

## Weather Louvre Type WLAC 100DP (AL)

The EMTEC WLAC 100DP (AL) system is a high performance, double bank external weather louvre. The louvre blades are designed to provide superior rain defence characteristics when compared with single bank louvre systems.

The EMTEC WLAC 100 DP (AL) weather louvre system has an aesthetically pleasing external appearance which will compliment any architectural design. The aerodynamic shape of the individual blades minimises the resistance to airflow and the incorporation of water traps ensures that the ingress of rain is reduced to a minimum. The geometry of the chevron blades also ensures that no line-of-sight exists through the louvre when viewed from any angle and makes the louvre system particularly suitable for roof screening, where plant would otherwise be visible.

EMTEC WLAC 100DP (AL) weather louvres can be supplied and installed either as individual modules or as a continuous-line system. Openings of screens of any size can be catered for by the vertical top hat carriers and clip-in louvre blade arrangement of the system. A range of external frame profiles exist to enable the WLAC 100DP (AL) weather louvre to be integrated into most cladding systems.

### Louvre Performance

#### Effectiveness

The EMTEC WLAC 100DP (AL) weather louvre has been fully performance tested at BSRIA in accordance with EN 13030:2002. This test involves sealing a sample louvre into a 1m<sup>2</sup> opening within a calibrated test rig which simulates harsh weather conditions.

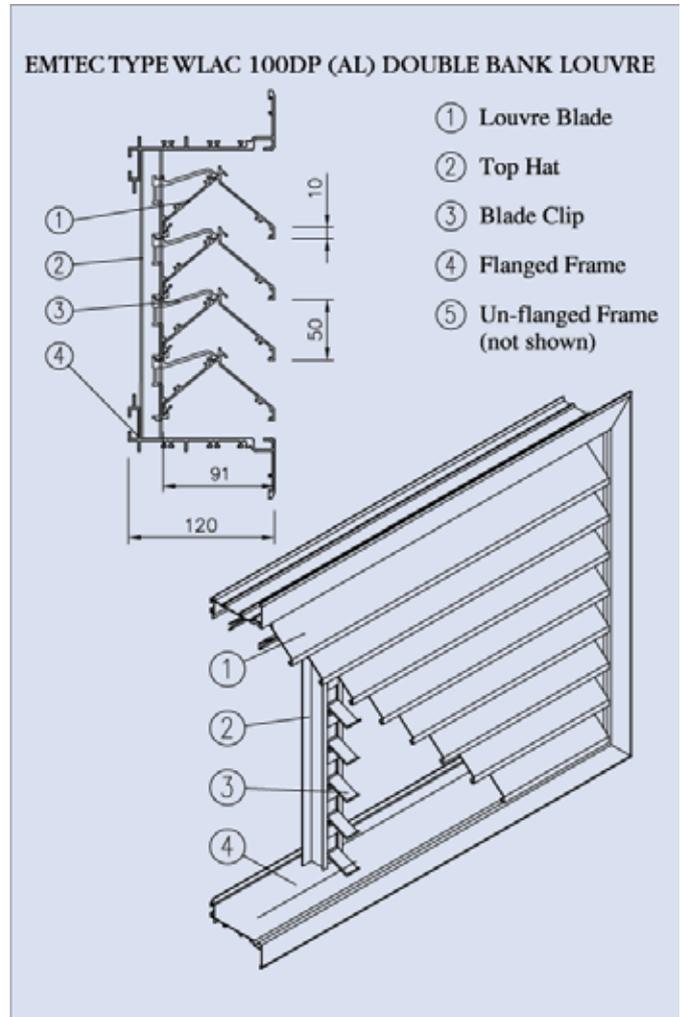
The amount of water penetrating the louvre openings is then measured under a range of air inlet velocities and an overall effectiveness rating is generated. The EMTEC WLAC 100DP (AL) louvre achieved the following classifications:

CLASS A4 up to 1.5m/s

CLASS B4 up to 2.0m/s

CLASS C4 up to 2.5m/s

Full details of the BSRIA test report are available from the EMTEC Products Ltd. technical department.



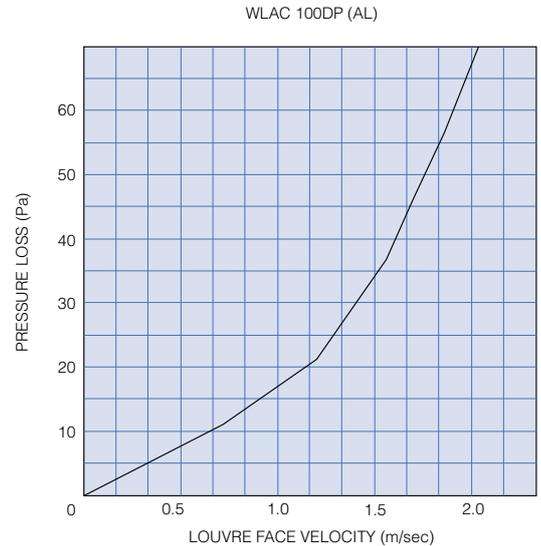
## Aerodynamic

It may be necessary to establish the correct size of a weather louvre knowing that a certain pressure loss is required across the louvre for a given volume of air. In this case the face velocity of the louvre is read off the chart opposite and the louvre dimensions established using the formula:

$$\text{Airflow (Q)} = \text{Louvre Face Area (AL)} \\ \times \text{Louvre Face Velocity (VL)}$$

Conversely, for a known opening size and airflow, the pressure loss across the louvre can be obtained from the chart opposite.

The coefficient of discharge or entry for the WLAC 100DP (AL) louvre is 0.198 (HEVAC CLASS 4).



## Physical

All EMTEC WLAC 100 DP (AL) extruded aluminium blade, frame and top-hat sections are manufactured from grade 6063-T6 high quality aluminium alloy with the retaining clips/spacer sections being extruded from a higher strength grade 6082-T6 aluminium alloy. On projects where additional flashing sections are required these are formed from grade S1C aluminium sheet to the required dimensions.

The EMTEC WLAC 100DP (AL) extruded aluminium louvre system can be supplied in two different formats depending of the visual requirements: modular format or continuous-line format.

In modular format the louvres are manufactured in our works and have external frames to all four sides. The maximum possible dimensions of an individual modular louvre are 2500mm x 2500mm.

In continuous-line format the louvres are assembled on site from a kit of parts pre-cut and finished to suit the builderswork openings. This system is very versatile and does not have any specific maximum dimensions. This is due to the louvre blades themselves being supported using the top-hat section mullions at a maximum of 1500mm centres which gives an infinite theoretical width to a louvre screen providing that the mullions can be fixed to a structural section for support.

Each EMTEC WLAC 100DP (AL) louvre is supplied as standard with a birdmesh guard to the rear face and has a polyester powder coat finish to a standard BS4800 or RAL colour. The louvres can also be specified with optional finishes such as anodising or Syntha Pulvin and with optional backings such as thermal or acoustic panels or attenuators.

1. WLAC 100DP (AL)  
Louvred Turret.

2. WLAC 100DP (AL)  
Louvred door.

