Despatch

Thermal Processing Technology

ITW EAE

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 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.

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
- Protocol 3TM control with large LCD display, integrated data logging capabilities and USB port for simple oven set-up and data export
- 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

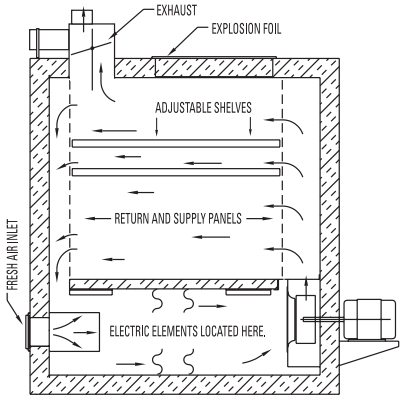
- Despatch unique adjustable louvers
- Pnuematic lift door
- Chart recorder
- Access ports for test wires
- CE compliant

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)	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 141 in 245 x 127 x 358 cm
Electrical (additional options available)	240V, 60 Hz, single phase 63 Amps 12kW	480V, 60 Hz, three phase 40 Amps 30kW	480V, 60 Hz, three phase 40 Amps 30kW
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
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	1	2
Approximate net weight	800 lbs (363 kg)	1,495 lbs (678 kg)	2,200 lbs (998 kg)
Approximate shipping 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)
Sovent 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)

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 change in ambient temperature

RFF2-35 with optional pneumatic lift door



RFF front view cross section showing airflow pattern.

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

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