

# Technotes

Highlighting technical features for  
Thermo Scientific Vacutherm Vacuum Ovens

## Key Features

- Three chamber sizes available: 25L, 53L, 128L
- Outstanding capabilities for fast and gentle drying
- Customizable options available to fit your application needs

## Why choose a Vacutherm vacuum oven for your lab?

Dry up to six times faster than conventional units with a Thermo Scientific™ Vacutherm™ vacuum heating and drying oven.\* Minimize operation time with outstanding heat transfer and fast heat up.\*\*



### MODELS

- Jacket-heated models, available with Kelvitron™ microprocessor control, operate up to 200°C
- Shelf heated models operate up to 300°C (400°C option offered), available with Digicon multi-channel controls which allow you to manage each shelf temperature separately

### TYPICAL APPLICATIONS

#### Food industry

- Determination of the solid content of foods. Samples are typically dried under vacuum at around 60°C

~ **Our Solution:** Vacutherm VT6060 M or VT6130 M oven with standard pump and trap

#### Pharmaceutical industry

- Drying additives for pharmaceuticals. Samples are dried with pressure at 10-1mbar or forming gas at 60–80°C.

~ **Our Solution:** Vacutherm VT6060 P or VT6130 P oven with an oil-free pump

- Gentle drying of raw materials and determination of solid content. Samples are dried under vacuum at 60–80°C.

~ **Our Solution:** Vacutherm VT6060 M or VT6130 M oven with standard pump and trap

\* Based on internal testing

\*\* Based on previous models

### Specifications and Ordering Information

Cat.No.	Model	Type	Capacity	Interior Dimensions W x H x D	Exterior Dimensions <sup>1</sup> W x H x D	Rated Temp. <sup>2,3</sup>	Spatial temp. deviation <sup>2,4</sup>	Heat Output (at max. temp.)	Electrical <sup>5</sup>	Weight
51014550	VT 6025	Jacket-heated no inert gas connection	25L (0.88 cu.ft.)	300 x 275 x 307mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014552	VT 6025	Jacket-heated	25L (0.88 cu.ft.)	300 x 275 x 307mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014553	VT 6025	Jacket-heated <sup>6</sup>	25L (0.88 cu.ft.)	300 x 275 x 307mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014554	VT 6025	Jacket-heated with Digicon S <sup>7</sup>	25L (0.88 cu.ft.)	300 x 275 x 307mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014539	VT 6060 M	Jacket-heated	53L (1.87 cu.ft.)	415 x 345 x 371 mm (16.3 x 13.6 x 14.6in.)	744 x 576 x 570 mm (29.3 x 22.7 x 22.4in.)	200°C	±4 (@200°C)	540Wh/h	230V 50/60Hz, 1.7kW	82kg (181 lb.)
51014542	VT 6060 P	Shelf-heated <sup>8</sup>	53L (1.87 cu.ft.)	415 x 345 x 371 mm (16.3 x 13.6 x 14.6in.)	744 x 576 x 570 mm (29.3 x 22.7 x 22.4in.)	300/400°C	±3 (@200°C) ±7 (@300°C) ±9 (@400°C)	450 Wh/h	230V 50/60Hz, 1.6kW	90kg (198 lb.)
51014541	VT 6130 M	Jacket-heated	128L (4.52 cu.ft.)	495 x 489 x 529 (19.5 x 19.3 x 20.8in.)	895 x 720 x 750 mm (35.2 x 28.3 x 29.5in.)	200°C	±7 (@200°C)	870 Wh/h	230V 50/60Hz, 2.2kW	153kg (337 lb.)
51014543	VT 6130 P	Shelf-heated <sup>8</sup>	128L (4.52 cu.ft.)	495 x 489 x 529 mm (19.5 x 19.3 x 20.8in.)	895 x 720 x 750 mm (35.2 x 28.3 x 29.5in.)	300/400°C	±4 (@200°C) ±7 (@300°C) ±9 (@400°C)	880 Wh/h	230V 50/60Hz, 3.0kW	164kg (362 lb.)

<sup>1</sup> Depth without handle and wall distance. Dimensions: handle 70 mm, wall distance 80 mm

<sup>2</sup> The values stated apply to the empty oven and vacuum operation in acc. with DIN 12880, part 2

<sup>3</sup> Control range M: electronic controller from TA +15°C; control range P: electronic controller from TA +10°C; TA = Ambient temperature

<sup>4</sup> Measured on the shelves

<sup>5</sup> Other voltages on request

<sup>6</sup> With digital pressure display and recorder output

<sup>7</sup> Digicon S: analog temperature controller

<sup>8</sup> Comes standard with Digicon multi-channel controller and rated temperature of 300°C; for 400°C: order option in addition, see next page

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# Find the right Vacuotherm vacuum oven for your application needs



- Gentle drying of heat sensitive materials
- Significantly reduced drying times when compared to convectional oven without vacuum
- Drying of intricately designed parts
- Elimination of oxidation associated with heat treatment
- Targeted recovery of degassed products

DIAPHRAGM PUMPS					ROTARY VANE PUMPS
Vacuum Pumps		MD 12H	HMD 4C	HMZ 2C	RE 9H
Cat. No.		50040078	50028362	50028364	50028361
Rated pumping capacity (Pneurop)	m <sub>3</sub> /h	9.6	3.0	1.7	8.6
Total final pressure without gas ballast	mbar	2	2	10	0.1
Total final pressure with gas ballast	mbar	<10	<10	<20	6 x 10 <sup>-1</sup>
Water vapor compatibility	mbar	–	–	–	40
Capacity of trap	ml	725	500	500	500
Weight	kg	24	18	14	21.6
Dimensions with trap (w/h/d)	mm	240 x 300 x 610	241 x 500 x 338	241 x 326 x 336	260 x 232 x 460
Vacucenter with pump		MD 12H	HMD 4C		RE 9H
Cat. No.*		50044332	50044333	–	50044334
Voltage	V3N~, 50/60 Hz	400	400	–	400
Max. rated power	kW	3.37	3.2	–	3.37
External dimensions (W x H x D)	mm	895 x 650 x 900	895 x 650 x 900	–	895 x 650 x 900
Total weight	kg	88	80	–	86
Protection class		I	I	–	I
Protection type		IP 20	IP 20	–	IP 20

\*In combination with VT 6060 or VT 6130

ACCESSORIES	
Cat.No.	Description
50028403	Additional shelf for VT6025 (incl. shelf supports)
50043975	Additional shelf for VT6060 M (incl. shelf supports)
50043976	Additional shelf for VT6130 M (incl. shelf supports)
50048621	Stainless steel tray for VT6060
50048619	Stainless steel tray for VT6130
50048620	Aluminum tray for VT6060 M/P
50048618	Aluminum tray for VT6130 M/P
50046860	Stainless steel vacuum connection kit for tubing, 10mm diameter (all models)
50029890	Support frame, 780 mm height, for VT6060 M/P
50029597	Support frame, 780 mm height, for VT6130 M/P
FACTORY INSTALLED OPTIONS	
Cat.No.	Options for Vacuotherm 6060 and 6130 M/P
51900284	RS 232 computer interface for Kelvicon controller
51900069	Digital pressure display
51900193	Pressure controller with solenoid valve
51900071	VITON door gasket for VT 6060 M
51900072	VITON door gasket for VT 6130 M
51900205	Daily program timer, mechanical
51900073	24 hour timer (20 h at 60 Hz)
51900008	Weekly program timer, mechanical
51900161	Weekly program timer, digital
51900074	Digital sample temperature display with flexible pt 100 temperature sensor and socket for external data recorder
51900209	Thermicon P temperature program controller (M-models only)
51900297	Eurotherm 2404/P4 temperature controller with RS232 interface (M-models only)
51900298	Eurotherm 2404/P4 temperature controller with RS 422/485 interface (M-models only)
51900081	Central monitoring connection
Cat.No.	DigiCon® S temperature controller with analog interface 0–20 mA/0–10 V
51900194	(200 °C): VT 6060 M and VT 6130 M
51900195	(300 °C): VT 6060 P and VT 6130 P
51900196	(400 °C): VT 6060 P
51900197	(400 °C): VT 6130 P
Cat.No.	Rated temperature of 400 °C, (door without inspection window)
51900079	for VT 6060 P
51900080	for VT 6130 P
Cat. No.	Vacuum chamber with rounded corners at the rear
51900075	for VT 6060 M
51900077	for VT 6060 P
51900076	for VT 6130 M
51900078	for VT 6130 P
Cat. No.	Options for Vacuotherm 6025
51900326	Precision control valve for standard model (order nos. 51014550 and 51014551 only)
51900284	RS232 computer interface

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