



## Butterfly Spline Insert Cutter

# 10/40



INST/10/40 v3.0

# trend®

tool technology

Please read carefully before use

## BUTTERFLY SPLINE INSERT CUTTER REF. 10/40

Thank you for purchasing this Trend router cutter, which should give lasting performance if used in accordance with these instructions.

The following symbols are used throughout these instructions.



Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions.



Refer to the instruction manual of your power tool.

This cutter must not be put into service until it has been established that the power tool to be connected to this unit is in compliance with 2006/42/EC (identified by the CE marking on the power tool) or UK Statutory Instruments 2008 No. 1597 – The Supply of Machinery (Safety) Regulation (identified by UKCA marking on the power tool).

## INTENDED USE

This cutter should be used in a fixed head routing machine for accurate results (minimum 1500 watts, 1/2 shank capacity).

This cutter is intended for use to rout the profiles of 14 degree butterfly spline inserts in timber and wood-based products. By cutting mirrored 14 degree dovetail slots into joining pieces of timber, the inserts can be fitted to add strength and used as a decorative feature.

Dovetail cutters with a 14 degree angle are available to purchase from Trend Stockists. e.g Trend Product Ref: 31/33, L120.

## SAFETY

Please read and understand the safety points at the end of this instruction as well as the power tool instructions before use.

PLEASE KEEP THESE INSTRUCTIONS IN A SAFE PLACE.

The attention of UK users is drawn to The Provision and Use of Work Equipment Regulations 1998, and any subsequent amendments.

Users should also read the HSE/HSC Safe Use of Woodworking Machinery Approved Code of Practice and Guidance Document and any amendments.

Users must be competent in woodworking equipment before using our products. Please keep children and visitors away from tools and work area. All tools have a residual risk, so must therefore be handled with caution.

Attention should be made to the HSE's Safe Use of Vertical Spindle Moulding machines Information Sheet No.18 and any revisions.

## ITEMS REQUIRED

- Router with suitable collet fitted.
- Router table.
- Hand tools.



Recommended speed 22,000 rpm.

## OPERATION



Carefully remove the protective wax from the cutter and dispose. Insert the cutter shank into the collet all the way to the marked line indicated on the shank. This ensures at least 3/4 of the shank length is held in the collet.

These instructions show how butterfly inserts can be made with the 10/40 cutter used in a table-mounted router plus a few hand tools. Inserts can be made from the same or a different species of timber to give an attractive contrast against the material they are inserted into.

To be most productive, lengths of the insert are made and then cut to the desired thickness towards the end of the process. Therefore using a wider piece of material will produce more inserts, saving machining time.

## Dovetail Slots

The dovetail slot must be routed first using a relevant 14° (104°) dovetail cutter.

Two dovetail slots are required which must mirror to each other.

## Grain Direction of the Butterfly Spline Inserts.

Fig A

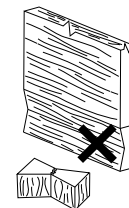


Fig B



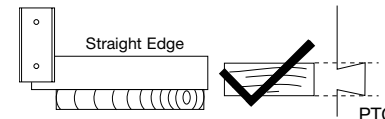
Fig A shows the timber machined with end-grain facing upwards on the insert. Although this can give an interesting appearance, the grain direct does not have the same strength as inserts that have been machined with the grain travelling length-ways as in Fig B.

## Selecting Timber

The material should be the same thickness or slightly thicker than the width of the dovetail base. Material that is cupped will be difficult to machine accurately.



Using a piece of timber that is relatively flat will be easy to hold in on the router fence. The ends should be square.



## ENVIRONMENTAL PROTECTION

Recycle raw materials instead of disposing as waste.

Packaging should be sorted for environmental-friendly recycling. The product and its accessories at the end of its life should be sorted for environmental-friendly recycling.

## WARRANTY

The cutter carries a manufacturer's warranty in accordance with the conditions on our website [www.trend-uk.com](http://www.trend-uk.com)

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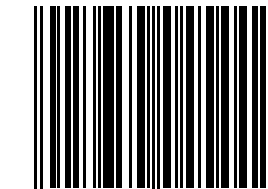
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## EU Importer:

## Trend Tool Technology Ltd.

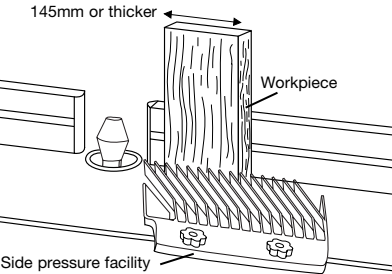
Ground Floor, Two Dockland Central,  
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[www.trend-eu.com](http://www.trend-eu.com)



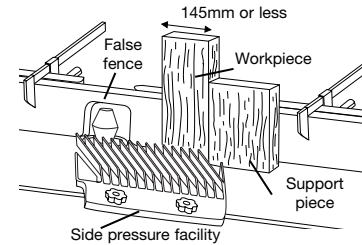
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### Table Set Up (Overview) ⚠



### Table Set-Up for Narrow Timber ⚠



**Safety Note**  
**On a router table without a one piece fence and if the timber being used is less than 145mm wide, a false fence should be fitted to the back fence to bridge the left and right fence cheeks, preventing the timber pulling into the cutting area.**

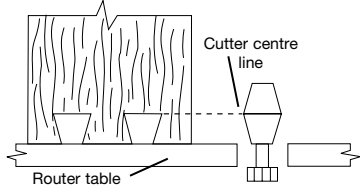


**A timber support piece should be used to help push through the work-piece in this case.**

### Cutter Height Set Up ⚠

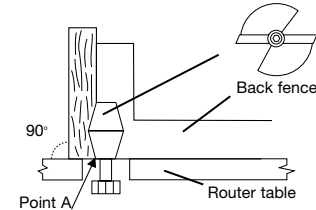
The height should be set so that the cutter's centre point is the same height as the dovetail's length.

If your router has a fine height adjuster it will be beneficial for this.



### Fence Set Up ⚠

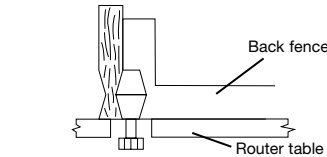
To set the fence to correct position, making sure the machine is unplugged, rotate the cutter so that the blade is at its outermost position. Ensure the back-fence is square to the table surface. Offer the timber to the cutter so that the cutter is in line to the bottom corner (Point A).



Lock back-fence off. It is advisable to make a trial cut to check set-up is correct. The first side can be routed. A side pressure can help hold the timber to the back-fence.

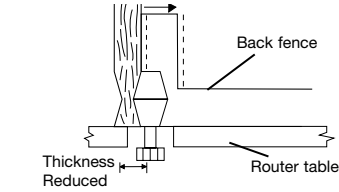
### Second Cut ⚠

Without adjusting the back-fence, the timber can be rotated and the second cut taken.



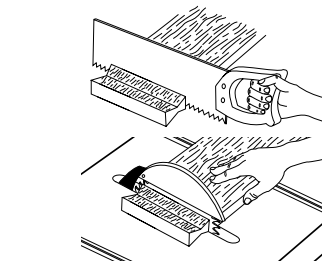
### Reducing Thickness of Insert Width ⚠

The back-fence can be moved over and another cut taken to reduce the thickness of the insert.



### Cutting Down Strips ⚠

The insert strip can be cut down with a hand held saw or on a table saw. If using a table saw, the strip should be on the off-cut side so that hands are away from the blade. The strip can then be cut down into pieces of the required insert thickness.



### Finishing

Inserts should be glued in place for a permanent fixture.

The visual effect of the inserts in the surrounding material can be enhanced by oiling or varnishing.

### MAINTENANCE ⚠

Please use only Trend original spare parts and accessories.

Continual satisfactory operation depends upon proper tool care and regular cleaning.

### Cleaning

- Ensure clamping surfaces are cleaned to remove dirt, grease, oil and water.
- Remove resin build-up regularly.
- Apply a rust protector to shanks.

### Lubrication

- Use a PTFE dry lubricant spray on tool to increase cutting edge life.

### Storage

- Always return cutter to its packaging after use.

### Safety Points

1. Disconnect power tool attachment from power supply when not in use, before servicing, when making adjustments and when changing accessories such as cutters. Ensure switch is in "off" position and cutter has stopped rotating.
  2. Read and understand instructions supplied with power tool, attachment and cutter.
  3. Current Personal Protective Equipment (PPE) for eye, ear and respiratory protection must be worn. Keep hands, hair and clothes clear of the cutter.
  4. Before each use check cutter is sharp and free from damage. Do not use if cutter is dull, broken or cracked or if any damage is noticeable or suspected. Only use tools for woodworking to EN847 safety standard. Ensure cutting tool is suitable for application.
  5. The maximum speed (nmax) marked on tool or in instructions or on packaging shall not be exceeded. Where stated, the speed range should be adhered to.
  6. Insert the shank into the router collet at least all the way to the marked line indicated on the shank. This ensures at least 3/4 of the shank length is held in collet. Ensure clamping surfaces are clean.
  7. Check all fixing and fastening nuts, bolts and screws on power tool, attachment and cutting tools are correctly assembled, tight and to correct torque setting before use.
  8. Ensure all visors, guards and dust extraction is fitted.
  9. The direction of routing must always be opposite to the cutter's direction of rotation.
  10. Do not switch power tool on with the cutter touching the workpiece.
  11. Trial cuts should be made in waste material before starting any project.
  12. Repair of tools is only allowed according to tool manufacturers instructions.
  13. Do not take deep cuts in one pass, take shallow passes to reduce the side load applied to the cutter.
  14. User must be competent in using woodworking equipment before using our products. Dress properly, no loose clothing/jewellery, wear protective hair covering for long hair.
  15. Consider working environment before using tools. Ensure working position is comfortable and component is clamped securely. Keep proper footing and balance at all times. Check work area for obstructions. Keep control of power tool at all times.
  16. Please keep children and visitors away from tools and work area.
  17. All tools have a residual risk so must therefore be handled with caution.
  18. Only use Trend original spare parts and accessories.
- If you require further safety advice, technical information, or spare parts, please call Trend Technical Support or visit [www.trend-uk.com](http://www.trend-uk.com)

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