

## BOV Vacuum Ovens



### Our vacuum ovens are the 'Smart Choice' for vacuum drying.

With 5 different models, BEING offers one of the largest selections of laboratory vacuum ovens on the market. They are ideal for fast, gentle, and safe baking, curing, drying, embedding, extracting, sterilizing, or lifecycle testing various non-flammable, heat-sensitive, easy-decomposing, highly-oxidizable materials and products in a laboratory vacuum environment. These conditions lower the sample boiling point and drying temperature leading to energy conservation and low environmental pollution. They are widely used in chemical, electronics, food, pharmaceutical, plastics processing, and many other industries.

All of our ovens are energy efficient, have excellent temperature regulation capabilities, and come with a host of features that provide safe and easy operation — and are economically priced. They're all designed, manufactured, and tested to the DIN 12880-2007 standard, providing a long service life.

This combination of selection, specifications, features, quality, and value makes BEING vacuum ovens the smart choice.



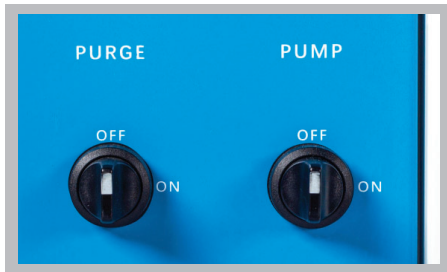
Controller & Safety Feature		Vacuum Oven
Controller	Automatic Power on/off	√
	PID automatic control	√
	Data collection	USB
	Programmable functions	√
	Fixed-value programs	√
	Multi-step programs	√
	Program cycling	√
	Timed & Untimed	√
	Fan speed - Adjustable	√
RUN delay	√	
Port	Vacuum evacuation	√
	Air inlet	√
Safety	Over-temperature protection	√
	Temperature limit protection	√
	Over-current protection	√
	Power off memory	√
	Anti-scalding protection	√

# Oven Features



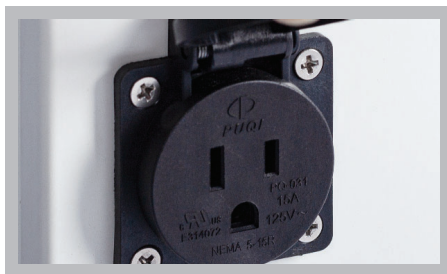
## Professional LCD Controller

The intelligent controller has a bright, easy-to-understand LCD that shows the oven's parameters on a single screen, and the pushbuttons allow quick temperature and time settings. It simplifies complicated testing procedures by creating up to 7 multistep programs with 9 steps each. Time can be programmed from 1 minute to 99 hours 59 minutes.



## Intelligent Solenoid Valve

For convenience, labor-saving, and safer operation, BEING has adopted the use of solenoid valves to control chamber vacuum exhaust and the introduction of inert gases into the chamber for purging. For joint control of the solenoid valve and vacuum pump, we have provided a specialty power supply outlet. See the description below.



## Special Power Supply for Vacuum Pump (BOV-20 & BOV-50)

The special power supply outlet links the vacuum pump and solenoid valve control. The vacuum pump starts and stops automatically when the solenoid valve is opened and closed. This linkage simply and conveniently provides safe and reliable operation and eliminates the potential for any misoperation.



## Large Observation Window with LED Light

You can regularly monitor the specimens at a glance through the double-pane viewing window. This window combines a Plexiglass® outer pane with a tempered, ballistic, double-layer glass inner pane to provide strong pressure resistance and is safe and reliable. It also offers a large viewing angle. The standard LED light enhances sample viewing.

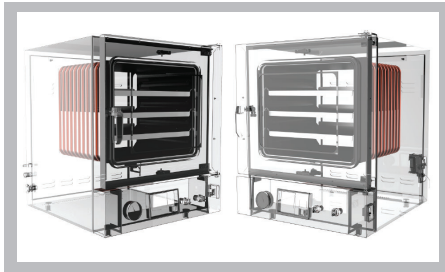
Plexiglass® is a registered trademark of Röhm GmbH.

# Oven Features



## Stainless Steel Inner Liner

The chamber is made of a sandblasted, corrosion-resisted, 304 stainless steel chamber liner providing durability and easy cleaning with good heat resistance. The sandblasted, height-adjustable, aluminum shelves with a large contact area and high thermal conductivity, **40% higher heat transfer efficiency than conventional methods.**



## Jacketed Heating Technology (BOV-20, BOV-50 & BOV-90)

The **BOV-20, BOV-50, and BOV-90** ovens are heated using a 4-sided jacket radiant technology. This combined with a large contact area between the chamber liner and shelves along with the high thermal conductivity of aluminum provides excellent temperature uniformity throughout the oven, which is 40% higher than that of the traditional methods and 50% higher than that of the shell.



## Individual Shelf Heating Technology (BOV-120 & BOV-210)

The individual shelf heating technology used in the BOV-120 and BOV-210 ovens consists of high thermal-conducting aluminum, an integrated heating element, and a temperature sensor connected to a PID controller providing the same temperature to all shelves. Our technology reduces heating-up and processing times with minimal heat loss, provides excellent temperature uniformity and accuracy, and significantly lowers power consumption.



## Inert Gas Intake Valve

The 8mm ID hose barb and labor-saving solenoid valve allow the safe introduction of inert gas or ambient air into the chamber to meet the demands of inert gas drying, sweeping moisture from the chamber, purging caustic gases, or exhausting the chamber's vacuum.

# Vacuum Oven

Model	BOV-20	BOV-50	BOV-90	BOV-120	BOV-210
Chamber Volume (ft <sup>3</sup> / L)	0.9 / 24	1.8 / 53	3.2 / 91	4.4 / 125	7.6 / 216
Heating Type	4-Sided Jacket Radiant Heating			Individual Shelf Heating	
Temperature Range	Ambient + 18°F - 392°F / Ambient + 10°C - 200°C				
Display Resolution	0.1				
Uniformity @100°C	±1 (Shelf)				
Temperature Stability	±0.5				
Max. Degree of Vacuum	133 Pa				
Shelves (Std. / Max.)	2 / 5	3 / 7	3 / 9	3 / 3	3 / 3
Work Chamber Material	Sandblasted 304 Stainless Steel				
Shelf & Rack Material	Sandblasted Aluminum				
Shelf (W x D) (in / mm)	11.4 x 11.0 289 x 280	15.9 x 14.1 404 x 358	17.4 x 17.1 442 x 435	19.5 x 17.7 496 x 450	23.4 x 21.7 595 x 550
Shelf Height Adjust.	Yes			No	
Shelf Separation Height: (in / mm)	-			Top to 1st: 5.5 / 140 Other: 5.1 / 130	Top to 1st: 6.8 / 172 Other: 6.5 / 164
Obs. Window Material	Plexiglas® + Tempered, Ballistic, Double-layer Glass				
Interior Dimension (WxHxD) (in / mm)	11.8 x 10.8 x 11.8 300 x 275 x 300	16.3 x 13.6 x 14.6 415 x 345 x 370	17.7 x 17.7 x 17.7 450 x 450 x 450	19.7 x 19.5 x 19.5 500 x 495 x 495	23.6 x 23.6 x 23.6 600 x 600 x 600
Exterior Dimension (WxHxD) (in / mm)	17.5 x 24.4 x 22.8 445 x 620 x 580	22.8 x 27.7 x 26.5 580 x 705 x 675	24.0 x 31.8 x 31.6 610 x 810 x 805	31.9 x 25.4 x 28.9 810 x 645 x 735	35.6 x 29.1 x 32.9 905 x 740 x 835
Shelf Loading (lb / Kg)	44.1 / 20				
Net Weight (lb / Kg)	132.3 / 60	209.4 / 95	319.7 / 145	357.2 / 162	467.4 / 212
Timer (hh:mm)	00:01 – 99:59				
Inert Gas / Air Inlet	•	•	•	•	•
Inlet Hose Barb (Ømm)	8				
Vacuum Port Type	KF25	KF25	KF25	KF25	KF25
Electrical Requirement	120V/60Hz	120V/60Hz	240V/60Hz	120V/60Hz	120V/60Hz
Electrical Plug Type	NEMA 5-15	NEMA 5-15	NEMA 6-15	NEMA 5-15	NEMA 5-15
Power Consumption	700W	1400W	2000W	1450W	1500W
Elect. Outlet for Pump	•	•	-	-	-
Elect. Outlet Type	NEMA 5-15			-	
Feet / Casters	Feet			Casters, Front Locking	
Catalog Number	BV15020U	BV15050U	BV15090C	BV150120U	BV150210U
Shelf Part Number	P19027	P19035	P19037	-	-