



BENEFITS OF FIVE-AXIS MACHINING

Open mind

Fresh designs
on CAM/CAD

Batchwork

Cool invention
for engineers

Fresh investment in CAM/CAD programs developed by world-leading company

Keeping an Open Mind on software

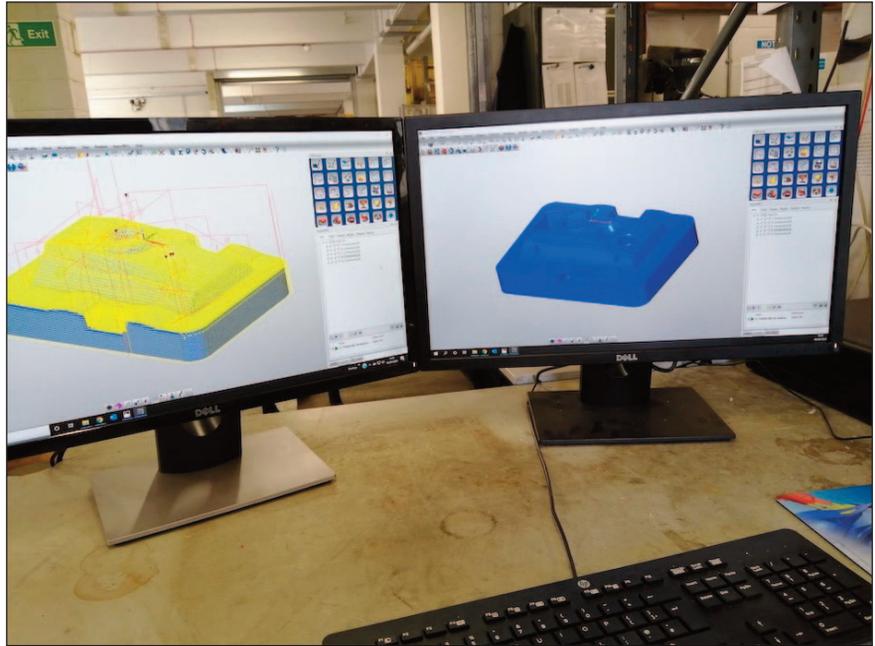
By Fraser Lynch

In a further effort to increase efficiency, we have invested a significant sum in Hypermill software from Open Mind.

Open Mind is a leading developer of powerful CAM/CAD programs and two of our engineers have benefitted from its comprehensive training scheme at Bicester.

The investment will enable us to:

- Maximise the efficiency and quality of components we can make for our customers.
- Offer a broader and more complex range of component manufacturing.
- Offer customers a high quality

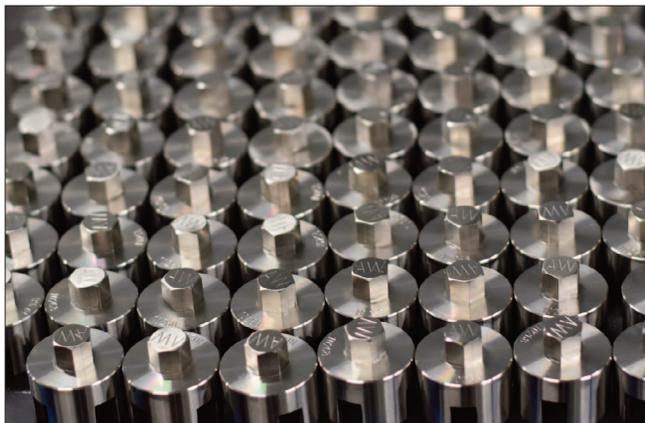


Screen shot: The Hypermill CAM/CAD software in action

design and drawing service.

- Maximise the use of the next investment in a simultaneous five-axis miller, to produce complex components and gears.

Customers can now come to us with an idea, which we can design and manufacture in-house, ensuring a competitive and timely service.



Invention that lets boiler engineers keep their cool

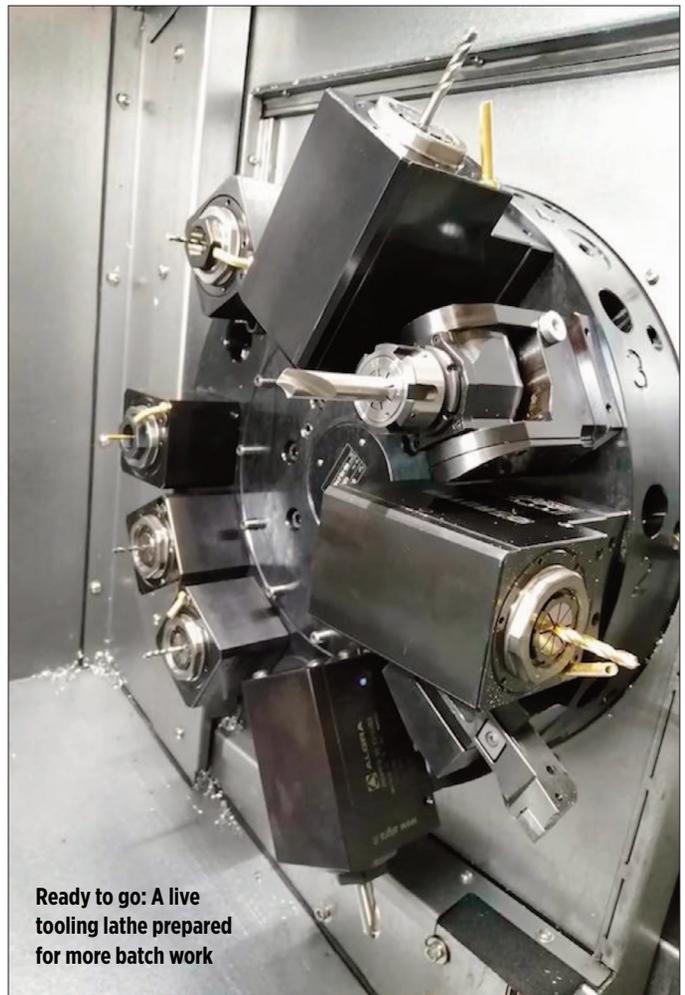
The castellated sockets, above, are the invention of a local boiler engineer.

He designed them to help other engineers avoid rounding the head of certain parts, and hand injury when unscrewing stubborn boiler bolts with pipe grips. And he chose us to make them.

The material is 316

stainless for durability and it won't rust in an engineer's toolbox.

The sockets were made on one of our live tooling lathes and completed in two operations as opposed to four: two on a lathe and two on a milling machine, helping to provide a cost efficient solution for hundreds of engineers.



Ready to go: A live tooling lathe prepared for more batch work



Michael Scott, above, at work on a turning centre. Below, Nathan King with Mark Higson of XYZ Machine Tools and the new UMC-5X

High speed 5-axis machining

The workshop in the former textile mill in which we are based has been expanded to cope with a significant growth in business.

Our latest investment is a new, high-precision, high-speed, simultaneous 5-axis universal machining centre.

The UMC-5X from XYZ Machine Tools combines cutting-edge technology with the latest performance specifications and is

designed for complex and multi-surface machining.

It will complement our two XYZ CT 65 LTY CNC turning centres, CNC lathe and CNC 1020 miller, adding greater capacity, versatility and speed of production to our offering.

The new machines have also increased the volume and speed of our batch work, with consequent economies for our customers.



Geared up for vintage cars and going great guns

By Graham Sykes

A variety of work comes into our workshop – which is why we cut and grind sets of gears for vintage cars under restoration.

A recent set was for a 1904 Winton touring car, similar to the model pictured, with a two-speed gear box. In 1903, a Winton was the first car to travel across America. Starting in San Francisco and finishing in Manhattan.

The gears were reverse engineered from samples supplied and will be quieter than the originals because they were hardened and ground.

Elsewhere in the workshop, a manufacturer who has made shovels since 1740, has used us to regrind some tool holders and repair a spindle. Both were required rapidly and we obliged.



In other work, a West Yorkshire-based rifle maker used us to machine a new part for one of his machines. The job was urgent as

the machine was required for a lucrative order to go the USA. This is the third time this customer has used us since the middle of 2019.



Efficient ethernet connectivity for added customer security

USB flash drives or discs are the conventional methods of storing, backing up or transferring programs.

As you can imagine, they have their own inefficiencies and risks.

Trialling programs from CAD /CAM on the machine can often mean several trips from the computer to the machine tool with a USB stick.

So the team at Westin Engineering is adapting to the modern, more efficient method of ethernet connectivity throughout.

This system minimises the risk of data loss and maximises up-time

Fraser Lynch reports on software storage

of the machine tools. Another benefit of ethernet is that it is a dedicated connection, meaning that it is for the sole use of our business and cannot be accessed by any other parties.

This is the key feature that sets it apart from alternatives like broadband and fibre.

We are always looking for new ways to improve customer quality and lead times and this is just one small step up the ladder.



GRAHAM SYKES

Route to excellence

Over the last 12 months, Westin Engineering has transformed itself from a manual machine tool operator into a fully integrated CNC precision engineering business.

This has been achieved by investing in 4 and 5-axis machining centres and turning machines with live tooling to enable us to offer customers batch and high volume components to exacting standards.

Further investment has been made in CAD/CAM capability, off-line programming and tailored software to enable us to manufacture highly complex components from a wide variety of materials.

We've also invested in developing young engineers in programming, setting and operating our new machines. This process will continue, the objective being to create a Westin Engineering centre of excellence.

While the focus is on technology and developing talent, we have also retained the skills of manual machining for one-off gear cutting, grinding and splining work.

This combination of new technology and traditional machining means we are a genuine one-stop shop for the supply of most precision components.

Why metal spraying is effective for jobs of all sizes

This output shaft from an old Radicon gearbox was the biggest metal spraying repair our team has undertaken.

Weighing nearly quarter of a tonne, the seal position had become worn over the years. But the rest of it was in good order.

It would have cost thousands of pounds to replace the shaft, so the customer opted for metal spraying.

This technique, regularly used in our workshops, can be a cost effective and rapid solution when the pressure is on.

