

### ◆ RAD Cabinet Ovens

Proven reliability in demanding applications, such as curing, drying and aging



Despatch RA cabinet ovens feature horizontal recirculating airflow to ensure exceptional temperature uniformity throughout the oven. A high-volume fan circulates air through perforated, steel walls to create a constant horizontal airflow across all sections of the oven. The result is proven reliability in demanding production and laboratory applications, such as curing, drying, stress relieving, aging, and other process-critical applications.

This oven is equipped with the Protocol 3™ microprocessor-based temperature and hi-limit controller with large LCD display and real time clock for auto start capability. The LCD display shows temperature readings along with clear, detailed information on oven status. The data-logging functionality enables reporting and analyzing and data files can be exported via the controller's USB port. Modbus RS485 communications are included for easy data access.



*New smaller footprint on RAD2-19 model*

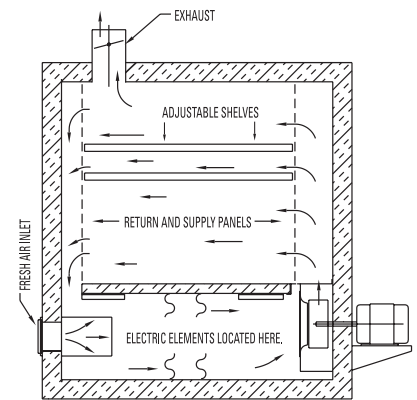
#### FEATURES AT A GLANCE

- ◆ Temperatures up to 343°C (650°F) (Models available with temperatures up to 538°C (1000°F))
- ◆ Three models from 4.2 to 35 cu. ft. (119 to 991 liters)
- ◆ Horizontal recirculating airflow
- ◆ Protocol 3™ control with large LCD display, integrated data logging capabilities and USB port for simple oven set-up and data export.
- ◆ Aluminized steel interior (RAD1-42/2-19) (304 stainless steel interior RAD2-35)
- ◆ 5-year heater warranty
- ◆ End of cycle and high-limit indicators
- ◆ Audible and visual high-limit alarm
- ◆ RS485 Modbus communication PC interface
- ◆ 1" process port for test wires and disconnect switch
- ◆ UL and C-UL listed open industrial control panel

#### OPTIONS

- ◆ Despatch unique adjustable louvers
- ◆ Door switch
- ◆ Reinforced floor
- ◆ Stainless steel interior for RAD1-42/2-19
- ◆ Chart recorder
- ◆ CE compliance

RAD		1-42 BENCH	2-19	2-35
<b>PHYSICAL SPECIFICATIONS</b>				
Chamber size (width x depth x height)		20 x 18 x 20 in. 51 x 46 x 51 cm	36.5 x 25 x 37 in. 93 x 64 x 94 cm	47.5 x 30 x 42 in. 121 x 76 x 107 cm
Capacity in cubic feet (liters)		4.2 (119)	19.5 (552)	35 (991)
Overall size (width x depth x height)		46 x 31.5 x 37.5 in. 119 x 80 x 95 cm	59.5 x 44 x 79 in. 151 x 112 x 201 cm	92 x 47 x 79 in. 234 x 119 x 201 cm
Electrical: 60 hertz - three phase  *1-42 bench runs on 50/60 hertz - single phase	208 volts	*33.7 amps/6 kW	37.7 amps/12 kW	59 amps/18 kW
	240 volts	*30 amps/6 kW	33.2 amps/12 kW	47.5 amps/16 kW
	480 volts	NA	16.6 amps/12 kW	23.7 amps/16 kW
Number of shelves provided		2	2	2
Maximum number of shelves		9 on 2 in. centers	12 on 3 in. centers	14 on 3 in. centers
Exhaust outlet diameter		2.5 in. (6.4 cm)	7 in. (17.8 cm)	7 in. (17.8 cm)
Doors		1	2	2
Approximate net weight		350 lbs (159 kg)	1320 lbs (599 kg)	1700 lbs (771 kg)
Approximate shipping weight		480 lbs (218 kg)	1495 lbs (678 kg)	1875 lbs (850 kg)
Insulation thickness		4 in. (10.2 cm)	6 in. (12.7 cm)	6 in. (12.7 cm)
<b>FUNCTIONAL SPECIFICATIONS</b>				
Time to temp with no load (40°C to 177°C)		10 minutes	17 minutes	16 minutes
Time to temp with no load (40°C to 260°C)		20 minutes	32 minutes	28 minutes
Time to temp with no load (40°C to 343°C)		38 minutes	50 minutes	50 minutes
Temperature uniformity		+/- 2.3°C at 177°C +/- 3.4°C at 260°C +/- 4.2°C at 343°C	+/- 2°C at 177°C +/- 2.8°C at 260°C +/- 3.7°C at 343°C	+/- 2°C at 177°C +/- 2.8°C at 260°C +/- 3.7°C at 343°C
Minimum operating temp		40°C (104°F)	40°C (104°F)	40°C (104°F)
Maximum operating temp		343°C (650°F)	343°C (650°F)	343°C (650°F)
Control stability		+/- 0.5°C on all models		
Repeatability		+/- 0.5°C		
Maximum load capacity		91 kg (200 lbs.)	386 kg (850 lbs.)	567 kg (1250 lbs.)
Maximum shelf capacity		13.6 kg (30 lbs.)	45.4 kg (100 lbs.)	45.4 kg (100 lbs.)
Exhaust capacity		Adj. to 12 CFM (5.6 l/s)	Adj. to 27 CFM (12.7 l/s)	Adj. to 110 CFM (51.9 l/s)
Recirculating fan		1/2 HP 425 CFM (200 l/s)	1 HP 1150 CFM (543 l/s)	2 HP 1550 CFM (731 l/s)



**RAD front view cross section showing airflow pattern.**

Notes: Uniformity figures are based on a nine-point test conducted in an empty oven after stabilization period. Uniformity can vary slightly depending on unit and operating conditions. Minimum operating temperature and cooling times are based on 20°C ambient temperature measured at the fresh air inlet with the fresh air and exhaust dampers fully open. Specifications are subject to change without notice. If the existing specifications differ from yours, ask about our customizing capabilities.

**RAD models are not to be used with flammable solvents, materials or containers. If your process involves flammable solvents please inquire about our RFD models.**

\*50 hertz electrical is available on all models



**RAD1-42**



**RAD2-19**



**RAD2-35**

## SERVICE AND TECHNICAL SUPPORT

service parts: 1-800-473-7373  
international service/main: 1-952-469-8230  
service fax: 1-952-469-8193  
service@despatch.com  
usparts@itweae.com

## GLOBAL HEADQUARTERS

main phone: 1-800-726-0110  
international/main: 1-952-469-5424  
sales: 1-800-726-0550  
international/sales: 1-952-469-8240  
sales@despatch.com

## WWW.DESPATCH.COM

8860 207th Street West  
Minneapolis, MN 55044 USA

**Despatch**  
Thermal Processing Technology **ITW IAE**