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Technical Report

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Project

**The Laboratory determination of
The Element Normalised Level
Difference of the Simon Framevent**

Prepared for

**R W Simon
System Works
Hatchmoor Ind. Est
Torrington
Devon EX38 7HP**

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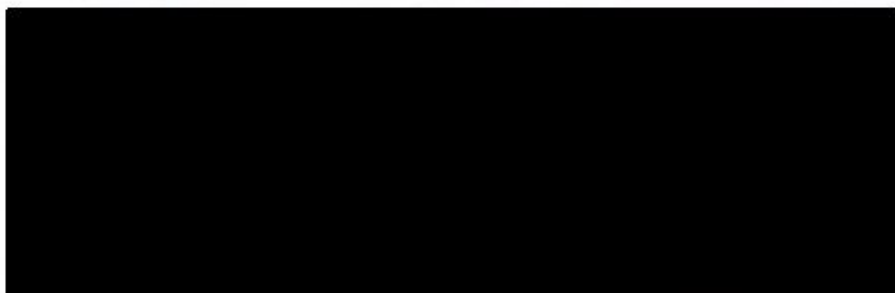
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1.0 Summary

Tests have been done in SRL's Laboratory at Holbrook House, Sudbury, Suffolk, to determine the element normalised level difference of various trickle vents in accordance with BS EN 20140-10:1992, ISO 140-10:1991

From these measurements the required results have been derived and are presented in both tabular and graphic form in Data Sheets 1 to 14.

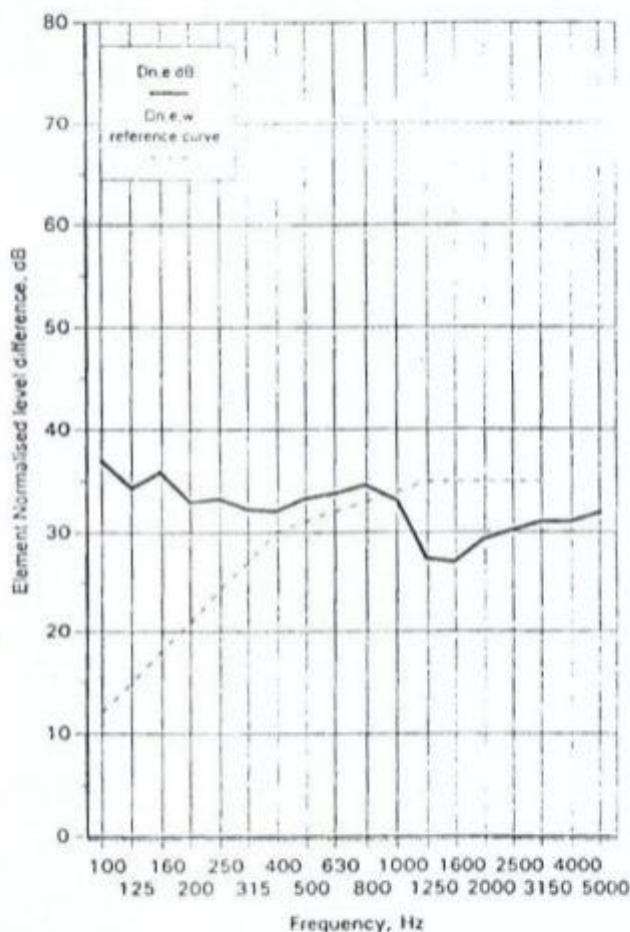
The results are given in 1/3rd octave bands over the frequency range 50Hz to 10kHz, which is beyond that required by the test standard.



Data Sheet 10

Test Number: 14 Air temperature: 9.8 °C
 Test Date: 28/01/03 Air humidity: 73 %
 Number of items tested at once: 2 Receiving room volume: 300 m3
 Nominal free area of single ventilator: 4125 mm2 Source room volume: 115 m3
 Product identification: Simon Framevent - Open

Freq f Hz	Element normalised level difference Dn,e dB	
	1/3 Oct	1/1 Oct
100	36.9 %	35.5
125	34.3	
160	35.9	
200	32.9	32.8
250	33.4	
315	32.3	
400	32.1	33.0
500	33.3	
630	33.8	
800	34.7	30.6
1000	33.2	
1250	27.4	
1600	27.0	28.6
2000	29.2	
2500	30.1	
3150	31.0	31.3
4000	31.0	
5000	31.9	
6300+	34.6	36.4
8000+	35.9	
10000+	41.1	
Average 100-3150	32.3	



Rating according to BS EN ISO 717-1:1997

Dn,e,w(C;Ctr) = 31 (-1; 0) dB

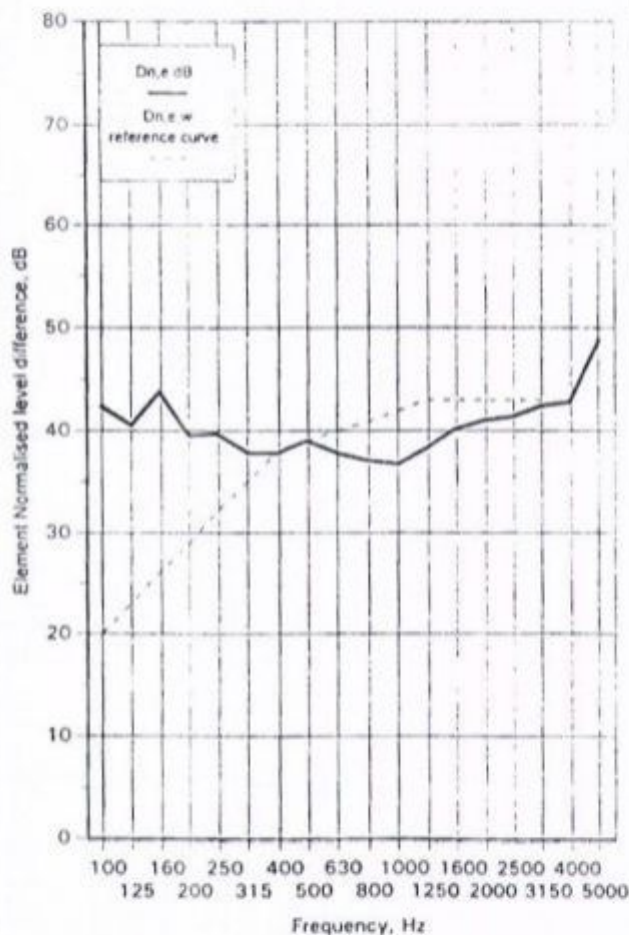
Notes: * designates measurement corrected for background
 # designates limit of measurement due to background
 % designates measurement corrected for flanking
 \$ designates limit of measurement due to flanking
 + designates frequency beyond standard

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Data Sheet 9

Test Number: 13 Air temperature: 9.8 °C
 Test Date: 28/01/03 Air humidity: 73 %
 Number of items tested at once: 2 Receiving room volume: 300 m³
 Nominal free area of single ventilator: 4125 mm² Source room volume: 115 m³
 Product identification: Simon Framevent - Closed

Freq f Hz	Element normalised level difference Dn,e dB	
	1/3 Oct	1/1 Oct
100	42.4 #	42.0
125	40.5 #	
160	43.8 #	
200	39.6	39.0
250	39.8	
315	37.9	
400	37.8	38.2
500	39.0	
630	37.8	
800	37.1	37.4
1000	36.8	
1250	38.4	
1600	40.3	41.0
2000	41.2	
2500	41.6	
3150	42.6	44.0
4000	42.9	
5000	48.8	
6300+	53.1	55.1
8000+	56.0	
10000+	57.1	
Average 100-3150	39.8	



Rating according to BS EN ISO 717-1:1997

Dn,e,w(C;Ctr) = 39 (0; 0) dB

Notes * designates measurement corrected for background
 # designates limit of measurement due to background
 % designates measurement corrected for flanking
 \$ designates limit of measurement due to flanking
 + designates frequency beyond standard

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