Wire Cut EDM

NeoSpark B 300

SKU : 180566

The machines of the NeoSpark CNC series are among the most precise wire EDM machines with reciprocal wire guidance on the market. They offer excellent performance when machining electrically conductive materials in mold and tool making. The NeoSpark series is a popular choice for companies that specialize in additive manufacturing and want to separate the finished part from its base plate with high precision. High speed wire cutting guarantees deformation-free and burr-free cutting of even the most delicate 3-D printed metal structures with the best surface quality.

- Electrical discharge machining with highest cost-efficiency
- Easily programmable CNC control
- Real-time system diagnostics, high process reliability
- Time-saving programming during the machining process

TECHNICAL SPECS

WORKING AREA

Table dimensions	620 mm x 440 mm
Workpiece, length x width x thickness (max.)	950 mm
Workpiece weight (max.)	500 kg
Travel X-axis	400 mm
Travel Y-axis	300 mm
Travel U / V-axis	70 / 70 mm
Travel Z-axis	250 mm
Cutting angle (with guide)	± 10° / 80 mm
Cutting capacity (max.)	300 mm²/min
Generator	10 A

CNC CONTROL

Display size / type	15" / LED
Controlled axis	4
Input increment (min.)	0.001 mm

DIELECTRIC SYSTEM

Dielectric, tank capacity	120 l

FEED

Rapid feed X / Y axis	1000 mm/min

ACCURACIES

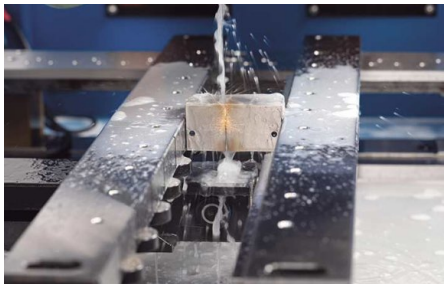
Positioning accuracy X- / Y-axis	0,01 mm
Positioning accuracy U/V axis	0.02 mm
Repeatability X- / Y-axis	0,005 mm
Repeatability U / V axis	0.01 mm
Best surface roughness	0.8 µm Ra

DRIVE CAPACITY

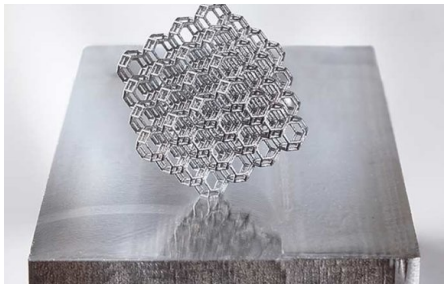
Motor rating X / Y axis	0.15 kW
Motor rating U / V axis	0.02 kW
Motor rating Z-axis	0.02 kW
Total power consumption	4.5 kVA

MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	2.04 m x 1.6 m x 1.83 m
Weight	2000 kg



The NeoSpark allows production of delicate contours with superior surface quality



The structures are constructed in layers and cut from the base plate

In additive production (3D-Printing) the produced complex parts are attached to a metal plate, where the metal plate subsequently will have to be separated from the component (Neospark 500 B Continental Engineering Services)

Dielectric tank with double filtration system

Stainless steel waterproof keyboard

PRODUCT DETAILS

- The NeoSpark CNC Electric Discharge Machine delivers excellent cutting performance and operating cost is extremely low
- The cast-iron machine frame features a modern C-frame with T-base, multiple reinforcing ribs, precision-machined surfaces and thermal stress-relief
- Rigid linear guides and precision preloaded ballscrews on all axes ensure permanent mechanical precision
- The IPC-based control system with servo drives is fine-tuned to the manufacturing process requirements and it is user-oriented and reliable
- 2-step filtration system in the dielectric tank ensures uninterrupted operation and high machining quality

High-Speed Wire EDM – Cutting Technology for 3D Metal Printing

- Compared to mechanical divisions, there is virtually no pressure on the component
- Delicate structures can be machined without the risk of deformation or microcracking in the cut surface
- Perfect balance between cutting accuracy and high cutting speed
- Significantly more cost-efficient than conventional wire EDM
- Long wire life ensures high productivity and minimal downtimes

NeoSpark cutting function for aluminum

- Due to its chemical properties, aluminum can generate very hard oxide particles at high temperatures, which may adhere to the molybdenum wire during machining. This results in a contact between wire and workpiece and increases the risk of a wire break. This option improves the aluminum cutting process and results in a significantly longer wire life.

STANDARD EQUIPMENT

IPC-based control system
Erosion wire 0.18 mm
Dielectricum 10 kg
Warning beacon
AC power stabler
Preparation for aluminium cutting
Electronic hand-wheel
Generator
USB port
Ethernet port
Standard wire guides
Dielectric tank with pump
Work lamp
Leveling plates and jacks
Central lubrication
Operating tools
Operator instructions