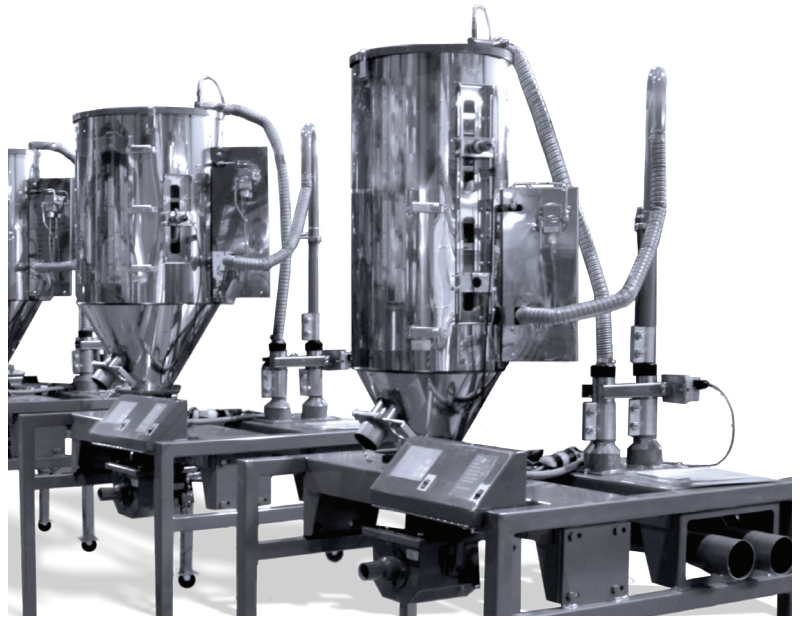


AutoMate

Adaptive Multiple Hopper Central Drying Systems

Benefits:

- Automatic modulated control for each individual drying hopper within the Central Drying Hopper (CDH) system
- Intuitive FOCUS-pro control system with large 10.4" touch screen interface
- Individual drying hopper MaterialSaver function
- Visual "ready to run" local indicator on the FOCUS-fit control tells you when material is ready to process
- Modular design for simple setup and operation
- System optimizes for minimal energy consumption
- Individual drying hoppers may easily be isolated from the rest of the CDH system for maintenance, cleanout, changeover, or set-up without disrupting online system operation or performance



A modular assembly consisting of hopper, stand, heater, temperature control, airflow ducting and branch valving are used to build multi-hopper central drying systems. Designed to comprise a grouped system assembly with common dimensions for a minimal footprint, clean appearance and ease of accessibility. Pre-plumbing of dehumidifier supply and return ducts with branch airflow connections provide ease of installation and fit.

Standard hopper branch valving is automatic, making multi-hopper dryer airflow balancing trouble-free, as well as providing full hopper shut-off when individual hoppers are offline for clean-out and set-up.

Manually-operated branch valving and a deletion of the trunk and branch valving is available to fit any drying application.

Una-Dyn

A Piovan Company

www.unadyn.com

AEO Valve



Top view- valves open

Dual-action, full-closed damper valves provide linear variability to supply and return branch line hopper airflow. Variable airflow performance is based on hopper airflow requirements or in response to energy consumption in hopper via precise closed-loop feedback control. Allows complete automation of hopper airflow settings and provides isolation when taken off line for clean-out and set-up. Driven by high-torque, direct-coupled drive with two-year component warranty.

Benefits:

- Analog valve control opens or closes providing tight control of airflow throughout its operational range
- Enables complete automation and optimization of the air flow to each individual drying hopper
- Provides drying hopper isolation from the CDH system when the hopper is taken off line for clean out or set-up
- Uses reliable high torque direct coupled drive to modulate valve operation
- Control through FOCUS-fit (local) and FOCUS-pro (central) control system
- Two year component warranty

Control:

FOCUS-fit Control



The control provides for local process heat control at a drying hopper.

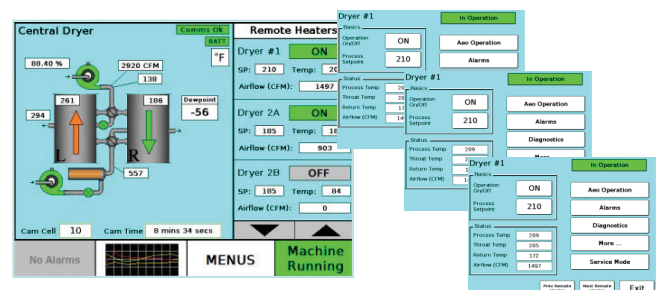
The local I/O control card provides support and control for the process heater, process blower, & an (optional) airflow control valve (AEO valve).

It also monitors three

temperature points (process, return, & hopper throat) as well as the process airflow and hopper material level. The user interface card provides the operator with complete control & monitoring of the drying process. At a glance, the operator can always see the current process temperature in the digital display and likewise, an LED bar graph shows the current airflow condition. When the material has reached its desired process temperature, a blue "MATERIAL READY" LED is lighted. An output for an optional alarm beacon or horn is provided.

An on-board, real-time clock provides for timekeeping and logging of all operational parameters which can be imported into an Excel spreadsheet. The FOCUS-fit can also be connected to an available FACS system for complete control & monitoring from the FACS PC.

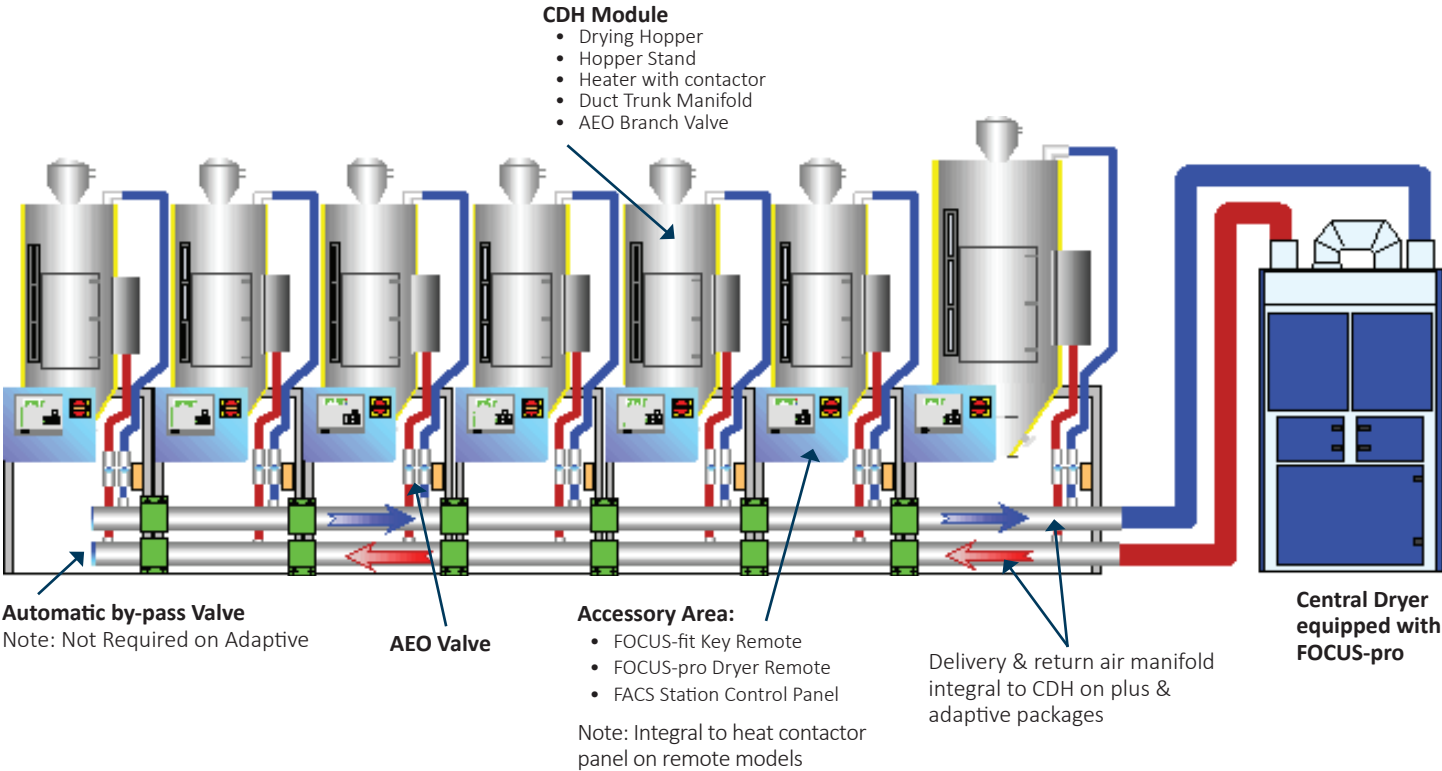
FOCUS-pro Comm Control



Benefits:

- Designed for use with DHD and PCT2 in conjunction with FOCUS-fit CDH hopper/heater systems
- 10.4" touch screen
- VFD process blower enables the energy-saving AEO features – communicates with FOCUS-fit individual hopper/heater controls
- Monitors airflow requirements of associated hopper on central drying system
- Password protection feature
- Batch commands included
- Extensive, built-in, self-diagnostics
- Datalogs up to 40 hours of operation
- Two dewpoint sensor types (ranges) supported
- Outputs for two alarm indicators

AutoMate – CDH Configurations



AutoMate – Performance Levels

Smart:

Fixed airflow dryer unit equipped with FOCUS-pro controller ducted to stand-alone CDH hopper/heater units with manual air hopper balance adjustment. Individual CDH units controlled by full-featured FOCUS-fit Smart controller

Plus:

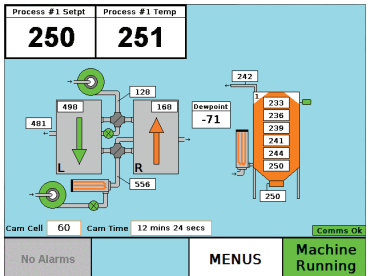

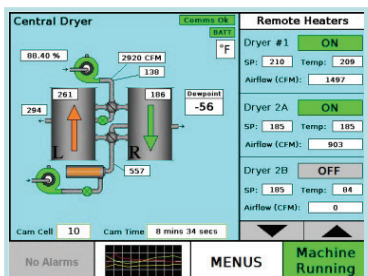

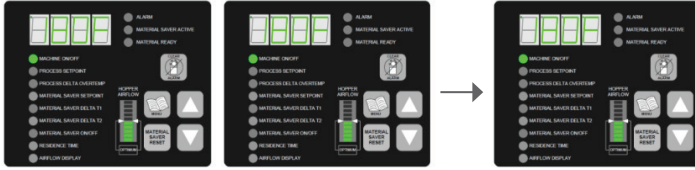
Fixed airflow dryer unit equipped with FOCUS-pro controller connected with CDH hopper/heater units equipped with AutoMate valve for automatic hopper adjustments. Hoppers equipped with FOCUS-fit SmartModule controller and can be set by specified airflow or energy absorption factor (return air temperature driven).

Adaptive:

Variable airflow dryer units are equipped with FOCUS-pro comm controller integrated with CDH AutoMate hopper/heater units equipped with AEO valve for automatic adjustments. Hoppers are equipped with FOCUS-fit SmartModule controller and can be set by specified airflow or energy absorption factor (return air temperature driven). Hopper control via pages in central dryer unit FOCUS-pro comm controller or optional local FOCUS-fit display. The entire central drying system is optimized by adjusting central dehumidifying dryer unit performance in response to cumulative multiple hopper system performance.

			Hopper	Hopper		Hopper	Dry per	End-of-
Level	Dryer Control	Dryer Airflow	Aiflow Adjust	Heater Control	Hopper HMI	Balance per Airflow Measurement	Energy Absorption	Line Bypass
Smart	FocusPRO	Fixed	Manual	FocusFIT	FitKeyPad	Manual	Yes	Yes
					Central DryerFocusPRO			
Plus	FocusPROComm	Fixed	Modula	FocusFIT	Optional FitKeyPad	Auotmatic	Yes	Yes
					Central DryerFocusPRO			
Adaptive	FocusPROComm	Variable	Modula	FocusFIT	Optional FitKeyPad	Auotmatic	Yes	N/A

AutoMate – Control Platform

Smart	<p>Dryer Control:</p>  <p>FOCUS-pro</p>	<p>Hopper Control:</p>  <p>FOCUS-fit / Manual Valves</p>
	<p>Plus & Adaptive</p>  <p>FOCUS-pro Comm</p>  <p>Control via Dryer FOCUS-pro</p>  <p>Optional Local FOCUS-fit KEY / Automated Valves</p>	

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