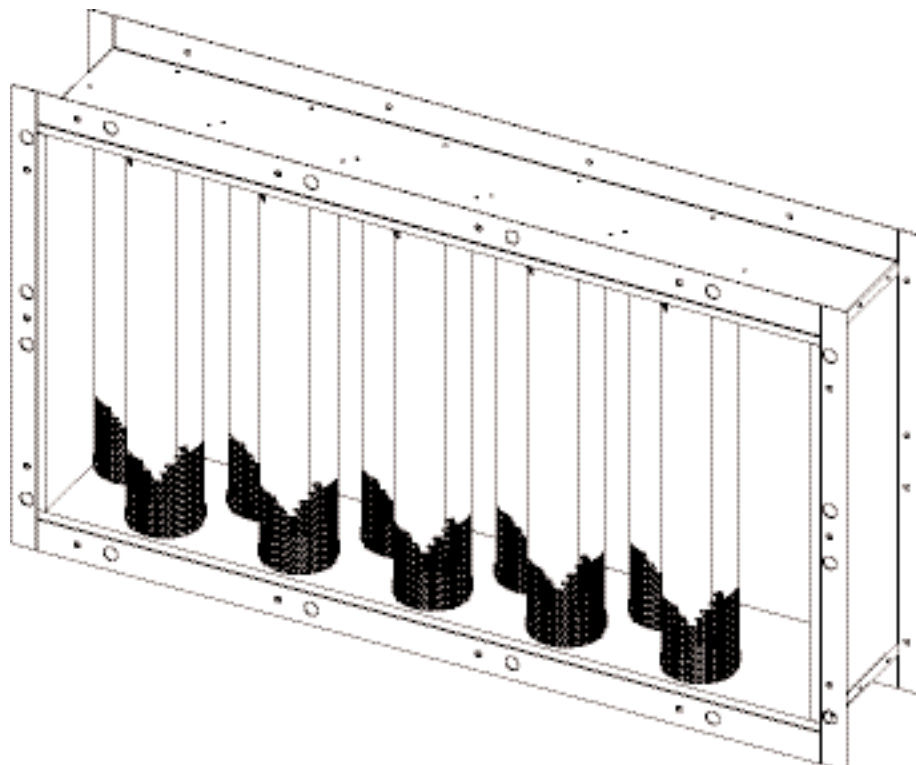
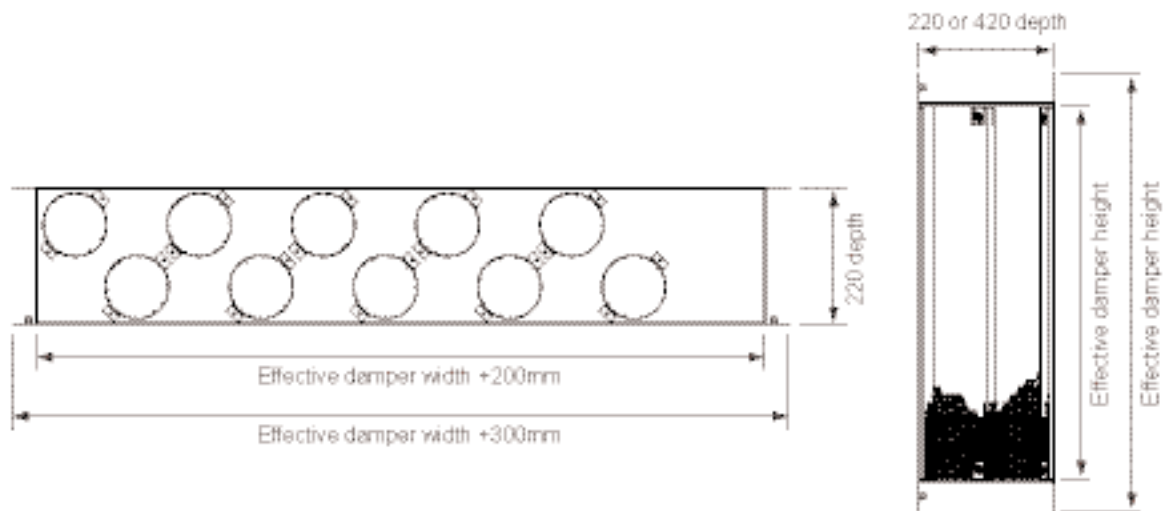


# Acoustic Silencer

Mistrale model Type C provides the facility to include an acoustic silencer to reduce noise migration from external sources. Although the combination of louvres, dampers and coils on other models does provide some degree of noise reduction for more urban areas an extra degree of noise reduction may be desirable. The Mistrale model Type C is particularly suited since it is designed to be installed either above the ceiling or below the floor where the extra depth required for a silencer is less critical.

Two silencer models are available with the Type 1S just 220mm deep and the Type 2S presenting at 420mm deep. Noise reduction performance guidance for various configurations including the silencer model Type 1S is provided on page 29.



# Acoustic Information

Extensive acoustic testing has been carried out in order to establish the noise reduction values which can be reasonably expected from each component of our Natural Ventilation assembly. Whilst heating/cooling coils give limited reductions both the weather louvres and dampers do contribute to the overall noise reduction index.

A slim 200mm deep acoustic silencer was also tested with the other key components to provide a higher performance acoustic option if required.

The figures provided below illustrate the 1/3 octave db reductions in sound pressure levels when measured in accordance with BS EN ISO 140-3:1995 (sound reduction index) and BS EN 20140-10 1992, ISO 140-10:1991 (elemental normalised level difference).

## SOUND REDUCTION INDEX FIGURES (dB) for WEATHER LOUVRE + OPEN DAMPER (acoustically lined blades)

Unit Area	MEAN FREQUENCY (OCTAVE BANDS) Hz							Rw	Dn,e,w
	63	125	250	500	1.0k	2.0k	4.0k		
1 m <sup>2</sup>	3	4	3	4	5	6	10	5	14
0.5 m <sup>2</sup>	6	7	6	7	8	9	13	8	17
0.25 m <sup>2</sup>	9	10	9	10	11	12	16	12	20
0.125 m <sup>2</sup>	12	13	12	13	14	15	19	17	23

## AS ABOVE WITH DAMPER CLOSED

Unit Area	MEAN FREQUENCY (OCTAVE BANDS) Hz							Rw	Dn,e,w
	63	125	250	500	1.0k	2.0k	4.0k		
1 m <sup>2</sup>	12	12	12	22	27	32	35	26	34

## AS ABOVE WITH DAMPER HALF OPEN

Unit Area	MEAN FREQUENCY (OCTAVE BANDS) Hz							Rw	Dn,e,w
	63	125	250	500	1.0k	2.0k	4.0k		
1 m <sup>2</sup>	3	4	3	4	7	10	14	8	16
0.5 m <sup>2</sup>	6	8	7	8	11	14	18	12	19
0.25 m <sup>2</sup>	9	10	9	10	14	17	19	15	22
0.125 m <sup>2</sup>	12	13	12	14	17	20	26	20	25

## SOUND REDUCTION INDEX FIGURES (dB) for WEATHER LOUVRE + OPEN DAMPER (acoustically lined blades) +200 WIDE TUBULAR SILENCER

Unit Area	MEAN FREQUENCY (OCTAVE BANDS) Hz							Rw	Dn,e,w
	63	125	250	500	1.0k	2.0k	4.0k		
1 m <sup>2</sup>	3	4	6	9	14	20	24	14	22
0.5 m <sup>2</sup>	6	7	9	12	17	23	27	17	25
0.25 m <sup>2</sup>	9	10	12	15	20	26	30	20	28
0.125 m <sup>2</sup>	12	13	15	18	23	29	33	23	31

### Note

If RW figures have been given on a reduced opening area they have been calculated back to a 1m<sup>2</sup> opening.