

SX-200 *& motion*

HIGH SPEED MICRO EDM DRILLING MACHINE

PERFECT ROUND HOLES

CONCENTRIC &
ACCURATE HOLES

ACCURATE COMPLEX HOLES

HOLE TAPER CONTROLLED

NO ANGLE LIMIT

NO BURNING EFFECT

NO MATERIAL ALTERATION

WITHOUT ENTRANCE AND
EXIT DEFORMATION

HIGH PRODUCTIVITY

HIGH SURFACE QUALITY

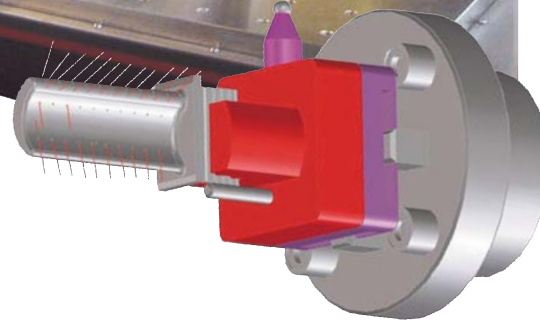
HIGH
PRECISION FINISHING

3D μ EDM

IF YOU NEED
THIS TOP
PERFORMANCE
WITH FAST
MACHINING
TIMES, WITHOUT
MATERIAL
ALTERATION,
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8 Axis High Precision
and
High Speed
Micro EDM Drilling
machine



- The multi-axis *& motion* CNC controller allows the high accuracy indexing and positioning of complex work pieces reaching all holes positions within the **X,Y,Z,W,A and B** axis. The additional automatic electrode wear compensation and electrode re-feeding rotating spindle (**C**) associated to the automatic electrode changer (**SX-Revolver**) opens up new opportunities of full continuous drilling process.
- Hole drilling range from **0.05 mm to 3.0 mm** up to 150 times depth ratio.
- **High production capability concept** of a full automatic "One Setup" drilling program with the various holes sizes calibration using a single electrode diameter process.
- Multi diameter collet **SP-MDC** using high pressure dielectric flushing through electrode tube .
- **SX-BTD** Breakthrough detection software for effective local wall thickness compensation as casting variation or hole crossing intersection.
- High performance drilling technology using the SARIX multi-step drilling strategies keeping the hole quality during the high speed drilling process.
- 3D part Model "User friendly" **SX-CAM Aero** programming software.
- Delivery of turnkey process solutions including production program, part fixture and automation.

TECHNICAL SPECIFICATIONS

Machine	SX-200 8 motion	
Type	High Precision	
Work table mm	L 700	I 300
Travel X axis mm	350	
Travel Y axis mm	200	
Travel Z axis mm	200	
Travel W (Z2) axis	150	
A tilting angle	-15°/+110°	
B rotating angle	360°	
X-Y-Z-W axis feed rate	600 mm/min	
Resolution	0.1 µm	
Positioning precision	±2.0 µm	
A-B axis feed rate	15°/sec	
Resolution	0.001°	
Table load	~ 50 kg	
A-B axis load	~ 8 kg	
Net weight	450 kg	
Dimensions mm	L 950	I 850 h 1300

	SX-MPS	SX-HPS
Generator	MICRO PULSE SHAPE	HIGH PULSE SHAPE
Freerun voltage	60 ÷ 255 V	fixed voltage
Frequency	1 ÷ 250 pos.	1 ÷ 100 pos.
Current pulse	1 ÷ 200 pos.	1 ÷ 200 pos.
Dimensions mm	135 x 110 x 500	

Control Unit	SX-CU	
Power supply	230 V / 50 Hz	
Nominal power	650 VA	
Dimensions mm	450 x 400 x 690	

Dielectric Unit	SX-DA	SX-HC on option
Capacity	25 liters	115 liters
Dielectric	deionised water or oil	
Dimensions mm	500 x 780 x 650	

Our specifications are subject to any change, giving you a continuous technological advantage

In the region where avant-garde technology has made EDM history.



TYPICAL CONFIGURATION

SX-200 8 motion Micro EDM Drilling Machine

- **SX-200-HPM** machine including SX-MPS, Micro Pulse Shape Generator
 - **SX-CU**, CNC Control UNIT with SX-ICON EditFree programming software
 - **SX-KBS**, Knowledge Base - Drilling Data Base Software
 - **SX-MMI-Remoting**, machine monitoring remoting software
- **SX-HPS**, High Power Pulse Shape generator for higher material removal
- **SX-DA**, Dielectric unit with conductivity and temperature control for mass production SX-DA-HC, High filtering capacity unit on options (deionised water or dielectric oil)
- **SX-HP**, High pressure flushing unit 70 bars
- **SX-W**, CNC Programmable W-backslide axis (Z2) for guide holder height position
- **SX-PG**, Precision guide holder for standard and extended ceramic guide
- **SX-AB100C**, High precision single (B) or double (A/B) programmable and indexable axis, designed for submerged conditions (with 3R or Erowa chuck holder)
- **SX-A344L**, High precision rotating spindle with automatic electrode wear compensation and electrode re-feeding with high pressure through flushing
- **SP-Revolver**, Automatic electrode changer with high pressure through flushing
- **SP-MDC**, Multi diameter automatic re-feeding collet for diameters from 0.2 to 1.5 mm
- **SX-BTD**, automatic electrode Breakthrough Detection Software
- **SX-PL**, Multi-axis-erosion software X-Y-Z axis for calibration-planetary-orbiting functions
- **SX-CAM-Aero**, 3D part model software integration for tapered, diffuser and shape holes - unlimited programmable holes and sequences.

SX-CU CNC CONTROL UNIT

- **SX-CU**, controller with enhanced Automatic Configuration, unlimited program capacity
 - Standard Virtually up to 16 axis CNC control with:
 - 8 axis motion: X, Y, Z, L (Z2), A, B, C and automatic electrode changer within 4 axis on simultaneous motion (X,Y,Z and W)
 - 8 additional axis for external automation
 - Unlimited program ISO, G-code capacity; number, length, calls, variables
 - Free and unlimited Micro EDM technology settings
- **SX-MMI**, "On board" friendly user editing and programming capability
 - High quality 8.4" TFT color display, USB and Ethernet connection

OPTIONS

- **SX-MFPS**, Micro Fine Pulse Shape generator for Micro Fine Machining with ultrafine finishing
- **SP 06 & SP 08** collets for SX-A344 automatic spindle for tube and electrode from 45 Microns to 3.0 mm.
- **SX-ROT**, High Precision semi-automatic rotating spindle
- **SX-TH**, "Tilting Head" device for SX-A344 Rotating spindle with the SP08 collet type
- **SX-MDH**, Micro Deep Hole drilling device - depth ratio of 100-150 time
- **SX-ARIANNE**, Wire grinding device for the automatic production of Micro electrode for Micro holes and shape holes down to 10 Microns

