

Plate Hatch

Welding Insertion Procedure

Introduction

This user manual has been prepared with the purpose to have the various hatches inserted into the ship's structure in the correct way.

In this manual we describe the various steps of the procedure, the sequence of these steps to be taken and what tolerances are acceptable.

This manual is intended for technical operational or preparatory staff. It is expected that these employees have a basic knowledge of how to read technical drawings.

In order to reach a good end result, the area (plate field) in which the plate hatch will be placed needs to be free of tension. This implicates that no horizontal or vertical strips are welded along the plate cut in order to stretch the area.

Various types of plate hatches

This manual can be used for all kinds of plate hatches of De Vor Metaalbewerking. The plate hatches can be opened in a horizontal way (hatch) or in a vertical way (door) and can be made of aluminium, steel or stainless steel. Please check the front page for the different types.

Disclaimer

De Vor Metaalbewerking B.V. has exclusive copyright on this document. This document may not be copied without approval from De Vor Metaalbewerking B.V. or be handed to any other party. Users should always follow the prescribed safety rules of the employer. De Vor Metaalbewerking B.V. shall not be liable for any direct or indirect damages through the use of this document. Nor does De Vor Metaalbewerking B.V. make any warranty as to the results obtained from the use of this manual.

In the case of any conflict between the content of this manual and the regulations of the classification provider, the latter shall prevail.

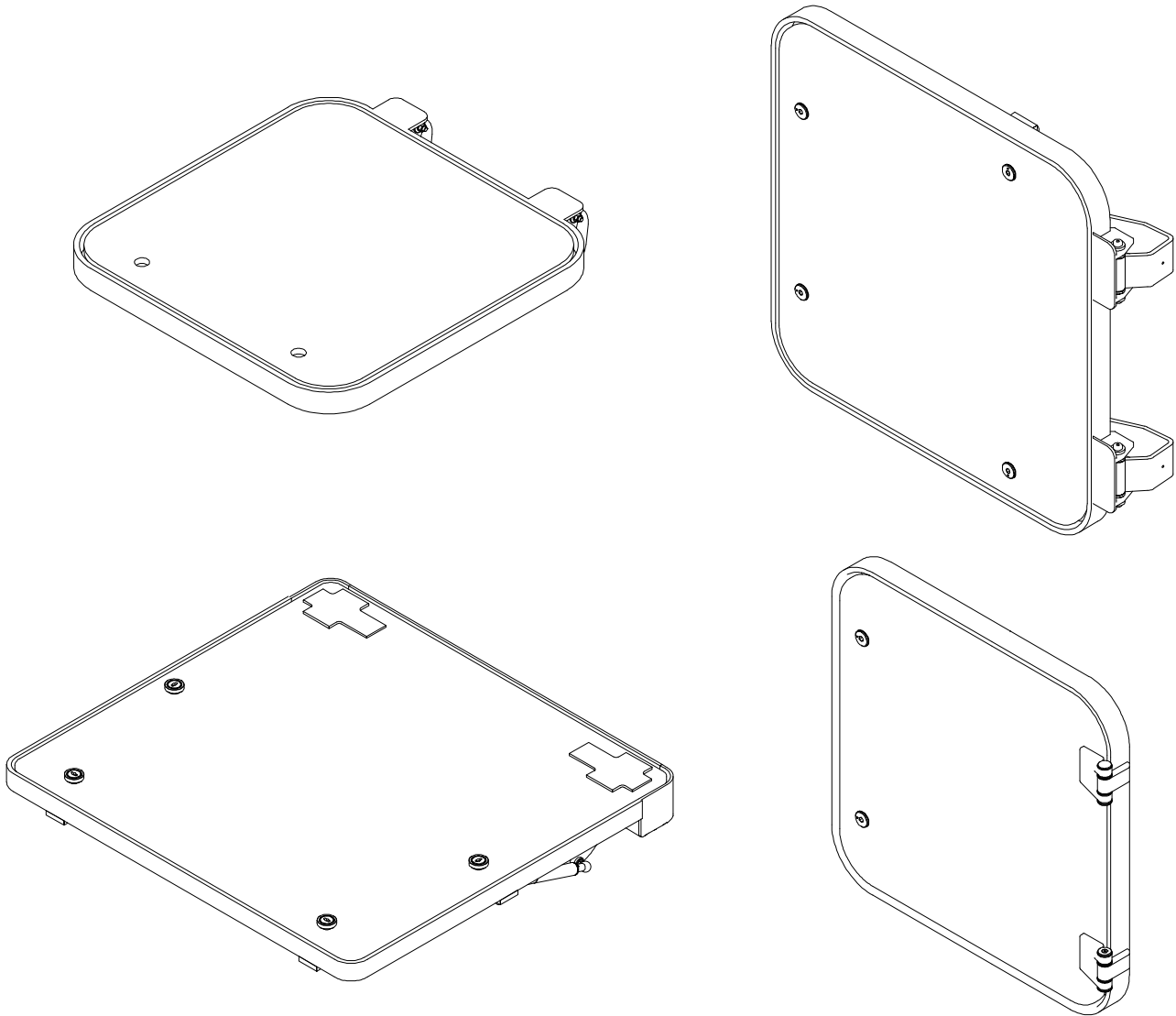
Excluded from the scope of this manual:

- The extent to which the area in which the hatch is placed is straight /aligned
- The welding procedure specifications, the quality and the finishing of the welds.
- Safety instructions
- Required (measuring) tools

More information about these products are available on our website: www.devorddoorsandhatches.nl

Plate hatch, welding insertion procedure

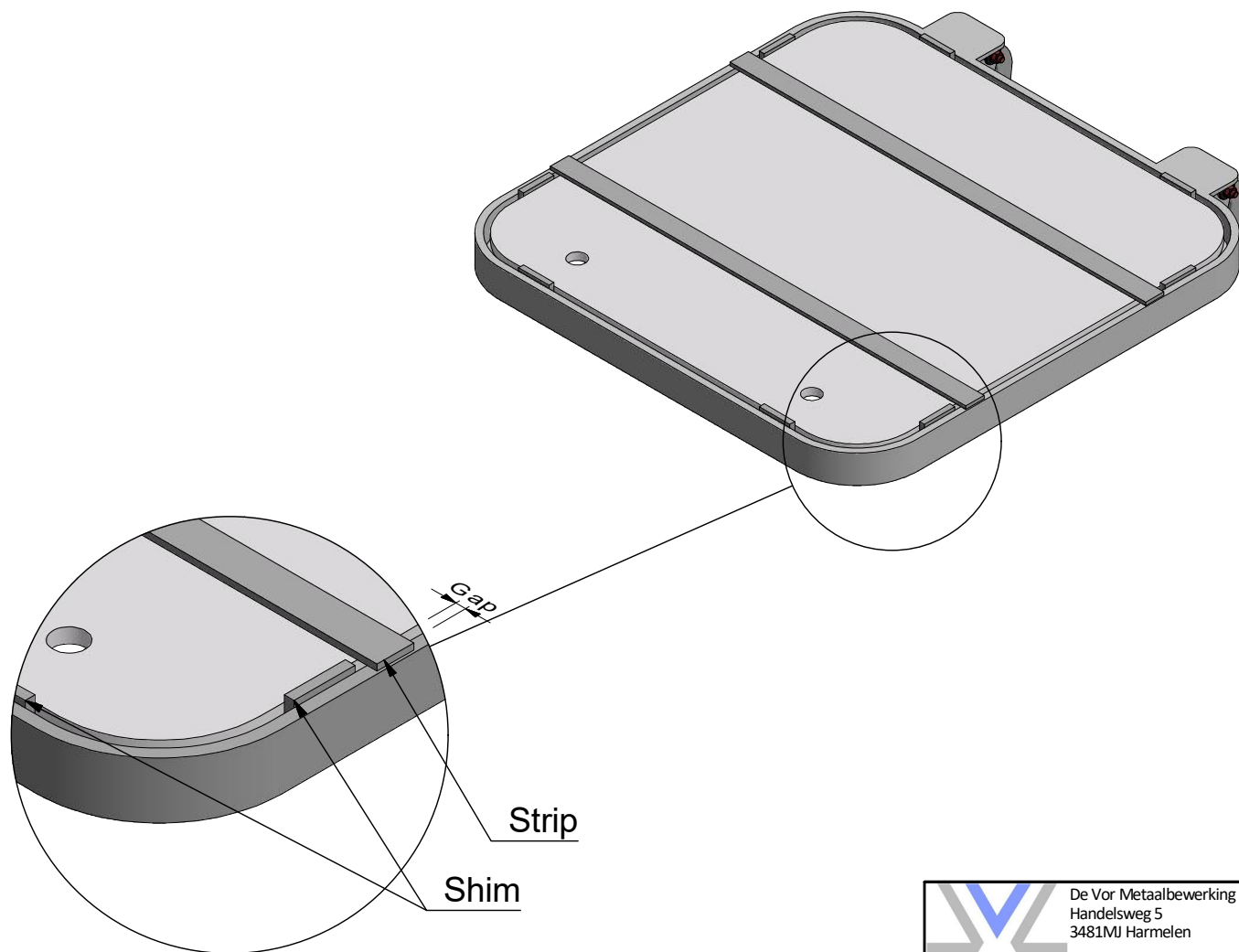
De Vor metaalbewerking B.V.



 DE VOR DOORS AND HATCHES	De Vor Metaalbewerking B.V. Handelsweg 5 3481MJ Harmelen	File name: Plaatluik inlasprocedure.dwg
	Tel: +31 (0)348 40 16 36 info@devordoorsandhatches.nl www.devordoorsandhatches.nl	Creation date: 11-8-2020
		Sheet size: A4
		Revision: -
Description: Plate hatch, welding insertion procedure		
Number of pages: 10		
EXCLUSIVE COPYRIGHT BY DE VOR METAALBEWERKING B.V. THIS DRAWING MAY NOT BE COPIED WITHOUT APPROVAL FROM DE VOR METAALBEWERKING B.V. OR BE HANDED TO ANY OTHER PARTY		

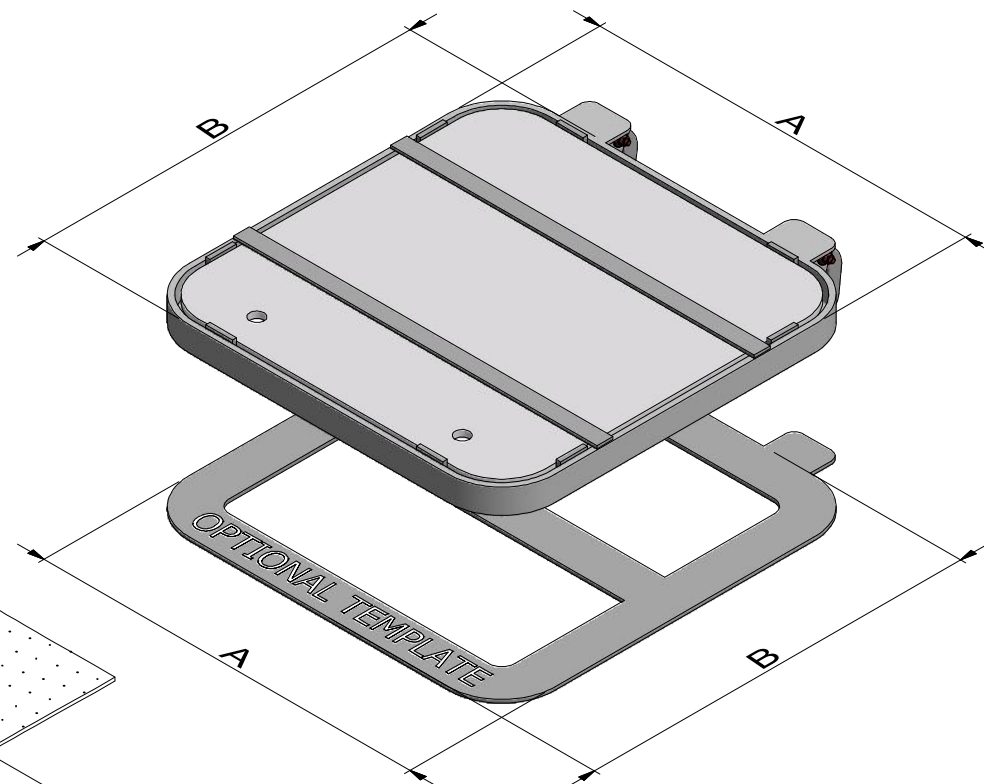
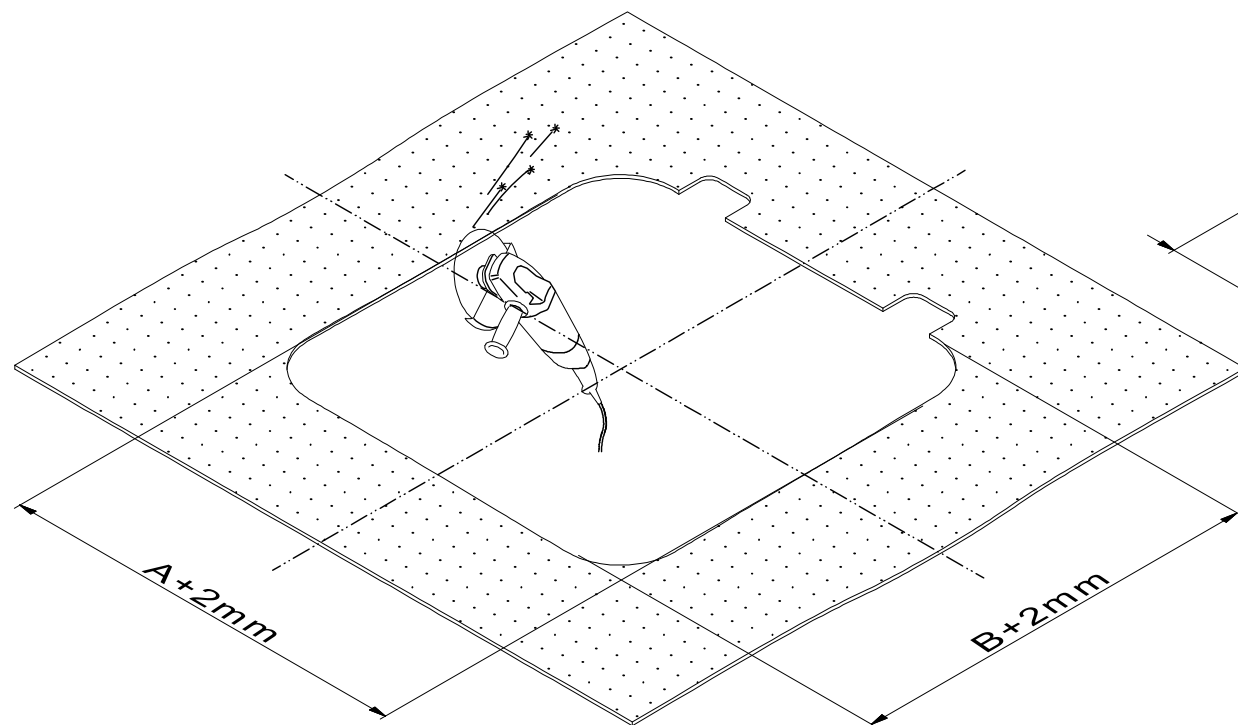
CHECKLIST

- ☐ Undamaged package (frame and door assembly)
- ☐ Strips are present
- ☐ Shims are present



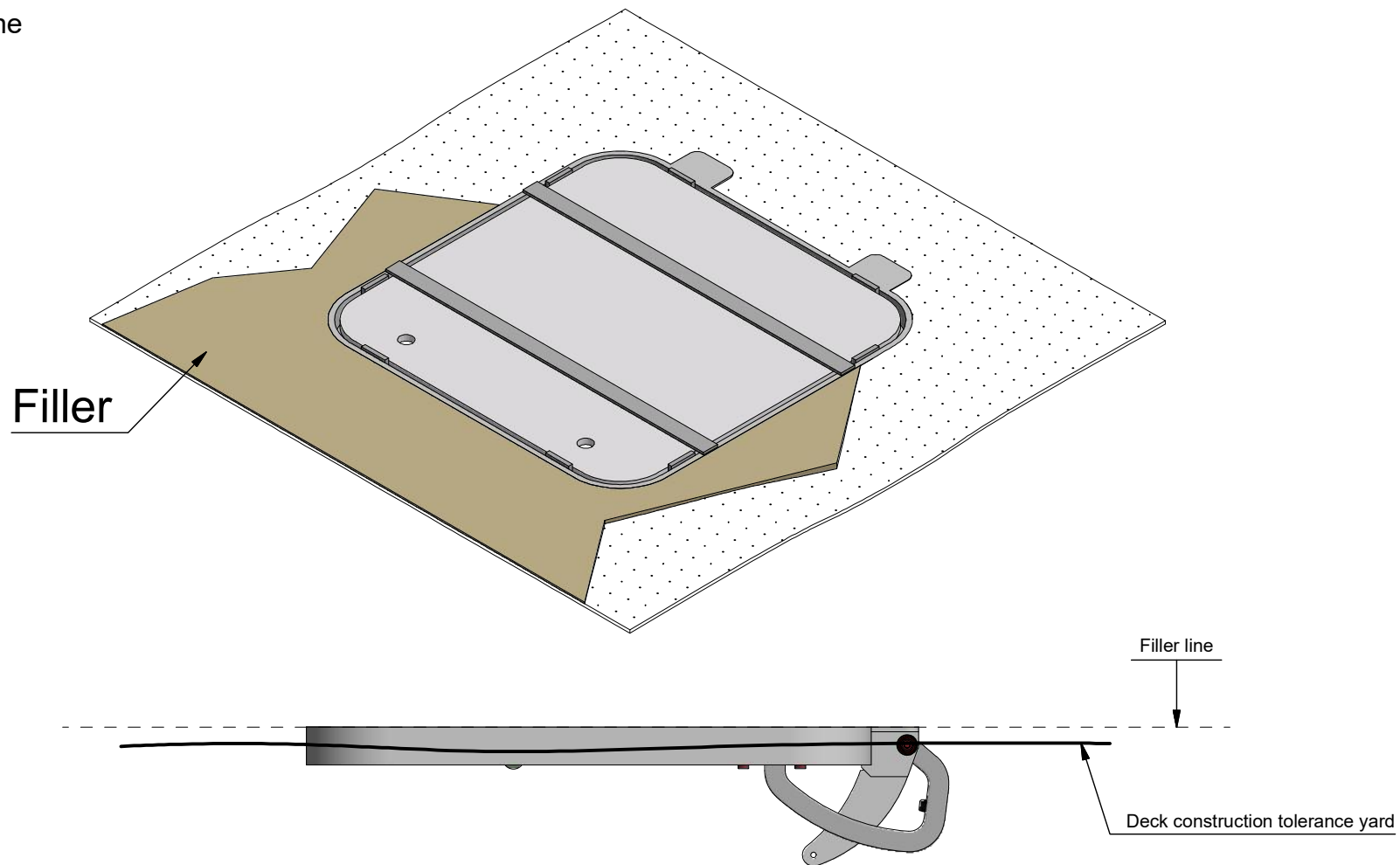
CHECKLIST

- ☐ Determine plate cut position
- ☐ Mark contour (using optional template)
- ☐ Make plate cut



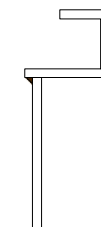
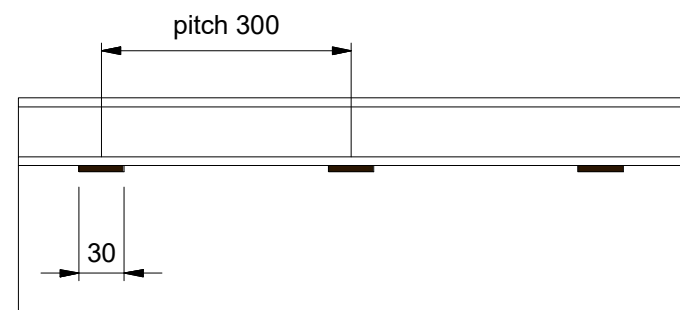
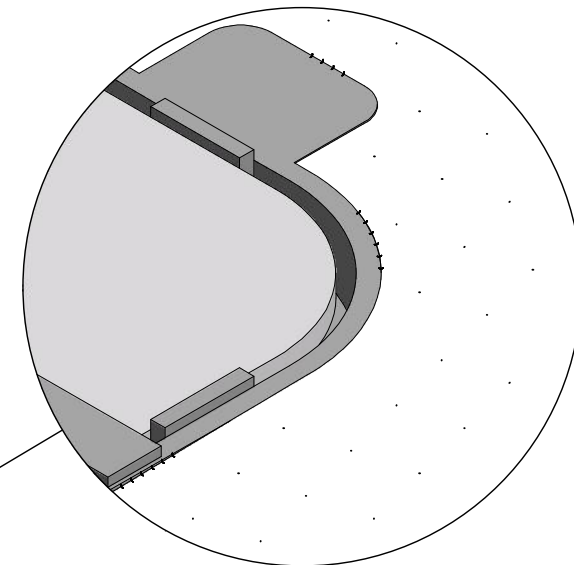
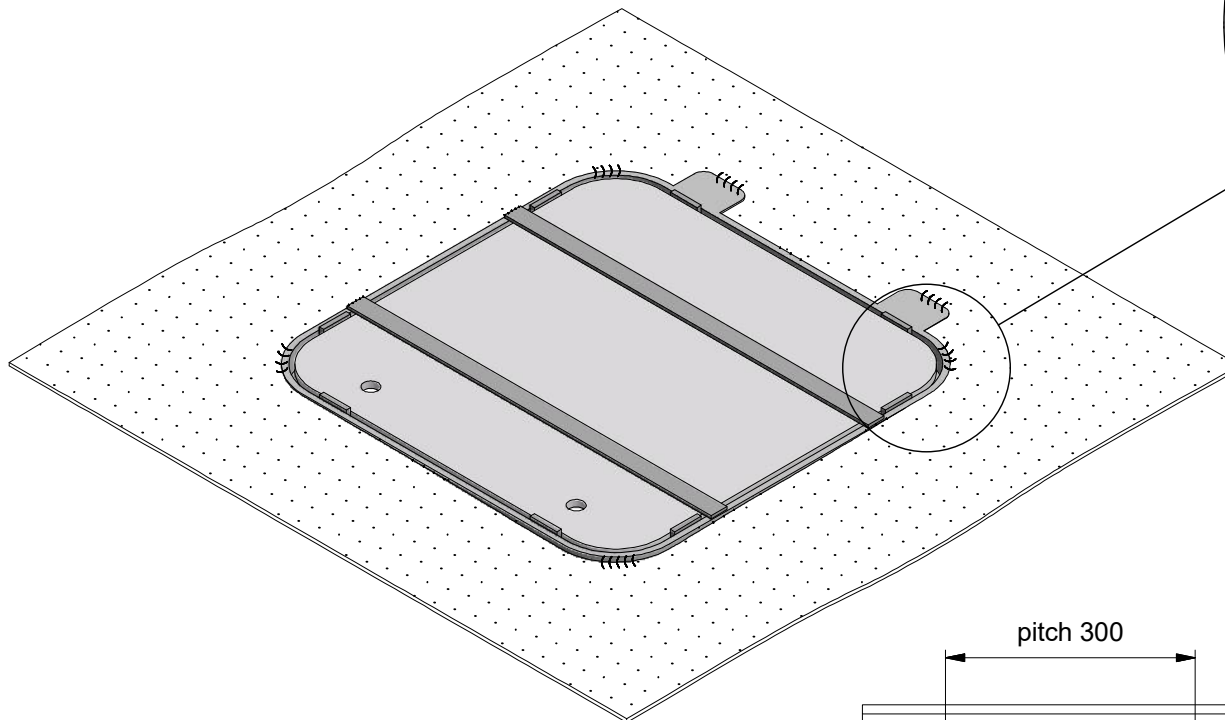
CHECKLIST

- ☐ Place package in plate cut
- ☐ Hatch is flush with filler line



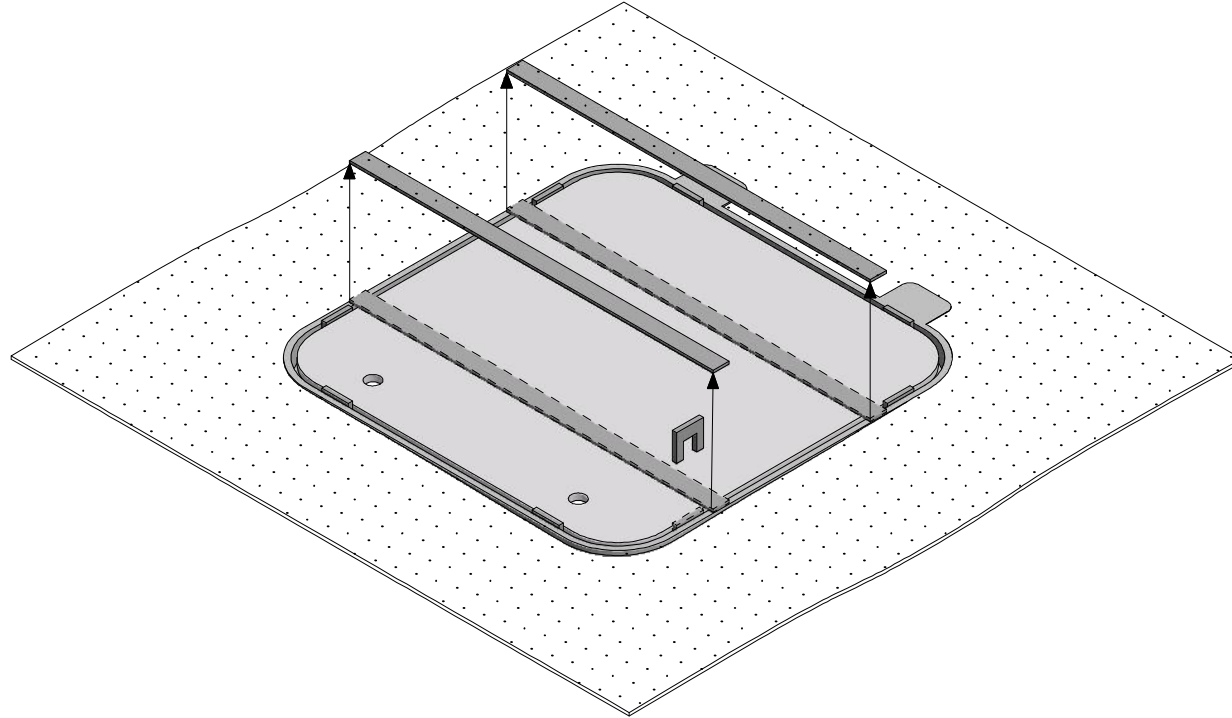
CHECKLIST

- ☐ 1. Tack weld the corners (L=30mm)
- ☐ 2. Tack weld near hinge and strips (L=30mm)
- ☐ 3. Tack weld contour L=30mm pitch is ± 300 mm



CHECKLIST

- ☐ Remove all welded strips
- ☐ Remove shims



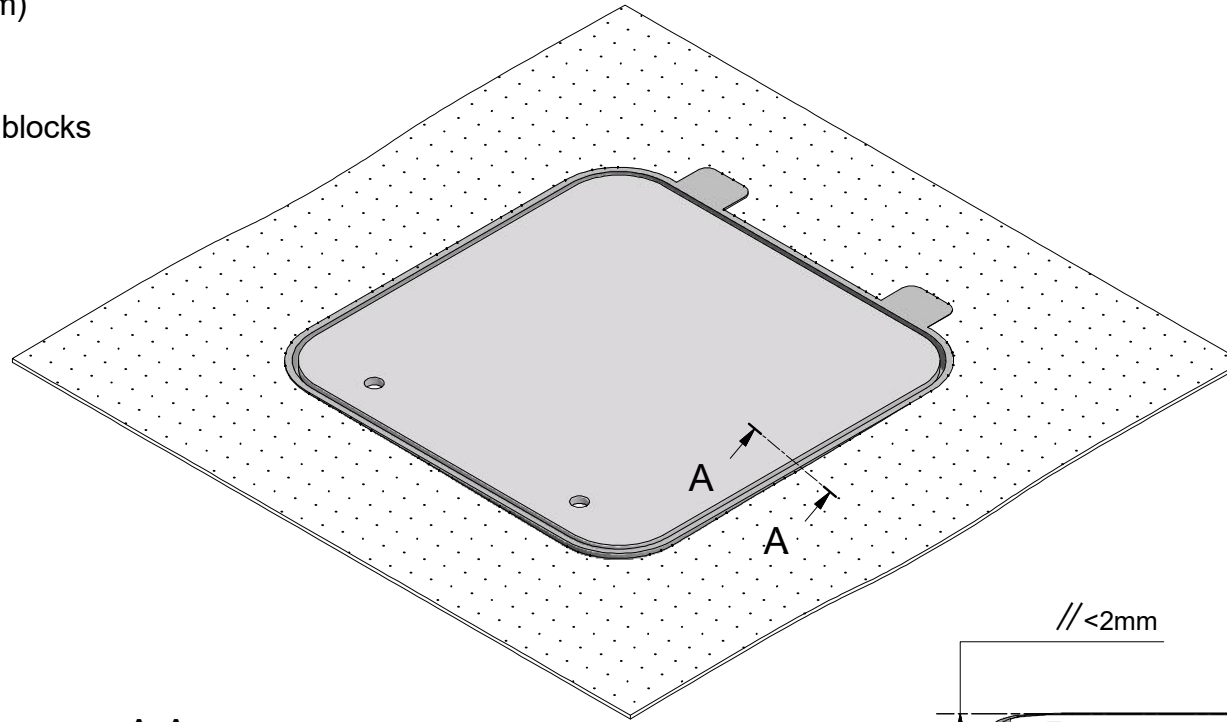
De Vor Metaalbewerking B.V.
Handelsweg 5
3481MJ Harmelen
Tel: +31 (0)348 40 16 36
info@devordoorsandhatches.nl
www.devordoorsandhatches.nl

Plate hatch, welding
insertion procedure

Sheet 6 of 10

CHECKLIST

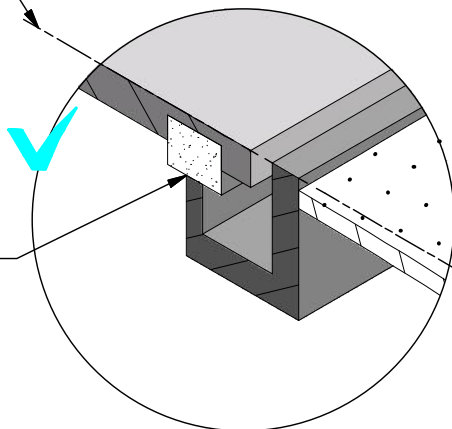
- ☐ Frame is placed parallel ($// < 2\text{mm}$)
- ☐ Frame is straight ($\text{—} < 1\text{mm/m}$)
- ☐ Hatch is flush with filler line
- ☐ Hatch makes contact with all blocks



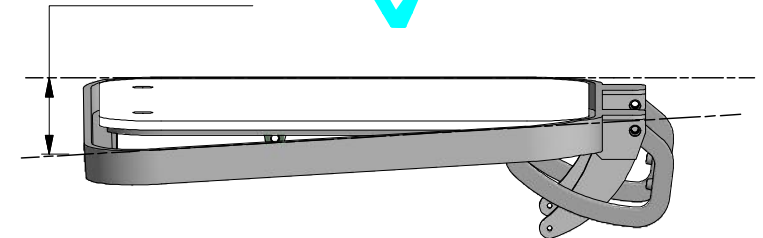
Flush with frame and filler line

A-A

Hatch should 'rest' on all blocks



$// < 2\text{mm}$

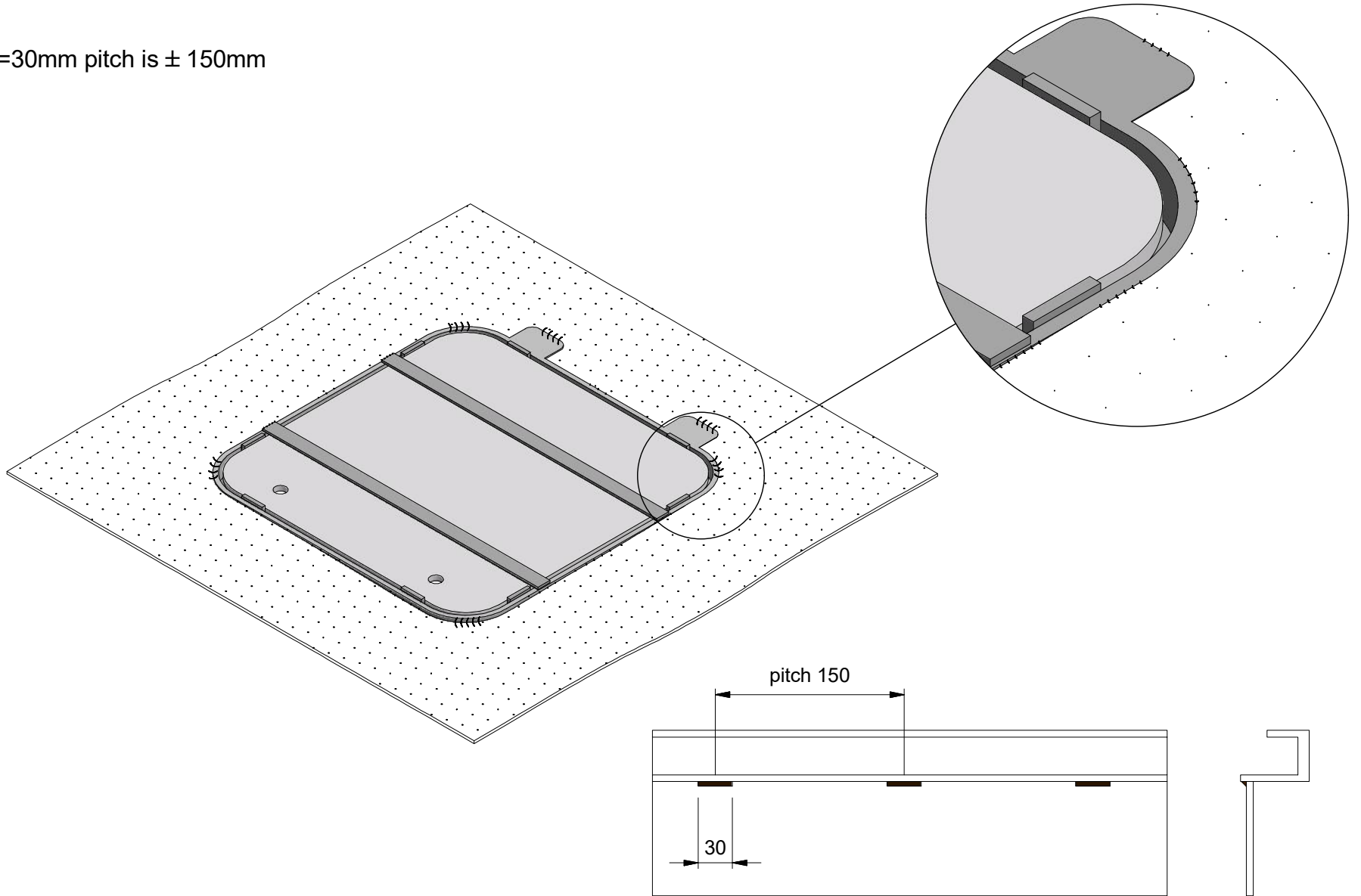


$\text{—} < 1\text{mm/m}$



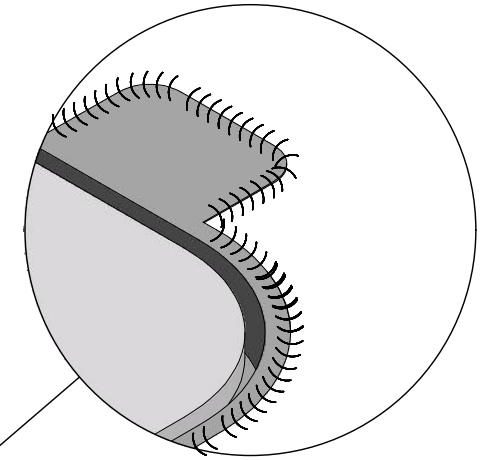
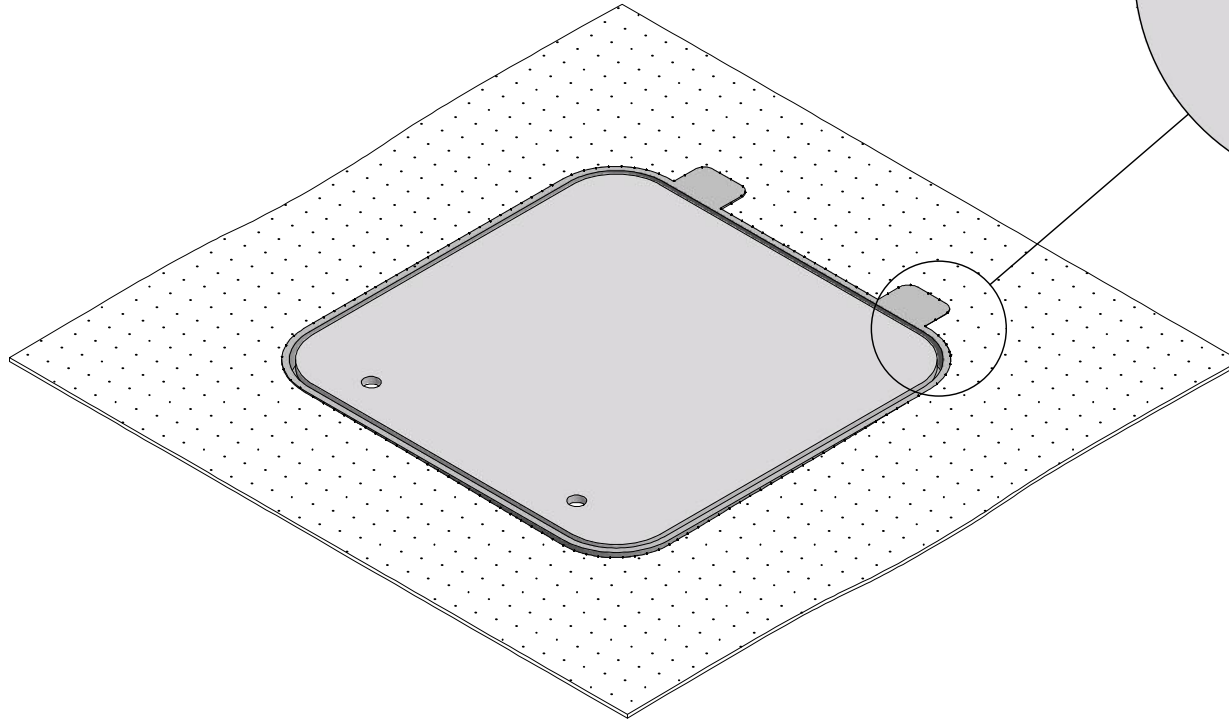
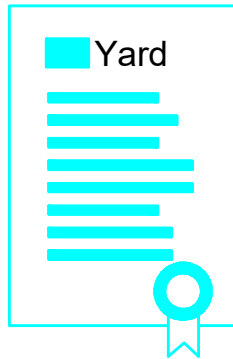
CHECKLIST

- ☐ Tack weld contour L=30mm pitch is ± 150 mm



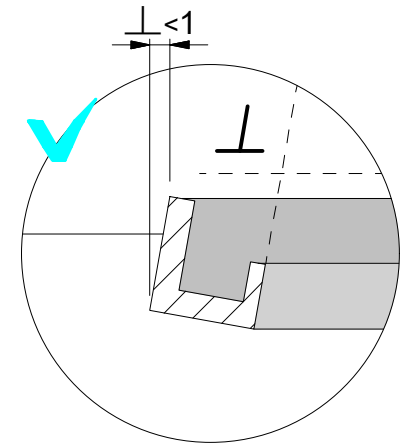
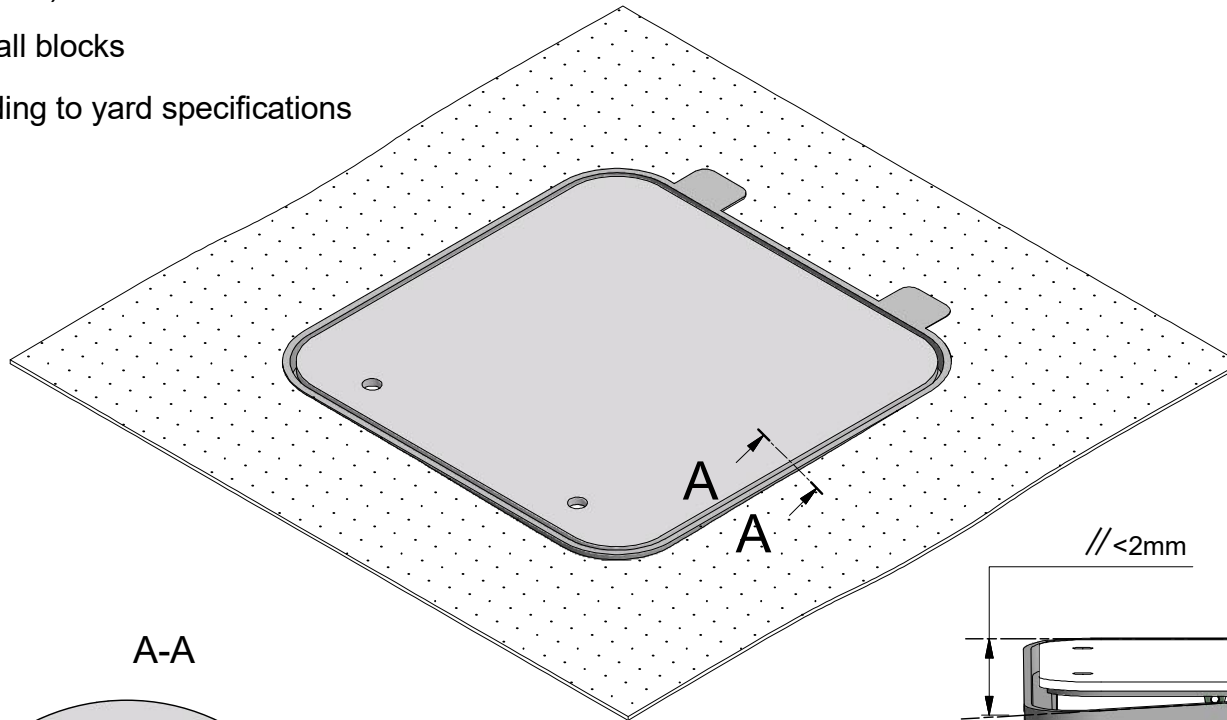
CHECKLIST

- ☐ 1. Weld parameters are according to yard specification
- ☐ 2. Fully weld outside corners
- ☐ 3. Weld crosswise between tack welds to minimize deformation

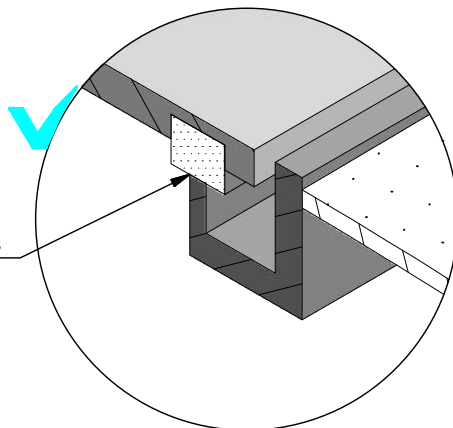


CHECKLIST

- ☐ Frame is parallel ($// < 2\text{mm}$)
- ☐ Frame profile is perpendicular to hatch face ($\perp < 1\text{mm}$)
- ☐ Frame is straight ($\text{—} < 1\text{mm/m}$)
- ☐ Hatch makes contact with all blocks
- ☐ (Weld) finish quality according to yard specifications



A-A



Hatch should 'rest' on all blocks

