

Weathertight Musketeer Hatch 4H11

General description

Weathertight hatch, completely finished and tested. Ready to weld in. Central operated with the Winel Musketeer closing mechanism. Opening support options:

Steel gas springs (4H11.2)
Spring loaded hinges (4H11.3)
Counterweight (4H11.4)

Class approval

Design and manufacture is in full compliance with class regulations for hatches. These hatches can be individual approved by all major classification societies.

Which rules and regulations are applicable depends on the type of vessel, classification society and the position on the ship. We assume that the approved door & hatch plan covers the approval to place this hatch on that specific position.

Specification

Cover & coaming

Steel or aluminium 8 mm plate material. Round corners R=100. Coaming continuously welded. Stainless steel stoppers to prevent seal damage.

Operation

Stainless steel central closing Musketeer system with handles on both sides. Self-braking cleats operate with single action on the handle. Light operation. Cleats are fully adjustable. Wedges placed inside the coaming.

Closing points

Standard executed with four (4) closing points (cleats) and two (2) adjustable hinges.

Available sizes

Height coaming	: min. 200mm / max.1000mm
Clear width	: min. 600mm / max.1000mm
Clear length	: min. 600mm / max.1000mm

Maintenance

Hinges and cleats are fully adjustable and maintenance free. Orkot® Marine Bearings are manufactured from a unique synthetic composition incorporating solid lubricants for dry running to ensure outstanding wear life. Virtually no swelling in sea water and very low thermal coefficient of expansion provide dimensional stability in arctic and tropical seas. They do not corrode or promote corrosion of the housing and tolerate both edge loading and misalignment.

Surface treatment

- Steel: Shotblasted SA 2,5. Primer: 1 layer Hempel E1527C, colour: Red. DFT 20mu.
- Aluminium and stainless steel: Shotblasted SA 2,5. Primer: 1 layer Sigmacover 280, colour: Green-Yellow. DFT 50mu.

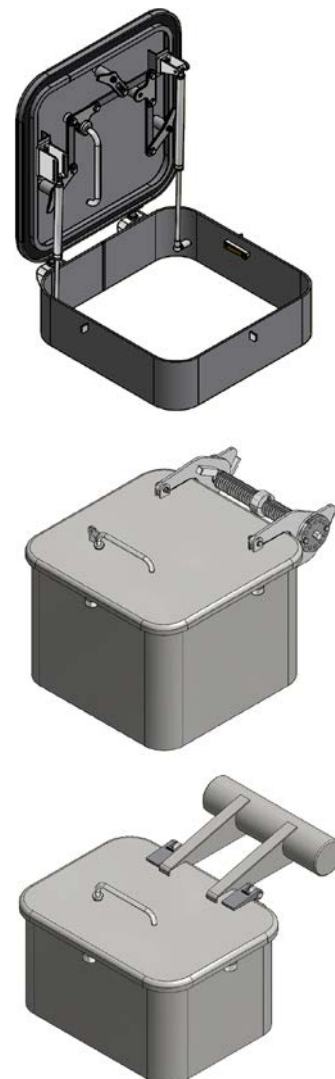
Seal

Sea water resistant seal is included, loose supplied.

- Steel and stainless steel coaming: 45x20mm EPDM shore 45.
- Aluminium coaming: 45x20mm MOOS shore 20.

Wedges

- Steel coaming: Brass wedges.
- Aluminium coaming: POM (synthetic) wedges.



Opening support

4H11.1 – No opening support

Hinges are adjustable in height. Adjusting can be done with standard tools.
Hinge bracket and foundation are stainless steel. Hinge points have a fixed turning point.

4H11.2 – Steel gas springs

Two steel gas springs are placed inside the hatch. One gas spring is connected to the hatch cover with a fixed point. Other gas spring is mounted to a bracket with an elongated hole. This creates a balanced opening force.

4H11.3 - Spring loaded hinges

Spring loaded hinges are built from steel plate material. Central axle and adjustment rings are made of stainless steel. Adjusting can be done with standard tools.

By removing the four bolts in the force adjustment rings and turning the central axle with a torque wrench, you can adjust the torque force of the spring. In open position the spring systems is creating an extra open hold force on the hatch cover to keep the cover in open position (hatch open hold function). In open situation the gravity and the torque force keeps the hatch in open position consequence is that closing force of the cover in the first 0-10 degrees is higher.

H11.4 - Counter weight

Two brackets with a steel counter weight is mounted on the cover plate.
The counter weight optimizes the opening force. The hatch opens 95 degrees.
When closing the hatch, the gravity force of the counter weight provides a higher initial force for closing the hatch. This is reduced after the weight of the cover is lowering the force. Open position is limited due to counter weight touching the coaming.

Packing

Hatches are strapped on a wooden pallet and covered with shrinking foil.

How to specify a Weathertight Musketeer hatch

1. Select opening support (4H11.1 / 4H11.2 / 4H11.3 / 4H11.4)
2. Material cover plate (Steel / Aluminium)
3. Material coaming (Steel / Aluminium)
4. Clear opening (Hinge side x Width)
5. Coaming Height (H=)
6. Select options from the Specification Sheet '3H options for hatches'