

High-rigidity box-type cast base and thorough counter-measures against thermal deformation deliver high-precision and stable cutting performance.

Seibu's exclusive Automatic Wire Feeding device included as standard equipment - is the only device in the world to make it possible to feed into the slit at wire breakage point.

SUBMERGED CUTTING **EW-A5S**

Submerged cutting in a temperature-controlled working fluid can satisfy wide-ranging use from precision dies to component cutting. Performance is excellent for the cutting of hollow workpiece, parts with complex shape, lapped plates or thick workpiece and cutting into plate edge.

Seibu's original Automatic Wire Feeding device allows the wire to be fed while the workpiece is still immersed in the working fluid. Not only does this eliminate time lost to drain and refill the tank, it also reduces the exposure of the workpiece to the atmosphere.

The work table has been lowered to let the operator get close to the job, simplifying workpiece loading-unloading and positioning. The front door slides vertically with a touch and lock on a magnetic catch to make the operator's task even easier.

FLUSHING CUTTING **EW-A5**

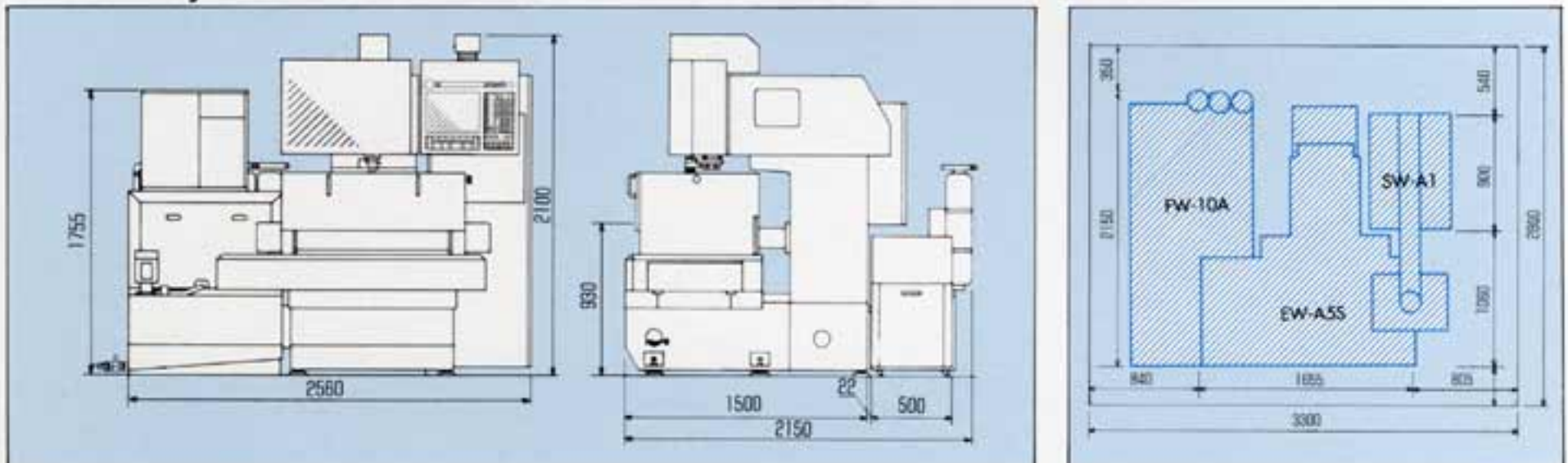
Cutting performance has been upgraded; improved cutting speed, better surface roughness, and reduced concave.

Expanded cutting range handles even a maximum workpiece height of 300mm with a Z-axis travel of 315mm, and large-angle taper cutting with U-V axes travel of ± 50 mm. And even though this mid-size machine delivers the high precision, the floor space has been cut by about 30% over compared with our former models.

Bold new design and natural imaged bright colors make it a pleasure to use for even young workers and women, helping create a spirited working environment.



Standard layout of model EW-A5S



High-performance 32-bit NC system offers a wide selection of many functions, including maintenance information, production information and job histories, giving extra punch to your production management programs. And the system is friendly enough to let beginners attain the same high productivity as experienced professionals.

SPECIFICATIONS

1 inch

MACHINE		EW-A5S	EW-A5	
Machine	FLUSHING CUTTING Max. dimension of workpiece (W×D×H)	750×600×300 mm (29.5×23.6×11.8) ※1		
	Max. weight of workpiece	750 kg (1,650 Lbs.)		
	SUBMERGED CUTTING Max. dimension of workpiece (W×D×H)	750×600×250 mm ※2		
	Max. weight of workpiece	600 kg (1,320 Lbs.)		
	Table driving system	X-Y and u-v axes ; Digital AC servo drive		
	Table travel	Right & left direction	X axis ; 500 mm (19.6)	
		Back & forth direction	Y axis ; 300 mm (11.8)	
	Manual table feed	X & Y axes	Quick ; 1200 mm/min (47.2 inch/min), Middle, Slow, and Step feed ; 0.0001 mm (0.004mil) least command unit ~ 1mm (0.04 inch)	
	Z axis driving system	Up & down ; Digital AC servo drive		
	Z axis travel distance	315 mm (12.4)		
	Wire feed rate	50~250 mm/sec (2~9.8 inch/sec)		
	Wire tension controlling range	300~3,000 g (0.7~6.6 Lbs.)		
	Applicable wire electrode diameter	0.2 mm (0.008), Others are optional ※3		
	Wire electrode material	SBH 5kg roll		
	Upper wire guide travel	Right & left direction	u axis ; 100 mm (3.9)	
		Back & forth direction	v axis ; 100 mm (3.9)	
	Taper angle	±10 degree (250 mm workpiece height for cone cut)		
	Outline dimension (W×D×H)	1,655 × 2,025 × 2,100 mm (65.1 × 79.7 × 82.6)		
Weight	3,000 kg (6,600 Lbs.)			
Automatic wire feeding device	Wire feeding method	SEIBU original annealed dry feeding method		
	Wire electrode material	SKH (5kg roll) is recommended for wire feeding		
	Applicable wire diameter	0.2 mm (0.008), 0.25 (0.1) and 0.3 mm (0.12) are optional (For other wire diameter, manual feed should be taken.) ※4		
	Wire break recovery during cutting	Possible ; Wire break point feed, Start hole feed		
	Retry after feeding failure	Retry at wire break point, retry at start hole, skip function		
AWF-2D	Feedable start hole diameter	0.5mm to ∞, Note ; With some conditions for the hole, contact us.		
	Feedable workpiece height	Max. 150mm (5.9), Note ; Start hole diameter should be under 3mm for workpiece height over 60mm ※5		
	Required utility	Compressed air source ; Over 5kgf/cm ² (71 Lbs./in. ²), Over 30 l/min (8 gal./min)		

FILTRATION DEVICE		FW-10A	FW-4A
Working fluid	Deionized water (Specific resistance controlled)		
Filter element	3 μm paper filter (External & internal pressure type)		
Delonizer (Ion exchange resin) capacity	30 l (7.9 gal.)	10 l (2.6 gal.)	
Tank capacity	1,000 l (264 gal.)	400 l (106 gal.)	
Outline dimensions (W×D×H)	950 × 2,150 × 1,715 mm (37.4 (84.6) (67.5))	1,100 × 1,140 × 1,560 mm (43.3 (44.8) (61.4))	
Weight (without working fluid)	500 kg (1,100 Lbs.)	300 kg (660 Lbs.)	

※1 and ※2 ; Max. height of workpiece of automatic wire feedable is limited by ※5.

※3 ; In case wire electrode of ※3 optional specification is used, there is a limitation of ※4.

OPTIONS (As to the option without mention, contact us.)

Working fluid cooling device	RKS-1100A
Automatic wire vertical aligning jig	
Tension meter	Pointer, max. 1kg
Digital tension meter	Digital display, max. 2kg
Wide angle taper nozzle	Set of upper & lower (Max. 32 degree)
Die guide	

All specifications are subject to change without notice.

CONTROL DEVICE		SW-A1	
Control Device	Input power source	3 - phase 200 V \pm 10 % 50/60 Hz 12.5 kVA	
	Outline dimensions (WxDxH)	590 X 940 X 1,840 mm (23.2) X (37.0) X (72.4)	
	Weight	550 kg (1,210 Lbs.)	
Power Supply	Pulse generation	MOS transistor pulse circuit	
	Working voltage	90 steps	
	Working current	15 steps	
Numerical Control	Control system	CNC system with 32 bit micro computer	
	Ambient temperature	0 ~ 40 °C	
	Control axis	X - Y · U - V · Z, 5 axes (X - Y, u - v 4axes simultaneously)	
	Input method	FDD (3.5inch), MDI, RS232C interface	
	Code	ISO (R840) / EIA (RS244 - A), selective	
	Position command system	Incremental value / Absolute value, joint use	
	Max. programmable dimension	(X - Y) \pm 9999.999 mm (99.99999), (I - J) \pm 99999.999 mm (999.99999)	
	Least input increment	0.001 mm (0.00004)	
	Least command increment	0.0001 mm (0.004 mil)	
	Interpolation	Linear, Circular	
	Intersection calculation	Sharp edge, Rounded corner	
	Wire offset	- 9.999 ~ + 9.999 mm, (- 1.00000 ~ + 1.00000)	
	Cutting feed control	Servo feed / Constant feed, selective	
	Reverse function	Reverse along cutting locus at short circuit	
	Countermeasure for power failure	Self - start after power recovery	
	INPUT / DISPLAY FUNCTIONS		
		• Display unit	14 inch color CRT
		• Simultaneous display	Cutting condition, Cutting locus, Operating condition.
		• Coordinates display	Work coordinates (G54~G59), Relative coordinates, Machine coordinates, simultaneous X - Y, u - v & Z axis by 0.0001 mm unit
		• Graphic function	Drawing of X - Y plane, u - v plane and 3 Dimensions (out - scaling, part magnification)
	• Cutting status display	Cutting time, Length of locus, Cutting speed, Remaining time	
	• Other displays	NC data, System parameter, Alarm messages, Warning messages, Maintenance information, Production information, Operating history	
	• Editing function	Search and replacement, Reference, Cut and paste, Partial storage	
	• Multi - operation function	During cutting, NC data editing and drawing are possible.	
	• Other functions	Multi - window, Help	
CONTROL FUNCTIONS			
	• Memory operation	Number of programs; 250 (Ex., total tapes length; approx. 300 m)	
	• Functions	Compensation Pitch error compensation, Backlash compensation	
	• Axes	Axis exchange, Mirror image X - Y axis (Individual / simultaneous)	
	• Figure	Figure rotation ($\pm 1^\circ \sim \pm 360^\circ$) Figure expansion & shrinkage (Magnification 0.001 ~ 99.999)	
	• Operation	Optional stop, Single block, Machine lock, Dry run	
	• Return to origin	Reference point, Cutting start point, (Wire breakage point) designation of returning axes	
	• Automatic positioning	Edge positioning, Plate centering, Slit centering, Corner edge positioning, Hole centering, Column centering	
	• Auto - measurement function	Wire vertical aligning (by using optional jig), Axis compensation, Circle compensation, Taper parameter	
	• Special shape function	Angle changing function during cutting, Top - button equal radius cutting, Top - button different shape cutting by MERGE program of SEMAPT - 300SX, Corner figure reforming control	
	• Software limit	5 areas	
	• Multi - cut generator	Auto - cutting program generator for second cut	
	• Macro function	Command GOTO, IF and WHILE, Calculation function	

All specifications are subject to change without notice.

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Seibu

Elektrolysefreies Hochgeschwindigkeits-Schneiden

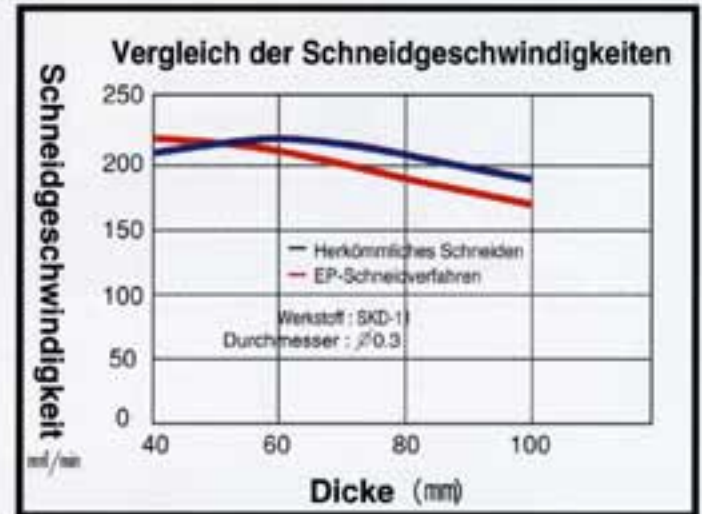
Hochpräzises elektrolysefreies Schneiden von hoher Qualität mit dem SEIBU-EP-Generator;... und dabei Schneidgeschwindigkeiten nahe denen von konventionellen Systemen.

Qualitäts-Schneiden

Die elektrolysefreie Schneidmethode verhindert vollständig Korrosion; sie verhindert Haarrisse und Anomalien auf der Oberfläche und steigert die Standzeit der Werkzeuge.

Elektrolysefreies Hochgeschwindigkeits-Schneiden

Die elektrolysefreie Schneidmethode wird für das gesamte Verfahren angewendet. Vom Vor- bis zum Fertigschneiden und das mit Schneidraten nahe denen konventioneller Systeme.



Korrosionsfreies Arbeiten

Das elektrolysefreie Schneiden vermindert die Oxidation an der positiven Elektrode und verhindert damit extrem die Rostbildung bei ferritischen Materialien.

▼ EP-Schneiden



▼ Herkömmliches Schneiden (Material: NAK55)



Beim elektrolysefreien Schneiden wird verhindert, daß Kobalt in Lösung geht. Bei Wolframkarbid-Verbindungen wird Kobalt als Bindemittel benutzt. Damit bleibt die Ursprungsfestigkeit des Ausgangsmaterials erhalten.

Die elektrochemische Beeinflussung von bearbeiteten Titanlegierungen sowie von Aluminium wird verhindert; die Vermeidung der sonst beobachteten Verfärbung von Oberflächen bei Titanlegierungen steigert die Qualität.

Wolframkarbid

▼ EP-Schneiden



▼ Konventionelles Schneiden



Titanlegierung

▼ EP-Schneiden



▼ Konventionelles Schneiden

