PROJECT:

SPECIFICATION OF COMPONENTS

ENVIRON SCVRF150 MODULAR ACOUSTIC ENCLOSURE HORIZONTAL AND VERTICAL DISCHARGE AIR CONDITIONING SYSTEMS

Environ SCVRF150 is a proprietary high performance acoustic housing specifically designed for VRF and other top fan discharge systems.

Acoustic housing consists of the following components.

1) Air Intake Acoustic Louvres (front)
2) Exhaust Acoustic Louvres (Roof)
3) Dense Acoustic Material to All Inner Faces
4) Anti-Vibration Base Assembly

Air intake acoustic louvres

Each louvre module consists of two fabricated galvanised steel channel frames fabricated from 1.8mm galvanised steel sheet into which are fitted an array of horizontal parallel blades at a 40 degree angle. The upper surface of each blade is fabricated from 1.2mm galvanised steel sheet and the lower surface is fabricated from 0.8mm galvanised perforated or expanded steel sheet. Each louvres blade is 270mm in depth.

FT-70 high performance acoustic foam material is applied to all inner blade faces without disruption to air movement. Air intake louvres are located around the lower section of the SCVRF150 housing.

Typical noise reduction figures;

Octave Band Centre Frequency Hz	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**
Insertion Loss dB	5	7	11	14	20	19	16	14

Fan discharge attenuator pod - Optional

The top attenuator pod forms the entire section of the housing above the air conditioning fan. The attenuator is design to minimise sound breakout whilst optimising air flow, which is achieved by using convoluted air paths that turn through 180 degrees.

Acoustic Walls/Panels

All external & Internal panelling is fabricated using 1.8mm galvanised steel sheet applied with 50mm FT-30 high performance acoustic foam.

Anti-Vibration Base Assembly

Anti-vibration mounts integrated into base design for additional performance.

Test Standard:

BS EN ISO 140-3 Acoustics - Measurement of Sound Insulation in Buildings and of Building Elements - Part 1: Airborne Sound Insulation

Sound Level Measuring Equipment:

Norsonic 830 RTA Precision Sound Analyser Type 1
CEL 284/2 Acoustic Calibrator Type 1
JBL Loudspeaker driven by CEL Loudspeaker driven by 830 White Noise Source

Support Information:

Measurement carried out using the BS3740 technique, insofar as measurements were taken in each quad- rant and the results averaged. Test Room: W 6m x D 16m x H 5m. Background noise in the semi-reverberant test room was such as not to interfere with the practical measurements