



## Vacuum oven

<https://search.labfacilities.wur.nl/SearchDetail.aspx?deviceid=17d4720b-0ace-4cd8-a6e9-df18d1c6dfa2>

### **Brand**

Binder

### **Type**

V53

### **Contact**

Jarno Gieteling (jarno.gieteling@wur.nl)

Martin de Wit (martin.dewit@wur.nl)

Jos Sewalt (jos.sewalt@wur.nl)

### **Organisation**

Agrotechnology and Food Sciences

### **Department**

Food Process Technology

### **Description**

Underpressure accelerates drying in the vacuum drying oven. During the heat treatment, an underpressure in the range between 10 and 50 hPa is usually generated, which lowers the boiling point of fluids to close to room temperature. Heat-sensitive material can therefore be dried in the vacuum drying oven at low temperatures, and at the same time the drying time is considerably reduced. To avoid oxidation, an inert gas (e.g. nitrogen) can be fed into the chamber.

The oven is standard connected to a KNF Verder membrane pump. This was the max vacuum can be achieved is 1 mBar.

## **Technical Details**

### Interior dimensions

Width (mm)

400  
Height (mm)

400  
Depth (mm)

330  
Interior  
volume (l)

53  
Distance between the racks (mm)

62  
Load  
per shelf (kg)

20  
Permitted  
total load (kg)

45

### Temperature

Temperature range approx. 15 °C above ambient  
temperature to (°C)

200  
Temperature  
variation 1)

100 °C (min.) (± K)

2  
200 °C (min.) (± K)

4.5  
Warm up time

to 100 °C (min.)

80  
to 200 °C (min.)

115  
Permitted  
end vacuum (mbar)

0.01