

Reco-Air Standard Control Unit Specification

General Unit Construction.

Reco-Air Units are constructed with 25mm double skinned panels galvanised steel finish internally and White Plastisol finish externally - providing a robust outer casing, ensuring good acoustic performance & thermal properties.

Where requested, the external appearance is finished to comply with specific requirements.

Panels are insulated using 45 kg/m³ density mineral wool, with hinged or lift off access doors to the main filter sections and lockable black handles.

The Reco-Air Units are, predominantly, designed to accommodate the application of a Recirculation Air system, but can also be applied to conventional discharge to atmosphere, where preferred. Units are configured to suit the particular application / location eg. ceiling suspended, floor mounted or roof mounted. Unit construction utilises 30-40mm Satin Anodised Aluminium 'pentapost' framework with powder coated black adjustable support feet or base frame.

Specific Requirements

As a minimum requirement, each Reco-Air unit shall incorporate the following grade (or equivalent) filter media:-

- F1 Grade G4 - Large grease particulate removal.
- F2 Grade M6 - Fine grease particulate removal.
- F3 Grade F10 - Smoke, Steam & Moisture removal
- F4 Food Grade Activated Carbon cylinders - Odour removal
minimum dwell time of 0.2 seconds.

All filter & fan doors shall incorporate a locking device, which can only be accessed by Authorised Personnel.

As a minimum requirement, each Reco-Air Unit incorporates the following fan assembly:-

Fan section (EC Plug fan) 230 V or 400 V (depending on unit capacity)

Single / Three phase, suitable for 0 to 10V signal control.

Unit Duty to suit Current DW/172 Specific Extract Flow Rate (SEFR) & design requirements.

Max. ambient working temperature to suit specific application.

Each fan shall be Inverter Controlled, such that fan speed ramps up as the filter pressure increases to maintain a constant air volume flow rate at the cookline / canopy.

Control & Interface Requirements

Reco-Air's patented controls system protocol ensures the unit ceases to function if any of the following scenarios arise:

- . 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
- . The registered filter pressure drop across any of the primary 3 sets of filters exceeds pre-set Warning levels & reaches Critical levels
- . The internal PLC Time Control unit, activated on filter Alarm, has been allowed to 'Time Out'
- . The unit Isolator is turned Off
- . A system Timeclock - external controls - is not calling for system activation
- . A remote Shut-off safety feature - external controls - has been activated

When requested, an Electrical Interlock System can be incorporated, which disables all essential cooking equipment whenever a 'No Air Flow' status is present.

This ensures no cooking operation can be effected without a proven, & adequate air flow / extraction rate from the recirculation system / unit.

Air Commissioning / Testing

On completion of any Reco-Air unit installation the air volume flow rates to extract & return air ductwork must be verified by a suitably qualified commissioning engineer & a report produced as point of record

All test points are sealed with proprietary plugs on completion of this operation.

Reco-Air Unit Service & Maintenance

When planning the installation of the recirculation unit – however configured - adequate clearance must be allowed to facilitate safe Operative replacement of the filter media & fan(s).

To comply with our Standard Terms of Warranty – and Specific Landlord / Authority approvals – a Service Contract is required. We recommend use of Reco accredited service partners.

Evidence of same must be made available prior to formal approval being acknowledged.

Reco-Air Unit Noise Breakout

In normal 'Internal' instances breakout noise from our Reco-Air unit will not exceed 60 dBA when measured at 1 metre (free field). Where Specific Authorities enforce lower noise levels, the Reco-Air unit construction can be modified accordingly.