

TECHNICAL

# the Router

# Nova

Bill Cain fires up the latest cutters from Trend

My dictionary describes the word Nova as "a bright new star that dulls with time". Well, I guess that these new cutters from Trend qualify on both counts since they are a new concept for portable router users and, like all cutters, they will dull after extended use.

Launched in May 2000, the system comprises an extensive range of interchangeable, and therefore replaceable, twin Tungsten Carbide knives in a variety of profiles. These knives are carried by two basic forms of cutter body which allow the user to change knives to produce a range of profiles.

So what's new? Replaceable tip cutters have been around for decades in the engineering world, and there are a few cutter manufacturers that have, for quite some time now, offered this style of woodworking cutter for portable routers. However, these have generally been limited to straight or parallel forms/profiles often employing a single knife/tip. Some manufacturers produce interchangeable TC tip moulding/profile cutter systems only suitable for CNC production machines but considerably more expensive than this Nova range and, in any case, not aimed at the portable router user.

### product details

As stated above, the Nova range employs two different cutter bodies, a Type 'A' and Type 'B'. Both types are machined from steel blanks and available in 1/4in, 8mm, 12mm or 1/2in diameter shank sizes.

Type 'A' is a 19mm (3/4in) diam. ball bearing guided system which comes with two interchangeable tip cages, to cater and provide support, for either convex or concave knife profiles.

There are 17 different convex and six concave profile/sizes of 1.8mm thick sintered Tungsten Carbide knives available to suit the Type 'A' body. Knives are positively located by a combination of slots/fix pins in the body and a top cage, with both knives and cage retained by the guide bearing and a spring washer/nut.

Type 'B' is a panel cutter (no bearing guidance), suitable for plunging, employing 2.0mm thick TC knives, which are available in five different sizes/profiles. Positive knife positioning on this type of body is achieved by means of slots and pins within the body, plus a machined steel centrally located wedge that swivels.

Two M5 grub screws pass right through the hole in each of the knives,



Type 'A' body disassembled with concave blades



Detail of blades and locking pin



Type 'A' assembly with tip cages and locking visible

← reacting against the wedge, causing it to swivel and positively lock the knives to the body. The swivel wedge can easily be removed and replaced from the body for cleaning purposes. Type 'A' and 'B' knives are not interchangeable and Trend regard them as disposable once they have become 'dull' with use.

### on test

The Trend supplied Guided/Panel set NT/SET/AB tested, comprised type 'A' and 'B' bodies (1/2in diam. shanks of 33mm and 31mm), Knives (two of each), 45 degree Chamfer (A02), 6.35mm radius Cove (A11), 6.35mm radius, Round Over (A05), 60 degree Bevel (B52), 4mm/4mm radius Classic, Decor (B55).

In addition to the above, knives A10 (7.9mm rad. Ovolo) and B53 (6.35mm rad. Cove) were tried. All parts came well presented in moulded plastic/card containers, (although if I was investing in this system I would make up my own custom made wooden box for long term/ease of use storage) together with a detailed instruction leaflet.

I found knife changing assembly to be a straightforward operation. The Type 'B' panel cutting knives were a bit of a fiddle at first but after a few changes I soon established the required technique. I would recommend that cutters always be removed from the router for knife changing since, in common with all forms of cutters employing nuts/washers/grub screws etc, it's all too easy to drop these parts into the guts of the machine, particularly when inverted in a table. Various cuts, including some single passes at full cutter depth, were taken along and across the grain using an Elu 177E (1850 watts variable speed) in pine, oak, beech and teak.

Cutting was efficient and vibration free with good chip clearance. The finish was excellent with crisp edges on all but the pine which was woolly. I regard this as a 'normal result' since in my experience TCT cutters, by comparison with HSS, rarely produce what I would regard as a satisfactory finish in soft timbers such as pine.

### conclusion

All in all, this was a well thought out and engineered system that performed superbly. Knife changing was both simple and quick and, having a diameter of between 29mm and 38mm, these cutters are probably best suited to medium or heavy duty routers.

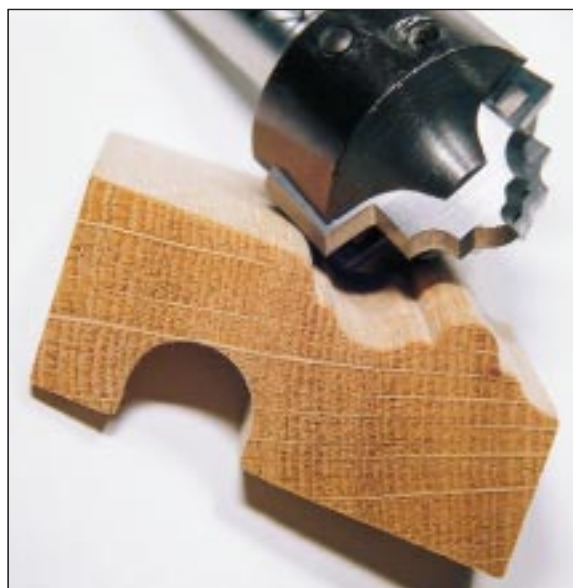
The system offers good value for money, enabling the range of profile shapes and sizes to be expanded at a relatively modest cost. 🛠️



Type 'B' body blade removed, note locking wedge



Type 'B' fully assembled



Avery spindle moulder type of result on an oak sample

### CONTACT

Trend Machinery & Cutting Tools

Unit 6  
Odhams Trading Estate  
Watford  
WD2 5TR

Tel: 0800 487363

### PRICES

Type 'A' body  
£32.84 (inc VAT)

Type 'B' body  
£23.44 (inc VAT)

Knives (per pair)  
£14.04 (inc VAT)

As tested Guided/  
Panel Set NT/SET/AB  
£105.69 (inc VAT)