

General Accuracy Guidelines for Engineers - Start Here

This is the launch page for starting an accuracy journey on any Stuga machine. It contains general principles to follow and signposts further procedures and pages to investigate further

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Applies To

Note, this guide is intended for trained Stuga engineers or experienced maintenance staff only.

For Basic checks (operator level) please click [here](#)

For intermediate checks (Advanced Operator / Engineer) please click [here](#)

Guiding Principle

Start by proving what is correct, then you will find out what is wrong (- Glenn Forde 2019)

Sawing and machining centres are complicated systems. There are many interconnected mechanical components and many software settings. All these systems need to be set up correctly and precisely for the accuracy of the whole system to be correct.

This means that diagnosing a problem is **difficult**. An engineer will be presented with a *symptom* - eg "The Y notches are out". This symptom will (most probably) have more than one root cause. To cure the symptom, **all** of the root causes need to be found and fixed individually. This must be done systematically - there are no short cuts.

To sort out an accuracy problem, the first question an inexperienced engineer will ask is

"What setting do I change to make it right"

This is always the wrong approach. The correct question to ask is

"What is the root cause?"

There is generally something that has changed / broken / worn / loosened / tripped or out of tolerance that has led to the problem. This document guides an engineer through a process to check and put right all potential root causes following this Flow Chart:

1. Gather Detailed and Relevant Information
2. Identify and Eliminate External Factors (Profile tolerances, temperature, etc)
3. Check Mechanical Alignments of clamps and bases
4. Check for other mechanical factors that are know to affect accuracy
5. Check Software Settings and any fine adjustments and remove mods made by the customer (Factory Reference Settings)

6. Run Accuracy checks and adjustments (Scaling and software adjustments)

External Factors

[Click here for a list of external factors that can affect machines](#)

Alignment of Fences and Bases

[Click here for guides to aligning fences and bases on Stuga Machines](#)

Mechanical Checks

[Click here for a list of Mechanical Issues that can affect machines](#)

Speeds And Pressures

[Click here for a guide to the factory settings of machine types](#)

Software Settings

[Click here for a list of Software Settings that can \(sometimes unwillingly\) affect machine accuracy](#)

Accuracy Check Procedures

[Click here for Accuracy diagnostics and tests](#)