

Results 13.11.2015,

Air terminal device: WS-classic

Manufacturer: Alupro

**Effectiveness for removal of simulated rain**

EN 13030:2001

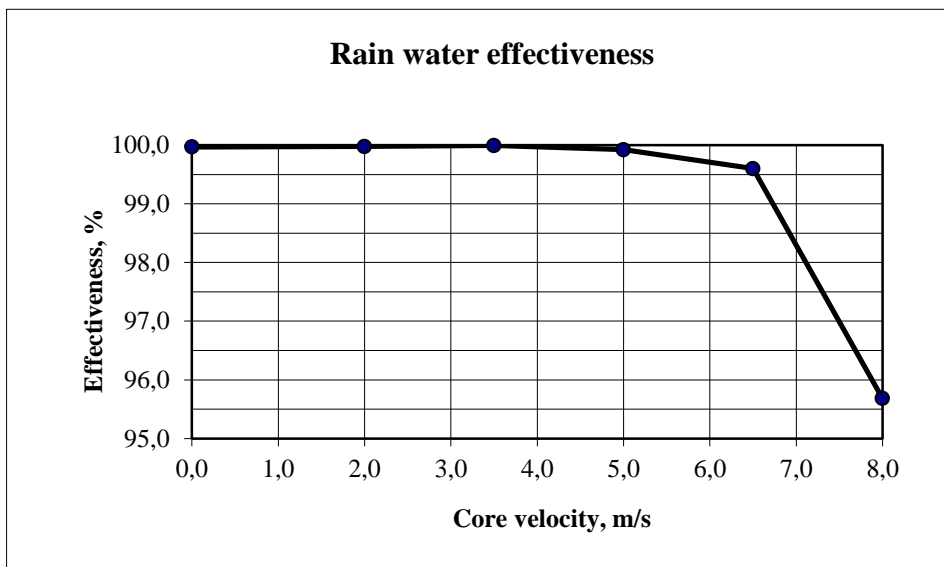
Rainfall rate: 75 (l/h)/m<sup>2</sup>, (75 mm/h)

Core area:

width: 985 mm

height: 895 mm

area: 0,882 m<sup>2</sup>



Air flow rate		Rain water flow rates				Performance	
q <sub>v</sub>	v	q <sub>r</sub>	q <sub>d</sub>	q <sub>ro</sub>	q <sub>do</sub>	E	Class
m <sup>3</sup> /s	m/s	l/h	l/h	(l/h)/m <sup>2</sup>	(l/h)/m <sup>2</sup>	%	
0,00	0,00	66,12	0,021	75,00	0,024	100,0	A
1,76	2,00	66,12	0,015	75,00	0,017	100,0	A
3,09	3,50	66,12	0,005	75,00	0,006	100,0	A
4,41	5,00	66,12	0,051	75,00	0,058	99,9	A
5,73	6,50	66,12	0,265	75,00	0,301	99,6	A
7,05	8,00	66,12	2,86	75,00	3,24	95,7	B

**Symbols and units**

q<sub>v</sub> Air flow rate, m<sup>3</sup>/s

v Core velocity, m/s

q<sub>r</sub> Rain water flow loading the device, l/h

q<sub>d</sub> Rain water flow penetrating the device, l/h

q<sub>ro</sub> Rain water flow loading the device per core area, (l/h)/m<sup>2</sup>

q<sub>do</sub> Rain water flow penetrating the device per core area, (l/h)/m<sup>2</sup>

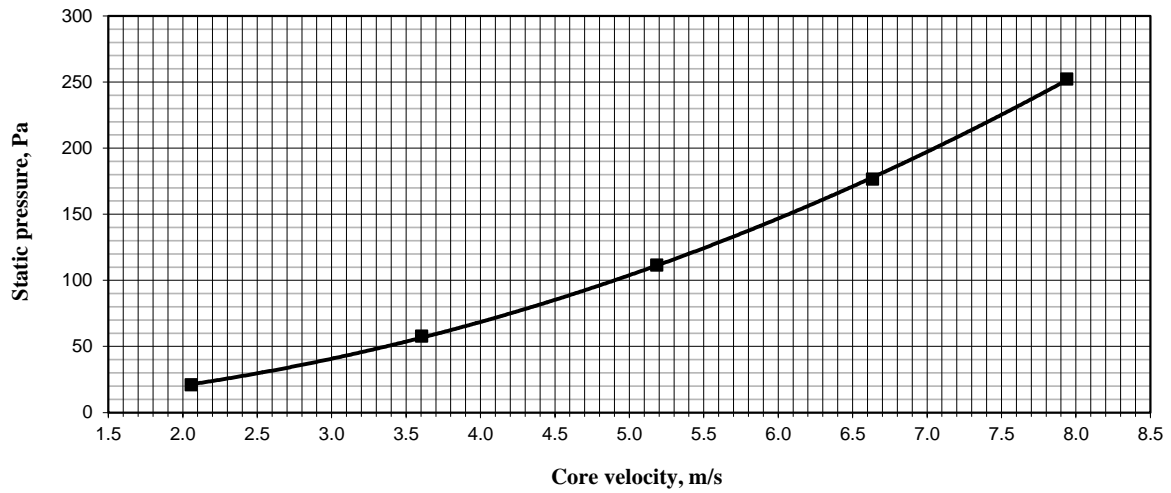
E Effectiveness, %

Air terminal device: WS, 45 mm pitch  
**Aerodynamic performance of air terminal device**  
 EN 13030:2001

Core area:  
 width: 985 mm  
 height: 895 mm  
 area: 0.882 m<sup>2</sup>

Direction of flow: normal  
 Air density 1.20 kg/m<sup>3</sup>

**Pressure loss**



q <sub>v</sub> m <sup>3</sup> /s	v m/s	p <sub>s1</sub> Pa	Performance	
			C <sub>E</sub> -	Class
1.814	2.06	20.9	0.349	2
3.178	3.60	57.6	0.368	2
4.571	5.19	111	0.381	2
5.848	6.63	177	0.387	2
6.999	7.94	252	0.387	2
Average			0.374	

**Symbols and units**

- q<sub>v</sub> Air flow rate, m<sup>3</sup>/s
- v Core velocity, m/s
- p<sub>s1</sub> Static pressure of device, Pa
- C<sub>E</sub> Entry loss coefficient, -