

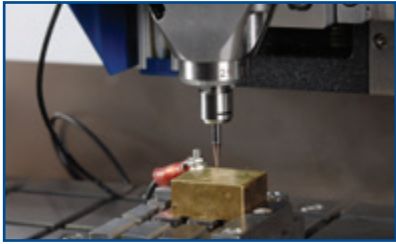
EM203

MULTI-PROCESS MICRO MACHINE

HIGH SPEED MEETS ULTRA-HIGH PRECISION

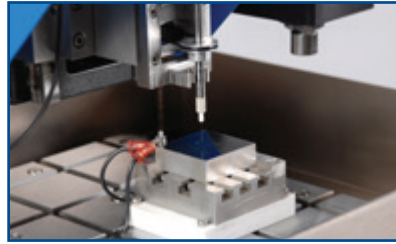
SMALTEC IS PROUD TO PRESENT THE FIRST TRUE HIGH-SPEED SPINDLE/MICRO EDM MACHINE. NOW, ONE PLATFORM CAN PERFORM THESE TWO DOMINANT MICRO MACHINING PROCESSES WITHOUT REMOVING THE WORK PIECE, THUS ELIMINATING THE NEED TO PURCHASE TWO SEPARATE MACHINES. INCREASE CAPABILITY AND REDUCE COSTS WITH A PLATFORM THAT DELIVERS THE SPEED OF HSS AND THE PRECISION OF MICRO EDM. BE A PART OF THE NEXT GENERATION OF MICRO MACHINING INNOVATION.

All the Precision. A Fraction of the Time.



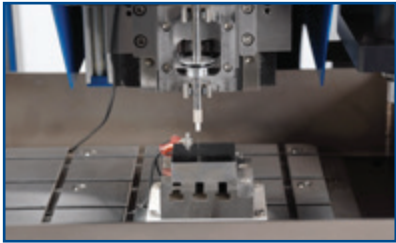
High-Speed Spindle

Achieve spindle speeds of 200,000 RPM. Create 3D micro geometries quickly and accurately, while utilizing standard micro tooling readily available in today's market. Remove tool run out with μ EDM truing capability. An abundance of materials can be cut with the HSS.



μ EDM

Create holes to 3 micron diameter while achieving a surface roughness of less than 50 nanometers Rmax. Cut conductive materials with ultra-high precision with μ EDM. 3D shaping and finishing can be improved with Micro EDM. Remove burrs after HSS micro machining without moving the part.



Mandrel

Patented tool holder and spindle, allowing for quick tool removal, storage and precision placement.



NC Control

Standard G and M code programming capability, CAM generated tool path compatible.



WEDG WIRE

Patented wire support using a brass wire with a diameter control of <1 micron, used for shaping custom tools.



Stereo Scope

Instrumental for viewing during process and for rough alignment of work piece and tool.



Tank

Adaptable to Dielectric or DiWater fluid processing for flooded, flush, or flow.



Mono Scope

Effective for optical alignment of the work piece and for measurement after processing.

SMALTEC EM203 SPECIFICATIONS

ALL SPECS SUBJECT TO CHANGE



DIMENSIONS (w, l, h) 710 x 835 x 810 mm

WEIGHT 275Kg / 800 lbs

XY AXIS RANGE 200 x 200 mm

Z AXIS RANGE 100 mm

POSITION RESOLUTION 0.1 μ m

MANDREL ROTATION 0-6,000 rpm

ACCURACY 10 mm : 1 μ m
100 mm : 3 μ m

WORK PIECE TANK 350 x 305 mm

WORK PIECE WEIGHT ~ 5.5 kg max

VOLTAGE 110 +/- 10V AC
50/60 Hz, 1kVA



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