RAINFORD PRECISION

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'Quality is remembered long after the price is forgotten.'

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What we know is just a drop, what we do not know is an ocean
– Isaac Newton

Rainford Precision

Suppliers of the highest quality cutting tools to the precision engineering industry for over 27 years

We supply our customers with products carefully selected from the best cutting tools available, ensuring they are right for the applications they are to be used for.

The search for specialised tools and excellence in design has taken us worldwide, giving us:

- ***from Germany***
  Hobe and Schreurs
- ***from Japan***
  Union Tool, Iwata and ATOM
- ***from Switzerland***
  Louis Belet, Delmeco, Xactform and Friedrich Gloor

We give our customers help and advice when they make enquiries about what tools to use when machining new materials. Our experience enables us to offer solutions and make recommendations from the diverse range of cutting tools we have available. For example, we have endmills for machining tungsten carbide starting at 0.2 mm diameter and 0.5 mm diameter to machine composite materials, *uniquely small.*

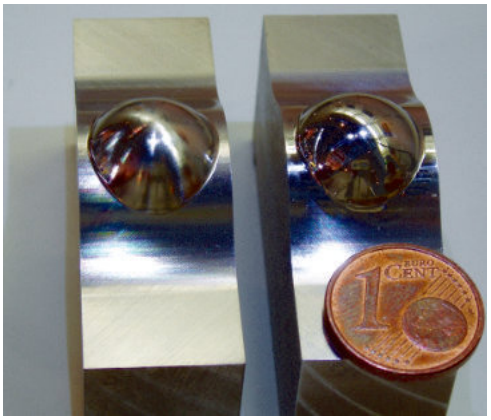
The wide number of industry contacts we have combined with the trust of our customers, stands testament to our dedication and passion for precision engineering. We have a huge amount of knowledge and expertise and an unquenchable thirst for knowledge of new processes and machining capabilities.

As we continue to seek new technologies, our aim is to maintain **Rainford Precision** at the forefront of UK engineering industry suppliers.

Some of our achievements:

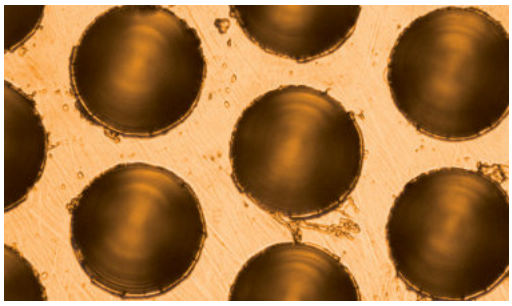
High Surface Finish accomplished with ease on KERN machines

In the past to get a high surface finish the job was always ground as the last operation in the manufacturing process. While not all materials are suitable for achieving high surface finishes by milling, using the right machine with the correct cutting tool and strategy fabulous results can be obtained. The two examples show surface finishes of Ra 0.0137 μm for the aluminium disco ball and Ra 0.103 μm with no tool or dwell marks for the spherical steel mould.



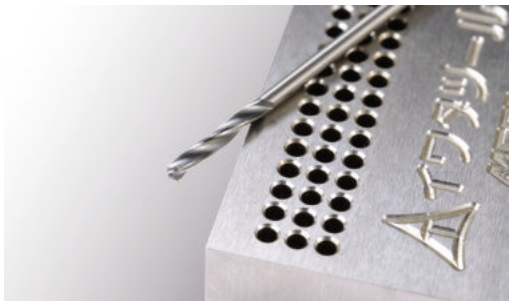
40 µm Ø Holes and 8 µm Ø Drills

A toolmaker needed to drill 40 µm holes in 54 HRC hard steel with a wall thickness of only 10 µm. 128 holes were drilled with one drill before we ran out of holes. The quality of the holes and the wall thickness can clearly be seen when viewed at a high magnification as well as a few burrs and scratches on the material surface, only a micron or two in size. Our record for the **smallest drill** supplied is **8 µm diameter**, although it only had a 8 µm flute length.



Iwata Toglon Drilling above 40 HRC

Drilling hard steel up to 75HRC was not possible in the early days, holes were drilled when the material was soft, sent for hardening and then jig-ground in the correct position with a good surface finish. Today depending on the hole diameter high diameter tolerances and surface finishes can be achieved by pure drilling. *What progress!*



Winning the Samurai Sword

In 2015, we received an award from the President of UNION TOOL Europe for having the highest percentage increase in business of all the European distributors. This was achieved with a lot of hard work but also with recognition from our customers that our tools are very good value for money and do the job that is required.

Milling Tungsten Carbide

When **Rainford Precision** started in 1991 any thoughts of being able to machine tungsten carbide with endmills would have been far-fetched. Today this method is well accepted by carbide die manufacturers as an alternative to grinding or producing electrodes and spark eroding. An impressive capability that makes high surface finishes and detail achievable. *The watch in the photo below is manufactured in tungsten carbide.*

Rainford Precision

We are passionate about precision machining, tools offering performance and value, and the supply of the perfect solution for your application.

Machines

- KERN Evo
  3 and 5 axis machining centre
- KERN Micro
  5 axis machining centre
- KERN Pyramid Nano
  3 and 5 axis machining centre
- KERN μ-View
  Tool inspection system
- FINEPART Finecut WMC 500 II
  Micro abrasive waterjet cutting machine
- FINEPART Finespin
  Polishing and deburring machine

Cutting Tools

- Drills
- Endmills
- Reamers
- Boring Bars
- Threadmills
- Hobs
- Broaching Tools
- Slitting Saws
- Composite Cutting Tools
- Customer Specific Special Tools
- Air Turbine High Speed Spindles

Meeting the challenges of new materials – machining techniques and tooling solutions

Since 1991, **Rainford Precision** have supplied the precision engineering industry in the UK and Ireland with machines and cutting tools of the highest calibre. Our passion for precision engineering shines through in our knowledge of our tooling range and its applications.

We regularly investigate machining problems presented by machine users, propose manufacturing solutions and methods, and provide expert advice – keeping our customers at the forefront of technology.

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