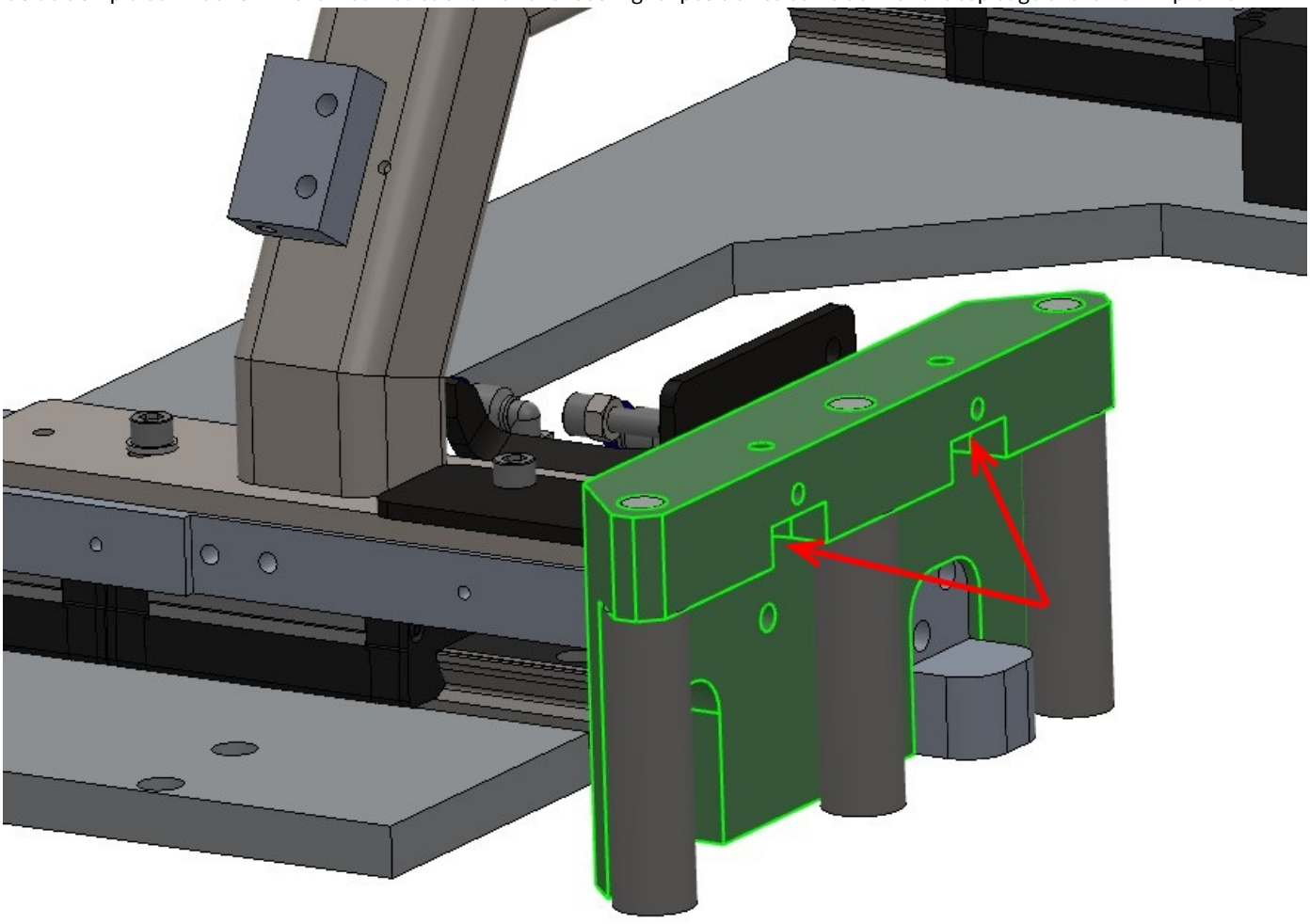
90mm Z Profile Modifications

Modification necessary to allow 90mm tall profile Z sections to be handles by Stuga Machines Liniar LCW9022

Contents

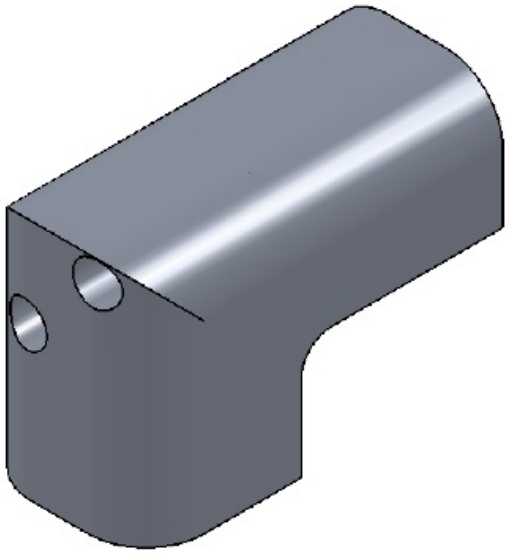
Sawing Clamps - ZX5

The side clamp block D0015174 are modified to allow a roller at a higher position to coincide with the top edge of the 90mm profile

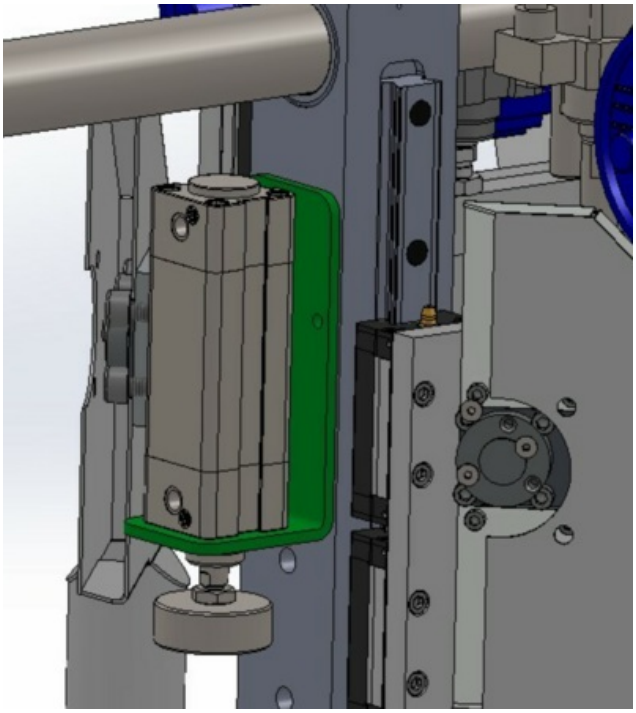


This is a permanent change to this block, and the additional rollers can be fitted as an optional extra - kit is
R0019222 includes the fence
or R0019222B if the fence is already modified

A larger Z block D0015178B is also added to this kit to prevent potential pivot points on the taller Z section.



V Notch Clamps - ZX4

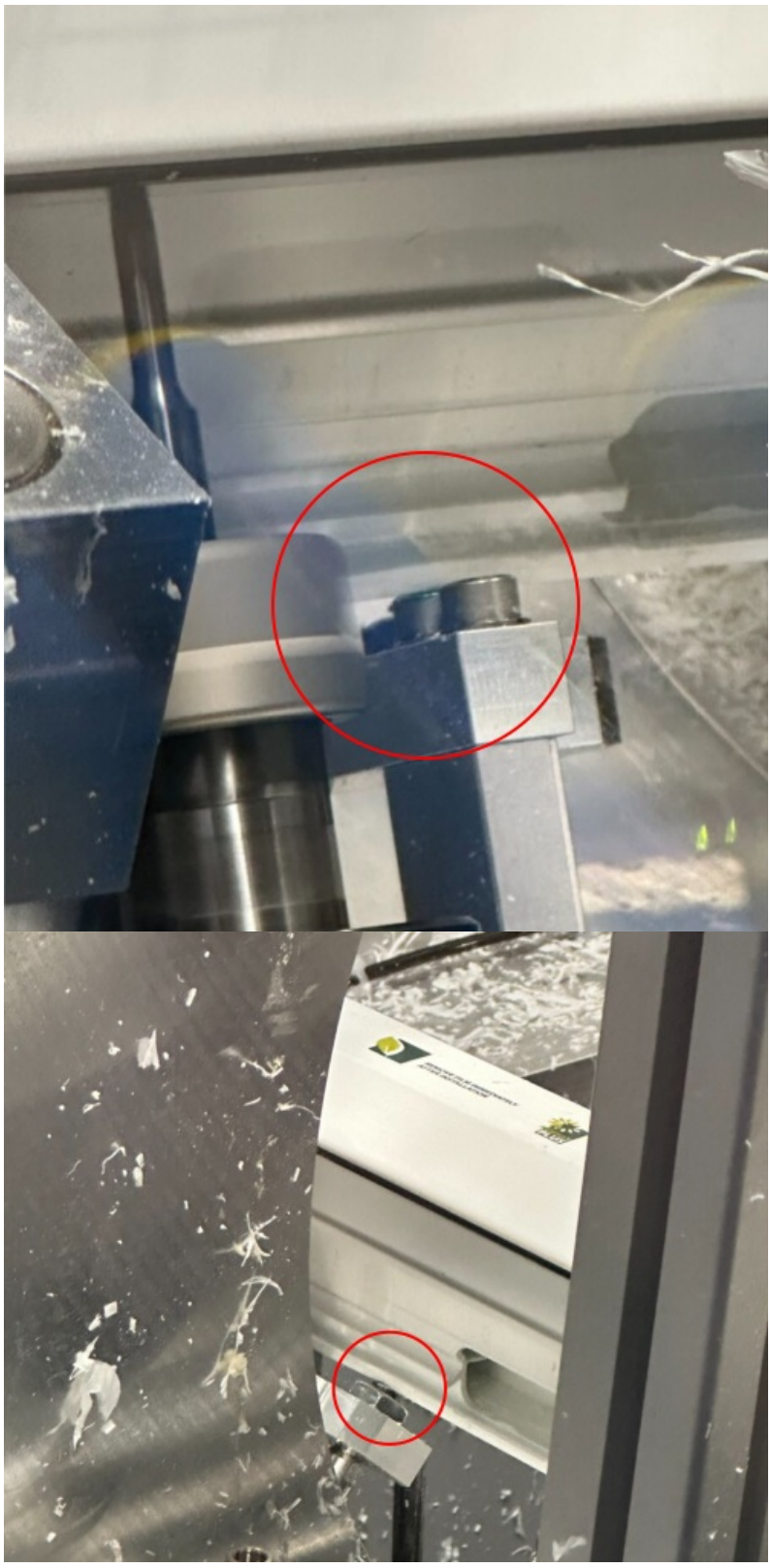


- R0019272 subassembly created for a ZX4 Package
- Includes bracket to raise the V notch clamp to clear 90mm as shown

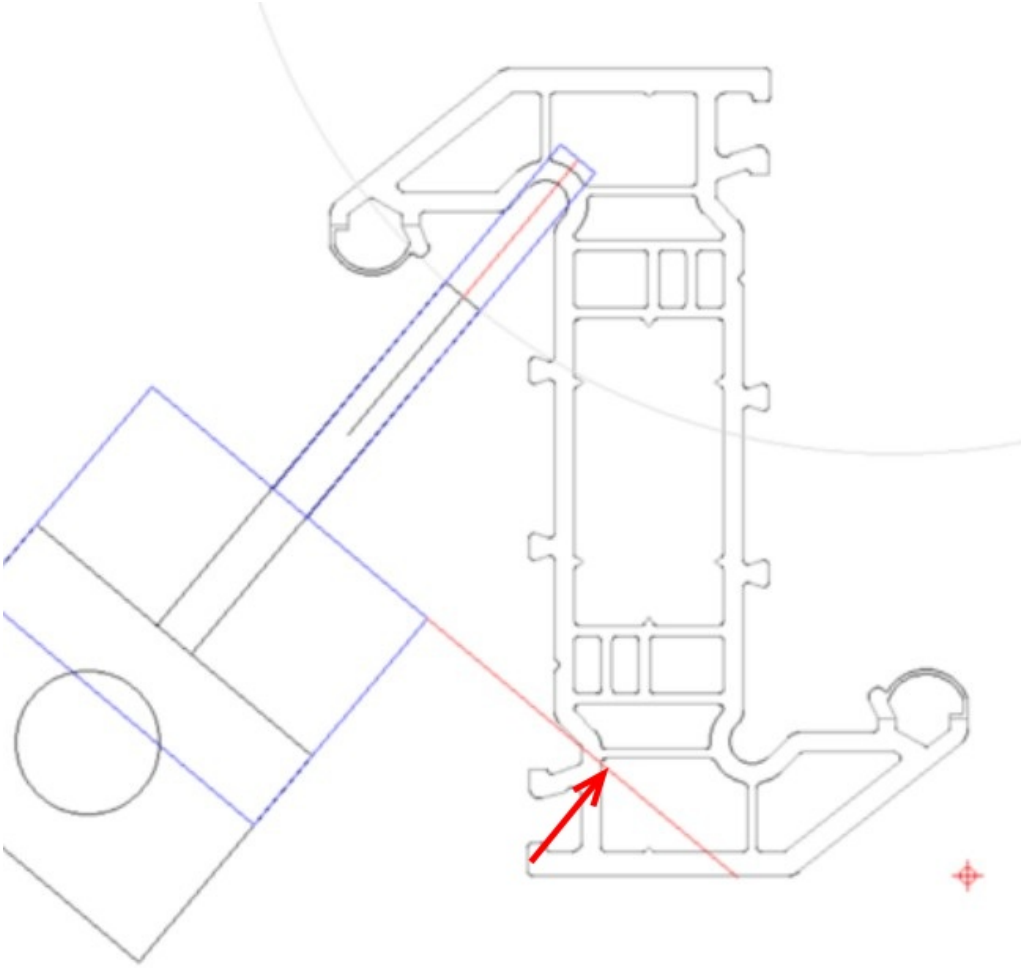
See ECN0213 for design specification

Spindle Plunge Bracket Interference

During testing the DFR operation could not complete the plunge because the spindle plunge bracket interferes with the bottom edge of the profile



There is no way around this issue with the tool depth set at the standard positions (level with inside of the ring)



Solution:

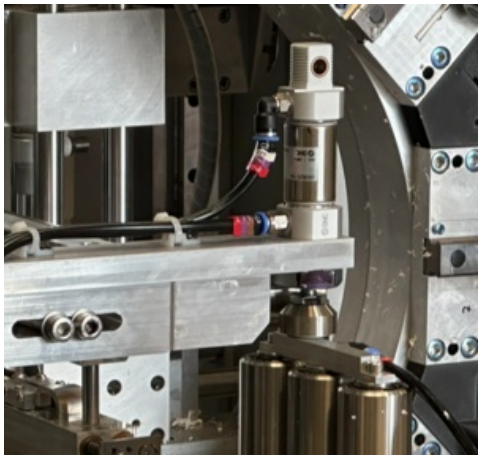
1. Increase the plunge length of a specific tool
2. Create a special drainage operation for DFR on LCW9022
3. Create a variable for the flowops editor to allow a tool depth offset on screen when this tool is selected

> ...A special tool number of 9 is used in this instance so it does not affect the programming depth of all other 5mm drainage tools

Loading and Gripping Sequence Changes

Machining Side

When gripping on a ZX4, an additional clamping cylinder is needed to hold the profile while the gripper retreats out of the way during the datum hole process. The loading wheel system means this is not so necessary on flowline and ZX5 models. The simple solution here is to add the "Hold clamp" from the ZX5 design.



Saw Side

Some of the odder shaped profiles have a narrow base and an overlap rebate. This causes problems with the black channel bar and its limitation of movement which bottoms out at the gripper width (plus clearance). There is no side friction on the bar, couples with zero friction underneath the bar (rollers) which means the gripper spring always overcomes the situation and the bar is unable to be gripped

A change to the loading sequence overcomes this. Instead of attempting the grip outside of the saw centre, a special sequence has been written:

- Push bar into saw module to first clamp position
- Apply clamps, Z supports, etc
- Wait for clamping
- Run grip sequence

The special case is set when the profile width - rebateOffset is <45mm