

◆ RFF Class A Furnace

For high temperature applications involving flammable or excessive solvent removal



Despatch RFF Class A furnaces are specifically designed to meet NFPA 86 requirements for applications that include flammable solvents. This Class A furnace is complete with a pressure relief panel, purge timer, and exhaust fan.

The RFF features horizontal recirculating airflow with adjustable louvers to ensure exceptional temperature uniformity throughout the furnace. These high-performance furnaces deliver temperatures up to 538°C (1000°F) and are great for such processes as annealing, aging, stress relieving and other process critical applications.

The RFF is available in cabinet and benchtop models. The cabinet furnace is suited for volume production while the benchtop model, with its small footprint, is ideal for high temperature process development in a laboratory.



Shown with optional Protocol 3 controller

FEATURES AT A GLANCE

- ◆ Temperatures up to 538°C (1000°F)
- ◆ Class A package meeting NFPA 86 requirements for flammable solvents
- ◆ 3 models - 4.2, 19 & 35 cu. ft. (117, 552 & 991 liters) capacity
- ◆ Horizontal recirculating airflow
- ◆ Despatch unique adjustable louvers RFF2-19 and RFF2-35 models
- ◆ Horizontal recirculating airflow
- ◆ Digital control with 3/4" (1.9cm) LED display
- ◆ RS485 Modbus communication PC interface
- ◆ Audible and visual high-limit alarm
- ◆ 304 stainless steel interior
- ◆ Disconnect switch on main control panel
- ◆ 5 year heater warranty
- ◆ End-of-cycle and high-limit indicators
- ◆ UL/C-UL listed open industrial control panel

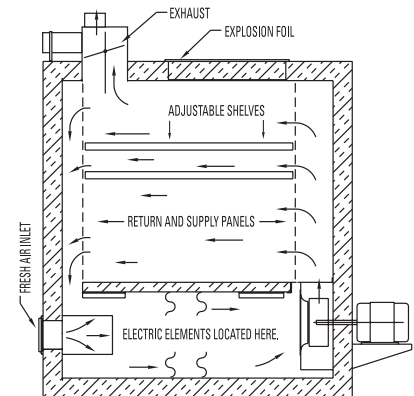
OPTIONS

- ◆ Protocol 3™ control with large LCD display, integrated data logging capabilities and USB port for simple oven set-up and data export
- ◆ Pneumatic lift door
- ◆ Chart recorder
- ◆ Access ports for test wires
- ◆ CE compliant

RFF	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 120.7 x 76 x 106.7 cm
Capacity in cubic feet (liters)	4.2 (119)	19.5 (552)	35 (991)
Overall size (width x depth x height) <i>includes 3.5in high shipping channels</i>	50 x 31 x 59 in 127 x 79 x 150 cm	78 x 42 x 93 in 198 x 107 x 233 cm	97 x 50 x 98 in 245 x 127 x 249 cm
Electrical	480V three phase	60 Hz, 17.4 Amps, 12kW	60 Hz, 40.5 Amps, 30kW
	240V single phase	60 Hz, 57.5 Amps, 12kW	NA
Number of shelves provided	2	2	2
Maximum number of shelves	8 on 2 in (5.1cm) centers	12 on 3 in (7.6cm) centers	14 on 3 in (7.6cm) centers
Shelf dimensions (width x depth)	19.6 x 17.75 in. 50 x 45 cm	37.6 x 24.5 in. 95.5 x 62.2 cm	48.6 x 29.5 in. 123.4 x 75 cm
Exhaust outlet	3.25 x 5.5 in (8.3 x 14 cm)	3.5 x 8.5 in (8.9 x 21.6 cm)	3.5 x 8.5 in (8.9 x 21.6 cm)
Doors	1	2	2
Approximate net weight	800 lbs (363 kg)	1,495 lbs (678 kg)	2,200 lbs (998 kg)
Approximate domestic shipping weight (export adds weight)	1,000 lbs (454 kg)	1,695 lbs (769 kg)	2,500 lbs (1,134kg)
Insulation thickness	5 in (15.2cm)	6 in (15.2cm)	6 in (15.2cm)
FUNCTIONAL SPECIFICATIONS			
Time to temp with no load (40°C to 204°C)	15 minutes	20 minutes	20 minutes
Time to temp with no load (40°C to 538°C)	53 minutes	75 minutes	55 minutes
Temperature Uniformity	± 2.3°C at 204°C ± 3.9°C at 371°C ± 5.6°C at 538°C	± 2.3°C at 204°C ± 3.9°C at 371°C ± 5.6°C at 538°C	± 2.3°C at 204°C ± 3.9°C at 371°C ± 5.6°C at 538°C
Minimum operating temp	30°C (86°F)	30°C (86°F)	40°C (104°F)
Maximum temperature	538°C (1000°F)	538°C (1000°F)	538°C (1000°F)
Control Stability	±0.5°C	±0.5°C	±0.5°C
Repeatability	±0.5°C	±0.5°C	±0.5°C
Maximum load capacity	200 lbs (91 kg)	850 lbs (386 kg)	850 lbs (386 kg)
Maximum shelf capacity	30 lbs (13.6 kg)	100 lbs (45.4 kg)	300 lbs (136 kg)
Exhaust capacity (minimum/maximum)	23/150 CFM (10.9/70.8 l/s)	54/350 CFM (25.5/165.2 l/s)	216/350 CFM (101.9/165.2 l/s)
Solvent handling capacity at 177°C (350°F) MEK	0.025 GPH (0.095 l/h)	0.06 GPH (0.23 l/h)	0.24 GPH (0.91 l/h)
Forced exhaust HP	1/3	1/3	1/3
Recirculating fan	1/2 HP 550 CFM (260 l/s)	1 HP 1150 CFM (543 l/s)	3 HP 2500 CFM (1180 l/s)



RFF-35 with optional pneumatic lift door



RFF front view cross section showing airflow pattern.

Notes: Design uniformity figures are based on a nine-point test conducted in an empty oven after stabilization period. Minimum operating temperature and cooling times are based on 20°C ambient temperature measured at the fresh air inlet. Specifications are subject to change without notice. If the existing specifications differ from yours, ask about our customizing capabilities.

Δ represents the change in ambient temperature

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