

INST SPINDLE TOOLING



trend
Industrial tooling

INST/IT/ST v2.0

Please read carefully before use

Thank you for purchasing this brand new cutter from Trend. This tool was designed and manufactured according to the European standard EN 847-1/2.

SAFETY

Observe the safety regulations in the instruction manual of the machinery and accessory/attachment to be used. Please read the following instructions carefully. Failure to do so could lead to serious injury.

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 using woodworking equipment before using our products.

INTENDED USE

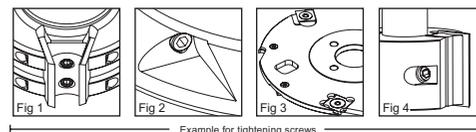
This cutter is intended to be used for machining wood, wood derived materials and plastics.

Maximum Speed (n.Max)

The maximum speed marked on the tool, or shown in the chart or on the packaging should not be exceeded. Where stated, the speed range should be adhered to.

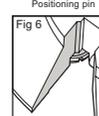
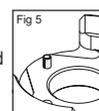
General Instructions

- Before first use, please check that the screws (see fig. 1 – 4) are tightened correctly and the cutting edges are not damaged. If any of the screws are missing, or the cutting edges are damaged, do not use the cutter and return it to the distributor from where it was purchased.
- Before putting the cutter on the machine spindle, please ensure that the recommended RPM etched on the cutter matches the RPM of your machine and the cutter is rotating in the correct direction. An arrow is etched onto the body of the cutter showing the correct rotation direction.



Example for tightening screws

- If the cutter is a set, please check every part of the set individually and only assemble according to the supplied instructions. Only assemble the parts in a way that is allowed by the positioning pins (see fig. 5)



Knife seat area

- Don't remove, reassemble, or replace parts that will change the characteristics of the original cutter. Removing, reassembling or replacing parts of the cutter could invalidate the guarantee.

- Handle the tool carefully. Cutting edges can be damaged if the tool is not handled properly.
- Try to avoid touching the cutting edges. The edges are sharp and may cause injury.
- Tools with visible cracks shall not be used.
- Tools and tool bodies shall be clamped in such a way, that they shall not loosen during operation.
- For tools with friction lock a setting gauge shall be used to maintain radial and axial cutter projections.
- Care shall be taken of mounting tools to ensure that the clamping is by the hub respectively by the clamping surface of the tool and that the cutting edges are not in contact with each other or with the clamping elements.
- Fastening screws and nuts shall be tightened using the appropriate

spanners etc. and to the torque value provided by the manufacturer.

- Extension of the spanner or tightening using hammer blows shall not be permitted.

- Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.

- Clamping screws shall be tightened according to instructions provided by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the centre outwards.

- Use of loose rings or sleeves to "make up" bore sizes on circular sawblades shall not be permitted. Use of fixed rings, e.g. pressed or held by adhesive fixing, in circular sawblades or flanged sleeves for other tools shall be permitted if made to the manufacturers specifications.

- Resin shall only be removed from light alloy with solvents that do not affect the mechanical characteristics of these materials.

Installing the Cutter on the Machine

- Make sure that the bore of the cutter matches the diameter of your machine spindle. Don't force the cutter onto the machine spindle and don't make any changes to the bore of the cutter.
- Ensure that the rotation of the machine spindle corresponds to the rotation direction etched onto the cutter.
- Tighten the spindle nut well before you start to work with the cutter.
- Before starting the machine, make sure the cutter is able to rotate freely and does not come into contact with any part of the machine.

Working with the Cutter

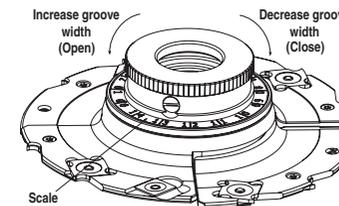
- Please make sure you read and fully understand the machine instructions before working with this cutter.
- Do not exceed the maximum RPM etched onto the cutter.
- The wood can only be manually fed onto the cutter if the word "MAN" is etched onto the cutter.

Disposable Insert Adjustable Grooving Cutter with Scorers and Ring Nut 4-7.5mm Ref. IT/7220161 and IT/7220171

- It is possible to adjust these grooving cutters to different cutting widths.
- The groove width is adjusted by rotating the ring nut on top of the cutter. To increase the cutting width, rotate the ring nut in an anti-clockwise direction (open). To decrease the groove width, rotate the ring nut in a clockwise direction (close). Use the scale on top of the cutter for accurate adjustment.
- The incremental scale is marked in steps of 0.1mm. One full rotation of the ring nut increases or decreases the groove width by 1.5mm.
- To get the required groove width:
 - Close the cutter completely by rotating the ring nut in a clockwise direction.
 - Calculate the difference between the minimal width and the groove width you need to produce.
 - Open the cutter using the incremental scale, simply dialling the determined difference.

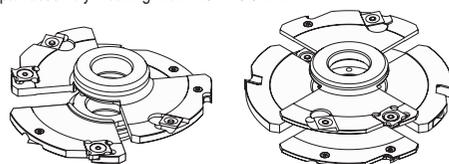
For example: To produce a 5mm wide groove, subtract the minimal width of the goover (4mm) from the width of groove required (5mm). The width you must dial is 5 – 4 = 1mm.

- Fine adjustment can be made by slightly rotating the ring nut to increase or decrease the width of the cutter.



3 Part Disposable Insert Adjustable Grooving Cutters with Scorers 4-15.5mm Ref. IT/7220301 – IT/7220307

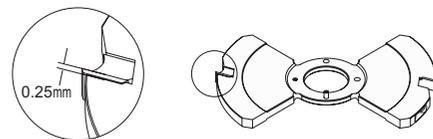
- It is possible to assemble this cutter in two separate ways:
 - 2 part assembly – cutting width 4 – 7.7mm.
 - 3 part assembly – cutting width 7.8 – 15.5mm.



- You can adjust the cutting width by adding or removing the supplied spacer rings. When using the three-part groover it is important that you spread the spacer rings equally above and below the middle cutter.

For example: To get a cutting width of 10mm with the three-part groover, you need to add spacer rings to a total width of 2.2mm (2 x 1mm and 2 x 0.1mm = 2.2 mm). Place 1 x 1mm + 1 x 0.1mm spacer on top of the middle cutter and 1 x 1mm + 1 x 0.1mm spacer below the middle cutter.

- It is important that the knives in the middle cutter are kept with 0.25mm protruding above the top of the cutter body (see drawing below). To achieve this, use the supplied 0.25mm gauge, when replacing dull knives.

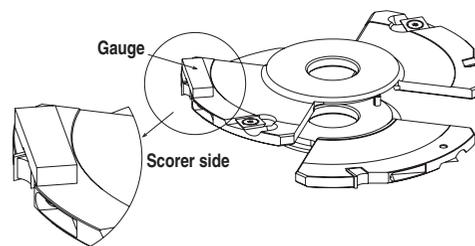


Disposable Insert Adjustable Grooving Cutter with Scorers 8.0-100mm Ref. IT/7220021/031/041/051/071/271/281/291/321/331

- It is possible to adjust these grooving and rebating cutters to different cutting widths.
- The groove width is adjusted by adding or removing the supplied spacer rings.
- To get the required groove width, you must calculate the difference between the minimal width (without spacers) and the groove width you need to produce. The difference will be the width of spacers you need to add.

For example: To produce a 13mm wide groove when the minimal width is 8mm, subtract the minimal width of the groover from the width of groove required. The width of the spacers you must use is 13 – 8 = 5mm.

- It is important that the supplied gauge is used when replacing the straight cutting knives. (See picture).
- When using the gauge, it must be placed on the scorer side of the tool. (See picture).



- We recommend that suitable eye, mouth and ear protection are worn whenever working with woodworking machinery.
- Ensure machine is connected to suitable dust extraction equipment, as specified by the machine manufacturer. Failure to use adequate dust extraction equipment can result in harmful dust being released into the work place and poor cutter performance.
- When using a new cutter, or after replacing the cutter knives, we recommend that the screws are checked and re-tightened if necessary, after a few minutes use.
- Check the knives regularly for sharpness. Dull knives can damage the tool, machine and work piece. Replace the knives before they get dull.
- Try to keep the cutter as clean as possible. A clean cutter will improve chip flow and cut quality.
- If the cutter comes into contact with a foreign object during use, immediately switch off the machine and check the cutter for damage. It is important to check the knife seating area (see fig. 6) for damage before replacing the new cutter knife. Damaged seating area will decrease the holding force on the knife and could cause the cutter to be dangerous.
- Trial cuts should be made in waste material before starting any project.

Repair of Tools/Maintenance

- Repair of tools is only allowed in accordance with the manufacturers instructions.
- The design of composite (tipped) tools shall not be changed in the process of repair. Composite tools shall be repaired by competent person, ie. a person of training and experience, who has knowledge of the design requirements and understands the levels of safety to be achieved.
- Repair shall therefore include e.g. the use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.
- Tolerances which ensure correct clamping shall be maintained. (cont.)



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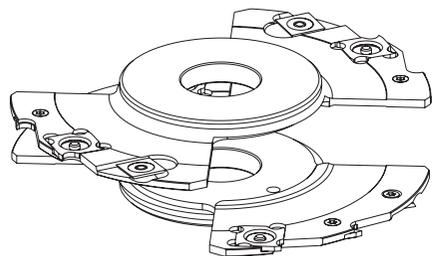
ENVIRONMENTAL PROTECTION
 Recycle raw materials instead of disposing as waste.
 Packaging should be sorted for environmental-friendly recycling. The product and its accessories at the end of its life should be sorted for environmental-friendly recycling.
GUARANTEE
 All Trend products are guaranteed against any defects in either workmanship or material, except products that have been damaged due to improper use or maintenance.
 Please see Trend website www.trend-uk.com/safety for more safety advice.
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Disposable Insert Adjustable Grooving Cutter with Scorers 4-7.5mm

Ref. IT/7220011 and IT/7220101

1. It is possible to adjust this grooving cutter to different cutting widths.
2. The groove width is adjusted by adding or removing the supplied spacer rings.
3. To get the required groove width, you must calculate the difference between the minimal width (without spacers) and the groove width you need to produce. The difference will be the width of spacers you need to add.

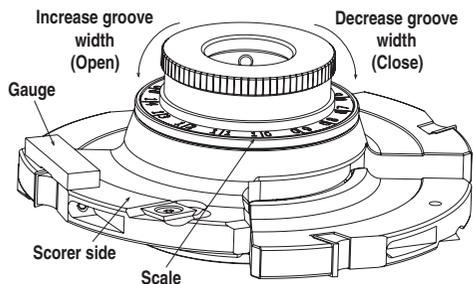
For example: To produce a 5mm wide groove, subtract the minimal width of the goover (4mm) from the width of groove required (5mm). The width of the spacers you must use is 5 - 4 = 1mm.



Disposable Insert Adjustable Grooving Cutter with Scorers and Ring Nut 8-24mm

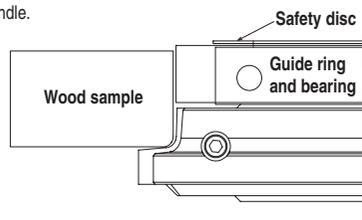
Ref. IT/7220081 - IT/7220121

1. It is possible to adjust these grooving cutters to different cutting widths.
2. The groove width is adjusted by rotating the ring nut on top of the cutter. To increase the cutting width, rotate the ring nut in an anti-clockwise direction (open). To decrease the groove width, rotate the ring nut in a clockwise direction (close). Use the scale on top of the cutter for accurate adjustment.
3. The incremental scale is marked in steps of 0.1mm. One full rotation of the ring nut increases or decreases the groove width by 1.5mm.
4. To get the required groove width:
 - a. Close the cutter by rotating the ring nut in a clockwise direction.
 - b. Calculate the difference between the minimal width and the groove width you need to produce.
 - c. Open the cutter using the incremental scale, simply dialling the determined difference.



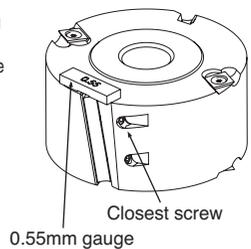
Disposable Insert Rounding Over Cutter Blocks Ref. IT/7524231 - IT/7524501

1. It is possible to use this cutter with bearing guide ring (100mm) for perfect rounding over joints.
2. Assemble the cutter, guide ring, bearing and safety disc exactly as it's shown in the picture below and place them on the machine spindle.



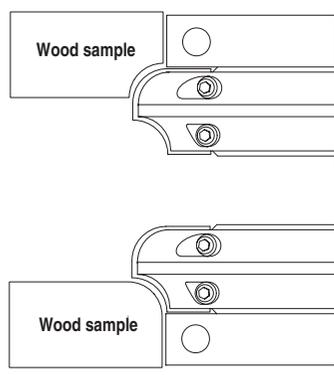
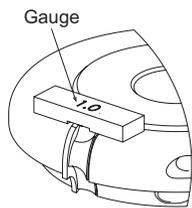
Disposable Insert Shear Rebating Cutter Blocks Ref. IT/7330011 - IT/7330061

1. This rebate cutter requires special attention when replacing the main cutting knife.
2. Use the supplied 0.55mm gauge to accurately set the knife.
3. It is important that the gauge is placed on the side of the cutter, which is closest to one of the two clamping screws.
4. Make sure that the clamping screws are securely tightened before using the cutter.



Disposable Insert Corner Round/Cove Cutter Blocks Ref. IT/7511031 - IT/7511301

1. It is possible to use this cutter with bearing guide ring (100mm) for perfect rounding over and cove joints.
2. Assemble the cutter, guide ring, bearing and safety disc exactly as it's shown in the pictures below and place them on the machine spindle.
3. Use a 1.0mm setting gauge when replacing the knives.

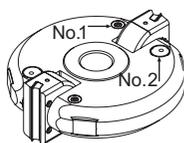


For example: To produce a 13mm wide groove with a cutter with a minimal width of 8mm, subtract the minimal width of the goover from the width of groove required. The width you must dial is 13 - 8 = 5mm.

5. Fine adjustment can be made by slightly rotating the ring nut to increase or decrease the width of the cutter.
6. It is important that the supplied gauge is used when replacing the straight cutting knives. (See picture).
7. When using the gauge, it must be placed on the scorer side of the tool. (See picture).
8. To change the straight cutting knives, use the supplied hex key. To change the scriber knives, use the supplied torx® key.

Disposable Insert Adjustable Chamfer Cutter Blocks Ref. IT/7340301 - IT/7340351

1. This cutter can be adjusted from +90° to -90° in steps of 1°.
2. To adjust the cutter to the desired angle:
 - a. Release the safety screws marked No. 1 (see drawing).
 - b. Use the supplied hex key in the screw marked No. 2 to adjust the cutter to the required angle.



For example: To get a 22° angle put the longer zero line (etched onto the cutter body) between the 20° and 25° angle (see fig. 2G opposite), adjust the second notch on the lower scale to the second notch after the zero line on the top scale.

3. Re-tighten the safety screws marked No. 1 before using the cutter.

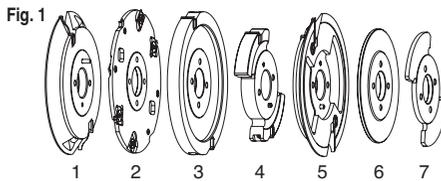
IMPORTANT

Do not try to rotate screw No. 2 before releasing screw No. 1.

Disposable Insert Profile - Counter Profile Cutter Block Set Ref. IT/7420201 and IT/7420211

This cutter set that you have just purchased contains the following items:

The mini set includes the following parts: 1, 2, 3, 4, 2 x 6 and 7. The complete set includes the following parts: 1, 2, 3, 4, 5, 2 x 6, and 2 x 7. Under each tool shown below you will see an identification number (fig 1).

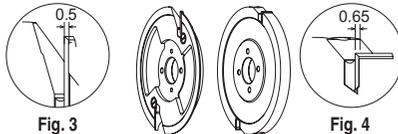


This number will be used in the following instructions. With this set, it is possible to use four different profile shapes (fig. 2).



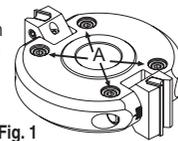
Getting Started

1. It is important that the dimensions shown below are maintained in order to get perfect results on the work piece (figs. 3 & 4). These dimensions are achieved by using the supplied gauges.



Disposable Insert Adjustable Chamfer Cutter Blocks Ref. IT/7340141 - IT/7340147

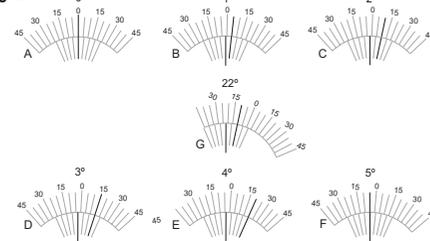
1. This cutter can be adjusted to an accuracy of 1°. For convenience, you can also use the built in notched scale, which enables fast adjustment in steps of 7.5°.
2. To adjust the cutter to the desired angle:
 - a. Release the safety screws (see fig. 1, item A), using the supplied hex key.
 - b. Use the vernier scale, etched onto the cutter, to adjust to the required angle.



For example: To get a 22° angle put the longer zero line (etched onto the cutter body) between the 20° and 25° angle (see fig. 2G), adjust the second notch on the lower scale to the second notch after the zero line on the top scale.

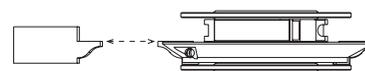
3. Re-tighten the safety screws before using the cutter.
4. To change the knives, use the supplied hex key.

Fig. 2



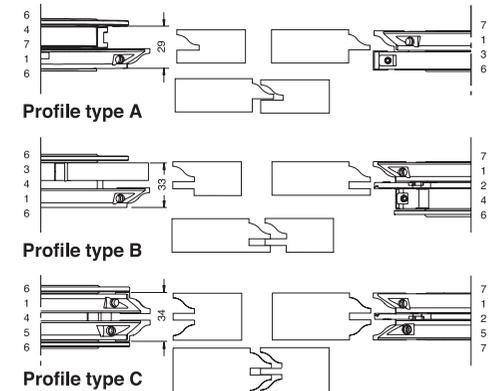
2. Only assemble the cutters on the machine spindle as illustrated.
3. Make a complete wood sample before you start producing the final work pieces.
4. Adjust the height of the assembled cutters with the help of the wood sample (see fig. 5).

Fig. 5



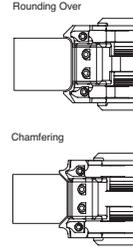
Working Procedure

The following illustrations show 3 different types of wood assembly A, B and C. The mini set will produce assembly A and B. Please ensure that you assemble the parts as shown in the illustrations below.



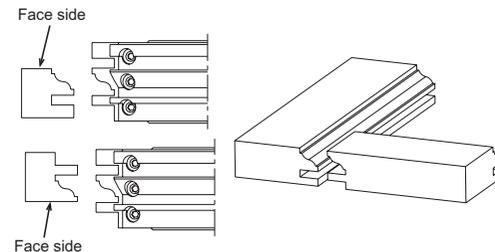
Disposable Insert Adjustable Rounding & Chamfering Cutter Block Sets Ref. IT/7520021 - IT/7520051

1. This cutter set enables you to round over and chamfer various thicknesses of timber.
2. The cutter height can be adjusted to suit the timber thickness by adding, or removing, the spacer rings which are supplied with the cutter.
3. To change the cutter from rounding over to chamfering, you must swap the upper and lower cutters with each other as shown in the pictures below.



Disposable Insert Profile - Counter Profile Cutter Blocks Ref. IT/7420311 - IT/7420341

1. To use this cutter correctly you must adjust the table height of your machine to get the necessary rail or style profile.
2. See the pictures below showing the correct table height adjustment.
3. This cutter can also be used with the optional bearing and guide ring (98mm) to produce curved rail and style profiles.



Disposable Insert Panel Raising Cutterhead Ref. IT/7510011 - IT/7510101

1. When using this raised panel cutter, 'witness' marks may appear during use or after replacing dull knives with new ones.
2. If 'witness' marks appear, use the adjustable setting screw to prevent the marks showing.
3. The setting screw allows the up and down adjustment of the small profile knife, whilst the long profile knife remains in a fixed position, achieving a better joint between the two knives (fig 1).
4. To adjust the screw (fig 2), first remove the small knife, open the inner locking screw (1) with the supplied hex key, adjust the setting screw (2) with a small flat screwdriver to the necessary height and tighten the inner locking screw (1). Re-assemble the small knife on the cutter. A complete turn of the setting screw (2) equals 1mm.

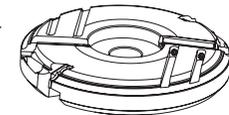


Fig. 1

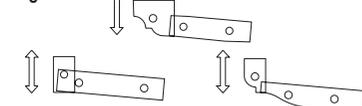


Fig. 2

