

THE BEST MICRO EROSION
TECHNOLOGY
SINCE 1993

SARIX

3D Micro EDM Milling

SX200-hpm

HIGH PRECISION & HIGH CAPACITY
MICRO EROSION MACHINE

MICRO MECHANICS
MICRO MOLD
AUTOMOTIVE
TEXTILE
MEDICAL
AEROSPACE



- The **SX200-hpm** machine **high production capability concept** through its efficient versatile compact **SX-CNC** Multiaxis controller brings up the **Micro EDM Machining** using the following axis A/B positioning, rotary/indexing, C-indexing spindle and W back slide-axis (Z2) for the unlimited hole sequence process. Further technological innovations like DFC make the **high speed Micro EDM Drilling** even more productive.
- **SX-HMI**, "Onboard" trolley console interface easy user friendly with color touch screen panel and joystick hand box along with the monitoring of the entire machining process.
- 3 sides wide open access machine with full safety operator protection and setting mode access.
- **SX-DA**, free accessible from side, dielectric unit for maintenance and control. Machine frontal flushing visual for the various settings valves.
- **SX-A344L**, high precision rotating spindle with automatic electrode refeeding and wear compensation control for continuous unlimited hole production. With the **SX-Revolver**, the SX-A344L spindle have the possibility to change automatically 8 electrodes of 300 up to 600 mm long.
- **SX-BTD**, High Speed Micro EDM drilling Technology with breakthrough detection control.
- The high performance **SARIX Micro Pulse Shape EDM** generator **SX-MPS**, is improved with the integration of the **PULSAR** generator, offering new opportunities for faster, smaller, deeper and more precise perfect holes and 3D cavities.
- **Micro EDMing** machining technology using solid and tube electrode from **45 µm**.
- **Micro Holes**, high precision micro round and shape holes down to **20 µm** to 3.0 mm.
- High surface finishing capability down to **Ra 0.10** and **Ra 0.05** with the **Micro Fine Pulse Shape generator SX-MFPS**.
- High precision positioning accuracy and drilling depth control up to **±1 µm**.
- **SX-MDH**, Micro Deep Hole drilling device for **0.10 mm** holes with tolerance of **±5 µm** on depth ratio upto 100 - 150 time.
- **Industry 4.0 - smart production** and automation process integration capability.

PERFECT ROUND HOLES

CONCENTRIC &
ACCURATE HOLES

HOLE TAPER CONTROLLED

NO ANGLE LIMIT

NO BURNING EFFECT

NO MATERIAL ALTERATION

WITHOUT ENTRANCE AND
EXIT DEFORMATION

HIGH
PRODUCTIVITY QUALITY

HIGH
QUALITY SURFACE

HIGH
PRECISION FINISHING

3D µEDM

IF YOU NEED
THIS TOP
PERFORMANCE
WITH REDUCED
MACHINING TIMES,
WITHOUT MATERIAL
ALTERATION,
CALL SARIX
OR VISIT US

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TECHNICAL SPECIFICATIONS

Closed cell machine	SX200-hpm
Type	High Capacity Micro EDM Machine
Work table	L 700 mm I 300 mm
Travel X axis	350 mm
Travel Y axis	200 mm
Travel Z axis	200 mm
Travel W axis (optional)	400 mm
Z axis feed rate	1200 mm/min
X-Y axis feed rate	1200 mm/min
Precision of positioning	±2.0 µm
Resolution	0.1 µm
Table load	~ 50 kg
Net weight	~ 1600 kg
Dimensions Machine	L = 1600 x I = 2200 x h = 2300 mm

	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	135 x 110 x 500 mm	

Control Unit	SX-CU
SX-CU integrated in the electrical cabinet on the table	
Power supply	400 V - 3 Ph / 50 Hz
Nominal power	2 KVA

Dielectric Unit	SX-DA
Capacity	75 liters
Dielectric	deionised water or dielectric oil
Dimensions	550 x 1200 x 600 mm

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

SX-MVS, Measuring and vision system

SX-W, Backslide automatic guide holder height position

SX-A344L, High precision Automatic spindle with **SP-MDC** collet.

SX-AB100C, High precision A/B indexing axis

SX-ARIANNE, Wire Dress Unit for the production of micro electrode



TYPICAL CONFIGURATION SX200-hpm High Capacity Micro EDM machine

SX200-hpm machine including **SX-CU** CNC & **SX-MPS**, Micro Pulse Shape Generator
Axis configuration X,Y,Z (A,B,C additional axis - optional)

- Virtually up to 16 axis control with 4 axis on simultaneous motion
- **SX-HPS**, High Power Pulse Shape generator for higher stock removal.
- **SX-Icon Editor**, free programming PC software with ISO and G code.
- **SX-KBS**, Knowledge Base - Micro EDM Technology data base PC software.
- **SX-SLS-DT**, Self-learning and search technology software for drilling.
- **SX-PL**, Multi-axis-erosion software X-Y-Z axis with extended planetary-orbiting function.
- **SX-DA**, Dielectric unit with 1 µm filtering with conductivity and temperature control for deionised water or dielectric oil. *Fire extinguishing system for Dielectric Oil (option).*
- **SX-HP**, High pressure flushing unit up to 70 bars.
- **SX-A344-L**, High precision rotating spindle with automatic electrode refeeding and wear compensation with through flushing function (C function optional).
- **SX-PG-M**, Precise ceramic guide height adjustment with retractable guide holder.
- **SP-MDC**, Multi diameter automatic refeeding collet 0.2 - 1.0 mm and 0.5 - 1.5 mm

SX-CU CNC CONTROL UNIT

- **SX-CU**, controller with enhanced interaction and process visualisation with **free and unlimited program capacity and Micro EDM Technology settings.**
- **SX-HMI**, "On board" user friendly 12" color Touch Screen interface with USB & LAN.

OPTIONS

- **SX-MFPS** and **SX-UFPS**, Micro Fine Pulse Shape and Ultra Fine Pulse Shape generators for Micro Fine and ultrafine finishing.
- **SX-DA-HC**, High capacity filtering deionised water unit using 3 filters of 15".
- **SX-ROT**, High precision rotating spindle for SPO2/O3 collet with 3R Macro chuck.
- **SPO6** & **SPO8**, Collets for SX-A344-L automatic spindle down to **45 µm**.
- **SX-W**, Backslide programmable W axis for automatic guide holder height position.
- **SX-Revolver**, Automatic electrodes changer for SX-A344-L with 300 or 600 mm cartridge of 8 electrodes.
- **SX-C-ROT**, High precision rotating spindle for SPO2/O3 collet with C-indexing function.
- **SX-TH**, "Tilting Head" for taper holes with SX-A344-L spindle using the collet SPO8.
- **SX-R-AB100D**, High precision rotary programmable A/B axis with direct axis control and universal 3R & Erowa chuck.
- **SX-AB100C**, High precision single or double indexable and programmable A/B-axis.
- **SX-ARIANNE**, Electrode wire EDM grinding device for the automatic micro electrode production for round and shape micro holes down to 10 µm.
- **SX-Micrometer**, Laser for measurement of diameter and profile of micro electrodes.
- **SX-MDH**, Micro Deep Hole Drilling device for 0.10 mm holes with tolerance of ± 5 µm on depth ratio upto 100 - 150 time.
- **SX-3D Micro EDM Milling CAM**, Software for 3D Micro EDM Milling machining.
- **SX-DNC**, Sequencer software for dxf file and unlimited programmable number of holes.
- **SX-MVS**, Measurement and Vision System. Image processing for the control and measurement of the hole diameter, hole pitch, position and through hole status.
- **SX-EAD**, Electrode Automatic Distributor device.

ACCESSORIES

- **SPO2**, High precision manual collet.
 - High precision ceramic guide **SG01-SG03-SG08** and specials series.
 - High precision solid carbide electrodes tubes down to **90 µm** and blank electrodes down to **45 µm**.
 - Brass & Copper single holes and coreless electrodes tubes.
- Tooling, fixtures, microscopes, instruments, filters...

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

