

R0015099 Guard panel drilling

Details to drill to suit guard panels

 Difficulty **Medium**

 Duration **6 hour(s)**

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Comments

Introduction

Tools Required

Standard hex key set
Standard Hss drill set
Standard Tap set
Material clamps
Clamping blocks
Drill
Cutting fluid
Marker pen
Hide hammer

Parts Required

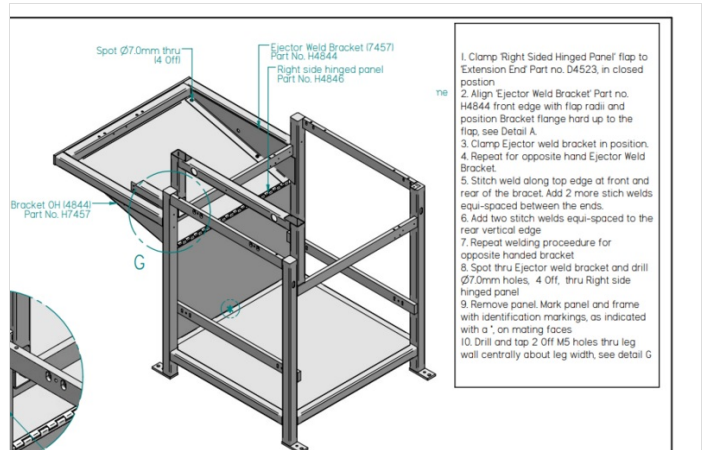
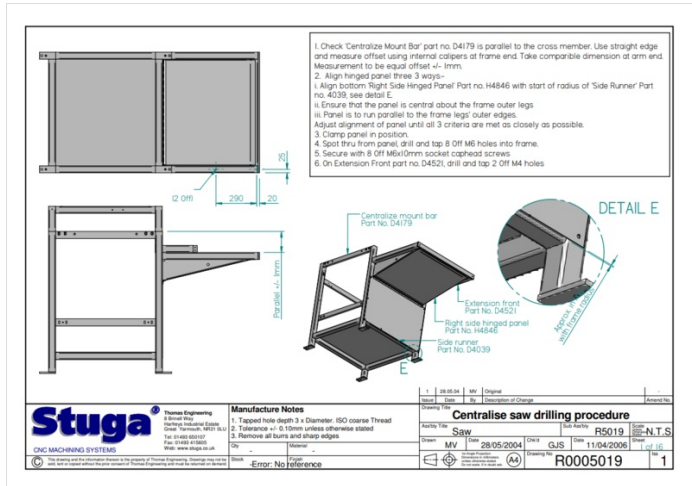
D0000330 Rear Chute Panel (500mm) x 1
D0004391E LF Side Sheet Mk5 (5395E) x 1
D0004576E Saw Centre Frame Mk5 (5343E) Standard Hand x 1
D0010967 Saw Mk5 Undertray x 2
D0015238 Saw Top Hood ZX5 x 1
H0004649 Chute Insert Outfeed (5321) x 1
H0004697 Chute Insert Infeed (5322) x 1
H0004751 Ejector Tray Front (5323) x 1

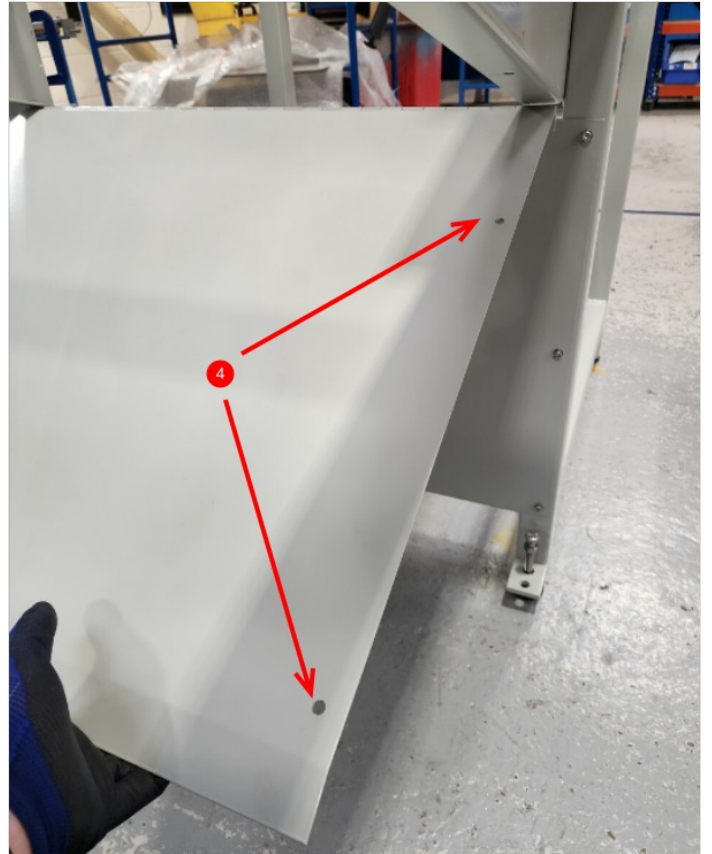
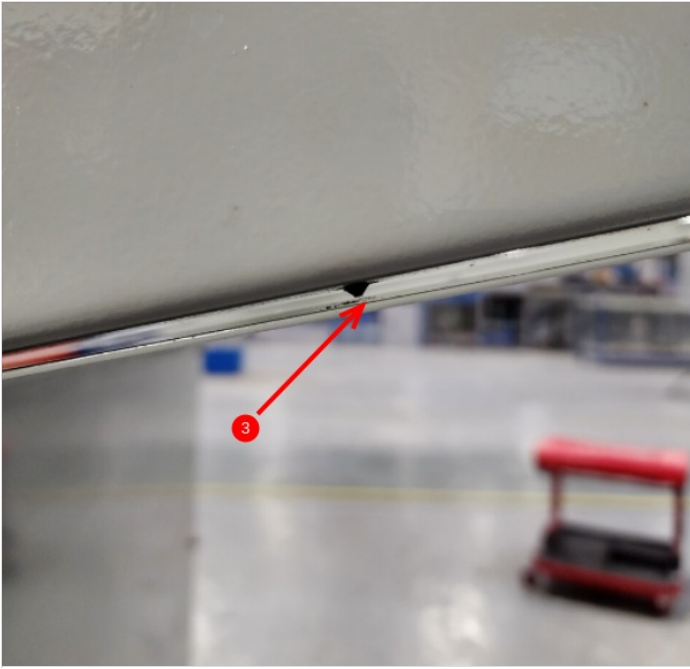
H0004752 Ejector Tray Rear (5324) x 1
H0004846 Right Side Hinged Panel x 1
D0001878 Rear saw door x 1

Step 1 - Drill hinge panel

Drill hinge panel as detailed

- 1 Clamp panel in position equalising edges to frame
- 2 Drill vertical face holes onto frame M6 tapped
- 3 Mark 4 off holes with M6 pointed grubscrew
- 4 Drill 4 off to 7.5 mm
- 5 Check correct drilling by fixing panel with M6 socket caps





Step 2 - Drill Side sheet

1 Clamp panel in place. Set equal position side ways and flush to top face

2 Drill 8 off M6 tapped holes as shown

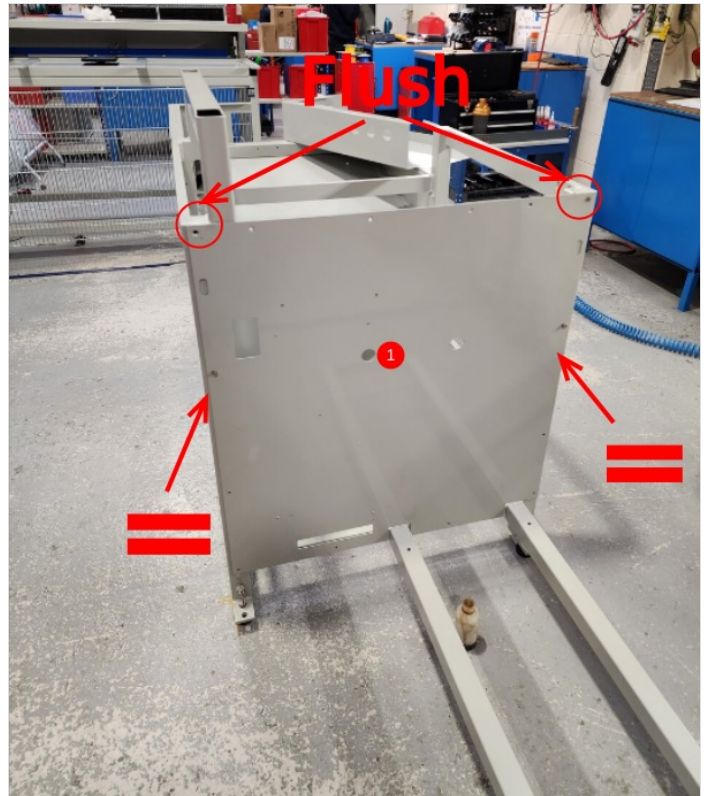
3 Drill and tap M5, then countersink to allow flush fitment of M5 countersunk bolt

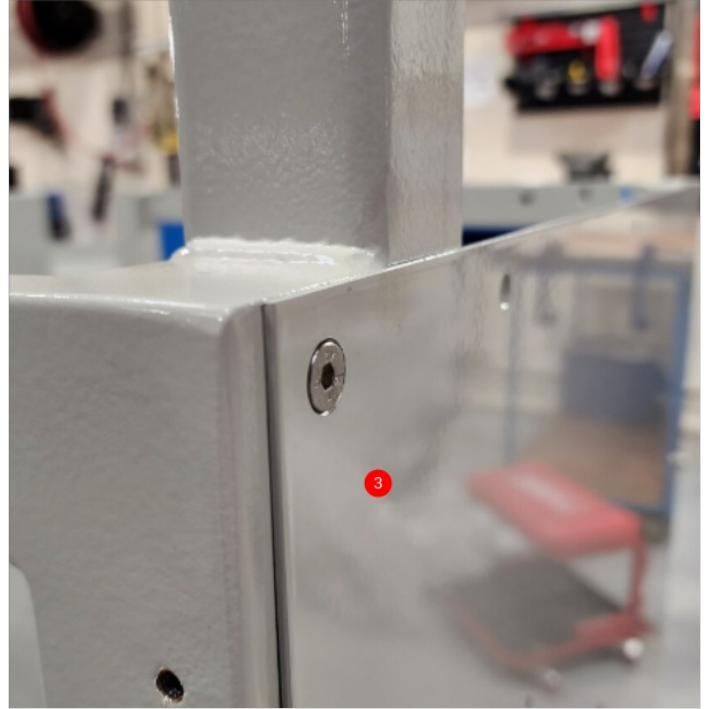
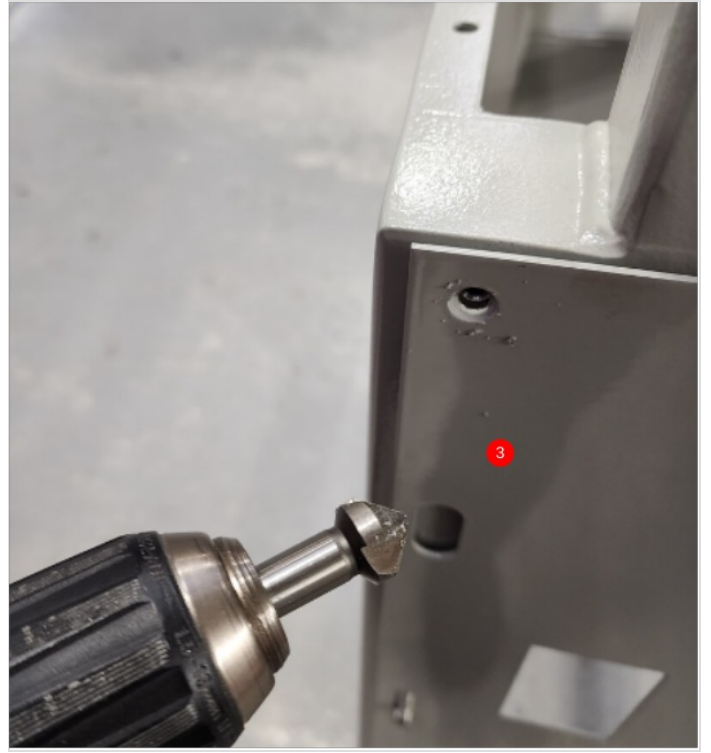
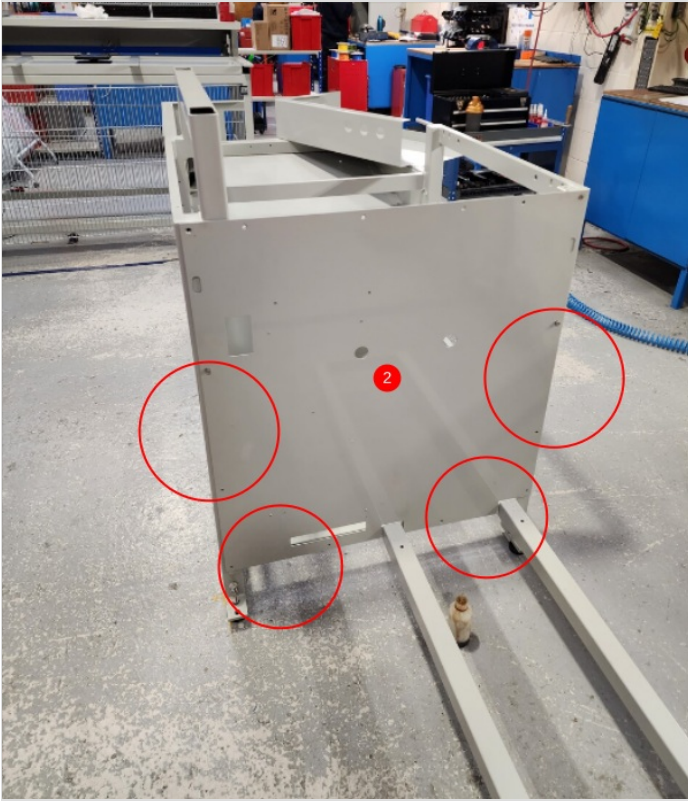
1. Align left side sheet H4391 2mm from top of frame and even about sides, see detail F
 2. Drill and tap 8 Off M6 tapped holes in to frame, spotted thru from panel.
 3. Spot thru top left and right holes, drill and tap M5x12mm deep holes. Countersink into sheet and frame on assembly to bring M5 countersunk screw flush to outer face.
 4. Remove panel. Mark panel and frame with identification marks, as indicated with 'a' on mating faces.

DETAIL F

Left side sheet Part No. 142

<p>Stuga CNC MACHINING SYSTEMS</p>	<p>Manufacture Notes 1. Tapped hole depth 3 x Diameter. ISO coarse Thread 2. Tolerance +/- 0.1mm unless otherwise stated 3. Remove all burrs and sharp edges</p>	<p>Centralise saw drilling procedure</p>
<p>1 28.05.2004 MR Original</p>	<p>28.05.2004</p>	<p>28.05.2004</p>
<p>GLS 11.04.2006</p>	<p>R0005019</p>	<p>1</p>





Step 3 - Drill rear chute and inserts

1 Drill infeed and outfeed chute inserts 1 off M6 tapped per insert
Align as shown

Pictures required please

2 Drill and fit main rear chute as detailed

1. Align chute insert H4697 hard to the underside of Side Bar part no. 04183 and 5mm in from outside of the frame
 2. Spot thru chute insert and drill and tap 1 Off M6 holes thru frame
 3. After fitting hinged Rear Chute Door Part No. H4638, remove panel, Mark panel and frame with identification marks, as indicated with 'c', on mating faces

Side bar
 Part No. 04183

Chute insert infeed
 Part No. H4697

1	28.05.04	MV	Original		
2			Direction of Change		

Stuga Thomas Engineering
 8 Broad Way
 Broomfield Industrial Estate
 Great Yarmouth, Norfolk
 Tel: 01493 832222
 Fax: 01493 832220
 Web: www.stuga.co.uk

Manufacture Notes
 1. Tapped hole depth 3 x Diameter, ISO coarse Thread
 2. Tolerance +/- 0.10mm unless otherwise stated
 3. Remove all burrs and sharp edges

Centralise saw drilling procedure

Activity No: Saw
 Date: R5019
 Drawn: MV
 Date: 28/05/2004
 Checked: GJS
 Date: 11/04/2006
 Drawing No: R0005019
 Page: 8 of 16
 Error: No Reference

1. Align rear chute panel H4639 even about frame and hard up against chute inserts
 2. Spot thru panel to frame, Drill and tap M6 hole
 3. Spot thru chute inserts, Drill Ø9.5mm hole thru panel 14, Off
 4. Fit 4 Off M6 hornbushes on underside of rear panel chute
 5. Fix panel to inserts with 4 off M6x10mm long caphead screws
 6. After fitting hinged Rear Chute Door part no. H4638, remove panel, Mark panel and frame with identification marks, as indicated with 'c', on mating faces

Rear chute panel
 Part No. H4639

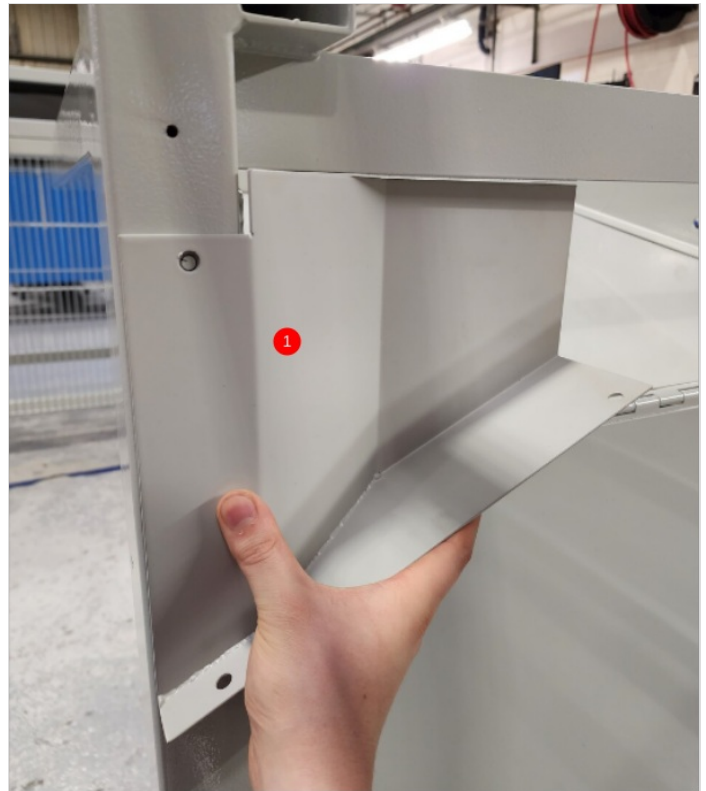
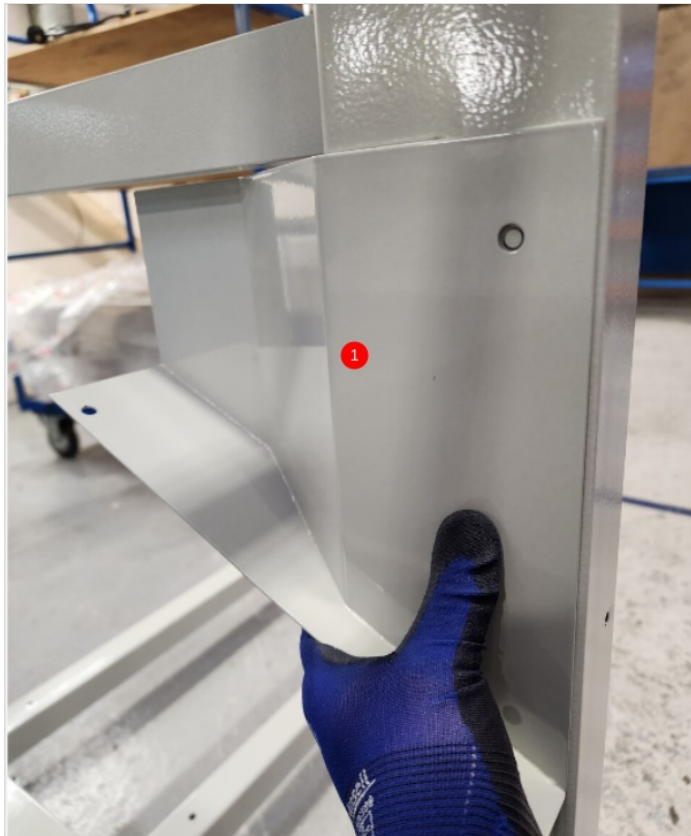
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2			Direction of Change		

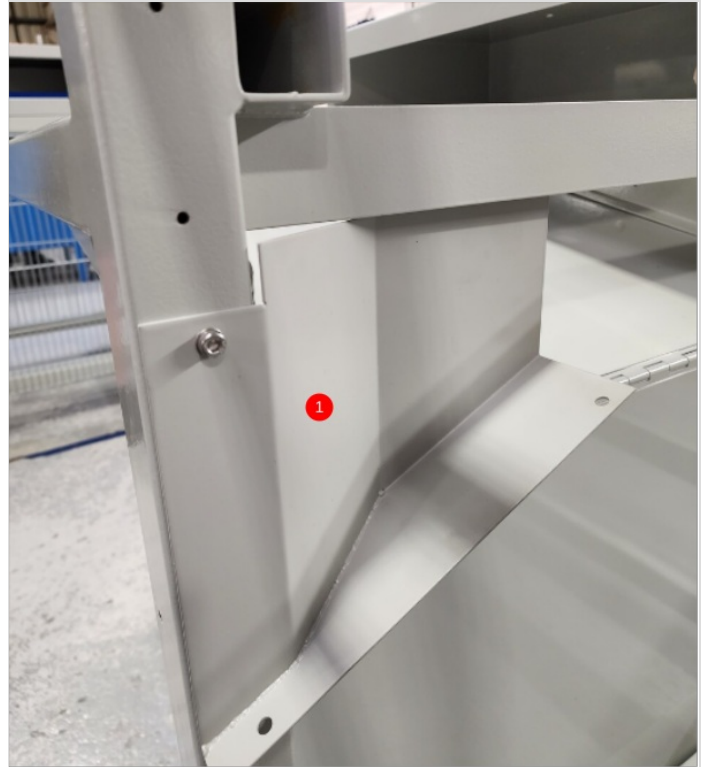
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Centralise saw drilling procedure

Activity No: Saw
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 Drawn: MV
 Date: 28/05/2004
 Checked: GJS
 Date: 11/04/2006
 Drawing No: R0005019
 Page: 8 of 16
 Error: No Reference





Step 4 - Drill rear door

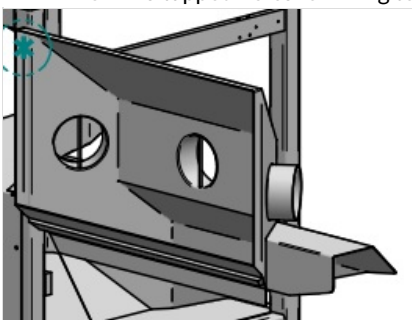
1 Position door above rear chute panel

Pictures of below required please

2 Align height so inner door lip is below chute panel lip

3 check to of door is above frame top crossmember

4 Drill 4 off M6 tapped holes for fixing to frame





Step 5 - Drill rear tray

Set rear tray flush with all edges shown

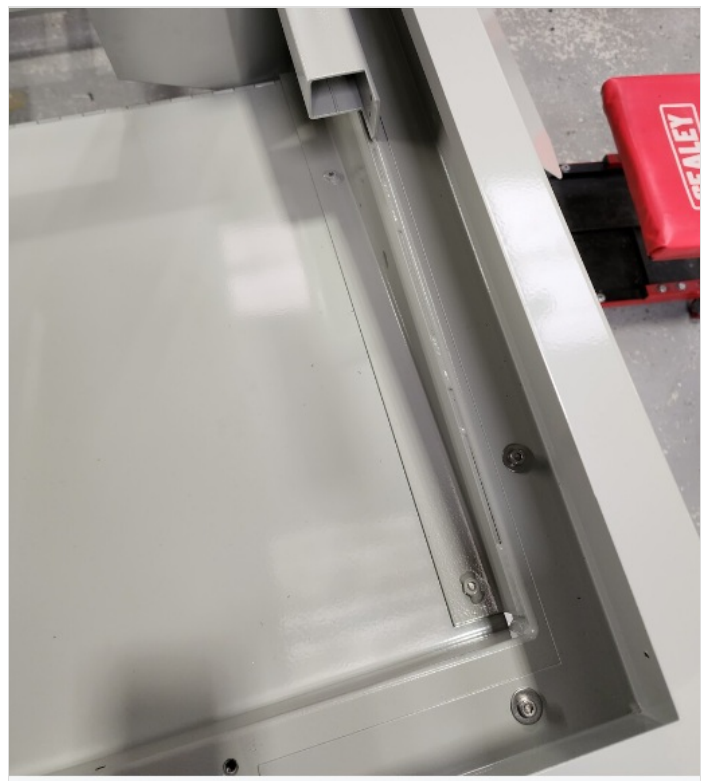
Mark and drill Panel M6 tapped,

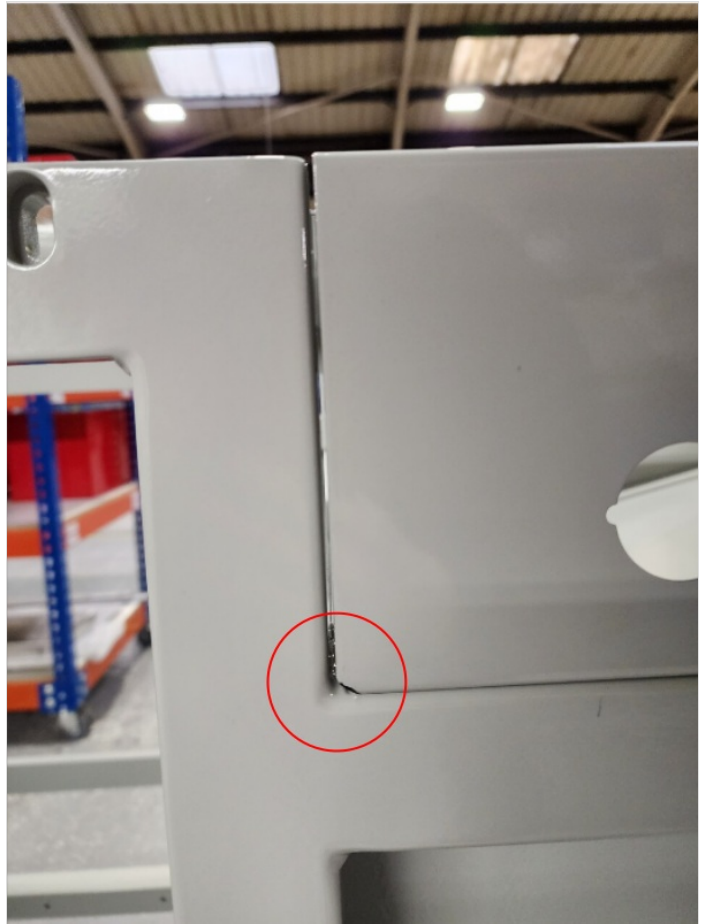
1 To be flush to or below surface
2 To be flush with arm
Ejector tray rear Part No. 14752

Rear View End View

- Align Ejector tray rear face with rear face of welded frame arm, see End View
- Align Ejector tray end face with or below end face of welded frame arm, see Rear View
- Spot thru Ejector tray, drill and tap frame with tray
- Fix tray using 3 Off M6x10mm long capped screws and penny washers
- After completing hood installation, remove panel, Mark panel and frame with identification marks, where indicated with '1', on mating faces

1	28.05.04	MY	Original					
2			Revised					
<p>Stuga Thomas Engineering 8 Broad Way Southchurch Road Tel: 01442 820225 Fax: 01442 820226 Web: www.stuga.co.uk</p> <p>Manufacture Notes</p> <ol style="list-style-type: none"> Tapped hole depth 2 x Diameter, ISO coarse Thread Tolerance +/- 0.10mm unless otherwise stated Remove all burrs and sharp edges <p>Centralise saw drilling procedure</p> <p>Activity No: Saw Part No: R5019 Rev: N.T.S. Date: 28/05/2004 Drawn: GJS Date: 11/04/2006 Part of 15 Project: Drawing No: R0005019 Page 1 of 1</p> <p>Check: Error: No reference</p>								







Step 7 - Fit top hood and position

1 Lift hood onto frame

2 Clamp hood into position, ensuring all faces are set flush with frame

1. Clamp straight edges flush to the inner faces of parts 4178 backfence mount bar and 4179 Centralise mount bar, with top edges protruding over frame top edge.
2. Place hood on to the top of the welded frame with the inner face hard against 4559 Frame trunking left, the straight edges will prevent the inner top protruding inside the frame.
3. The hood must be aligned so that it looks aesthetically correct, square to the frame and flush to Left Side Sheet 14539 and all other faces, whilst remaining hard against 4559
4. Clamp in position.
5. Spot thru Backfence Mount Bar Part No. D4179, 2 Off and Centralise Mount Bar, 2 Off to Top Guard Fabrication Part No. H4441 (see detail D)
6. Spot thru Top Guard Fabrication Part No. H4441 to Ejector tray front Part No. H4752, 2 Off (see detail D)
7. Spot thru Top Guard Fabrication Part No. H4441 to Ejector tray rear Part No. H4752, 2 Off
8. Remove Top Guard Part No. H4441, drill and fit M6 holes, 4 Off
9. In Top Guard Fabrication Part No. H4441, drill and fit M6 holes, 4 Off
10. In Ejector Tray Front Part No. H4751, drill and fit M6 hornbushes, 2 Off
11. In Ejector Tray Rear Part No. H4752, drill 27.0mm holes thru, 3 Off
12. Use spots made in step 7

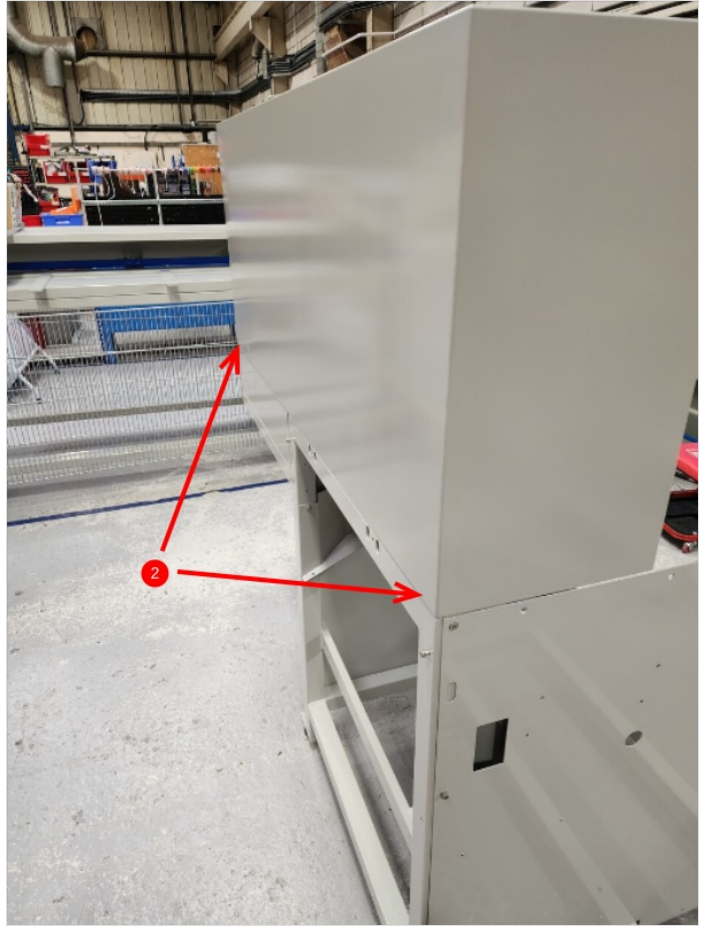
DETAIL D

1. Tapped hole depth 3 x Diameter, ISO coarse Thread
 2. Tolerance +/- 0.10mm unless otherwise stated
 3. Remove all burrs and sharp edges

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1. Position hinges on Top Door Part No. H4449 as detailed.
2. Spot thru hinges, Drill and tap M4 thru, 4 Off
3. Fix hinges to door using M4x2mm long buttonhead screws, Form A washers and hexagonal nuts, 4 Off
4. Measure and scribe centreline on door
5. On Top Guard Fabrication Part No. H4441, measure fascia cutout and scribe centreline on lower face of Top Guard cutout
6. Measure and scribe a horizontal line 368mm from lower face fold
7. Measure and scribe a vertical line 160mm from the outer face
8. Offer up Top Door Part No. H4449 to Top Guard Fabrication Part No. H4441, in an open position
9. Align hinge upper holes, 4 Off with the 368mm horizontal line and the middle hinge hole on the left hand door hinge with the 160mm vertical line. Clamp hinges in position and close door
10. Check alignment of door centreline in relation to Top Guard centreline. If not in line adjust door HORIZONTALY ONLY moving door along 368mm line to align centrelines. Reclamp hinges once alignment is correct
11. Spot thru hinges to Top Door Fabrication. Drill and tap M4 holes thru 6 Off. Fix hinges using M4x2mm long buttonhead screws, M4 form A washers, M4 shakeproof washers and M4 hexagonal nuts, 4 Off
12. After completing door installation, remove door. Mark panel and frame with identification marks, where indicated with 'a' on mating faces.
13. Position Door Latch drill jig on Top Guard Fabrication aperture low edge and align jig centreline with Top Guard centreline. Clamp in position.
14. Drill 2 Off Ø5mm holes and 1 Off Ø14 hole thru jig and remove. Re-drill Ø14 hole to Ø10mm. Using hole punch 'a'

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Step 8 - Mark Fixing points

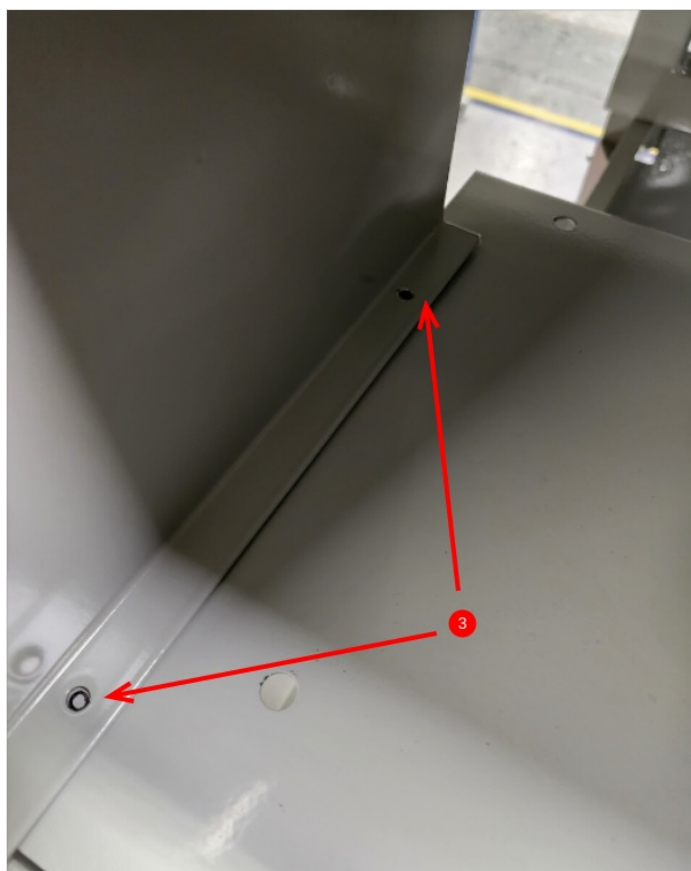
1 Mark 4 off fixing points with 7.5mm drill

2 Mark 3 off rear hood points by using M6 x 10 pointed grubscrews , winding into lower panel and impacting with hammer

3 Set top hood position even to front tray

4 Remove hood from frame

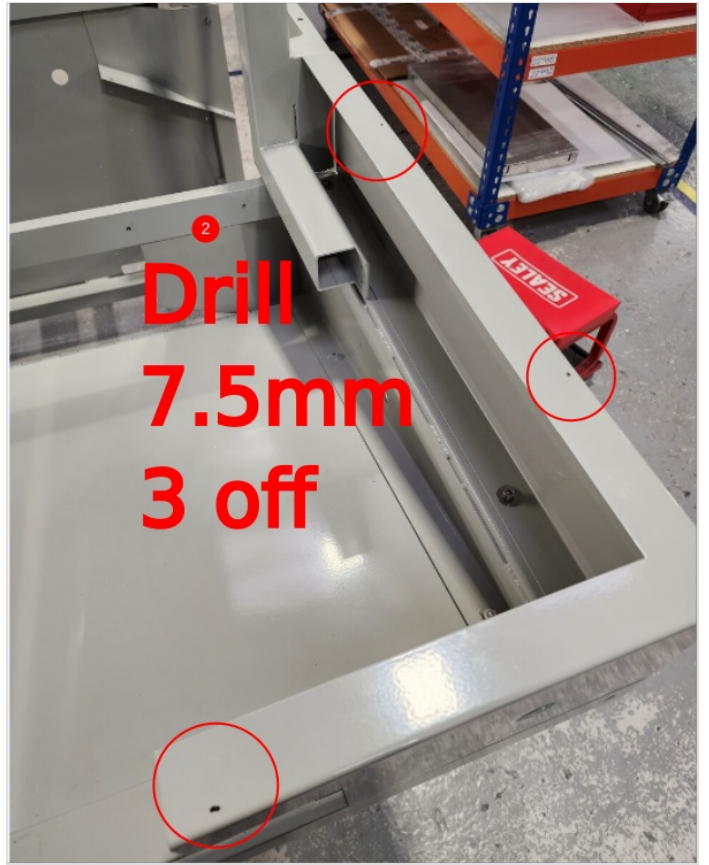
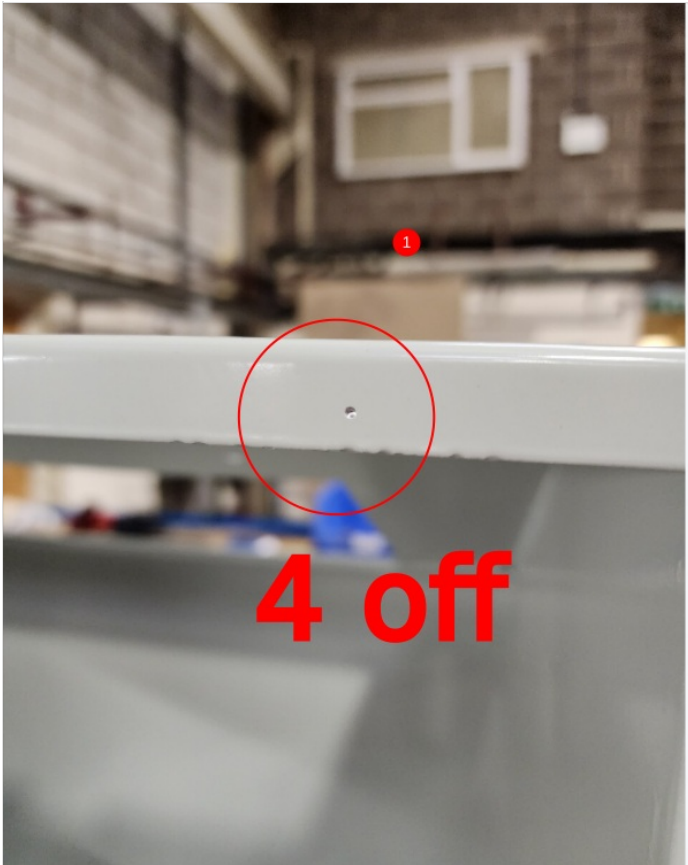




Step 9 - Drill hood and rear tray

1 Drill 4 off marked holes on hood to M6 tapped , add small countersink to face indicated to aid fitment to frame

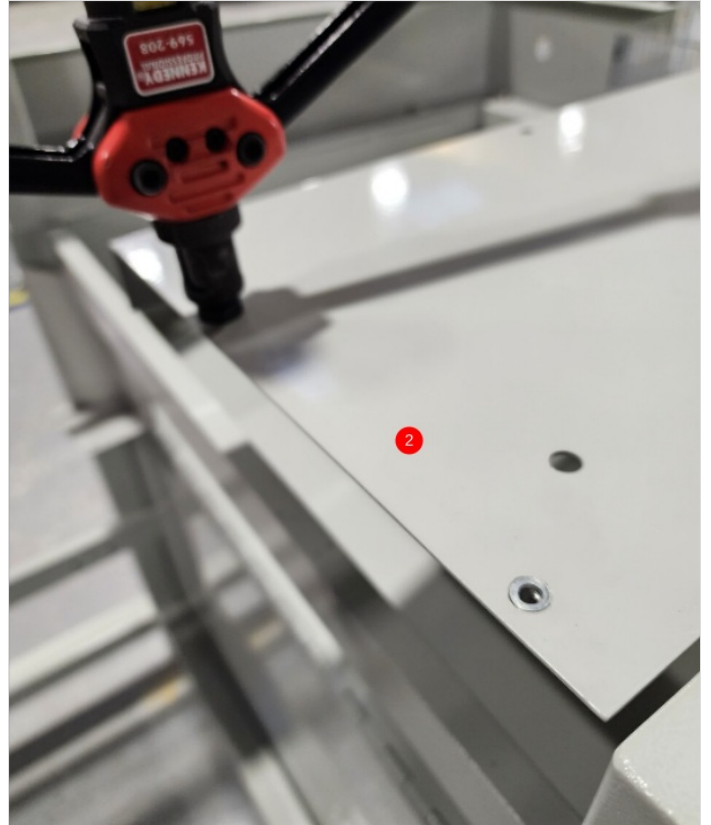
2 Drill rear tray to 7.5mm at points indicted by grub screws



Step 10 - Drill and add rivnut Front tray

1 Drill marked positions to correct core size (please provide size) for M5 rivnut. Add small countersink to hole to allow flush fitment

2 Use rivnut applicator to insert and fix 2 off M5 rivnuts



Step 11 - Remove all fitted panels

Remove all panels

Clean all swarf from frame and clean paintwork



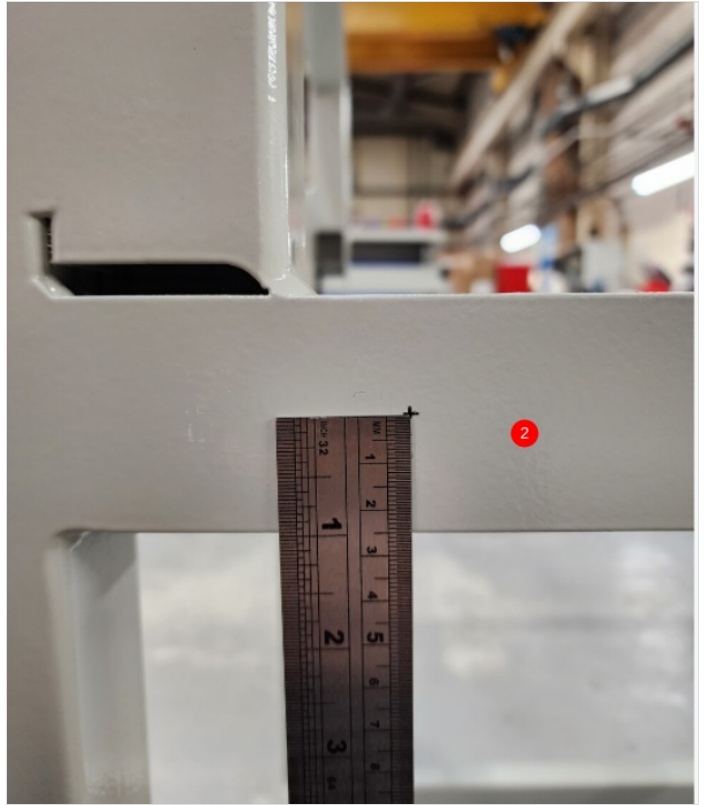


Step 12 - Drill additional tie base

Drill and tap additional M5 at point indicated, drill through

1 position 125mm

2 position 25mm





Step 13 - Fit stainless undertrays

1 Fit 16 off M8 x 16 socket caps with M8 A form washers at the points indicated. Add loctite 243 as fitting bolts

Leave enough clearance for trays to slot over

2 Position stainless trays as shown

3 Adjust height of trays to fit flush with top of frame and finalise bolts to secure

