



Client Presentation

Boparan
Restaurant Group

The flexible recirculating kitchen extract
solution for the food service industry

Recirculating Kitchen Extract

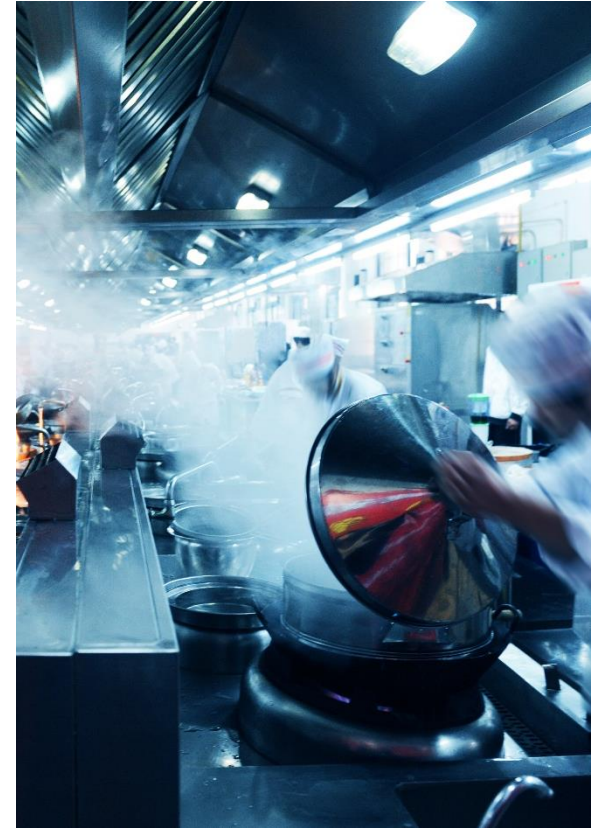
Reco-Air's range of recirculating extract units offer flexibility & unique opportunities.

Ideally suited to airport & travel hub locations, kiosks and island sites Reco's patented filter technology, smart controls and self-contained systems create space planning and new layout opportunities, facilitates expansion of menu offer and enables relocation of extract system at lease-end.

Reco-Air does not require external ductwork or a route to atmosphere, doesn't use UV or ESP, significantly reduces fire risk, simplifies maintenance and enables kitchens to operate in previously unfeasible commercial space.

Reco-Air units are UL710b listed

This global accreditation confirms Reco-Air units meet strict NFPA fire safety regulations and are approved for use with high-risk cooking in high-risk locations.



Overview

Reco-Air manufacture & supply:

Recirculating Extract Units for Commercial Kitchens

Patented Technology cleans the air, removing:

Moisture, Steam, Smoke, Grease & Odour

Recirculating clean air back to the Canopy:

No requirement for external duct or route to atmosphere

Recirculation has many benefits including:

**Reducing Fire Risk, Unlocking New Locations,
Expanding Menu Offers & Resolving Problem Sites**

Your Kitchen Anywhere

Advantages

Unlocks New Locations

- No Duct or Route to Atmosphere Required
- Retail space becomes usable F&B
- Significantly Reduce Fire Risk
- High Risk Cooking in High Risk Locations
- Expand Existing Menu Offers
- Flexibility to Relocate at Lease End
- Range of Reco units to suit all requirements
- Flexible Model Configurations to suit all layouts

Advantages

Increased Environmental Credentials

- Reduced Fire Risk
- Energy Saving
- Clean Air
- Noise Reduction
- Vibration Reduced
- Aesthetic Requirements
- Minimise Duct Cleaning
- Retains heat within the Building

Advantages

Adding Value

- Reduces HVAC Equipment Required
- Simple Installation and Retro-Fitting Option
- Future Proof Trading Locations
- Enable Menu Development

Advantages

Other Considerations

- No ductwork to atmosphere or through adjoining Fire Zones / Floors
- No make-up air requirement
- Potential for a reduced electrical supply capacity
- Automatic adjustment of Fan speed to maintain design air flow rate
- Easy maintenance access
- Wide range of different unit configurations
- Floor standing, Horizontal for Ceiling Voids
- Flat Pack construction available for restricted access
- Global Service provision with Halton network of Reco trained engineers, or training to local client nominated service engineers available
- Capital costs comparable with Conventional Equipment solutions

General Unit Construction

Reco-Air units are constructed with the following features:

- 25mm double skinned panels
- Made from galvanised steel finish on the inside
- White Plastisol finish on the outside
- Any colour or Stainless Steel if required
- Insulated using 45 kg/m³ density mineral wool
- 30-40mm Satin Anodised Aluminium Pentapost framework
- Excellent acoustic performance & thermal properties
- Fitted with hinged access doors to the main filter sections
- Including lockable black handles
- Powder coated black adjustable support feet or base frame

**The unit can be configured to suit each particular application
e.g. Ceiling suspended, floor or roof mounted.**



Floor Mounted RA3.0

Filter Requirements

Each Recirculation Unit incorporates the following grade filter media:

- F1 Large grease particulate removal
- F2 Fine grease particulate removal
- F3 Smoke, Steam & Moisture removal
- F4 Odour removal
- Minimum dwell time of 0.2 seconds



Filters F1-F3

Fan Assembly

Each Recirculation Unit incorporates the following fan assembly:

- Fan section (EC Plug fan) 230V or 400V (depending on unit capacity)
- Single/Three Phase, suitable for 0V to 10V signal control
- Max. ambient working temperature to suit specific application
- Each fan is Inverter Controlled, such that the fan speed ramps up as the filter pressure increases to maintain a constant air volume flow rate at the cookline/canopy
- Unit Duty to suit DW/172 Specific Extract Flow Rate (SEFR) & design requirements



EBM Papst Fan

Control Requirements

The unit will shut down/cease to function if any of the following scenarios occurs:

- A unit filter access door is left open or ajar
- Filters are removed or left out of the unit
- The Fire Alarm system is activated
- Pressure drop across any of the primary 3 sets of filters that exceed pre-set warning levels
- The unit Isolator is turned off
- A system Timeclock is not calling for system activation – Premium Controls
- A remote Shut-off safety feature has been activated – Premium Controls



Standard Controls

Interface Premium Controls - UL Models

If requested, an Interface system upgrade can be installed to facilitate the following features:

- Remote access
- Permanently monitoring filter pressure drops
- Allows the adjustment of values remotely
- Logs activity
- Allows Emergency re-start
- Provide access to Real Time filter status
- Electrical Interlock System can be incorporated to disable all essential cooking equipment whenever a 'No Air Flow' status is present



Premium Controls

Model Size Options

Model	UL	Air Flow	Pascals	Fan size	Amps	Phase	Canopy	Floor Mounted Size				Void Mounted Size			
								W	D	H	Wt.	W	D	H	Wt.
RA .5		0.33 M ³ /S	100 PA	280mm ¢	2.3	Single	1.5 Mtr	700	685	2155	280kg	685	2250	800	343kg
RA .5plus		0.5 M ³ /S	250 PA	280mm ¢	1.6	Three	2.0 Mtr	700	685	2155	286Kg	685	2250	800	350Kg
RA 1.0	✓	0.9 M ³ /S	250 PA	450mm ¢	8.3	Three	3.0 Mtr	1500	700	2005	530kg	700	3580	875	572kg
RA 1.5	✓	1.2 M ³ /S	320 PA	500mm ¢	8.4	Three	4.5 Mtr	1540	1130	2005	765kg	1130	3580	895	820kg
RA 2.0	✓	1.8 M ³ /S	250 PA	500mm ¢	8.4	Three	6.0 Mtr	1540	1430	2005	884kg	1430	3580	895	974kg
RA 2.5		2.25 M ³ /S	320 PA	2x500mm ¢	16.8	Three	7.5 Mtr	1815	1540	2005	1093kg	1815	3580	895	1210kg
RA 3.0		2.7 M ³ /S	320 PA	2x500mm ¢	16.8	Three	9.0 Mtr	2115	1540	2005	1210kg			N/A	
RA 3.5		3.15 M ³ /S	320 PA	2x500mm ¢	16.8	Three	10.5 Mtr	2500	1540	2005	1395kg			N/A	
RA 4.0		3.6 M ³ /S	350 PA	2x500mm ¢	16.8	Three	12.0 Mtr	2800	1540	2005	1500kg			N/A	

Model Options



RA1.0 Floor Mounted



RA1.5 Ceiling Void



RA1.5 Roof Mounted

Maintenance & Service

Reco-Air Recirculation Units require periodic service:

- Ensures that unit is delivers continuous optimum performance
- Providing a safe and comfortable working environment
- Unit is designed to prevent misuse - prevent operation when the filters are dirty or removed
- Filter change frequency dependant on menu type and trading hours but with medium duty use filter change required every quarter
- Initial Maintenance packages are based on four visits/changes a year
- All service packages require a Reco-Air trained engineer to visit once a year to service and replace F4 odour control and complete full annual Health Check

Maintenance Packages

Silver Package – This is a user/operator option (Non UL Models Only)

- Only offered with floor mounted smaller units
- User purchases filter media from Reco-Air
- User changes filters 1-3 internally or via their preferred contractor
- Filters are delivered to site for use as required
- Annually service by a Reco engineer, all filters and carbons replaced and full unit health check

Gold Package – Reactive Maintenance (Non UL Models Only)

- Maintenance will be reactive to meet filter life, determined either by remote monitoring with Premium Controls or by user intervention with Standard Controls
- Maintenance team are advised the filter is 80% spent
- Generally allowing around two weeks to arrange service engineer attendance
- The annual service will take place as with the Silver Package

Platinum Package – Planned Preventative Maintenance (UL Models)

- Four equally spaced pre-planned visits are scheduled
- All necessary arrangements made for access and H&S, RAMS submitted for sensitive sites
- Filter media supplied, delivered and fitted by trained Reco engineers
- F1 & F2 every quarter, F3 every six months & Carbons annually
- Remote Monitoring and Control available with 24/7 Bureau Facility

Accreditations & Approvals

RECO-Air accreditations include:

- **Patented**
- **UL710B Listed** – Globally recognised US accreditation (Underwriters Laboratories), certifying Reco-Air units to operate high risk cooking in high risk locations – Airports, travel hubs, railway stations, shopping malls etc
- **NFPA Section 13** – Fire Safety Approved
- **CE European Conformity** – Fully Compliant
- **DW172 (2018)** – UK's strict guideline process for kitchen ventilation – Recirculating now included, to Reco-Air patented specification
- **TR19** – Complies to strict UK installation requirements
- **City of Westminster (London) Approval** – Reco-Air specification is the only approved recirculation alternative to high level discharge. Written into CoW Guidelines for Kitchen Extract Guidelines (Dec 16)
- **TFL – Transport for London** – Reco-Air approved for operating in Underground stations / subterranean ticket halls

Accreditations & Approvals

Safety Approved:

- **Air Quality Consultant** – Independent report confirming recirculated air quality
- **Acoustic Consultant** – Independent report confirming low noise levels
- **Local Authority Building Control**
- **EHO (lead Authority City of Westminster)**
- **Fire Officer Approved**
- **Independent Fire Safety Consultant**

Case Studies



JD Wetherspoon, Network Rail Waverley Station, Edinburgh

Heritage Grade II listed building had no option for external extract due to strict conservation control.

Installing **Reco-Air** enabled the previously unfeasible location to trade with full hot food menu.

Solution – **Reco-Air** RA2.5



Camden Bar & Kitchen, Airside, Stansted Airport

SSP identified an opportunity to introduce a bar & kitchen in an airside location previously occupied by retail and with no route to atmosphere.

Installing **Reco-Air** enabled the previously unfeasible location to trade with full hot food menu.

Solution – **Reco-Air** RA2.0 UL

Case Studies



Itsu, Airside Terminal 5, Heathrow

Location identified by BAA for an F&B tenant but no route to atmosphere available. **Reco-Air** units were installed to food preparation areas enabling Clients hot food menu offer to trade.

Solution – **Reco-Air** RA1.5, **Reco-Air** RA1.0



Esencial, Unibail Rodamco Westfield, Spain

Restaurant concept periodically relocating to new venues across Spain. RA1.5 provides self contained extraction and enables flexibility to easily relocate.

Solution – **Reco-Air** RA1.5



LEON, SSP Victoria Station London

Current platform level coffee shop, with no route to atmosphere, sensitive to odour and grease and space prohibited. A Reco-Air void unit was installed to enable brand change and full hot food menu.

Solution - **Reco-Air** RA1.5 V

In good Company



Heathrow



YOUR LONDON AIRPORT
Gatwick



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DESIGNER OUTLETS

