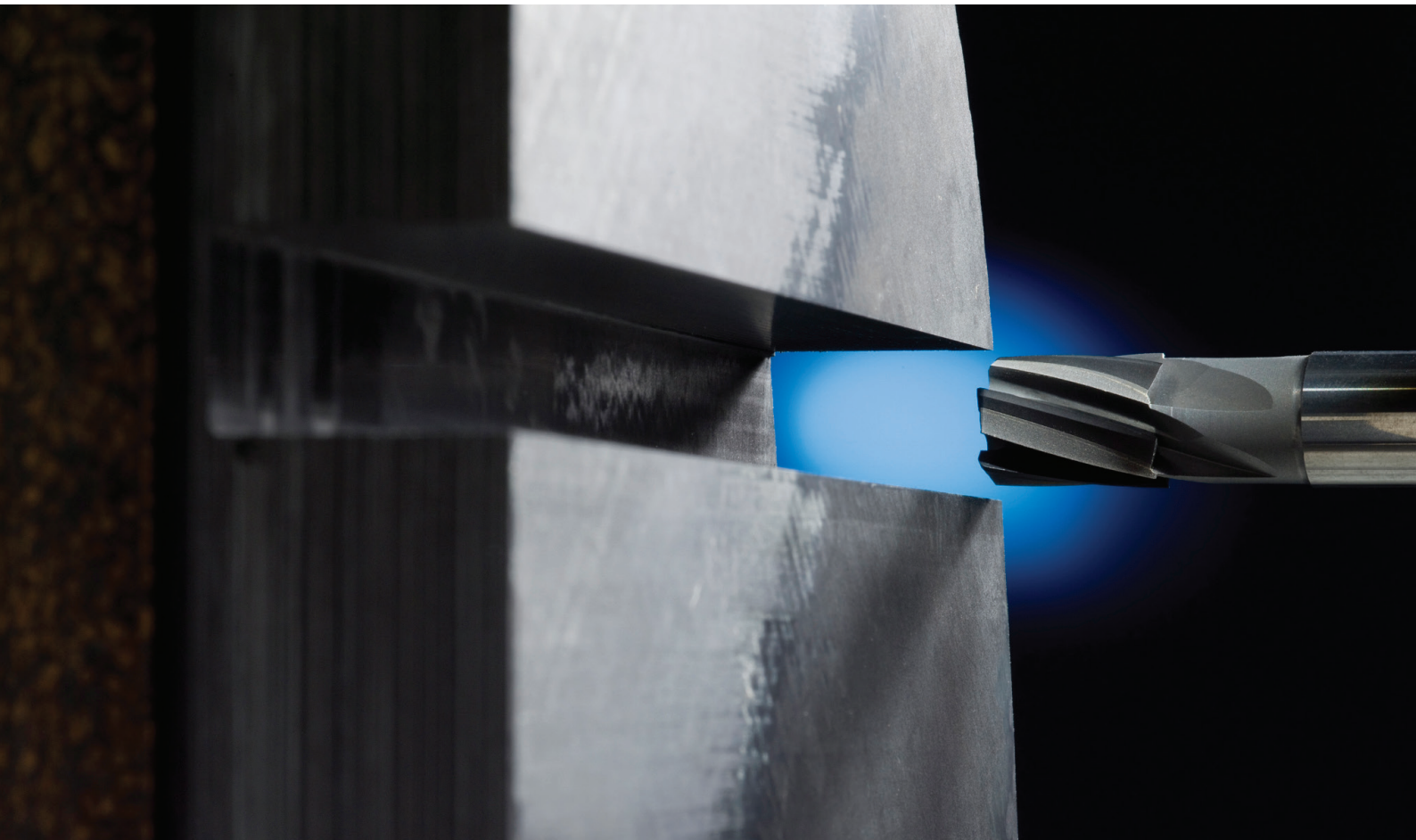


Advanced Routing Solutions

www.exactaform.co.uk



exactaform

Cutting through the boundaries of modern material machining

With the aerospace industry booming, and modern materials advancing very rapidly the industry focus is on enhancing manufacturing methods to optimise results, reducing costs and maximising productivity.

We aim to make you more productive, more competitive and more profitable.

3 Flute Router

This tool is a versatile, cost effective solution for a long-life roughing tool, or a small batch finishing tool. This proven router can be supplied with a range of geometries to suit your application and meet your performance demands.

Features

- Long-life rougher or a low volume finisher
- Can be supplied with extra-long length of cut
- Over centre cutting allows pockets and blind slots to be machined
- 3 flutes means excellent chip evacuation



| Material | Recommended Cutting Data |
|-----------|--------------------------|
| CFRP | Feed rate 0.1mm/rev |
| Aluminium | Feed rate 0.15mm/rev |

Maxi-flute Router

The one and only 12 flute router surpasses all competitor variations with respect to performance and quality. The tool longevity reduces costs per part, and the surface finish passes the most stringent of final part quality inspections.

Features

- 12 tooth PCD finishing tool
- Extremely low chip load, increased tool life
- Up to 1,000 metres tool life at 2,000mm/minute
- No part delamination



| Material | Recommended Cutting Data |
|----------|--------------------------|
| CFRP | Feed rate 2,000mm/min |

Heli-flute Router

A unique tool designed to combat the abrasiveness of modern aerospace materials, and overcome the challenges of sticky aluminium. By machining a helix into solid PCD the tool out performs competition in terms of productivity and part results. Suitable for dry cutting.

Features

- Full constant or variable helix geometry
- Solid PCD cutting edges – maximising wear resistance and tool life
- Full radial roughing with amazing edge quality results
- High feed edge of part ONE SHOT machining



| Material | Recommended Cutting Data |
|-----------|--------------------------|
| CFRP | Feed rate 0.2mm/rev |
| Aluminium | Feed rate 0.15mm/rev |

Exacta-burr

A breakthrough in modern cutting tool technology the Exacta-burr boasts a full cylinder of SOLID PCD. This is the first tool of its kind on the market and the results have been un-rivalled by any other tool ever. Combining the superior properties of PCD and the geometry traditionally used in carbide cutters the Exacta-burr is the only choice for high volume manufacturing. Suitable for wet and dry cutting.

Features

- Full cylinder of solid PCD – patented manufacturing method
- Burr-like design minimises load per tooth
- Full radial roughing with amazing edge quality results
- High feed edge of part ONE SHOT machining



| Material | Recommended Cutting Data |
|----------|--------------------------|
| CFRP | Feed rate 2,000mm/min |

All geometries can be designed and tailored for each application



PCD Vein Router Vs PCD Heli-Flute Router



| PCD Vein Router | PCD Heli-Flute Router |
|--------------------------|-----------------------------|
| Feed rate: 1,500 mm/min | Feed Rate: 2,000 mm/min |
| 30 minutes per component | 22.5 minutes per component |
| Cost: £6.40 per meter | Cost: £2.40 per meter |
| Fixed Vein geometry | Flexible, tailored geometry |
| Butt brazed | Solid tool body |

THE ONE SHOT DRY CUTTING SOLUTION

By using solid PCD the manufacturing method of the heli-flute remains completely flexible to the customers' demands. The constant helix evenly distributes the cutting forces across the width of the part reducing delamination. However, a variable helix tool can also be supplied to aid harmonic suppression.

The heli-flute has produced excellent results machining both aluminium and CFRP.

Compression Router Vs the Exacta-burr



| Compression Router | Exacta-burr |
|---------------------------|---------------------------|
| Diamond Coated Technology | Solid PCD Technology |
| Feed rate: 850 mm/min | Feed Rate: 2,000 mm/min |
| 20 minutes per component | 8.5 minutes per component |
| Cost: £80 per component | Cost: £8.50 per component |
| Requires more than 1 tool | One shot solution |

THE ONE SHOT WET CUTTING SOLUTION

This unique cutter is a SOLID diamond burr tool. Despite the advantages of coatings, solid PCD is ideal for strong cutting edges.

Traditionally physical limitations have restricted the geometries with solid PCD: however Exactaform have found a solution.

Using a patented method of manufacture the diamond burr is used as a one shot tooling solution that is guaranteed to increase your productivity by tool longevity and performance.



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