

### Mikron



# 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.



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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.

# The machine that grows with your needs

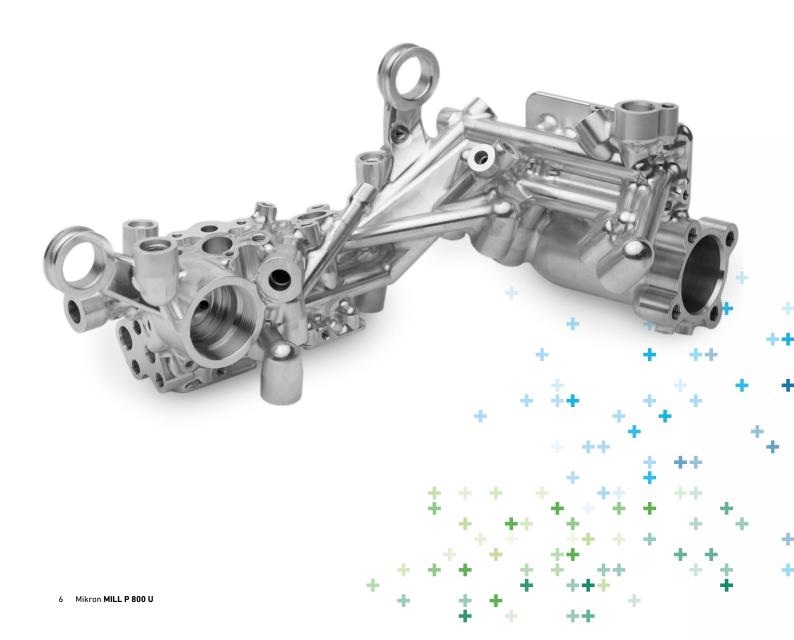
The Mikron MILL P 800 U delivers intelligent productivity to help mold and die manufacturers overcome their daily challenges. Rapid market developments and future-changing innovations challenge mold and die manufacturers' ability to adapt to change. GF Machining Solutions provides these manufacturers 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.





# The perfect fit for perfectionist and modern shop

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



#### **Solutions**

# 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.







# The benchmark of precision machining and agile productivity

# $\pm 2\mu/24$ process reliability

Secure your milling process with a watercooled 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 1.7g axis acceleration, 61 m/min axis feed rate and a 36 kW/120 Nm Step-Tec spindle.

# 250% higher productivity

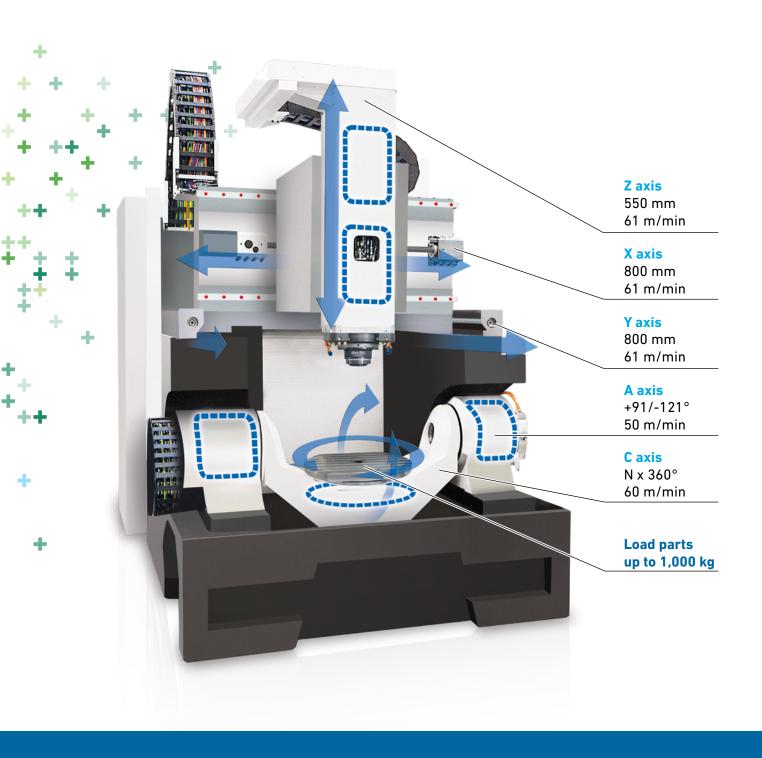
Increase manufacturing flexibility with a scalable solution that offers limitless automation possibilities in a best-in-class footprint.

# 100% machine availability

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

Your most competitive machining center





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.

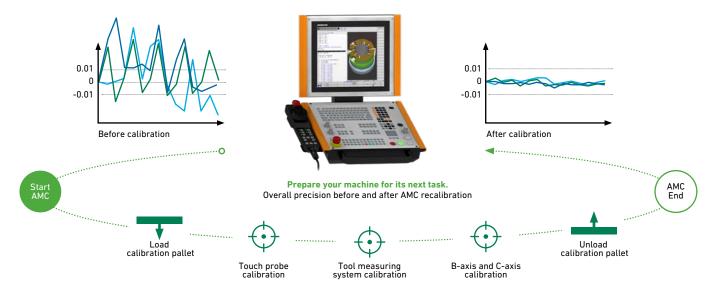
Ensure smooth dynamic milling with less heat than a conventional gearbox-driven table. Direct torque motors on the tilting and rotating table of the Mikron MILL P 800 U create precise results.

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.



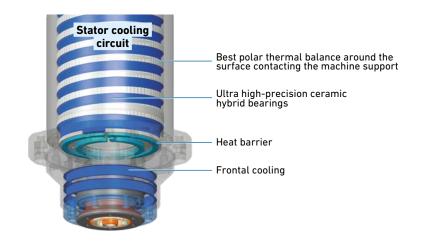
# Top-quality Step-Tec spindle

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.

- + Highest precision due to optimized thermal balance of the entire machining head
- Satisfies the toughest requirements in surface finish, repeatability and reliability

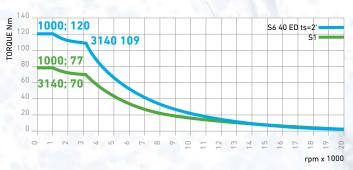


#### **Performance**

# 365 days of dynamic machining

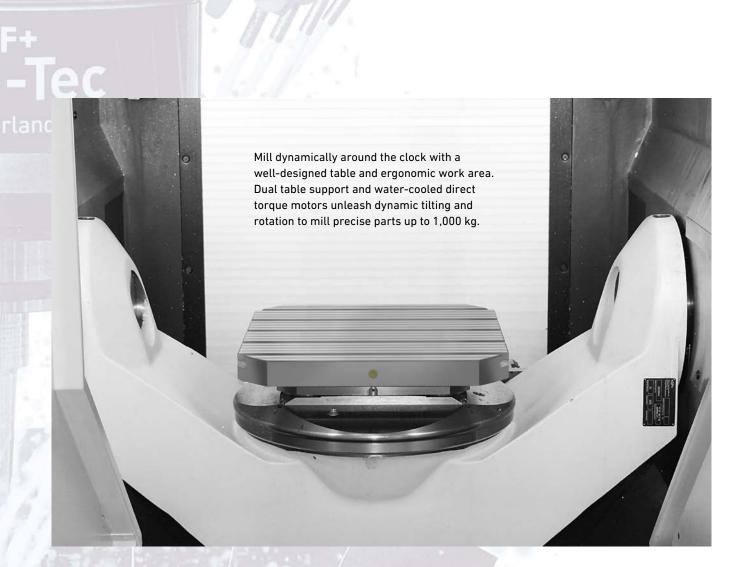
Since 1955, Step-Tec has developed, manufactured, sold and repaired motor-driven spindles for leading manufacturers of machining centers for milling, drilling and turning applications. Step-Tec manufactures fast, precise, high-performance integrated-motor spindles. These high-quality motor-driven spindles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





#### 20,000 min<sup>-1</sup> / HSK-A63

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



### **Dedicated spindle services**



#### **Exchange program**

Exchange your defective standard motor spindle for a completely refurbished or new spindle at a fixed price.

Our refurbished spindles are available within 24 hours and full warranty conditions apply.



#### **Warranty extension**

Based on your machine's specific usage, we offer a tailored warranty extension for your spindle, helping you avoid unexpected costs.

Extended warranty is also included in the Gold Success Pack, for up to 5 years after commissioning.



#### Spindle diagnosis

Our experts check your spindle's condition by performing a preventive maintenance measure at between 3,000 and 5,000 operating hours, to avoid any leakage and fluid ingress.

Spindle diagnosis is included in the Silver and Gold Success Packs.

More details on page 22



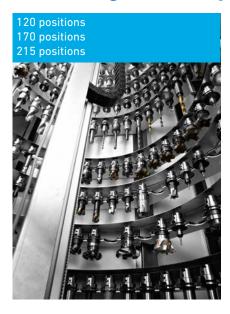




# 250% higher productivity

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.

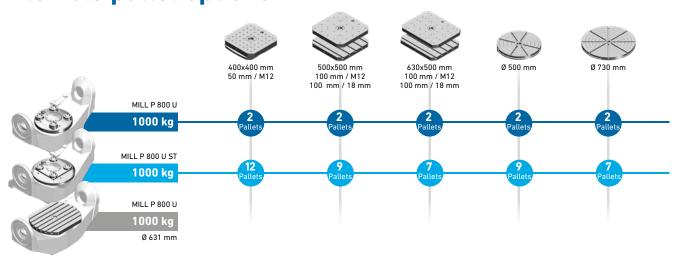
### **Tool magazine capacities**







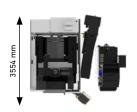
### Flexible pallet options



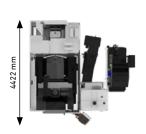
# Short and scalable automated solutions



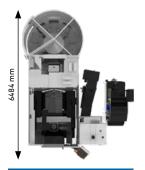
MILL P 800 U S with robot interface



MILL P 800 U with robot interface



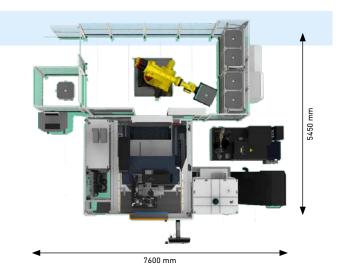
MILL P 800 U with dual pallet changer



MILL P 800 U with pallet magazine

Transformer 6-axis 360 or 700 16x pallets station

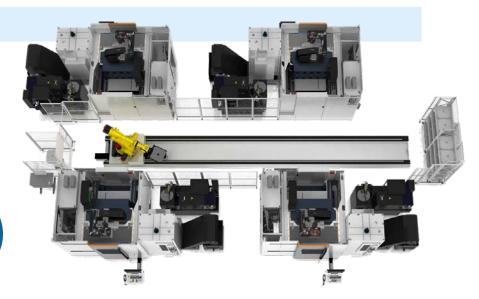
The Mikron MILL P 800 U S offers the best complete automation solution per square meter in its class. Quickly and easily connect a second machine to increase your workshop's productivity.



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.





# Benefits and advantages with pallets and robots

### 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 60,000 N

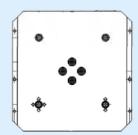
Repeatability within 0.003

Highest repeatability for the highest quality.

60 000 N clamping force

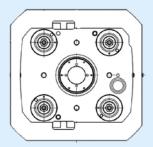
Achieve the highest process reliability with the greatest clamping force, smart monitoring, highquality products and easy management systems.





#### **Pallets Delphin, 2154.04/05**

- Media: 4
- Material: Aluminum



#### Pallets Berg, 2154.04/03

- · Media: No
- Material: Steel

### 500 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.

# We take you to new heights

# Guiding your ascent

Our Service + Success experts offer a full range of services for your machines throughout their entire lifecycle, regardless of the technology, ensuring optimal precision, peak performance, and reliability.

As your true partners in success, our trusted experts blend proactive expertise with advanced digital solutions and hands-on interventions, helping you reach higher grounds.



#### **Service solutions**

Three levels of support designed to meet every operational need and help you get the most of your assets



#### **On-demand services**

Technical support, preventive services and advanced services to ensure your equipment operates in perfect condition



#### Products

A wide range of certified consumables and original wear parts to help you maintain the highest standards of machine performance and reliability



#### 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





# Service solutions ready to keep your operations running

### Three annual subscription packages

Discover our Success Packs tailored to provide continuous support for your machines throughout their entire lifecycle, ensuring your productivity remains secure.

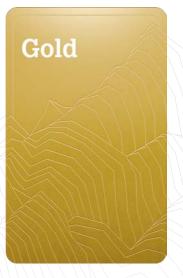
Each pack is designed to meet every operational need, with the level of support necessary to help you reach your goal with confidence and get the most of your assets.



For Full responsiveness Fast reply services to ensure machines are swiftly back up and running.

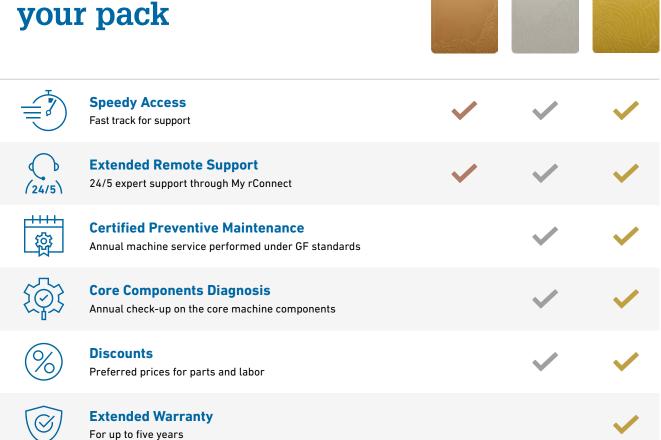


For peak performance Periodic maintenance services to keep your machines in optimal condition.



For guaranteed
peace of mind
Extended warranty
coverage to mitigate
financial risks and focus
on your core business.

# Choose your pack



# **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.

#### Your 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.

#### Your benefits

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



# 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.»

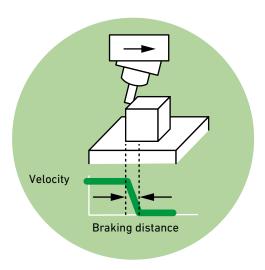
#### **Customer benefits**

- · 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

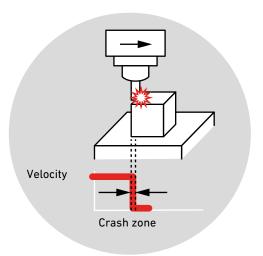
#### **Facts**

- Always-on protection
- Available on 20,000 min<sup>-1</sup> 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<sup>-1</sup>)
  - 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 AMC
- 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



#### Mikron MILL P 800 U ST - Milling and Turning

# 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.

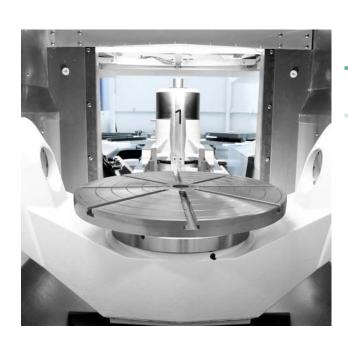
#### **Productivity**

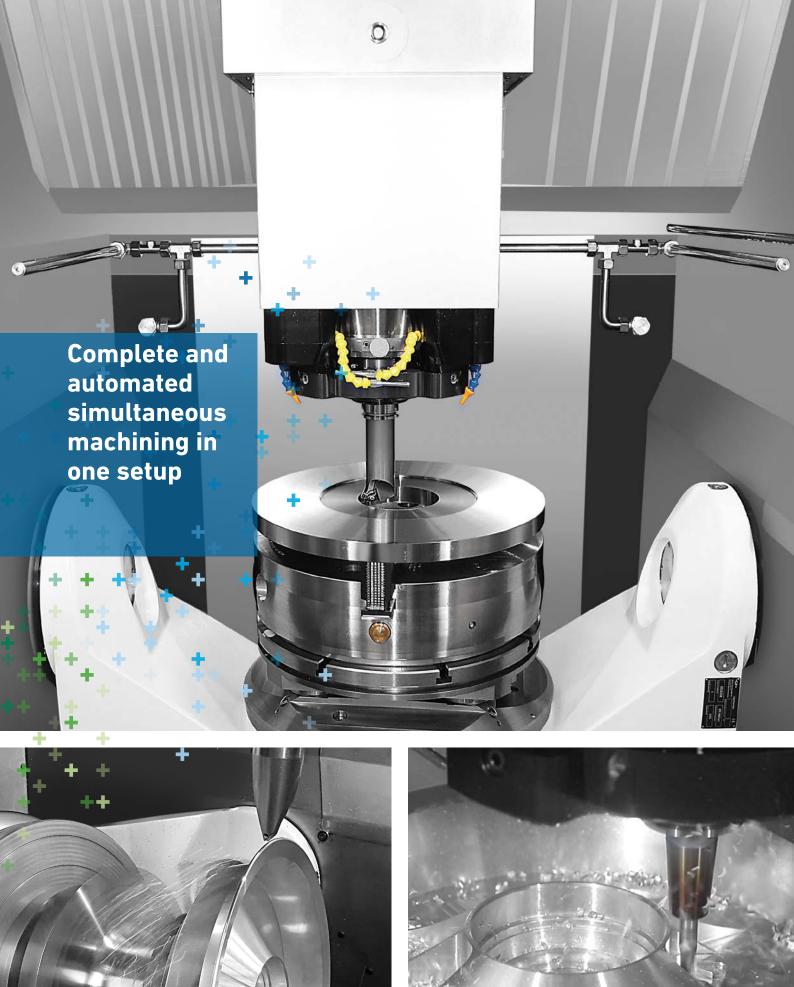
The pallet changer passes through the machine for automated pallet handling with unrestricted access to the work area.

**Production service packages** 

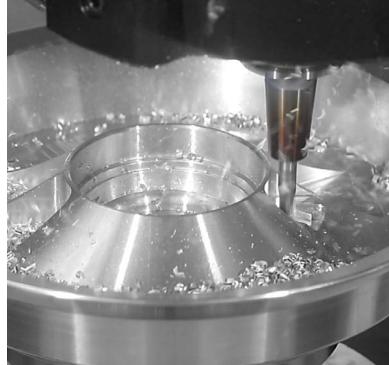
Ask us about specific service and maintenance options to provide safe, continuous operation of this machine. Visit our website: www.gfms.com

- \* 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.









# 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.

Select task-specific modules that best suit your workflow

... Optimize milling to achieve the process safety and workpiece quality for unattended operations.

smart machine construction kit system

and improve your process.

## **Customer benefits**

The facts

 Produce workpieces with process security and precision

· Increase accuracy and shorten cycle times

part topography and geometrySupport critical machining strategies

· Improve process safety

Increase machine availabilityIncrease operator comfort

· Increase surface finish quality along with accurate

· Ramp up the reliability of unattended operations

- 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 AMC.



#### 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.



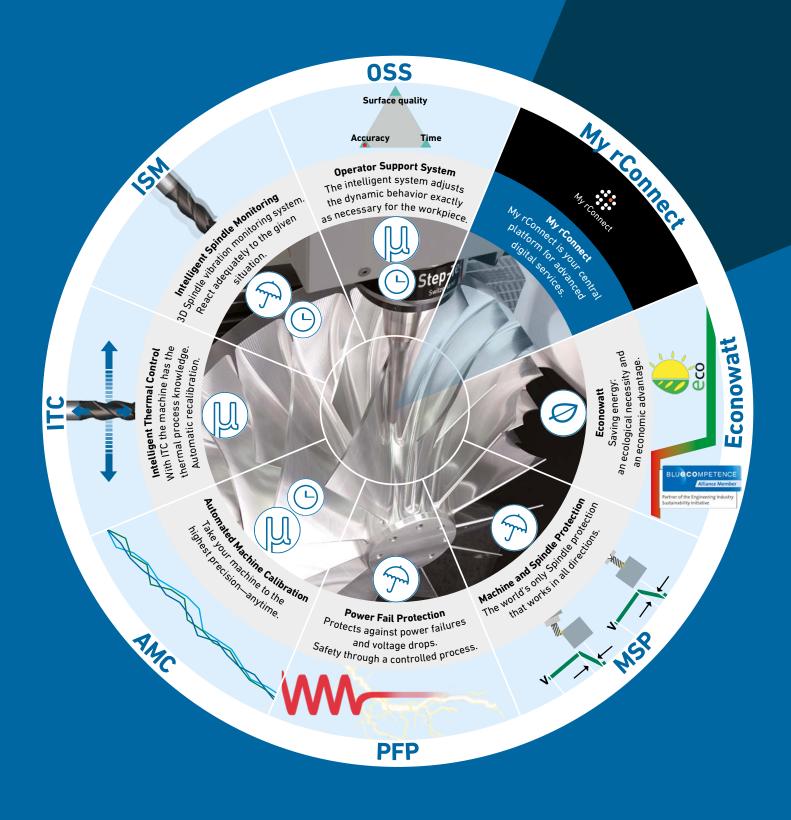
#### Save energy

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

#### **Heidenhain control options**

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.
- Username/password access provides safe, secure encrypted communication.



# Digital services for all your GF machines, anytime, anywhere

My rConnect is your gateway to advanced digital assistance. This innovative web-based platform provides seamless access to a wide range of digital services to boost machine uptime and productivity.

Enjoy simple navigation and direct access to GF support, for all connected and unconnected machines, regardless of their age.

- Organize your workshop and manage user access
- Use chat, video conferencing, whiteboard, and file transfer for rapid interaction and problem-solving
- Supervise the complete history of service cases for improved decision-making
- Access machine user manuals in one place, and upload additional documentation

Connect your machine for increased responsiveness and operational efficiency.

#### **Remote Access**



Remote Access allows either you or GF support to troubleshoot and resolve issues efficiently with direct file transfer from/to the machine and remote access to your machine's HMI.

#### **Live Data**



With Live Data, you can access real-time machine data and a live notification system to stay informed about your machine's status and performance.



### **Technical data**







**MILL P 800 U** 

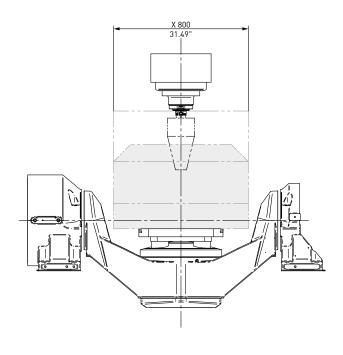
MILL P 800 U ST

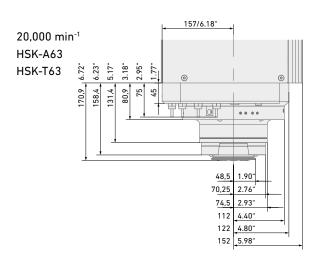
MILL P 800 U S

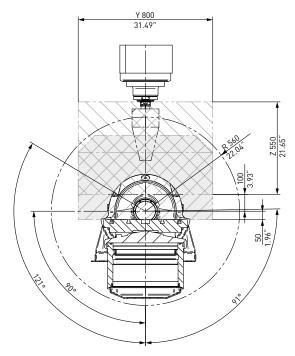
		MILL P 800 U (D)	MILL P 800 U ST	MILL P 800 U S
Working range				
Length/Width/Height X x Y x Z	mm	800 x 800 x 550	800 x 800 x 550	800 x 800 x 550
A Axis	0	+91/-121°	+91/-121	+91/-121°
C Axis	0	n x 360°	n x 360°	n x 360°
Number of simultaneous axes	pce.	5/5 simultaneous	5/5 simultaneous	5/5 simultaneous
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 <sup>-1</sup> , HSK-A63 / HSK-T63	kW/Nm	36/120	36/120	36/120
Accuracy YV7 ISO 220, 2(07)				
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
<b>Automation</b> 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		+	+	+

Workspace

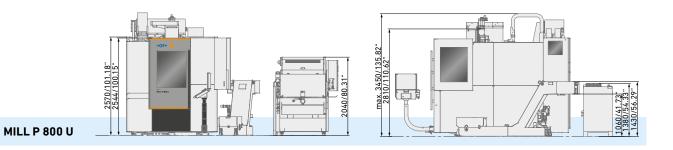
#### Spindles



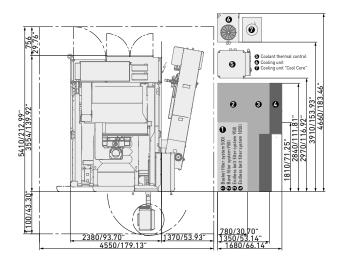


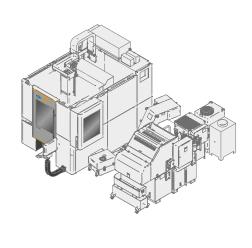


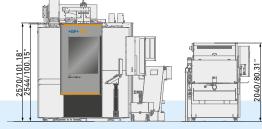


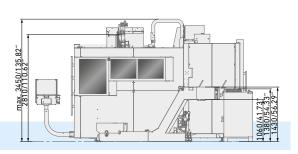


#### 30 tools



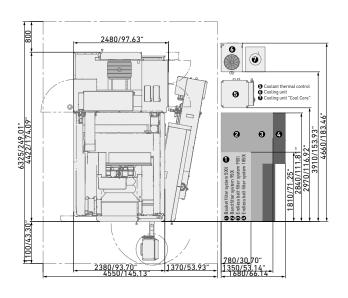


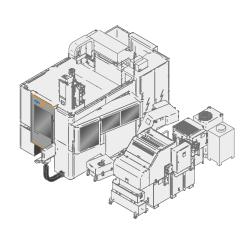


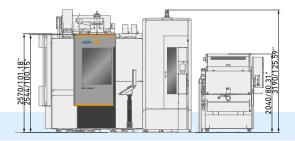


#### 2 pallets, 60 tools

MILL P 800 U

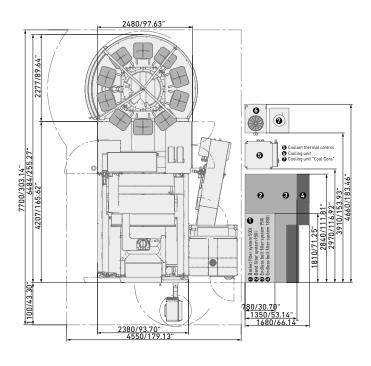


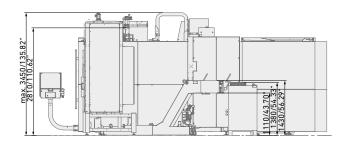


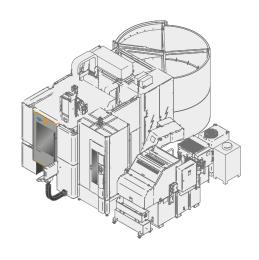


#### MILL P 800 U

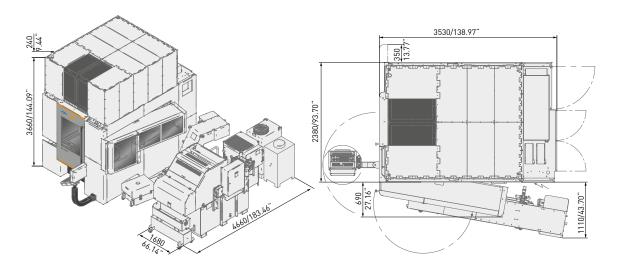
7-12 pallets, 120-215 tools



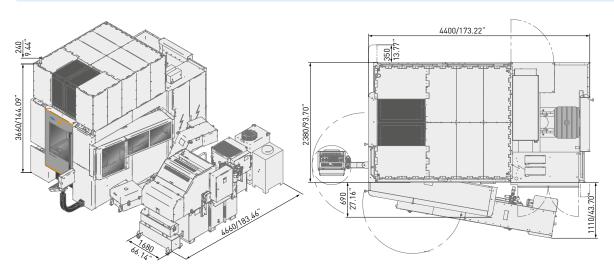




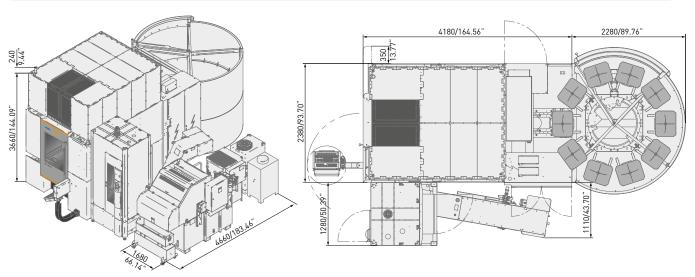
#### MILL P 800 U ST, 60 tools



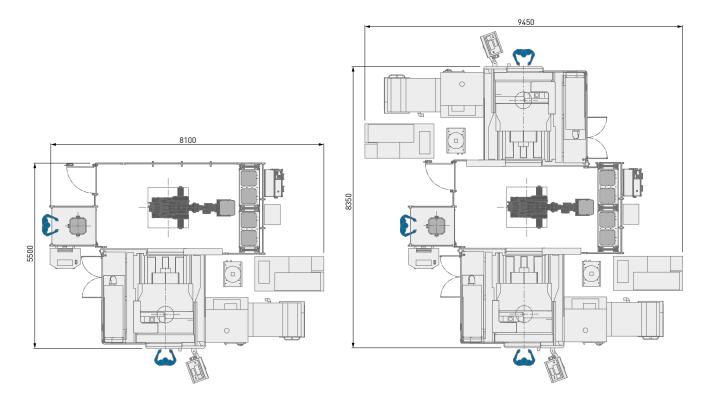
#### MILL P 800 U ST, 60 tools, 2 pallets



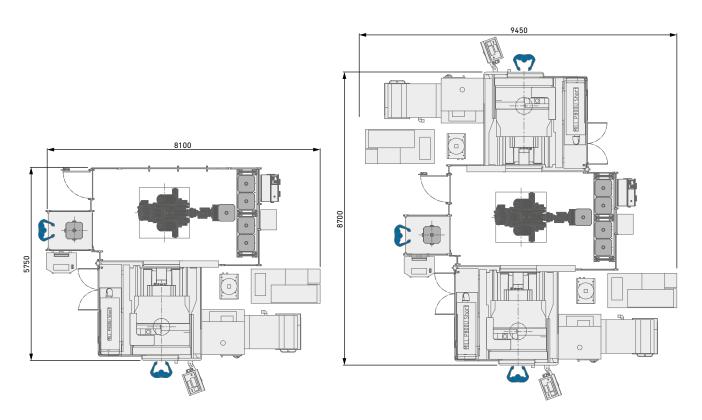
#### MILL P 800 U ST, 120–215 tools, pallet magazine with 7–9 pallets



#### 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 diesinking 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  $\mu$ m (4  $\mu$ in).

#### Hole-drilling EDM

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

#### Millina



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.

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.

#### Advanced manufacturing







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.

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.

#### Tooling and Automation





#### Software



#### Service + Success



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, multiprocess cells, tailored to your needs.

#### 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 agility 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.

#### We take you to new heights

We empower you with a full range of services to help you reach peak performance. Our trusted experts blend proactive expertise with advanced Digital Solutions and hands-on interventions. Our tailored Success Packs guarantee the access and support you need to get the most of your assets.

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), C

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 ++

### 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

