

THE BEST MICRO EROSION  
TECHNOLOGY

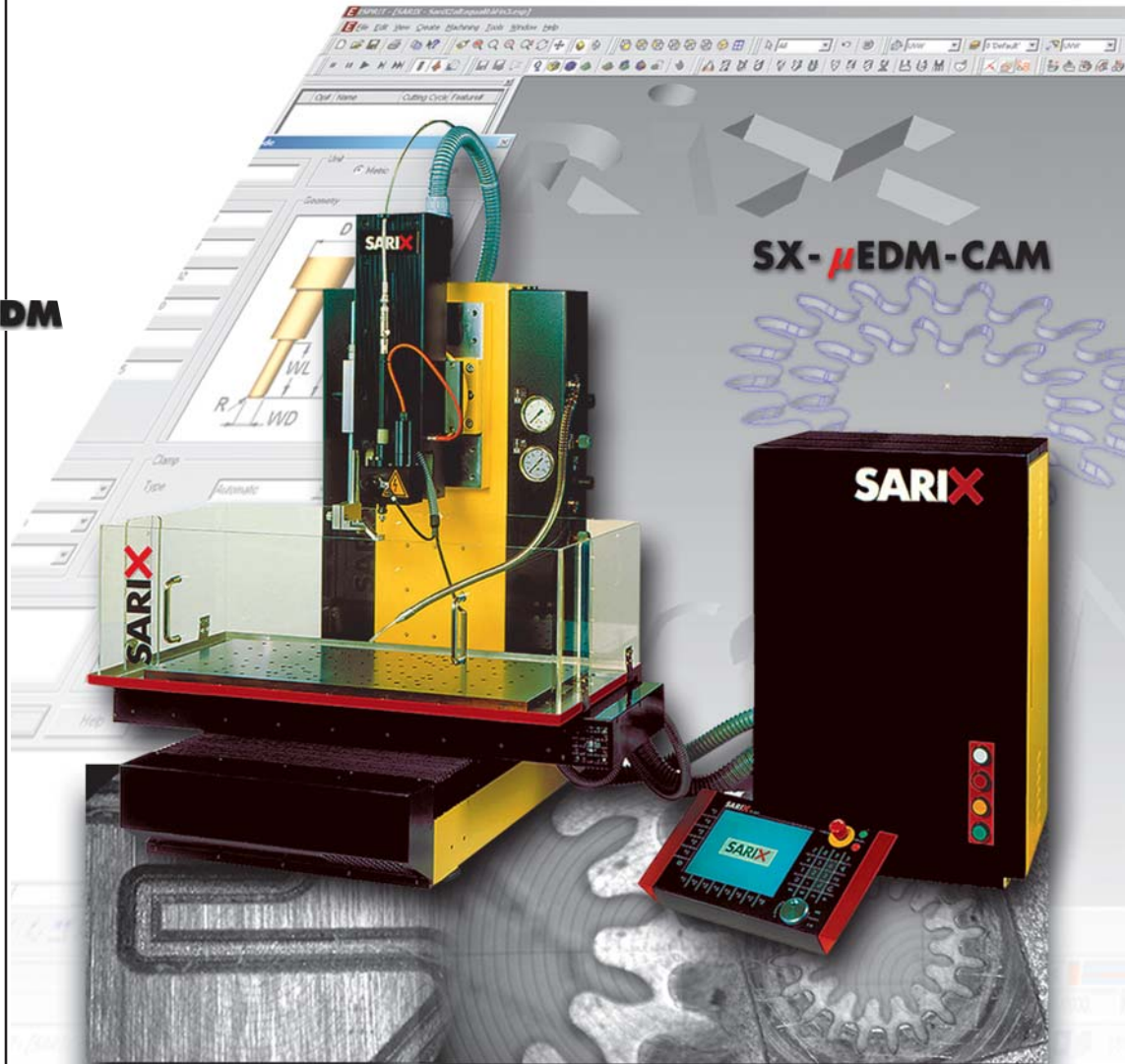
# SARIX

## 3D $\mu$ EDM Milling

### HIGH PRECISION 3D MICRO EDM MILLING MACHINES

PERFECT ROUND HOLES  
CONCENTRIC &  
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HOLE TAPER CONTROLLED  
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EXIT DEFORMATION  
HIGH  
PRODUCTIVITY QUALITY  
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QUALITY SURFACE  
HIGH  
PRECISION FINISHING

3D  $\mu$ EDM



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WITH REDUCED  
MACHINING  
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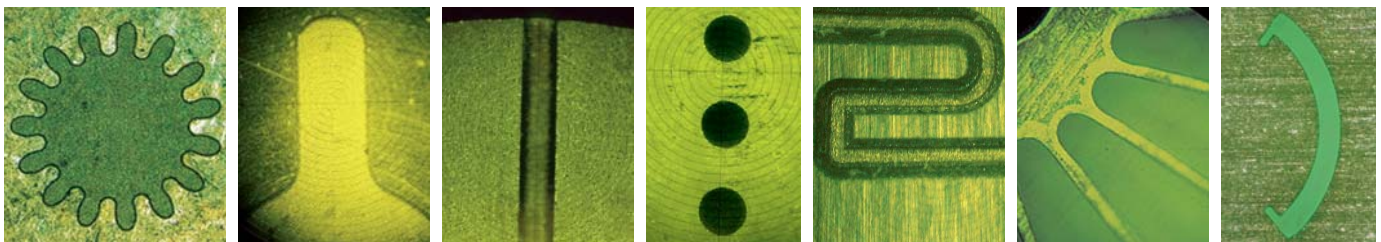
- **3D and Multi-Axis- $\mu$ EDM CNC** controller SX-CU offers new possibilities on the Micro-Machining with new dedicated SARIX Technologies of **3D Micro-Milling**. Its combination with a continuous automatic wear compensation spindle and a "built in" **Micro Wire-EDM** electrode grinding device opens up new perspectives on the micro machining of;
  - 3D Micro Milling of complexes forms with radius corner down to 3 microns
  - perfect fins walls and microstructures
  - high precision of smaller, deeper and more precise perfect round holes
  - high surface finishing of Micro Sinking cavities
- **SX- $\mu$ EDM-CAM SARIX** Modul compatible to ESPRIT CAD-CAM software, integrates the new Micro-EDMing process "Multi-Axis-Multi-Step" for the machining down to 10 microns with **Ra up to 0.05 microns**.
- High precision machining and accuracy up to  **$\pm 1$  micron**.
- High performance Micro Fine Pulse Shape generator **SX-MFPS** for 3D Micro EDMing machining using tubes and solid electrodes **from 5 microns** to 3.0 mm.
- **High Speed Micro EDM Drilling** Technology with automatic breakthrough detection device.
- "High production capability concept" upto 8 axis for complex work pieces with X-Y-Z, back slide W-axis (Z2), C and A/B indexing axis.

## TECHNICAL SPECIFICATIONS

Machine	SX-100 HPM	SX-200 HPM
Type	High Precision	High Precision
Work table mm	L 510 l 270	L 700 l 300
Travel X axis mm	250	350
Travel Y axis mm	150	200
Travel Z axis mm	150	200
Travel W (Z2) axis	150	150
Z axis feed rate mm/min	600 max	600 max
X-Y axis feed rate mm/min	600 max	600 max
Precision of positioning	± 2 µm	±2 µm
Resolution	0.1 µm	0.1 µm
Table load/weight	~ 20kg	~ 50kg
Net weight	~175kg	~450kg
Dimensions mm	L 700 l 800 h 1200	L 950 l 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	
Capacity	25 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 Micro EDM Milling Version Basic 2.5

- **SX-200-HPM** machine including **SX-MPS**, Micro Pulse Shape Generator
- **SX-CU**, CNC Control UNIT with **SX-ICON**, Software Icon Editor for free programming
- **SX-KBS**, Knowledge Base - Data Base- software
- **SX-µEDM-Milling "BASE Modul"**  
Package Software for **Micro EDM Milling** in 2.5 axis including:
  - **SX-µEDM-CAM** "Base", integrator for Multi-Axis-Erosion machining
  - **SX-ESPRIT CAD-CAM** – Basic 2.5 Modul
  - **SX-PL-XYZ**, Micro EDM Multi-axis-erosion software X-Y-Z axis
- Options: SX-µEDM-Milling softwares also available on version Production as 2.5 axis + 2 indexing and Moulding as 3D (3axis + 2 indexing)*
- **SX-MFPS**, Micro Fine Pulse Shape generator for Micro Fine Machining with ultrafine finishing
- **SX-DA**, Dielectric unit with conductivity and temperature control for mass production (for deionised water or dielectric oil)
- **SX-HP**, High pressure flushing unit 70 bars
- **SX-A344-L series**, High precision rotating spindle with Automatic electrode refeeding and wear compensation with through flushing function
- **SP 06 series**, Automatic refeeding collet for electrode down to **45 Microns**
- **SX-ARIANNE**, Wire grinding device for the automatic production of Micro electrode for Micro holes and shape holes down to 10 Microns

## SX-CU CNC CONTROL UNIT

- **SX-CU**, controller with enhanced Automatic Configuration
- Unlimited program capacity; number, length and calls
- **Free and unlimited Micro EDM technology settings**
- **SX-MMI**, "On board" friendly user editing and programming capability
- High quality 8.4" TFT color display, 3.5" floppy disc Ethernet connection
- Virtually up to 16 axis CNC control within 4 axis on simultaneous motion
- Standard X,Y,Z and rotation speed axis control (W,A,B,C...optional)

## OPTIONS

- **SX-HPS**, High Power Pulse Shape generator for higher stock removal
- **SX-C-axis**, indexing C function for RHP and A344 series rotation spindle
- **SP-MDC**, Multi diameter automatic refeeding collet 0.2-1.0 mm
- **SX-W**, CNC Programmable W-backslide axis (Z2) for guide holder height position
- **SX-TH**, "Tilting Head" device for SX-A344 Rotating spindle with the SP08 collet type
- **SX-DNC**, Sequencer software for unlimited programmable number of holes
- **SX-AB100C**, High precision single or double indexable and programmable A/B-axis, designed for submerged conditions
- **SX-MDH**, Micro Deep Hole drilling device - depth ratio 100-150 time
- **SX-EAD**, Electrode Automatic Distributor device

## ACCESSORIES

- **SP 02**, High precision collet
- High precision solid carbide electrodes down to **45 Microns**
- High precision solid carbide electrodes and tubes
- Brass & Copper single hole and coreless electrodes tubes
- Tooling, fixtures, microscopes, instruments, filters...