

# Vacuum Oven

- **COMPACT SIZE, LARGE LOAD CAPACITY**
- **HIGHLY VERSATILE OVEN FOR ATMOSPHERIC OR REDUCED ATMOSPHERE OPERATION**
- **TOUGH STEEL CONSTRUCTION**
- **TOUGHENED GLASS WINDOW WITH POLYCARBONATE SAFETY SCREEN**
- **OVER-TEMPERATURE SAFETY PROTECTION**
- **FRONT MOUNTED PUSH-ON CONNECTORS**



## Construction

The outer case is tough, stoved epoxy-polyester painted steel, to look good even under the most demanding working conditions.

The vacuum chamber is a robust light alloy casting supplied with two shelves and three shelf positions. One shelf carries a mercury-in-glass thermometer which can be viewed through the window in the door.

The chamber is heated by large area heater panels strapped to its outer surface

Glass fibre insulation maintains safe, low outer case temperatures. The chamber is closed by a 12.5mm thick toughened glass plate sealing onto a silicone rubber gasket. This glass plate is mounted onto the door by 4 spring-loaded pins to ensure an excellent, even seal to the chamber. Door closure is achieved via a strong and positive twist action latch.

As an extra safety precaution a 4mm thick shatter resistant polycarbonate safety shield covers the door window.

## Versatile

By using reduced pressure, the Fistreem Vacuum Oven enables heat sensitive materials to be dried at low temperatures. Alternatively, more stable samples may be dried more rapidly at higher temperatures, without fan circulation.

This oven is also particularly useful for controlled atmosphere heating (e.g. curing of resins under nitrogen or reduced oxygen conditions). Since the inner chamber is sealed, it may also be suitable for solvent removal work, subject to adequate exhaust and ventilation conditions being provided for the oven and room respectively.



*This oven is NOT designed for use at positive pressures. The vacuum level achievable is a function not of the oven but of the pump used with it.*

Specification	
Capacity, litres	31
Temperature range	30 to 200C at ambient temperatures less than 25°C
Power rating, maximum, W	1000
Shelf, (w x d), mm	366 x290
Number of shelves supplied	2
Number of shelf positions	3
Interval between positions, mm	75
Internal dimensions (h x w x d), mm	260 x 375 x 310
Overall dimensions (h x w x d), mm	420 x 630 x 425
Weight, kg	43
Leakage rate (at 0.01 mbar)	10 mbar/24 hr i.e. $4 \times 10^{-6}$ mbar/l/s
Tubing connections	10-12mm bore



*The Fistreem Vacuum Oven features a spacious rectangular chamber with toughened glass viewing window and shatter-resistant safety screen*

## Vacuum Controls

Reliable, needle type inlet and exhaust valves are fitted. These are situated near the bottom front corner of the oven for convenient connection to a vacuum pump, vapour trap or exhaust. The serrated nozzles accept flexible vacuum tubing of 10-12mm bore. A vacuum gauge is fitted showing vacuum pulled, from 0 to 1000 mbar.

## Temperature Control

Oven temperature is controlled by a direct reading hydraulic thermostat scaled 30 to 200C with 10C sub-divisions. A completely independent safety thermostat is fitted to protect the oven and its contents from an incorrect setting or a fault in the main thermostat system. A fault indicator lamp lights should the safety thermostat come into operation.

Temperatures up to 200C are possible via the hydraulic temperature controller. An adjustable independent over-temperature safety circuit protects sensitive samples from over-heating.

This, a vacuum gauge and two needle valves with tubing connectors are conveniently sited on the front panel. A mercury-in-glass thermometer, two shelves and operating manual complete the package

## Ordering Information

Vacuum Oven, 31 litres	220 - 240V 50Hz	OVA031.XX2.5
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