

# Certificate

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**Certificate No: 51668/1**

**Issue No: 1**

**Date of issue: 11 February 2008**

This is to certify that

**BSRIA Limited**

Has tested a sample of the product described below in accordance with the test methods contained within EN 13030 : 2002 and have determined the item met the detailed classification shown on pages 3 and 4 of this certificate. For further details of the test item see Page 2 of this certificate

<b>Manufacturer/Agent</b>	Airteck Ltd 19 Williams Industrial Park Gore Road New Milton BH25 6SH
<b>Product</b>	WL75
<b>Test location</b>	BSRIA Old Bracknell West Bracknell Berkshire RG12 7AH
<b>Date of test</b>	11 to 28 January 2008
<b>Expiry date</b>	11 February 2011
<b>Test engineer</b>	M Roper
<b>Quality approved:</b>	Phil Stonard Principal Engineer MicroClimate & Test

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### TEST ITEM INFORMATION

<b>Contract</b>	51668	
<b>Date</b>	11/01/2008	
<b>Manufacturer</b>	Airteck	
<b>Louvre Model</b>	WL 75	
<b>Material</b>	Aluminium	
<b>Painted</b>	No	
<b>Blade Height</b>	985	mm
<b>Blade Width</b>	1013	mm
<b>Blade Depth</b>	69	mm
<b>Frame Depth</b>	75	mm
<b>No.of Blades</b>	13	
<b>Blade Pitch</b>	75	mm
<b>Blade Angle</b>	45	deg
<b>No.of Banks</b>	1	
<b>Guard Type</b>	None	
<b>Guard Spacing</b>	N/A	mm
<b>Side Channels</b>	No	
<b>Water Drip Tray</b>	Yes	
<b>Blade Orientation</b>	Horizontal	



WATER PENETRATION

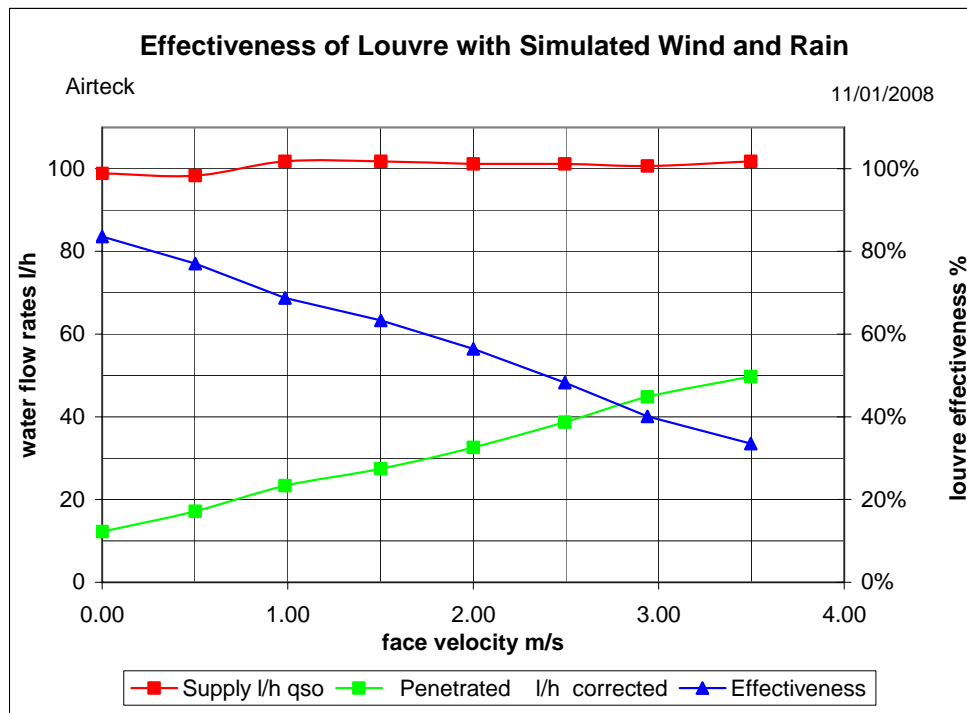
Certification Test

MANUFACTURER Airteck  
 MODEL WL 75

Date 11/01/2008  
 Contract 51668

Simulated rainfall 75 mm/hr  
 Wind speed 13.0 m/s  
 louvre height 985 mm  
 louvre width 1013 mm  
 louvre area 0.998 m<sup>2</sup>

VENTILATION RATE		WATER FLOW RATES		Effectiveness	Class
Volume m <sup>3</sup> /s	Velocity m/s	Supply l/h	Penetrated l/h		
0.00	0.00	98.9	12.3	83.6%	C
0.50	0.50	98.3	17.2	77.1%	D
0.98	0.98	101.8	23.4	68.8%	D
1.50	1.50	101.8	27.5	63.3%	D
2.00	2.00	101.2	32.6	56.4%	D
2.49	2.49	101.2	38.7	48.3%	D
2.93	2.94	100.6	44.8	40.1%	D
3.49	3.50	101.8	49.7	33.5%	D



ENTRY LOSS COEFFICIENT

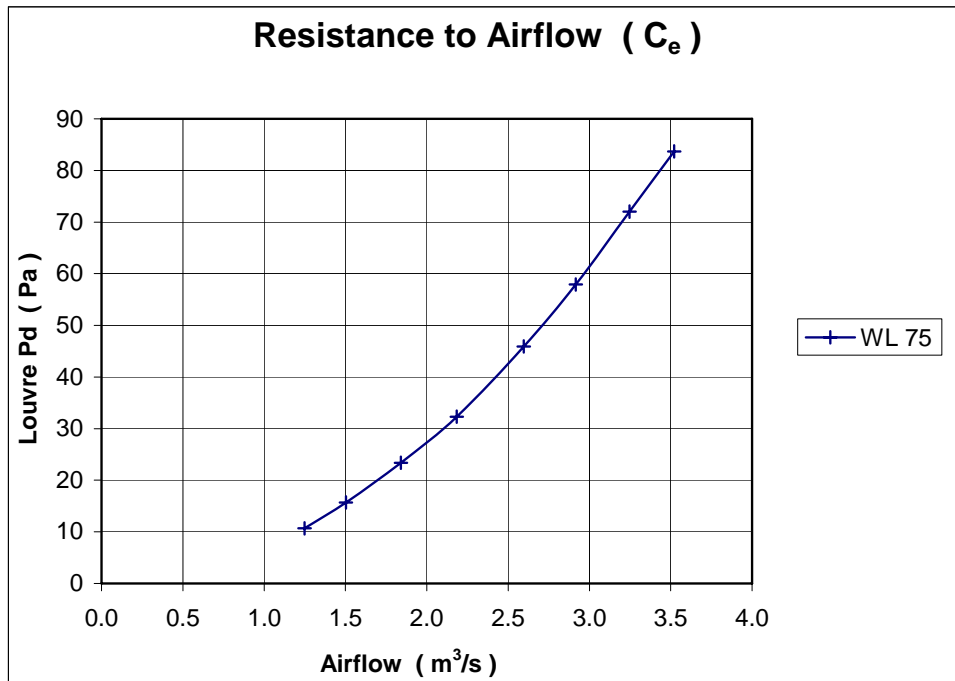
Certification Test

MANUFACTURER Airteck  
 MODEL WL 75

Date 11/01/2008  
 Contract 51668

air temperature	17.87 °C	louvre height	985 mm
barometer	998.3 mbar	louvre width	1013 mm
air density	1.190 kg/m <sup>3</sup>	louvre area	0.998 m <sup>2</sup>

louvre pd Pascals	louvre face velocity	air flow rate		coefficient C <sub>e</sub>
	m/s	test m <sup>3</sup> /s	theoretical m <sup>3</sup> /s	
10.7	1.25	1.248	4.231	0.295
15.7	1.51	1.504	5.125	0.293
23.4	1.85	1.841	6.257	0.294
32.3	2.19	2.184	7.351	0.297
45.9	2.60	2.597	8.763	0.296
57.9	2.92	2.917	9.842	0.296
72.0	3.25	3.246	10.975	0.296
83.7	3.53	3.522	11.833	0.298
mean C <sub>e</sub>				0.296
Class				3



## CLASSIFICATION OF WEATHER LOUVRES

Weather louvres shall be classified by their ability to reject simulated rain.

### Penetration Classification

Table 1 shows difference classifications based on the maximum simulated rain penetration per square metre of louvre. The effectiveness is determined in accordance with section 6.1.7.iii.

Water penetration rating at a given louvre face velocity is determined by the water penetration while the louvre is subjected to a  $13 \text{ ms}^{-1}$  simulated wind velocity and a simulated rain fall at the nominal rate.

**Table 1 Penetration classification**

Class	Effectiveness	Maximum allowed penetration of simulated rain $\text{l.h}^{-1}.\text{m}^{-2}$
A	1 TO 0,99	0,75
B	0,989 TO 0,95	3,75
C	0,949 TO 0,80	15,0
D	Below 0,8	Greater than 15,0

These classifications apply to various core velocities.

### Discharge Loss Coefficient

The discharge loss coefficient given in Table 2, shall be determined in accordance with section 6.2.4.

**Table 2 Discharge loss coefficient classification**

Class	Discharge Loss Coefficient
1	0,4 and above
2	0,3 to 0,399
3	0,2 to 0,299
4	0,199 and below

(Note: The above also applies to entry loss coefficient)