

# Batch Ovens

Batch ovens are typically used in smaller product runs however can be used for semi high production of smaller parts hung on multi part racks. Used for a powder or liquid application, batch ovens are recommended if floor space is limited and when product sizes, shapes and volumes vary frequently.



## Construction & Features

- >> Internal angle iron frames in all models
- >> 20-gauge aluminized steel with 4" insulated panels
- >> Single entry and double entry designs
- >> In house design and fabrication of oven panels and components
- >> Slotted channel design to reduce heat transfer
- >> Explosion relief doors with FM approved latches
- >> Eclipse Version 2 air heat burners
- >> Heater box is factory assembled and tested
- >> Maximum operating temperature of 450F
- >> Factory shop assembled ovens available (up to 8' wide x 8' tall x 20' long)
- >> All Col-Met Batch Ovens comply with applicable OSHA and NFPA standards

## Standard Control Panels

- >> 3-Phase main disconnect
- >> UL/cUL/ETL listed controls in a NEMA12 Enclosure
- >> Motor contractors and protectors
- >> Toggle switches for on/off control of fans, burner and batch timer
- >> Analog 1 second to 300 hour batch timer
- >> Digital temperature controller and high temperature limit with rollback protection
- >> FM approved gas train with high pressure, low pressure, and proof of closure safety switches. Includes ventless regulator and dual blocking valve. 2-5 psi recommended gas pressure
- >> Air proving switches for all critical fans
- >> Terminal strip to connect control panel to burner box
- >> UV scanner flame monitoring for reliable start-up
- >> 230V/480V 3-phase 60Hz
- >> Remote located push button HMI panel

## Options

- >> Custom oven designs to meet any requirements
- >> Exhaust stack is not included and can be purchased as an option
- >> Plant assembled for easy installation
- >> Smart Touch PLC HMI Control Panel
  - 6" Touchscreen with four batch modes and troubleshooting capabilities
  - 1 Second to 16 hour digital batch timer with countdown indication
  - Digital self-tuning temperature controller and high temperature limit with rollback protection
  - Control panel prewired to burner box, only field wiring needed is exhaust fan and communication between main panel and touchscreen
  - Digital password protected purge timer for safer operation
  - Available VFD control on exhaust fan for faster purge and cool-down times
  - Digital chart recorder (additional costs may apply)



Standard Control Panel



Smart Touch PLC Control Panel

## Selecting a Batch Oven Size

Col-Met can design and build ovens in a variety of sizes and configurations. Although our team can engineer a custom oven to fit your needs, below are standard sizes that are quickly available to you.

Model Number	Interior Dimensions			Single Entry Outside			Double Entry Outside			Recirculating Fan		Exhaust Fan		Burner		BTU Load (lbs/hr)	Gas Train	Cubic Feet/Hour	
	Width	Height	Depth	Width	Height	Depth	Width	Height	Depth	SCFM	HP	SCFM	HP	BTU	HP			Natural CFH	LP CFH
BO-06-07-12-SE-S	6'-0"	7'-0"	12'-0"	8'-5"	8'-4"	17'-8"	8'-5"	13'-4"	12'-8"	5,202	5HP	1,350	1HP	1,000,000	0.33HP	1,100	1.5" NPT	1,000	630
BO-06-07-14-SE-S	6'-0"	7'-0"	14'-0"	8'-5"	8'-4"	19'-8"	8'-5"	13'-4"	14'-8"	6,069	5HP	1,375	1HP	1,000,000	0.33HP	1,300	1.5" NPT	1,000	630
BO-06-07-16-SE-S	6'-0"	7'-0"	16'-0"	8'-5"	8'-4"	21'-8"	8'-5"	13'-4"	16'-8"	6,936	7.5HP	1,375	1HP	1,000,000	0.33HP	1,500	1.5" NPT	1,000	630
BO-06-08-12-SE-S	6'-0"	8'-0"	12'-0"	8'-5"	9'-4"	17'-8"	8'-5"	14'-4"	12'-8"	5,814	5HP	1,375	1HP	1,000,000	0.33HP	1,300	1.5" NPT	1,000	630
BO-06-08-14-SE-S	6'-0"	8'-0"	14'-0"	8'-5"	9'-4"	19'-8"	8'-5"	14'-4"	14'-8"	6,783	5HP	1,375	1HP	1,000,000	0.33HP	1,500	1.5" NPT	1,000	630
BO-06-08-16-SE-S	6'-0"	8'-0"	16'-0"	8'-5"	9'-4"	21'-8"	8'-5"	14'-4"	16'-8"	7,752	7.5HP	1,375	1HP	1,000,000	0.33HP	3,500	1.5" NPT	1,000	630
BO-07-07-12-SE-S	7'-0"	7'-0"	12'-0"	9'-5"	8'-4"	17'-8"	9'-5"	13'-4"	12'-8"	5,814	5HP	1,375	1HP	1,000,000	0.33HP	1,300	1.5" NPT	1,000	630
BO-07-07-14-SE-S	7'-0"	7'-0"	14'-0"	9'-5"	8'-4"	19'-8"	9'-5"	13'-4"	14'-8"	6,783	5HP	1,375	1HP	1,000,000	0.33HP	1,500	1.5" NPT	1,000	630
BO-07-07-16-SE-S	7'-0"	7'-0"	16'-0"	9'-5"	8'-4"	21'-8"	9'-5"	13'-4"	16'-8"	7,752	7.5HP	1,375	1HP	1,000,000	0.33HP	1,700	1.5" NPT	1,000	630
BO-08-08-12-SE-S	8'-0"	8'-0"	12'-0"	10'-5"	9'-4"	17'-8"	10'-5"	14'-4"	12'-8"	7,182	7.5HP	1,375	1HP	1,000,000	0.33HP	1,500	1.5" NPT	1,000	630
BO-08-08-14-SE-S	8'-0"	8'-0"	14'-0"	10'-5"	9'-4"	19'-8"	10'-5"	14'-4"	14'-8"	8,379	7.5HP	1,400	1HP	1,000,000	0.33HP	1,800	1.5" NPT	1,000	630
BO-08-08-16-SE-S	8'-0"	8'-0"	16'-0"	10'-5"	9'-4"	21'-8"	10'-5"	14'-4"	16'-8"	9,576	7.5HP	1,400	1HP	1,000,000	0.33HP	2,000	1.5" NPT	1,000	630
BO-08-08-20-SE-S	8'-0"	8'-0"	20'-0"	10'-5"	9'-4"	25'-8"	10'-5"	14'-4"	20'-8"	11,970	10HP	2,075	1.5HP	1,500,000	0.33HP	2,500	1.5" NPT	1,500	945
BO-08-10-10-SE-S	8'-0"	10'-0"	10'-0"	10'-5"	11'-4"	15'-8"	10'-5"	16'-4"	10'-8"	7,245	7.5HP	1,400	1HP	1,000,000	0.33HP	1,600	1.5" NPT	1,000	630
BO-08-10-12-SE-S	8'-0"	10'-0"	12'-0"	10'-5"	11'-4"	17'-8"	10'-5"	16'-4"	12'-8"	8,694	7.5HP	1,400	1HP	1,000,000	0.33HP	1,900	1.5" NPT	1,000	630
BO-08-10-14-SE-S	8'-0"	10'-0"	14'-0"	10'-5"	11'-4"	19'-8"	10'-5"	16'-4"	14'-8"	10,143	7.5HP	1,425	1HP	1,000,000	0.33HP	2,200	1.5" NPT	1,000	630
BO-08-10-16-SE-S	8'-0"	10'-0"	16'-0"	10'-5"	11'-4"	21'-8"	10'-5"	16'-4"	16'-8"	11,592	10HP	2,075	1HP	1,500,000	0.33HP	2,500	1.5" NPT	1,500	945
BO-10-10-10-SE-S	10'-0"	10'-0"	10'-0"	12'-5"	11'-4"	15'-8"	12'-5"	16'-4"	10'-8"	8,625	7.5HP	1,400	1HP	1,000,000	0.33HP	1,800	1.5" NPT	1,000	630
BO-10-10-12-SE-S	10'-0"	10'-0"	12'-0"	12'-5"	11'-4"	17'-8"	12'-5"	16'-4"	12'-8"	10,350	7.5HP	1,425	1HP	1,000,000	0.33HP	2,200	1.5" NPT	1,000	630
BO-10-10-14-SE-S	10'-0"	10'-0"	14'-0"	12'-5"	11'-4"	19'-8"	12'-5"	16'-4"	14'-8"	12,075	10HP	2,100	1HP	1,500,000	0.33HP	2,600	1.5" NPT	1,500	945

Alternative Configuration: Double Entry (DE)

This chart is for an operating temperature of 450°F and designed for curing powder. Other curing requirements will change this information.