## 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.

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|   |
| <ul> <li>The Postest should be run every day before production starts to satisfy yourself that the machine is set up correctly setup for accuracy</li> </ul>          |
| 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 different**, and the machine would still be <u>within tolerance</u>. 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**

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|---|--------------------|------|---|
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|   |                    |      | But and the second  |
|   |                    |      | 546180 Large Outerframe A PosTest Saw Cuts  |
| 1 | 5.9.0.0<br>6.0.0.0 | 2010 | 7006     Large Outerframe       7706     Large Outerframe       87006     Large Outerframe       87706     Large Outerframe       87006     Large Outerframe       87006     Large Outerframe       980635     Large Outerframe       546185     Large Outerframe       546185     Large Outerframe       546185     Casement 7 sash  |
|   |                    |      | S46760 Comp Large Outerframe<br>S46725 62m Outer 5C<br>S46655 72mm Outer frame Gask<br>S76360 Large Outerframe Gask Coex ↓<br>S76655 72mm Outerframe Gask Coex ↓<br>10 Calmon Vieton ↓<br>12 Vieton Large Vietor Large Outerframe Gask Coex ↓   |
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|   | 6.7.10.0           | 2025 | Podia<br>P10532 72mm Rustique Outerframe A<br>STUGA Stuga Test Outer 2  |
| 2 |                    |      | P10502 72mm Outer Frame<br>BP10506 Slim 2 Transom/Mullion - E<br>P10503 70mm T Transom<br>103622 105mm Door Z Sash<br>114202 45mm Add On  |
|   |                    |      | BP10502     72mm     Outer Frame     Calbuton Test     12 Pece Test       P10505     70mm     2 Trans/Mull     Calposition test     12 Pece Test       P10536     70mm     2 Trans/Mull     Calposition test     Y Natch Lah     v       B910532     72mm     Rustique Outerframe     molOffset calculation     Test     Y Natch Right     v       P10612     Rustique French Door Mulliv     VNAtcD)     VNatch     v     v  |
|   |                    |      | Colour Bar Length Linearty Test   |
|   |                    |      | Note - A darker coloured ID signifies that the input is inverted (RED-Hput OFF) Code Timer<br>off 0.0  Code Timer<br>Code Timer<br>Co |

i...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 |   |
|---------|---|
|         | Batch: Postest Pieces: 2 Est. Time: 39s<br>Frames: 1                    |
| 1       | 7006     Large Outerframe       WHITE     1119       Nidth: 75.0     02 |
|         | Batch: Postest Pieces: 2 Est. Time: 35s<br>Frames: 2                    |
| 2       | STUGA     Stuga Test       WHITE     1 1200       Width: 67.0     002   |
|         | • •   |

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



...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 <u>RUN THE TEST</u> <u>AGAIN two more times</u> 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<br>Take the median (1.2)   |
| 2             | 0.5           | 0.2  | Inconsistent results.<br>Do not change the settings<br>Instead consider what may have gone wrong with the first measurement<br>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 -<br>cold weather outside              | All<br>Machines | Profile expansion due to profile temperature change between machining and sawing                                       | TB0269 Proving Accuracy Variation due to<br>Ambient Temperature<br>Ensure the test piece is at room temperature befoe<br>testing (do not use a bar from outside)   |
| Jumps between +1mm<br>to -1mm                              |                 | Datum hole too far away from gripper pins  | Accuracy - Check Gripper Datum Hole Position<br>Variance<br>Rubber clamp pad missing on infeed datum clamp   |
| Out on one profile type<br>only                            | All             | Bar end squareness inconsistent  | System supplier bar end is out of square.<br>The ZX5 can cope with a cut squareness tolerance<br>of +/2mm top to bottom (bigger with long range<br>gripper upgrade)<br>Try squaring the end of profile first |
| Out on one pos test<br>measurement, all<br>others are fine | ZX5             | Datum holes already exist on bar in wrong<br>position - second run through elongates holes so<br>they are not circular | Cut off the datum holes  |

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See Also: TB0269 Proving Accuracy Variation due to Ambient Temperature