+GF+ AgieCharmilles

Technical Data
FORM 200 Sp, FORM 300 Sp

		FORM 200 Sp	FORM 300 Sp
Machine			
Architecture		Compact machine with fixed table	Compact machine with fixed table
Dimensions (*)	mm (in)	1900 x 1690 x 2522 (74.8 x 66.5 x 99.3)	3040 x 2830 x 2960 (119.7 x 111.4 x 116.5)
Total weight (without dielectric)	kg (lbs)	2800 (6200)	4500 (9920)
Complies with "Machines, Safety and Health" directive		89/392/CEE	89/392/CEE
Complies with "Electromagnetic Compatibility" directive		89/336/CEE	89/336/CEE
X, Y, Z axes			
X, Y, Z travel	mm (in)	350 x 250 x 300 (13.8 x 9.8 x 11.8)	600 x 400 x 450 (23.6 x 15.7 x 17.7)
Movement measurement system		Linear glass scales	Linear glass scales
X, Y, Z measurement resolution	nm (in)	50 (0.000002)	50 (0.000002)
Work area			
Tank type		Drop tank	Drop tank
Tank dimensions (*)	mm (in)	800 x 550 x 370 (31.5 x 21.6 x 14.6)	1220 x 870 x 470 (48.0 x 34.2 x 18.5)
Min./max. dielectric level	mm (in)	100/325 (3.94/12.80) programmable	145/440 (5.7/17.32) programmable
Table dimensions (**)	mm (in)	500 x 400 (19.69 x 15.75)	750 x 600 (29.53 x 23.62)
T-slot dimensions [number]	mm (in)	12 (0.47) [3]	12 (0.47) [5]
Electrode and workpiece			
Max. electrode weight	kg (lbs)	50 (110)	100 (220)
Max. workpiece weight	kg (lbs)	500 (1100)	1600 (3530)
Max. workpiece dimensions (*)	mm (in)	780 x 530 x 300 (30.7 x 20.9 x 11.8)	1200 x 850 x 400 (47.2 x 33.4 x 15.7)
Min./max. distance between table and chuck	mm (in)	150/450 (5.91/17.72)	150/600 (5.91/23.62)
Dielectric system			
Filter type (built-in paper cartridges)		4	8
Reservoir volume	l (gal)	410 (108)	820 (216)
Generator			
Type		ISOPULSE	ISOPULSE
Standard machining current	A	64 (128 ***)	64 (128 ***)
Power supply			
Three-phase input voltage	V	400	400
Main network frequency	Hz	50 or 60	50 or 60

Systems EXPERT (Standard: FORM 200 Sp / FORM 300 Sp)

PILOT-EXPERT 4: optimisation and automatic monitoring of machining parameters

POWER CONTROL EXPERT: machining current, self-adapting according to electrode geometry

SPAC: protection against short circuits (CT patent)

TRANS-EXPERT: automatic optimisation of planetary translations depending on the geometry of the electrode

* Width x depth x height ** Width x depth *** Option

FORM 200 Sp / FORM 300 Sp

Modules

C axis (***)		**Standard**	**Accura-C**
	Max. electrode inertia	2000 kgcm² (683 lbsin²)	5000 kgcm² (1708 lbsin²)
	Measurement resolution	0.001°	0.0001°
	Electrode weight	25 kg (55 lbs)	50 kg (110 lbs)
Spindle chuck (***)	System 3R	Macro/Combi	
	Erowa	ITS/ITS-Compact	
	Hirschmann	H8.11.7	
Tool changer (***)	Linear (standard tooling)	4 (FORM 200 Sp)/6 (FORM 300 Sp) positions	
	Linear (Combi tooling)	5 (FORM 200 Sp)/6 (FORM 300 Sp) positions	
	Rotary (standard tooling)	16-80 positions	
	Rotary (Combi tooling)	30-160 positions	
Thermo stabilisation table + cabin		Option (FORM 200 Sp), option (FORM 300 Sp)	
Autoscan (only with 3R chip)		Option	
Multicavity flushing (***)		6 outputs	
Additional power module (***)		64 A	
Adapter kit for external robot		Option	
e-Connect		Option	
e-Control, e-Supervision		Option	
Programming system on PC		Standard	
Autorestart		Standard	
High Speed EDM (FORM 300 Sp)		Standard: up to 6 m/min (19.7 ft/min) – up to 1 m/s² (3.3 ft/s²)	
High Speed EDM 2 (FORM 200 Sp)		Standard: up to 15 m/min (49.2 ft/min) – up to 10 m/s² (32.8 ft/s²)	
Speed Finishing		Standard	
iQ module: wear free ED machining with graphite electrode		Option	
3D probe measuring system for Erowa or System 3R		Option	

Numerical control

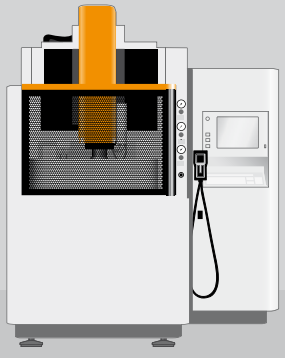
Architecture	PC multiprocessors
Operating system	Windows XP
Processor	Pentium® 2.3 GHz
RAM memory	2 GB
Screen	LCD 15" TFT
Data input	Touch screen – keyboard
Keyboard	PC-style alphanumeric standard
Remote control	Standard
Hard drive	500 GB
DVD-ROM drive	Standard
PCMCIA Port, Ethernet RJ45, USB (x2)	Standard

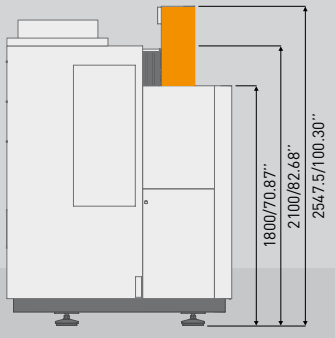
AC FORM HMI functions

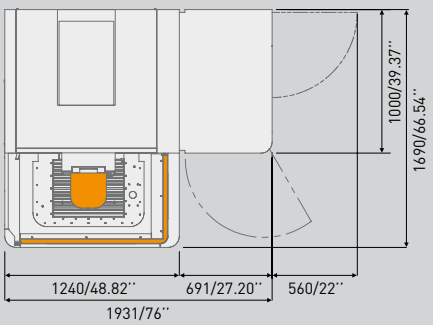
Automatic measurement cycles for workpieces and electrodes
Importation of measurement results from preset station
3D machining cycles with geometrical pattern
Multicycle
Machining strategy for all combinations of materials
Dedicated technologies for each type of application
Aid to define undersize and number of electrodes
Machining sequencing assistant according to manufacturing priorities
Graphic machining simulation and graphic follow-up
Machining report for each job execution
Job List – Management of pending jobs by order of priority
Part Express – Instant insertion of urgent jobs
Contextual aid with graphics explanations
Online documentation (e-Doc) on the use of the machine
Self-Cell Management (SCM): automated cell management

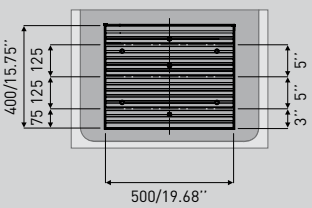
*** Option

FORM 200 Sp

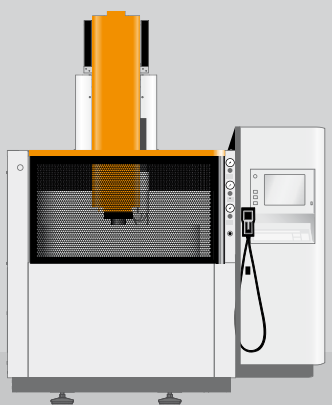


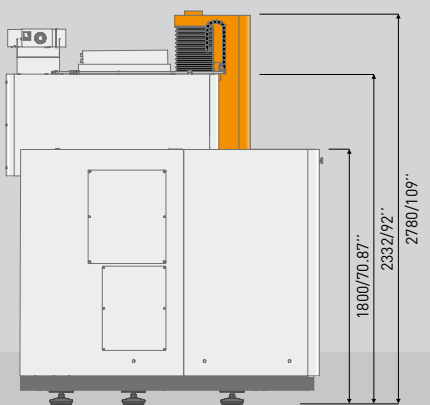


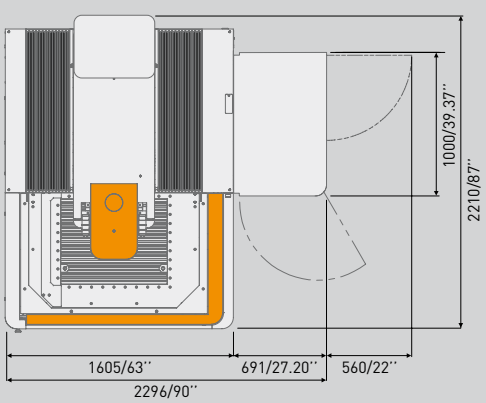


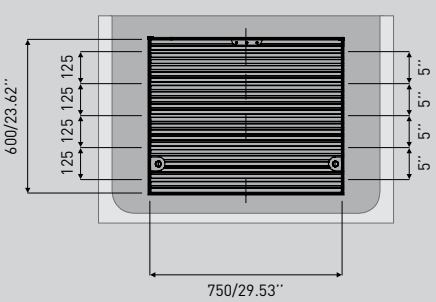


FORM 300 Sp









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