

## Vacuum oven

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

### **Brand**

Binder

### **Type**

V53

### **Contact**

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### **Organisation**

Agrotechnology & Food Sciences Group

### **Department**

Food Process Engineering

### **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