Stuertz Infeed - Check GY Position Parallelism

How to check the parallelism of the Stuertz Infeed - GY axis position to backfence

| 🎚️ Difficulty **Hard** | 🕐 Duration **30 minute(s)** |

Contents

Introduction

It is important that the parallelism of the GY axis to the backfence is set and maintained along the length of the rack. This tutorial describes how to check this parallelism without the need for measuring equipment

Potential Symptoms of a problem

- Gripper cannot pick up offcuts
- Gripper /profile end forced away from backfence
- Accuracy problems
- Gripper wobbles after it has released profile

Use the laptop to enable you to control the Service screen whilst inside the infeed table

> ⚠️ ...You will be inside the danger area of the machine - ensure operators are aware of your situation

Ther gripper setting jig is used to give an accurate and reliable zero to locate the gripper jaw to. Any piece of aluminium reinforcing box section will also work Create a spreadsheet or a table to log your results,.
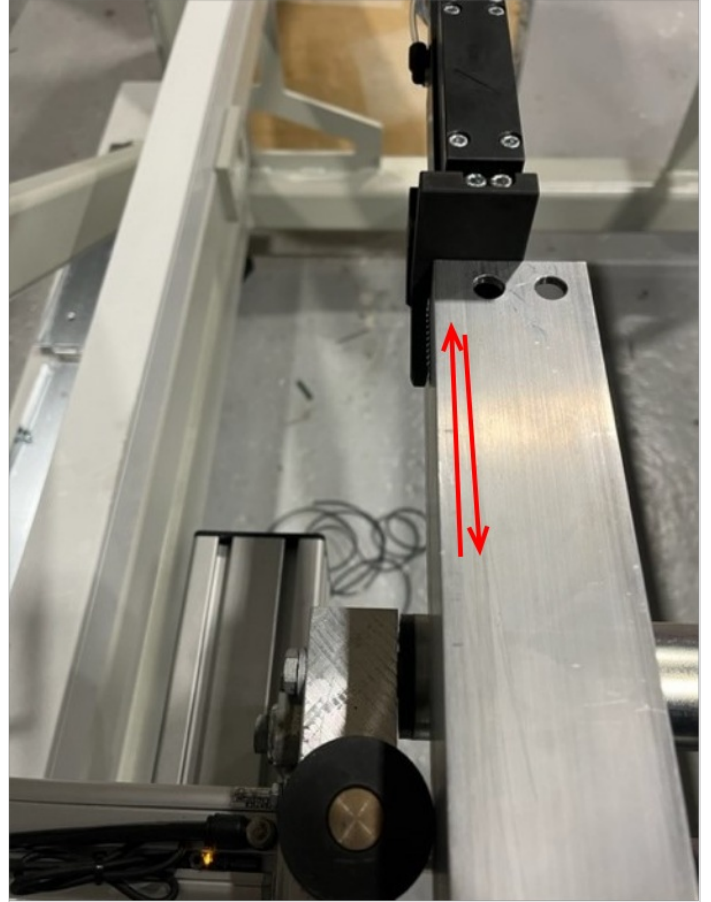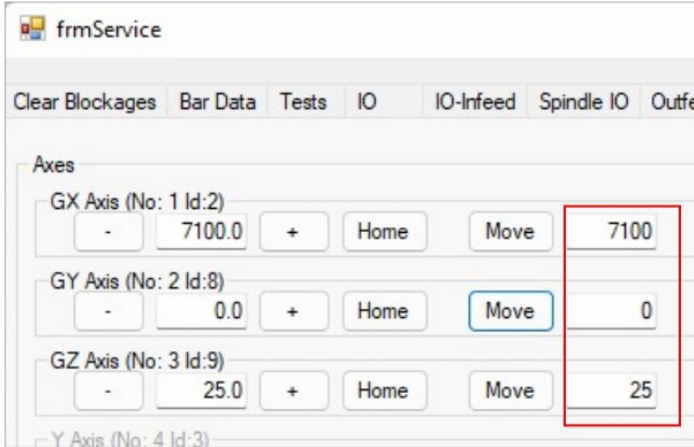
Items

🛒 Laptop

🛒 Gripper Setting Jig

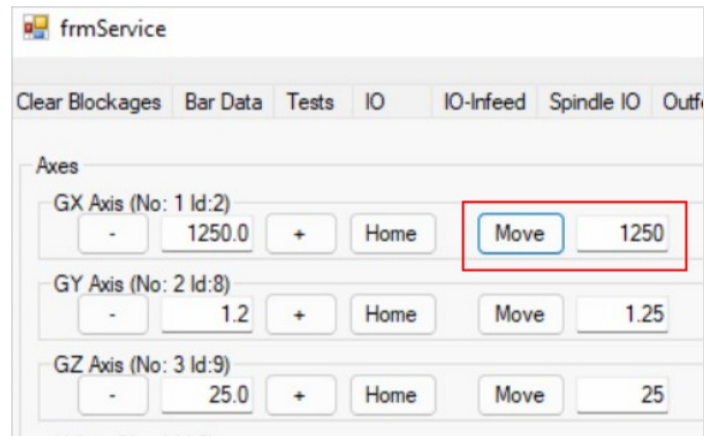# Step 1 - Ensure a zero GY position at datum

1. Datum the machine and move GY axis to zero, GZ to 25
2. Place the jig against the backfence and offer it up to the Gripper Jaw
3. If the GY datum is set correctly, the rear outer face of the jig should be just in contact with the rear serrated jaw
4. If this is not the case, set GY datum correctly

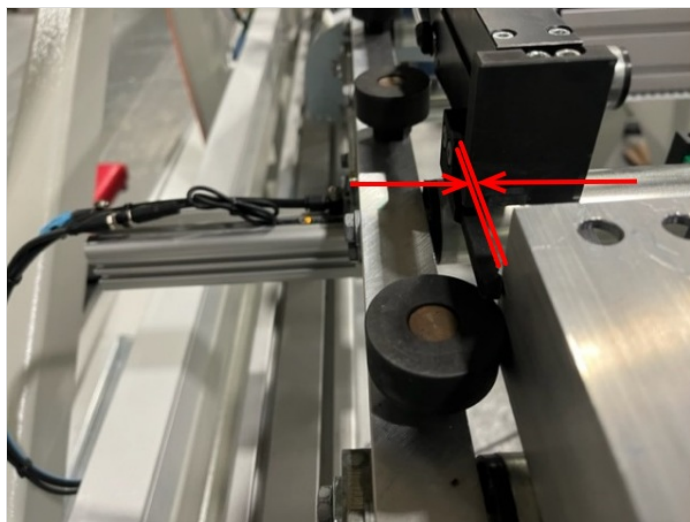# Step 2 - Move the GX axis to a measure position

Step 3 - Move GY axis to locate

If the backfence to gripper is different in this location, it will be visible by a gap or interference to the jig
Move GY axis (in 0.25mm increments) to make it touch
Log GX value vs the GY value in your table / spreadsheet

Step 4 - Log GX value vs the GY value in your table / spreadsheet

Pos	Error
7100	0
6250	+0.25
4700	0
4000	0
3500	+0.5
3400	+1
3300	+1.5
3000	+1.5
2500	+1.5
2000	+1.5
1750	+1.25
1500	+0.5

Step 5 - Repeat for different GX axis positions

There may be areas where the offset changes more than others - these deserve more detailed inspection with closer GX axis increments

Step 6 - PASS or FAIL

PASS
The error should be within +/- 1mm along the rack
In the given example of measurements, the overall range was 0 to +1.5mm
Therefor the GY axis datum should be adjusted by+0.75mm so the error range will then be -0.75mm to +0.75mm(within tolerance

FAIL
If the error variance is outside this range, the backfence will need to be rest to correct this

Pos	Error
7100	0
6250	+0.25
4700	0
4000	0
3500	+0.5
3400	+1
3300	+1.5
3000	+1.5
2500	+1.5
2000	+1.5
1750	+1.25
1500	+0.5