

# Digital Vacuum Ovens

- Controlled temperature and vacuum conditions.
- Temperatures up to 240 °C.
- Analogue and digital models available.
- Corrosion resistant sturdy stainless steel construction.
- Many applications.
- Available in 3 sizes.
- Unique cross-flow ventilation.
- True vacuum valves.
- Interchangeable door gaskets.
- C E approved.

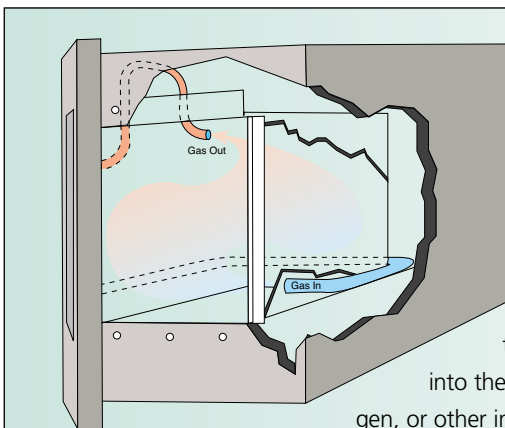


Vacuum ovens are used for a wide variety of vacuum drying, curing, and moisture content testing. Common applications include drying heat sensitive samples, moisture determination, and drying samples under a controlled atmosphere. All Townson and Mercer vacuum ovens are

specifically designed for unparalleled performance when utilised for these, and other, applications.

Since there is no air in the vacuum chamber, heat is transferred from the heating elements to the interior chamber wall,

then to the shelves, and finally to the samples. To minimise conductivity resistance, aluminium shelves are provided with all the vacuum ovens. The oven chambers are wrapped in high temperature insulation which aids overall performance and promotes energy efficiency.



All vacuum ovens feature a unique cross-flow ventilation design to ensure superior performance. The vacuum port is located inside the chamber on the top, left side, while the vent port is located on the bottom right side of the chamber. Therefore, during vacuum operation, heavy particles or condensation from the oven interior are not pulled into the vacuum pump. More importantly, nitrogen, or other inert gas, is forced across the greatest distance inside the oven chamber, passing over your samples, and purging the chamber. Corrosion resistant stainless steel tubing is used for the gas purge piping system.

Townson and Mercer offers a range of high performance, microprocessor controlled models. All models include unique design features which enhance the overall performance of the ovens. These features include durable construction with corrosion resistant stainless steel chambers, true vacuum valves, cross-flow ventilation through the oven chamber, and interchangeable door gaskets for application specific use. Independent, resettable circuit breakers prevent any electrical overload.

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## DIGITAL MODELS FOR TOP PERFORMANCE AND ACCURACY

Townson and Mercer offers the Models 1425, 1445 and 1465 digital vacuum ovens. Our PID (Proportional Integral Differential) controller delivers precise temperature stability and uniformity. A touchpad control panel provides easy parameter setup and even temperature calibration. Both setpoint and actual chamber temperatures are digitally displayed.

The chamber door is vented to allow cooler ambient air to infuse the plenum surrounding the inner chamber. This provides a cooler surface temperature while still maintaining optimum temperature control and accuracy inside the oven chamber. The door is secured with a positive latch handle to ensure a good vacuum.

### OPTIONAL GASKETS

The standard gasket supplied with all models is made of highly resistant sili-



MODEL 1445

cone rubber. Also available as optional accessories are application-specific gaskets. The BUNA-N gasket is available for solvent applications and is limited to a maximum temperature of 160 °C. The VITON-B gasket is available for applications involving acids.

SPECIFICATIONS			
Control	Digital	Digital	Digital
Chamber capacity	16 litres	47 litres	127.5 litres
Temperature range	+10 - 240 °C	+10 - 240 °C	+10 - 240 °C
Temperature uniformity	±2.0	±2.0	±2.5
Heat up time, minutes	35 @ 100 °C	45 @ 100 °C	65 @ 100 °C
Shelves supplied	3 aluminium	3 aluminium	3 aluminium
External dimensions, HDW mm	584 x 483 x 432	660 x 686 x 508	813 x 787 x 660
Internal dimensions, HDW mm	229 x 305 x 229	305 x 508 x 305	457 x 610 x 457
Watts / Amps - 110 Volt	850 / 7.0	1100 / 9.0	1500 / 12.5
Watts / Amps - 230 Volt	850 / 3.5	1100 / 4.5	1500 / 6.5
Cycle	50/60 Hz	50/60 Hz	50/60 Hz
Phase	Single	Single	Single

\* All models available in both 110V and 230V. \* Ovens operate at 5°C above ambient to maximum temperature.