



Make quality products every day, everywhere, with Hexagon





Push past production's limits

In production, what matters most is delivering parts that meet the highest standards. At Hexagon, we're committed to connecting design, machining, and inspection to ensure precision, accuracy, and reliability in every component. Because we believe that with quality parts, we can improve quality of life for all.

In the machine shop

Made for a range of CNC machining applications, our CAD CAM solutions are ideal for milling, turning, mill-turn machining, and more. And with intelligent workflows they help users programme with ease.

Our widely compatible, scalable solutions ensure maximum tool utilisation, minimum rework, and fewer scrapped parts. While our metrology devices allow you to measure with more precision and fewer errors, so you can deliver components on time, on budget, and on specification.

On the production floor

We provide production software solutions designed to generate, manage, and optimise toolpaths across industries.

Whether you need support for tooling, production engineering, sheet metal, metal fabrication, or stone and woodworking, our portfolio of over 22 process-focused software solutions can help.

Whatever your industry and whoever you're manufacturing for, with our solutions you'll be able to deliver quality products that bring innovation to life. In this guide we'll explore two of our leading production machining tools, ESPRIT and EDGECAM, so you can discover what they are, how they work, and where they're already making a difference.

Production machining product suite

Explore the range of best-in-class solutions supporting your journey to shop floor excellence, helping you to make production faster, smarter, and more cost-effective.

Design and review

DESIGNER

Create and modify imported geometry, removing the complexity associated with traditional CAD systems, and use intelligent data to create a digital twin.

- Reduce design errors
- Accelerate approvals
- Bridge design to manufacturing

Manufacturing preparation

ESPRIT EDGE

Revolutionise your operations with true digital twin technology, AI, and robust CAM for high-performance CNC programming.

- Reduce machine setup and prove-out time
- Change setup and swap machines without reprogramming
- Increase uptime and productivity

Manufacturing preparation

EDGECAM

Automate your CAM programming with repeatable, accurate results using intelligent machining strategies that streamline repetitive tasks.

- Improve manufacturing productivity
- Automation as simple as record and play
- Capture your in-house knowledge and experience

Manufacturing preparation

ESPRIT

Achieve high-performance programming, optimisation, and simulation to support all your shop's manufacturing processes, from CAD file to machined part.

- Maximise machine utilisation for high-value parts
- Support the unique requirements of Swiss-type machines
- Eliminate repetitive tasks

Production Intelligence

NCSIMUL

Maximise shop floor productivity with collision-free and flexible CNC machining with automated processes.

- Avoid errors and decrease setup time
- Switch CNC programmes between machines across the shop floor
- Optimise resources and machining results

Production Intelligence

Datanomix

Put your data to work by gaining actionable intelligence from your shop floor with real-time and historical reports.

- Gain real-time visibility into machine performance
- Get to value quicker with automation
- Identify inefficiencies and take preventative action

EDGE CAM:

Increase productivity without sacrificing quality

Combining sophisticated toolpath generation with seamless CAD integration, EDGE CAM is a production CAM solution that delivers repeatable, accurate results and streamlines repetitive tasks through knowledge-based machining strategies.

Features

- Milling 3–5 axis
- Turning and mill-turn
- High-speed machining
- Heavy machining
- On-machine inspection
- Programming automation
- Turn-key post processing

EDGE CAM's specialities:

- Heavy industry
- Complex part manufacturing
- Knowledge-based automation
- Robust modules for milling/turning

Modules

EDGE CAM Mill-Turn:

Seamlessly programmes and simulates your complex mill-turn applications

EDGE CAM Milling:

Allows for multiaxis cutting strategies with effortless integration of 4 and 5 axis simultaneous machining

EDGE CAM Turning:

Increases machine tool utilisation with functionality for a wide range of tools

EDGE CAM Waveform:

Reduces cycle time through constant material engagement

EDGE CAM Wire EDM:

Unlocks advanced functionality to manufacture complex shapes

EDGE CAM Inspect:

Combines fast creation of machine measurement cycles with efficient tool path creation

EDGE CAM Intelligent Manufacturing:

Enables smooth and efficient application of toolpaths to prismatic parts

Success story

I & G Precision Engineering, an engineering subcontractor, largely manufactures stainless steel parts for aerospace, food, beverage, medical, and defence customers. After switching to EDGE CAM for all its CAM processing, they experienced:

- Up to 40% savings on cutting cycles
- Improved margins
- Increased capacity
- Simpler operations
- Better stability



EDGECAM in action

DJM Engineering

Providing emergency repair service

The brand:

A long-established family-run injection mould maker and engineering company that thrives on helping customers out in emergencies.

The challenge:

The company is regularly called upon to repair components for a wide variety of machines, including those used by emergency services, as well as general engineering and manufacturing.

The solution:

With EDGECAM's 2D functionality, DJM Engineering can get the component solution onto the CNC machine tool extremely quickly, creating roughing and profiling cycles while working on the remaining programmes.

The result:

Quick 2D design and machining to repair customers' damaged or broken parts, getting their production lines back in action within hours.

Kavia Tooling

Reducing downtime during set up

The brand:

Kavia Tooling specialises in the design, manufacture and maintenance of high-precision injection moulding tools for a wide range of industries.

The challenge:

The company found some components to be particularly time-consuming to set up traditionally on machines, and even simple parts kept the machines idle during set up.

The solution:

Hexagon customised the flexible PC-DMIS software to find offsets at the start of the operation. And with customised software developed by EDGECAM engineers, each component can go into the machine as one large programme.

The result:

Cutting downtime on CNC and EDM machines – transforming what was the biggest bottleneck into the fastest machine on the shop floor – and reducing set-up time for difficult components from one day to an hour.

Discover EDGECAM



ESPRIT:

Remove complexity from your machining processes

Take the complexity out of your Swiss-style and multi-task machining with the industry's most trusted CAM solution. ESPRIT seamlessly streamlines the programming of highly specialised machines, offering advanced customisation for unique requirements.

Features

- Milling 3–5 axis
- Turning and mill-turn
- Swiss-type and multi-tasking machining
- Wire EDM
- Native support for a range of work offsets
- Automatic link generation
- High-speed machining
- On-machine inspection
- Turn-key post processing
- Edit-free, machine-optimised G-code
- Digital twin functionality

ESPRIT's specialities:

- Swiss-type machining
- Multi-task machining
- Unmatched customisation

Success story

A-dec, one of the largest dental equipment companies in the world, chose ESPRIT CAM and ESPRIT's ProfitMilling® strategy to achieve:

- Up to 100% machine tool productivity improvement
- Decreased time to market
- Increased efficiency of product changes
- Improved tool life and productivity, with one tool creating 15–20 parts

ESPRIT in action

GeoSpace Technologies

Saving time and money in the oil industry

The brand:

Since 1980, GeoSpace Technologies has been developing innovative products, including geophones, printheads, and land-to-deep sea systems for seismic data acquisition.

The challenge:

Efficiency, reliability and fast delivery schedules are key to success in this industry – but GeoSpace Technologies was held back by inefficient CAM software.

The solution:

With ESPRIT, Manufacturing Manager Justin Henry could manually programme features based on his own ideas on how the part should be produced and adjust cutting speeds and feeds to be transferred into the final CNC programme.

The result:

The new programme reduced the cycle time for producing the part on the ABX machine from 22 to 6.5 minutes. Building on this success, the programmers used ESPRIT to reprogramme an assortment of additional parts, achieving even greater savings.

T+M Zerspanungstechnik

Increasing machine efficiency by up to 50%

The brand:

T+M Zerspanungstechnik produces turning parts for the medical and electrical sector, manufacturing a variety of diverse products.

The challenge:

To meet the demands of its customers, the company needed to invest in new technologies, particularly as manual programming on lathes took up a great deal of time.

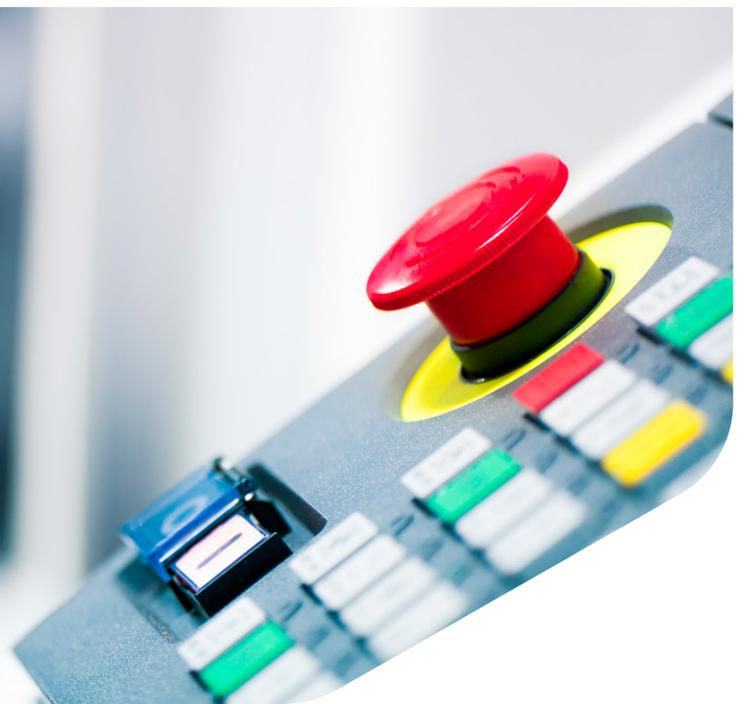
The solution:

With ESPRIT CAM, sequences can be reused for other components – significantly reducing programming time. It also made it possible to programme a new lathe-milling part directly on the machine.

The result:

ESPRIT CAM software can cover the complete programming of all machines – making the process faster and more efficient. The company saw an increase in machine efficiency of up to 50% when programming was carried out with the CAM system.

[Discover ESPRIT](#)



Quality for life with Hexagon

We provide technology solutions to accelerate innovation, shape a better reality, and improve quality of life for all.

Every day, millions of people go to work for manufacturing businesses. We want to remind them of the incredible things they are helping us achieve collectively.

At Hexagon, we think about the human benefits of making products, rather than just the process. We want to take the conversation out of the factory and into real life – because manufacturing innovation shapes our lives and dictates how we interact with our environment.

When we think of quality, we know it isn't an isolated process. It's circular, continuous, and spans the value chain. Our suite of CAD / CAM, process optimisation, shop-floor intelligence and workflow automation capabilities empower machine shops to achieve operational excellence at every stage.



Why work with Hexagon?

- 1 Innovation leader:** We accelerate manufacturing innovation, keeping businesses ahead.
- 2 Quality at the core:** With us, quality isn't just an outcome but an embedded process across the value chain.
- 3 Industry-relevant:** We resonate with manufacturers, engineers and machine shops.
- 4 Purpose-driven:** Our customers are our priority, but we also shape a better reality and improve life for all, not just customers.
- 5 Real-world performance:** We enable insights that drive innovation by highlighting areas for improvement – because progress is an ongoing process.

Take innovation to the next level

By connecting manufacturing and human progress, it's possible to supercharge quality across the value chain to accelerate progress in all areas of your organisation.

Hexagon empowers businesses to innovate faster, design better, and manufacture smarter – embedding quality into every stage, and improving life for people and industries alike.

Ready to step into the future of manufacturing? If you want to redefine efficiency, cut costs, and optimise processes, we're here to help. One of our specialists can offer a demo of our production machine solutions, supporting you to get started with our tools and create your smarter shop floor.

Start by finding out where your business stands in manufacturing excellence with our Technology Benchmark assessment. It takes just a few minutes – click the link below.

[Technology Benchmark](#)

Discover the power of world leading technologies – contact us today.

[Get in touch](#)



Hexagon is the global leader in measurement technologies. We provide the confidence that vital industries rely on to build, navigate, and innovate. From microns to Mars, our solutions ensure productivity, quality, safety, and sustainability in everything from manufacturing and construction to mining and autonomous systems.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,800 employees in 50 countries and net sales of approximately 5.4bn EUR. Learn more at [hexagon.com](https://www.hexagon.com).