

**/// Musketeer flush hatch (Article code 4H24.1)**

The Musketeer gas spring flush hatch is a standardized weather tight hatch. It is supplied as a completely finished and tested hatch, ready to weld in. It is equipped with the well-known Winel Musketeer closing mechanism.

**/// Class society approval**

The design and manufacture of the hatches is in full compliance with the class regulations regarding weather tight hatches and 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 door on that specific position.

**/// Specification****Cover:**

8 mm steel or aluminium plate, 2 stainless steel adjustable hinges, 4 closing points and 45x20mm EPDM shore 45 seal. Hatch cover is equipped with suitable stiffening. Stiffening is depending on the clear opening and the specified deck load.

Welding: intermediated.

**Coaming:**

Flush U (68 x60) profile frame from 8 mm steel/aluminium plate material, Round corners (r=100), the gasket side is rounded (r=2) to prevent damaging of the seal. Stainless steel (aluminium) hatch stoppers are placed on the position of the closing points. On the position of the hinges the U frame is equipped with 90 mm depth pockets to position the hinges. For hinge side clear opening smaller then 800 mm the hinge side profile is complete 90 mm to place the hinges. The gap between cover and frame is in that case on the hinge side wider then on the three opposite sides.

**Operation:**

Central closed Musketeer system with galvanized steel closing points. Self braking cleats operate with single action on the handle. Light operation due to 1:33 force transmission. Cleats are fully adjustable. Hatch is operated by stainless steel handles. Top handle is removable; by removing the top side handle the hatch is flush.

**Closing points:**

The standard hatch is equipped with four closing points. The adjustable hinges create the gasket compression on the hinge side.

**Hinges:**

The hinges are adjustable in height. Adjusting can be done with standard tools. The hinge bracket and foundation is made of stainless steel. In case of rectangular clear opening the hinge side needs to be specified.

**Gas spring:**

No opening supports are placed inside the hatch.

**Bearing material:**

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.

**Available sizes:**

Clear width: Minimum width 600mm, maximum width 1600mm  
Clear length: Minimum length 600mm, maximum length 1600mm

**Surface treatment:**

Shot blasted SA2,5 and primed with one layer of Hempel shop primer E1527C, minimal 20 Mu,  
Cleating rods, cleats, handle and mounting materials: stainless steel.

**Installation, operation and maintenance manual:**

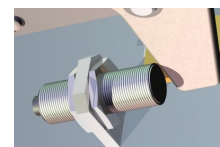
Digital supplied on CD ROM in the English language (pdf format).

**Available options****Seal groove double coated (article code 3H24.001):**

Seal groove double coated white CM7566 & seal glued into the groove.

**Close indication (article code 3H24.002):**

Proximity switch, Siemens M18, IP68 3RG4013 with 2 mtr cable and welding bracket.  
(Loose supplied)

**Locking pin into the cleating rod (article code 3H24.003):**

A pin locking device is added on the cleating system. A stainless steel pin is mounted on the lever of the musketeer mechanism. By using this pin the musketeer system is locked from the inside of the door.

**Hatch cover open holder (article code 3H24.006):**

A stainless steel hatch cover open holder is placed on the inside of the hatch. When the hatch cover is opened the open holder keeps the hatch in open position. To close the cover the open holder needs to be lifted up. The open holder is standard placed on the right side of the hatch.

**Acoustic insulation (article code 3H24.007):**

An insulation system is added on the cover between the stiffeners as described in the product sheet TD001. The insulation is covered by a 2 mm galvanized cover plate. The closing mechanism is visible.

**Thermal insulation (article code 3H24.008):**

An insulation system is added on the cover between the stiffeners as described in the product sheet TD003. The insulation is covered by a 2 mm galvanized cover plate. The closing mechanism is visible.

**Packing**

Packed according our standard packing instructions, on a wooden pallet.

**How to specify:**

By selecting the right specification the article is specified:

Article code **4H24.11.HS 600x600-250** = weather tight flush hatch, Winel musketeer, with gas spring, steel 8 mm doorplate, steel coaming, with a clear opening of 1000(hingeside) x 800 mm and a deck load of 250 kg/m<sup>2</sup>

Code	Execution
1	Steel coaming, steel cover
2	Steel coaming, aluminium cover
3	Aluminium coaming, aluminium cover

Specify options :  
Specify class society :  
Specify hinge side :  
Specify deck load : kg/m<sup>2</sup>  
Quantity :