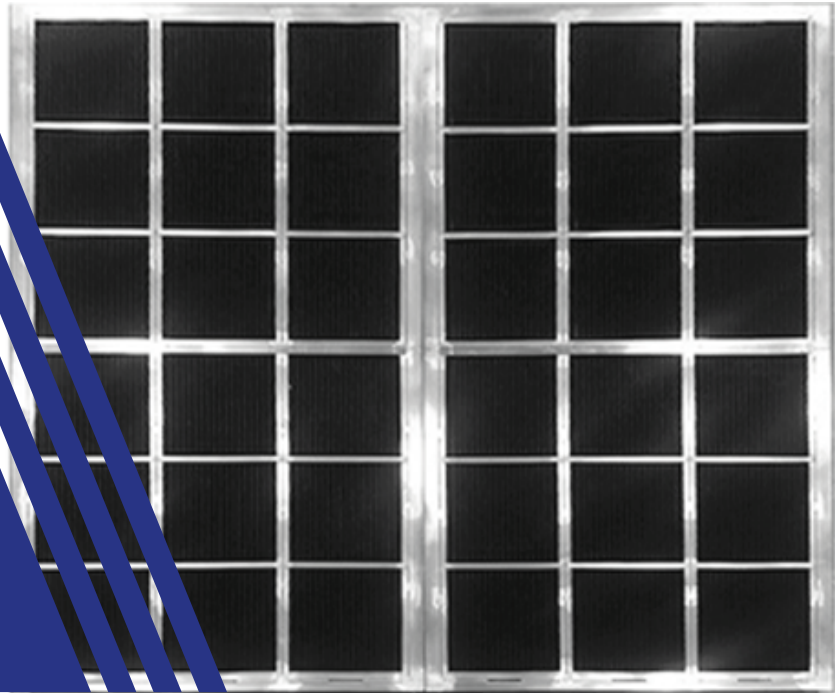
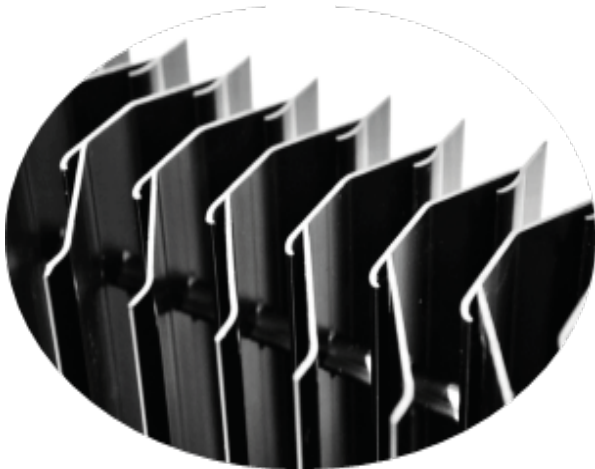


# CLASS A1 WATER SEPERATORS.

Information & Spec Sheet



## DESIGN



### APPLICATIONS

- ENGINE INTAKES
- HEVAC EQUIPMENT
- COOLING COILS
- MARINE & OFF SHORE
- CONTAINERS.



All Engineered Air Treatment  
Damper designs have been tried  
and tested for over 35 years.

## FEATURES

- Manufactured from tried & tested designs
- High Separation efficiency
- Very Low Pressure Drop (see chart)
- Cost effective design
- Corrosion Resistant
- Bespoke sizing & frames
- External Grade PVC Blade System

### CLASS A1 SEPARATOR

SEPARATION EFFICIENCY OF >99.9%

TESTED TO BS EN 13030:2001

TEMPERATURE RANGE -30Deg C TO + 60Deg C

TESTED BY CRT.

All materials used are  
class 'A' Fully traceable  
as part of ISO 9001

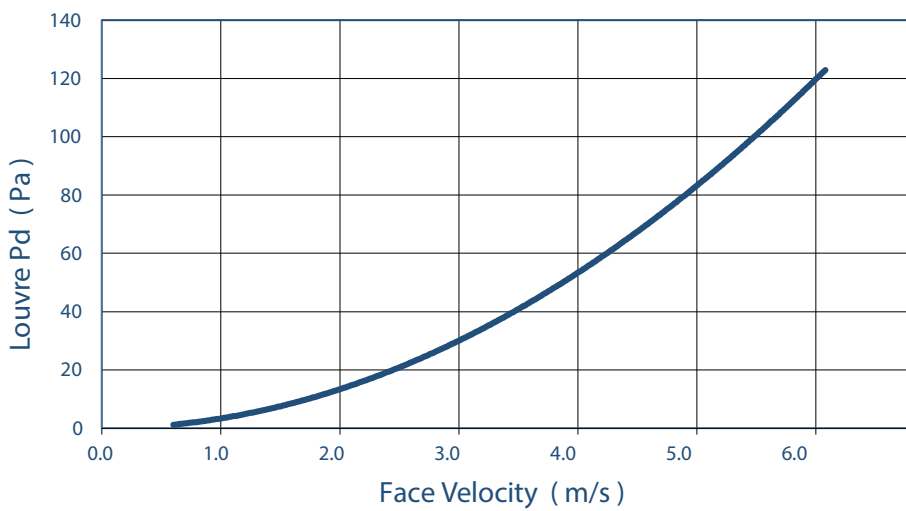


# STANDARD LAYOUT

- MATERIALS** Pre-Galvanised M.S., Aluminium or Stainless Steel.
- CASING** 2mm Fully Welded and Cleaned for Smoother finish .
- BLADES** 1.5MM Extruded PVC Style
- DEPTH** 125mm As Standard.

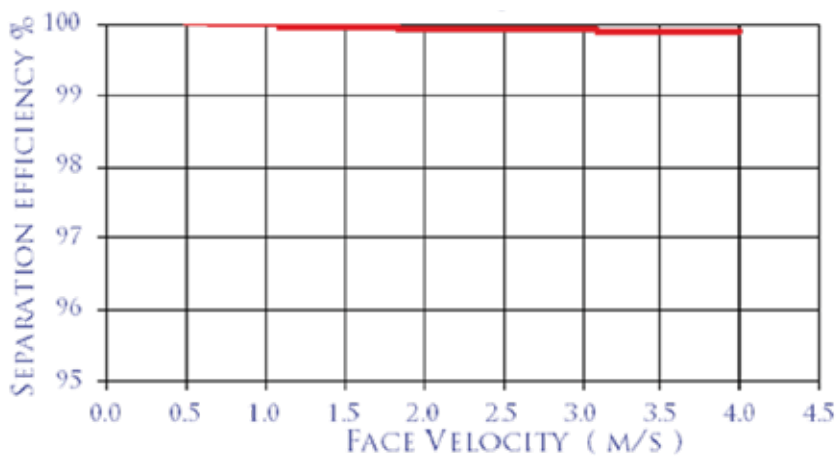
# PRESSURE DROP

Pressure drop curve



Face velocity (m/s)	Louvre Pd (Pa)
0.6	1.2
1.03	3.8
1.46	7.3
1.88	11
2.53	21.4
3	29.6
3.46	38.9
3.84	46.6
4.458	68.9
5.07	88.3
6.078	126

# RAIN CAPTURE



 Standard -30 to +60 Deg C



Weight on Request.



Pressure drop charts above.



Bespoke sizing on request.

## ADDITIONAL DAMPER INFORMATION

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Engineered Air Treatment Ltd. Pride themselves on solving Damper issues and due to the many options available we would recommend contacting our sales team who would also assist where possible.

## TESTING PROTOCOL-

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### TO BS EN 13030:2001- VENTILATION FOR BUILDINGS.

Performance testing of louvres subjected to simulated Rain

This european standard specifies a method for measuring the water rejection performance of louvres subject to simulated rain and wind pressures, both with and without air flow through the louvre under test. For the purpose of tests in this standard, a 1000 mm x 1000 mm section of weather louvre or the nearest possible blade increment is considered.

Weather louvres are designed to restrict the passage of water during rainfall while allowing the passage of air into or from an air distribution system or part of a building. They are used in a wide range of applications, where there may be differences in wind speed and direction, levels of local turbulence, rate and droplet size, distribution of rainfall and surface water flow from the surrounding structure.

It is impractical to consider a standard test procedure simulating the whole range of likely conditions, but this standard provides for heavy rainfall directed on to the louvre surface, with simulated wind pressures. This provides a common basis on which to compare the water rejection performance of weather louvres of different designs.

This standard is not intended for the evaluation of weather performance of pressure relief dampers.

The purpose of tests incorporated in this European Standard is as follows:

- a) Weather tests to establish the weather louvre effectiveness when subjected to wind pressure at various air flow rates.
- b) Discharge and Entry loss coefficient/Pressure requirements to establish the air pressure loss through the weather louvre at various air flow rates and by calculation the Discharge and Entry Loss Coefficient.

### Pressure Drop Test.

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### Seperation Efficiency Test & Water Capture.

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Engineered Air Treatment are proud of our quality record which allows us to have complete confidence in the products we offer. We adhere to our ISO9001 accreditation and install these values into our valuable employees. This confidence allows us to offer a 2 year warranty with all our products.

We also have complete traceability and files over 20 years old to look back on. We are a can do company.

## TESTING RESULTS

BS EN 13030:2001 - Ventilation for buildings.

Performance testing of louvres subjected to simulated rain

Testing conducted at BSRIA (North), 68 Walton Summit Road, Walton Summit Centre, Bamber Bridge, Preston PR5 8AQ

Manufacturer - Engineered Air Treatment  
 Date - 24/04/2019  
 Model - SD2 (Quickflow)  
 Contract - 100257

Louvre Height - 1050 mm  
 Louvre Width - 1020 mm  
 Louvre Area - 1.071 m<sup>2</sup>  
 Simulated Rainfall - 75 mm/hr  
 Wind Speed - 13.0 m/s

### Separation Efficiency:

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	100.2	0.0	100.0%	A
0.54	0.50	100.2	0.0	100.0%	A
1.07	1.00	100.2	0.0	100.0%	A
1.61	1.50	100.2	0.0	100.0%	A
2.14	2.00	100.2	0.0	99.9%	A
2.68	2.50	100.2	0.0	99.9%	A
3.22	3.00	100.2	0.1	99.9%	A
3.75	3.50	100.2	0.1	99.9%	A
4.12	3.85	100.2	0.1	99.9%	A

### Pressure drop:

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	1.78		1.907	4.541	0.420	
14.7	2.06		2.211	5.323	0.415	
18.0	2.31		2.471	5.890	0.420	
21.4	2.53		2.707	6.422	0.422	
24.4	2.75		2.941	6.858	0.429	
29.6	3.00		3.217	7.553	0.426	
33.5	3.23		3.457	8.036	0.430	
38.9	3.46		3.703	8.659	0.428	
42.3	3.65		3.913	9.029	0.433	
46.6	3.84		4.109	9.477	0.434	
					mean C <sub>e</sub>	0.426
					Class	1

Air temperature :14.5 °C  
 Barometer : 986.7 mbar  
 Air density : 1.190 kg/m<sup>3</sup>