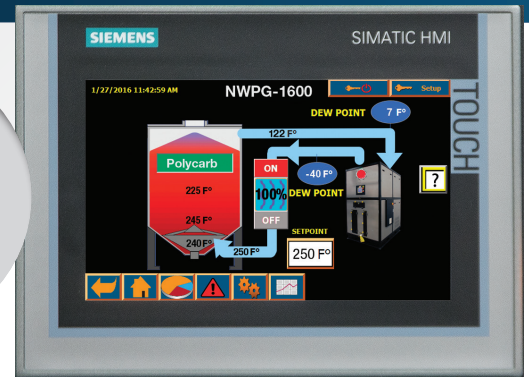


NovaWheel™ PowerGuard™ Dryer Series

Patented energy savings with Adaptive Process Heating Control and Regeneration Optimization.

This innovative drying system enables processors of all resins to significantly reduce initial cost, equipment footprint, maintenance and energy costs compared to other drying systems.

— 5 —
YEAR
warranty



9" High Resolution Touch Screen PLC with Screen Reflection Standard

Minimum Energy Usage

The NWPG utilizes patented technology and an electric or 90%+ efficient gas-fired process heater to ensure minimum energy usage.

Maximum Energy Efficiency

A color touch screen with adaptive process heating control and regeneration optimization control ensure maximum efficiency.

Proprietary Technology Saves Up to 30+% On Energy Costs

NWPG adaptive control and regeneration optimization automatically adjusts air inlet temperatures, blower speed and wheel speed, based on hopper return air temperature, to save energy and ensure consistent drying.

Continuous Feedback From The Return Air Sensor

Feedback is utilized for automatic adjustment of process settings, providing optimum energy efficiency and uniform drying regardless of initial material temperature, dryness, or throughput rate.

Regeneration Optimization

Variable frequency drives on regeneration blower and wheel speed reduce regeneration energy by up to 30%

Maintenance and Footprint Reduction of Over 50%

NWPG reduces maintenance because it has fewer moving parts, no valves and has a much smaller foot print compared to conventional dual-bed dryers.

Screen Reflection Standard

Allows a reflection of the screen to be sent to remote devices through a VNC application.

Each System Matched to Processing Needs

Instead of a "one design fits all needs" approach, NWPG systems are matched to your individual requirements.

Gas-Fired Process Heater Option

90%+ Efficiency for even greater energy savings. Available all sizes.

5-Year Warranty

For lowest cost of ownership.

Plus

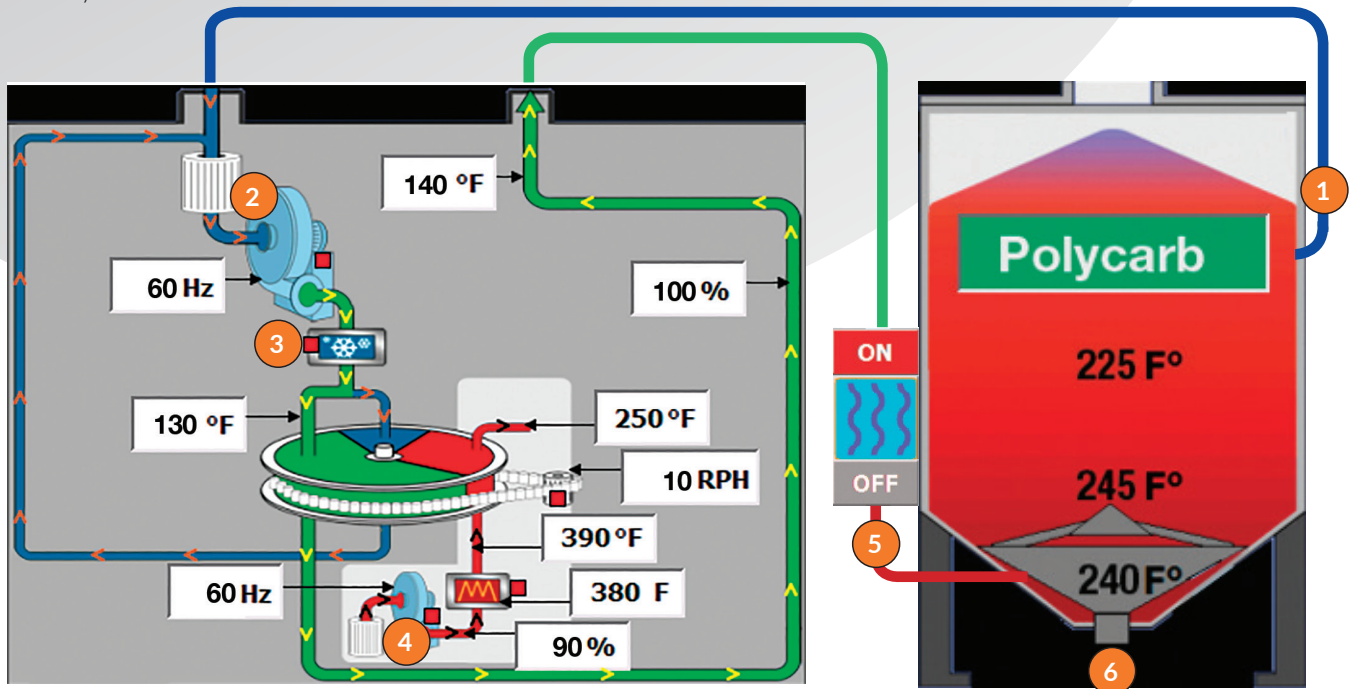
- › Vaisala dew point sensor on process air outlet
- › Pre-cooler (return air) and plasticizer filter/drain
- › 5-Year warranty

How It Works

NovaWheel™ PowerGuard™ Systems with Adaptive Control and Regeneration Optimization ensures process consistency, reduces energy usage and eliminates the need for operator intervention.

Key components of the NovaWheel PowerGuard system:

- › A modified Novatec NovaWheel desiccant wheel dryer includes PLC control with adaptive process heating control and regeneration optimization.
- › A multi-zone single flow drying hopper.
- › An electric or 90% efficient gas-fired process heater.
- › A cyclone dust collector.



Patented NWPG Adaptive Control and Regeneration Optimization automatically adjusts air inlet temperatures, blower and wheel speed, based on hopper return air temperature, saving energy, ensuring process stability and consistent drying.

Note: Hopper temperature sensors are for monitoring/trending purposes only and do not control the drying process.

The Keys To Efficiency

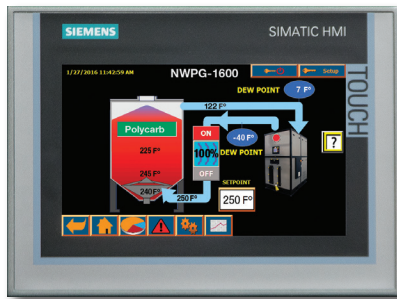
Automatic adjustment of process temperature and blower speed ensures process consistency, constant material temperature with minimum energy usage.

- 1 - The NWPG adaptive control system monitors hopper return air temperature to optimize air temperature in the upper portion of the hopper through heater and blower speed adjustments, to reduce energy consumption. Patent # 6,951,065,B2
- 2 - Within the dryer, the air is filtered and then enters a blower.
- 3 - The air is cooled before passing through the desiccant wheel and subsequently re-heated before entering the bottom of the hopper.
- 4 - Regeneration optimization uses a variable frequency drive to control blower and desiccant wheel speed. Patent # 5,688,305
- 5 - Air flow and inlet air temperature are constantly monitored and controlled through the adaptive control and regeneration optimization control using the feedback from the hopper return air temperature.
- 6 - Guaranteed constant temperature of material exiting the hopper.

Choice of configurations: Choose either electric or our patented, gas-fired process heater with 90% thermal efficiency. An optional self cleaning "pulse" type dust collector is available.

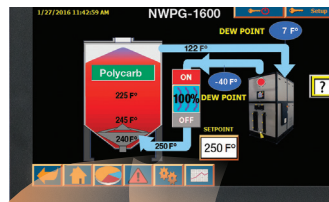
Hands-Free, Automatic Operation

- › 9" High resolution color touch screen makes initial set-up easy.
- › Provides at-a-glance indications of temperature and blower parameters.
- › Monitors all dryer functions including bed temperature, percent of process air flow and process/regeneration temperatures.



Ethernet Connection Provides Constant Monitoring

- › Ethernet connection allows access to system through any PC, anywhere.
- › System alarms can be emailed to any email account on a PC, Tablet or SmartPhone.



PowerGuard 9" Color Touch Screen PLC Features	
9" Hi-Res Color Touch Screen PLC	Standard
Control Temperature #1	Standard
Second Set-point	Standard
Over-temperature Alarm and Shutdown	Standard
Real Time Clock	Standard
Seven Day Timer	Standard
Auto Start/Stop	Standard
High/Low Temperature Alarm	Standard
Warning and Error Messages	Standard
Battery Backup	Standard
EEPROM	Standard
Calibration Feature and Set Point Secure	Standard
Set Deviation Limits	Standard
Language Capabilities	Standard
Diagnostics	Standard
Adjust PID Settings	Standard
NEMA 12 Enclosure	Standard
Loader Operation	Standard
Communications Capability	
Ethernet	Standard**
Modem	Optional*
MPI	Optional*
Profibus	Optional*
DeviceNet	Optional*
ASI	Optional*

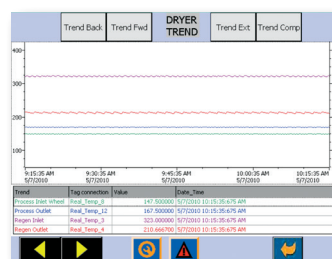
*As a PLC based option ** With embedded web page

Four Screens Show Real Time Trending On 14 Drying Parameters

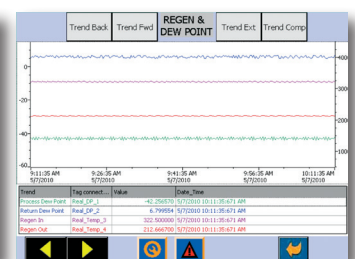
All of the Optimization and adaptive control features of NovaWheel PowerGuard dryers are controlled automatically and trending screens are provided for tracking purposes. The trending information can be downloaded, providing permanent quality assurance records and exported through Ethernet.

The trending screens are invaluable to allow the controls to monitor the performance and make any adjustments automatically.

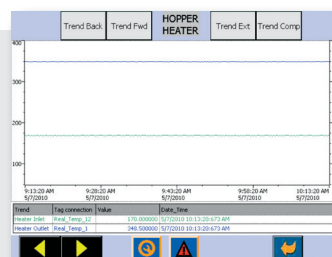
This combination of patented energy-saving features is provided on NWPG dryers only by Novatec. The result is process consistency with none of the power surges and dew point variation associated with the regeneration process in dual bed dryers. Energy savings are unparalleled with total energy usage is as low as 60-70 watts/Kg. These factors are increasingly important to processors.



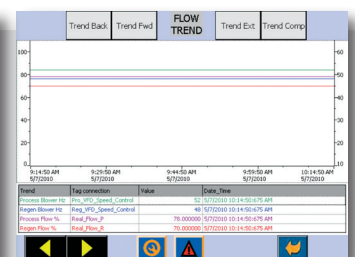
Dryer Trend



Regen and Dew Point



Hopper Heaters



Flow Trend

Specifications:

Part Number	Width		Depth		Height		Air Connection		Throughput Capacity*		
	in	cm	in	cm	in	cm	in	cm	460/3/60	415/3/50 (no charge)	575/3/60
									lb/hr	Kg/hr	Kg/hr
NWPG-600	47	119	60	152	88	218	6	15	600	232	273
NWPG-800									800	303	364
NWPG-1000							8	20	1000	380	454
NWPG-1300									1300	490	590
NWPG-1600	62	158	84	213	90	229	12	30	1600	596	727
NWPG-2000									2000	727	910
NWPG-2500	77	196	99	252	95	241	12	30	2500	950	1140
NWPG-3000									3000	1091	1364
NWPG-3800			109	277	108	274			3800	1382	1727
NWPG-5000									5000	1818	2272

Standard 460/3/60.

*Nominal throughput based on polycarbonate pellets @38 lb/ft³

Options:

****Alternate Voltage:** 415/3/50 (no charge) and 575/3/60-ESA

Gas-Fired Process Heater: 90%+ Efficiency
(See price list #140)

Accessories:

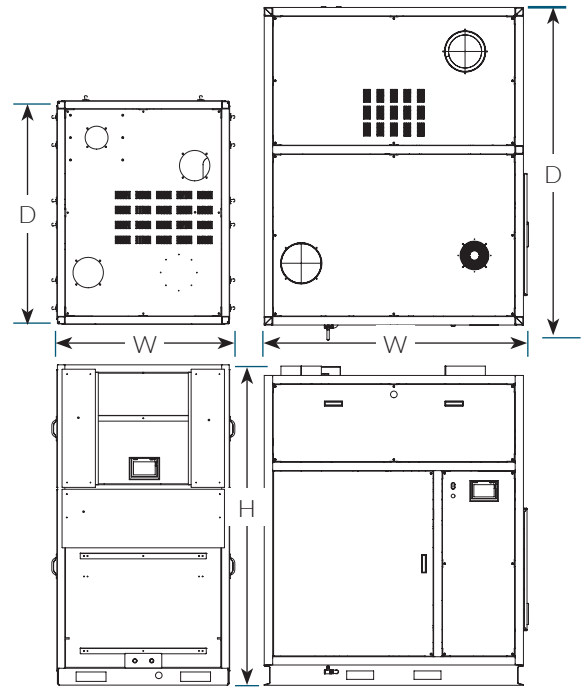
External Process Air Cooling Coil on Stand with or without plasticizer filter



NWPG-600 to -2000



NWPG-2500 to -5000



NWPG-600 to -2000 NWPG-2500 to -5000