


R0015046 Bench Assemble Infeed Clamps

Instructions to bench assemble infeed clamp assembly

 Difficulty **Medium**

 Duration **3 hour(s)**

Contents

Introduction

Step 1 - Unless otherwise stated

Step 2 - Fit bearings to main blocks

Step 3 - Check fitment of the following rollers

Step 4 - Check fit of shafts in bearings

Step 5 - Degrease and bearing fit

Step 6 - Fit shafts

Step 7 - Fit z block

Step 8 - Attach cylinder

Step 9 - Fit z roller plate

Step 10 - Mount low rollers

Step 11 - Assemble top roller Block

Step 12 - Attach shafts and mount

Step 13 - Fit cylinder extension

Step 14 - Attach shaft strap

Step 15 - Attach cylinder

Step 16 - Adjust alignment for correct operation

Step 17 - Ensure correct position

Step 18 - Assemble profile stop cylinder

Step 19 - Attach to main assembly

Comments

Introduction

Tools Required

Standard hex key set

Standard spanner set

External circlip pliers

Grease for lubrication M0000494

Parts Required

B0000062 Circlip 20mm External x 2

B0000070 Linear Bearing: Ø25 x 40 Compact (Metal Case Only) x 8

B0001176 Washer :bearing shim x 3

D0000209 Shaft Strap (D8709) x 1

D0000211 Cylinder Extension x 1

D0001331 Roller Ø40 x 27 c/w bearing x 3
D0001334 Roller Ø40 x 102 c/w bearing x 2
D0003108 Shaft 20mm: 146mm Clamp Roller Shaft x 2
D0003788 Z Roller Pin (40mm) x 3
D0007680 Infeed Rail x 1
D0007774 Top Roller Block x 1
D0007792 Z Roller Block (D8711) x 1
D0007793 Z Roller Plate (D8710) x 1
D0015427 MC Hold Clamp Bar x 1
D0015428 Top Clamp Block Ø30 15 x 1
H0007773 Shaft 25mm: 268mm ZX Infeed Clamp Top x 2
H0007791 Shaft 25mm :250mm ZX Infeed side x 2
P0000007 Straight Adaptor 6mm - 1/8 BSP tapered thread x 1
P0000010 elbow 6mm 1/8 fitting x 1
P0000200 Elbow Adaptor 6mm - M5 x 2
P0000484 Cylinder 32 x 100 stroke x 1
P0001160 Cylinder 32 x 70 stroke x 1
P0001198 Fitting: flow control 1/8 x 6mm elbow x 4
M0000253 anti slip pad 22mm x 1

Step 1 - Unless otherwise stated

Use loctite 243 on all fasteners

Use loctite 572 on all threaded pneumatic connection

Pen mark all fasteners to show finalised

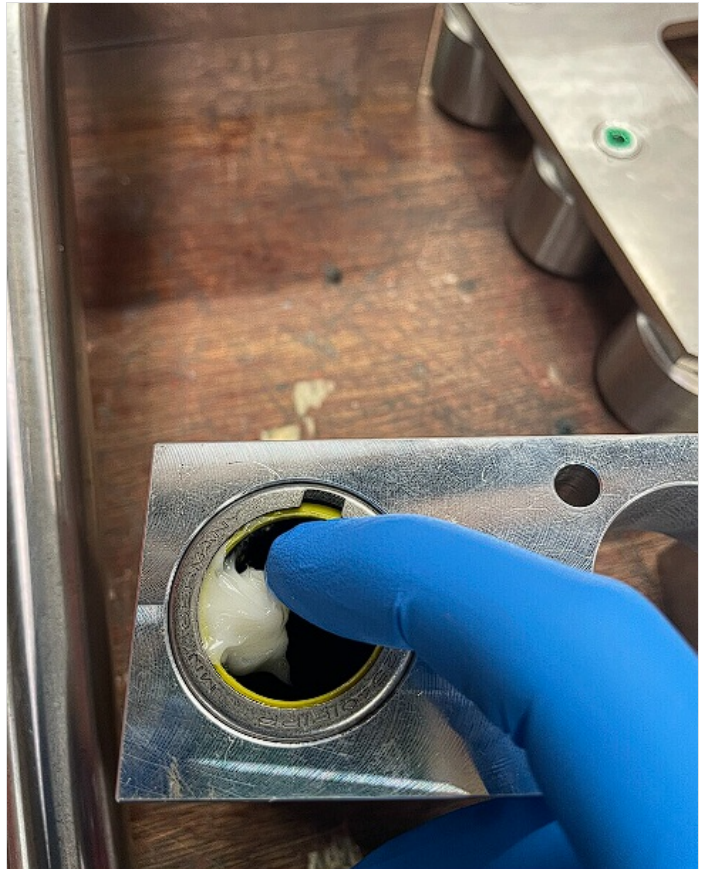
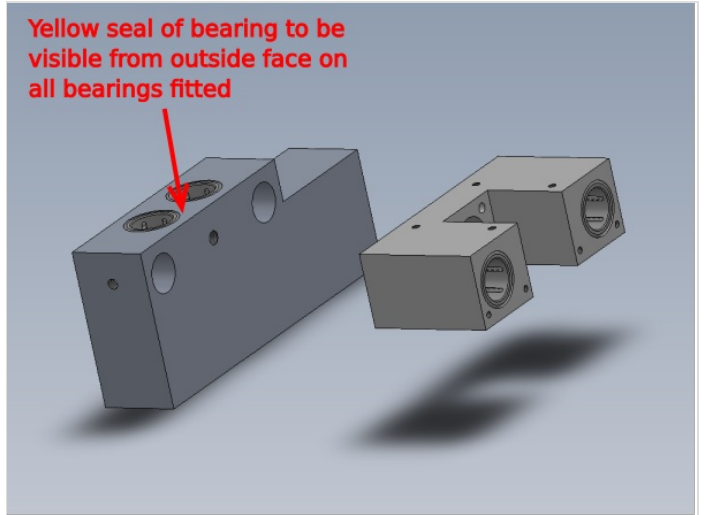
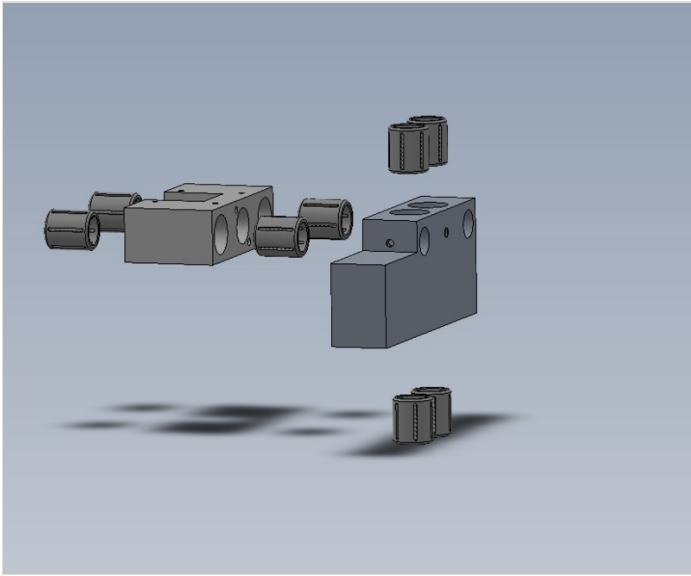


Step 2 - Fit bearings to main blocks

Fit 8 off B0000070 bearings to D0007680 Infeed Rail and D0007792 Z Roller Block (D8711) as shown

Ensure yellow part of bearing is always facing outside edge when fitted

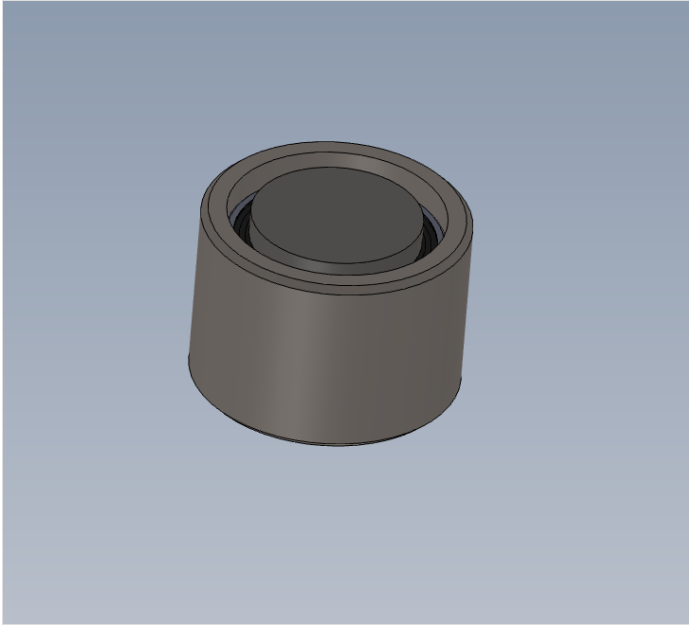
Thoroughly grease bearings with M0000494 lubricant once fitted, ensuring all ball chambers are filled with grease



Step 3 - Check fitment of the following rollers

1 D0001331 Roller $\varnothing 40 \times 27$ c/w bearing and D0003788 Z Roller Pin (40mm)

2 D0001334 Roller $\varnothing 40 \times 102$ c/w bearing and D0003108 Shaft 20mm: 146mm Clamp Roller Shaft



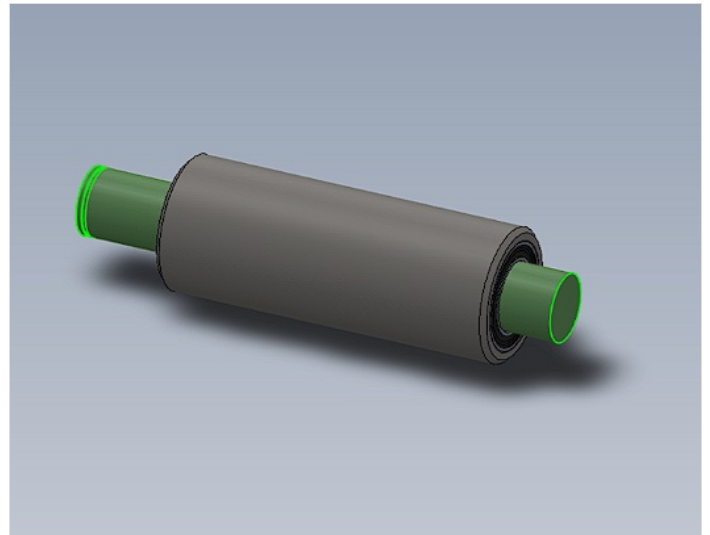
Step 4 - Check fit of shafts in bearings

Check fit of following parts .

Shafts should pass through bearings with only slight resistance . All inner bearing faces should have contact to shaft and rotate when the shaft is turned

If shafts are tight check drawing and inspect size of shaft .

If shaft slides through easily, then follow step 4



Step 5 - Degrease and bearing fit

ionly follow this step if bearing/shaft fit is loose. Use these generic steps for assembly of issued rollers

Thoroughly degrease all parts with FE10 solvent

1 Fit 20mm external circlip to shaft

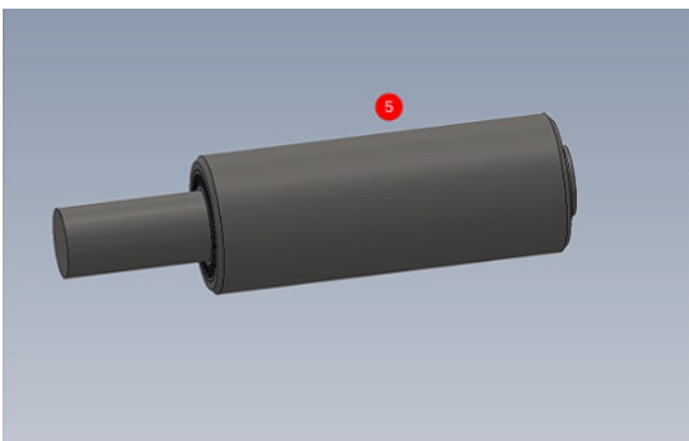
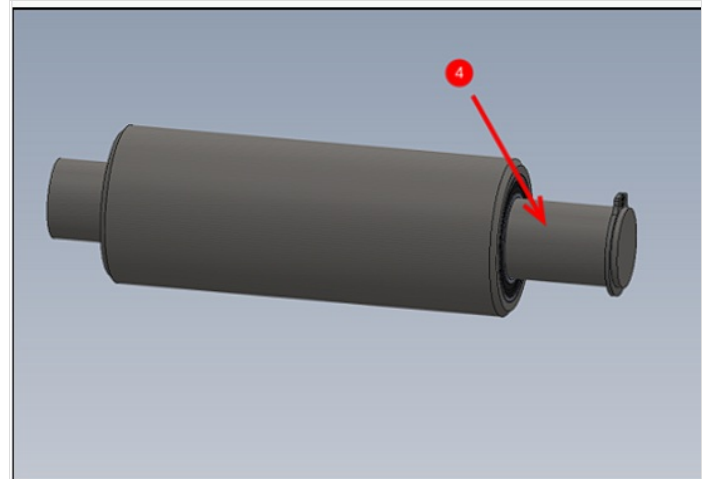
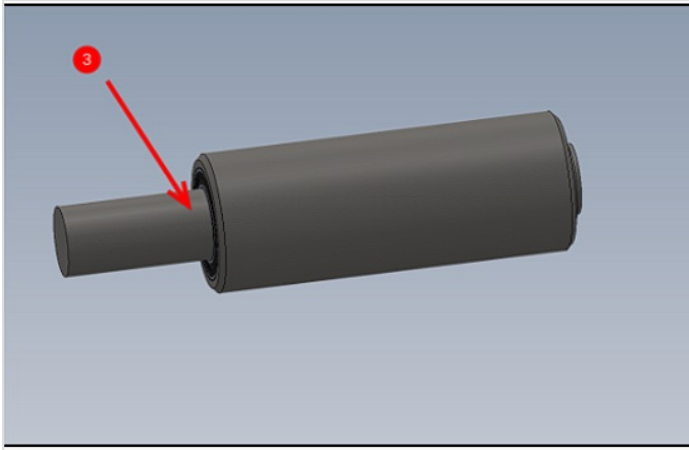
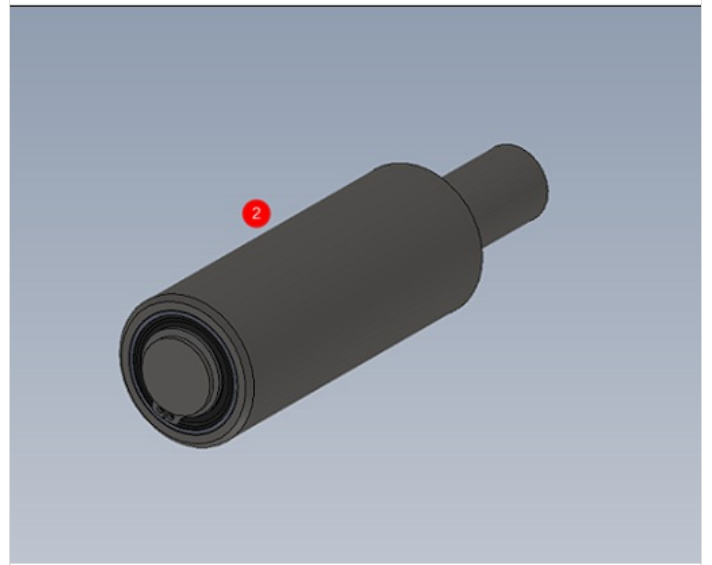
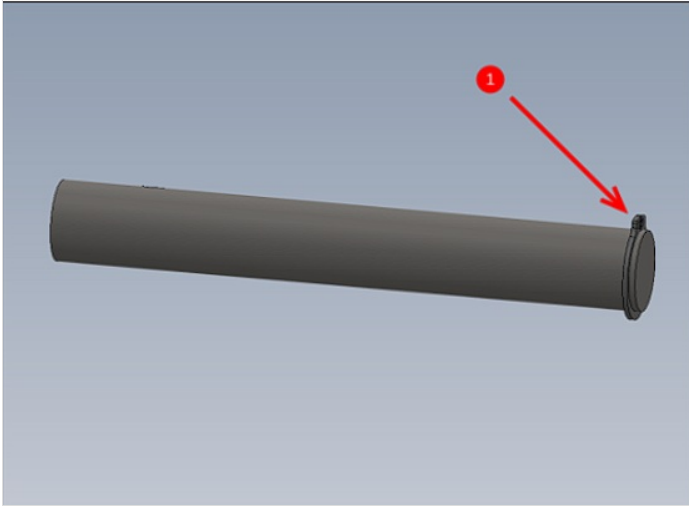
2 Fit roller to shaft

3 Add 3 drops of Loctite 641 bearing retainer to indicated area and smear around the shaft

4 Move shaft to shown position and add 3 more drops of bearing fit to indicated face and smear around

5 Position roller against circlip and remove any excess bearing fit with rag

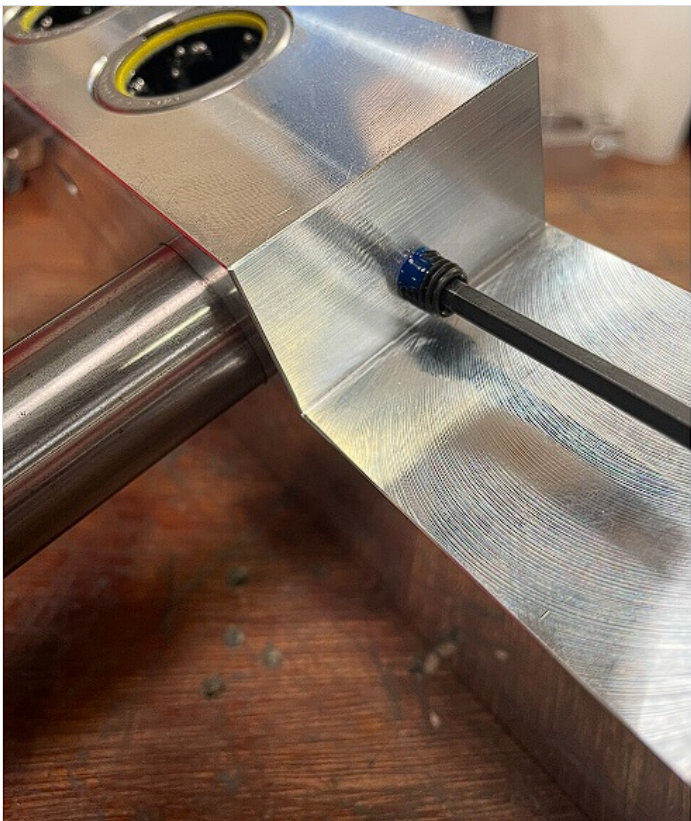
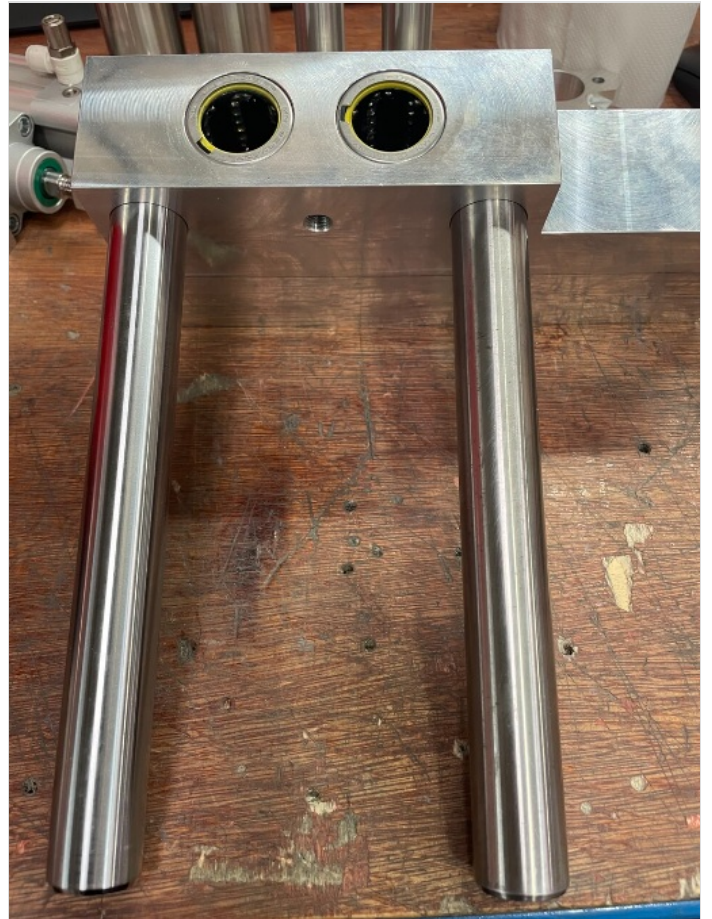
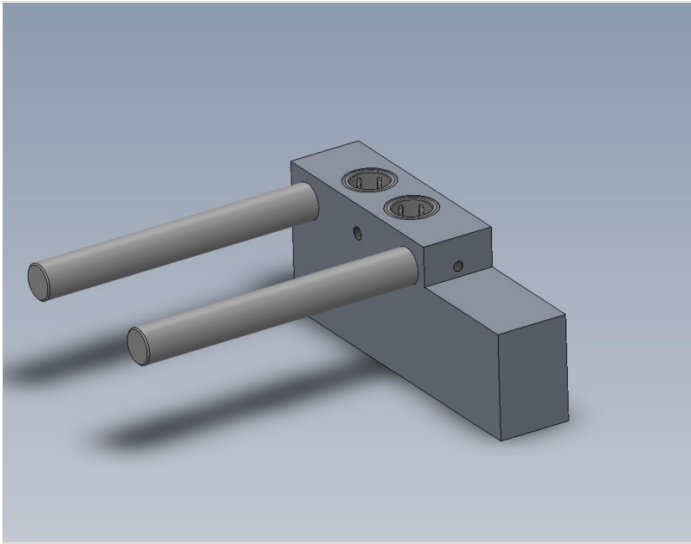
6 Leave roller in a vertical position to allow bearing fit to cure



Step 6 - Fit shafts

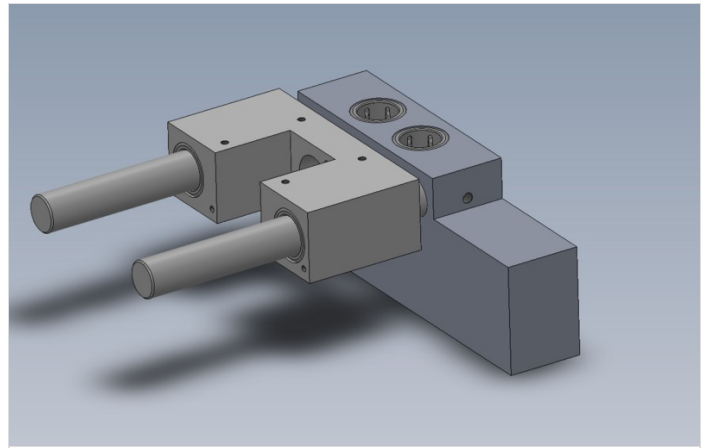
Fit H0007791 Shaft 25mm :250mm ZX Infeed side x 2 as shown .

Use 2 off M8 x 12 K.C.P grubscrew to secure



Step 7 - Fit z block

Slide on D0007792 Z Roller Block taken care not to damage bearing seals



Step 8 - Attach cylinder

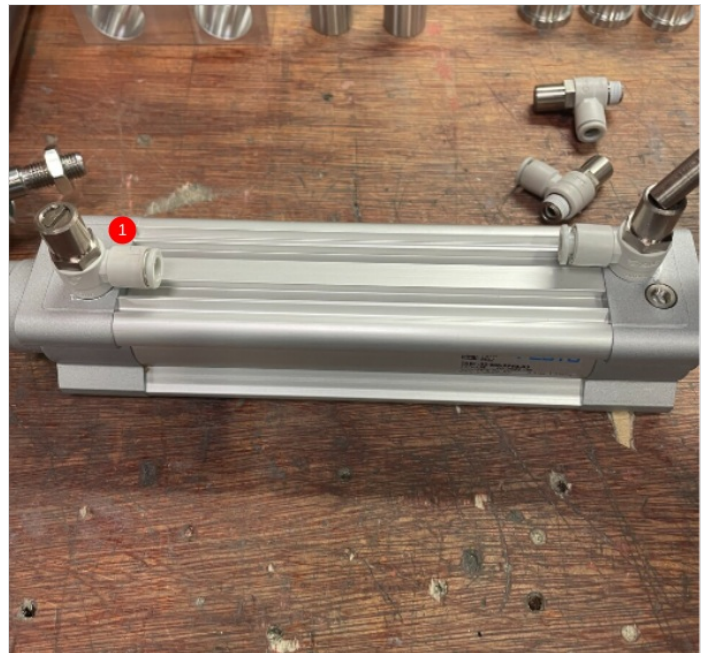
1 Attach 2 off P0001198 Fitting: flow control 1/8 x 6mm elbow to cylinder P0000484 Cylinder 32 x 100 stroke

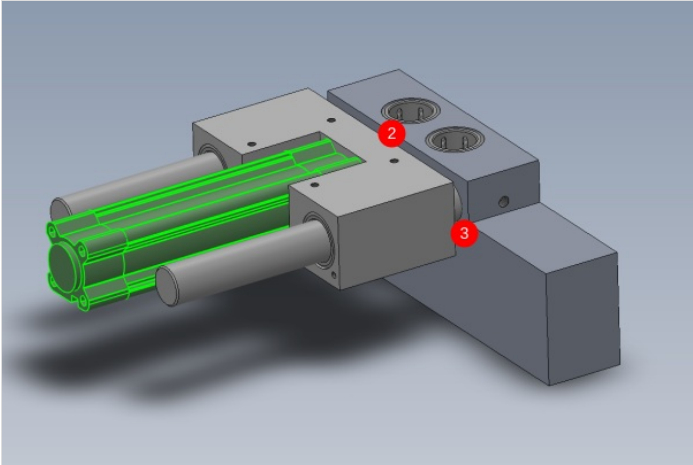
2 Attach cylinder to assembly using M6 x 40 socket caps and M6 A form washers (do not tension yet)
Find in cylinder piston to leave 2 threads exposed when lock nut is tightened

3 Push cylinder assembly to closed position (shown) and apply tension to M6 fixings

Finalise all bolts and nuts


4 Check alignment . Cylinder stroke should be even and smooth at all points of travel . There should be no tight spots, especially at the end points of cylinder travel

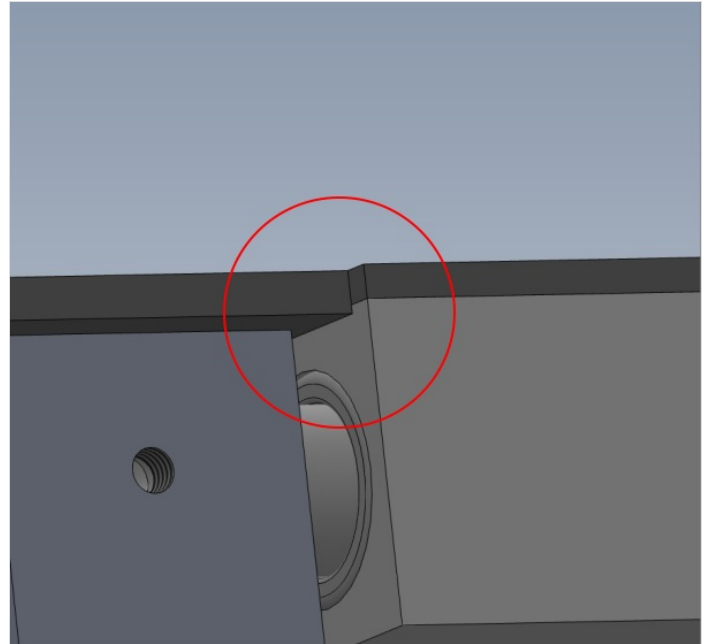
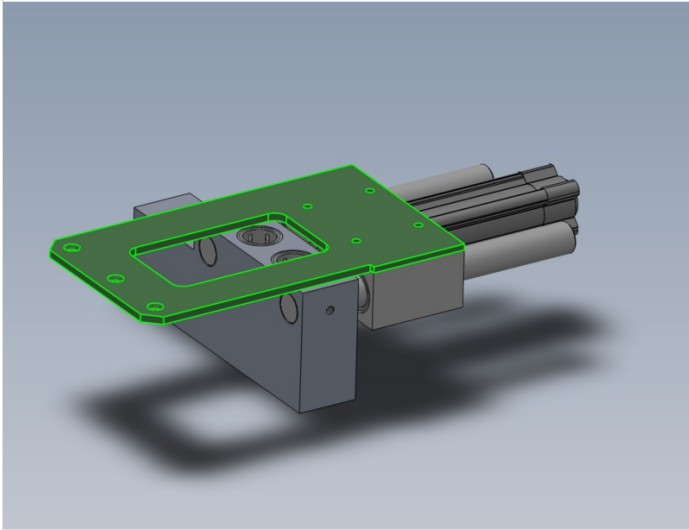




Step 9 - Fit z roller plate

Use 4 off M6 x 16 socket caps and A form washers to fit D0007793 Z Roller Plate

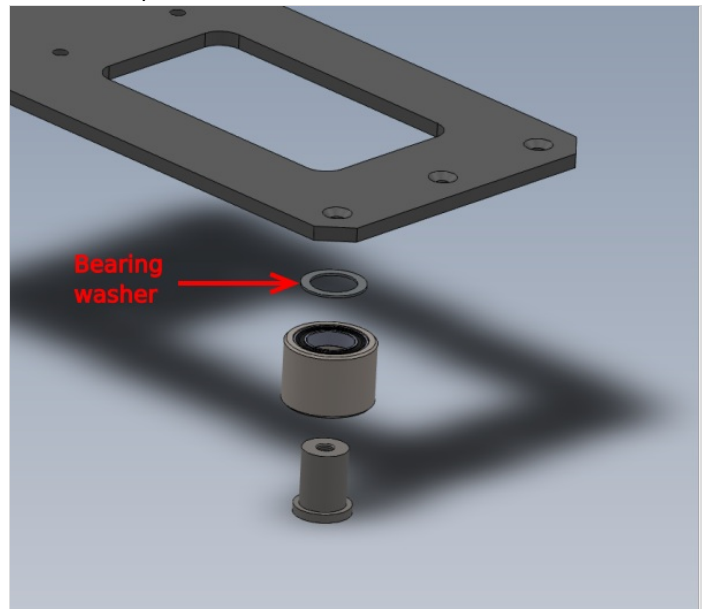
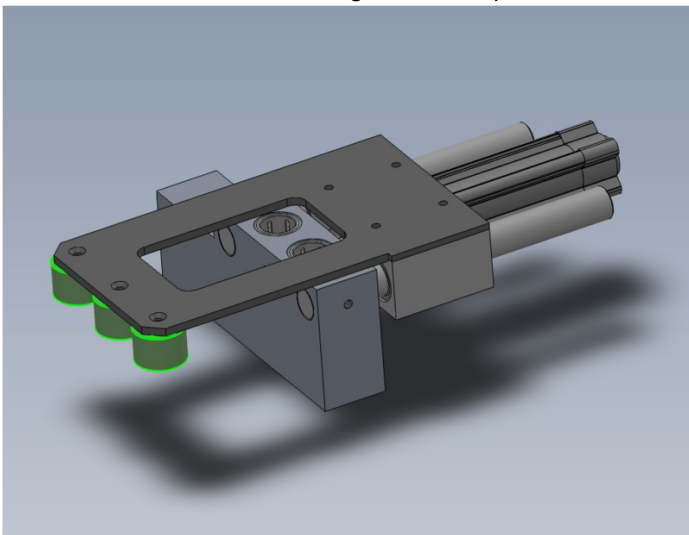
 ...Ensure recess is positioned correctly against indicated face



Step 10 - Mount low rollers

Attach 3 off low rollers to z plate with M6 x 20 socket counter sunk fasteners

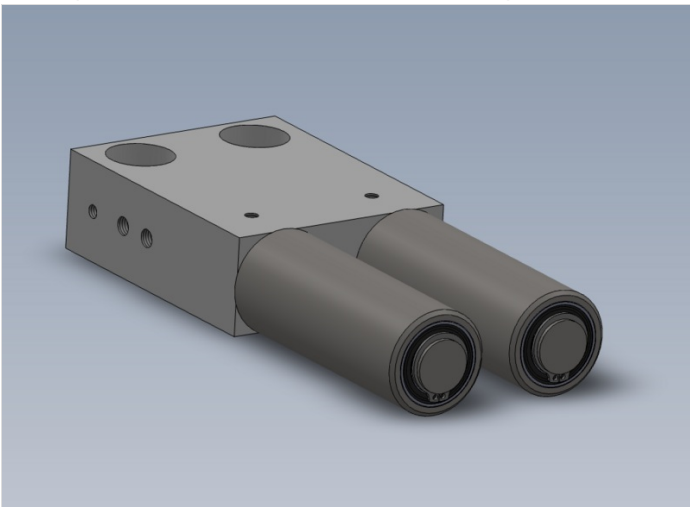
Ensure B0001176 Washer :bearing shim x 3 are positioned between each roller and z plate





Step 11 - Assemble top roller Block

Attach pre built roller and shafts to D0007774 Top Roller Block using 2 off M6 x 10 KCP grub screws



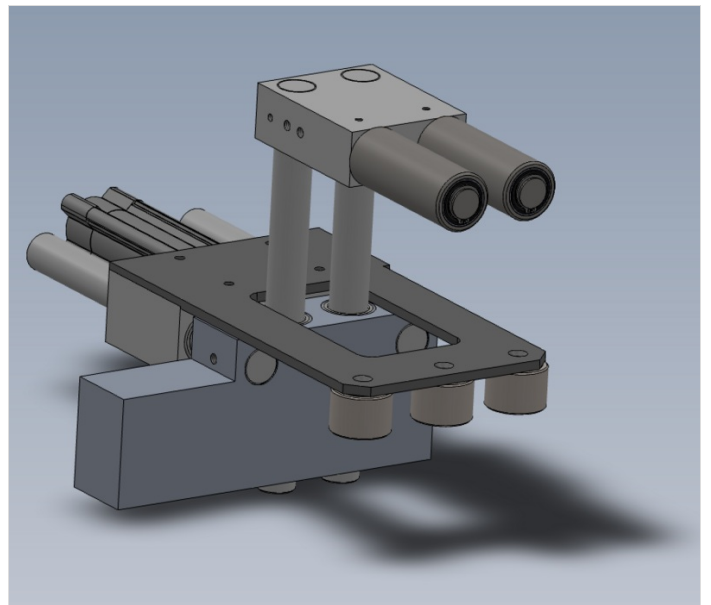
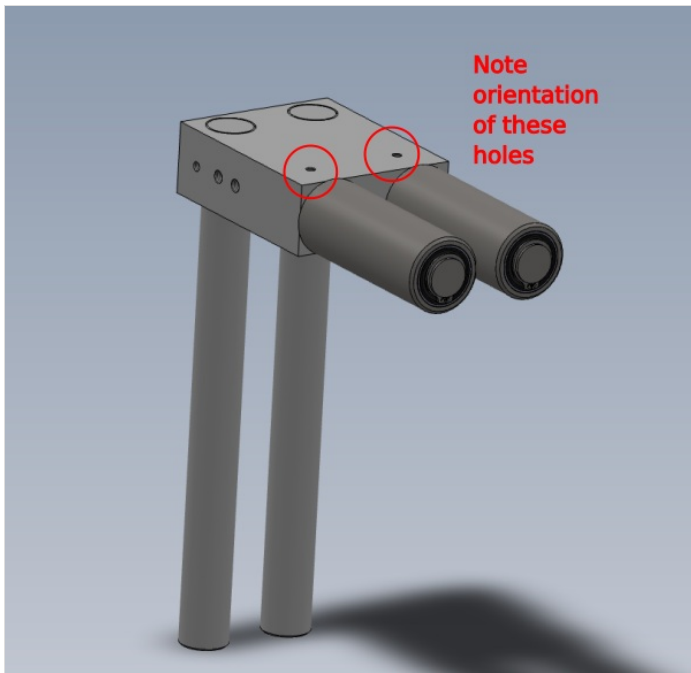




Step 12 - Attach shafts and mount

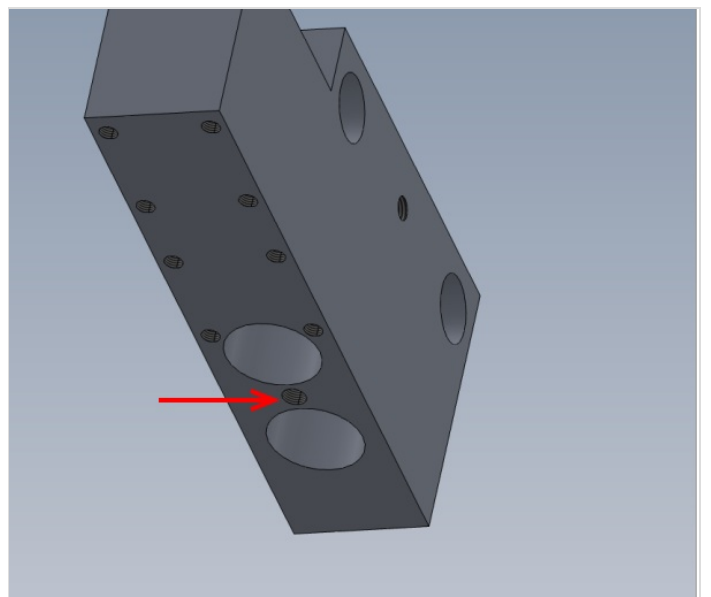
1 Dry fit H0007773 Shaft 25mm: 268mm ZX Infeed Clamp Top x 2 using M6 x 10 KCP grubscrews

2 Fit to assembly , taking care to ensure bearing seals are not damaged when inserting shafts



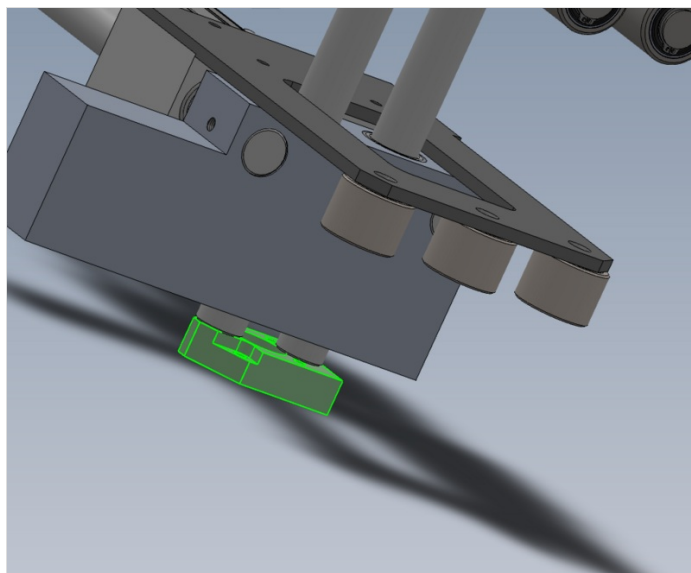
Step 13 - Fit cylinder extension

Fit D0000211 Cylinder Extension x 1 to hole shown . Finalise tension



Step 14 - Attach shaft strap

Dry fit D0000209 Shaft Strap (D8709) using 2 off M6 x 25 socket caps




Step 15 - Attach cylinder

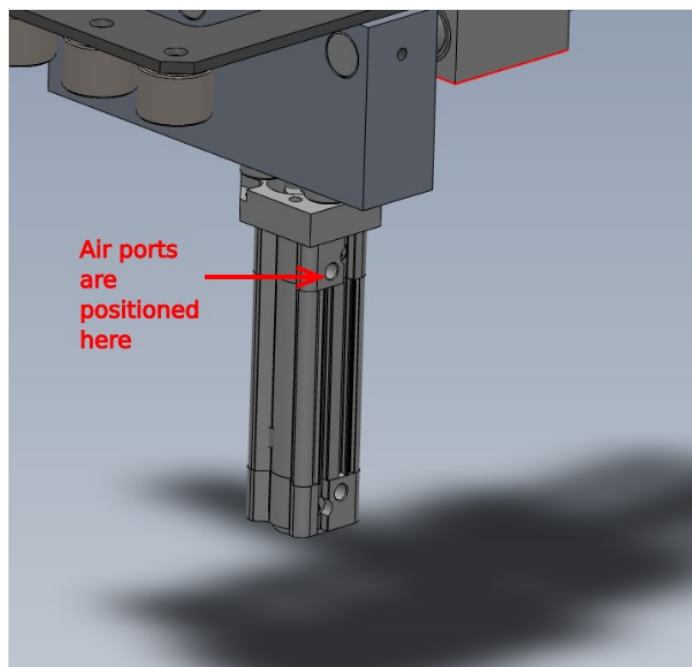
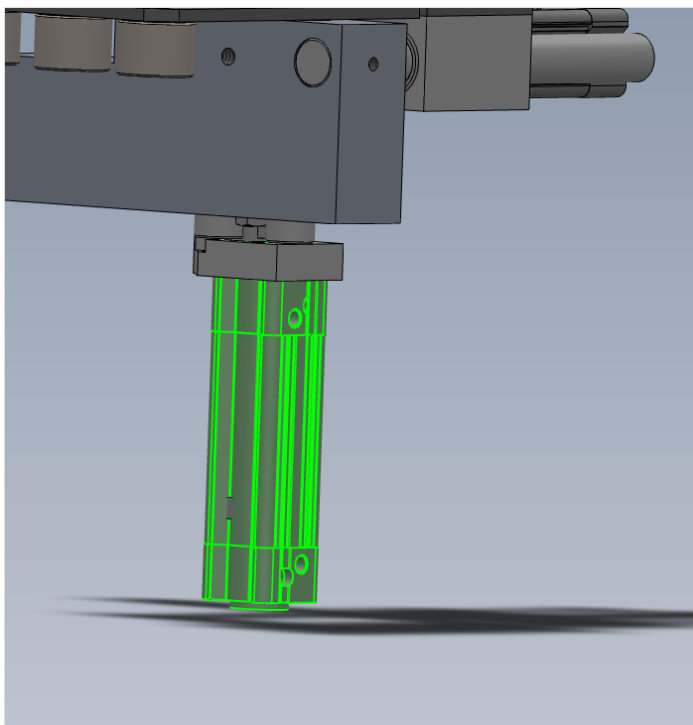
Fit 2 Off P00001198 air fittings to cylinder

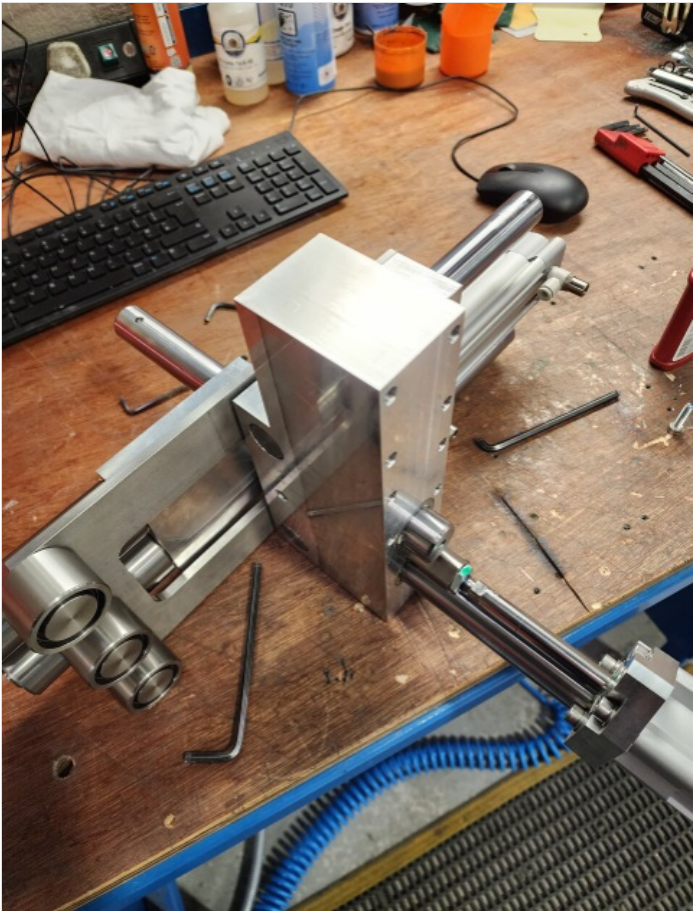
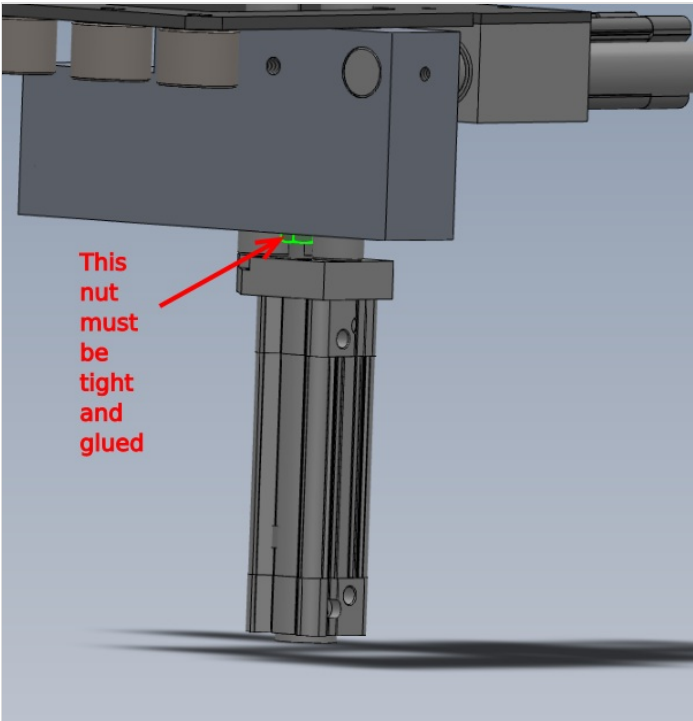
Fit P0001160 cylinder 32 x 100 stroke in the orientation as shown

Finalise lock nut onto cylinder extension ,leaving two threads of cylinder thread exposed under lock nut. The access nut, release fixings for one shaft, slide upwards to create access to cylinder lock nut.

 ...It is important that this cylinder lock nut is tight and has Loctite 243 applied

Dry fit cylinder to Shaft strap with 2 off M6 x 25 and 2 off M6 x 30 socket caps

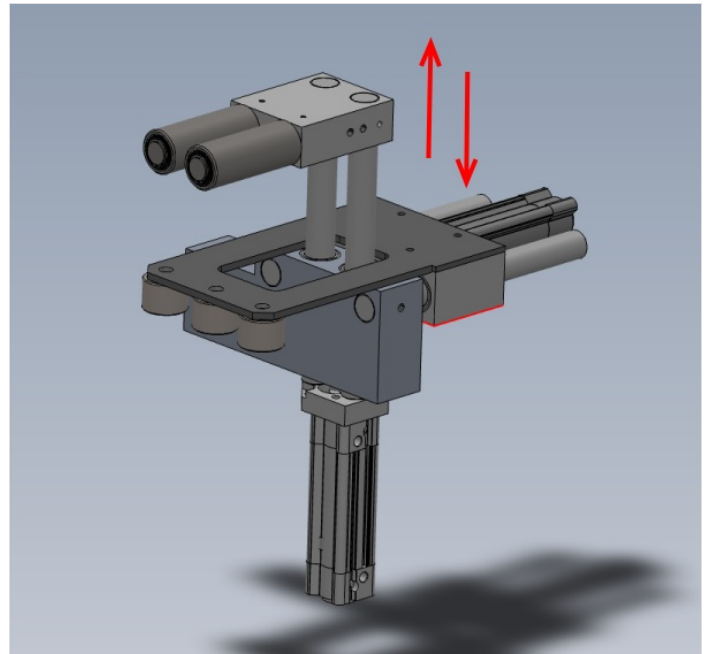




Step 16 - Adjust alignment for correct operation

Cylinder stroke must be smooth and consistent over full travel of cylinder . When rollers are lifted up, they should drop under their own weight to the lowest position.

Once alignment has been achieved, all fasteners should be individually removed and apply Loctite 243 and finalised



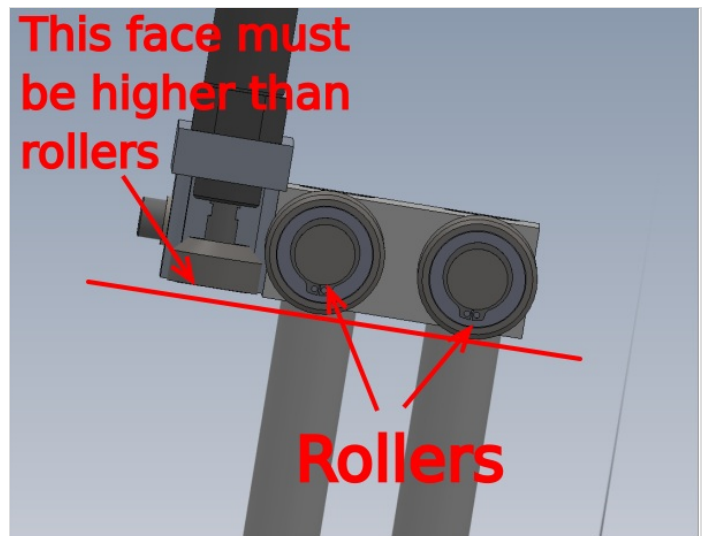
Step 17 - Ensure correct position

Vital for correct operation of clamp hold assembly

Rubber pad must also be fitted

Ensure when fitting profile stop assembly as shown, that the indicated part sits above the rollers as shown. The bottom of the rubber pad must be above the height of the rollers as shown


Please speak t supervisor if this setting is not possible



Step 18 - Assemble profile stop cylinder

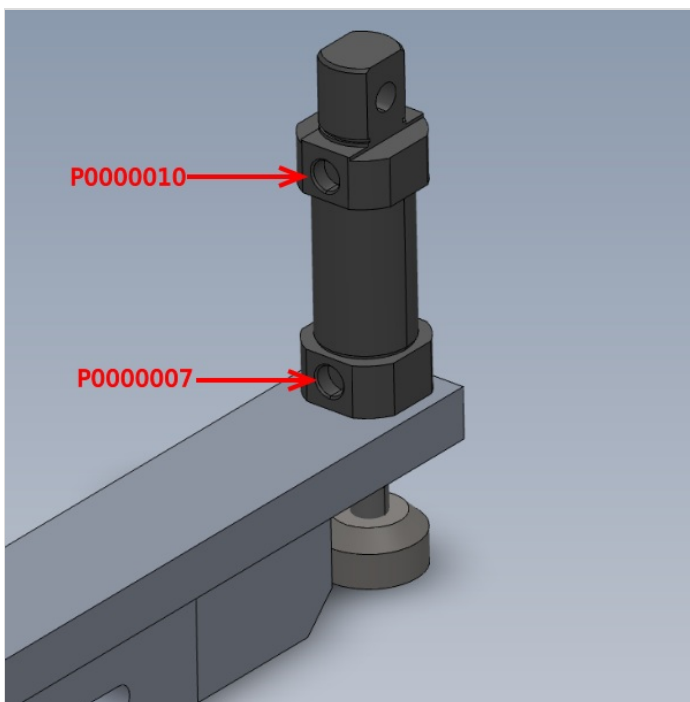
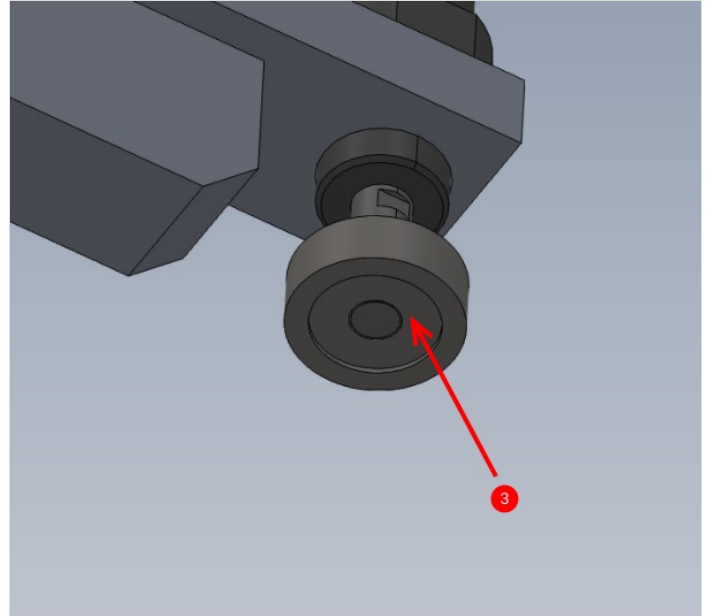
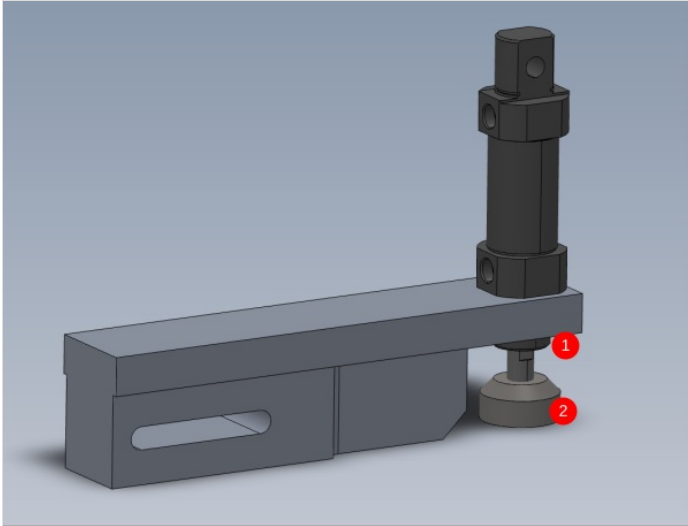
1 Use loctite 243 on cylinder fixing nut

2 D0015428 Top Clamp Block Ø30 15

 ...Taken extra care to ensure this block and lock nut are correctly tensioned and adhesive 243 applied

3 Fit M0000253 anti slip pad 22mm to indicated face

4 Fit P0000007 Straight Adaptor 6mm - 1/8 BSP tapered thread x 1 and P0000010 elbow 6mm 1/8 fitting x 1 to ports shown



Step 19 - Attach to main assembly

Attach cylinder stop to main assembly as shown using 2 off M8 x 50 socket caps and a form washers . Set to middle slot position

