WinMulti - Postest

This page will describe how to generate a Postest (operation position test), and is used to set the distance relationship between the routed holes and the saw blade so that routed pieces line up correctly back to back.

Contents

...The Postest should be run every day before production starts to satisfy yourself that the machine is set up correctly setup for accuracy

...If there is an accuracy problem highlighted by this test, you MUST run the test at least two more times to check if the error is consistent before making any changes

...Profile will expand with temperature, and will have a direct effect on this test. Make sure the profile is at room temperature before carrying out this test

Tolerance

Firstly a word about tolerance. The machine is designed and sold with a positional accuracy of +/-0.5mm.
This means that if you take two identical pieces with an operation in the middle, the difference in the operation positions could be **up to 1mm differen**t, and the machine would still be **within tolerance**. In this case, the machine settings do not need alteration

Postest

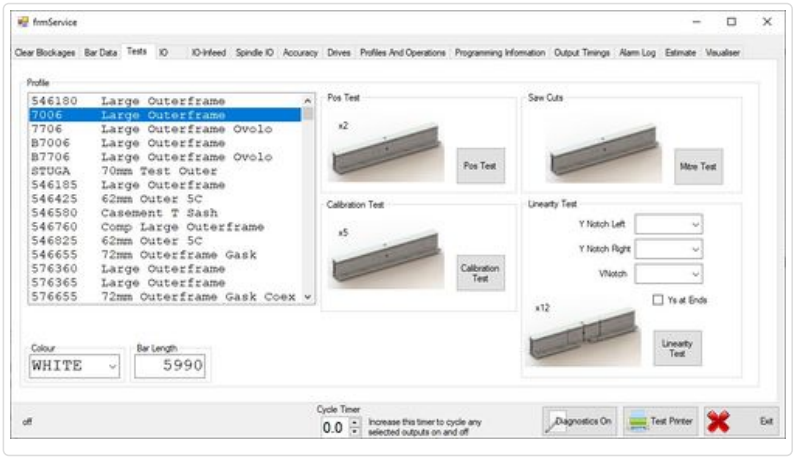
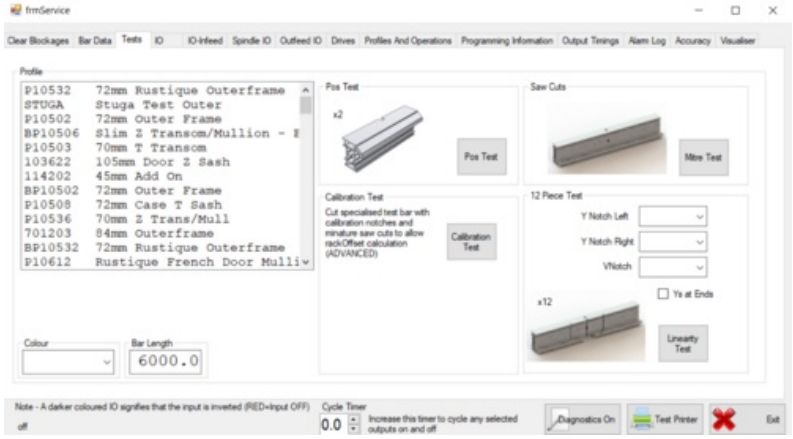
To Produce a Postest perform the steps below

1. Tap on the F7 Service button on the main toolbar
2. This will open the service menu, click on the Tests tab.
3. Select your profile from the list
4. Select the colour from the Colour Drop Down
5. If you are using an offcut, change the standard bar length to the length of the offcut you wish to use.
6. Tap on the Pos Test Button

This will add 2off 450mm pieces with square ends and a pos test in the middle

Postest Version Changes

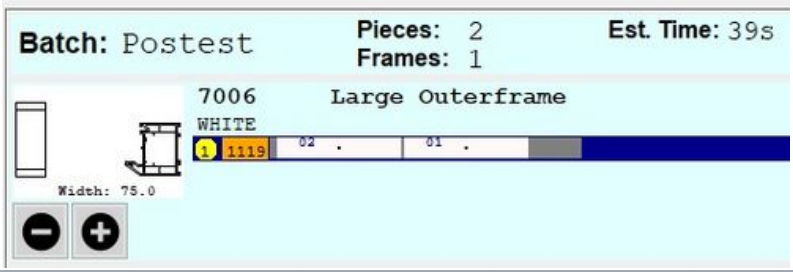
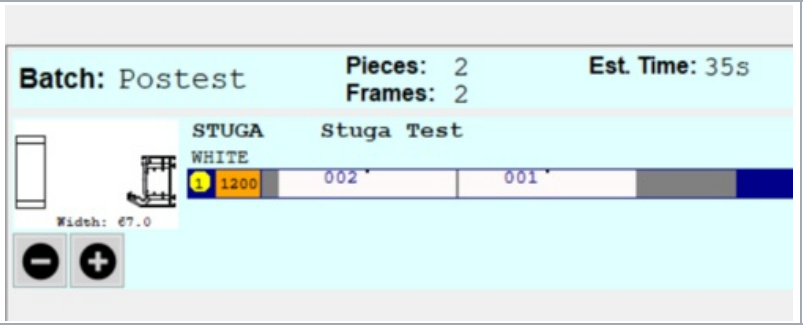
Version	Software Version	Implemented Date	Service Screen

1	5.9.0.0 6.0.0.0	2010	
2	6.7.10.0	2025	

> ...The postest operation was changed from 4 datum holes to a square notch because it is much faster to complete, and does not need a special tool to measure and align.

Bar Queue

Bar Queue Display

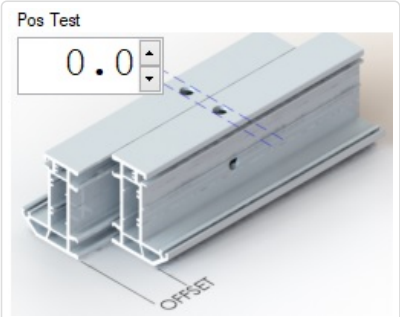
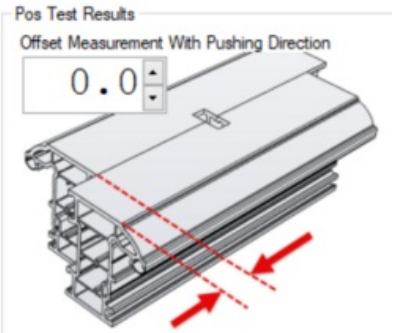
Version	
1	
2	

Above is a depiction of the bar queue, prep and cut these pieces as normal.

Lining up the Pieces

Once the postest pieces have been cut they should be put back-to-back as shown in the pictures below. With the holes / notches lined up, the Offset at the ends of the profile should be measured using accurate callipers. You need to be able to measure to an accuracy of 0.2mm.

Postest Offset Measurement Versions

Version	Operation	
1	Datum Holes	 Lining up the Postest Pieces
2	CalNotch	

...Make sure you align the profiles as shown in the diagram - based on the operation used for the datum mark

Pass:
If the test shows an error smaller than 1mm, the test is ok.

...Because the profiles are back to back,. the actual error is doubled in this test. Therefore 1mm error is equivalent to an actual error of 0.5mm which is within the tolerance of this machine

Fail:
If the error is greater than 1mm, this could affect the accuracy of production. Double check your measurements. Then **RUN THE TEST AGAIN two more times** preferably on different bar lengths.
If (and Only if) the error is consistent* for all of the tests carried out, you can change the settings to alter the position of the holes in relation to the saw cuts.

Consistent means the range of errors is within 0.5mm

Postest consistency examples

Measurement 1	Measurement 2	Measurement 3	Action
-0.5	Not required	Not required	None needed - machine is within tolerance
1	1.4	1	Adjustment may be needed Take the median (1.2)
2	0.5	0.2	Inconsistent results. Do not change the settings Instead consider what may have gone wrong with the first measurement Possibly profile related
3	-3	-5	Results are sporadic, clearly a major root cause failure that needs investigation

Adjusting Position

1. Click into the Settings menu, on the right there will be 2 possibilities, determine which picture best reflects your pieces (either the top piece is to the left or to the right of the bottom piece)
2. Enter the offset into the appropriate box. then click the Save button below.
3. This will change the appropriate parameter related to your machine.
4. Once complete, redo the postest to check that all is now well.

If the error seems to be random, there will be another root cause, and changing the parameters will NOT solve the issue, it will only make the situation worse.
There are many root causes to an accuracy problem. For a full accuracy guide for a competent engineer see General Accuracy Guidelines

Common Issues

Common Issues giving incorrect PosTest

Symptom	Applies To	Root Cause	Potential Solutions
Result inconsistent - cold weather outside	All Machines	Profile expansion due to profile temperature change between machining and sawing	TB0269 Proving Accuracy Variation due to Ambient Temperature Ensure the test piece is at room temperature befoe testing (do not use a bar from outside)
Jumps between +1mm to -1mm	ZX5	Datum hole too far away from gripper pins	Accuracy - Check Gripper Datum Hole Position Variance Rubber clamp pad missing on infeed datum clamp
Out on one profile type only	All	Bar end squareness inconsistent	System supplier bar end is out of square. The ZX5 can cope with a cut squareness tolerance of +/2mm top to bottom (bigger with long range gripper upgrade) Try squaring the end of profile first
Out on one pos test measurement, all others are fine	ZX5	Datum holes already exist on bar in wrong position - second run through elongates holes so they are not circular	Cut off the datum holes

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See Also: TB0269 Proving Accuracy Variation due to Ambient Temperature