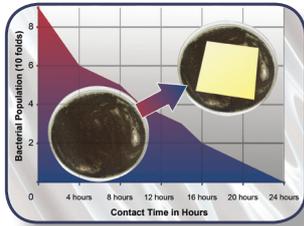


# Isotherm<sup>®</sup>

## Forced Convection Laboratory Ovens

Introducing Esco Isotherm<sup>®</sup> - world class laboratory ovens from Esco for high-forced volume thermal convection applications such as drying and curing among many others. With ergonomic design, microprocessor PID controls, 4-zone heated air jacket and precisely tuned and tested ventilation and insulation package, Esco Isotherm<sup>®</sup> is your reliable oven for universal application.



### Quality Esco Construction

- Electro-galvanized steel exteriors
- Isocide<sup>™</sup> coated external surfaces to eliminate 99.9% of surface bacteria within 24 hours of exposure

### Superior Insulation

- Improves chamber stability while reducing external surface temperatures
- Reduces heat load output to the laboratory and operating power consumption, and lowers operating costs



### SmartSense<sup>™</sup> Microprocessor PID Control Technology

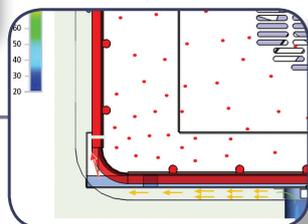
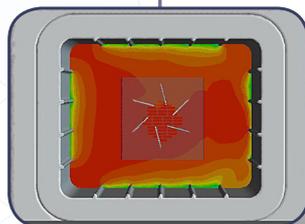
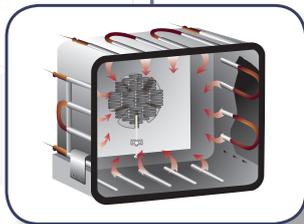
- Connected to an instrument-grade precision platinum-temperature probe
- Ensures fast ramp time. Prevents overshoot and ensures stable temperature once set point is achieved
- Twin temperature display for easy monitoring ("Actual" and "Set Point" displays)
- Diagnostic LEDs simplify service
- Air flow adjuster via slider for exchange rate of air



*Isotherm<sup>®</sup> Forced Convection Laboratory Oven Model OFA-110-8*

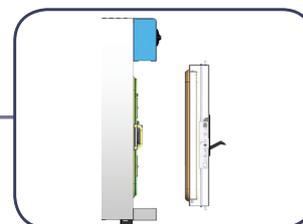
### Solaris<sup>™</sup> Pre-Heat Chamber Technology

- Guarantees maximum thermal performance
- 4-zone heated air jacket ensures stable heating and maximum temperature uniformity in the chamber
- Standard temperature range of up to 300°C for maximum application stability
- 2-point door seal and eccentric hinge ensures maximum gasket compression for stable chamber temperature



### Ventiflow<sup>™</sup> Ventilation System

- Forced convection design produces faster temperature response rates, improves uniformity and reduces fluctuation
- Permanently lubricated and maintenance-free German-made EBM-PAPST fan for uniform air circulation
- Low energy consumption and low noise level
- Adjustable fan speed and air exchange rates
- Fresh air entry from the base of the chamber, combined with the rounded corners of the chamber interior and air exhaust at the rear of the chamber, creates uniform air circulation ensuring maximum temperature uniformity



## Guide to Models, Forced Convection Laboratory Ovens

O F A - - -

Volume	Code	Electrical Rating	Code	Main Body	Code
32 L	<b>32</b>	220-240 VAC, 50/60 Hz, 1Ø	<b>8</b>	EG Steel	
54 L	<b>54</b>	110-120 VAC, 50/60 Hz, 1Ø	<b>9</b>	Stainless Steel	<b>SS</b>
110 L	<b>110</b>				
170 L	<b>170</b>				
240 L	<b>240</b>				

## General Specifications, Forced Convection Laboratory Ovens

Model	220-240 VAC, 50/60 Hz, 1Ø	OFA-32-8 2110001	OFA-54-8 2110002	OFA-110-8 2110003	OFA-170-8 2110006	OFA-240-8 2110007
		OFA-32-8-SS 2110012	OFA-54-8-SS 2110013	OFA-110-8-SS 2110014	OFA-170-8-SS 2110015	OFA-240-8-SS 2110016
	110-120 VAC, 50/60 Hz, 1Ø	OFA 32-9 2110010	OFA-54-9 2110009	OFA-110-9 2110008	OFA-170-9 2110020	OFA-240-9 2110021
		OFA-32-9-SS 2110023	OFA-54-9-SS 2110022	OFA-110-9-SS 2110011	OFA-170-9-SS 2110024	OFA-240-9-SS 2110025
Volume		32 L (1.1 cu. ft)	54 L (1.9 cu. ft)	110 L (3.9 cu. ft)	170 L (6.0 cu. ft)	240 L (8.5 cu. ft)
Temperature Range		Ambient +7.5°C to 300°C				
Temperature Variation	70°C	± 0.7°C	± 0.6°C	± 0.6°C	± 1.3°C	± 1.3°C
	150°C	± 1.5°C	± 2.2°C	± 1.6°C	± 3.5°C	± 3.6°C
	250°C	± 3.3°C	± 4.0°C	± 4.1°C	± 8.5°C	± 6.4°C
Temperature Fluctuation	70°C	± 0.3°C	± 0.3°C	± 0.3°C	± 0.4°C	± 0.5°C
Heating Up Time*	70°C	36 min	40 min	45 min	40 min	41 min
	150°C	40 min	33 min	31 min	39 min	58 min
	250°C	32 min	58 min	58 min	48 min	58 min
Recovery Time after 30 sec door open*	70°C	6 min	5.5 min	7.5 min	3 min	4.5 min
	150°C	7 min	7 min	9.5 min	4 min	6 min
	250°C	7 min	8 min	10 min	7.5 min	7 min
Noise Level		51 dBA	49 dBA	49 dBA	51 dBA	52 dBA
Oven Construction	Main Body	Electro-galvanized steel with white oven-baked epoxy-polyester Isocide™ antimicrobial powder-coated finish				
	Chamber	Stainless steel, grade 304				
Number of shelves	Standard	2	2	2	2	2
	Maximum	4	5	6	7	9
Maximum Load per Shelf		15 Kg (33 lbs)	15 Kg (33 lbs)	30 Kg (66 lbs)	30 Kg (66 lbs)	30 Kg (66 lbs)
External Dimensions (W x D x H)		550 x 437 x 615 mm (21.7" x 17.2" x 24.2")	550 x 527 x 695 mm (21.7" x 20.7" x 27.4")	710 x 587 x 785 mm (28" x 23.1" x 30.9")	740 x 800 x 910 mm (28.8" x 31.5" x 35.8")	800 x 827 x 1030 mm (31.5" x 32.5" x 40.6")
Internal Dimensions (W x D x H)		400 x 250 x 320 mm (15.7" x 9.8" x 12.6")	400 x 340 x 400 mm (15.7" x 13.4" x 15.7")	560 x 400 x 490 mm (22" x 15.7" x 19.3")	580 x 500 x 580 mm (22.8" x 19.7" x 22.8")	645 x 527 x 700 mm (25.4" x 20.7" x 27.6")
Net Weight		43 Kg (95 lbs)	52 Kg (115 lbs)	75 Kg (165 lbs)	114 Kg (251 lbs)	138 Kg (304 lbs)
Shipping Weight		55 Kg (121 lbs)	66 Kg (146 lbs)	94 Kg (207 lbs)	136 Kg (300 lbs)	160 Kg (353 lbs)
Shipping Dimensions (W x D x H)		620 x 530 x 840 mm (24.4" x 20.9" x 33.1")	630 x 620 x 920 mm (24.8" x 24.4" x 36.2")	780 x 680 x 1020 mm (30.7" x 26.8" x 40.2")	900 x 900 x 1100 mm (35.4" x 35.4" x 43.3")	900 x 900 x 1200 mm (35.4" x 35.4" x 47.2")
Shipping Volume		0.37 m³ (13.1 cu. ft)	0.49 m³ (17.3 cu. ft)	0.61 m³ (21.5 cu. ft)	0.89 m³ (31.4 cu. ft)	0.97 m³ (34.3 cu. ft)

\*Up to 98% of the set value

**Note:**

- All technical specifications are specified for units with standard equipment at an ambient temperature of 25°C and a voltage fluctuation of ±10%.
- The temperature data are determined in accordance to DIN 12880 standards as per factory type test condition.
- Stainless steel exterior option is available for all sizes.

# APPLICATIONS

## Forced Convection Laboratory Oven

Application	Material/Sample
Drying	Glassware
	Powder
	Paper & Textile
	Soil and Sand
	Electronics
	Pharmaceutical Preparations
	Tape
Material Testing	Cables
	Plastics
Curing	Adhesives
	Plastics
	Metals
Heated Storage	Drugs and Pills
Vulcanization	Rubber

## Forced and Natural Convection Laboratory Incubators

Application	Material/Sample
Microbiological Culture	Bacteria, Yeasts and Molds
Coliform Determination	Bacteria
Egg Incubation	Eggs
Heated Storage	Media & Samples
Gene Cloning	Bacteria, Yeasts and Molds
Pharmaceutical Stability Testing	Pathogenic Bacteria
Food and Beverage Testing	Bacteria, Yeast and Molds
Paraffin Embedding	Paraffin

## Refrigerated Incubators

Application	Material/Sample
BOD Determination of Wastewater and Sewage	Bacteria
Plant Cell Growth	Plant Cell
Fish and Insect Cell Growth	Fish and Insect Cells
Fermentation Studies	Bacteria and Yeasts
Microbiological Culture	Bacteria, Yeast and Molds
Pharmaceutical Stability Testing	Pathogenic Bacteria

# OPTIONS AND ACCESSORIES



## Wall bracket (only for 32 L and 54 L chambers)

- Accommodates desired operating heights



## Reversed Door Swing (Factory-installed)



## Voyager® Software Kit

- Esco Voyager® is a PC-based software package developed for remote monitoring, datalogging and programming/device configuration of Esco controlled environment laboratory equipment



## Support stands fixed height at 720 mm (28.3")



## Additional Shelf

- Two shelves are included for 32 L, 54 L, 110 L, 170 L and 240 L models as standard. Additional shelves may be ordered.



## Optional Stainless Steel Exterior

- Robust construction and corrosion-resistant surface that meets pharmaceutical and clinical laboratory requirements



## Stacking Kit

- Stacking kit is a provision to stack one thermostatic product on top of another unit. Four stacking brackets are included as standard inside the Accessories Kit Box with each incubator.

# ORDERING INFORMATION

## Unit Ordering

Model	Item Code	Description
OFA-32-8	2110001	Isotherm® Forced Convection Oven, 32 L, 220-240 VAC, 50/60 Hz
OFA-32-9	2110010	Isotherm® Forced Convection Oven, 32 L, 110-120 VAC, 50/60 Hz
OFA-32-8-SS	2110012	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 32 L, 220-240 VAC, 50/60 Hz
OFA-32-9-SS	2110023	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 32 L, 110-120 VAC, 50/60 Hz
OFA-54-8	2110002	Isotherm® Forced Convection Oven, 54 L, 220-240 VAC, 50/60 Hz
OFA-54-9	2110009	Isotherm® Forced Convection Oven, 54 L, 110-120 VAC, 50/60 Hz
OFA-54-8-SS	2110013	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 54 L, 220-240 VAC, 50/60 Hz
OFA-54-9-SS	2110022	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 54 L, 110-120 VAC, 50/60 Hz
OFA-110-8	2110003	Isotherm® Forced Convection Oven, 110 L, 220-240 VAC, 50/60 Hz
OFA-110-9	2110008	Isotherm® Forced Convection Oven, 110 L, 110-120 VAC, 50/60 Hz
OFA-110-8-SS	2110014	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 110 L, 220-240 VAC, 50/60 Hz
OFA-110-9-SS	2110011	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 110 L, 110-120 VAC, 50/60 Hz
OFA-170-8	2110006	Isotherm® Forced Convection Oven, 170 L, 220-240 VAC, 50/60 Hz
OFA-170-9	2110020	Isotherm® Forced Convection Oven, 170 L, 110-120 VAC, 50/60 Hz
OFA-170-8-SS	2110015	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 170 L, 220-240 VAC, 50/60 Hz
OFA-170-9-SS	2110024	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 170 L, 110-120 VAC, 50/60 Hz
OFA-240-8	2110007	Isotherm® Forced Convection Oven, 240 L, 220-240 VAC, 50/60 Hz
OFA-240-9	2110021	Isotherm® Forced Convection Oven, 240 L, 110-120 VAC, 50/60 Hz
OFA-240-8-SS	2110016	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 240 L, 220-240 VAC, 50/60 Hz
OFA-240-9-SS	2110025	Isotherm® Forced Convection Oven, Stainless Steel Exterior Cabinet, 240 L, 110-120 VAC, 50/60 Hz

Model	Item Code	Description
IFC-110-8	2100010	Isotherm® Refrigerated Incubator, 110 L, 220-240 VAC, 50/60 Hz
IFC-110-8-SS	2100026	Isotherm® Refrigerated Incubator, Stainless Steel Exterior Cabinet, 110 L, 220-240 VAC, 50/60 Hz
IFC-170-8	2100035	Isotherm® Refrigerated Incubator, 170 L, 220-240 VAC, 50/60 Hz
IFC-170-8-SS	2100056	Isotherm® Refrigerated Incubator, Stainless Steel Exterior Cabinet, 170 L, 220-240 VAC, 50/60 Hz
IFC-240-8	2100011	Isotherm® Refrigerated Incubator, 240 L, 220-240 VAC, 50/60 Hz
IFC-240-8-SS	2100027	Isotherm® Refrigerated Incubator, Stainless Steel Exterior Cabinet, 240 L, 220-240 VAC, 50/60 Hz



# WolfLabs

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

**[www.wolflabs.co.uk](http://www.wolflabs.co.uk)**

**Tel : 01759 301142**

**Fax : 01759 301143**

**[sales@wolflabs.co.uk](mailto:sales@wolflabs.co.uk)**

Please contact us if this literature doesn't answer all your questions.