

# AgieCharmilles



350/600



# **Technical specifications**



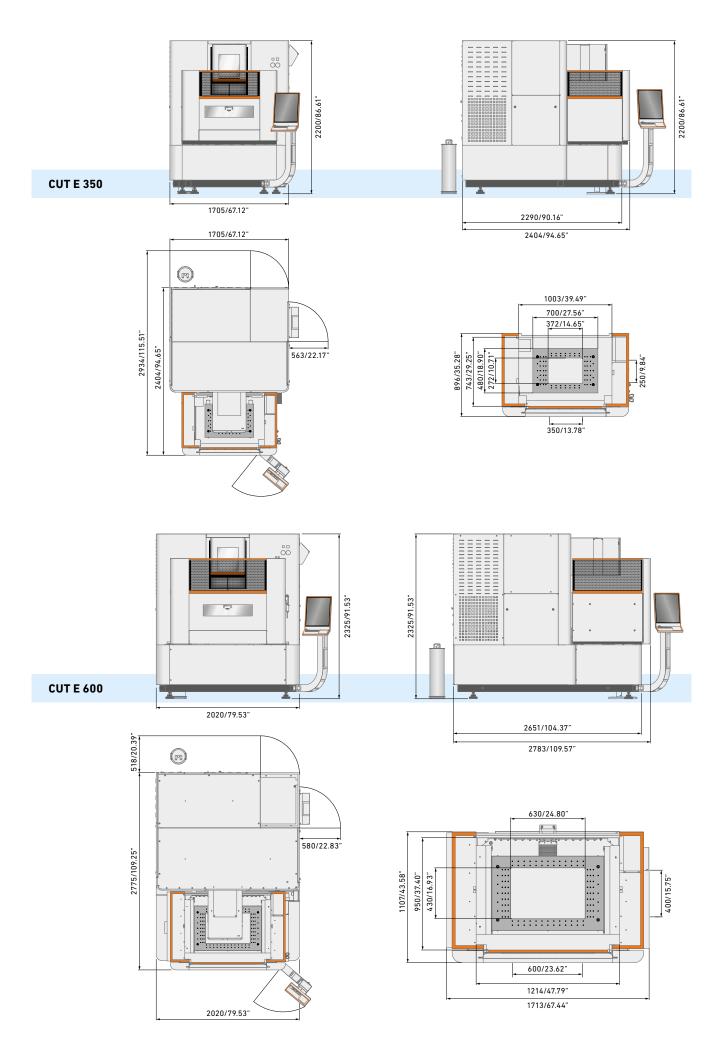


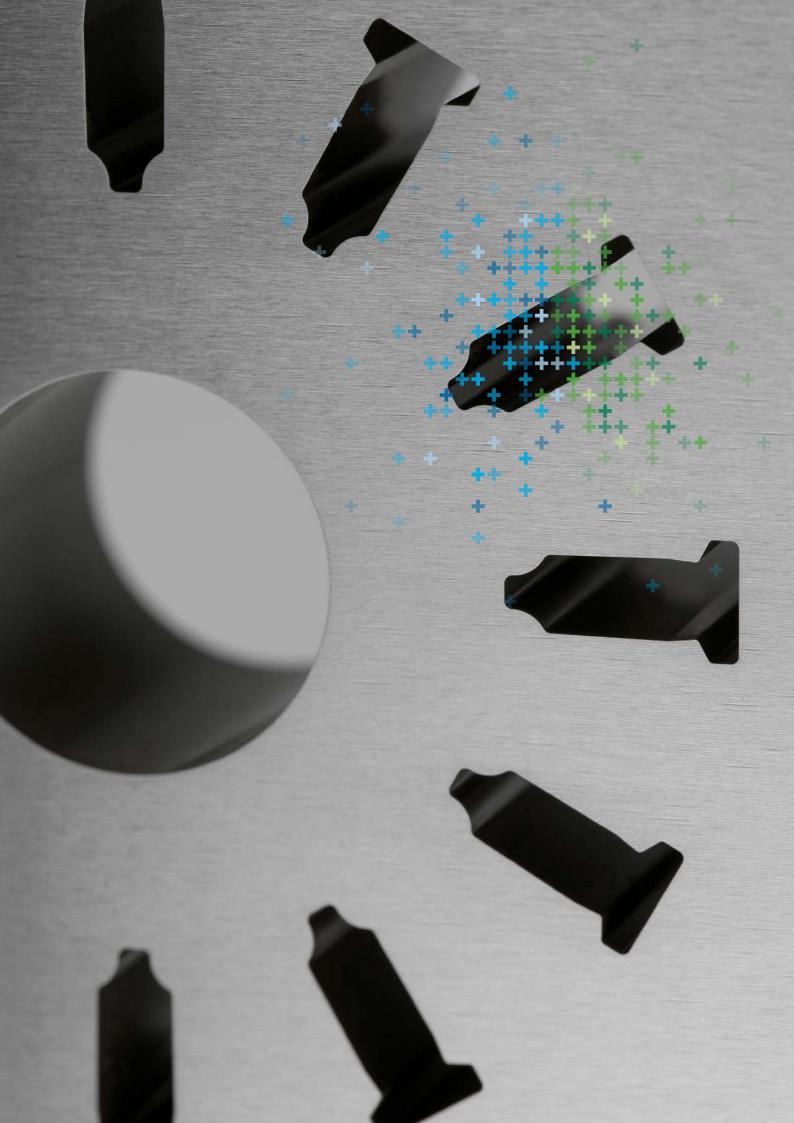
		CUT E 350	CUT E 600
Machine			
Dimensions of complete equipment *	mm	1750 x 2470 x 2200	2020 x 2790 x 2320
	in	68.9 x 97.24 x 86.61	79.53 x 109.84 x 91.34
Total weight of equipment without dielectric	kg (lbs)	2525 (5567)	4440 (9789)
Work area			
Part dimensions	mm	820 x 680 x 245	1030 x 800 x 345
	in	32.28 x 26.77 x 9.64	40.55 x 31.5 x 13.58
Max. part weight	kg (lbs)	400 (882)	1000 (2205)
Level of dielectric min./max.	mm (in)	0/240 (0/9.45)	0/380 (0/14.96)
Air supply			
Pressure	bar	6-7	6-7
Min. flow	l/min	150 (39.6 gal/min)	150 (39.6 gal/min)
Axes			
X, Y, Z Travel	mm	350 x 250 x 250	600 x 400 x 350
	in	13.78 x 9.84 x 9.84	23.62 x 15.75 x 13.78
U, V Travel	mm (in)	± 45 (± 1.77)	± 50 (± 1.97)
Taper angle/height	°/mm	±30/56 or ±25/96	±30/56 or ±25/96
	°/in	±30/2.20 or ±25/3.78	± 30/2.20 or ± 25/3.78
X, Y, U, V, Z measurement resolution	μm (μ-inch)	0.1 (3.94)	0.1 (3.94)
Speed of axis movement (XYZ)	mm/min (in/min)	0-3000 (0-118.1)	0-3000 (0-118.1)
Anti-collision protection for axes		X, Y, Z	X, Y, Z
Dielectric			
		Deionised water	Deionised water
Туре		Deloiliseu watei	Deloilised Water
Type Total volume of dielectric	l	760 (200.77 gal)	1000 (264.17 gal)
71-	l		
Total volume of dielectric	l l	760 (200.77 gal)	1000 (264.17 gal)

<sup>\*</sup> Width x depth x height



		CUT E 350	CUT E 600
Electrode/Wire			
Standard wire guide	mm	Ø 0.20 or Ø 0.25	Ø 0.20 or Ø 0.25
	in	Ø 0.008 or Ø 0.010	Ø 0.008 or Ø 0.010
Wire diameter	mm	Ø 0.1-0.3	Ø 0.1-0.3
(according to configuration equipment)	in	Ø 0.004-0.012	Ø 0.004-0.012
Automatic threading for wires	mm	Ø 0.1-0.3	Ø 0.1-0.3
	in	Ø 0.004-0.012	Ø 0.004-0.012
Automatic rethreading for wires	mm	Ø 0.1-0.3	Ø 0.1-0.3
	in	Ø 0.004-0.012	Ø 0.004-0.012
Min. diameter of pre-hole	mm	Ø 0.2-0.3	Ø 0.2-0.3
for automatic threading	<u>in</u>	Ø 0.008-0.012	Ø 0.008-0.012
Max. height for automatic threading	mm	220	220
with 0.25 mm wire (0.010 inch)	in	8.66	8.66
Permissible weights and types of reel	kg	5 (JIS P5), 25 (DIN 160)	5 (JIS P5), 25 (DIN 160)
	lbs	11.02 (JIS P5), 55.11 (DIN 160)	11.02 (JIS P5), 55.11 (DIN 160)
Best Ra Tungsten Carbide/Steel	μm (μ-inch)	0.12/0.18 (4.72/7.09)	0.12/0.18 (4.72/7.09)
Max. machine cutting speed	mm²/min (in²/min)	300 (0.46)	300 (0.46)
Cabinet			
Three-phase input voltage	V	380/400	380/400
Network frequency	Hz	50 or 60	50 or 60
Permissible fluctuations		± 10%	± 10%
Total installed power	kVA	10	10
Permissible micro-break	ms	4	4
Power factor		0.8	0.8
Screen/Operating system		TFT 19"/Windows 7	TFT 19"/Windows 7
CD-ROM/Keyboard		No/No	No/No
Ethernet port USB		Yes	Yes
Remote control		Yes	Yes
Austriana and distance			
Ambient conditions		20 : 100 //0 : 22 005\	20 - 190 (/0 - 22 095)
Temperature for optimum accuracy		20 ± 1°C (68 ± 33.8°F)	20 ± 1°C (68 ± 33.8°F)
Temperature for operation of the equipment		15-30°C (59-86°F)	15-30°C (59-86°F)
Permissible relative humidity		40-80%	40-80%
Max. sound emission of the machine	Db(A)	76	76
Thermal stabilization time	h	3	3
Level of protection of electrical equipment	IP	43	43





## **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



#### Customer Services



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.

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: solu-

tions for smart and connected machines.

#### Worldwide for you

Ensuring the best performance throughout the lifetime of our customers' equipment is the goal of our three levels of support. Operations Support offers the complete range of original wear parts and certified consumables. Machine Support includes spare parts, technical support, and a range of preventive services to maximize machine uptime. Business Support offers customerspecific business solutions

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