

# Welding Instructions Stainless Steel

## WELDING METHOD

Shielded metal arc welding (SMAW)  
Flux cord arc welding (FCAW)

## WELDERS' QUALIFICATION

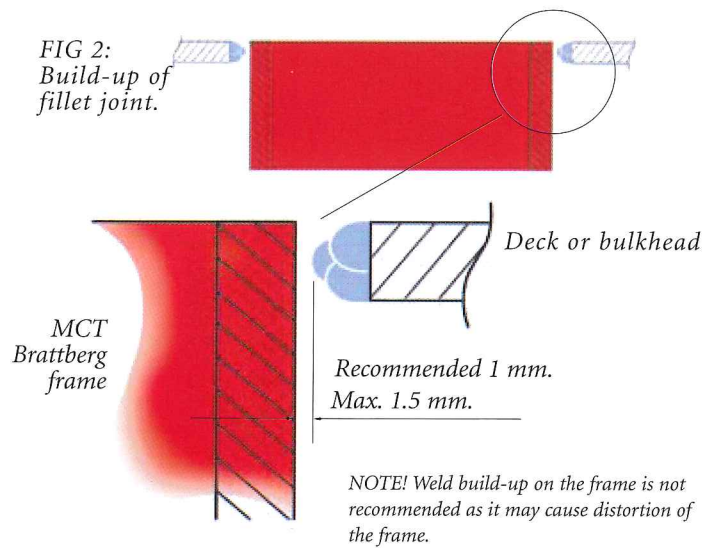
Welders to be qualified according to AWS D1.1  
latest edition

## CONSUMABLE

**SMAW SFA /AWS A5.4 E316L-17**

**FCAW SFA /AWS A5.22 E316L T1-4**

Consumable to be handled and treated according  
to manufacturer's recommendation.



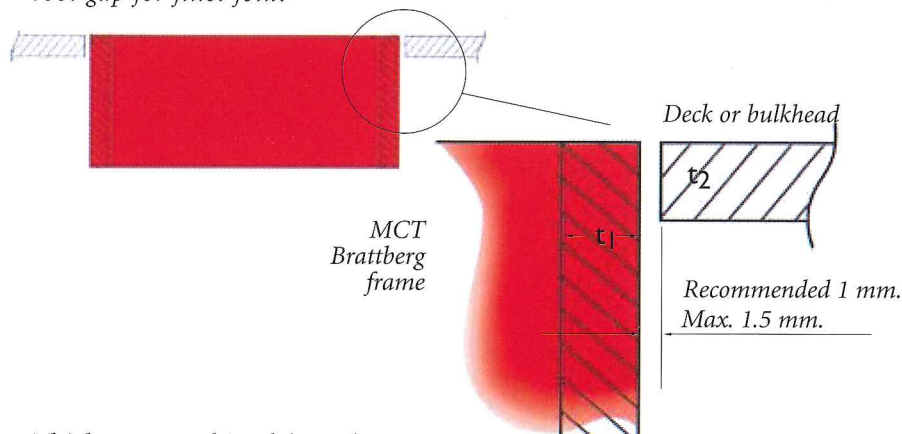
## PREPARATION AND FIT UP

The prepared joint and surrounding areas shall be  
clean and free from moisture, oil, grease, loose or  
thick scale, oxides etc., or any protective coating  
except weldable primers.

Maximum allowed root gap for fillet welds is  
recommended 1 mm, max 1.5 mm (see fig 1).

## STAINLESS STEEL, NO PREHEAT

FIG 1:  
maximum allowable  
root gap for fillet joint



Thickness Combined (THC) =  $t_1 + t_2$   
If root gap is too wide the deck plate or  
bulkhead may be built-up with weld to  
achieve a proper gap.  
(see fig. 2)

## IMPORTANT!

To avoid deformation of the  
frame it is recommended to follow  
this welding instructions

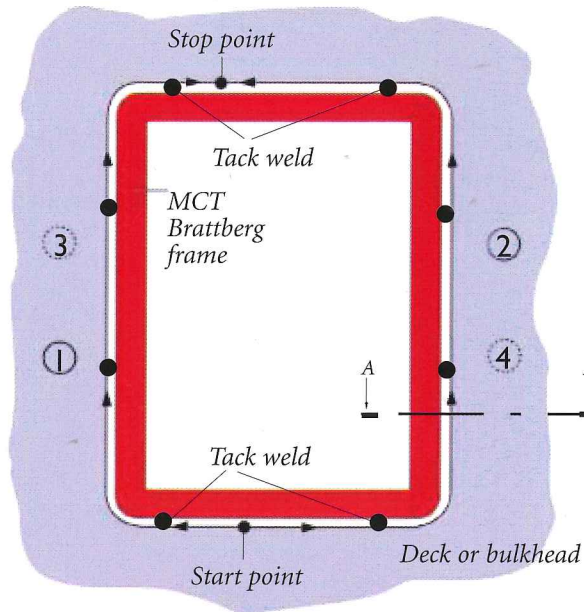
Putting safety first



## WELDING SEQUENCE

Welding to be performed according to fig 3 and 4.  
Weld pass 3 is not to be started until welds 1 and 2 are completed.

FIG 3:  
welding sequence  
(example shows a two-pass fillet weld)



Tack weld eatch /100 mm for less deformation of the frame

FIG 4:  
Welding sequence



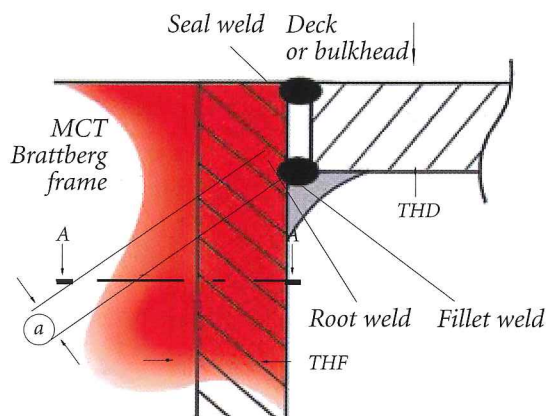
- 1.1 Root weld
- 2.1 Root weld
- 1.2 Fillet weld
- 2.2 Fillet weld
- 3 Seal weld
- 4 Seal weld

## WELD SIZE

Fillet weld size (throat thickness) is to be 0.5 x plate thickness of the bulkhead or deck plate (THD). However fillet weld size is not to be greater than 0.7 x frame plate thickness (THF). See fig 5.

$$\text{Thus: } 0.5 \times \text{THD} \leq (a) \leq 0.7 \times \text{THF}$$

FIG 5:  
Fillet weld size



(a) = fillet size (throat thickness).

THD = Thickness Deck plate.

THF = Thickness Frame plate.

**NOTE!**

Multi-pass welding is required if (a) ≥ 5 mm.



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