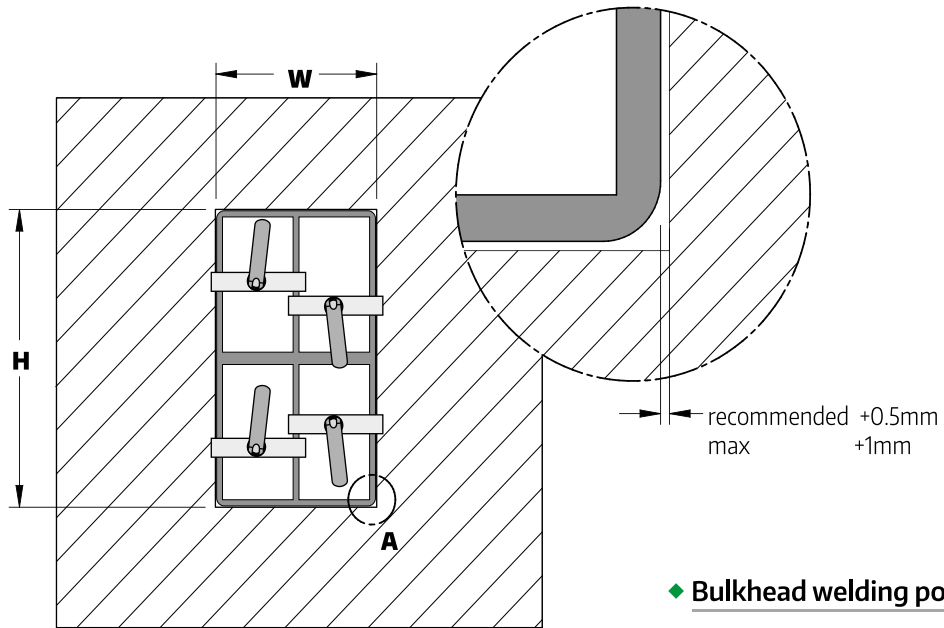
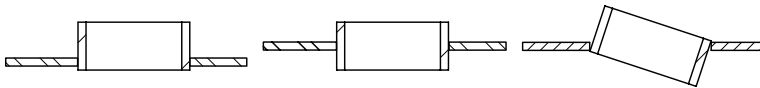


**STANDARD WELDING INSTRUCTIONS**

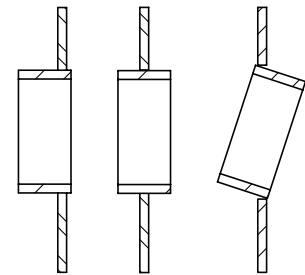
1. Check the measures of the precut hole and external dimensions of the frame. Recommended gap around the frame is in between 1mm and 2mm (0.5-1mm on every side of the frame). See frames dimension chart page...19



**Deck welding positions**



**Bulkhead welding positions**

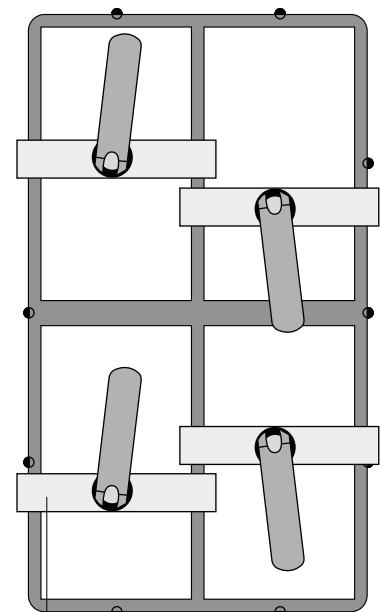
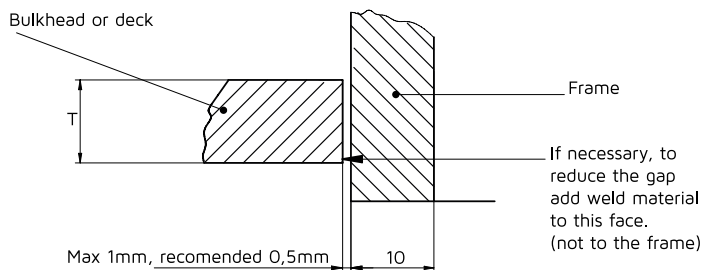


2. Tack weld on the front side, centering the frame onto the cut-out hole:

- ◆ Horizontally, one tack on every aperture.
- ◆ Vertically, one tack on every aperture and on every vertical division.

Check the gap measures all around the frame are maintained. If necessary, add weld material to the bulkhead/deck to reduce the gap (not to the frame)

Use HTS welding tool to prevent frame deformations during welding process.

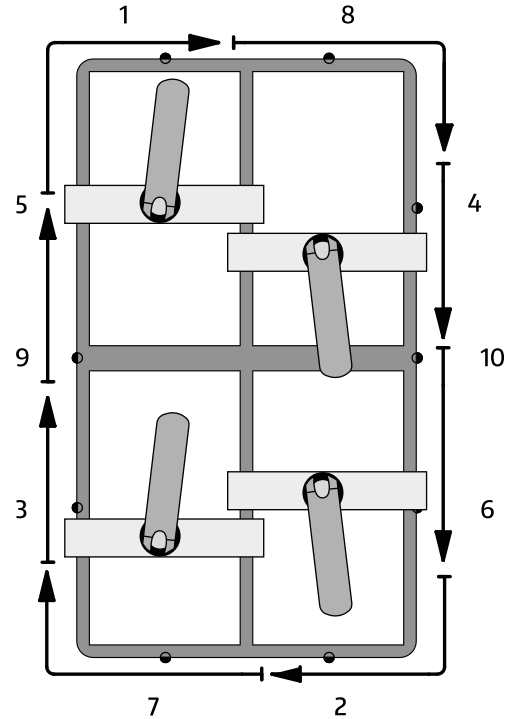
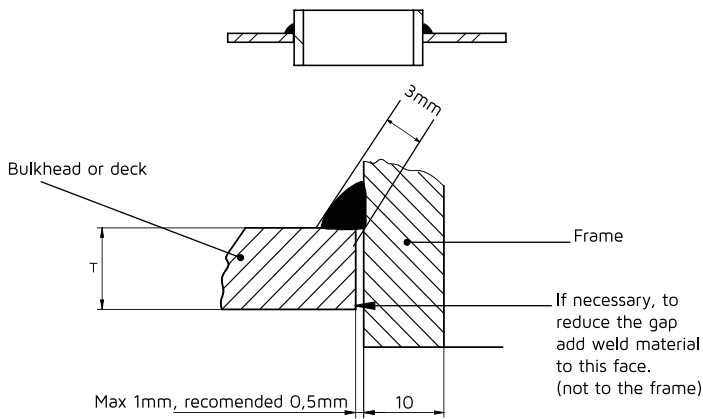


- ◆ Welding tool (See page..77) can be used to prevent deformation during the welding.

3. Start welding the frame with a sealing fillet weld on the backside. Follow appropriate welding sequence. This welding throat should not exceed 3mm.

The interpass temperature should not exceed 200°C for mild steel and aluminium and 150°C for stainless steel.

- ◆ Máx run lenght: { Mild Steel 200 mm  
Stainless Steel 150 mm  
Aluminium 200 mm



$$\text{Heat Input (KJ/mm)} = \frac{V \cdot I \cdot \eta}{\text{vel} \cdot 1000}$$

V = volts / I = amperes / vel = mm/s

$$\eta = \begin{cases} 1 & \text{SMAW} \\ 0,8 & \text{GMAW / FCAW} \\ 0,6 & \text{GTAW} \end{cases}$$

	Máx. Heat Input (KJ/mm)		
	Mild Steel	Stainless Steel	Aluminium
a = 3 mm	1,2	1,1	2

4. Grind off weld tacks before start filled weld. Weld runs should not start or stop at a tack weld but should run over a tack.

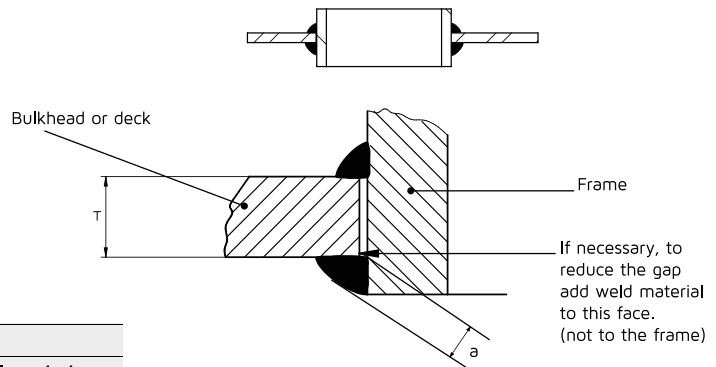
Follow same welding sequence for correct procedure.

The interpass temperature should not exceed 200°C for mild steel and aluminium and 150°C for stainless steel.

This welding throat should not exceed following values:

- T > 7mm a=5mm  
T ≤ 7mm a=4mm

- ◆ Máx run lenght: { Mild Steel 200 mm  
Stainless Steel 150 mm  
Aluminium 200 mm



	Máx. Heat Input (KJ/mm)		
	Mild Steel	Stainless Steel	Aluminium
a = 4 mm	1,2	1,1	2
a = 5 mm	1,4	1,1	2