

Mikron

MILL S/X

400 / 400 U / 500
600 / 600 U / 800



Becoming better every day – since 1802

GF Machining Solutions

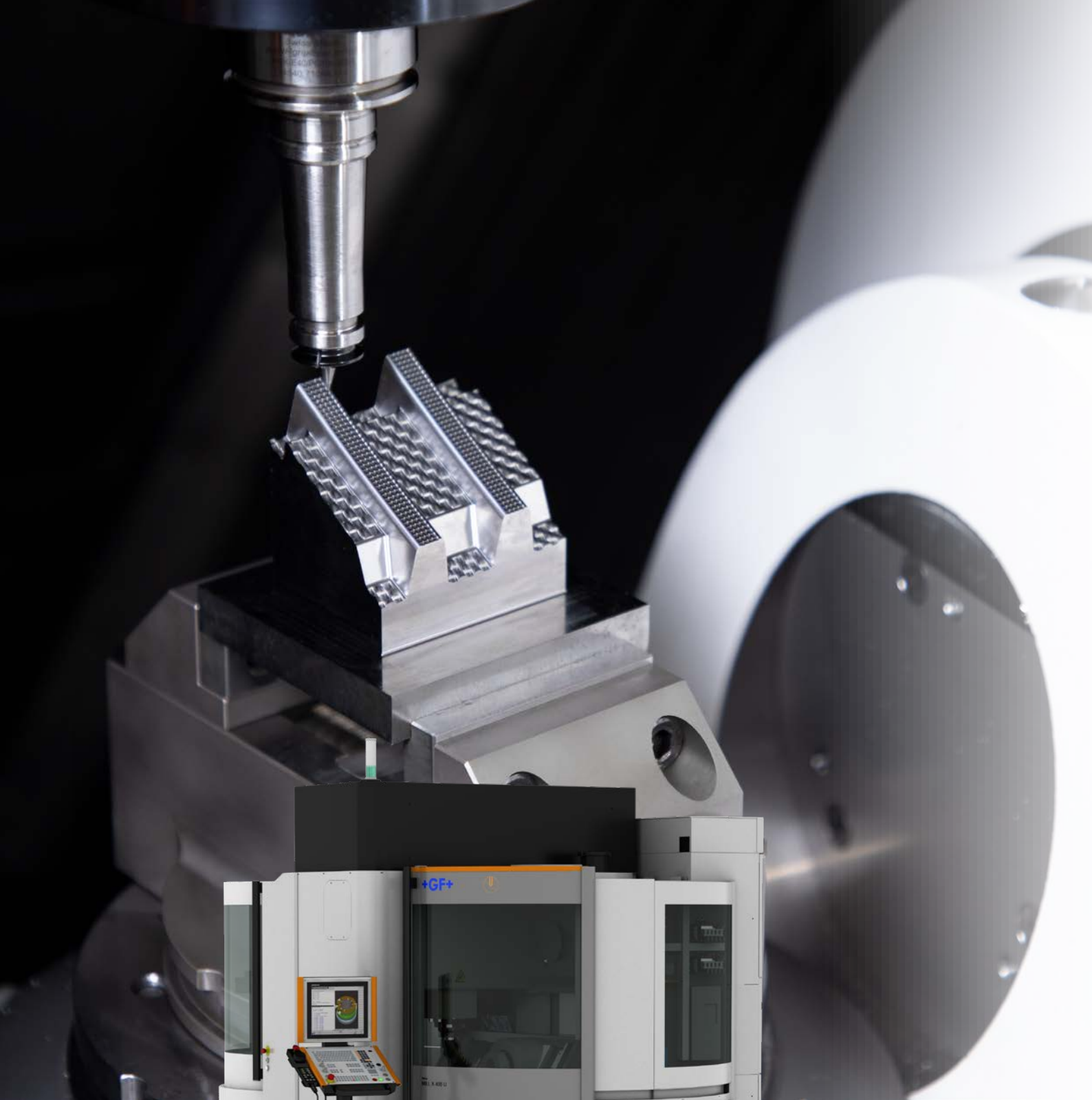
When all you need is everything, it's good to know that there is one company that you can count on to deliver complete solutions and services. From unmatched Electrical Discharge Machining (EDM), Laser texturing, Laser micromachining, Additive Manufacturing and first-class Milling and Spindles to Tooling 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.

Contents

5	Dynamic machining, precision and surface quality
6	Linear axes and torque table
7	Precision over a long running times
8	Step-Tec Spindles
10	MILL-Grind: two-in-one solution
12	Ergonomics and Automation
14	JobToolManager (JTM)
15	Tool magazine
16	Automated Machine Calibration (AMC)
18	GR3 solution
20	Combining technologies adds real value
22	Technical data
30	GF Machining Solutions



MILL S/X

Dynamic, precise machining for perfect finishes

Dynamic

Answer growing part complexity, precision and cycle time demands with a five-axis strategy. Get the ideal combination of linear, rotating and swiveling axes and shorten your production time with direct Milling in one clamping operation as a substitute for other process steps. Profit from perfect surface quality and precision due to single-clamping production and perfectly aligned five-axis kinematics.

Precision and high surface quality

Perfect machine design with highest mechanical requirements provides the basis for high surface quality and repeatability. The reliable Step-Tec Spindle and linear motors in combination with Ambient Robust technology ensure always high surface quality on parts. Master the challenges of a wide range of application and short-term market requirements while maintaining high accuracy.

Iconic ergonomics and design

The Mikron MILL S/X series is very well-known on the market for its ideal ergonomics and fit in customers' workshops. The ideal machine design allows perfect machine setup and accessibility. Increase your return on investment (ROI) through perfect machine-robot connectivity and scalability.



Linear axes and torque table

The linear axis motor and rotary swiveling torque table provide either a smooth or dynamic milling process. This allows machining accurate parts during short, medium, and long Milling processes.

Benefits

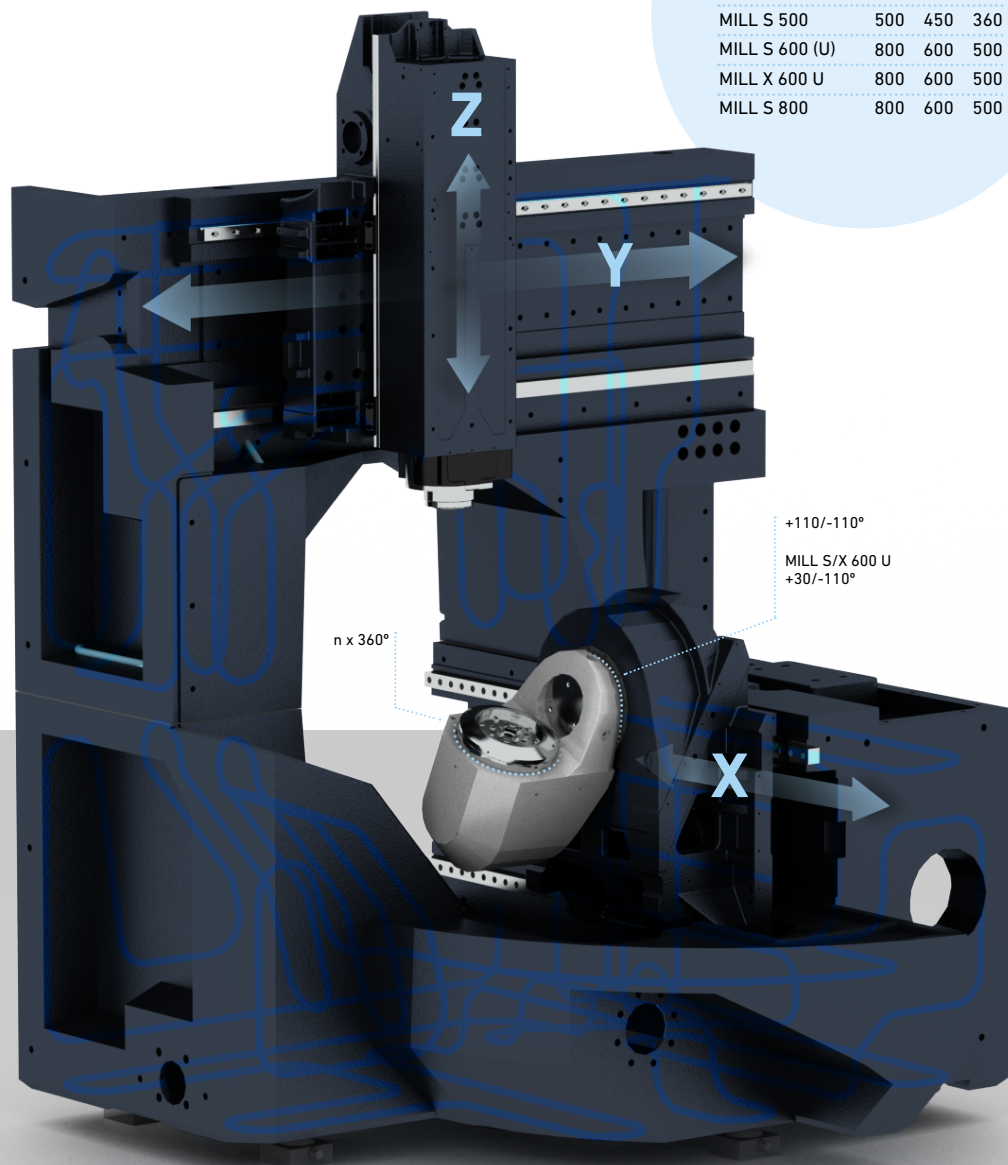
- High accuracy
- High surface quality

The swiveling rotary torque table on all Mikron MILL machines is built at our Biel, Switzerland, factory following a strict assembly.

Benefits

- High-quality components
- Reduced downtime
- Perfect table ergonomics

	X	Y	Z
MILL X 400	500	450	360
MILL S 400 U	500	450	360
MILL X 400 U	500	450	360
MILL S 500	500	450	360
MILL S 600 (U)	800	600	500
MILL X 600 U	800	600	500
MILL S 800	800	600	500



Precision over long running times

The Econowatt smart machine module makes it possible to set the machine in a configurable standby and wake-up mode to achieve the perfect thermal conditions for the start of production and to reduce energy consumption.



For optimum utilization of the machine's precision, machine geometry needs to be very well calibrated. AMC perfectly simplifies calibration by guiding the user through all steps.

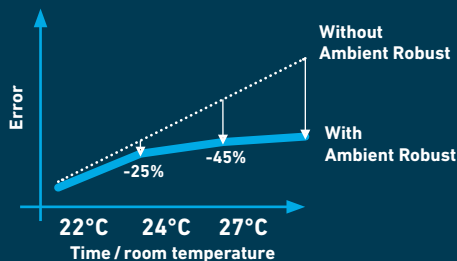
AMC

AMC
extended

The Ambient Robust option ushers in a new era of precision cutting and defeats heat problems with a complex active cooling system and ingenious electronic assistance.

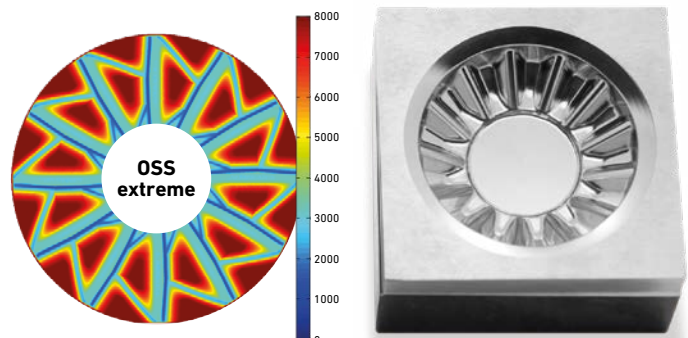
Ambient
robust

Constant machine temperature for perfect part



The Operator Support System extreme (OSS extreme) smart machine module is software developed and patented by GF Machining Solutions for machining optimization. The module enables the selection of machine settings for adapted, optimal machining, taking into consideration the machining priorities and machine parameters.

OSS
extreme



Step-Tec Spindles

Always a step ahead

Through continuous improvement processes, Step-Tec develops and uses only the highest-quality components to ensure that our high-speed spindles run with full operational security.

Benefits

- Extend product life cycle
- No downtime
- Limited vibration at higher speed
- Limited heat at higher speed

Thermal behavior of Step-Tec Spindles is thoroughly analyzed and improved to avoid Spindle deformation and keep an homogeneous geometry during the Milling process. The thermal behavior of the different Spindle lines are checked and improved based on the physical hysteresis effect.

Benefits

- Secure milling process
- High accuracy at higher speed
- Excellent thermal behavior



	30,000 min ⁻¹ HSK-E40 OptiCool	42,000 min ⁻¹ HSK-E40 OptiCool CoolCore	36,000 min ⁻¹ HSK-E50 OptiCool
MILL S 400 U	●	●	
MILL S 500	●	●	
MILL X 400 (U)	●	●	
MILL S/X 600 (U)		●	●
MILL S 800		●	●



OptiCool

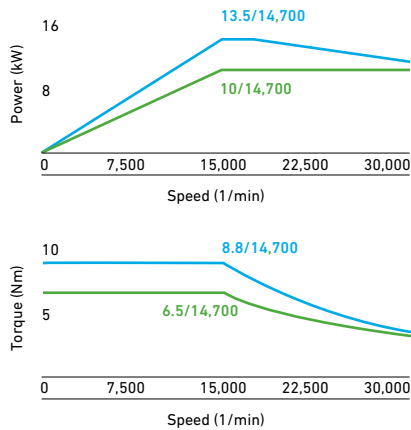
Step-Tec's OptiCool Spindle series ensures not only that the Spindle remains thermally stable, but that natural heat transfer to the Spindle support (e.g., Z axis) is limited to the lowest amount possible, in order to preserve the machine's geometry.



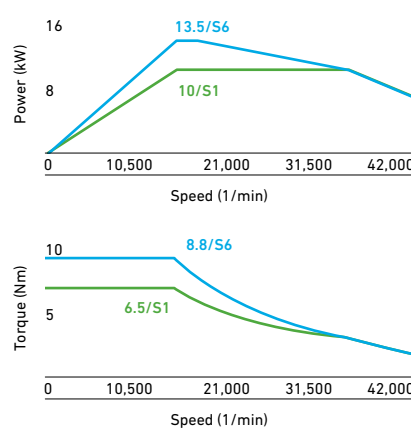
CoolCore

Where conventional stator cooling reaches its limits, Step-Tec's CoolCore Spindle goes beyond the ordinary to lower the temperature and minimize temperature fluctuations in the rotating shaft.

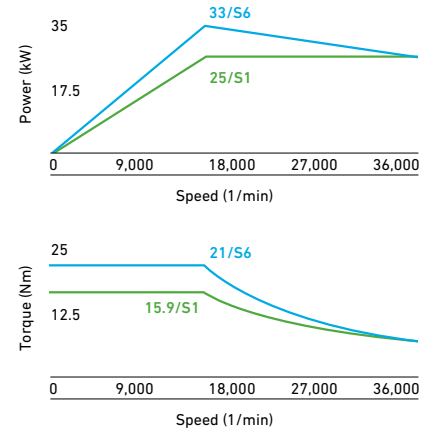
30,000 min⁻¹, HSK-E40



42,000 min⁻¹, HSK-E40



36,000 min⁻¹, HSK-E50



— S1 — S6 40% ED ts=2 min.

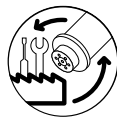
Dedicated Spindle services



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 On-site Maintenance

On-site support for commissioning, diagnostics, troubleshooting and exchange of wear parts.



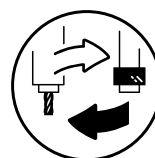
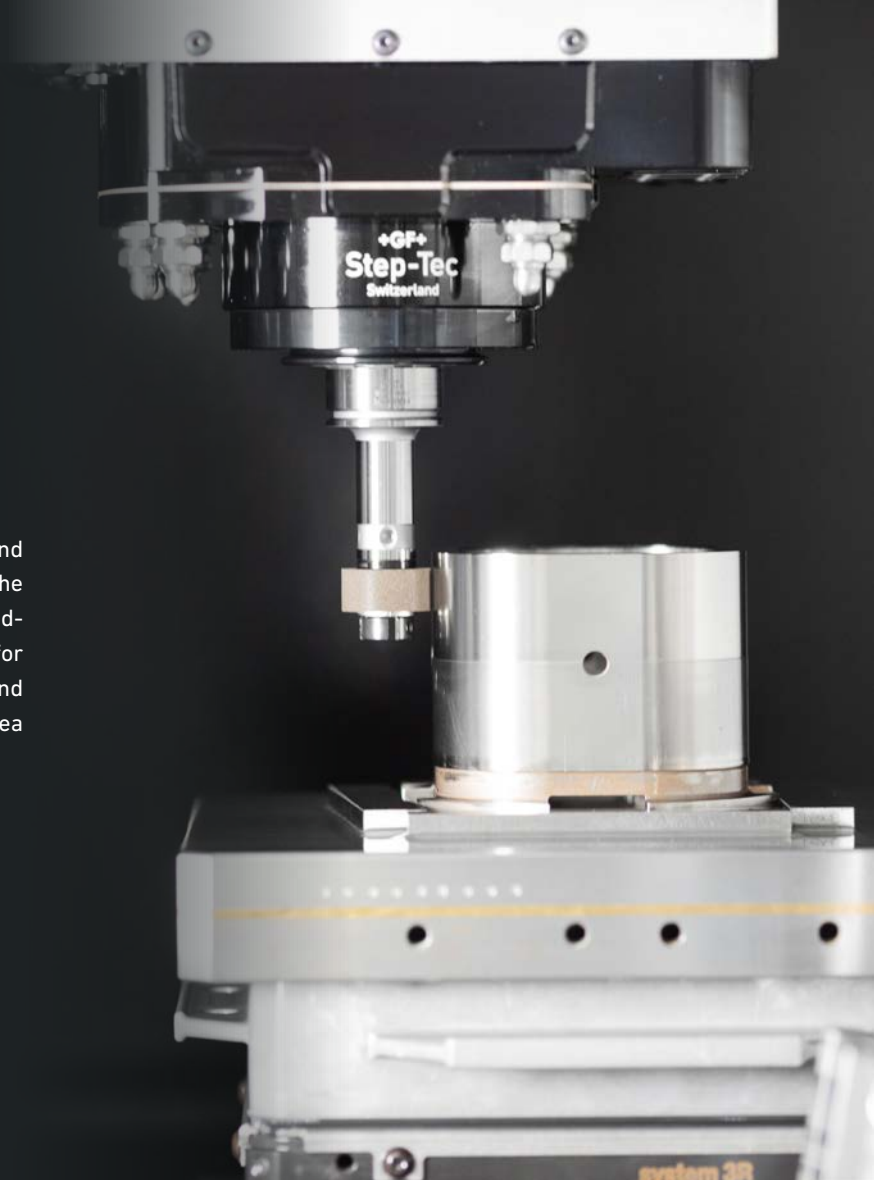
MILL-Grind

Two-in-one solution

Mikron MILL S/X U machines are able to combine Milling and jig grinding on the same machine. The grinding setup into the machine has been well designed in order to maintain standard workpiece dimensions and clamping surface even for Automation. Nevertheless, the laser measuring system and the dressing spindle are located closer to the working area for a quick and fast grinding process.

Benefits

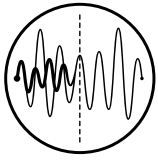
- No impact on the workpiece dimensions
- No impact on the clamping surface
- Quick grinding process setup



Through this two-in-one solution, GF Machining Solutions improves and significantly reduces customers' manufacturing processes. The combination of milling and grinding technologies, extremely high machine dynamics, and consistent thermal stability and accuracy provide fast ROI and high-end, quality products.

Benefits

- Reduce your parts and mold manufacturing processes.
- Accelerate your ROI significantly.
- Produce high-end, quality parts and molds every time.



Dressing spindle is equipped with an acoustic emission (AE) sensor to track and visualize on the Heidenhain control the signal during tool dressing. The machine can be equipped with an additional AE sensor to track grinding operations in order to further optimize the process.

Benefits

- Grinding monitoring
- Process improvement



The dressing spindle is mounted next to the three-axis table with a slight incline to allow dressing of any complex grinding tool. The dressing spindle speed can also be adjusted from 3,000 rpm to 20,000 rpm.

Benefits

- Dressing flexibility
- Application flexibility
- Grinding tool efficiency
- Process reliability

Ergonomics and Automation



Pallet magazine



Working area



Tool magazine

Mikron MILL S/X machines are very well known on the market for their Milling performance, dynamics and unbeatable ergonomics. Due to the machines' user-friendliness, operators can easily access the pallet magazine, working area, tool magazine and maintenance section.

Benefits

- Operator confort
- Quick Milling setup
- Excellent access and view of working area

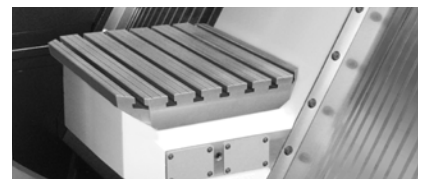
Table variants



Mikron MILL X 400 U 25 kg



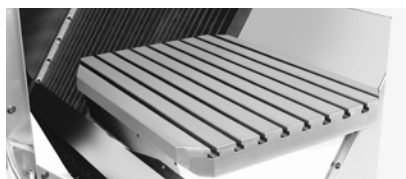
Mikron MILL X 400 120 kg



Mikron MILL S 500 200 kg

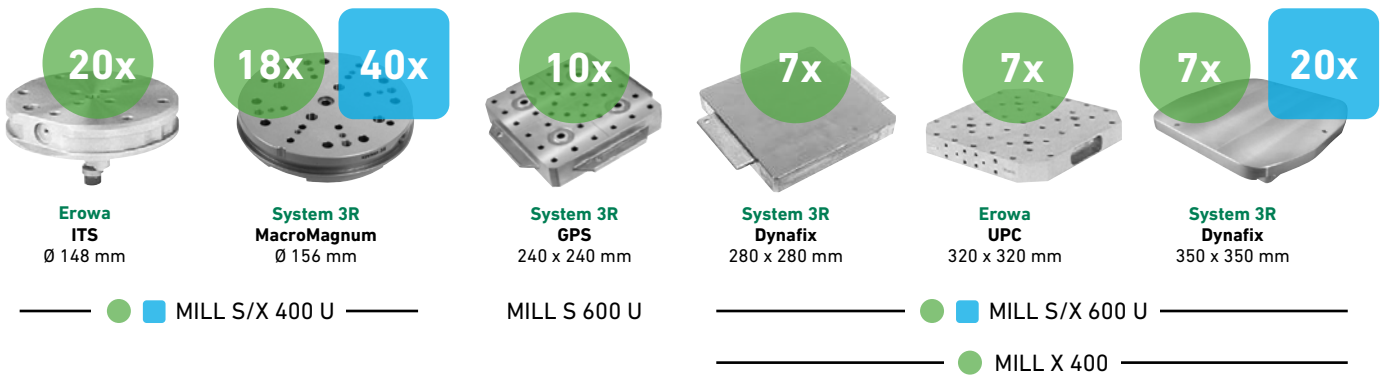


Mikron MILL S 600 U 120 kg
Mikron MILL X 600 U 120 kg



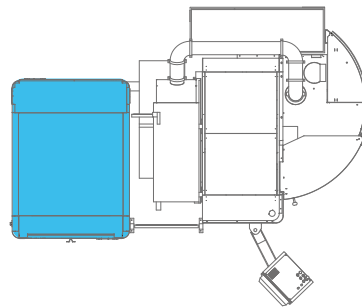
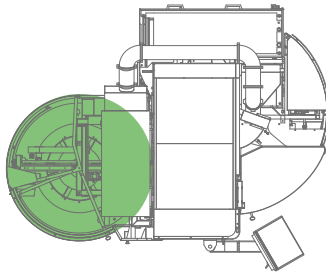
Mikron MILL S 600 500 kg
Mikron MILL S 800 1,000 kg

Standard pallet magazine variants



Disc-type magazine

MILL S/X 400 U
MILL X 400
MILL S/X 600 U



WorkPartner 1+

MILL S/X 400 U
MILL S/X 600 U



Automation

In addition to the ergonomics and user-friendliness, the MILL S/X (U) line can easily be automated with different pallets magazines or third-party automation. The MILL S/X (U) machines are highly flexible and ready for Automation to enable unattended machining in order to meet customers' expectations.

Benefits

- Automation flexibility
- Perfect Automation layout
- Excellent machine and Automation accesibility
- Increased workshop productivity
- Complete cell configure for you

For a single machine with integrated Automation

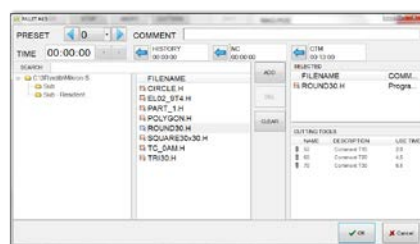
JobToolManager (JTM) brings agility back to the shop floor



JTM is user-friendly software for one machine with an integrated pallet changer. Assign numerical control (NC) programs to pallet position by drag and drop on a touch screen close to the pallet changer.

Benefits

- Easily change priorities while the machine is working.
- Add or remove jobs while machining.
- Jobs for which cutting tools are missing will not be started.
- Estimated and present machining times for the magazine content are calculated.



NO.	DESCRIPTION	SIS	INC.	LOC.	SPF MD.	SPF TL	WASH.	CURSE	TIME L.	SPN.	RAO
18	1	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
20	2	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
22	3	NO	YES	60.0	14.0	1.0	0.0	0.0	0.000	0.000	0.000
24	4	NO	YES	60.0	14.0	6.0	0.0	0.0	0.000	0.000	0.000
26	5	NO	YES	60.0	14.0	23.0	17.0	0.0	0.000	0.000	0.000
28	6	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
30	7	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
32	8	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
34	9	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
36	10	NO	YES	300.0	77.0	146.0	114.0	0.0	0.000	0.000	0.000
38	11	NO	YES	60.0	14.0	3.0	17.0	0.0	0.000	0.000	0.000
40	12	NO	YES	60.0	14.0	9.0	0.0	0.0	0.000	0.000	0.000
42	13	NO	YES	60.0	14.0	13.0	17.0	0.0	0.000	0.000	0.000
44	14	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
46	15	NO	YES	60.0	14.0	0.0	0.0	0.0	0.000	0.000	0.000
48	16	NO	YES	60.0	14.0	12.0	16.0	0.0	0.000	0.000	0.000
50	17	NO	YES	60.0	14.0	23.0	17.0	0.0	0.000	0.000	0.000



Tool magazine

Individual solutions tailored to your production needs

User-friendly tool feeding

Productivity and process reliability are ensured by lateral tool feeding.

- Simultaneous machining and feeding
- Simple feed monitoring through large glass panel
- Ergonomic access

Tool Automation in every configuration level

- Simple, double-row disc magazine or ATC
- Reliable "pickup" changing system
- Feed control via light beam
- Orientation of the touch probe

Optionally available in a variety of capacities

- MILL X 400, MILL S/X 400 U, MILL S 500
HSK-E40: 18, 36, 68, 168 tools
- MILL S 600, MILL S/X 600 U, MILL S 800
HSK-E50: 15, 30, 60, 120, 170, 220 tools
HSK-E40: 18, 36, 68, 168 tools



All-in-one, ready-to-use package

Because precision is not an option at GF Machining Solutions, we offer AMC as a standard:

- AMC software: cycle for Heidenhain TNC 640
- AMC hardware: pallet calibration (with steel square and calibration ball)
- AMC interface: ergonomic interface for easy, fast use

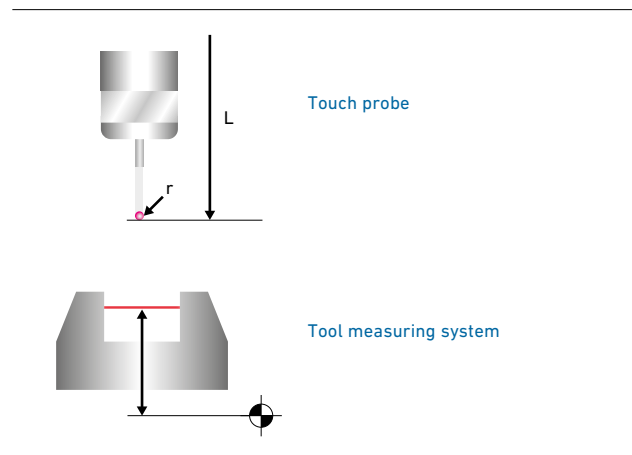
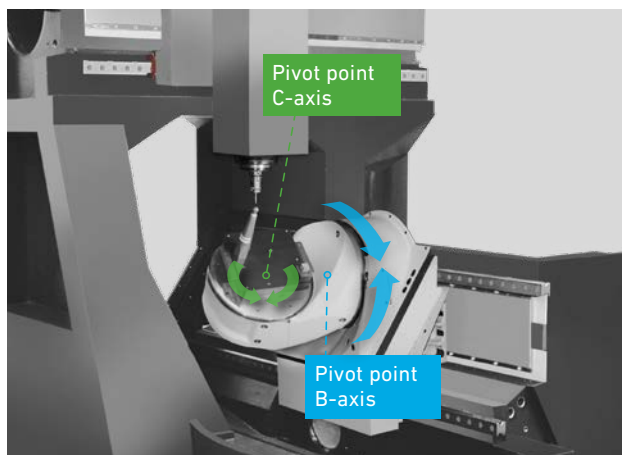
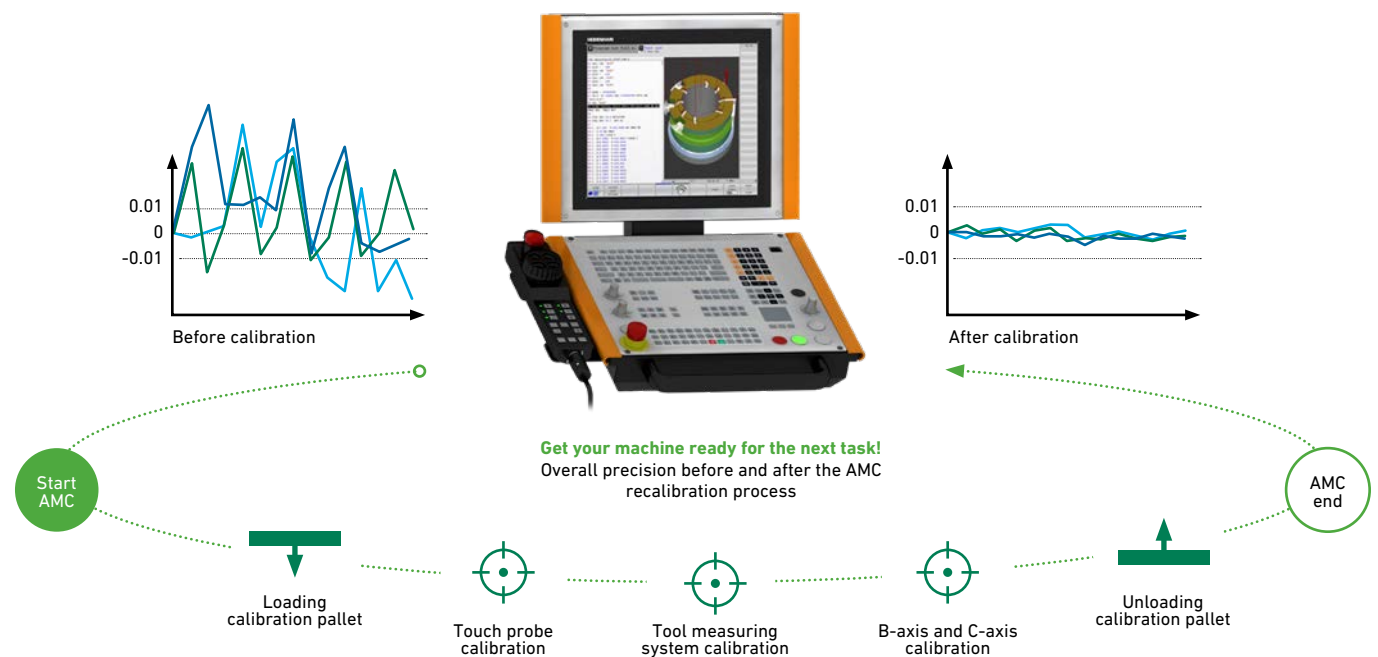
AMC highlights

- Dialogue-guided software for easy and fast handling
- Get a consistent calibration process.
- Recover overall machine precision—every time
- Increase operator availability.
- Reduce human error in data management.

Automated Machine Calibration (AMC)

Take your machine to the highest precision—anytime

Calibrate your Milling machine in minutes, not hours. Reduce your downtime between cycles with GF Machining Solutions' standard Automated Machine Calibration (AMC). Calibrating your machine to ensure the stable, long-term precision required for high-quality parts is now as easy as pushing a button.



GR3 solution

Three visionary partners, one revolutionary solution

GR3 is a revolutionary new solution for wet-machining graphite. It also allows the machining of multiple materials (e.g., graphite, steel, copper, aluminum) with the same setup and tooling.

Benefits

- Two-in-one solution
- No need for a dedicated graphite milling machine
- Increased machine capability and flexibility
- Clean machining

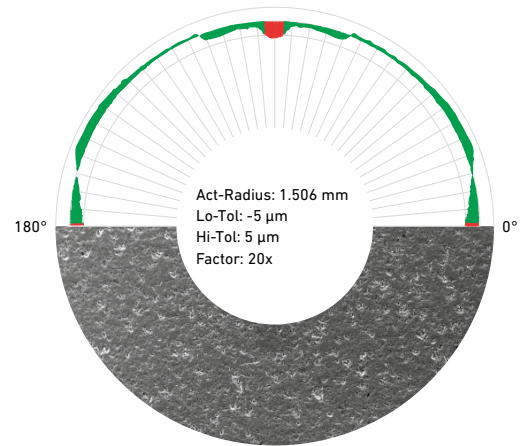
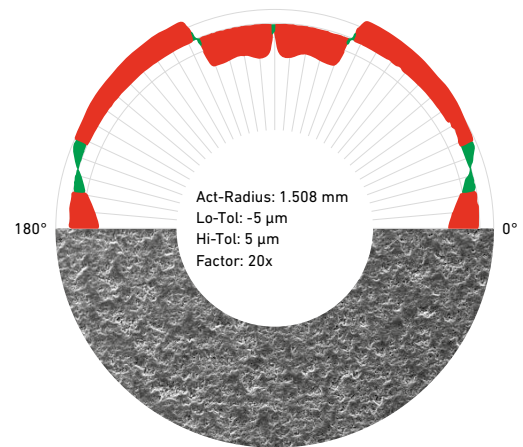




The Mikron MILL S/X series with the combination of Blaser coolant and Fraisa cutting tools allows you to easily machine graphite or copper electrodes without changing the machine setup, improving the electrode quality and extending the life cycle of the cutting tool. Use the right cutting strategy to reduce cutting tool wear while increasing graphite surface quality.

Benefits

- Improved surface quality
- No impact on EDM process afterward
- Less tool wear
- No need for expensive coated tools
- Save up to CHF 120,000 in a single shift



+GF+

GF Machining Solutions' latest innovation combines its top-of-the-line machines with a highly efficient centrifugal filter. The result is a complete setup that not only solves the issue of dust buildup, but also allows one single machine to be used for graphite, copper, and steel machining.

Blaser.

SWISSLUBE

Blasogrand GTC 7 is the ideal cutting oil for this application. The oil excels at containing dust in solution, thereby providing a much cleaner shop environment and healthier working conditions for machinists. It also reduces tool wear and helps to achieve better surface finishes.

fraisa

Fraisa's high-quality milling tools can now be used without expensive graphite-specific coatings. Machinists can achieve increased productivity, amazing tolerances, and pristine surface finishes, all at a fraction of the price of traditional graphite tooling.

Post-processing 3D-printed metal parts

Combining technologies adds real value



Additive Manufacturing
Freedom of design



High-speed cutting (HSC) Milling
Perfect surface



Laser texturing
Innovative product design



- Revolutionize your manufacturing process.
- Decrease your lead time.
- Complete freedom of design

Additive Manufacturing (AM) is a hot industrial topic as applications are numerous and promising—and initiatives are multiplying all over the world.

GF Machining Solutions has embraced AM as a leading technology providing new opportunities for its customers, and understands how it complements traditional technologies.

Combining AM and—for example—a Mikron MILL X Milling machine is the most efficient option if you want to build parts with a perfect surface finish.



Additive Manufacturing for mold inserts

Clever combine it with other technologies



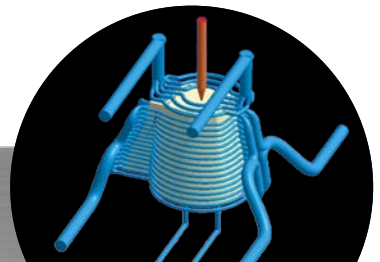
Additive Manufacturing
Freedom of design



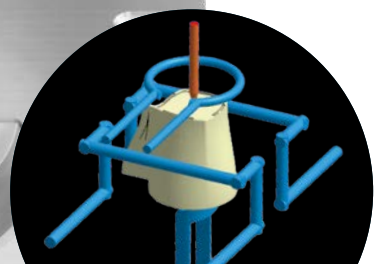
High-speed cutting (HSC) Milling
Perfect surface



Laser texturing
Innovative product design



Tempering by conformal
cooling channels



Conventional cooling

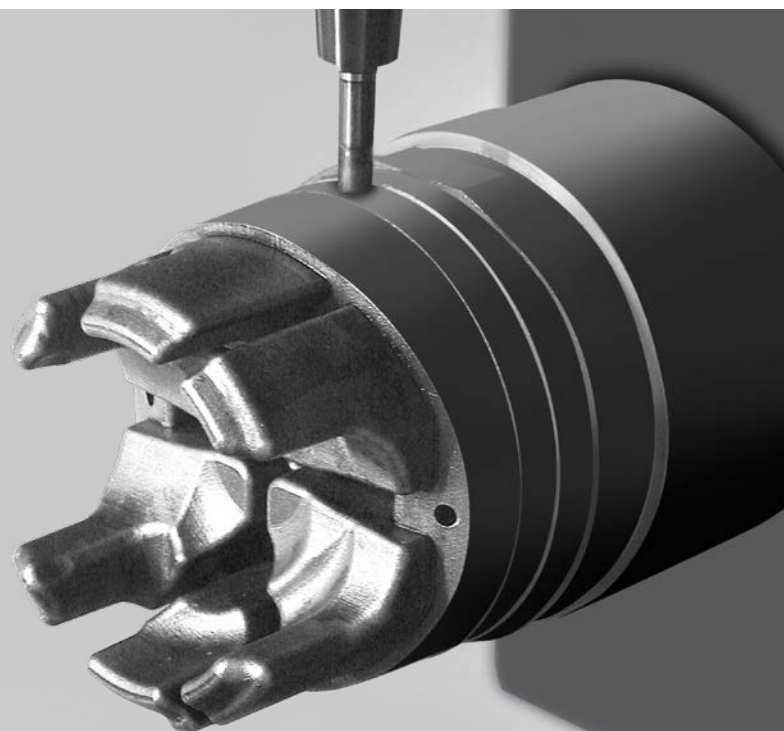
Additive Manufacturing (AM) describes the technologies that build 3D objects by adding layer upon layer of material like plastic or metal.

AM equipment translates data from the computer-aided design (CAD) file and deposits successive layers to fabricate a 3D object.

GF Machining Solutions offers its DMP metal 3D printers to build 3D-printed mold inserts and develops solutions to integrate the machine in the whole manufacturing process chain.

AM is uniquely suitable for the generation of 3D conformal cooling systems and adds the geometrically complex portion to the simple base manufactured using a Milling machining center. The resulting hybrid mold insert is the most economical solution for parts characterized by geometrically simple and complex sections.

- Complete freedom of design of cooling channels
- Increased productivity of injection molding and die casting processes
- Improved quality of injected/cast parts



Technical data



MILL X 400



MILL S/X 400 U



MILL S 500

		MILL X 400	MILL S/X 400 U	MILL S 500
Work area				
Longitudinal (X)	mm (in)	500 (19.68)	500 (19.68)	500 (19.68)
Lateral (Y)	mm (in)	450 (17.72)	450 (17.72)	450 (17.72)
Vertical (Z)	mm (in)	360 (14.17)	360 (14.17)	360 (14.17)
Swiveling axis	°	-	+110/-110	-
Rotary axis	°	-	n x 360	-
Feed rate				
Rapid traverse (X,Y,Z)	m/min in/min	100 3,937	61 (MILL S), 100 (MILL X) 2,401 (MILL S), 3,937 (MILL X)	61 2,401
Rapid traverse (swivel)	min ⁻¹	-	165	-
Rapid traverse (rotary)	min ⁻¹	-	250	-
Working spindle (40% ED, S6)				
42,000 min ⁻¹ , HSK-E40	kW/Nm	13.5/8.8	13.5/8.8	13.5/8.8
30,000 min ⁻¹ , HSK-E40	kW/Nm	13.5/8.8	13.5/8.8	13.5/8.8
Work table				
Table	mm (in)	-	-	590 x 450 (23.23 x 17.72)
Pallet/clamping surface	mm	Dynafix 280 x 280/350 x 350	MacroMagnum 156	-
Pallet/clamping surface	mm	UPC 320 x 320	ITS 148	-
Max. table load	kg (lbs)	120 (264)	25 (55)	200 (441)
Tool magazine				
HSK-E40	piece	18/36/68/168	18/36/68/168	18/36/68/168
Weight				
Machine	kg (lbs)	6,800 (14,991)	7,000 (15,432)	6,800 (14,991)
Control unit				
Heidenhain		TNC 640	TNC 640	TNC 640



MILL S 600



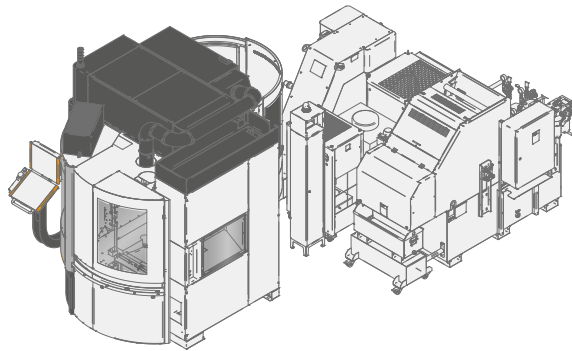
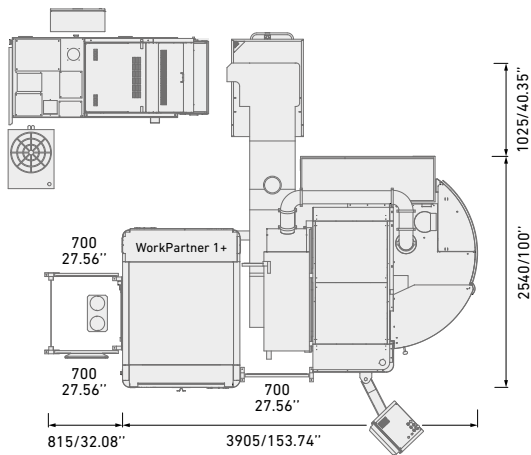
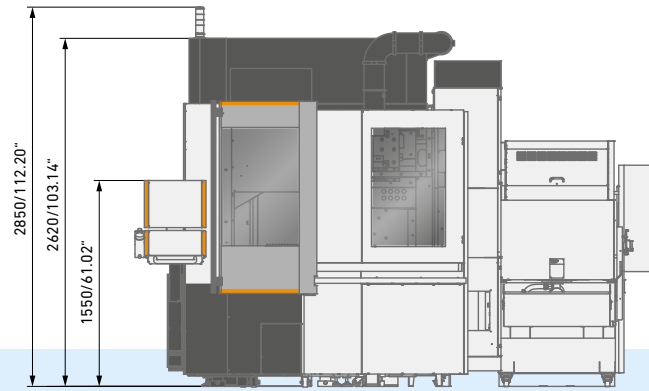
MILL S/X 600 U



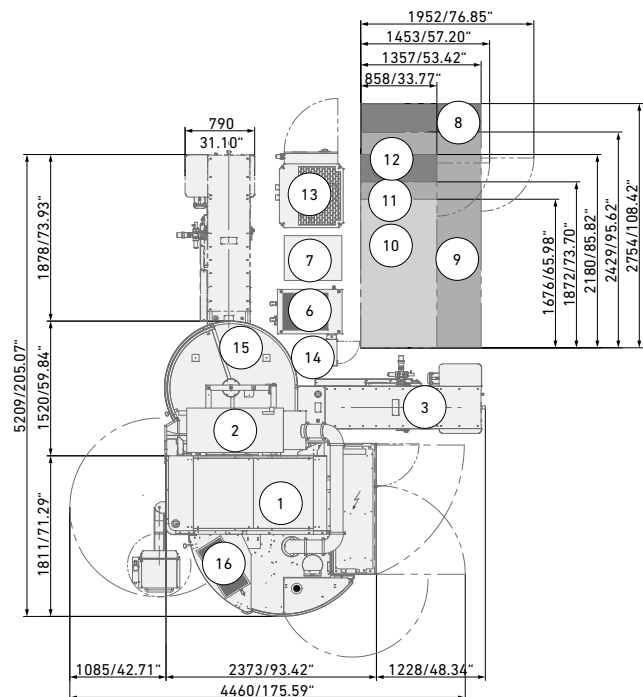
MILL S 800

		MILL S 600	MILL S/X 600 U	MILL S 800
Work area				
Longitudinal (X)	mm (in)	600 (23.62)	800 (31.5)	800 (31.5)
Lateral (Y)	mm (in)	600 (23.62)	600 (23.62)	600 (23.62)
Vertical (Z)	mm (in)	500 (19.68)	500 (19.68)	500 (19.68)
Swiveling axis	°	-	+ 30/-110	-
Rotary axis	°	-	n x 360	-
Feed rate				
Rapid traverse (X,Y,Z)	m/min in/min	61 2,401	61 (MILL S), 100 (MILL X) 2,401 (MILL S), 3,937 (MILL X)	61 2,401
Rapid traverse (swivel)	min ⁻¹	-	60	-
Rapid traverse (rotary)	min ⁻¹	-	150	-
Working spindle (40% ED, S6)				
42,000 min ⁻¹ , HSK-E40	kW/Nm	13.5/8.8	13.5/8.8	13.5/8.8
36,000 min ⁻¹ , HSK-E40	kW/Nm	33/21	33/21	33/21
Work table				
Table	mm (in)	900 x 600 (35.43 x 23.62)	-	900 x 600 (35.43 x 23.62)
Pallet/clamping surface	mm	-	Dynafix 280 x 280/350 x 350 UPC 320 x 320	-
Max. table load	kg (lbs)	500 (1,102)	120 (264)	1,000 (2,204)
Tool magazine				
HSK-E40	piece	18/36/68/168	18/36/68/168	18/36/68/168
HSK-E50	piece	15/30/60/120/170/220	15/30/60/120/170/220	15/30/60/120/170/220
Weight				
Machine	kg (lbs)	9,900 (21,825)	9,900 (21,825)	9,900 (21,825)
Control unit				
Heidenhain		TNC 640	TNC 640	TNC 640

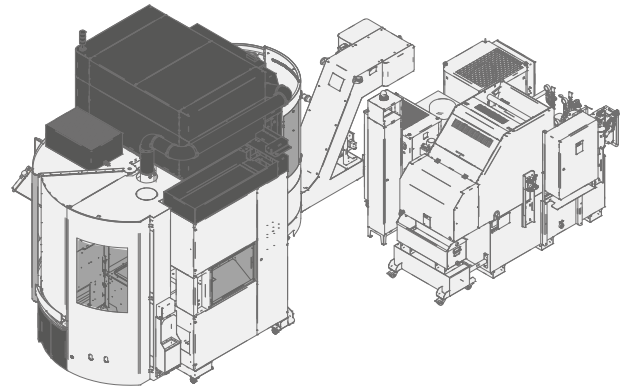
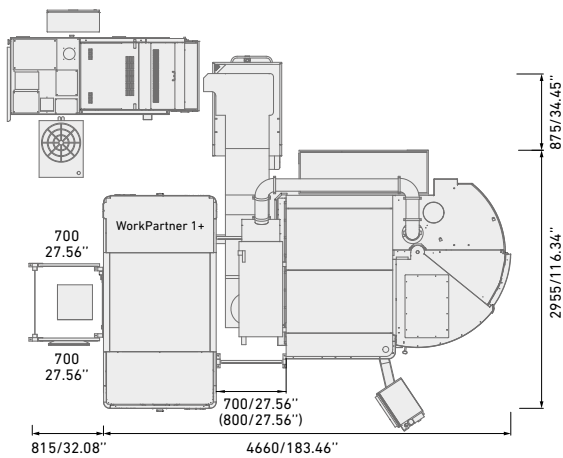
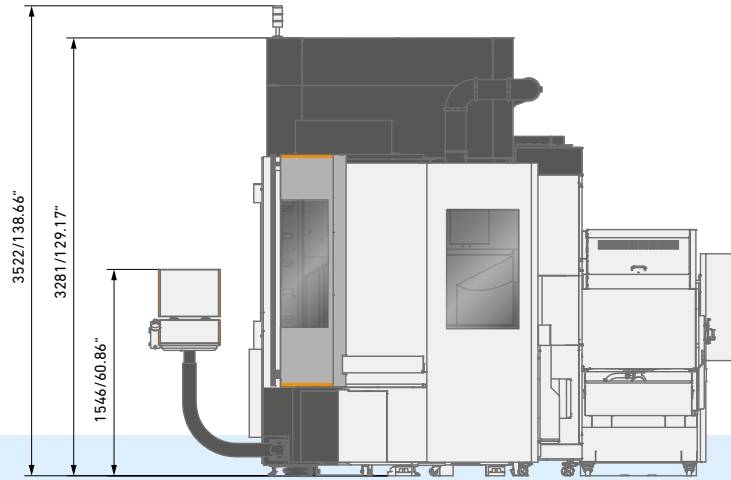
MILL X 400 – S/X 400 U – S 500



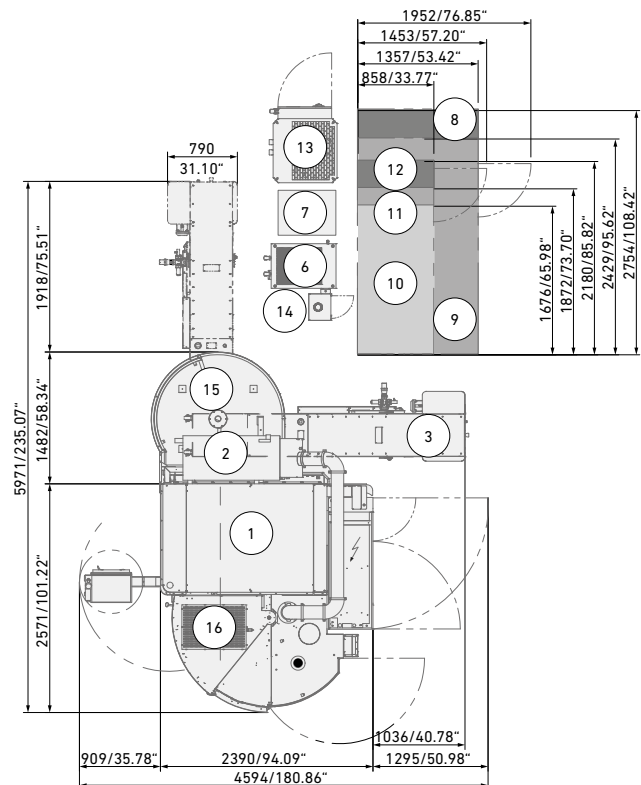
1. Machine
2. Mist extraction unit
3. Lift-up chip conveyor (scraper and slat band-type)
6. Cooling unit
7. CoolCore cooling unit
8. Endless belt filter system (950 liters)
9. Band filter system (950 liters)
10. Basket filter system (450 liters)
11. Band filter system (450 liters)
12. Endless belt filter system (450 liters)
13. Coolant thermal control
14. CO₂ fire extinguishing system
15. Pallet magazine
16. Pressure-relief damper

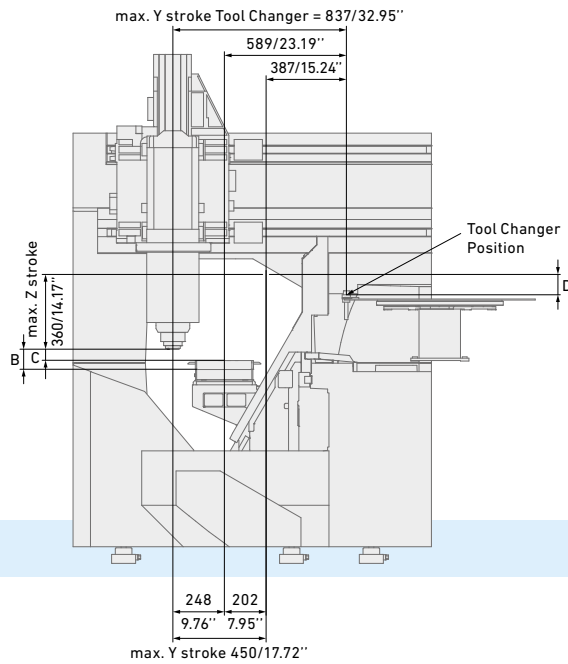


MILL S 600 – S/X 600 U – S 800

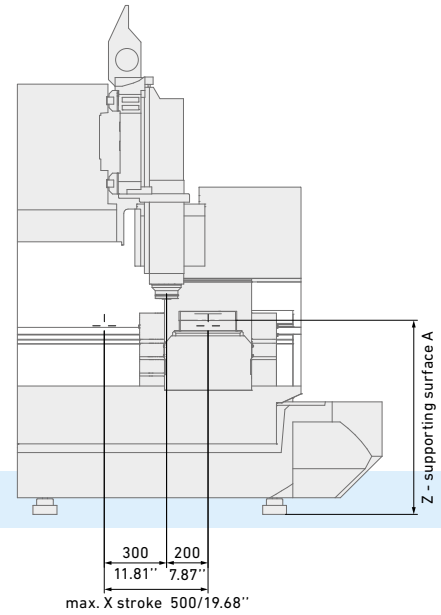


1. Machine
2. Mist extraction unit
3. Lift-up chip conveyor (scraper and slat band-type)
6. Cooling unit
7. CoolCore cooling unit
8. Endless belt filter system (950 liters)
9. Band filter system (950 liters)
10. Basket filter system (450 liters)
11. Band filter system (450 liters)
12. Endless belt filter system (450 liters)
13. Coolant thermal control
14. CO₂ fire extinguishing system
15. Pallet magazine
16. Pressure-relief damper

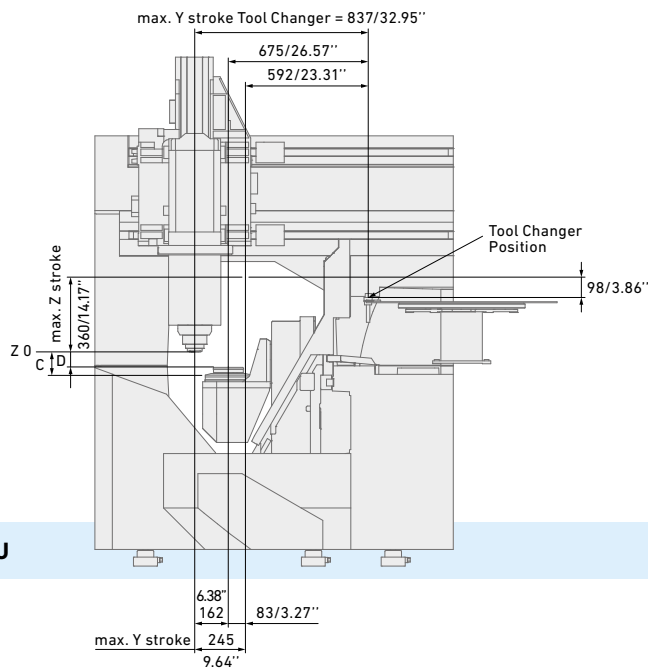




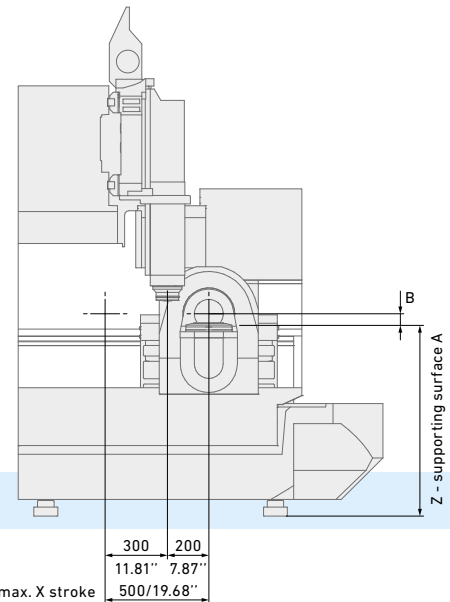
MILL X 400



	UPC 320	Dynafix	GPS 240		
A	936/36.85"	936/36.85"	937/36.89"	D (HVC 140 Spindle)	128/5.04"
B (HVC 140 Spindle)	128/5.04"	128/5.04"	127/5"	D (HVC 120 Spindle)	98/3.86"
B (HVC 120 Spindle)	98/3.86"	98/3.86"	973.82"		
C (HVC 140 Spindle)	88/3.46"	84/3.31"	79/3.11"		
C (HVC 120 Spindle)	58/2.28"	54/2.12"	49/1.93"		



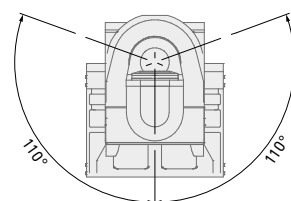
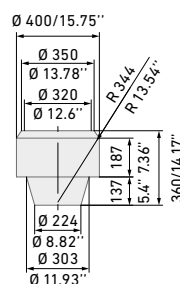
MILL S/X 400 U

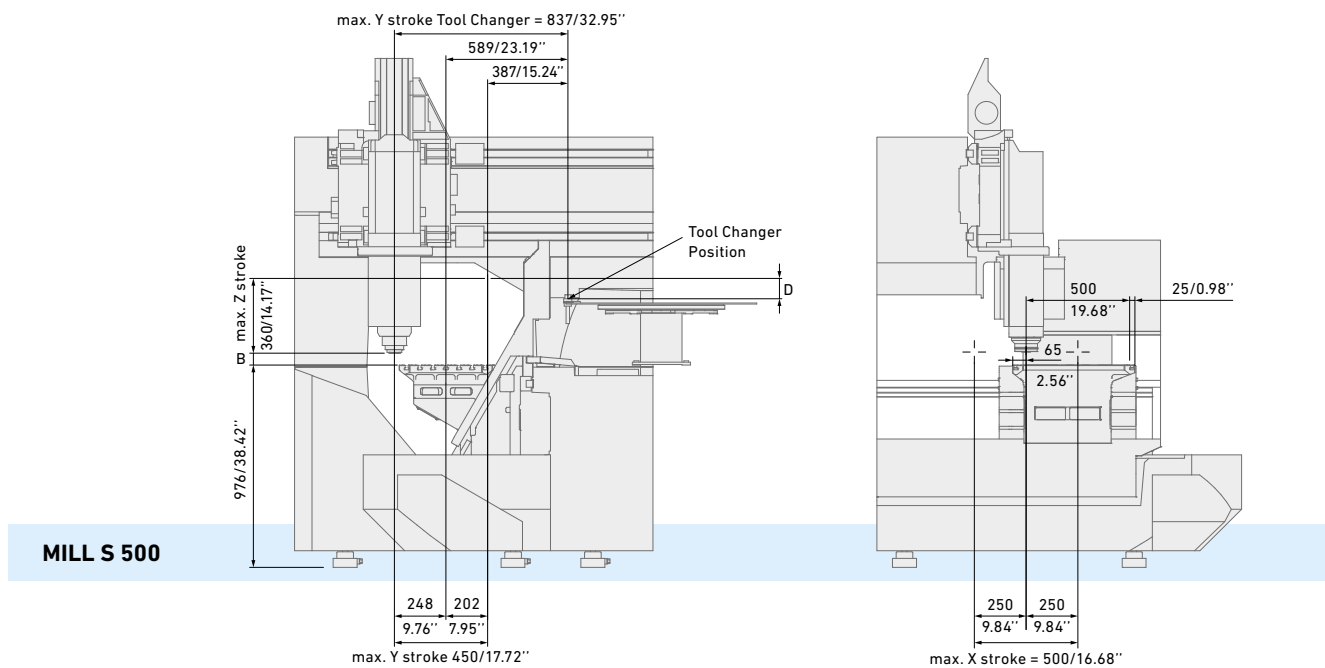


	ITS 148	MacroMagnum
A	921/36.26"	927/36.5"
B	55/2.16"	49/1.93"
C	114/4.5"	108/4.25"
D	74/2.91"	74/2.91"

Max. machinable workpiece
at B-Axis 0° and 90°
(HVC 140 / ITS 148)
Tool length 70 mm

Simultaneous machining only possible
by radius smaller than R 344
Max. workpiece dimension with WPC1
7x UPC 320 x 320 = Ø 320

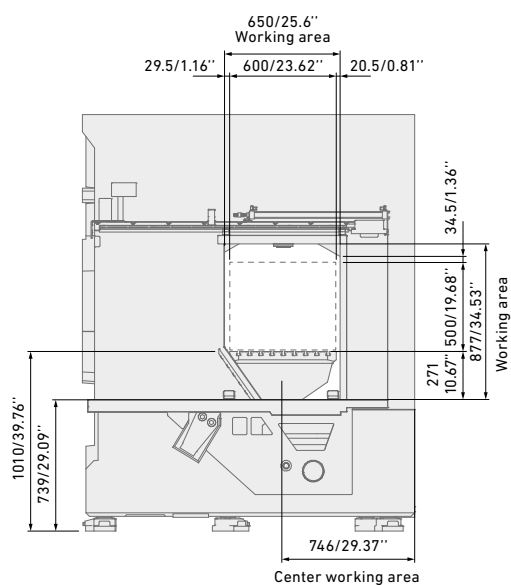
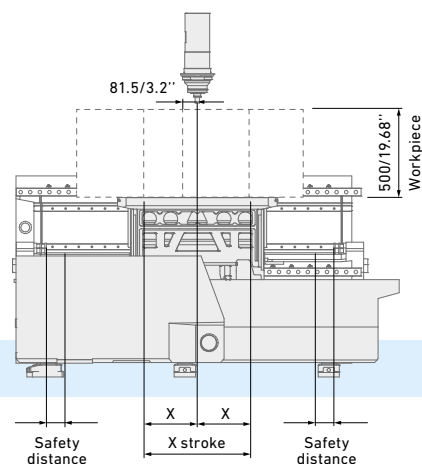
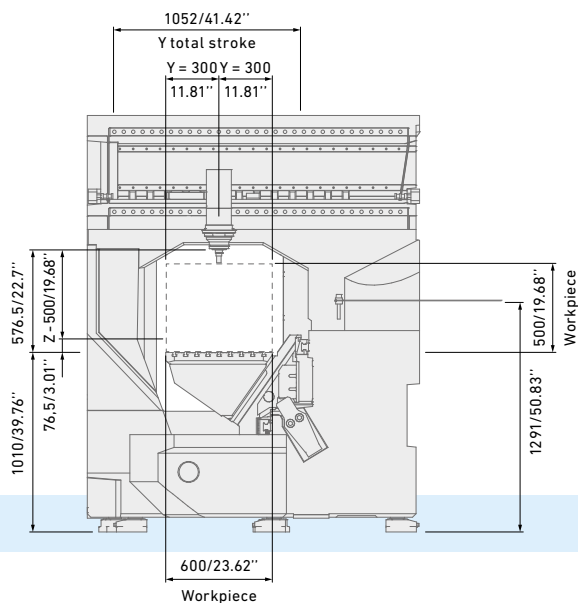




B (HVC 140 Spindle)	88/3.46"
B (HVC 120 Spindle)	58/2.28"
D (HVC 140 Spindle)	128/5.04"
D (HVC 120 Spindle)	98/3.86"

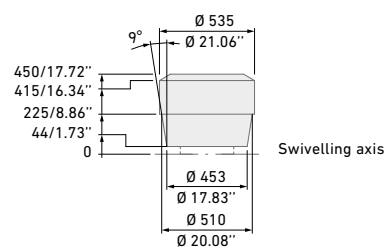
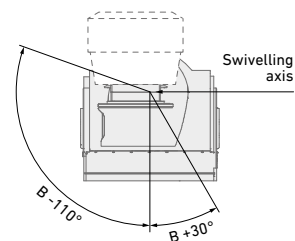
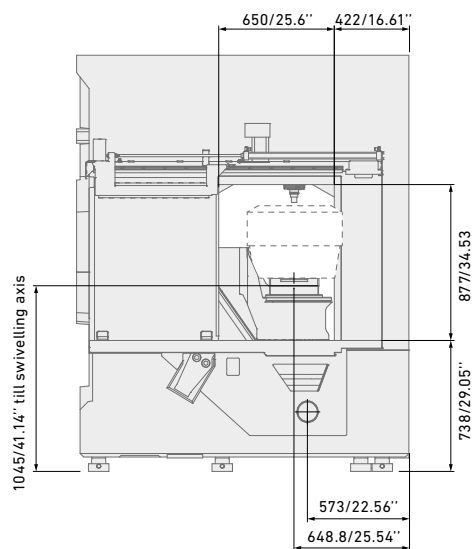
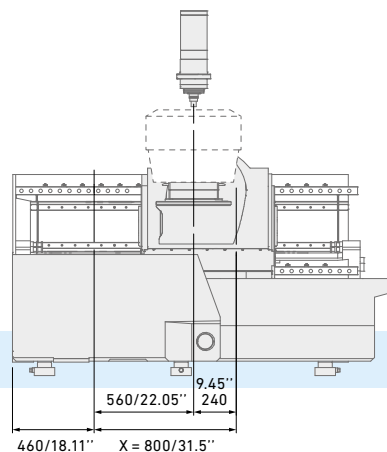
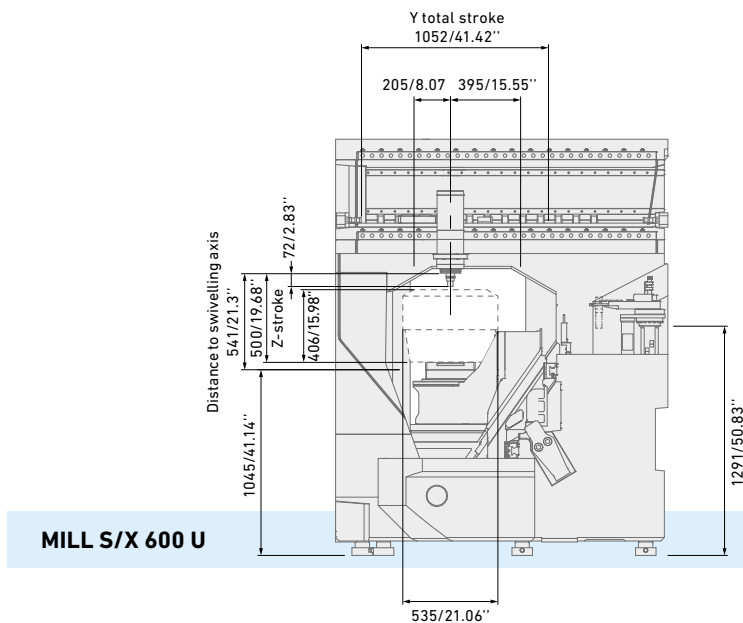


MILL S 600 – S 800



	MILL S/X 600	MILL S 800
X	300/11.81"	400/15.75"
X stroke	600/23.62"	800/31.5"
Safety distance*	105/4.13"	5/0.2"

*SW to HW end position



Max. machinable workpiece
at B-Axis 0° and 90° (Dynafix/UPC)

Caution:
Max. workpiece dimensions
not valid for pallet magazine (WPC)

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.

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.

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.

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.

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.

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

