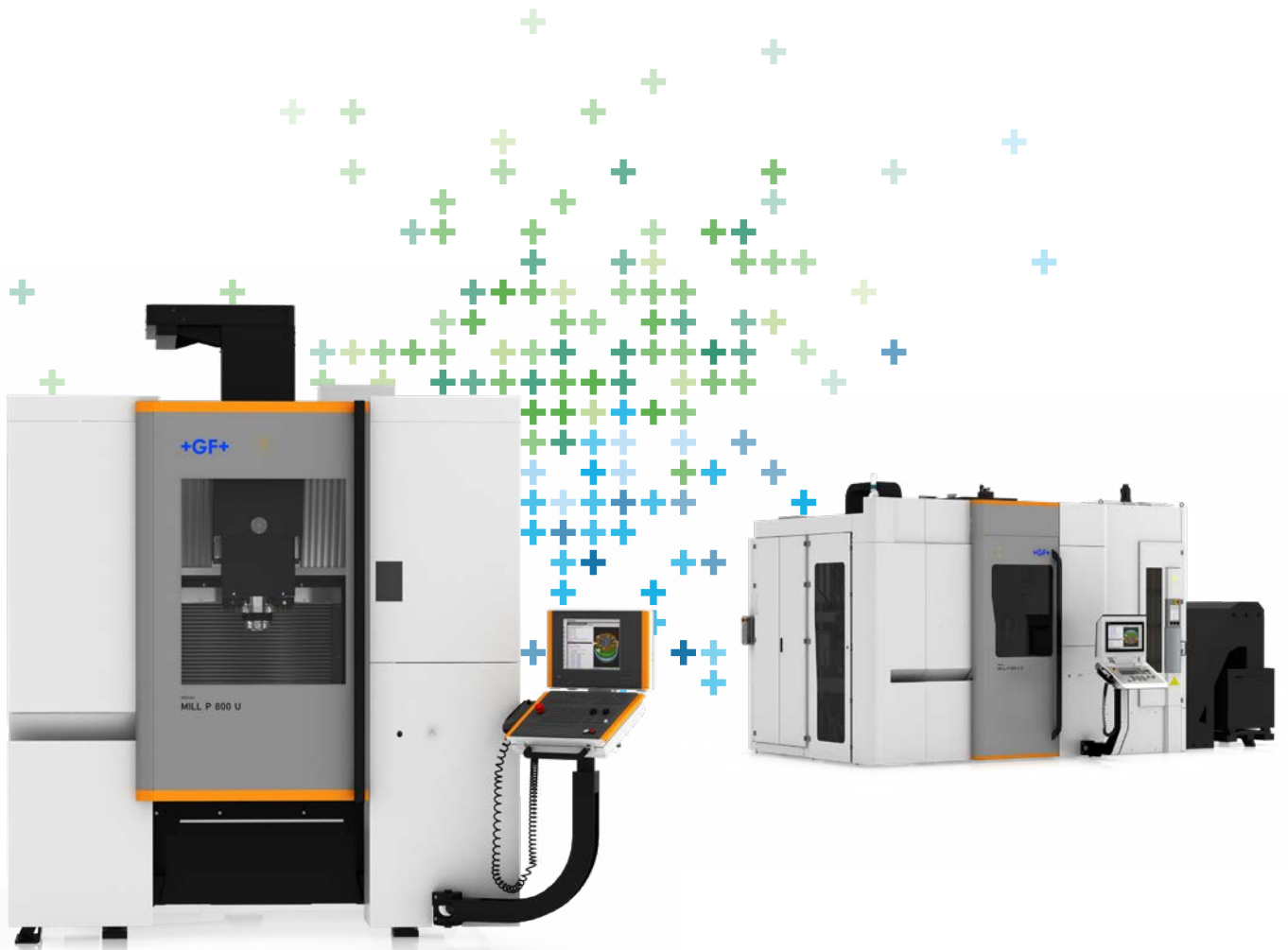


Mikron

MILL P

800 U



Becoming better every day – since 1802

GF Machining Solutions

When all you need is everything, it's good to know that there is one company that you can count on to deliver complete solutions and services. From unmatched Electrical Discharge Machining (EDM), Laser texturing, Laser micromachining, Additive Manufacturing and first-class Milling and Spindles to Tooling and Automation, all of our solutions are backed by unrivaled customer service and expert GF Machining Solutions training. Our AgieCharmilles, Microlution, Mikron Mill, Liechti, Step-Tec and System 3R technologies help you raise your game—and our digital business solutions for intelligent manufacturing, offering embedded expertise and optimized production processes across all industries, increase your competitive edge.



+ We are Mikron Mill.
We are GF Machining Solutions.

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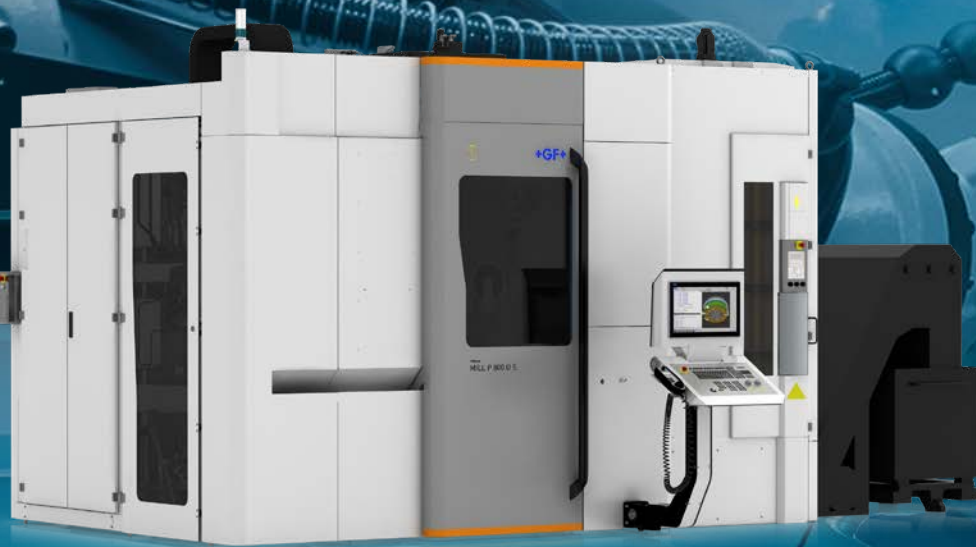
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The high-performance Mikron MILL P 800 U 5-axis machine is ideal for three sets of manufacturers: those who make precision parts for aerospace, machinery and defense; general mechanical industries; and precision mold makers in automotive and home appliances.

Market segments and applications

The machine that grows with your needs

The Mikron MILL P 800 U delivers intelligent productivity to help mold and die manufacturers overcome their daily challenges. Rapid market developments and future-changing innovations challenge mold and die manufacturers' ability to adapt to change. GF Machining Solutions provides these manufacturers its Mikron MILL P 800 U five-axis, simultaneous Milling machines. The Mikron MILL P 800 U is a very robust, stable and accurate machine center in a gantry-type design with limitless automation possibilities. This 5-axis Milling solution is designed for high-performance machining applications. For best accuracy and surface finish by simultaneous operation, the machine has water-cooled direct drives in the rotary and swiveling axes. Thanks to its unique compact concept and its modularity, the machine ensures precise machining applications in both single item and fast, productive serial production.

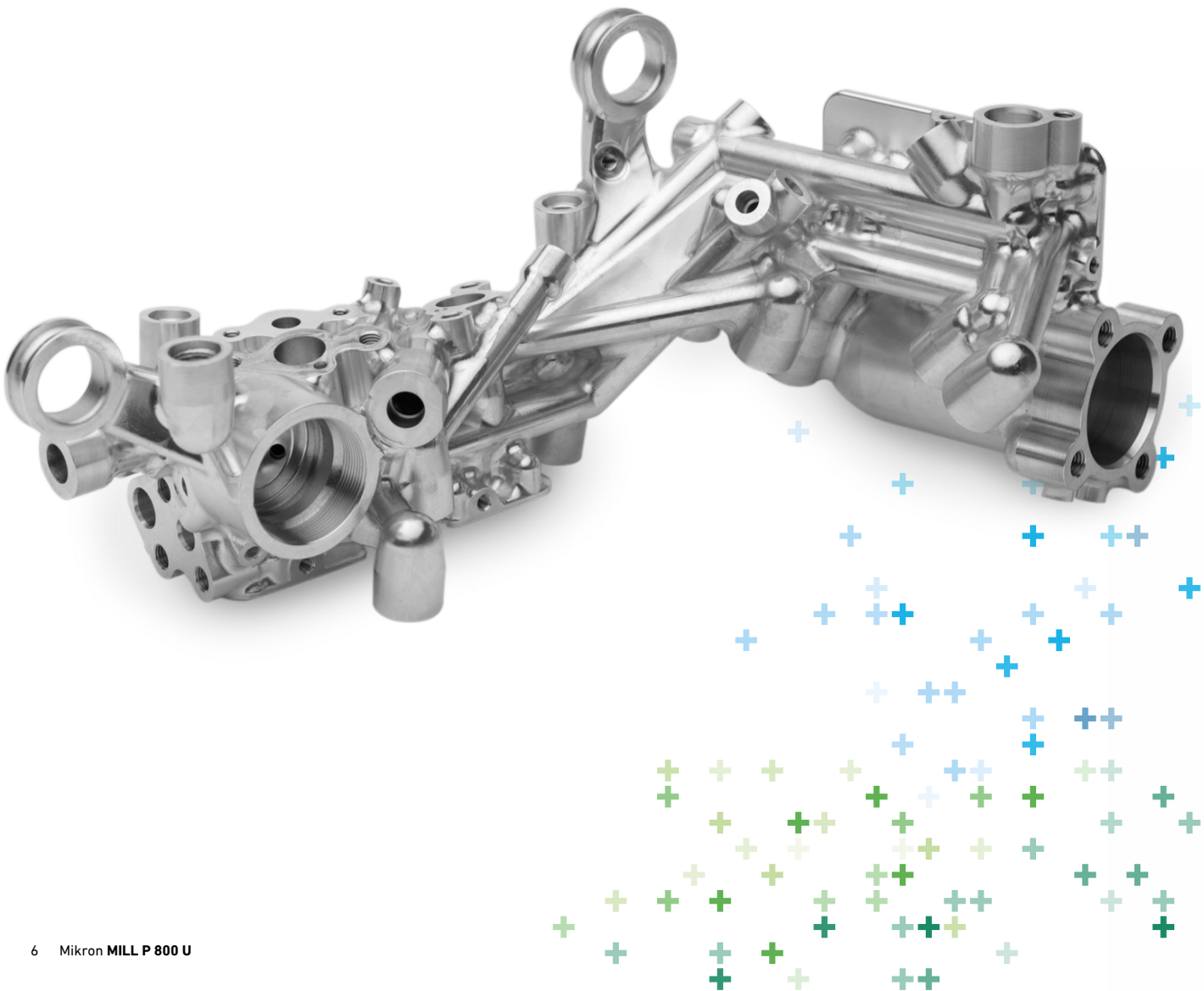




Technology

The perfect fit for perfectionist and modern shop

- + $\pm 2\mu/24$ process reliability
- + 365 days dynamic machining
- + 250% higher productivity
- + 100% machine availability



Robust, modular and 24/7 performer

- + Excellent 24-hour thermal stability
- + Water cooling for key components
- + Step-Tec spindle with 36 kW of power and 120 Nm of torque
- + Tool magazine with up to 220 positions
- + Best-in-class automation footprint
- + Payload up to 1000 kg
- + Highly dynamic machining – 1.7 g acceleration
- + Ergonomic, accessible design
- + Machine Spindle Protection (MSP)
- + Simultaneous Turning option
- + Advanced smart-machine modules
- + Siemens or Heidenhain numerical control

Precision machining 365 days a year

Achieve high material removal during roughing, high precision on big, heavy parts and the tightest tolerances after your finishing process.

Best surface finishes on light or heavy parts

Show off your mold-making capabilities and make a great first impression with the shiny surfaces this solution delivers on your high-value molds.

Highly flexible part production

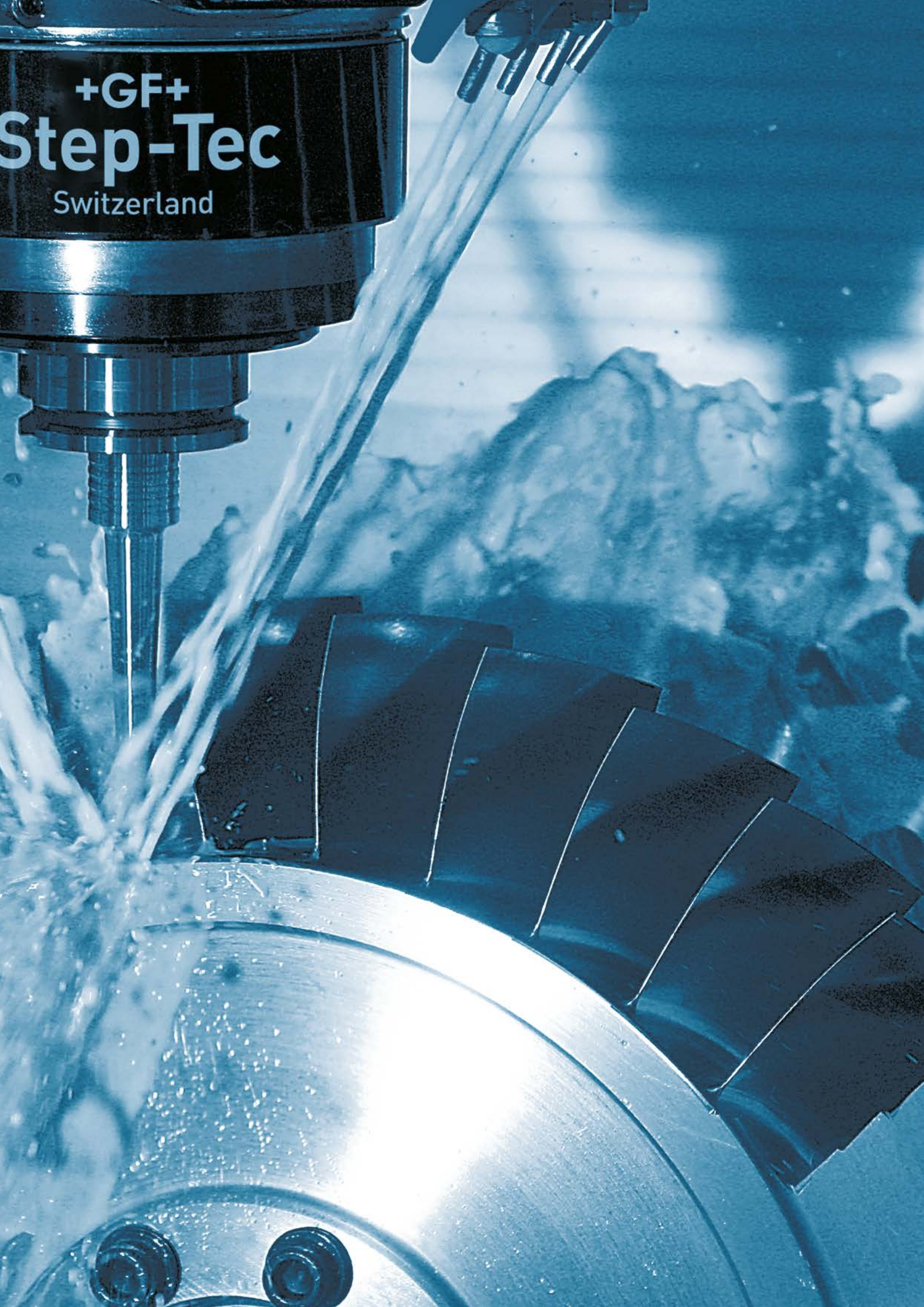
Master a wide range of part-production challenges – including constantly changing part sizes, weights, batches and materials – with a flexible solution to all of them.



A blue-tinted photograph showing a high-pressure water jet cutting through a dark material. The water is splashing and creating a large cloud of droplets. Overlaid on the splash area is a grid of plus signs (+) in various colors (blue, green, yellow) that form a roughly rectangular shape, suggesting a simulation or analysis of the fluid dynamics.

**Create
accurate parts
with dynamic
performance**

+GF+
Step-Tec
Switzerland



Solid, precise foundation

The benchmark of precision machining and agile productivity

±2μ/24 process reliability

Secure your milling process with a water-cooled system and automated machine calibration (AMC) on a robust, stiff, stable, symmetrical gantry design.

365 days of dynamic machining

Ensure best-in-class dynamic productivity with R1.7g axis acceleration, 61 m/min axis feed rate and a 36 kW/120 Nm Step-Tec spindle.

250% higher productivity

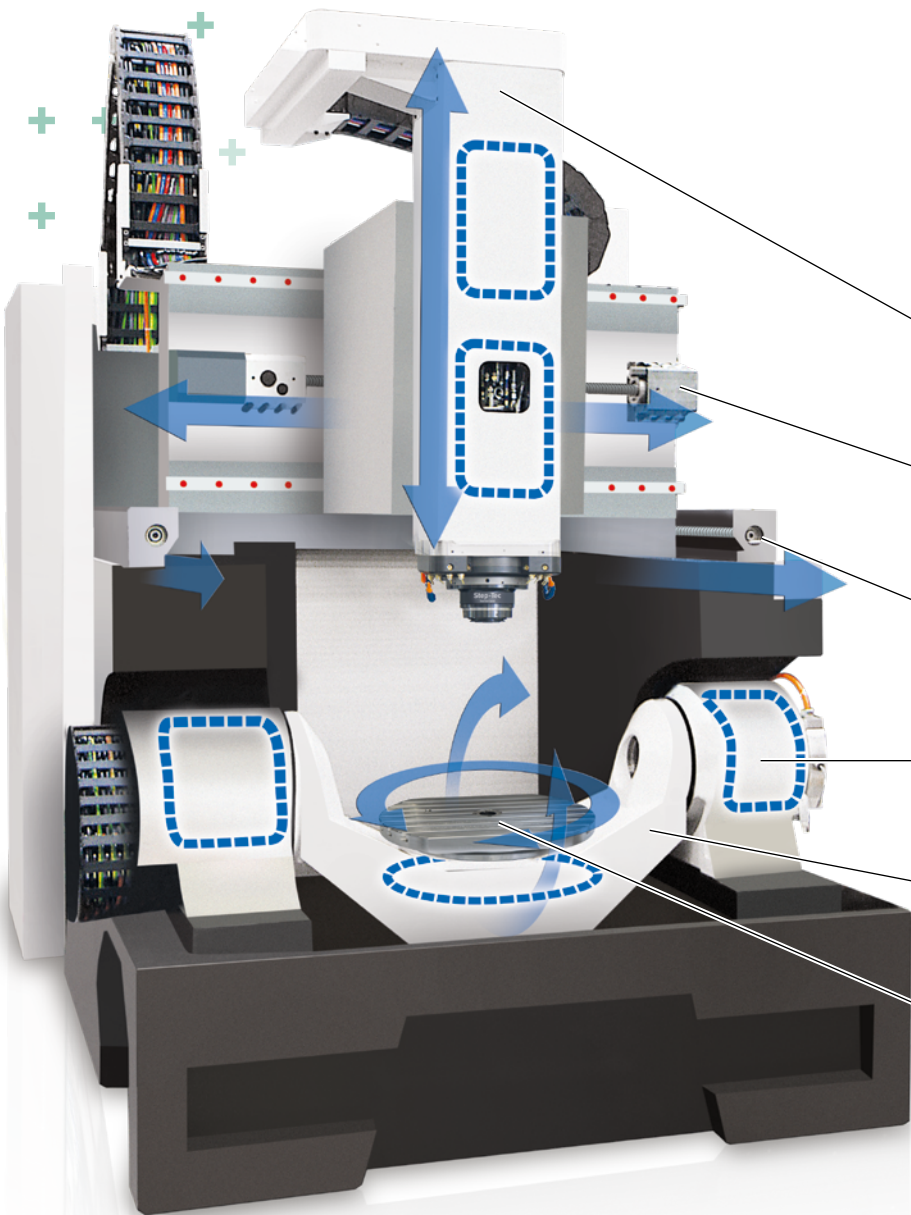
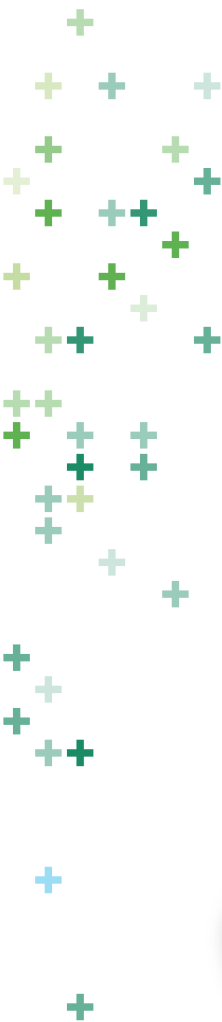
Increase manufacturing flexibility with a scalable solution that offers limitless automation possibilities in a best-in-class footprint.

100% machine availability

Prevent machine downtime with Machine Spindle Protection (MSP) for risk-free machining.

Your most competitive machining center





Z axis
550 mm
61 m/min

X axis
800 mm
61 m/min

Y axis
800 mm
61 m/min

A axis
+91/-121°
50 m/min

C axis
N x 360°
60 m/min

Load parts
up to 1,000 kg

**Lower your production costs
with a reliable, dynamic machine
on a best-in-class footprint**

Precision

How to achieve successful results

To make great parts, you need flexible machine versatility based on deep technical knowledge. The Mikron MILL P 800 U takes advantage of all of GF Machining Solutions' expertise to deliver successful results. Maintain your machine in top condition to achieve lasting productivity with assistance from our Customer Service specialists.

Ensure high performance and precision throughout milling operations, including heavy roughing and fine finishing. With a symmetrical gantry design and a water-cooled system for critical machine components, this machine is built for results.

Secure your processes, speed up production and reach higher levels of accuracy on your most challenging applications. The MILL P 800 U uses a polymer concrete material bed with greater rigidity and damping behavior than cast iron for enhanced precision and performance.

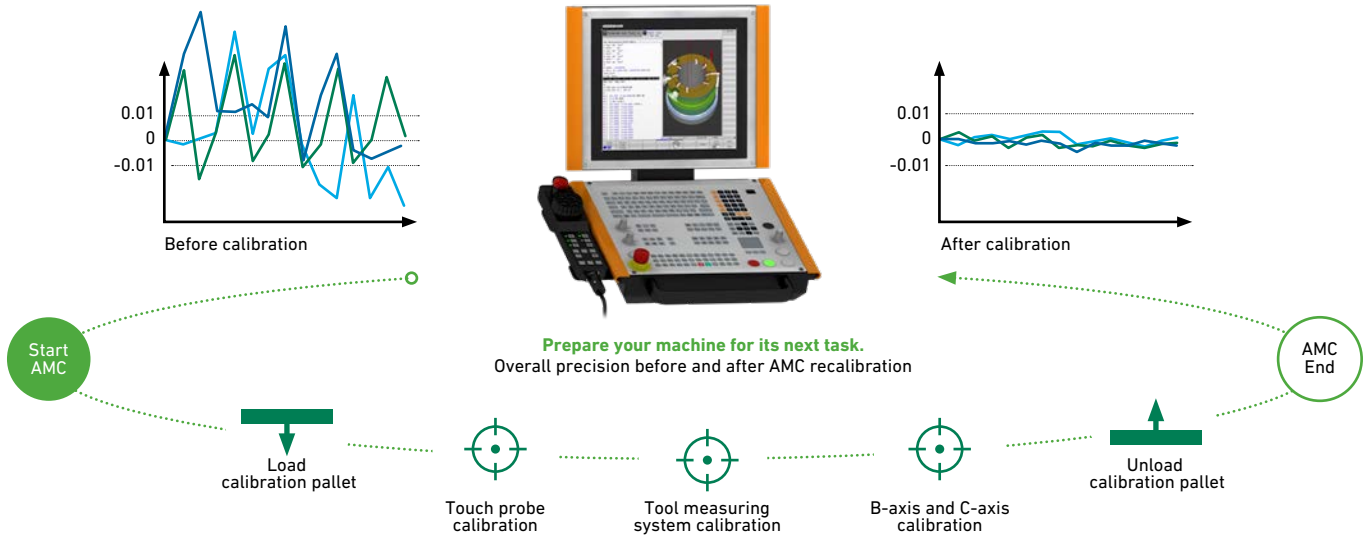
Ensure smooth dynamic milling with less heat than a conventional gearbox-driven table. Direct torque motors on the tilting and rotating table of the Mikron MILL P 800 U create precise results.

Only a truly stiff, rigid, stable machine can handle parts that weigh up to 1,000 kg. The Mikron MILL P 800 U easily creates these big, heavy parts with precise dynamic milling.



Automated Machine Calibration (AMC)

Calibrate your machine with a reliable process every time.



Top-quality Step-Tec spindle

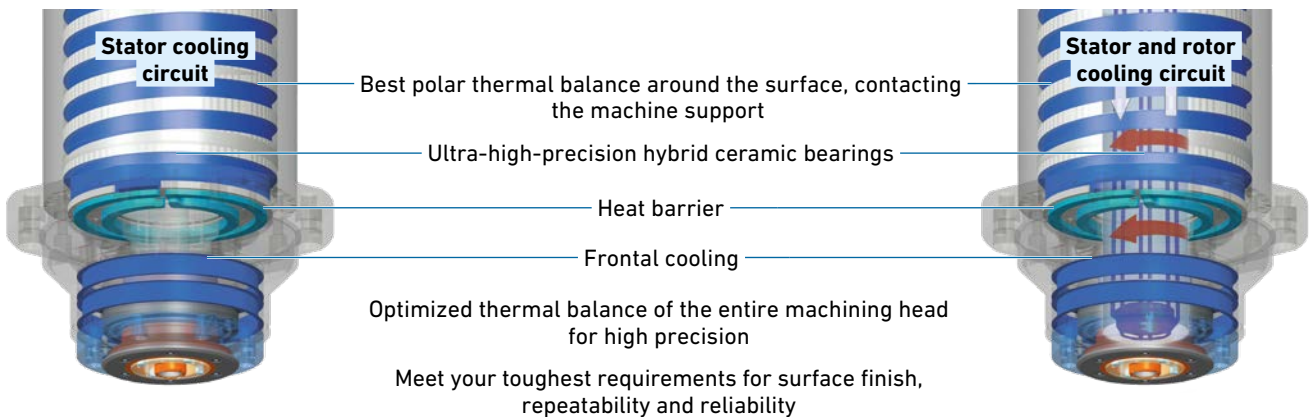
Ensure peak milling performance at full speed without tool vibration

OptiCool

To preserve machine geometry, the Step-Tec OptiCool spindle ensures thermal stability and maintains the lowest-possible natural heat transfer to the spindle support, including the Z axis.

CoolCore

Where conventional stator cooling reaches its limits, Step-Tec's CoolCore technology goes beyond to cool the shaft and minimize temperature fluctuations.



Performance

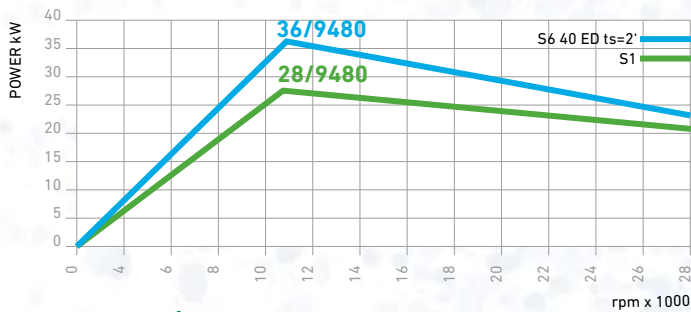
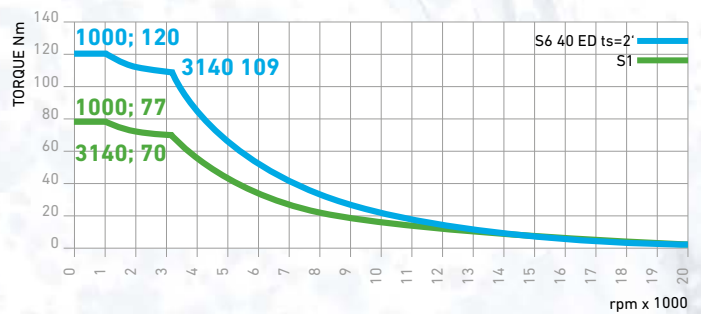
365 days of dynamic machining

Since 1955, Step-Tec has developed, manufactured, sold and repaired motor-driven spindles for leading manufacturers of machining centers for milling, drilling and turning applications. Step-Tec manufactures fast, precise, high-performance integrated-motor spindles. These high-quality motor-driven spindles dramatically reduce machining times to achieve optimal workpiece quality.



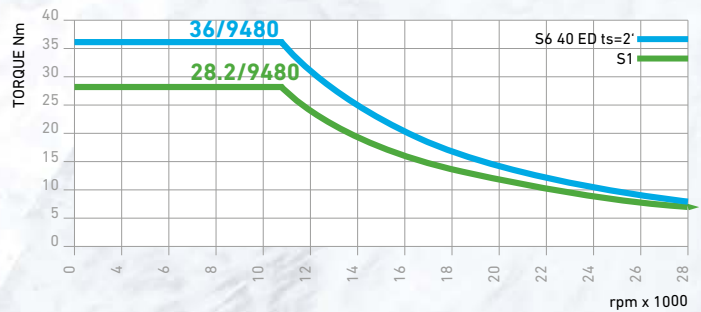
20,000 min⁻¹ / HSK-A63

- Precise high performance
- Available with or without internal coolant supply
- Compressed air through spindle



28,000 min⁻¹ / HSK-A63

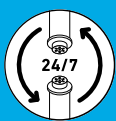
- Water-cooled rotor shaft (CoolCore) which stabilizes the temperature and consequently the expansion in the rotor shaft
- Very accurate machining, because it minimizes thermal influences of the Spindle
- Through-tool coolant is an available option



Mill dynamically around the clock with a well-designed table and ergonomic work area. Dual table support and water-cooled direct torque motors unleash dynamic tilting and rotation to mill precise parts up to 1,000 kg.



Dedicated spindle services



SEP Spindle Exchange Program

Receive a factory-rebuilt exchange spindle in 24 hours (48 hours outside Europe) with the highest availability and lowest capital commitment.



SFR Spindle Factory Repair

Cost optimized repair with excellent quality, original parts and manufacturer warranty.



SOM Spindle Onsite Maintenance

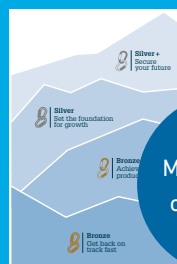
Onsite support for commissioning, diagnostics, troubleshooting and exchange of wear parts.

Extended spindle warranty

Up to 5 years after commissioning.
(Included in the Silver + Success Pack.)

Spindle diagnostics

Track your spindle's condition.
(Included in the Bronze + Success Pack.)



More details
on page 22

250% higher productivity

We designed the Mikron MILL P 800 U to adapt to customer and workshop needs. Load a range of tool magazines and automation solutions from the back to preserve full access to the front of the machine for operators and maintenance. Customer Service helps you keep your machine in top condition for years of high productivity.

Tool magazine capacities

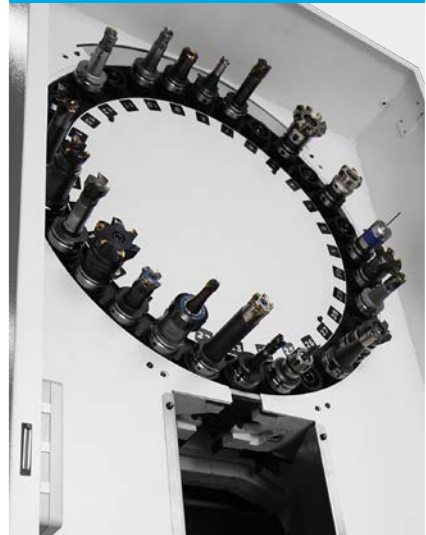
120 positions
170 positions
215 positions



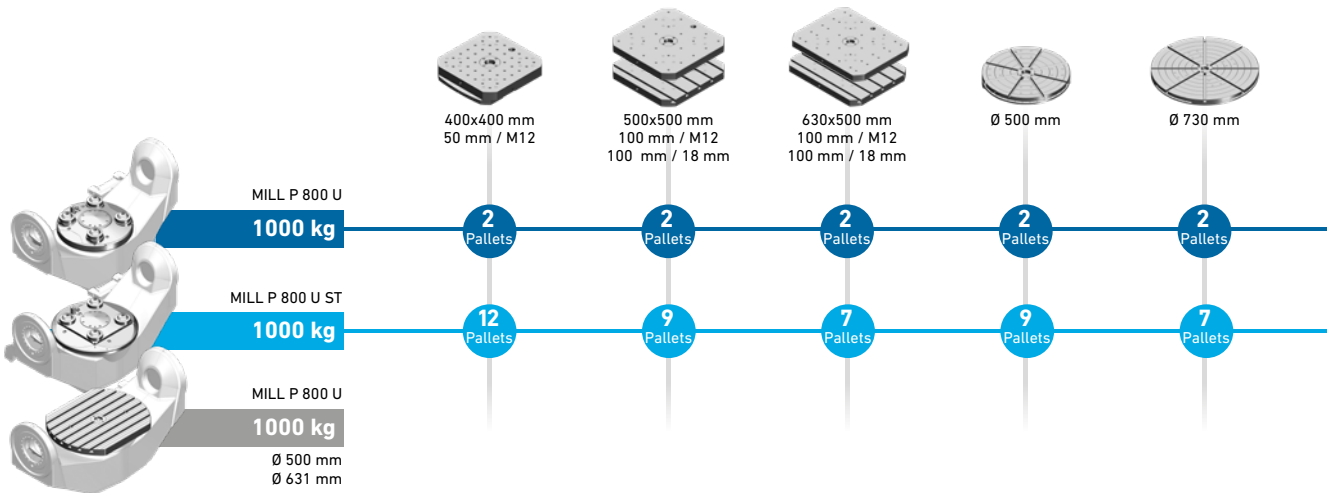
60 positions



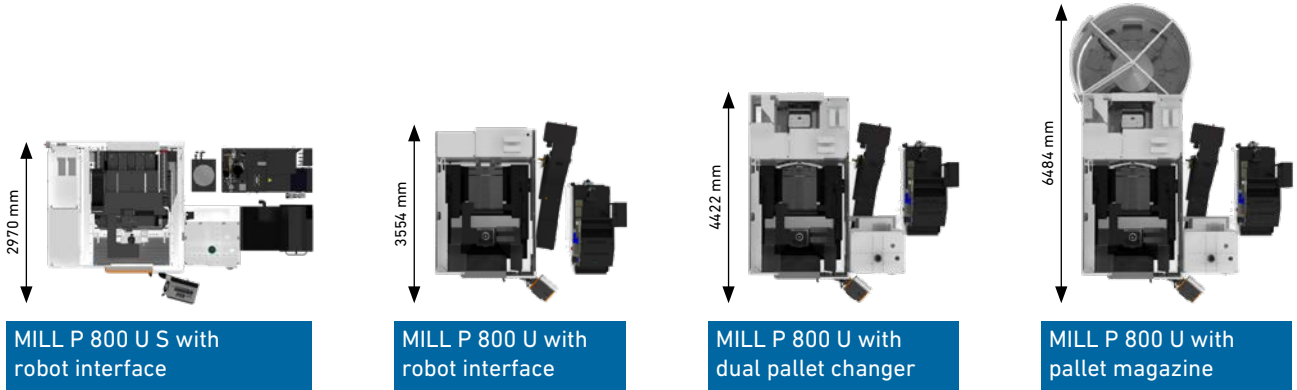
30 positions



Flexible pallet options

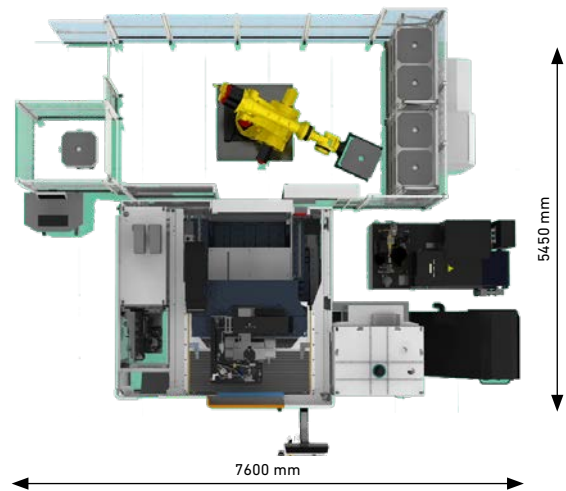


Short and scalable automated solutions

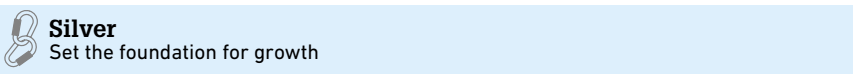


Transformer 6-axis 360 or 700
16x pallets station

The Mikron MILL P 800 U S offers the best complete automation solution per square meter in its class. Quickly and easily connect a second machine to increase your workshop's productivity.

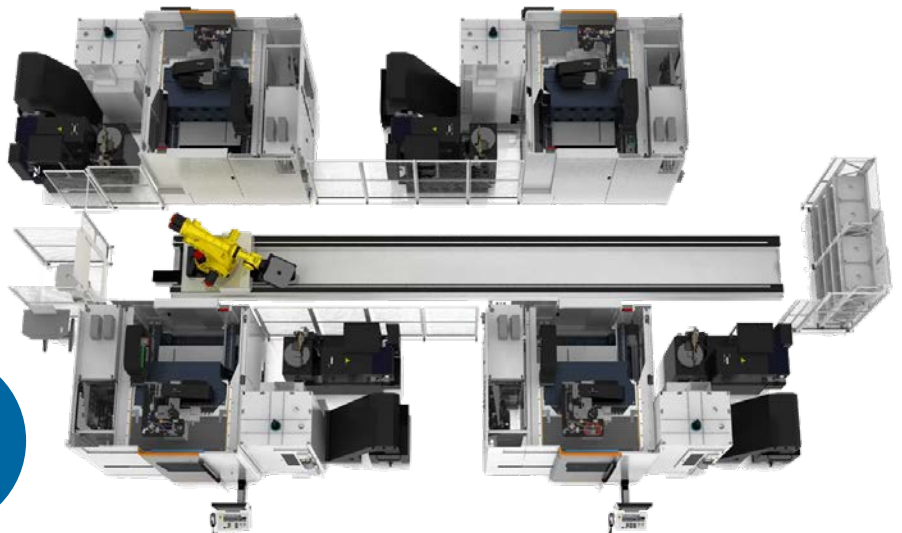


Machine + robot + cell



Easily scale the compact Mikron MILL P 800 U S with automation, connect two or more machines and achieve the best productivity per square meter in this machine class. Dedicated Success Packs and Customer Service expertise help you choose and maintain the ideal overall solution for your workflow.

More details on page 23



Benefits and advantages with pallets and robots

Tooling

1 minute

1 minute set-up time

Fit all your machines with the same reference system so you can move workpieces among them without realignment and rechecking.

24/7

Step into 24/7 automation

Add an unattended shift for 24/7 productivity.

0.003 mm

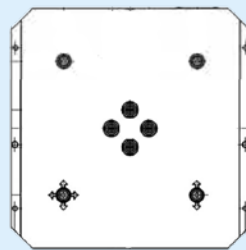
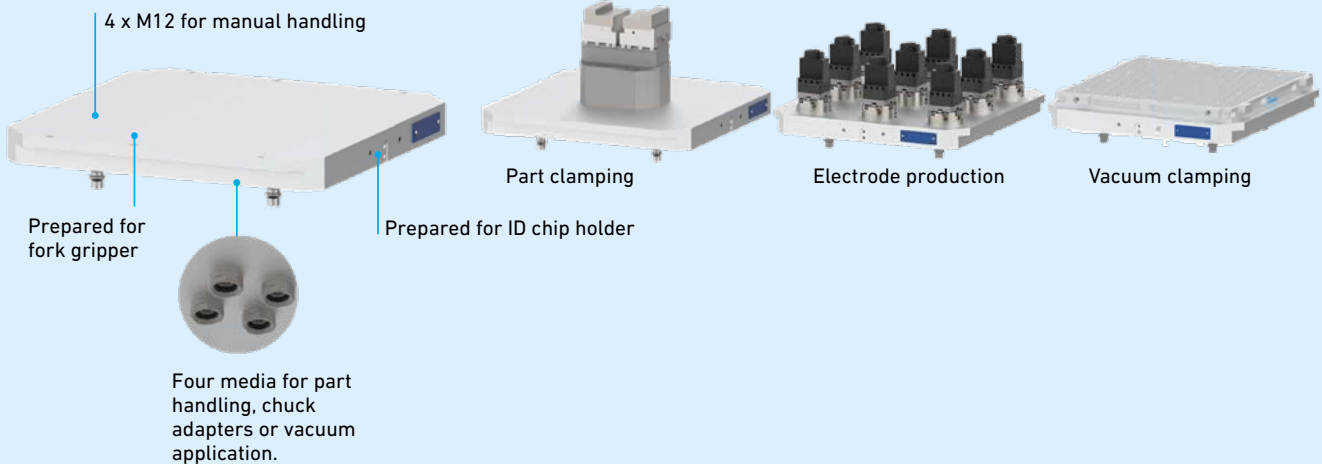
Repeatability within 0.003

Highest repeatability for the highest quality.

60,000 N

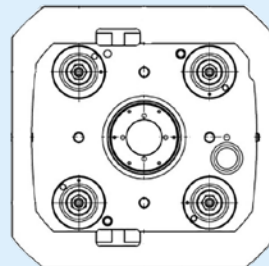
60 000 N clamping force

Achieve the highest process reliability with the greatest clamping force, smart monitoring, high-quality products and easy management systems.



Pallets Delphin, 2154.04/05

- Media: 4
- Material: Aluminum



Pallets Berg, 2154.04/03

- Media: No
- Material: Steel

1,000 kg

From lightweight to maximum capacity

Milling automation portfolio covers all applicable workpiece weights and dimensions.

1 to 12 machines

Automation solutions for small or large cells

Feed a single machine with a WPC robot or put it on a rail to feed up to 12 machines in a line.

Software

Autonomy and flexibility with WorkShopManager

Manage complete functionality of a single machine or a complex cell.

Mix tech

Build your component from raw material to finished part

Manage all machines and technologies as one cell through a single screen.



Automation solution	Load	Pallets in the cell	Number of machines
Transformer 6-axis	up to 500 kg	9-100	1-12

NOTE: The load includes workpiece, pallet and gripping equipment.

Ask our Automation Specialists and Sales Support for a complete review of any job.

Manage your shop

JobToolManager

1 machine with WPC: Use touchscreen to assign jobs to pallets, check tools and time, change priorities, monitor alarms and production.

EasyCellManager

1-4 milling machines with System 3R robot: Assign jobs to pallets, check tools and time, change priorities, monitor alarms and production.

CellManager

1-12 mixed machines with System 3R robot: Identify pallet IDs, check tools and time, change priorities, monitor alarms, import/export data for MPS/ERP.



Our Service + Success range

We take you to new heights

Guiding your ascent

Whether it is Milling, EDM, Laser Texturing or Additive Manufacturing, our Service + Success experts guide you throughout the entire lifecycle of our Machining and Automation tools in order to help you reach your peak performance. Our trusted experts backed by our latest cutting-edge, intelligent Digital Solutions, provide a **full range of services**.



Operational steering
Hands-on and operational service interventions with supply of consumables and wear parts



Advanced diagnosis
Machine check-up, preventive maintenance and advanced services including original spare parts availability in all our hubs around the world



Certification
State-of-the-art reference by industry sector and on machining equipment



Upgrades
Designed to add value to the original machine investment in order to achieve higher sustainable productivity



Training
Performance oriented academy with a human-centric approach of knowledge transfer in order to realize the full potential of our solutions



Transformation
Strategic partnership from made-to-measure advice on business model evolution to industrial implementation



Financial solutions
For the optimization of operating costs featuring minimal initial expenditure programs and leasing options

Our Success Packs

As a long-time partner, since 1802 we have been serving various industrial segments and have been dedicated to providing you with a first-in-class combination of services.

We have conceived our new Success Packs range for maximizing **your return on investment**, empowering you in your quest for success whatever your industrial profile.



Silver +
Secure
your future



Silver
Set the foundation
for growth



Bronze +
Achieve flawless
production



Bronze
Get back on
track fast



Success Packs

Our services



			Bronze	Bronze+	Silver	Silver+
Extended Warranty		Additional one year warranty with spare parts and labor included.				+
Ball Bar Testing		Yearly positioning performance check-up for NC machines according to international standards.				+
Secure Backup		Annual software backup on USB and GF Machining Solutions server or hard drive cloning.				+
Upgrade		Annual innovative upgrade.			+	+
Certificate		Issued every year for customers using GF Machining Solutions certified wear parts and maintenance services.			+	+
Discounts		Special price on parts and labor related to preventive maintenance and onsite intervention.			+	+
Preventive Maintenance		An annual scheduled intervention on site with spare parts change included.		+	+	+
Extended Remote Support		Hotline and rConnect support 24 hours a day during working days.		+	+	+
Diagnostics		Annual diagnostics on the key component of a machine (e.g. spindle for milling machines) with detailed report.		+	+	+
Speedy Access		Digital support within 30 minutes through rConnect and service calls support within 1 hour. Pole position scheduled on the service intervention starting grid.	+	+	+	+
rConnect		Connected assistance tools including remote control and diagnostic, and also smartphone messaging on machine status support.	+	+	+	+
Hotline		Free dedicated support by phone during standard working days.	+	+	+	+

Add-on services

Geometrical control

As part of our comprehensive preventive service, GF Machining Solutions experts test your machine geometries according to ISO 230-1 specifications. We recommend this service in specific circumstances – a machine collision or relocation, for example – and as certification support to prevent unexpected wear and maintain optimal machine condition.

Customer Benefits

Receive detailed test results and recommendations from our technical experts to optimize the geometric precision of your machine.

Laser calibration

Through this preventive service, our technical experts check your milling machine axes for precision and repeatable linear positioning. To ensure precision, we recommend this preventive service at regular intervals, when the machine environment changes, and as certification support.

Customer Benefits

Clear detection of any deviations and recommendations of any necessary intervention, to guarantee absolute machine accuracy.

Dedicated Silver Success Pack MILL P 800 U S

To serve today's market needs service plays a key role in terms of efficiency and productivity. For this reason GF Machining Solutions created a dedicated Silver success pack for the MILL P 800 U S in combination with robot and automation:



Silver Set the foundation for growth

Extended availability

GF Machining Solutions provides worldwide support through experts who train on our technologies to our standards. To uphold our unique global solutions, we collaborate with Fanuc to provide extended support for robotics.

Advantages

Access remote support for your cell, spindle and robot with one call, 24 hours a day and 5 days a week, with global -coverage and broad expertise.

Customer Benefits

You work in shifts, but your cell works around the clock. We support your production with a complete view of your processes. With one call, set up onsite support for the next day and prepare delivery of necessary parts.

Preventive maintenance

We maintain your complete workflow: machine, robot, automation and tooling.

Advantages

Each GF Machining Solutions expert can maintain, check and replace spare parts for an entire cell.

Customer Benefits

Control support for your entire cell with one phone call.

Extended warranty (Silver+)

Extend your unexpired warranty up to 5 years from commissioning – and apply it to your spindle as well.

Advantages

One contract, warranty and partner for support or new components.

Customer Benefits

Control costs and secure future investments.

Diagnostics on core components

Our advanced diagnostics increase the lifetime of critical components, including the spindle. Monitor current spindle status and ensure smooth robot movement to prolong equipment life.

Advantages

Take special care of core cell components with annual onsite support for well-balanced operations and process reliability.

Customer Benefits

Diagnostics and preventive maintenance increase process reliability and secure the condition of your entire cell for sustained productivity.

MSP

Machine and Spindle Protection



The world's only spindle protection that works in all directions

Spindle collisions typically occur when you first execute a new computer numerical control (CNC) program. Give your machine ideal protection with MSP.

How it works

When tool force during a collision would cause damage, MSP deflects the spindle and gives axis drives room for automatic emergency braking. This allows for damage-free braking up to 12 m/min (depending on travel speed). MSP works in every direction and with no impact on machining speed in most materials. Keep the machine within safe speed limits for the first run of a program with function M304, up to 12 m/min. along X, Y and Z linear axes, up to 2,250°/min. along the A- resp. and 3,150°/min along the C-rotary axis. Disable the fast feed rate limitation with M305 after the program runs successfully.

With the M304 function active, the spindle remains undamaged through tool or toolholder collisions and all crash events. The CNC records all M304/M305 events.

MSP protection is active whenever the machine runs faster than 12 m/min. This maintenance-free system works without wear.

Testimonials

Insurance company

«Every machine experiences an average of 2-3 spindle crashes.»

Finance department

«MSP pays for itself with one spindle crash.»

Operators

«What a relief. It really works.»

Customer benefits

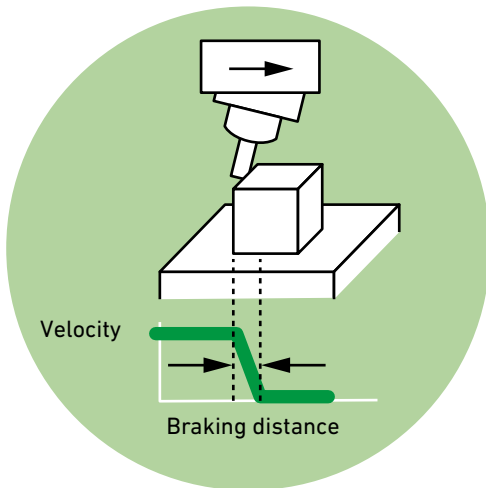
- Protect machine geometry
- Reduce machine downtime
- Gain full cost control
- Reduce machine-damage insurance premiums
- Restart after a crash with only a 10-minute pause in production

Facts

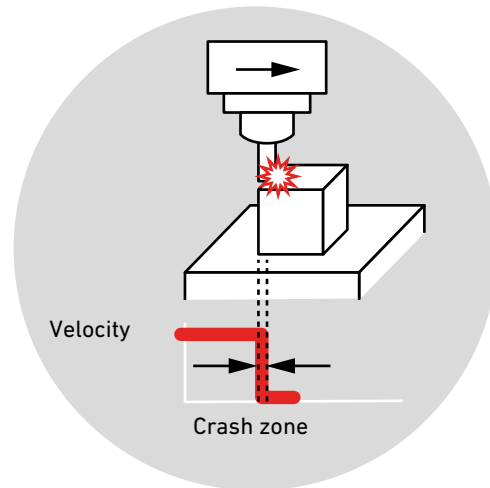
- Always-on protection
- Available on 20,000 min⁻¹ spindle
- Unlimited roughing performance
- M304/305 safety speed limit
 - X/Y/Z axes up to 12 m/min./472 in/min
 - C axis up to 3,150°/min. (8.75 min⁻¹)
 - A axis up to 2,250°/min. (6.25 min⁻¹)

MSP crash protection

Machine and spindle protection in every direction



- Software-supported tool retraction
- Verify geometric accuracy with KinematicsOpt or other tools
- Preserve your spindle with no need for repairs
- Eliminate machine realignment
- Eliminate machine downtime



- Spindle crash with no braking
- Damaged spindle
- Misaligned machine geometry
- Machine downtime
- Expensive repairs

100% machine availability

This part was machined after 200 crashes



Turning. Roughing. Finishing. One clamping operation.

Quick and precise

Complete machining on the Mikron MILL P 800 U ST eliminates unnecessary rechucking to reduce runout, increase precision, speed up production and reduce setup time.

Most-compact design

Reduce investment and operating costs with a complete, space-saving machining center.

Optimized automation

Choose from multiple automation options that integrate with the Mikron MILL P 800 U series from the front or the back of the machine.

High-precision output

Constantly position the tool perpendicular to the workpiece with simultaneous turning. This ideal cutting position ensures precise parts and surface finishes.

Productivity

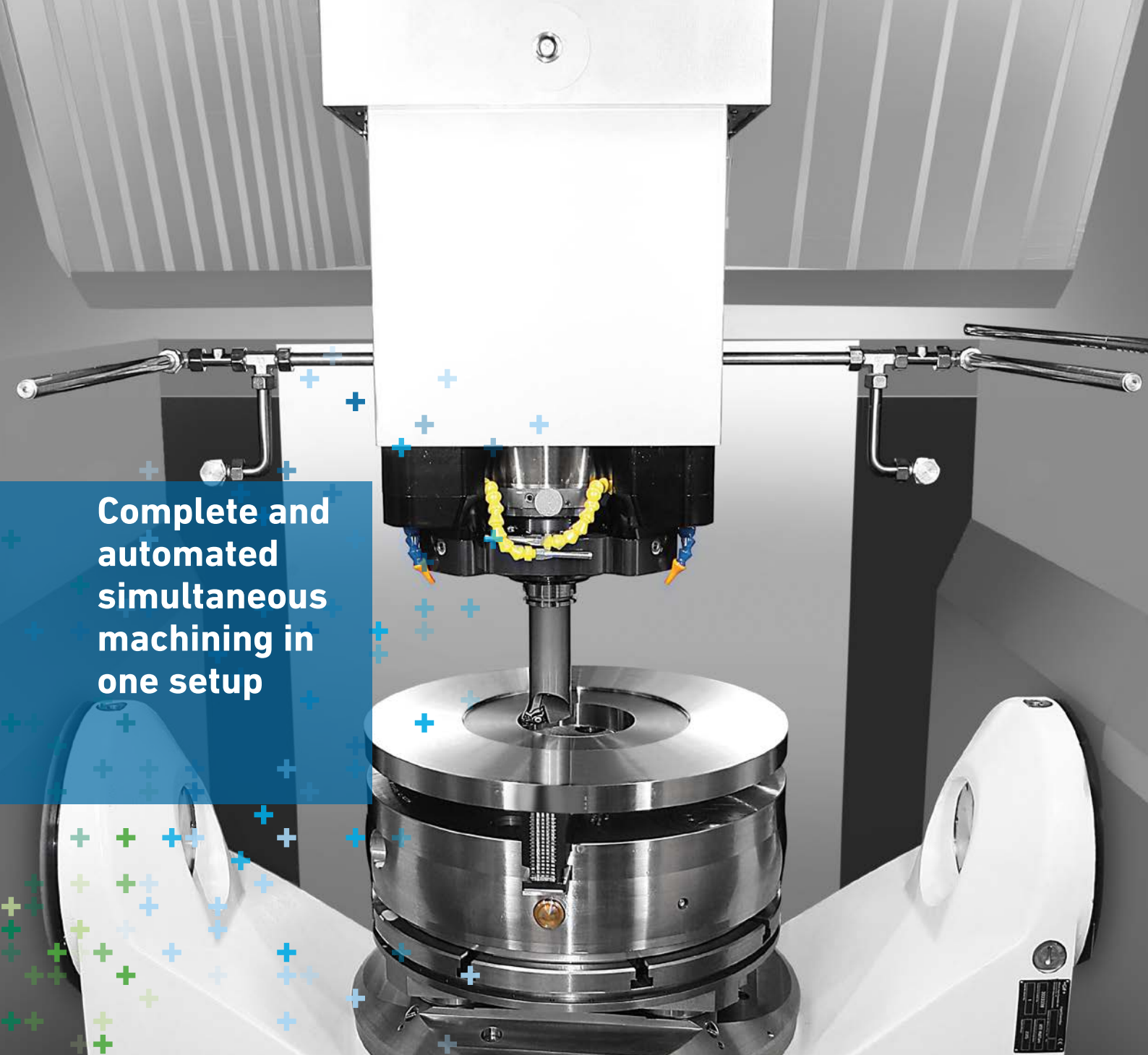
The pallet changer passes through the machine for automated pallet handling with unrestricted access to the work area.

Production service packages

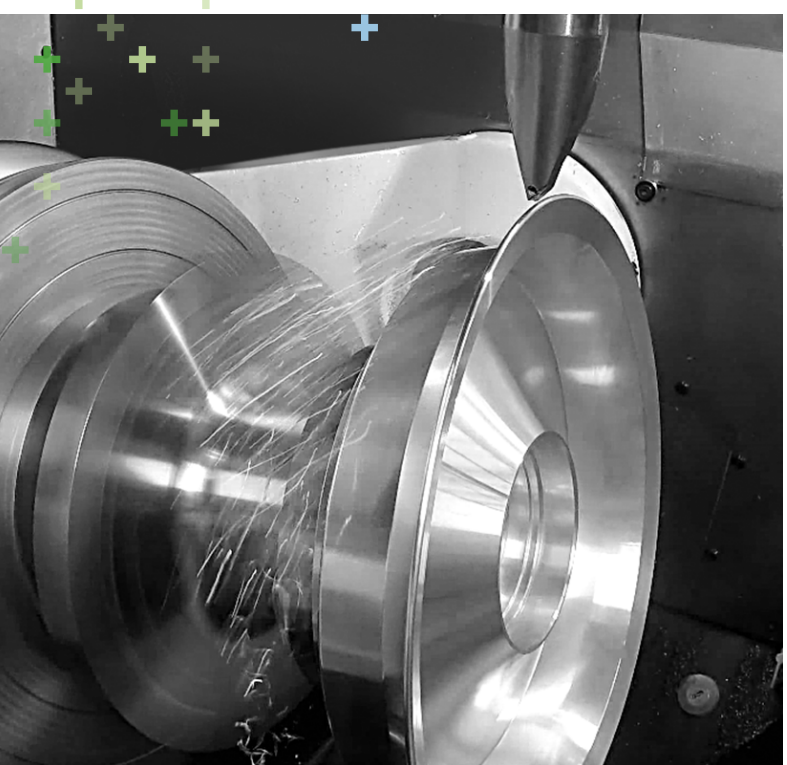
Ask us about specific service and maintenance options to provide safe, continuous operation of this machine. Visit our website: www.gfms.com

- + Reduce setup time by 50% and regain billable production time, even with challenging parts.
- + Cut roughing time and tool costs by a ratio of 1/100 when you rough while you turn.
- + Achieve uncompromised process productivity and precision with unimpeded 1.7 g axis motion within a safe enclosure.





Complete and automated simultaneous machining in one setup



Enhance your process beyond program and machine setup

Smart-machine modules fulfill various functions within an intelligent milling process, which must

- ... Establish comprehensive communication between operator and machine to provide precise information for assessment of the milling process.
- ... Help the operator optimize the process for measurable performance improvement.
- ... Optimize milling to achieve the process safety and workpiece quality for unattended operations.

smart machine construction kit system

Select task-specific modules that best suit your workflow and improve your process.

The facts

- Increase accuracy and shorten cycle times
- Increase surface finish quality along with accurate part topography and geometry
- Support critical machining strategies
- Improve process safety
- Increase machine availability
- Increase operator comfort
- Ramp up the reliability of unattended operations

Customer benefits

- Produce workpieces with process security and precision
- Increase reliable unattended operations
- Lengthen the operating life of the machine
- Cut production costs significantly



Precision

Achieve part precision down to 2 μm with base support of your machining center through ITC, OSS and KinematicsOpt.



Protection

Protect and extend the lifetime of your machine and your tools with MSP, PFP and ISM.



Time

Boost your output up to 24% while you improve surface finish and accuracy with OSS, OSS Extreme, ISM and software tools, including rConnect.



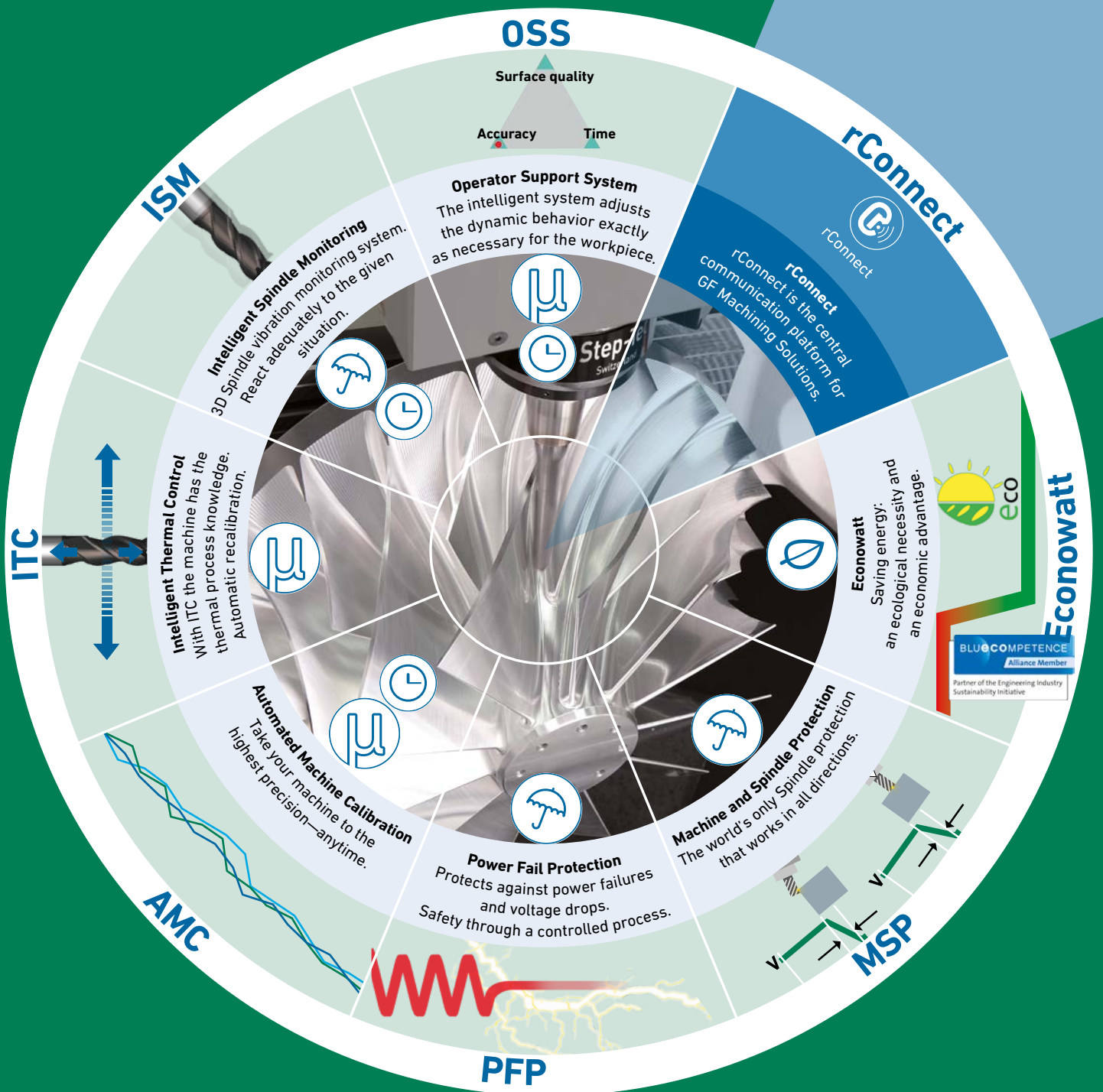
Save energy

Cut energy use up to 50% for environmentally friendly economic advantages.

Heidenhain control options

KinematicsOpt, Power Fail Protection (PFP), Adaptive Feed Control (AFC), DXF file import, DNC remote network access on the control

smart machine, simply better results





One connectivity solution for all machines

Plug-and-play OPC UA Standard Interface makes it easier than ever to connect your GF Machining Solutions machines to third-party solutions such as ERP, MES and Dashboard.

Main contents

- Machine identity
- Machine states
- Process and job Information
- Machine messages
- Precomputed KPIs

Features

- Access a single OPC UA Standard interface
- View 41 data items on most GF Machining Solutions equipment/technology
- Connect to third-party software, including MES/ERP/PLM
- Implement ready-to-use precomputed ISO 22400 KPIs through time model implementation
- Achieve peace of mind with state-of-the-art security standards

+ Shorter engineering time
Ease integration of third-party software at reduced cost.

+ Improved productivity
Find productivity improvements quickly with precomputed KPIs.

+ Competitive advantage
Exchange data seamlessly between machines and any software.

+ Ensure data integrity
Username/password access provides safe, secure encrypted communication.



New digital service possibilities

GF Machining Solutions' customer service pushes technological boundaries to deliver the future – today.



rConnect provides a digital services platform for all GF Machining Solutions technologies. This modular system includes a range of services – all backed by TÜVIT-certified cybersecurity – to increase your manufacturing productivity.

rConnect Messenger lets you track production status with machine data updates on your mobile device. Monitor your entire shop and maximize your productivity from anywhere in the world, right on your smartphone.

rConnect Live Remote Assistance (LRA) enables our expert engineers to help you maximize machine uptime with quick responses to your service requests through audio, video chat and more.



Technical data



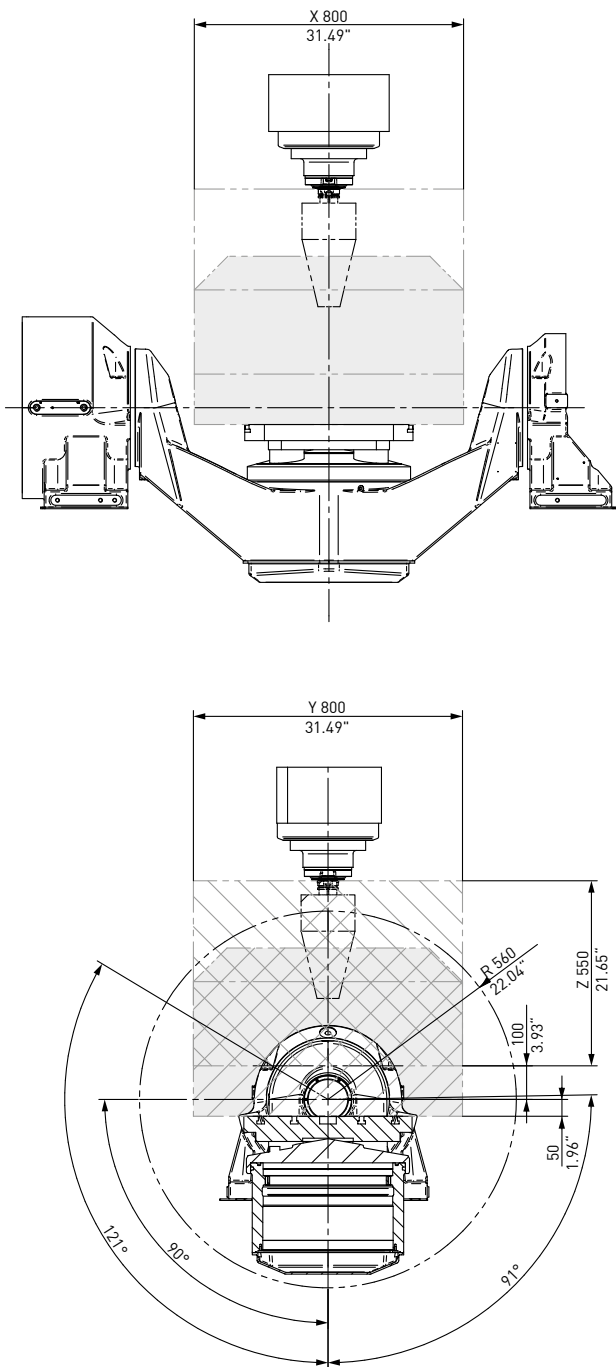
MILL P 800 U

MILL P 800 U ST

MILL P 800 U S

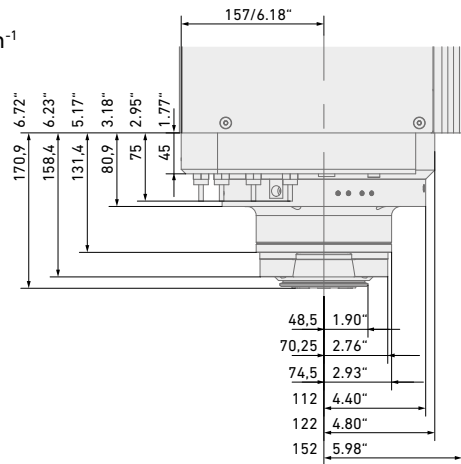
			MILL P 800 U (D)	MILL P 800 U ST	MILL P 800 U S
Working range					
Length/Width/Height	X x Y x Z	mm	800 x 800 x 550	800 x 800 x 550	800 x 800 x 550
A Axis		°	+91/-121°	+91/-121	+91/-121°
C Axis		°	n x 360°	n x 360°	n x 360°
Number of simultaneous axes		pce.	5/5 simultaneous	5/5 simultaneous	5/5 simultaneous
Feed Drives					
Feed rate/(D)	Rapid traverse X, Y, Z	m/min	45/(61)	61	61
	A, C	min ⁻¹	25, 35/(50, 60)	50, 800	50, 60
Working spindle (40% ED, S6)					
20,000 min ⁻¹	HSK-A63 / HSK-T63	kW/Nm	36/120	36/120	36/120
28,000 min ⁻¹	HSK-A63	kW/Nm	36/36	-	36/36
Accuracy XYZ ISO 230-2(97)					
Accuracy	A	μ	8	8	8
Repeatability	R	μ	5	5	5
Work table					
Clamping surface		Ø mm	500/631	550/730	500/631
Peak torque (C axis)		Nm	-	1750	-
Max. workpiece weight		kg	500/1,000	800	500/1,000
Automation					
Tool magazine		Positions	30, 60, 120, 170, 215	60, 120, 170, 215	30, 60, 120, 170, 215
Laser tool measurement			Option	Option	Option
Infrared touch probe			Option	Option	Option
Pallets (see page 16/17)		pce.	2, 7, 9, 12	2, 7, 9, 12	2, 7, 9, 12
Weight					
Machine weight (60 tools)		kg	15,500	16,500	15,500
Options					
Machine and Spindle Protection (MSP)			+	+	+
Coolant unit, chip conveyor			+	+	+
Minimum-quantity cooling lubrication			+	+	+
Mist extraction unit, etc.			+	+	+
Compressed air blow spindle			+	+	+
Ancillary services					
Programming courses			+	+	+
Technology courses			+	+	+
Service training courses			+	+	+
Control unit					
Heidenhain TNC 640			+	+	+
Siemens Sinumerik ONE					+

Workspace

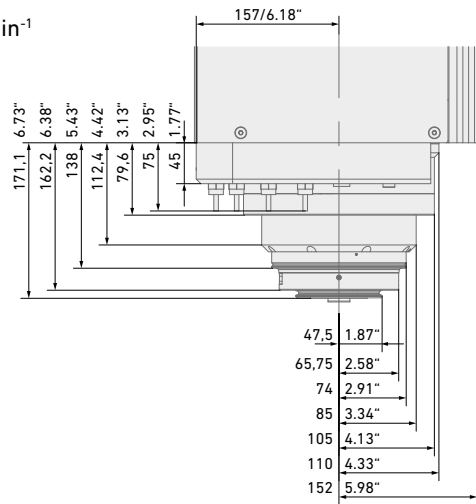


Spindles

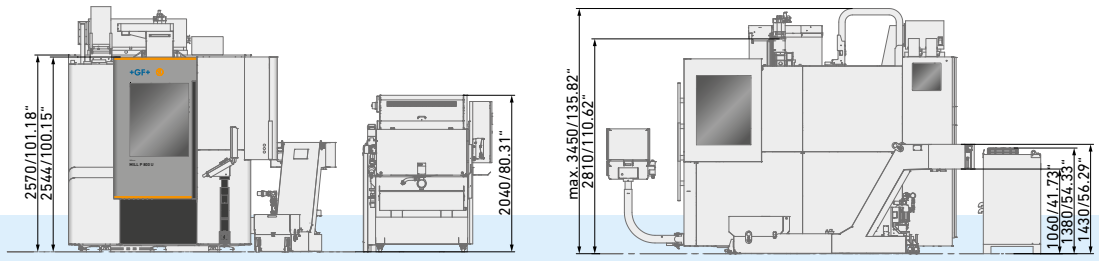
20,000 min⁻¹
 HSK-A63
 HSK-T63



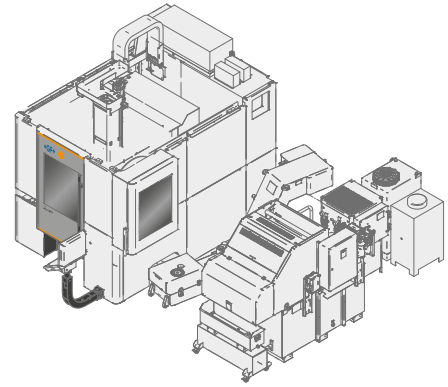
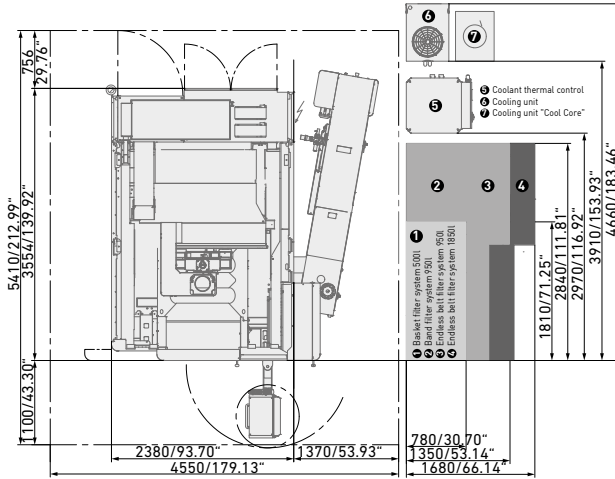
28,000 min⁻¹
 HSK-A63



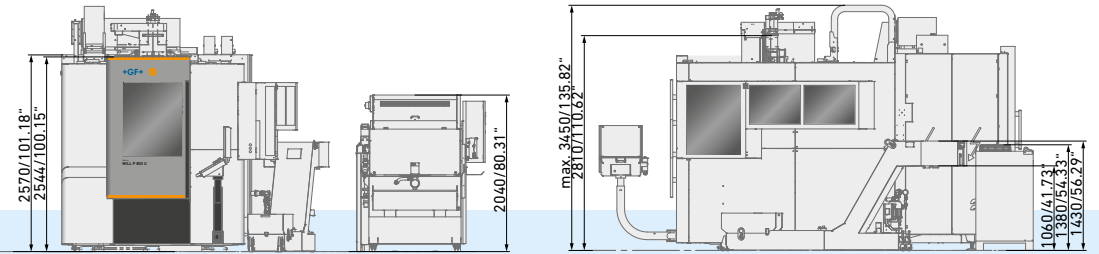
MILL P 800 U



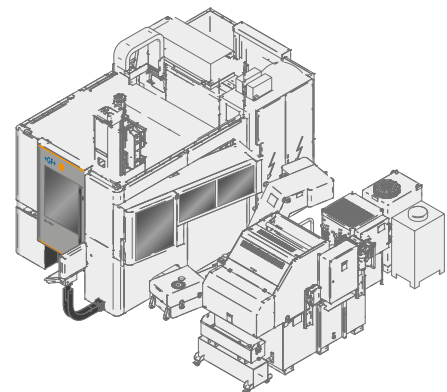
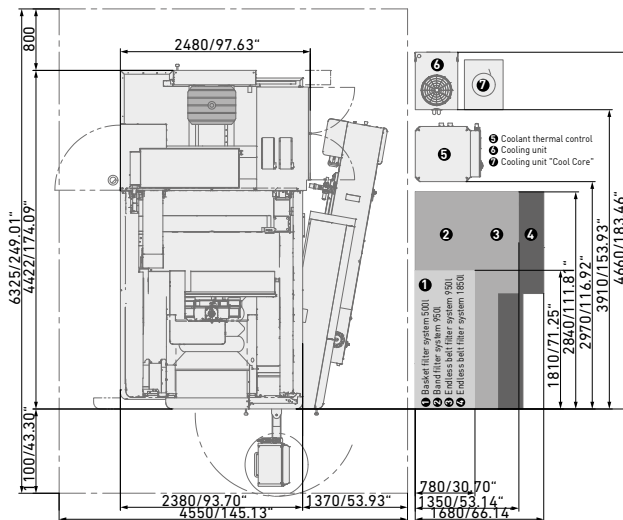
30 tools



MILL P 800 U

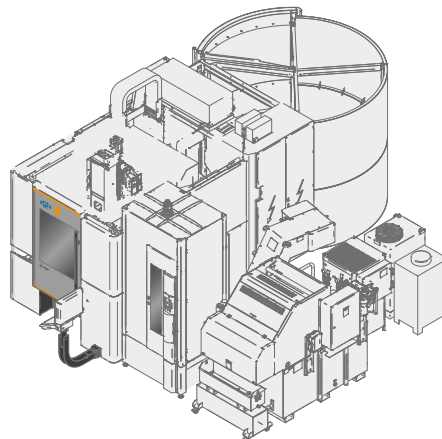
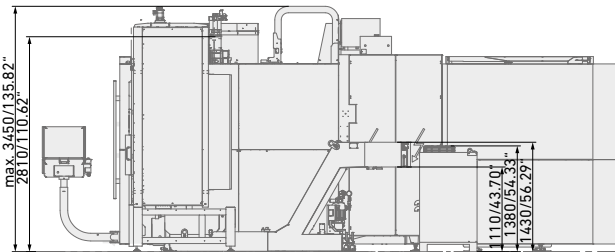
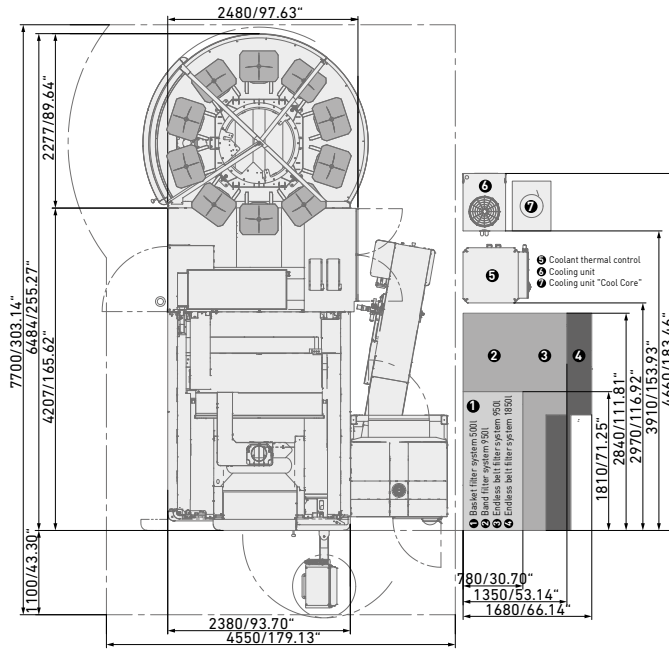
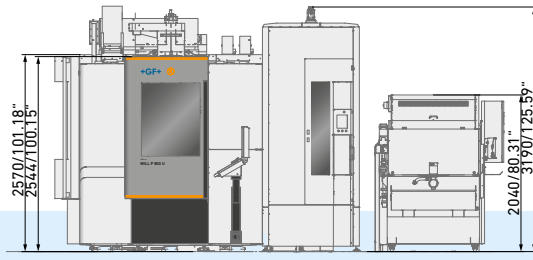


2 pallets, 60 tools

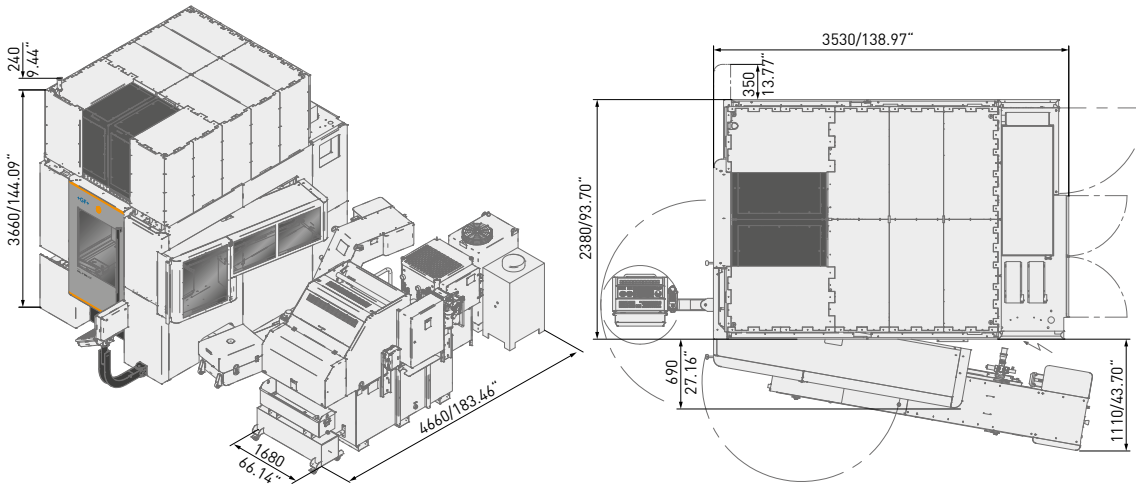


MILL P 800 U

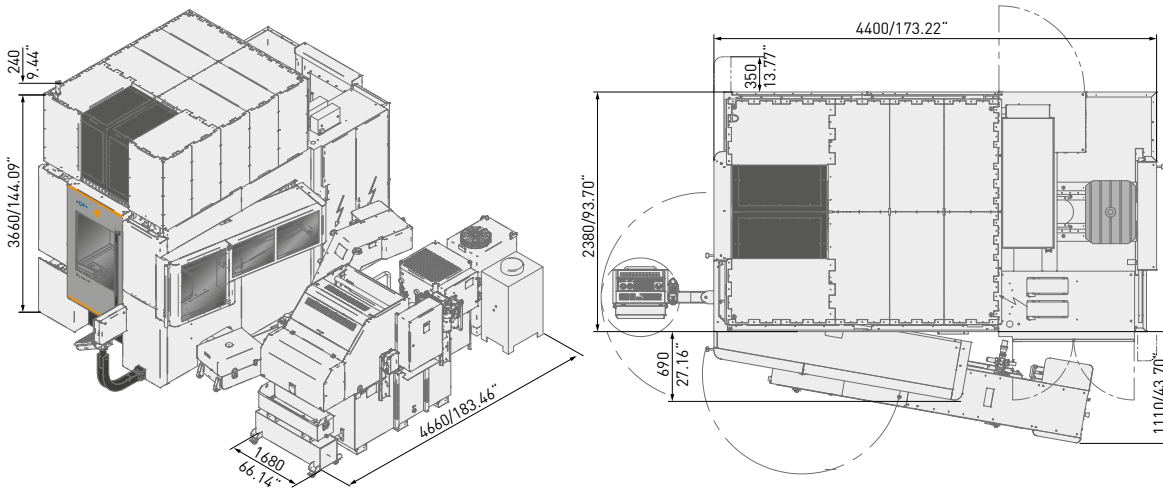
7-12 pallets, 120-215 tools



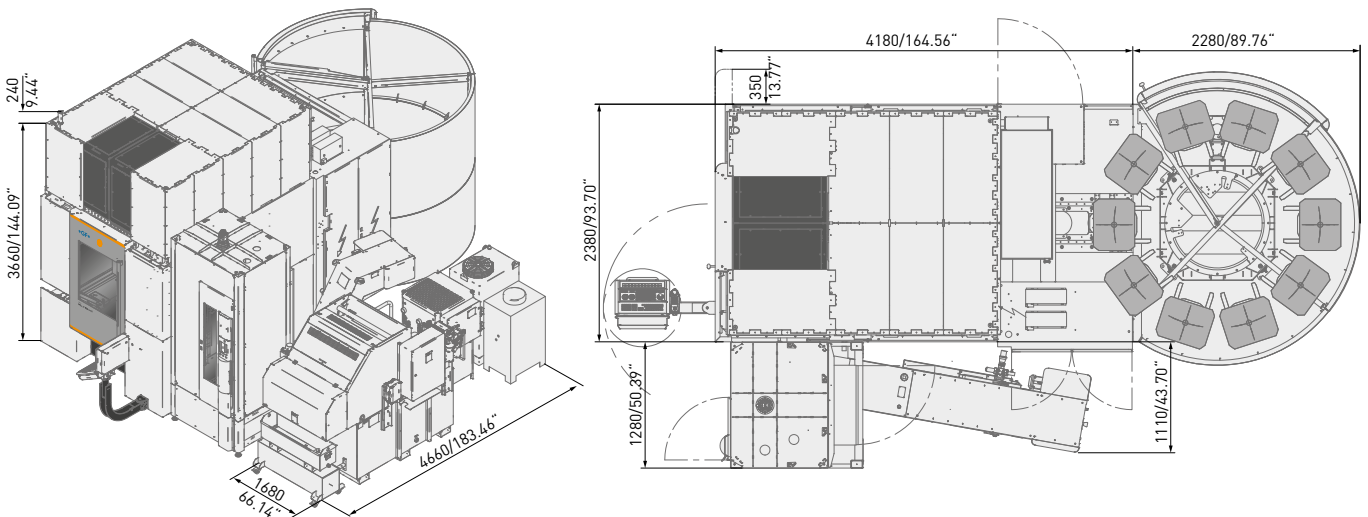
MILL P 800 U ST, 60 tools



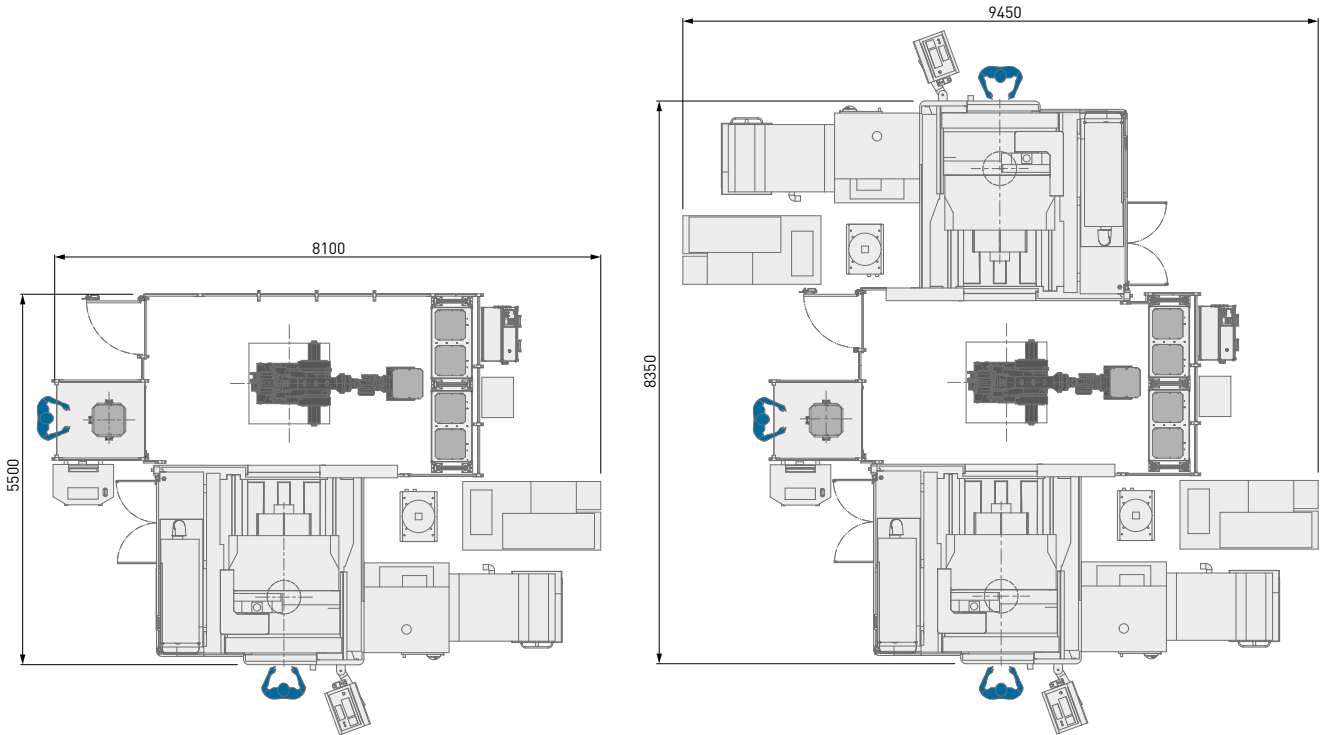
MILL P 800 U ST, 60 tools, 2 pallets



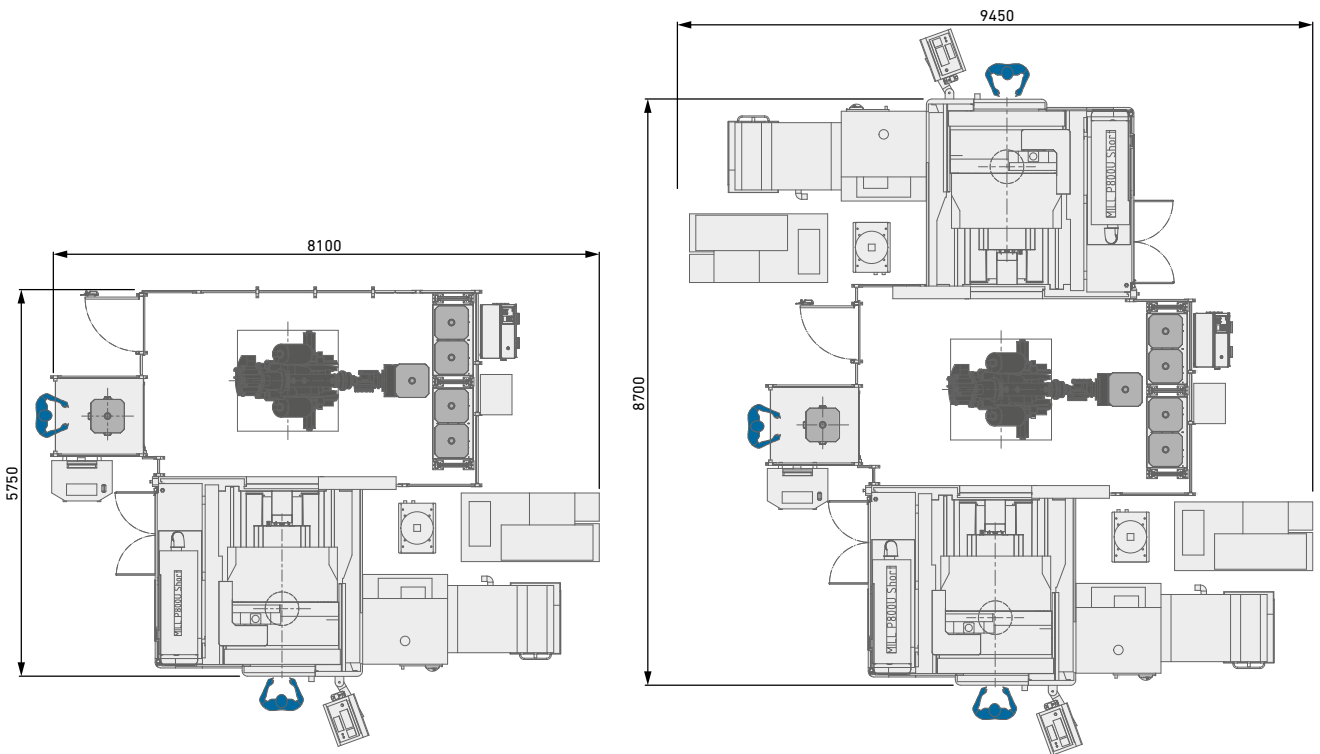
MILL P 800 U ST, 120–215 tools, pallet magazine with 7–9 pallets



MILL P 800 U S, Transformer 6-axis 360 with Delphin 448 x 448 mm



MILL P 800 U S, Transformer 6-axis 700 with Berg 500 x 500 mm



About GF Machining Solutions

Multi-technology solutions provider

Our commitment to you and your specific applications is proven by the value-adding intelligence, productivity and quality delivered by our multi-technology solutions. Your success is our chief motivator. That's why we are continuously advancing our legendary technical expertise. Wherever you are, whatever your market segment and whatever the size of your operation, we have the complete solutions and the customer-centric commitment to accelerate your success—today.

EDM (Electrical Discharge Machining)



Wire-cutting EDM

GF Machining Solutions' wire-cutting EDM is fast, precise and increasingly energy efficient. From ultraprecise machining of miniaturized components down to 0.02 mm to powerful solutions for demanding high-speed machining with respect to surface accuracy, our wire EDM solutions position you for success.

Die-sinking EDM

GF Machining Solutions is revolutionizing die-sinking EDM with features like iGAP technology to dramatically boost machining speed and reduce electrode wear. All of our die-sinking systems offer fast removal and deliver mirror finishes of Ra 0.1 µm (4 µin).

Hole-drilling EDM

GF Machining Solutions' robust hole-drilling EDM solutions enable you to drill holes in electrically conductive materials at a very high speed—and, with a five-axis configuration, at any angle on a workpiece with an inclined surface.

Tooling and Automation



Tooling

Our customers experience complete autonomy while maintaining extreme accuracy, thanks to our highly accurate System 3R reference systems for holding and positioning electrodes and work pieces. All types of machines can easily be linked, which reduces set-up times and enables a seamless transfer of workpieces between different operations.

Automation

Together with System 3R, we also provide scalable and cost-effective Automation solutions for simple, single machine cells or complex, multi-process cells, tailored to your needs.

Milling



Milling

Precision tool and mold manufacturers enjoy a competitive edge with our Mikron MILL S solutions' fast and precise machining. The Mikron MILL P machines achieve above-average productivity thanks to their high performance and Automation. Customers seeking fastest return on investment benefit from the affordable efficiency of our MILL E solutions.

High Performance Airfoil Machining

Our Liechti turnkey solutions enable the highly dynamic manufacturing of precision airfoils. Thanks to the unique performance and our expertise in airfoil machining, you increase productivity by producing at the lowest cost per part.

Spindles

As part of GF Machining Solutions, Step-Tec is engaged in the very first stage of each machining center development project. Compact design combined with excellent thermal and geometric repeatability ensure the perfect integration of this core component into the machine tool.

Software



Digitalization solutions

To drive its digital transformation, GF Machining Solutions acquired symmedia GmbH, a company specialized in software for machine connectivity. Together, we offer a complete range of Industry 4.0 solutions across all industries. The future requires the ability to adapt quickly to continual digital processes. Our intelligent manufacturing offers embedded expertise, optimized production processes, and workshop Automation: solutions for smart and connected machines.

Advanced manufacturing



Laser texturing

Aesthetic and functional texturing is easy and infinitely repeatable with our digitized Laser technology. Even complex 3D geometries, including precision parts, are textured, engraved, microstructured, marked and labeled.

Laser micromachining

GF Machining Solutions offers the industry's most complete line of Laser micromachining platforms optimized for small, high-precision features to meet the increasing need for smaller, smarter parts to support today's leading-edge products.

Laser Additive Manufacturing (AM)

GF Machining Solutions and 3D Systems, a leading global provider of additive manufacturing solutions and the pioneer of 3D printing, have partnered to introduce new metal 3D printing solutions that enable manufacturers to produce complex metal parts more efficiently.

Service + Success



We take you to new heights

Our Success Packs are designed to maximise your return on investment and empower you in your quest for success across all industrial segments. Our subscription packs feature a comprehensive range of services that guarantee the access and support you need to get the most out of your assets today, while preparing for the challenges of tomorrow. Our trusted experts backed by our latest cutting-edge, intelligent Digital Solutions, provide a full range of services.

eCatalog

Keep your equipment operating at peak precision and performance with our wide range of certified consumables and original wear parts. Our online catalog has it all (ecatalog.gfms.com).



Our locations

Switzerland

Headquarters
Biel/Bienne +++

Losone +++
Geneva ++
Langnau ++

Europe

Schorndorf, Germany ++
Coventry, United Kingdom ++
Agrate Brianza (MI), Italy ++
Barcelona, Spain ++
Marinha Grande, Portugal +
Massy, France +
La Roche Blanche, France +
Lomm, Netherlands ++
Altenmarkt, Austria ++
Warsaw, Poland ++
Brno, Czech Republic ++
Budapest, Hungary ++
Vällingby, Sweden +

America

USA
Lincolnshire (IL) ++
Chicago (IL) ++
Huntersville (NC) ++
Irvine (CA) ++

Toronto (Vaughan), Canada ++
Monterrey, Mexico ++
São Paulo, Brazil +
Caxias do Sul, Brazil +

Asia

China
Beijing +++
Changzhou ++
Shanghai ++
Chengdu ++
Dongguan ++
Hong Kong +

Yokohama, Japan ++
Taipei, Taiwan +
Taichung, Taiwan ++
Seoul, Korea ++
Singapore, Singapore ++
Petaling Jaya, Malaysia ++
Bangalore, India ++
Pune, India +
Hanoi, Vietnam ++

+ Plant ++ Center of Demonstration +++ Sales company

At a glance

We enable our customers to run their businesses efficiently and effectively by offering innovative Milling, EDM, Laser, Additive Manufacturing, Spindle, Tooling and Automation solutions. A comprehensive package of services completes our proposition.

www.gfms.com



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