

USM MARINE EXTERNAL LOUVRE

For air intake and exhaust



APPLICATIONS

For use as a primary air intake device or can be used as an exhaust air diverter.

These are commonly used in Engine/Machine rooms and HVAC equipment rooms for air management.

MATERIALS

PART	MATERIAL	FINISHING NOTE	
Fixed blades	Steel	Painted*	Blade material thickness 1.0 mm
Fixed blades	Stainless steel EN 1.4404 (AISI316L)	-	-
Fixed blades	Stainless steel EN 1.4432 (AISI316L)	-	-
Fixed blades	Aluminium ENAW 5754 / EN 6060	Painted*	-
Frame	Steel	Painted*	Frame material thickness 3.0 mm as standard
Frame	Stainless steel EN 1.4404 (AISI316L)	-	-
Frame	Stainless steel EN 1.4432 (AISI316L)	-	-
Frame	Aluminium ENAW 5754	Painted*	-
Mesh	Stainless steel EN 1.4404 (AISI316L)	-	Mesh opening 12.7 mm

* Painted RAL9010, C3 as standard. C3 average service life 7-15 years. C5 with average service life of 15-25 years available as an option.

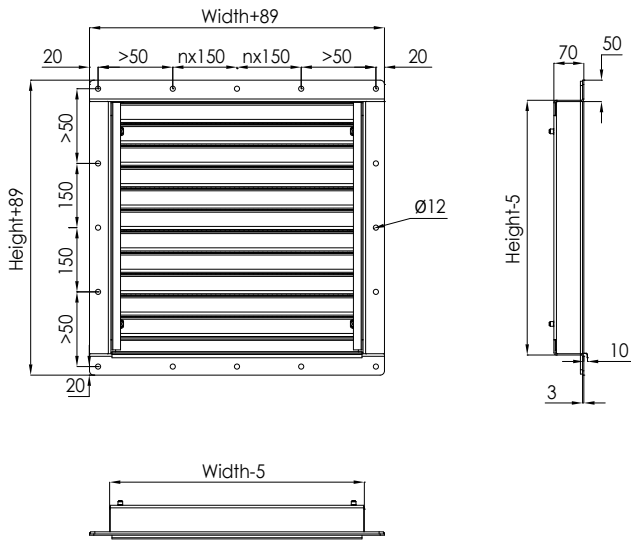
USM PRODUCT OPTIONS

- Modular construction available for large sizes
- Mesh fitted behind the louvre available as an option
- Non-standard dimensions and flange drilling available as an option
- Can be fitted with Halton Marine damper

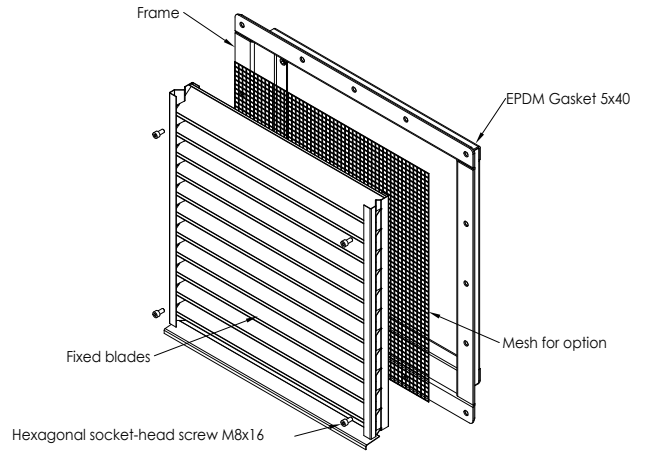
FEATURES

- External louvre for air intake and exhaust
- The louvre shall be effective in preventing rainwater, snow, leaves, animals and other objects entering the ductwork
- Operation based on special front edge blade profile and side grooves
- Suitable for medium and high airflow rates
- Depth of the blades 70 mm, distance 50 mm and free opening 50%

GENERAL USM DRAWINGS



USM CONSTRUCTION



USM DIMENSIONS

USM louvres are manufactured for rectangular openings (width B150-1500 mm and height H150-2400 mm, with 1 mm division). Modular construction for larger sizes is available. Special flange configurations are available on request.

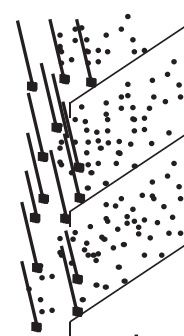
USM FUNCTION

Air is supplied or extracted through the horizontal blades. The design of the grille prevents rainwater from reaching the ductwork. The slot between the frame and the top blade is sealed, thus preventing rainwater from entering the ductwork from above. Drops of water are collected in the grooves at the front edge of the blades. Water flows to the side grooves, where it drops down.



TRADITIONAL OUTDOOR LOUVRE

Rain falling on the vane flows downwards to the front edge of the vane. Drops formed at the edge fall down on the vane below, and upon contact with the vane surface break into small droplets and spray which are easily moved by the air flow through the louvre. Water flowing along the wall onto the louvre penetrates the slot between the frame and the top vane unless the slot has been closed.



USM BLADE CONSTRUCTION

The vanes of the USM louvre are designed to collect the droplets in grooves at the front edge of the vanes. Once the slot between the frame and the top vane has been securely closed, water flowing down the wall will not enter the louvre. The top vane directs the water to the side grooves, along which the water flows down past the air flow.

