R0015311 Install and Align Datum rollers

Fitting and alignment details

Difficulty **Hard** | Duration **4 hour(s)**

Contents

Introduction

Tools required

Standard hex key set
2 meter straight edge
1 meter straight edge
12" engineers level
12" inch engineers square
Feeler gauge set

Parts Required

R0015297 Mount V Notch Datum rollers

Step 1 - Unless otherwise stated

Use locktite 243 on all fasteners
Use loctite 572 on all threaded pneumatic connection
Pen mark all fasteners to show finalised

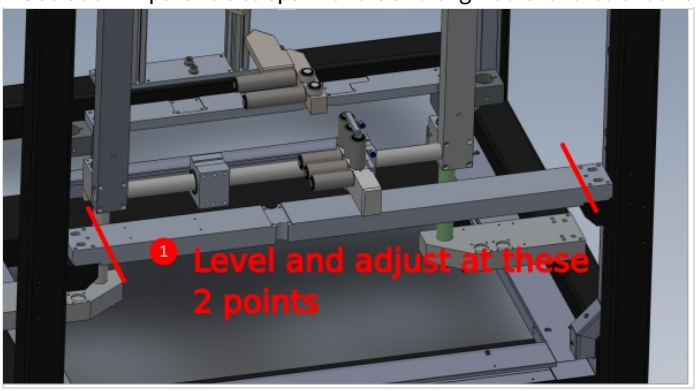
Step 2 - Level Infeed datum rollers

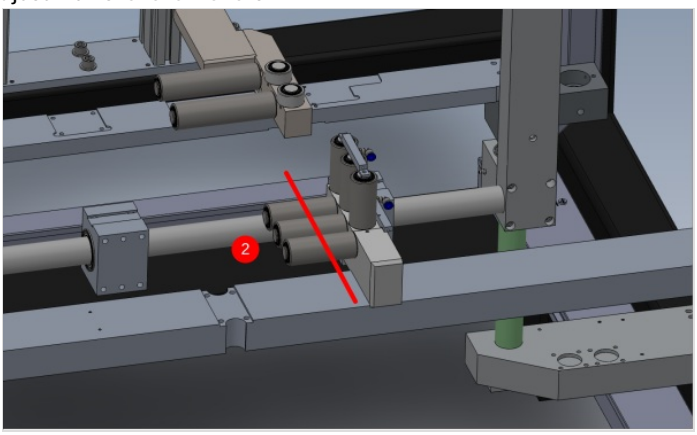
1 Level On X axis using engineers level and adjusting grubscrews in indicated areas

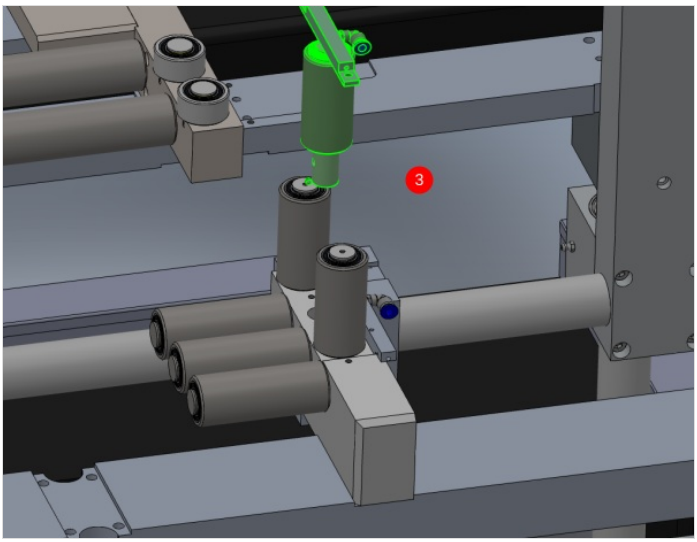
2 Level from Rollers at indicated point. Adjust previous level points evenly to adjust level reading on rollers

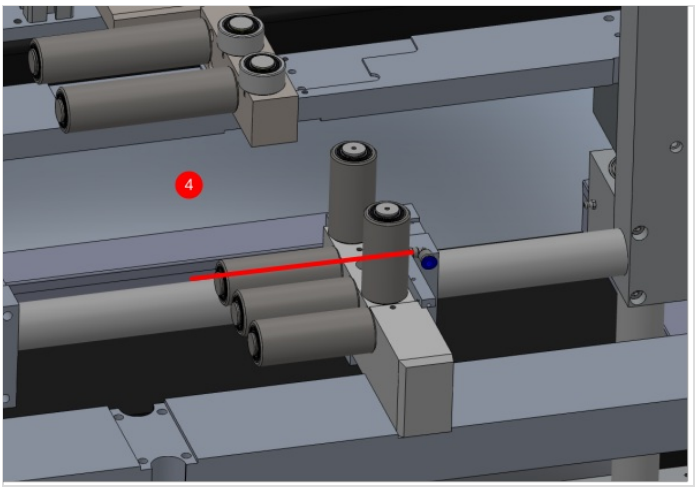
3 Remove Middle roller and top blower

4 Use 300mm parallels to span rollers and engineers level to check and adjust Y axis level of rollers







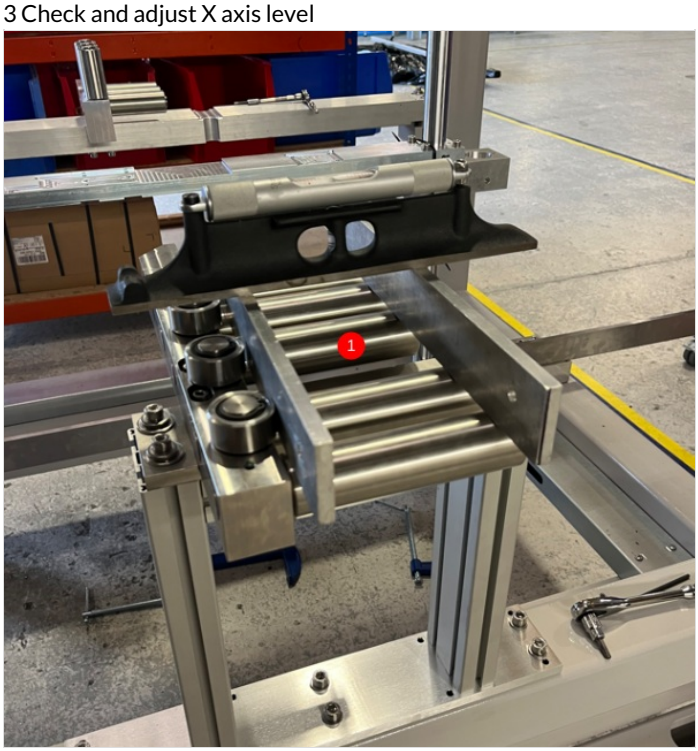


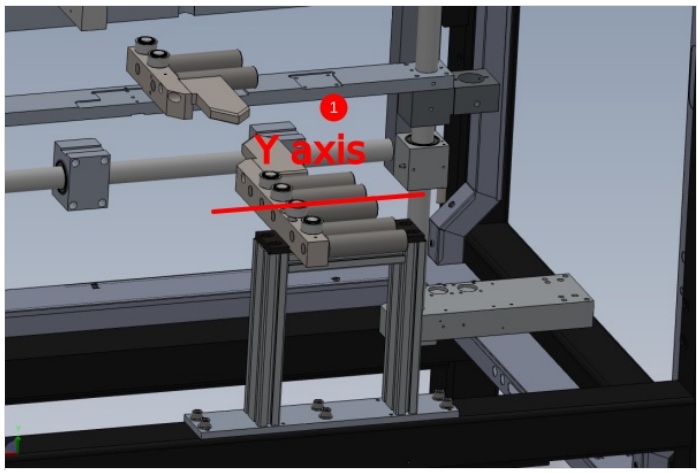
Step 3 - Level V notch datum rollers

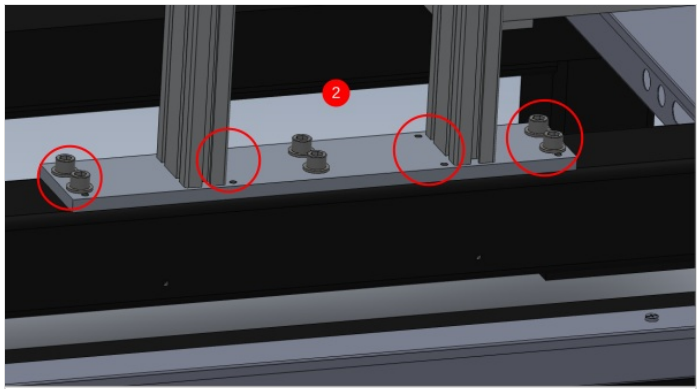
1 Level Y axis with engineers level and 300mm parallels.

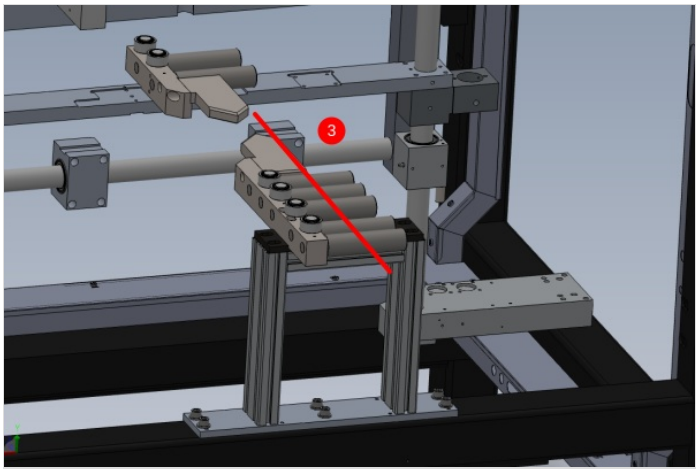
2 Adjust using M8 flat bottom jacking grubscrews

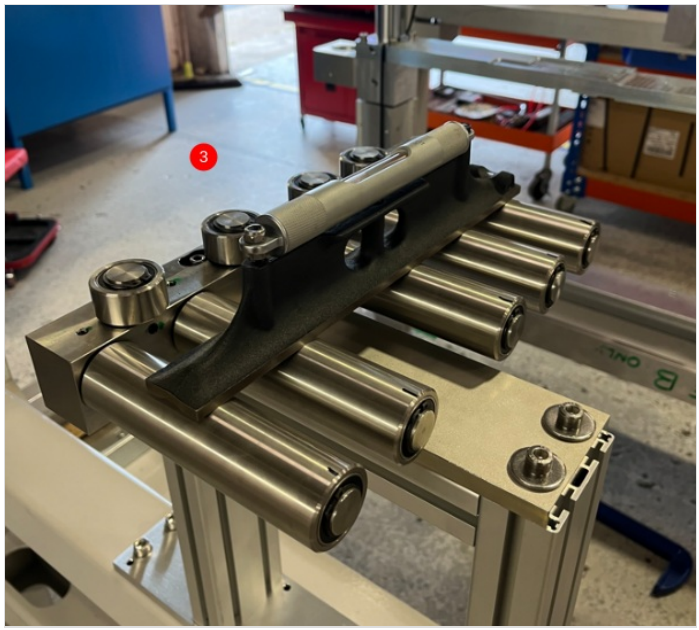
3 Check and adjust X axis level









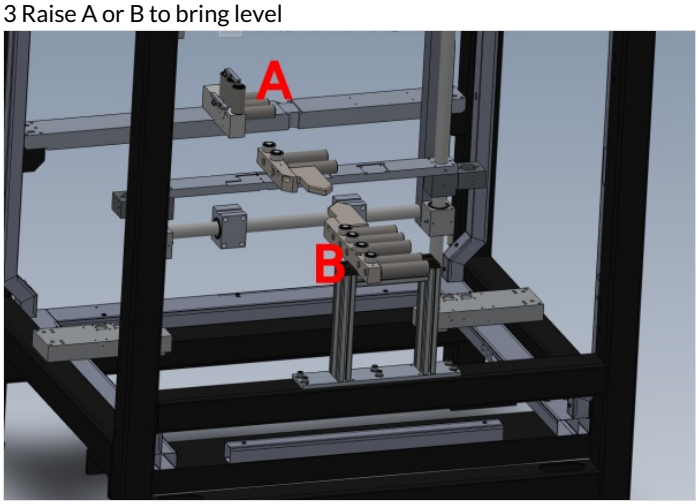


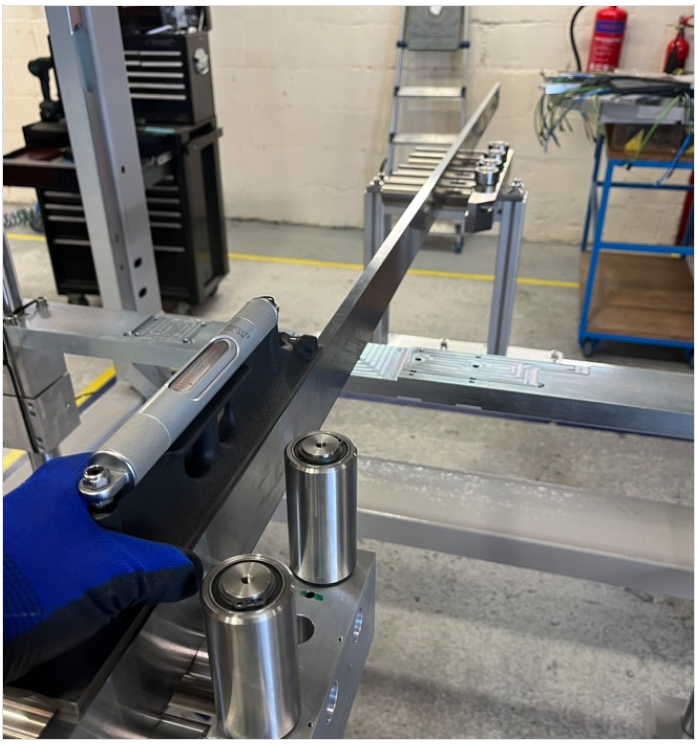
Step 4 - Level between rollers

1 Use a 2 meter straight edge to span between rollers A and B

2 Use engineers level on straight edge to identify if either A or B is the low point

3 Raise A or B to bring level



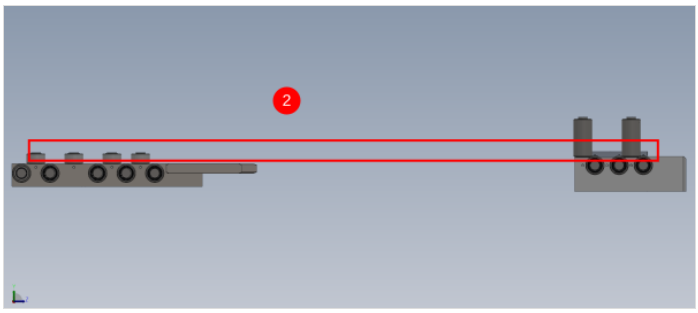


Step 5 - Check alignment and levels

1 Check all levels again after adjusting rollers A and B

2 Use 2 meter straight edge and feeler gauges to check alignment of rollers and cut table

Adhere to tolerance of - 0.002"



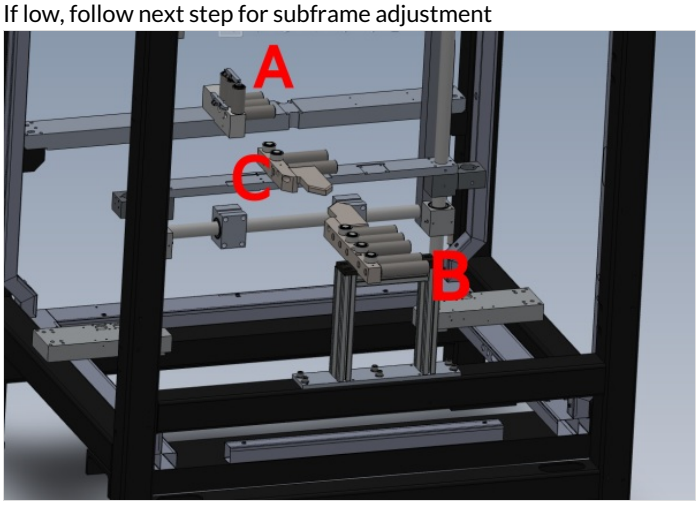
Step 6 - Adjust Roller C

Span from roller A to B with 2 meter straight edge

Identify if roller C is high or low

If high, increase height of rollers A and B and re set levels

If low, follow next step for subframe adjustment



Step 7 - Subframe adjustment

This step is required is centre rollers C require lifting

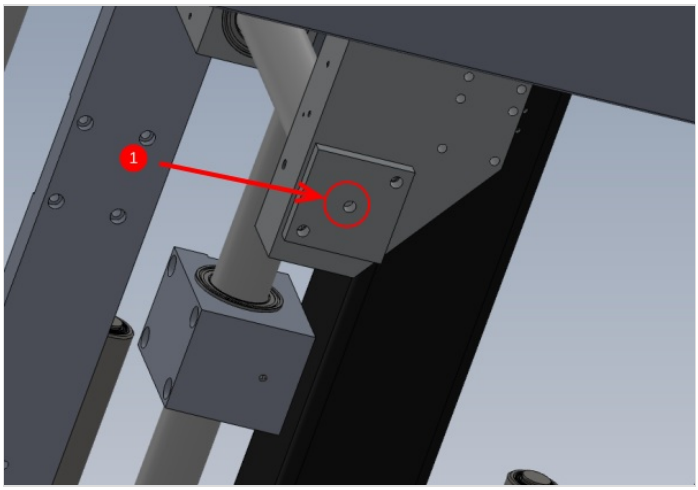
1 Release lock nut on plate 2 off

2 Release M8 grubscrew 2 off

3 Release M12 socket caps 4 off

4 Adjust in equal turns M10 jacking grubscrews

Re level and tighten subframe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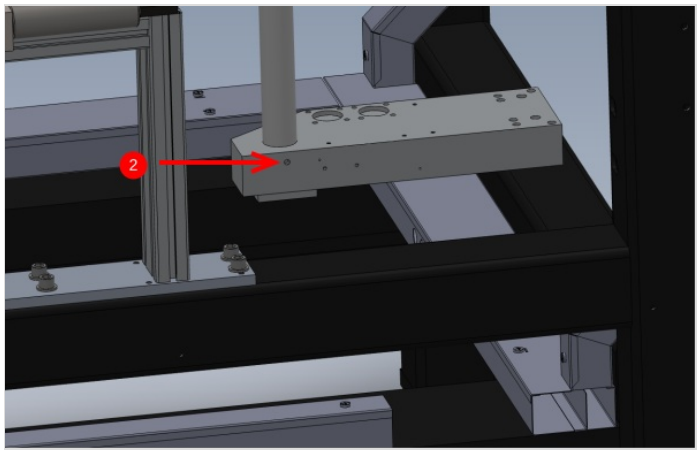
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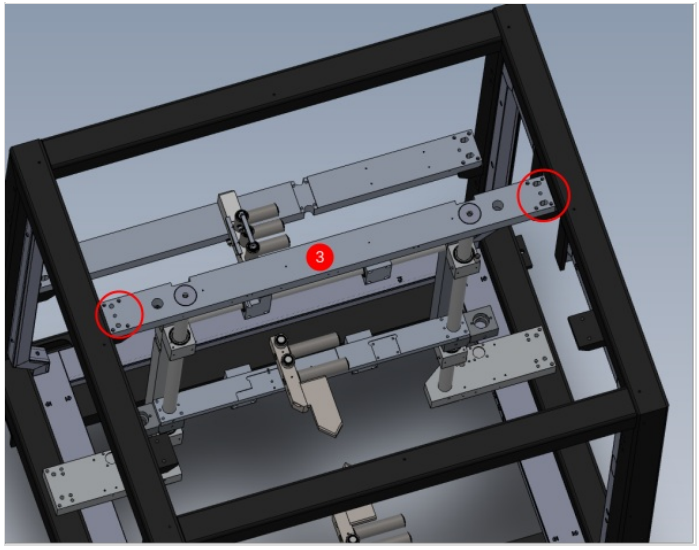
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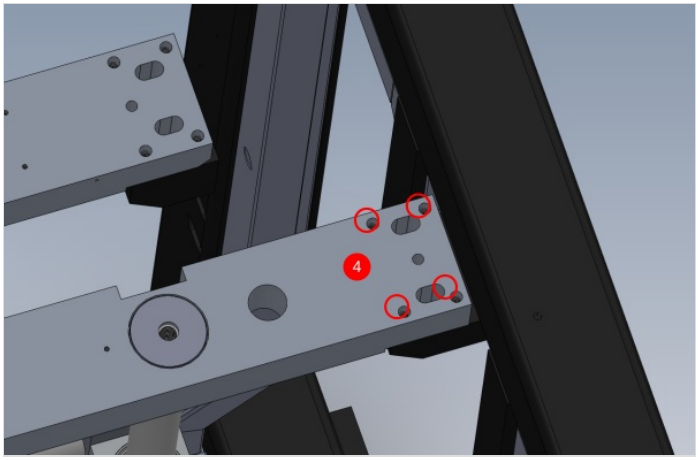
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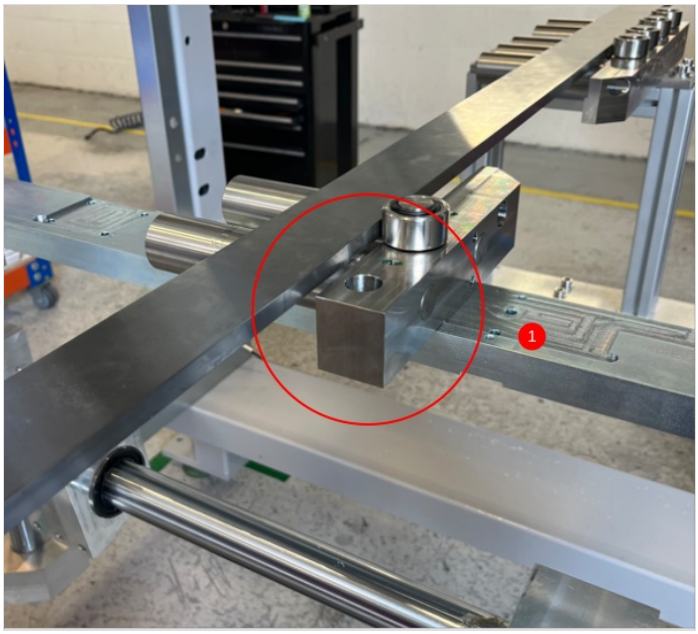
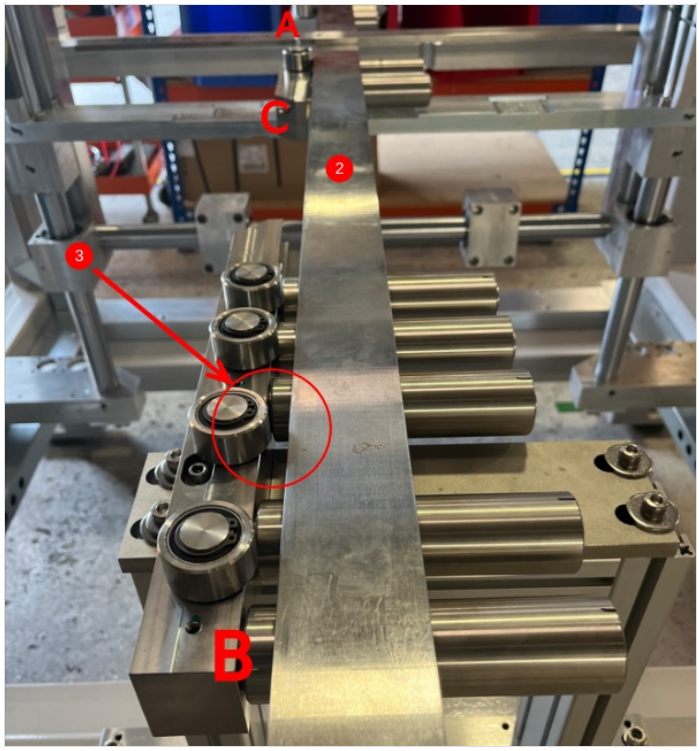
Step 8 - Backfence roller alignment

1 Remove roller from clamp C as shown

2 Use 2 meter straight edge as shown, pushed against roller A and C

3 Ensure Rollers B are moved away from straight edge

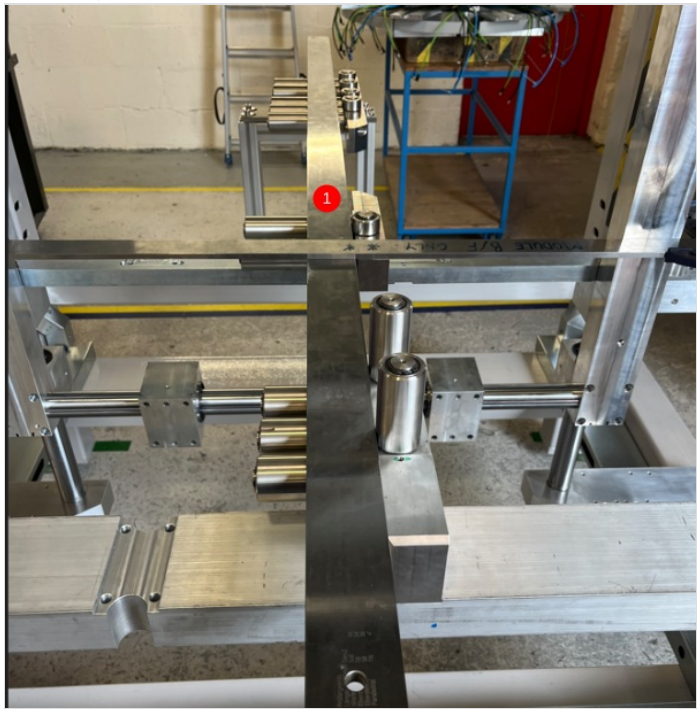




Step 9 - Squareness Check

1 Use 1 meter straight edge as shown, and hold in position against z axis support blocks

2 Check as shown with engineers square to asses squareness of sub frame to clamps

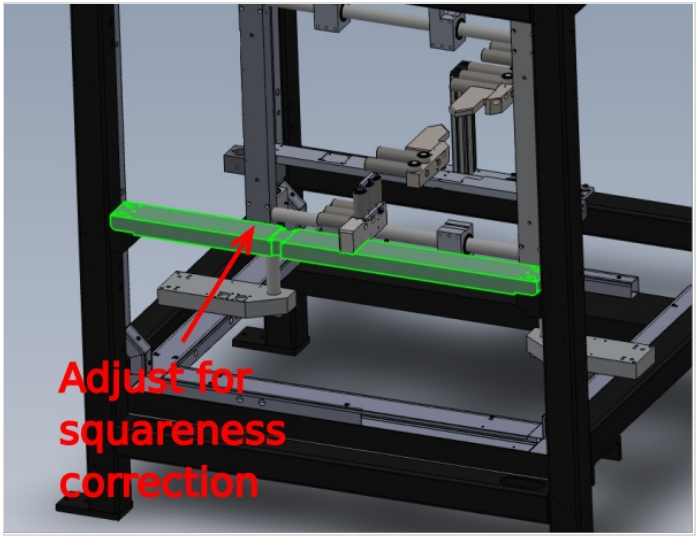


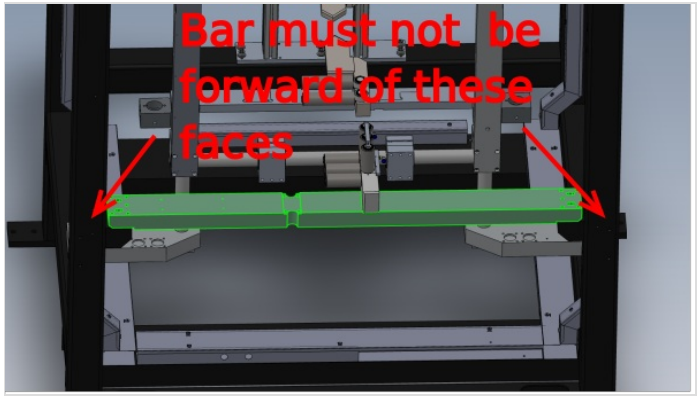
Step 10 - Adjusting squareness

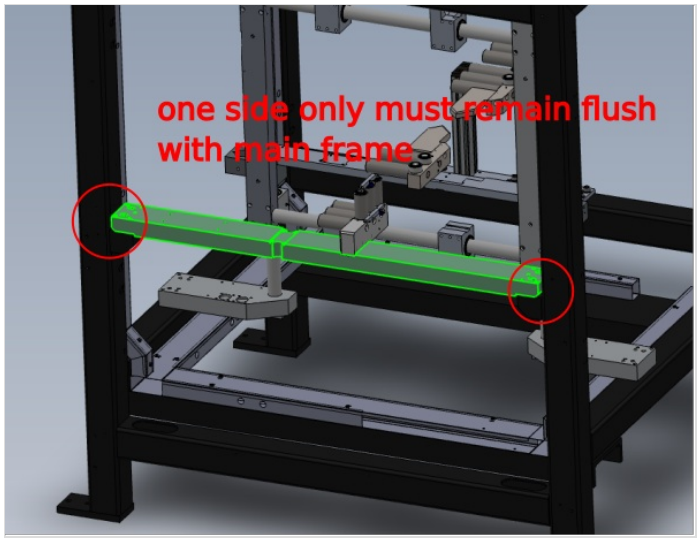
To adjust squareness, indicated bar must be adjusted

Always ensure when adjusting that the following is observed

- Indicated bar must not protrude Exterior face of main frame
- One side of bar must always remain flush with main frame



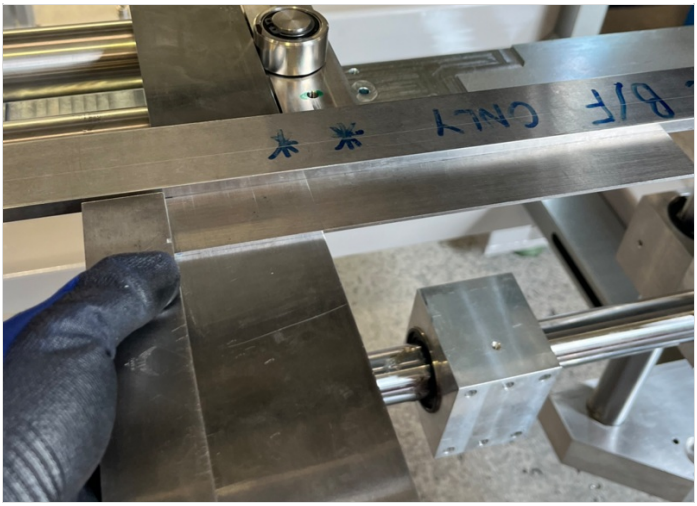




Step 11 - Confirm squareness

Squareness of datum faces to sub frame must be set with no tolerance.

Perfect squareness should be achieved



Step 12 - Cut tables

Cut tables must be fitted during this alignment. This will ensure cut tables are accurately set and and any dicrepancies will be identified at this stage .

Please ensure all tolerances of maximum 0.002"/0.05 mm is adhered to all times on set up

Step 13 - Recheck levels and alignment

Recheck all levels and alignment of rollers in all aspects once squareness setting has been performed. These settings are possible to change after front bar has been adjusted

Step 14 - Align datum B rollers

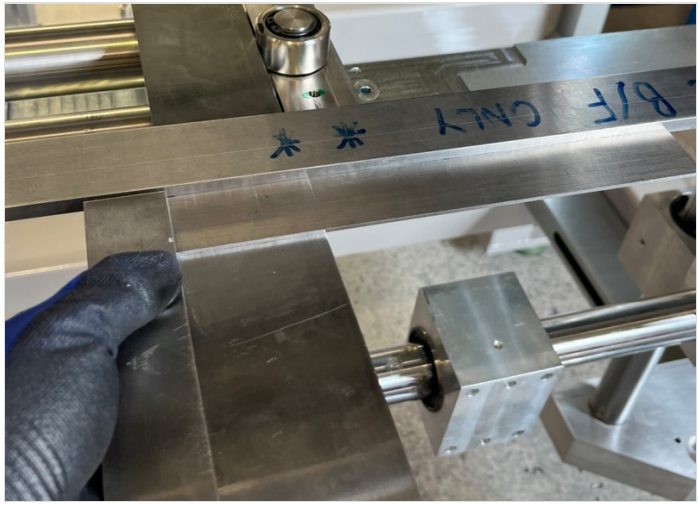
Datum rollers B can now be aligned using A and C as the Datum

With the 2 meter straight edge against A and C, adjust B to alignment is achieved on back fences

Check with 0.002" feeler gauge on all rollers when setting

Step 15 - Recheck squareness

Squareness must be rechecked once Datum rollers B have been aligned , using the same check as step 9



Step 16 - Finalise Datum C

Datum C now requires roller refitting and repositioning

1 Refit roller

2 Slacken 2 off M6 fasteners that hold Roller assembly C in place

3 Ensure straight edge is firmly against roller assemblies A and B

4 Position and Tighten Roller assembly C to align with 2 meter straight edge

5 Check with 0.002" feeler gauge that all rollers are aligned and in tolerance

Step 17 - Quality check

Ensure once set, all levels and alignment covered in this procedure, as double checked and confirmed as correct

Supervisor sign off required

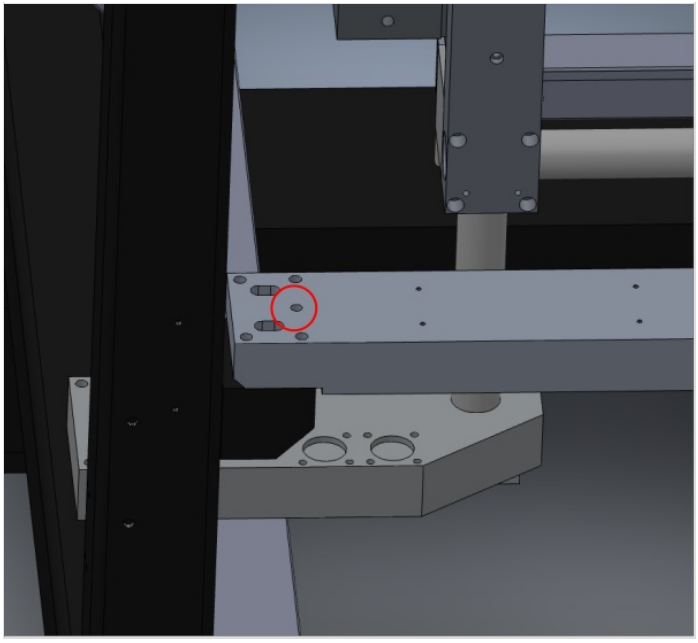
Step 18 - Dowel front bar

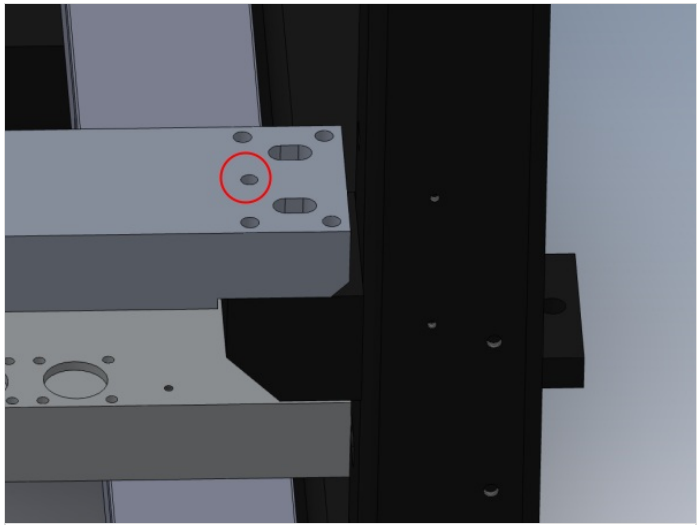
Front Bar indicated requires doweling in position

1 Drill 9.5mm to a depth of 25mm into steel support tab at the 2 indicated points

2 Open holes to 10mm diameter

3 Insert 2 off 10mm x 60mm spiral pins to fix position . Ensure dowel is sitting equally between clamp bar and steel support





Step 19 - Refit Datum A roller and blower

Once dowelling and sign off is complete, remove roller and blower from datum A should be refitted and fasteners finalised .