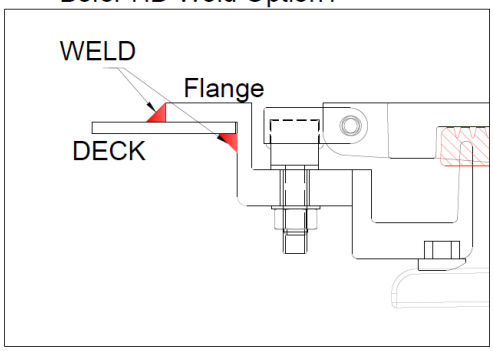
Bofor Marine Products - Mounting Instructions 06

Mounting Item: Bofor HD Series Cast Hatches
Mounting Type: Welding
Hatch Frame Material: Aluminum Alloy
Vessel Bulkhead Material: Aluminum

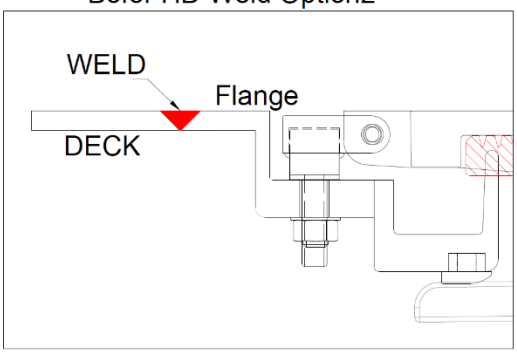
Mounting Processes

1- You can mount weld the HD series hatches in 2 different ways.

Bofor HD Weld Option1

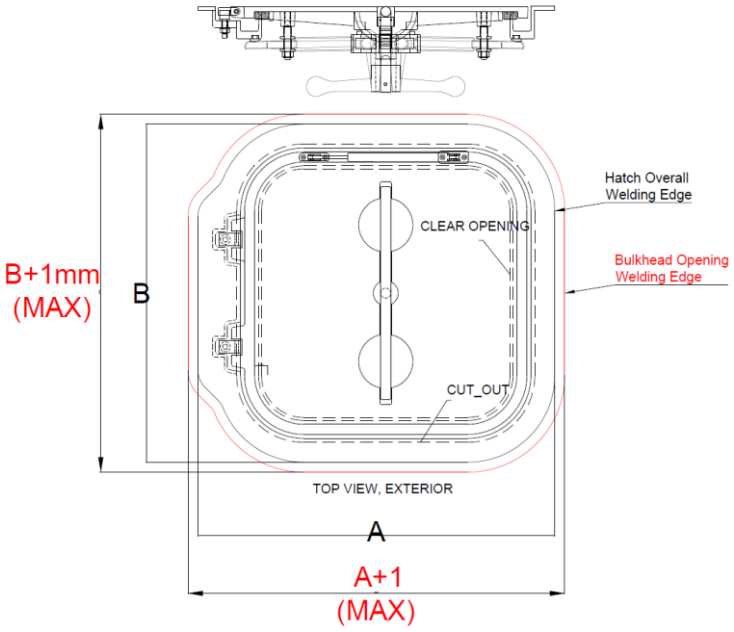


Bofor HD Weld Option2



2. For both options make sure to **the cut a hole on the bulkhead as equal as possible to the dimensions of the hatch** with maximum of a +1mm tolerance only. In other words, if the hatch's weld edge dimensions are A X B make make sure that the cut-out hole on the bulkhead is between A x B and (A+1)x(B+1)mm. Otherwise the operator may damage the hatch frame and the hatch may lose its watertightness features.

For an example lets say the yard decided to proceed with welding option 2 in which they weld the overall edges of the main frame to the bulkhead. Assure a fit in accordance to the following figure.



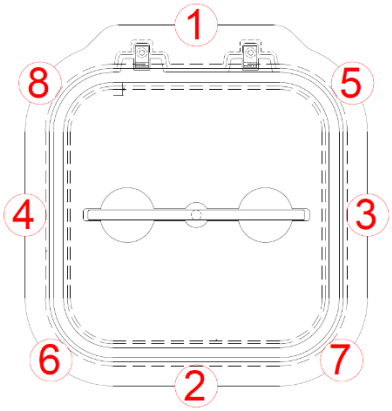
3. Check the aluminum bulkhead and make sure that it is straight and flat. The surface cut-out that the hatch is going to be installed must be flat through all weld mounting process. If the cut-out opening on the bulkhead is not flat this may lead to damaging or bending of the main frame, which would certainly hinder the watertightness of the hatch.

Use a template to check the bulkhead. İf the surface is flat,

4. If the hatch is without a flange, install the hatch in the cut-out bulkhead opening by making sure that the main frame of the hatch is perpendicular to the bulkhead welding edge. Otherwise if the hatch is with a flange, install the hatch as its flange is face to face with the bulkhead. The flange of the main frame shall meet with the bulkhead welding edge on the same plane.

5. Next is to tack weld the hatch frame to the bulkhead by following the sequence demonstrated on the figure below.

Tack welding length= 30mm



Make sure to proceed by tack welding opposite corners and edges in order to prevent overheating.

If the hatch is very big increase the number of tack welds with proceeding on opposite sides. As a rule of thumb the welder shall keep about 150mm between the center of each 30mm tack weld.

6) İf the hatch position is good and the hatch is flat to the surface, next stage is to completely weld the perimeter of the main frame flange. Again it is recommended to proceed welding on opposite corners and edges as can be seen on the following figure.