



# Drying Ovens Models DO1, DO2 & DO4

## High-Capacity, High-Efficiency Trolley Drying Ovens



### Comprehensive Range of Electric Batch Drying Ovens

Essa offers three standard sizes of well proven electrically heated ovens that have been specifically engineered to withstand the corrosive environment inherently created within them by the combination of high temperature, moisture and often chemically active atmosphere created by the drying process.

Each is supplied as standard with one or more wheeled trolleys incorporating a number of heavy duty wire mesh racks on which the samples to be dried are placed.

### Features and Benefits

- ▶ **Reduced operational costs:** a trolley type oven saves energy and time.
- ▶ **Fast drying times, reduced fuel costs and less spillage of hot air into the work environment:** quick oven loading and unloading ensures minimal heat is lost from the oven.
- ▶ **Improved worker health and safety:** the wheeled trolley provides excellent sample mobility. There is no need to lift samples manually around the laboratory.
- ▶ **Improved quality:** stainless steel lining reduces corrosion, minimising sample contamination.
- ▶ **Increased productivity:** uniform and optimised drying is provided by a stainless steel recirculating fan and dampening valves.
- ▶ **Ergonomically designed trolley:** fitted with heavy duty, large diameter steel wheels and wire mesh shelves.
- ▶ **Longer frame life:** internal lining fixed using stainless steel blind rivets prevents moisture transfer.



**Sample mobility:** one trolley can be loaded at the sample delivery point while another is drying samples. The dried samples can be wheeled directly to the next process point.

- ▶ **Improved thermal efficiency:** insulated walls, 5mm steel plate floor and positive door closure and sealing minimise energy loss.
- ▶ **Personal safety:** robust door latch has an internal release so operator cannot be locked inside.
- ▶ **Improved quality:** digital temperature control provides precise and accurate control of drying temperature which can be critical for geochemistry applications.
- ▶ **Improved safety and longer element life:** automated over temperature control plus separate thermocouple and mechanical thermostat circuit.
- ▶ **Flexible installation applications:** gas-heated ovens also available.



### Technical Data: Model DOI

Number of Cabinet Doors	1
Internal Volume	2.0 m <sup>3</sup>
Number of Trolleys	1
Trolley Dimensions	0.87 m wide x 0.87 m deep x 1.34 m high
Shelves per Trolley	6
Total Shelf Area per Oven	4.54 m <sup>2</sup>
3 Phase Energy Requirement	12 kW
Fan	Stainless steel, centrifugal/forward curved
Construction	Stainless steel interior, glass fibre insulation, corrosion resistant zinc anneal, painted exterior
Temperature Control	0 - 400°C (with alarm)
Thermostat	Stokes 50 - 300°C
Thermocouple	Type K
Elements	3 x 4 kW
Internal Dimensions	1.13 m wide x 1.13 m deep x 1.80 m high
External Dimension	1.37 m wide x 1.23 m deep x 1.98 m high

Standard oven is electrically heated. LP and natural gas models also available



*A robust and user-friendly oven with a single wheel-in/wheel-out trolley. The DOI is the smallest oven in the Essa range of efficient high-capacity electric ovens tailored for application and specific sample loads.*



### Technical Data: Model DO2

Number of Cabinet Doors	1
Internal Volume	5.2 m <sup>3</sup>
Number of Trolleys	2
Trolley Dimensions	0.60 m wide x 1.40 m deep x 1.62 m high
Shelves per Trolley	9
Total Shelf Area per Oven	15.12 m <sup>2</sup>
3 Phase Energy Requirement	12 kW
Fan	Stainless steel, centrifugal/forward curved
Construction	Stainless steel interior, glass fibre insulation, corrosion resistant zinc anneal, painted exterior
Temperature Control	0 - 400°C (with alarm)
Thermostat	Stokes 50 - 300°C
Thermocouple	Type K
Elements	3 x 4 kW
Internal Dimensions	1.60 m wide x 1.70 m deep x 1.90 m high
External Dimension	1.83 m wide x 1.93 m deep x 2.24 m high

Standard oven is electrically heated. LP and natural gas models also available



*A functional and reliable oven that holds two wheel-in/wheel-out trolleys. The DO2 is the mid-range oven in the Essa series of flexible high-capacity electric ovens tailored for application and sample loads.*



### Technical Data: Model DO4

Number of Cabinet Doors	2
Internal Volume	10.1 m <sup>3</sup>
Number of Trolleys	4
Trolley Dimensions	0.60 m wide x 1.40 m deep x 1.62 m high
Shelves per Trolley	9
Total Shelf Area per Oven	30.24 m <sup>2</sup>
3 Phase Energy Requirement	24 kW
Fan	Stainless steel, centrifugal/forward curved
Construction	Stainless steel interior, glass fibre insulation, corrosion resistant zinc anneal, painted exterior
Temperature Control	0 - 400°C (with alarm)
Thermostat	Stokes 50 - 300°C
Thermocouple	Type K
Elements	6 x 4 kW
Internal Dimensions	3.20 m wide x 1.70 m deep x 1.90 m high
External Dimension	3.36 m wide x 1.93 m deep x 2.24 m high

Standard oven is electrically heated. LP and natural gas models also available




Sample Preparation 

Sampling 

Automation 

Metallurgical 

Laboratory 

Particle Sizing 

**Intelligent Solutions  
to Mineral Sampling,  
Preparation and  
Testing**

A very high-capacity oven that holds four wheel-in/wheel-out trolleys. The DO4 is the largest oven in the Essa range of heavy-duty cost-efficient electric ovens tailored for application and sample loads.