RDM Engineering 250°C 4.2m x 2m x 2.2m Electric Oven



Stock No	SMC500
Manufacturer	RDM Engineering
Model	Box Even
Year of Manufacture	2016
Serial	62126
Condition	From a working environment, Excellent Condition
Internal Size (WxDxH mm)	4200 x 2000 x 2200
Max Temp	250°C
Other Info	75kw
Location	Our Central Warehouse, Aldridge, UK
External Dimensions (WxDxH mm)	5000 x 2400 x 3300

Description

Designed for demanding industrial curing, heating and drying applications, this RDM electric oven is suitable for drying, stoving, curing and heating processes up to 250°C. With its 4200 x 2000 x 2200mm working envelope, it provides substantial capacity for large components and batch loads.

Fan-assisted airflow continuously recirculates heated air throughout the chamber, promoting even heat distribution, while the fully insulated construction and efficient heating system help reduce energy consumption.

Built for safe, reliable operation, the oven incorporates electronic over-temperature and fan protection, powered fume extraction, automatic fume purging and an internal safety release.

View Powered & Buy Direct From Site

See powered up and operating at their current premises in Wolverhampton, West Midlands. With professional decommissioning support available onsite, helping to make removal and relocation easy as straightforward as possible.

Applications:

- Paint stoving
- ® Epoxy/Polyester powder curing
- Moisture removal
- Plastic curing
- Lacquer drying
- Rubber softening
- Hydrosetting
- Battery processing
- Metal annealing
- Spring stress relieving

Excellent Heat Distribution

A good distribution of heat is vital for successful process oven design. Indeed, RDM Ovens are often specified in the most critical aerospace applications requiring superb temperature profile stability. To ensure good performance, all RDM Ovens incorporate medium pressure multi vane centrifugal fans complete with scroll casings to provide a very positive and well controlled air movement. This is usually at least four complete air recycles per minute. Large duct work ensures that the high air volume will not disturb the product.

Fully Insulated Heated Box and Recirculation Fans

The oven's heat exchanger enclosure incorporates integrated, internal, plug type centrifugal air recirculation fans with external motors. With this design none of the hot fan components are in any way exposed to colder air. Not only does this design offer a clean and smooth appearance to the oven, but also heat losses from the fans are virtually eliminated. Furthermore, a fully insulated heater box prevents radiated heat from being projected into the oven in any uncontrolled manner, as would be the case if the oven’s interior were not properly isolated from the heater box.

Door Safety System

RDM Box Ovens incorporate an internal safety door handle to prevent operator entrapment.

Cool Exterior Surfaces

Great care has been taken in the design and construction of RDM ovens to minimise heat transfer through the walls and doors, For example, the inner and outer skins are connected by narrow strips of steel and oven doors are mounted to the oven faces with external door frames. On tunnel type ovens, a minimum amount of duct work is mounted to the internal walls.

Explosion Relief System

The majority of the oven roof area comprises of special panel work which is specifically designed to harmlessly disintegrate and vent off to atmosphere should an explosion occur within the oven. This system far exceeds the recommended requirements under British or C.E. legislation

Electronic Over Temperature Protection

As a totally independent module to the master oven control system, RDM Ovens also incorporate a thermal sensor mounted within the air heater box, this sensor is connected to an independent electronic temperature controller mounted inside the control panel. In the unlikely event that the heater box temperature should exceed the Oven's design parameters, the heaters are shut down and the Oven automatically switches to fast cool down mode.

Electronic Fan and Pressure Protection

Sensors constantly monitor recirculation fan performance. If for any reason the recirculation fans are not drawing sufficient air volume or air pressure, the heaters are shut down. If the fans should become electrically overloaded, the entire oven is immediately shut down.

All Insulated Galvanised or Stainless Steel Construction

To ensure a very long service life the oven panel work is made up either from high grade galvanised or stainless steels with high density mineral wool slab insulation filling. This is usually either of 100mm or 150mm thickness dependent on the design temperature.

Air Seal System

Efficient air seals are crucial to efficient tunnel oven design. The air seals minimise the otherwise inevitable heat losses that would be generated by the apertures that must allow the product to enter and exit conveyorized ovens. The superb RDM 'Air surround' system has been continuously improved and upgraded on the basis of more than 20 years of on site experience with this industry standard design. In simple terms, hot air is drawn off, just before escaping the oven by an oversized, slow running multi vane fan system which is plugged into a multi-chamber air box above the apertures. This air is then blown back into the oven by carefully designed duct nozzles, a short way behind the apertures. The air is blown back all around the product at high volumes and low velocity to prevent disturbing the product.

Fume Exhaust System

RDM Ovens incorporate a powerful and positive, fan assisted, fume and solvent evaporation and exhaust duct system as standard. The exhaust system never relies merely on convection evaporation and it can be adjusted to suit different applications.

Constant Air/Fuel Ratio

To ensure superb oven efficiency at all temperatures, all RDM gas fired ovens now incorporate this recently available feature. The output from an oven burner must vary constantly to suit the heat load or to allow warming up. This feature ensures that the combustion air volume is automatically adjusted and balanced to the gas consumption by an electronic damper motor.

Purge and Cool Timers

To ensure a safe start up and shut down sequences all RDM ovens include an electronic sequence control system. This system ensures that the heater(s) will only switch on once the fans have safely evacuated any solvent or gas fumes that may have accumulated. At the end of a shift, a simple press button initiates the controlled shut down cooling sequence, allowing the fans to cool the heaters properly prior to shutting down fully.

Features

- Digital temperature controller
- Accurate and stable heat control
- All bolted construction - easily modified or moved galvanised and stainless steel construction
- High density mineral wool insulation
- Fully insulated heater chambers and fans
- Ample explosion relief panel work
- Air surround air seal system
- Internal door release
- Safe and adaptable control systems
- Electronic over temperature protection device
- External mounted fabricated steel doors
- Infinite range of sizes and options
- Full compliance with safety and environmental legislature
- C.E. marked and approved

Photographs taken prior refurbishment. Our refurbishment service is not available on all machines.