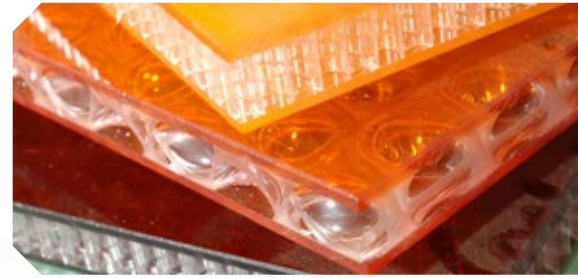


### ◆ RFD Class A Cabinet Ovens

For applications that include flammable solvents or excessive solvent removal



RFD Class A ovens are specially designed to meet NFPA 86 requirements for applications that include flammable solvents or large amounts of moisture removal. They include a pressure relief panel, purge timer and exhaust fan.

These ovens feature horizontal recirculating airflow to ensure exceptional temperature uniformity throughout the oven. A high-volume fan circulates air through walls with adjustable louvers 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.

The standard digital controls regulate temperatures within tight tolerances and provides high limit protection. For more advanced control choose the optional Protocol 3™ microprocessor-based temperature and hi-limit controller. Data-logging functionality enables reporting and analyzing and data files can be exported via the controller's USB port.

*Shown with optional Protocol 3 controller*



#### FEATURES AT A GLANCE

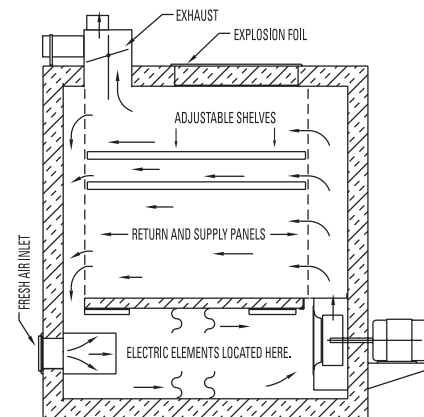
- ◆ Temperatures up to 343°C (650°F) (Models available with temperatures up to 538°C (1000°F))
- ◆ Class A package meeting NFPA 86 requirements for flammable solvents
- ◆ Horizontal recirculating airflow
- ◆ Adjustable louvers
- ◆ Digital control with 3/4" (1.9cm) LED display
- ◆ High limit over-temperature protection
- ◆ 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
- ◆ One-inch process port for test wires and disconnect switch
- ◆ UL and 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
- ◆ Stainless steel interior
- ◆ Door switch
- ◆ Reinforced floor
- ◆ Chart recorder
- ◆ CE compliance

		RFD1-42	RFD2-19	RFD2-35
<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 36.5 x 37.5 in. 117 x 92.7 x 95 cm	79.5 x 44 x 92.5 in. 202 x 112 x 235 cm	92.5 x 49 x 96.5 in. 235 x 124 x 245 cm
Electrical: RAD1-42: 50/60 hertz - single phase RAD2-19 and RAD2-35: 60 hertz - three phase (FLA)	208 volts	34.5 amps/6 kW	58.4 amps/18 kW	97.3 amps/32 kW
	240 volts	30.8 amps/6 kW	46.5 amps/16 kW	84.9 amps/32 kW
	480 volts	NA	23.4 amps/16 kW	38.5 amps/32 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
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		4 in. (10.2 cm)	7 in. ( 17.8 cm)	3.5 x 8.5 in. (8.9 x 21.6 cm)
Doors		1	2	2
Approximate net weight		380 lbs (277 kg)	1365 lbs (619kg)	1745 lbs (792 kg)
Approximate domestic shipping weight (export adds weight)		610 lbs (231 kg)	1985 lbs (710kg)	1940 lbs (882 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)		12 minutes	16 minutes	12 minutes
Time to temp with no load (40°C to 260°C)		26 minutes	30 minutes	22 minutes
Time to temp with no load (40°C to 343°C)		36 minutes	48 minutes	36 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		30°C (86°F)	30°C (86°F)	30°C (86°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		200 lbs (91 kg)	850 lbs (386 kg)	1250 lbs (567 kg)
Maximum shelf capacity		30 lbs (13.6 kg)	100 lbs (45.4 kg)	100 lbs (45.4 kg)
Exhaust capacity (minimum/maximum)		23/93 CFM (10.9/43.9 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		.025 GPH (.095 l/h)	.06 GPH (.23 l/h)	.24 GPH (.91 l/h)
Forced exhaust HP		1/5 HP	1/3 HP	1/3 HP
Recirculating fan		1/2 HP 425 CFM (200 l/s)	2 HP 1550 CFM (731 l/s)	2 HP 1550 CFM (731 l/s)

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 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.



RFD front view cross section showing airflow pattern.



RFD2-19



RFD1-42 backside

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