

## ◆ RAF/RFF Series High Temperature Ovens

**Proven reliability in demanding applications**

The RAF/RFF series high temperature ovens feature horizontal recirculating airflow to ensure exceptional temperature uniformity throughout the oven. These high-performance ovens deliver temperatures up to 538°C (1000°F) and are great for such processes as annealing, aging, drying and other process critical applications.

The RFF Class A version is specifically designed to meet NFPA 86 requirements for applications that include flammable solvents or large amounts of moisture removal. This Class A oven is complete with a pressure relief panel, purge timer, and exhaust fan.

The RAF/RFF1-42 benchtop oven is great for high temperature process development due to its size and capabilities. It has a small footprint and is ideal for laboratory and production of small lot sizes or smaller parts.

### FEATURES AT A GLANCE

- ◆ Temperatures up to 538°C (1000°F)
- ◆ 2 models - 4.2 & 19 cu. ft. (117 & 552 liters) capacity
- ◆ Horizontal recirculating airflow
- ◆ Protocol Plus™ microprocessor control system with real time clock makes oven operation simple and flexible
- ◆ 304 stainless steel interior
- ◆ 5 year heater warranty
- ◆ End-of-cycle and high-limit indicators
- ◆ UL/C-UL listed open industrial control panel

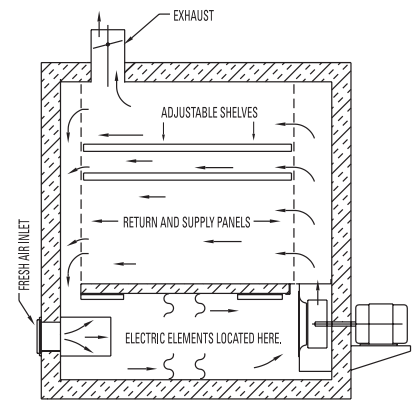


### OPTIONS:

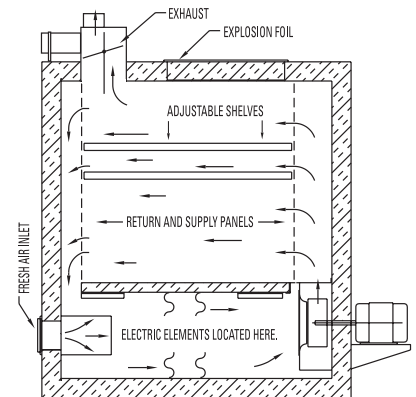
- ◆ Despatch unique adjustable louvers
- ◆ PC interface for remote input, monitoring and recording (RS485/422/232)
- ◆ Automated dampers for cooling
- ◆ Chart recorder
- ◆ Audible alarm
- ◆ Access ports for test wires
- ◆ CE compliant



RAF/RFF	1-42 Bench	2-19
<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
Capacity in cubic feet (liters)	4.2 (119)	19.5 (552)
Overall size (width x depth x height) RAF	50 x 30 x 48 in 198 x 107 x 233 cm	78 x 42 x 78 in 198 x 107 x 188 cm
Overall size (width x depth x height) RFF	50 x 30 x 58 in 198 x 107 x 233 cm	78 x 42 x 93 in 198 x 107 x 233 cm
Electrical (additional options available) RAF	240V, 50 Hz, single phase 54 Amps 12kW	480V, 60 Hz, three phase 35 Amps 30kW
Electrical (additional options available) RFF	240V, 50 Hz, single phase 57.4 Amps 12kW	480V, 60 Hz, three phase 40 Amps 30kW
Number of shelves provided	2	2
Maximum number of shelves	8 on 2 in (5.1cm) centers	12 on 3 in (7.6cm) centers
Exhaust outlet diameter RAF	3 in (7.6 cm)	7 in (17.8cm)
Exhaust outlet diameter RFF	3.25 x 5.5 in (8.3 x 14 cm)	3.5 x 8.5 in (8.9 x 21.6 cm)
Doors	1	1
Approximate net weight (RAF)	770 lbs (349 kg)	1,450 lbs (658 kg)
Approximate net weight (RFF)	800 lbs (363 kg)	1,495 lbs (678 kg)
Approximate shipping weight (RAF)	970 (440 kg)	1,625 lbs (737 kg)
Approximate shipping weight (RFF)	1,000 lbs (454 kg)	1,695 lbs (769 kg)
Insulation thickness	5 in (15.2cm)	6 in (15.2cm)
<b>FUNCTIONAL SPECIFICATIONS</b>		
Time to temp with no load (40°C to 204°C) RAF	15 minutes	20 minutes
Time to temp with no load (40°C to 204°C) RFF	15 minutes	20 minutes
Time to temp with no load (40°C to 538°C) RAF	53 minutes	75 minutes
Time to temp with no load (40°C to 538°C) RFF	53 minutes	75 minutes
Temperature Uniformity	± 2.3°C at 204°C ± 3.9°C at 371°C ± 5.6°C at 538°C	± 2.2°C at 204°C (± 4°F at 400°F) ± 3.9°C at 371°C (± 7°F at 700°F) ± 5.6°C at 538°C (± 10°F at 1000°F)
Minimum operating temp above ambient RAF	20°C (36°F)	11°C (20°F)
Minimum operating temp above ambient RFF	10°C (18°F)	8.3°C (15°F)
Maximum temperature	538°C (1000°F)	538°C (1000°F)
Control Stability	±0.5°C/5°C Δ	±0.5°C/5°C Δ
Repeatability	±0.5°C	±0.5°C
Maximum load capacity	200 lbs (91 kg)	850 lbs (386 kg)
Maximum shelf capacity	30 lbs (13.6 kg)	100 lbs (45.4 kg)
Exhaust capacity RAF	Adjustable to 12 CFM (5.6 LPS)	Adjustable to 27 CFM (12.7 LPS)
Exhaust capacity RFF (minimum/maximum)	23/150 CFM (10.9/70.8 LPS)	54/350 CFM (25.5/165.2 LPS)
RFF solvent handling capacity at 177°C (350°F) MEK	0.025 GPH (0.095 LPH)	0.06 GPH (0.23 LPH)
RFF forced exhaust HP	1/3	1/3
Recirculating fan	1/2 HP 550 CFM (260 LPS)	1 HP 1150 CFM (543 LPS)



RAF front view cross section showing airflow pattern.



RFF 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.

Δ represents the chance in ambient temperature

## 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

## GLOBAL HEADQUARTERS

phone: 1-888-DESPATCH (1-888-337-7282)  
international/main: 1-952-469-5424  
fax: 1-952-469-4513

sales@despatch.com  
www.despatch.com

8860 207th Street West  
Minneapolis, MN 55044 USA

**Despatch**  
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