

Router Cutters

GET MORE FROM YOUR ROUTER
Routing with Tom O'Donnell



With a greater choice of cutters a greater variety of projects can be constructed

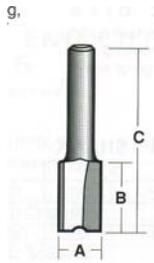
ROUTER CUTTERS



working on at the time:

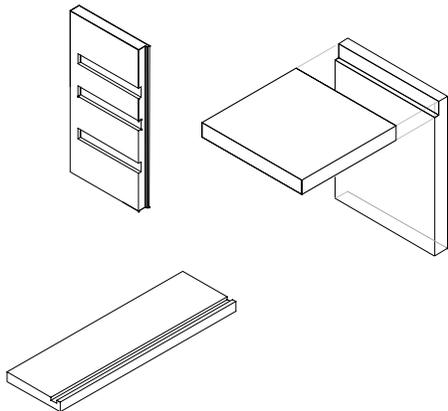
Cutters have been selected from a number of classification, depending on project you are

Straight Cutters:



The straight (12mm/1/2") cutter, usually supplied with your router has its limitations. E.g. rebating, trenching, morticing, inlaying, etc and a

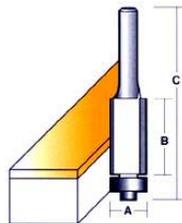
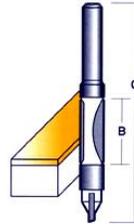
limited amount of face cutting.



Straight cutters can be purchased in a great variety of sizes, from 1.6mm single flute (solid carbide and high speed steel) to 50.8mm

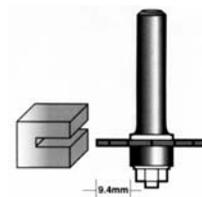
diameter two flute (carbide tipped) These cutters can be divided into a number of other categories, end cutting, rip or slotter, slot morticing, lock mortice, hinge mortice, staggered tip bits, spiral flute cutting (down or up cut spiral), fibreglass bits (to rout special materials) With the aid of jigs and templates and template guides many cutters can be utilised for a greater range of topics.

Pilot Panel Cutters (flush trimming bits) are available in high speed steel and carbide tipped. Some cutters are a combination of flush trimming and drilling.



Trimming cutters:

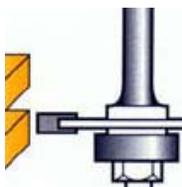
Popular cutter for flush trimming laminate and working with templates. Special cutters are designed for overhang trimming, combined flush and bevel trimming, inverted flush trimming, bevel trimming in a variety of angles.



The most popular of the 'slotting cutters is' purchased is used to insert biscuits. Others are available for inserting a range

of slots from 1.2mm to 8mm thick.

These are usually available as a slotted cutter assembly, then buying the slotted cutter only to change the width of cut.



Biscuit' cutter':

is for inserting biscuits with the router, and

should be used with great care. (The cutter is always projecting below the base.) This cutter is very convenient to be used in the 'Triton' router table, where a special fence can be purchased to control the material to be cut.

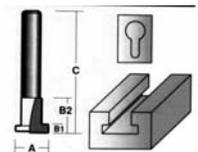
Groove forming Cutters:

The groove forming cutters are available for inserting dovetails, routing drawer pulls, and routing slots and hook slots for picture hanging.

Edge and face forming Cutters:

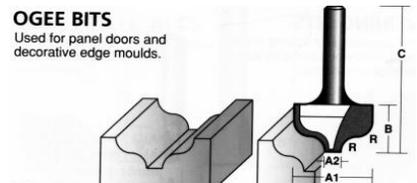
A variety of face forming cutters, are available for inserting decorative patterns to the face of board and are purchased in a wide range of profiles.

Special cutters can be made to any size and detail to suit the particular project you may be working on at the time.



OGEE BITS

Used for panel doors and decorative edge moulds.



TRADITIONAL CLASSICAL BITS

Used for panel doors and decorative edge moulds.

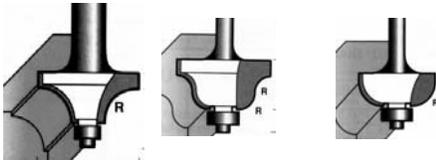


Cutters without bearing are mainly used in the 'Below Bench' position or controlled with the aid of template guides and jigs. These cutters can also be used with the aid of the side fence when adding edge treatment.

The majority of these cutter profiles can also be supplied with bearings

Cutters with bearings:

The cutters with bearings are the most readily purchased, as router users consider they can be controlled more easily with the bearing.



Like most cutters, they are available in a large range of profile and sizes to suit the material in use.

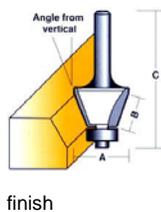
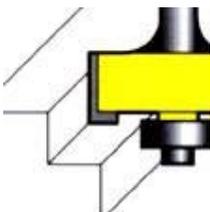


Edge forming Cutters:

Edge forming cutters are designed to form a decorative edge to the material and are available in a wide range of profiles. The most popular edge forming cutters used are the rebate, chamfering, rounding over, cove, beading or ogee.

Rebate Cutter:

Is an edge forming cutter to rebate the edge of material to insert plywood or MDF backs to cupboards etc. Special cutters are available to give a variety of rebates.

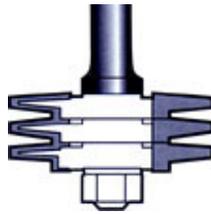


Chamfering Cutters:

A popular method of removing sharp edges and applying a professional finish

Jointing Cutters:

Special jointing cutters are available for making

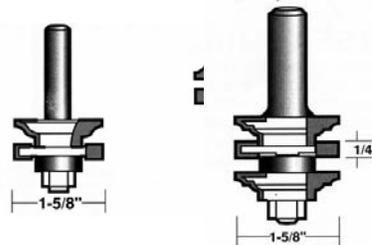


wide boards, finger jointing, tongue and groove, drawer construction, mitre lock jointing.

Jointing cutters are used to prepare wide boards from narrow strips and again should be used with great care and only when placed in the below bench position and not in the plunge mode.

Panel Door Cutters:

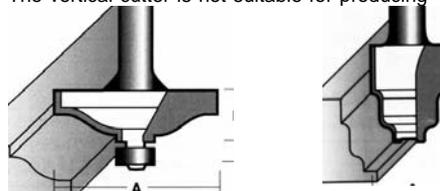
These cutters are usually purchased as a 'Matched Set' or as a stile and rail assembly. It is important that these cutters are purchased as a set as they have been designed to work together.



Raised Panel Cutters:

Suitable for inserting a raised panel in a door. The raised panel cutters are available with or without bearing, and can be purchased, in the horizontal or vertical position.

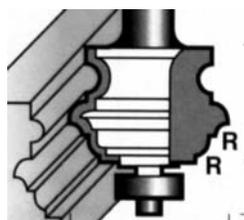
These cutters should be used in the below bench router with a variable speed 1/2" router. The vertical cutter is not suitable for producing



Combination cutters:

Combination cutters are a single cutter designed to give a variety of edge treatment to table top etc.

Note; This cutter should be used mainly in the below bench position and is limited to routing straight edges with the aid of a fence, except when using the section close

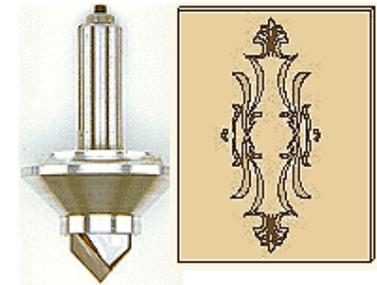


to the bearing.

Special cutters: (Carving with the router)

Special cutters have been designed to rout various patterns on the face of the material.

Special jigs have been manufactured to produce the various patterns with the 'Router Carver' cutter.



Safety tips and helpful hints:

Have your cutters sharpened by a professional service agent.

Use 12.7mm (1/2") diameter cutters wherever possible for more stability and less chatter.

Store you cutters in a special box to keep the edges fro touching and chipping.

Replace any worn collets, and ensure the collet is kept clean.

Clean bearings regularly with a solvent and submerge them in thin lubricating oil.

Insert the shank of the cutter into the chuck at least 20mm, to leave 5-10mm of 'white metal'.

The larger cutters such as the panel door cutters should only be used in the 'Below bench' position, or overhead router machines.

When using the larger bits care should be taken to ensure that the speeds and feed rate are suitable for the diameter of the cutter in use. Seek advice from your cutter supplier.



Box of Cutters.

Purchasing a small box of cutters (Starter Kit) usually contains 3-4 straight cutters, core box cutter, 'V' cutter, trimming cutter, dovetail cutter, and a small variety of edge profile cutters with bearings such as 45° Chamfer, Roman Ogee, Rounding over, Cove cutter, and rebating cutter. They are just what they say they are a 'Starter Kit' and they will get you started. The cutters inserted in the 'Starter Kits' are considered the most commonly used cutters.

Be prepared to invest in the better quality cutters that are available, as the cheaper range of cutters will not last for ever.

NEW ROUTER CUTTERS. (Cutters selected are supplied by Carb-I-Tool)

Catalogues of cutters are available from a number of sources. Selecting a suitable cutter for a specific job can be made easier if



details of the cutter sizes are shown clearly with drawings and dimensions.

E.g. 'Carb-I-Tool' catalogue give clear diagrams and dimensions, making it simple to construct jigs. (Even before you purchase a cutter you can prepare your jigs from the details published in the brochure).

Care should be taken with your cutters to ensure they are stored properly, store in a solid box with individual slots for each cutter to ensure that they do not come in contact with each other and cause chipping to the edges.

Face / Edge cutters

Notes:

Very few 'sets' of cutters, even in the more expensive ranges, contain a good selection of Face/Edge cutting bits.

Two different cutters can be used to create your own personal design by changing the template guide and cutter in use.

With the implementation of the template guide and jigs you will be introduced to a greater range of cutters and therefore produce a greater variety of interesting projects.

In some instances the Mortice and Tenon joint can be replaced with the dowel or the 'Biscuit' joint.

The 'Biscuit' cutter has replaced the Housing Joint on many projects, subject to having the necessary tools and equipment.

Very little information has been written about the template guide except when cutting dovetails or inserting trenches.

Notes: