

◆ 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

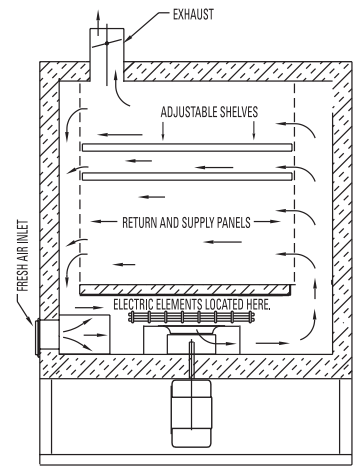
- ◆ Temperatures up to 343°C (650°F) (Models available with temperatures up to 538°C (1000°F))
- ◆ Three models from 4.2 to 35 cu. ft. (119 to 991 liters)
- ◆ Horizontal recirculating airflow
- ◆ Protocol 3™ control with large LCD display, integrated data logging capabilities and USB port for simple oven set-up and data export.
- ◆ Aluminized steel interior
- ◆ 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
- ◆ Side-mounted control
- ◆ Door switch
- ◆ Reinforced floor
- ◆ Stainless steel interior
- ◆ Chart recorder
- ◆ CE compliance

| RAD | | 1-42 BENCH | 2-19 | 2-35 |
|---|-----------|--|--|---|
| PHYSICAL SPECIFICATIONS | | | | |
| 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 | 70 x 49 x 86 in. 178 x 124 x 218 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) |

| FUNCTIONAL SPECIFICATIONS | | | | |
|---|--|--|--|--|
| 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 | +/- 0.5°C | +/- 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 EAE**