



Making Engineers Champions...









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# A NEW KIND OF THINKING

Engineering Technology Group (ETG) brings together the strengths of the world's most advanced manufacturers of high technology machine tools, automation, additive manufacturing, wire EDM and workholding systems to deliver highly productive metal cutting solutions.

Established around long-standing relationships with world-leading manufacturers and suppliers of advanced manufacturing equipment and now including additive manufacturing and wire EDM, ETG is the single-source machine tool, additive manufacturing and turnkey solutions provider. ETG brings a new way of thinking to the high technology machine tool market by providing in-depth support and applying unrivalled insight, experience and expertise. ETG aims to get the maximum benefit from advanced manufacturing technologies for its clients.

Our commitment is to offer exceptional levels of customer service, in-depth product knowledge and factory trained support teams as well as on-going service and support, all delivered to the highest standards, as expected from our renowned associates.

ETG is your partner; supporting your business at every stage, dedicated to making engineers champions.



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# THE TURNKEY SOLUTION PROVIDER



#### EVALUATE

We assess all variables during an evaluation including process requirements, machine specification to workpiece and workholding. ETG utilises its vast experience to deliver the best manufacturing solution, increasing productivity and profitability.



### DESIGN

ETG will design and implement a machining process that will allow you to work faster, more efficiently and at a lower cost. Creating a process strategy which considers clamping positions/axes, machine-tool compatibility, process tooling, loading, automation and more.



## CAPABILITY

ETG will realise a complete turnkey solution to best match your production requirements, with enhanced cycle times and increased component quality. This capability will be achieved through tool-selection, automation, software, CNC programming, collision checking, measuring and prototype testing.



#### **IMPLEMENTATION**

Once ETG has fully tested the turnkey concept in-depth, it will implement and deliver the CNC operational cell, on schedule and to budget. Training will be delivered on-site or at one of our regionally located Technical Academies.



# AFTERCARE

Once your Turnkey Solution has been delivered, ETG will remain your trusted partner. Delivering comprehensive aftercare, including service and maintenance, by our large team of skilled service engineers. All assured with in-house stocked OEM spare parts, keeping your machines running smoothly and efficiently.

# ETG'S STRUCTURE

ETG is structured into four divisions; UK Headquarters, ETG Ireland, Hyfore Workholding and HK Technologies. Each has a clear objective, but all ensure the end-user receives the highest level of service.

Primary business activities are conducted in the United Kingdom and Ireland. UK operations are based at ETG's Headquarters in Wellesbourne, Warwickshire, while Ireland is serviced from Newbridge, Co. Kildare.

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#### Headquarters

The Group headquarters encompasses the operations division; engineering team, field sales activities, technical, pre-sales and internal sales support, spares, applications, project management and pre-delivery inspection, goods inward and despatch.



## **ETG** Ireland

ETG Ireland replicates all of the services of the group, offering machine sales, service, technical support and all aspects of training, serving both the Republic and Northern Ireland from our facility in Newbridge, Co. Kildare.



# Hyfore Workholding

Hyfore Workholding, ETG's workholding division, has its own in-house CAD team, designing and creating bespoke and standard workholding. The manufacture, prototype testing and measurement of workholding are also all completed at its Coventry production facility.

ETG clients are also supported by a dedicated online Hyfore shop; (hyfore.shop) which stocks 70,000+ standard products, from collets to renowned fixtures and clamping brands.



# **HK Technologies**

Technological leaders, HK Technologies, brings a huge selection of advanced solutions to the ETG portfolio. HK Technologies is partnered with a roster of technical principals including; 3D Systems, Markforged, Mitsubishi Electric, OPS Ingersoll, Balance Systems, Kapp Niles, Thielenhaus, and HK Laser. This allows them to bring an equally varied list of services to the ETG threshold, including; additive manufacturing, wire EDM, balancing machines, gear grinding machines, superfinishing machining, and a sub-contract laser marking service.



# **HEADQUARTERS**

- Engineering
- Sales & Marketing
- Goods Inward
- Pre-Delivery
  Inspection
- Technical
  Applications
- Spares
- Service & Spares
- Aftercare

ETG is based at its established 17,500 sq.ft. facility located at Wellesbourne, Warwickshire.

The Group has extensive and proven expertise in turnkey engineering and automation solutions, offering industry experience and capability from one source. They possess advanced engineering and management skills, encompassing programming, logistics, systems integration and project management necessary to analyse, design and install the optimum solution.

ETG takes total care of machine preparation prior to customer delivery. This dedicated team are ready for any challenge, be it a "direct from stock" standard machine, or a complex bespoke turnkey solution, encompassing design, technical applications such as automation, engineering processes and cycle-time testing through to final acceptance.

With ETG's servicing and spare parts department also being based in-house you can be assured of the broadest range of machine tool spares and seamless technical support available to the UK and Irish engineering communities.



#### **Goods Inward**

Machine tools from ETG's associates arrive from many locations around the world. ETG have a dedicated unloading and handling operation, once a machine has passed PDI and is ready for despatch, the engineering teams then deliver it to the customer's site and assist with installation and machine tool or turnkey solution set-up.



## Pre-Delivery Inspection (PDI)

ETG has a dedicated PDI team which is integral to delivering a seamless installation. In effect, a newly installed machine is delivered as near to 'plug-and-play' as possible. Undertaking PDI's and pre-delivery engineering work reduces lead times and simplifies installations.



## **Technical Applications**

Machine tool solutions require optional equipment, for example, bar feeds or automation. Working closely with its Technical Partners, ETG installs and tests all relevant equipment, managing faster machine delivery and ensuring optimum cycle-times, without having to rely upon a third-party engineer to arrive from abroad.



#### **Spares**

ETG stocks extensive inventories of machine tool spares and parts across all of the associate brands it represents, ensuring original manufacturer parts with rapid availability and delivery.



# Service & Aftercare

Once a machine is installed, it's essential that it runs efficiently. Part of ETG's underlying philosophy is delivering machine lifetime support. With its dedicated service team, comprising of over twenty associatefactory-trained engineers, you will be assured of optimum production efficiency.



# ETG - IRELAND

ETG – Ireland brings a new perspective to machine tool supply and support.

ETG expanded its highly successful UK operations to cover all of Ireland in January 2014, bringing a refreshing new way of thinking to a traditional sector.

Representing all the leading brand names in global machine tools available within the group portfolio, coupled with an impressive software supply spearheaded by Mastercam & Cimco, training and support is delivered from its base in Newbridge, Co. Kildare with the support of the Groups operations including; PDI, 20+ dedicated service engineer team, service aftercare and spares.

Being the experts in applications engineering, CAD/CAM programming and project management means that ETG Ireland can deliver complex turnkey packages ready to go straight into production. This is combined with 24/7 support, training and preventative maintenance to keep customers operating at maximum productivity.





▲ The annual ETG Ireland Smart Factory Machining event

Ireland's first showcase of Halter robotics and automation

#### Cost Effective, Hands On Software Training

One of the services offered by ETG is comprehensive software training based on its Mastercam expertise as well as ISO training for refresher courses for Fanuc, Seimens and Heidenhain programming systems.

The training school can accommodate up to six operators at any one time and is fully equipped with PCs. The facilities are unique for two reasons, not only can those on the course become acquainted with the turning, milling and mill-turn features of Mastercam software, but they can also put their newly learnt programming skills into live action via the machining centres. In effect, a whole production workshop can be simulated across a typical two-day course, giving opportunities for those just beginning with a low knowledge base to others looking to upgrade their skill-set or wishing to undertake a refresher course.

Courses can be tailored to a specific need and ETG are happy to accommodate groups or individuals dependant on the requirement.

Mastercam. SCIMCO CAMPLETE HEIDENHAIN



# HYFORE WORKHOLDING

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Hyfore Workholding is a leading supplier of workholding and machine accessories, offering a comprehensive range of standard products to bespoke fixtures.

Hyfore Workholding has the capacity and skills to manufacture a wide range of manual and automatic workpiece holding and handling systems for the manufacturing industry.

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### Getting the Most Out of CNC Machines

Hyfore Workholding can assist its clients in realising significant savings in medium- and high-volume CNC production, using cost-effective bespoke workholding systems that help increase machine performance.

Hyfore Workholding specialises in the design and manufacture of high-quality, bespoke workholding systems for metal cutting, welding and assembly applications.

### **Cost-Effective Bespoke Design**

Hyfore Workholding's highly qualified specialist engineers are dedicated to provide complete solutions to customers' manufacturing requirements and offer complete turnkey solutions including:

- » Mechanical and electronic design utilising CAD/CAM 3D modelling. This capability gives us a clear advantage when viewing complex fixtures and tool cutter paths, in relation to the fixture design.
- » Quality testing and prove-out to agreed standards
- » Project management
- » After-sales service support
- » Simultaneous engineering contracts

#### Our Trusted Workholding Associates



# **HK TECHNOLOGIES**



#### A New Era for Manufacturing

HK Technologies was brought into the ETG family in mid-2019, giving the Group the ability to drastically expand its service offering.

ETG is now able to supply:

- » 3D printing equipment for both products and product moulds
- Advanced wire EDM solutions available »
- Balancing machines for rotating components »
- Super finishing and gear grinding machines »
- » Sub-contract laser marking services

#### **Expanded Turnkey Solutions**

This conjoining allows ETG to offer a more complete turnkey portfolio. Through ETG, manufacturers are now able to make an extra step closer to Industry 4.0 and towards yet more refined and forward-looking processes.

Since 1959, HK Technologies has been providing the manufacturing industry with the very latest innovations in technological solutions.

Today, HK Technologies under ETG is the sole UK distributor for Mitsubishi EDM and operates in conjunction with two of the industry's leading additive manufacturers, Markforged and 3D Systems, in addition to a broad range of advanced machinery producers.





# INCLUSIVE SUPPORT FOR EXCLUSIVE BRANDS













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# INCLUSIVE SUPPORT FOR EXCLUSIVE BRANDS





















# <u>chiron</u>

The Chiron range of vertical machining centres offer exceptional productivity and a wide choice of 5-axis, twin-spindle, swivel head and two axis rotary table options.

The emphasis on high speed axis travels combined with accuracy, stability and reliability make Chiron machine tools highly suited to high volume applications, automated cells and turn-key installations where maximum productivity is a primary consideration.



Client factory visit of Chiron head office, Tuttlingen, Germany





Nakamura has established a firm position as a world leader in the design and manufacture of single process multi-tasking mill turning machines, developing products by utilising innovative technologies fostered in mother machines such as high precision CNC lathes and machining centres.

Nakamura twin opposed spindle machines with multiple tool turrets or tool changers and high power driven tools give the flexibility and machining capability for the most complex mill turned components in a single set up.



🔺 Nakamura-Tome Head Office, Kanazawa, Japan





These two famous USA brands offer high value-for-money, reliable robust performance from entry level turning and milling machines to fully simultaneous 5-axis machining centres and high performance precision lathes.

There is also the Super Precision (SP) range of turning centres which add another dimension to high precision and machine construction that produces the most accurate parts coming off a production turning centre in the world.

SP machines are highly engineered products and fulfill a specific need where exceptional, prolonged accuracy is required in a volume production environment.



▲ Hardinge Bridgeport GS42

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Quaser horizontal, vertical and multi-face 5-axis machining centres are increasingly popular due to their superb build quality and suitability for high volume production, tool room and sub-contract machining environments.

All UK sales, service and customer support activities for Quaser products are today handled through ETG, working closely with the Taiwan manufacturing facility and the Swiss based Quaser European Technology Centre.

The Quaser ranges of MV and MF vertical machining centres are highly versatile, offering high speed, high powered machining with 4+1 and full 5-axis machining capability along with large X-axis machines with a compact footprint.



🔺 Quaser Head Office, Taichung, Taiwan

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Stama Maschinenfabrik is a German machine tool manufacturer and a sister company of Chiron. it specialises in advanced 4 and 5-axis machines, single, twin and 4 spindle vertical machining centres and mill-turn centres.

Offering flexibility and high production efficiency across the range of small batch and high volume machining and with their inherent reliability and automatic loading options are well suited to unmanned machining environments and heavy duty machining.



▲ Stama Head Office, Germany

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bavius specialises in large format machining centres primarily for the aerospace manufacturing industry and offering massive productivity gains in comparison to traditional machining methods and processes.

Ranges include five axis horizontal, profile, gantry and universal machines for large scale aerospace components – notably the HBZ AeroCell and HBZ CompactCell horizontal machining centres.



▲ bavius technologie Head Office, Baienfurt, Germany





The Pietro Carnaghi company was founded in 1922 and is today renowned on the international scene for the manufacture of large-scale machine tools, with continuous development of ideas and new technologies, supported by more than eight decades of experience in the sector.

Pietro Carnaghi specialises in the manufacture of machine tools which demand high performance. The production of vertical lathes, movable portal milling machines – Gantry type and Flexible Manufacturing Systems (FMS) cells.



▲ Pietro Carnaghi Head Office, Cortese, Italy

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Scherer Feinbau is a specialist designer and manufacturer of single and twin spindle CNC vertical lathes and vertical shaft turning centres as well as an expert in handling systems and automation solutions.

Part of the Chiron Group, this international company manufactures multi-functional and flexible turning machines with single or twin spindles, offering high precision and production speeds for producing low piece costs from a compact, yet robust machine.

Scherer Feinbau also manufactures single spindle and double spindle vertical lathes and has a global reputation for its own design, highly productive shaft lathes.



▲ Scherer Feinbau Head Office, Germany

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More than 30 years ago, Mitsubishi Electric developed and produced the world's first electro-erosive machine (EDM). Today, Mitsubishi Electric is the world-leader in wire EDM technology, continuing an uninterrupted chain of development dating back to the 1950s.

Mitsubishi Electric machines are produced to the highest standard in high specification conditions at their Germany-based facility.

Through HK Technologies, ETG is the UK's sole distributor for Mitsubishi Electric wire EDM machines, providing its clients with exclusive access to the very best EDM technology available.



▲ Mitsubishi Electric Head Office, Ratingen, Germany

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Founded in 2013, Markforged is a world leader in the production of the very latest generation of industrial 3D printing technology. Through continuous development, Markforged has developed a range of additive manufacturing solutions which allow for the precise production of previously technically challenging components.

Through ETG and HK Technologies, Markforged supply a range of leading industrial 3D printers, print systems and software.

Able to rival traditional manufacturing processes and in some cases exceed them, 3D printing systems are the new generation of precision manufacturing.



▲ Markforged Head Office, Dublin

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3D Systems was the very first 3D printing company in the world, founded in 1986. The founder, Chuck Hall, created the world's first-ever 3D printed part, having invented stereolithography.

Now, 3D Systems is the world leader in the production of large-scale 3D printers, with a selection of 3D printers made suitable for the manufacturing industry.

3D Systems printers allow manufacturers to rapidly print 3D prototypes of complex components as well as precision moulds for metal casting. This provides levels of refinement only achievable through the use of 3D printing technology.

Available through ETG and HK Technologies, 3D Systems enables manufacturers to refine, accelerate and advance production processes.



▲ 3D Systems Head Office, Rock Hill, South Carolina, USA

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Based in Burbach, Germany, OPS INGERSOLL manufactures a highly-developed series of EDM, HSC and automation machinery for the industrial metalworking sector.

Driven by a unique company view and a focus on quality and innovation, OPS INGERSOLL have amassed a wealth of industry expertise, something that is evident within each of their products.

Through the use of OPS INGERSOLL machining products, manufacturers stand to increase production efficiency and quality, aided by ETG's full turnkey offerings.



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▲ OPS INGERSOLL Head Office, Burbach, Germany





With a legacy dating back to 1898, KAP NILES is one of Germany's leading producers of gear grinding machines.

Through ETG and HK Technologies, clients are able to experience exceptional quality and an unrivaled level of finish standard with KAP NILES.



▲ Kapp Niles Head Office, Coburg, Germany

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Based in Italy, Balance Systems create leading edge balancing machines for rotating components. They specialise in the development of advanced technology, applying it to their industry portfolio.

Their advanced offering is available to ETG clients as a component of their complete turnkey offerings.



▲ Balance Systems Head Office, Pessano con Bornago, Milan

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# THIELENHAUS MICROFINISH

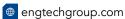
Thielenhaus' eternal claim to fame is their work micropolishing miniature bearings used in the construction of the Apollo 11 spacecraft which took the first astronauts to the Moon in 1969.

To this day, Thielenhaus continue to produce exceptional quality in microfinishing.



▲ Thielenhaus Head Office, Novi, USA

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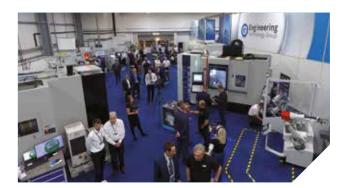


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# DISCOVER TURNKEY EXCELLENCE -OPEN HOUSE

▲ A snapshot of the recent Open House Event, "Discover Turnkey Excellence" at ETG's headquarters in Wellesbourne, UK.





# MASTERCAM

# Mastercam.

ETG is an authorised Mastercam supplier and delivers CAD/CAM software tools for all types of programming, from the most basic to the extremely complex.

Mastercam offers leading solutions for designers and NC programmers in a spectrum of industries including milling, turning, wire EDM, router programming, plasma cutting, lasers, and 3D design and drafting. Users of Mastercam software range from industry-leading manufacturing giants to bespoke workshops. Mastercam continues to grow and expand into new markets and technologies, with the focus always remaining on user-friendly development and industry advancement.

As an industry leader for over 30 years, Mastercam is the most widely used CAD/CAM software, providing industryleading products to all levels. Mastercam has remained at the forefront of CAD/ CAM technology by listening to the needs of engineers and by being accessible. To date, Mastercam has found a home in over 200,000 installations worldwide in the mould-making, automotive, aerospace, and consumer industries.

At ETG, we can cater for all your CAD/CAM needs and we offer training for all Mastercam products with our dedicated Mastercam facilities.



MILLING Mastercam Mill



TURNING Mastercam Lathe



MULTI-TASKING Mastercam Mill-Turn



MULTI-TASKING Mastercam Swiss



WIRE EDM Mastercam Wire



ROUTER Mastercam Router



MODELLING Mastercam Design



INTERGRATED SOLUTIONS Mastercam for SOLIDWORKS

# CAMPLETE



ETG is the UK and Ireland's exclusive supplier of CAMplete software, allowing clients to extract optimal usage from their machining processes and equipment. The advanced software capabilities allow operators of complex, multi-tasking machinery to use their machines to their full potential.

#### CAMplete TruePath TurnMill

CAMplete TruePath TrueMill provides users with the powerful CAM tools necessary to enable you to get the optimum return on your investment.

CAMplete's unique software creates a seamlessly integrated environment, allowing for the combination of outputs from entire ranges of CAM systems. This results in a fully optimised set of multitasking programs; verified and ready to run on any machine.

#### Simulation and Verification

CAMplete TruePath TurnMill software includes a large variety of tools for simulating and verifying CAM programs, providing users with the ability to visualise every action of a machine before it is performed.

By simulating G-Codes, CAMplete TruePath TurnMill can perform accurate simulations of entire processes including thorough collision detection.



#### G-Code Editing

Beyond simulating G-Code, CAMplete TruePath TurnMill allows users to edit the vital G-Code. This context-sensitive editing ability provides the ability to manipulate programs, translate or mirror tool paths and remove or add line numbers and check axis ranges.

Seamless movement from channel to channel can be achieved through the user-friendly cut and paste function, while the latest processes are always ensured thanks to the software's ability to keep both the G-Code and the tooling up-to-date.



# CIMCO



ETG is the UK and Ireland's exclusive supplier of CIMCO CAD/CAM software products, brought under our turnkey solutions offering.

Divided into five key elements, CIMCO offer a complete range of advanced CAD/CAM software products. These key elements include:

- » CIMCO DNC-Max 7
- » CIMCO MDC-Max 7
- MDC-Max Web Client »
- » CIMCO NC-Base 7
- » CIMCO Edit 7

For each of these, ETG supplies a full selection of product training, ensuring users are able to make the most of their investment.

CIMCO programmes form an integral part of shop floor efficiency, providing not only the highest quality of digital tools but also a powerful and integrated tool for editing, designing, visualising, managing and communicating CNC programmes and related content.









**CNCCALC** 

**NFSFTP** 

DNCMAX

DNCMAX









MDM







# **TECHNICAL PARTNERS**

ETG are supported by select world-class Technical Partners. Their expertise in automation, CAD/CAM, metrology, tooling and technology assist in the delivery of the complete turnkey solution.



# TRAINING

At ETG, we have moved beyond simply supplying machining equipment, to providing full turnkey machining solutions, a critical element of which is training. We are able to equip our clients with all the skills they require to realise optimum return on their investments.



Under this, we ensure clients are adequately trained to make the most of everything from software to machinery, utilising our stateof-the-art, dedicated facilities to provide applicable and real-life training.

Learning can be tailored to the specific needs of a company, in addition to a suite of developed courses.

Supporting us in this portfolio of advanced training, are our industry-leading technical partners, whose products and expertise have been made available to aid clients in their processes.

In addition to client training services, ETG is partnered with In-Comm to provide apprenticeship training to the next generation of engineers, investing in the future of the industry.

In-Comm is one of only a few providers to be rated 'Ofsted Outstanding' and ETG is proud to maintain our forward-looking relationship with them.



#### **Apprenticeships**

Through In-Comm, ETG is investing in the future of engineering and making important steps to bridge the skills gap as the industry advances and Britain maintains a prominent position within it.

Future engineers are trained using the most advanced machines and technology available and are provided with the chance to apply their theory on live manufacturing projects, putting them ahead of their peers completing conventional courses.

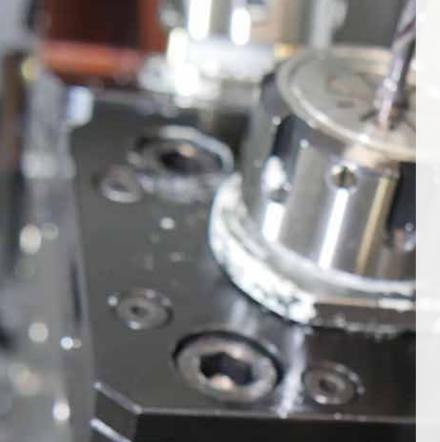
Apprentices are also provided with the opportunity to progress to degree level, without the need to undertake the financial burden of university study.

## Upskilling

In order for the manufacturing sector in the UK to remain a leader, upskilling is vital. Engineers must be kept abreast of the latest developments and given the opportunity to develop their existing skill bases.

With this in mind, ETG is committed to providing continuous upskilling for our long-term clients. This is provided both in-house through our advanced facilities or on client sites, and through our partnership with In-Comm.

All training is supported by our technical partners, enabling learners to utilise the very best the industry has to offer.



### Access To Technology

Over £6m of machinery and technology has been installed across the UK and we want to make sure that the entire supply chain benefits.

With this in mind, we are encouraging SMEs to get in touch if they would like to hire time on one of the machines to carry out prototyping or advanced manufacturing work that would otherwise be too costly.

## **ETG Demonstration Facilities**

Our advanced facilities in the UK and Ireland allow us to demonstrate in full our selection of industry-leading machining solutions.

This is reinforced through our partnership with In-Comm, enabling clients to engage and learn to the highest standards.



# **SERVICE & SPARES**

### A Selection of Customer Support Services

The service and technical support division endeavours to meet customers' expectations with first-class support tailored to the brands which ETG offers.

- » Breakdown support (24-hour response)
- » Machine health checks
- » Telephone support
- » Customer feedback / continuous improvement

Tel: +44 (0)1926 818 418

Email: service@engtechgroup.com

#### Preventative Maintenance Agreements (PMA)

Preventative Maintenance Agreements from ETG entitle clients to a regular service pattern, helping to prevent machine downtime due to malfunction. By choosing an ETG PMA you will receive:

- » Routine service
- » Tailored work to suit your needs
- » Spares can be included in the service
- » Cost can be spread on an annual basis
- » Only two weeks' notice required to plan servicing

Tel: +44 (0)1926 818 418 Email: pma@engtechgroup.com

#### Service Package Agreement (SPA)

Our Service Package Agreements allow customers to subscribe to a number of service hours per year, allowing clients to spread their service costs and achieve reduced costs. This comprehensive package results in significant savings for regular clients as hours are only deducted for time spent on-site and considerable discounts are applied to spares.

- » Invoiced monthly
- » Hours can be used for breakdown, machine service and technical support
- » Cost is spread annually
- Hours are only deducted for time on site (no travel charges)
- » Discounts on spare parts
- » Unused hours roll over to the next year
- » Extra hour top-ups are available
- » Priority call-out for contract customers

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