

General description

The hatch is a standardized water 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. The hatch can be executed in 3 base models.

- 4H21.1 No opening support
- 4H21.2 Gas spring
- 4H21.3 Spring loaded

Class society approval

The design and manufacture of the hatches is in full compliance with the class regulations regarding hatches and can be individual approved by all major class societies. The rules and regulations that are applicable depend on type of vessel, class society and position on the ship. It is yard responsibility to obtain class approval for the location of the hatch on the ship.

Specification**Cover:**

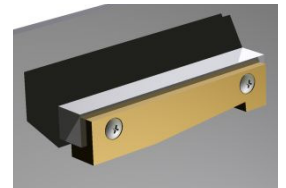
8 mm steel with suitable stiffening.
Welding: Continuously

Coaming:

8 mm steel plate material, the gasket side is rounded ($r=2$) to prevent damaging of the seal. Stainless steel hatch stoppers are placed on the position of the closing points outside the coaming.

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. The brass wedges are placed inside the frame and are in the clear opening of the hatch (size: 25 mm).

**Hand wheel:**

2 aluminium cast hand wheels with a diameter of 360 mm or with a flush key system from the outside.

Closing points:

The number of closing points is depending on the specified clear opening in combination with the water pressure.

Available sizes:

Height:	Minimum height	200mm, maximum height	1000mm
Clear opening:	Minimum	600mm, maximum	1000mm

Surface treatment:

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

Packing

Packed according our standard system. Packed on a wooden pallet.

4H21.1 Hatch, Water tight, R=100 corner, Winel heavy musketeer, no opening support

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



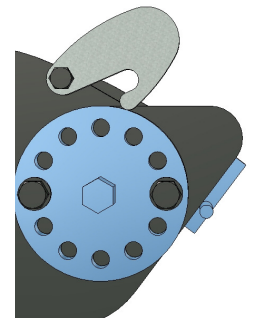
4H21.2 Hatch, Water tight, R=100 corner, Winel heavy musketeer, gas spring

The two hinges are adjustable in height. Adjusting can be done with standard tools. The hinge bracket and foundation is made of stainless steel. The hinge points have a fixed turning point. In case of rectangular clear opening the hinge side needs to be specified. Two steel gas springs are placed inside the hatch. One gas spring is connected to the hatch cover with a fixed point and the other gas spring is equipped with a bracket with an elongated hole. Advantage of the system is a balanced opening force.



4H21.3 Hatch, Water tight, R=100 corner, Winel heavy musketeer, spring loaded

The spring loaded hinges is built from steel plate material. The central axle and the spring force 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.



Available article codes

Please specify article codes when asking for quotation or ordering:

Code	Description
4H21.1	Hatch, Water tight, Round model, Winel heavy musketeer, no opening support
4H21.2	Hatch, Water tight, Round model, Winel heavy musketeer, gas spring
4H21.3	Hatch, Water tight, Round model, Winel heavy musketeer, spring loaded
4H21.4	Hatch, Water tight, Round model, Winel heavy musketeer, counter weight
1	Both sides hand wheel
2	Flush key system from the outside (inside hand wheel)
.	<i>Separation sign</i>
600-1000mm	Clear opening:
200-1000mm	Height:

Example code: 4H21.21.600x600

Hatch, Water tight, Round model, Winel heavy musketeer, gas spring, both sides hand wheel, Clear opening 600 mm, Clear height 600 mm.

Specify options :
 Specify class society :
 Specify water pressure :
 Quantity :

/// Available options

Seal groove double coated (article code 3H21.001):

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

Locking pin into the locking axle (article code 3H21.003):

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. The pin is fixed to the cover with a cable.

Hasp & Eye (article code 3H21.005):

Added on cover and coaming are two pad lock brackets. By using placing a pad lock the hatch is locked from the outside.

Hardcopy installation, operation and maintenance manual (article code 3H21.006):

Hard copy in English language

Hatch cover open holder (article code 3H21007):

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 centre of the hatch.

Acoustic insulation (article code 3H21.008):

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 3H21.009):

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.