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McKenzie Martin

Louvres & Ventilation Systems

Louvres

Maximair Louvre Systems

Turret Louvres

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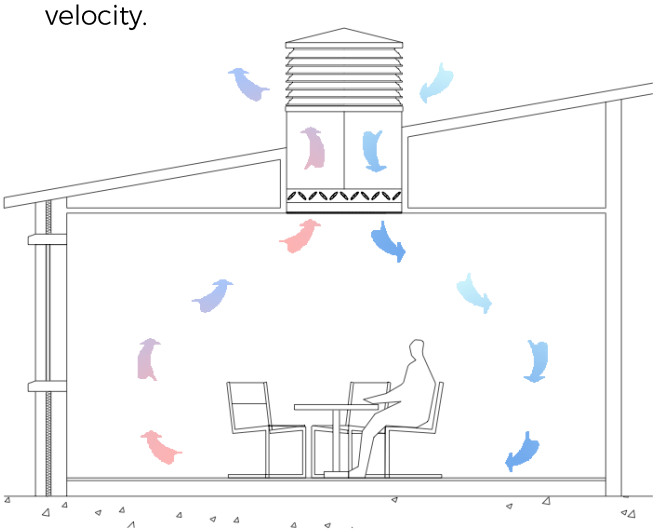
Maximair Louvre Systems

Passive Ventilation Turret

Description

The Maximair Turret Louvre is a roof mounted natural ventilation system which utilises the internal stack effect of rising warm air, along with positive & negative air pressures imposed externally on the turret by natural wind velocity.



Combining advanced aerodynamic design & BSRIA proven weather protection the Maximair Turret offers a premium quality, highly efficient solution to providing natural ventilation to a wide variety of educational, commercial & industrial applications.

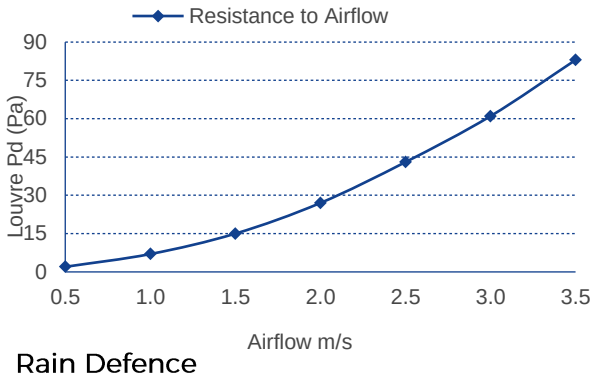
Design

- Maximair Turret Louvres are manufactured from aluminium extrusions grade 6063 T6 to BS 1474.
- Welded mitred corners to give sharp aesthetic appearance.
- Louvre blades have been designed to achieve maximum weather protection whilst maintaining an efficient airflow.

Technical Information

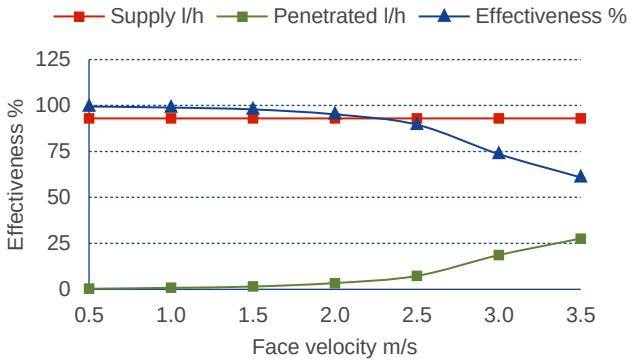
Aerodynamic Performance

Pressure drop with standard bird mesh fitted.



Rain Defence

The Maximair louvre system has been tested by BSRIA to EN 13030 : 2002 and achieves Class 'A' weather protection at 13m/s wind velocity with an average rainfall of 75mm/hr.



Energy efficient natural ventilation

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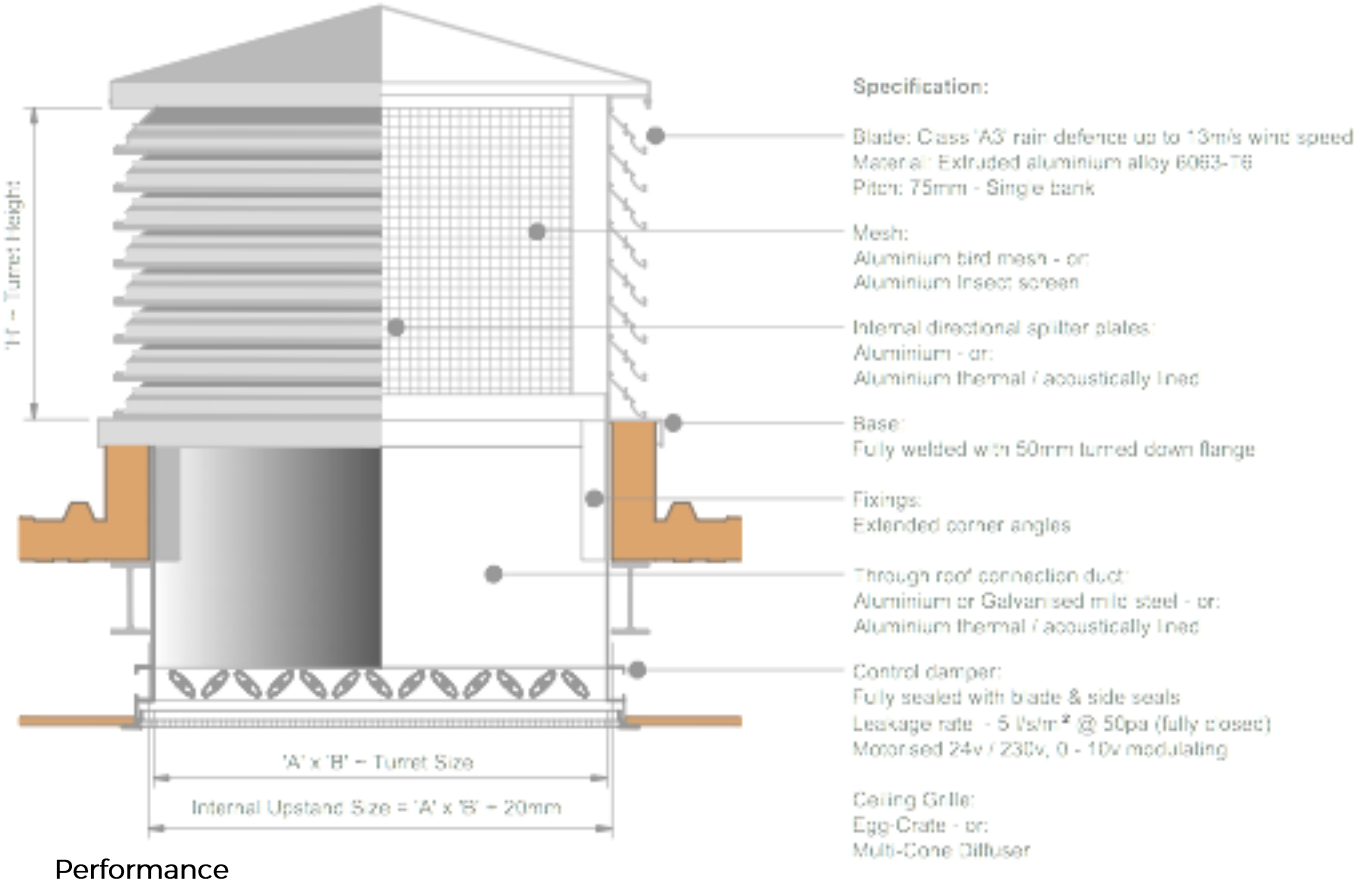
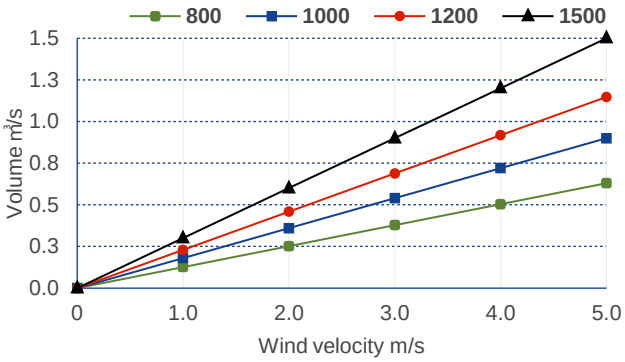
Passive Ventilation Turret

Standard Details



Performance

Performance figures for airflow given in table below, are for standard sized turret units fitted with internal directional baffles, designed for combined supply and extract natural



Airflow figures given above are based upon the indicated wind velocity blowing directly on to one side of the turret.

Size, free area & weight

Turret units can be manufactured to bespoke sizes to suit most requirements, larger non-standard sizes are manufactured in multiple sections for site assembly by installer.

Model	'A' x 'B'	'H' mm	Free Area m²	Weight kg's
800	800 x 800	1050	1.68	55
1000	1000 x 1000	1200	2.40	78
1200	1200 x 1200	1275	3.06	101
1500	1500 x 1500	1350	4.05	138

Weights given above are for turret louvre only, for weights of control damper, connection duct, ceiling grille and performance details of non-standard units please contact McKenzie Martin technical department.

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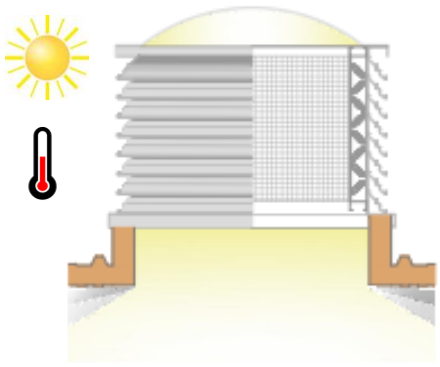
Maximair Louvre Systems

Passive Ventilation Turret

Natural Daylight and Ventilation Options

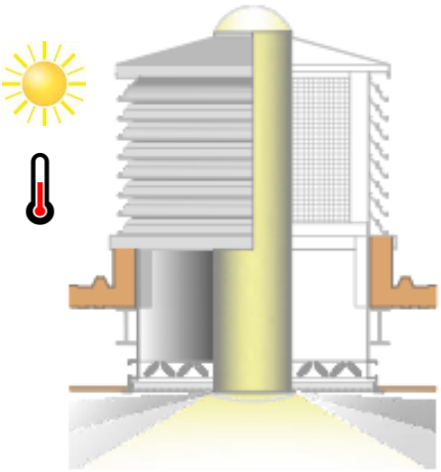


Maximair Turret - Ventura

'A' Series Maximair turret with Ventura range natural daylight.

Options:

- Single, double or triple glazed, CE marked polycarbonate domes with clear or opaque finish. Supplied with high security fixings.
- Sealed double glazed unit incorporating toughened and laminated glass panels.
- Fully sealed control damper fitted behind louvres, electrically actuated, with various control panel and sensor options available.
- Available in a range of standard sizes from 600 x 600 to 1500 x 1500.

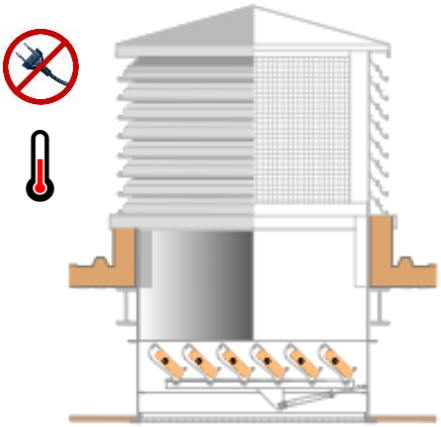


Maximair Turret - Solatube

'A' Series Maximair turret with Solatube natural daylight.

Options:

- 250mm tube up to 6.0m tube length.
- 350mm tube up to 9.0m tube length.
- A variety of internal decorative diffusers are available, contact McKenzie Martin sales for further details.
- A range of tube accessories including angle adaptors and daylight dimmers are available.
- Fully sealed control damper fitted in duct, electrically actuated, with various control panel and sensor options available.



Maximair Turret - Autovent

'A' Series Maximair turret with Thermac louvre fitted either within turret or into duct beneath, automatically operated by thermal actuator.

Features:

- Louvre begins its opening cycle at 16°C until fully open at 26°C. Unit closes when temperature drops below 16°C to reduce unwanted heat loss or over cooling.
- No controls or power connections are required for actuation of the unit.
- Actuator can be mounted on internal or external side of Thermac louvre to react to either internal or external temperature.
- Unit does not have manual override and may not be suitable where precise control of airflow is required.

Key Features: Provides natural daylight

Provides natural ventilation and reduces heat build-up

Power or controls not required

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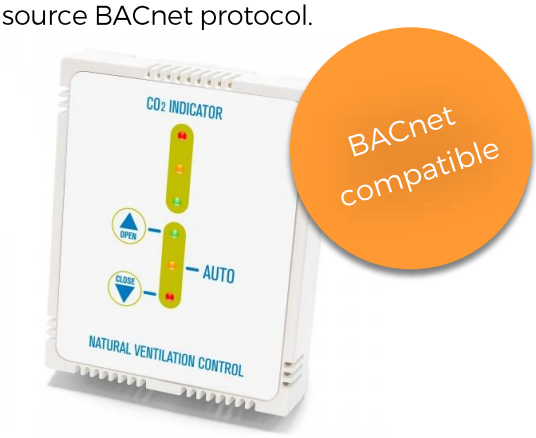
Maximair Louvre Systems

Passive Ventilation Turret

Control Options

Intelligent Sensors

To compliment the Maximair controllable turret, McKenzie Martin can offer a range of intelligent temperature, humidity and CO2 sensors - Specifically designed to meet the HVAC control requirements of modern building systems that communicate using the open source BACnet protocol.



Key

- 24V DC supply voltage
- High accuracy temperature and CO2 Sensor
- Room Temp Set Point Adjustable 19˚C to 26˚C
- The unit consists of an 'open' and 'close' push button feature, and LED lights to display the selected mode and CO2 Levels.
- Anti-microbial™ front face touch membrane eliminate bacteria
- Non dispersive infrared sensing technology
- Wall mounted
- Unique space saving surface mounted design with pre-wireable base and plug-on fascia plate assists in easy installation
- Manual over ride mode - Unit reverts back to the Auto mode after a period of time which can be set between 30 minutes & 3 hours.

Peripherals & Devices

Power supply unit with time clock

Interface enclosure terminal box with terminals to interface between Intelligent sensors and actuators, comprises:-
Sheet metal painted enclosure with screw lockable hinged door
5 x pre-punched 20mm conduit entries
230/24 DC power supply (to power Maximair turret actuators)
Digital time switch pre-wired relay VFC to give time signal to Intelligent sensors.

Combined weather station

- Outside Air Temperature
- Wind Speed
- Ambient Lux Level
- Precipitation
- Modbus communications
- Four core control cable

The sensor system of the Weather Station is protected by the elegant, yet rugged and compact housing which is provided a fixture for the assembly to the wall or pole.

Maximair Louvre Systems

Passive Ventilation Turret

Specifications

Maximair A Series Turret Louvre – L10 NBS Spec

Manufacturer: McKenzie Martin Ltd,

Product Reference: Maximair A Series Turret Louvre

Description: High performance louvre system, A-rated in BSRIA testing and suitable for architectural purposes.

Louvre Blade Pitch: 75mm

Measured Free Area: 48%

Coefficient of Discharge: 0.32

Material: Extruded aluminium grade 6063-T6

Options:

Finish: Mill Finish Aluminium / Polyester Powder Coated / Marine Grade Polyester Powder Coated

Mesh: Bird guard 1.2mm expanded aluminium alloy, diamond mesh size 12.35mm x 35.05mm / Insect mesh perforated expanded aluminium alloy, diamond mesh size 3.5mm x 2mm

Control Damper: None / Low leakage control damper with thermally broken PVC casing and 24v, 0 - 10v modulating actuator.

Controls: Ventilation control panel with various manual and automatic options including CO2, temperature, rain and wind sensors.

Blanking Plates: None / Single skin 1.5mm aluminium /Double skin insulated or acoustic 1.5mm aluminium

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For more information or to speak to one of our sales advisors call 0161 723 2234 or email sales@mckenziemartin.co.uk