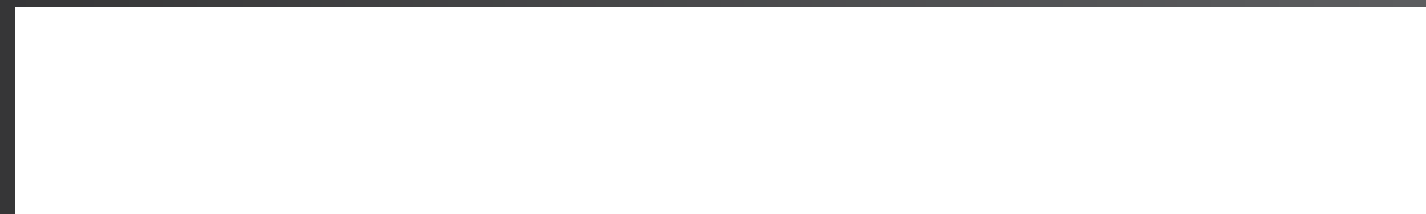


# NOVICK

WIDE RANGE OF **EDM**  
MACHINES FOR YOUR NEEDS



YOUR SPECIALIST RETAILER



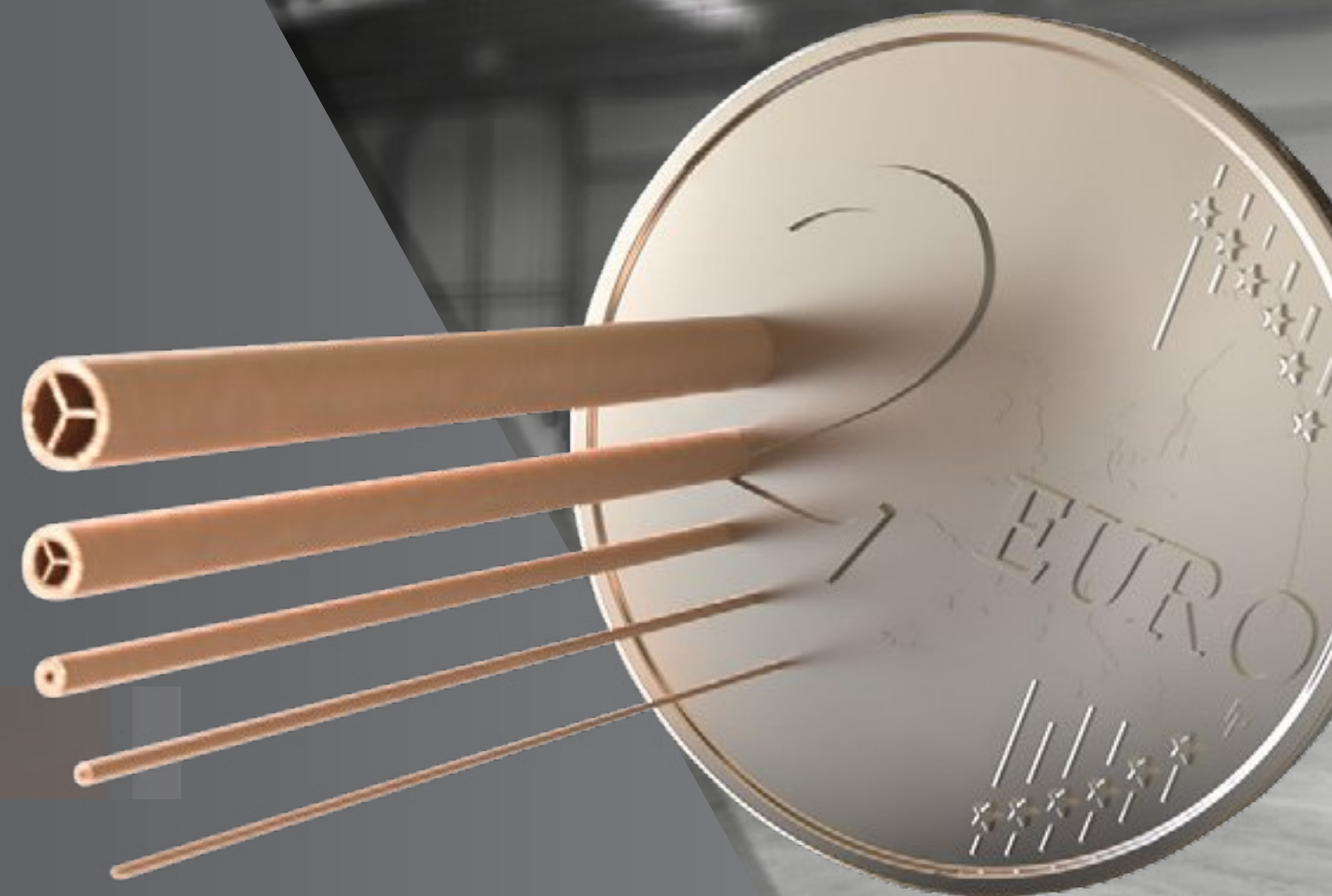
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# NOVICK<sup>®</sup>

BUILD FOR EUROPE



**NOVIDRILL**  
**III** **THIRD**  
**GENERATION**  
HIGH SPEED ZNC EDM DRILL

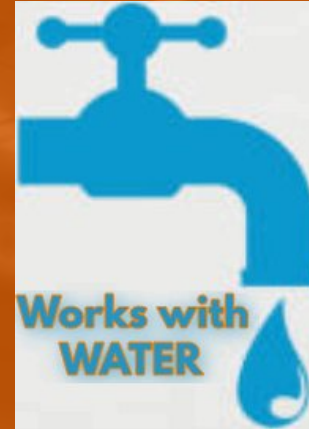
**2020**

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# III THIRD GENERATION

GRANT TABLE

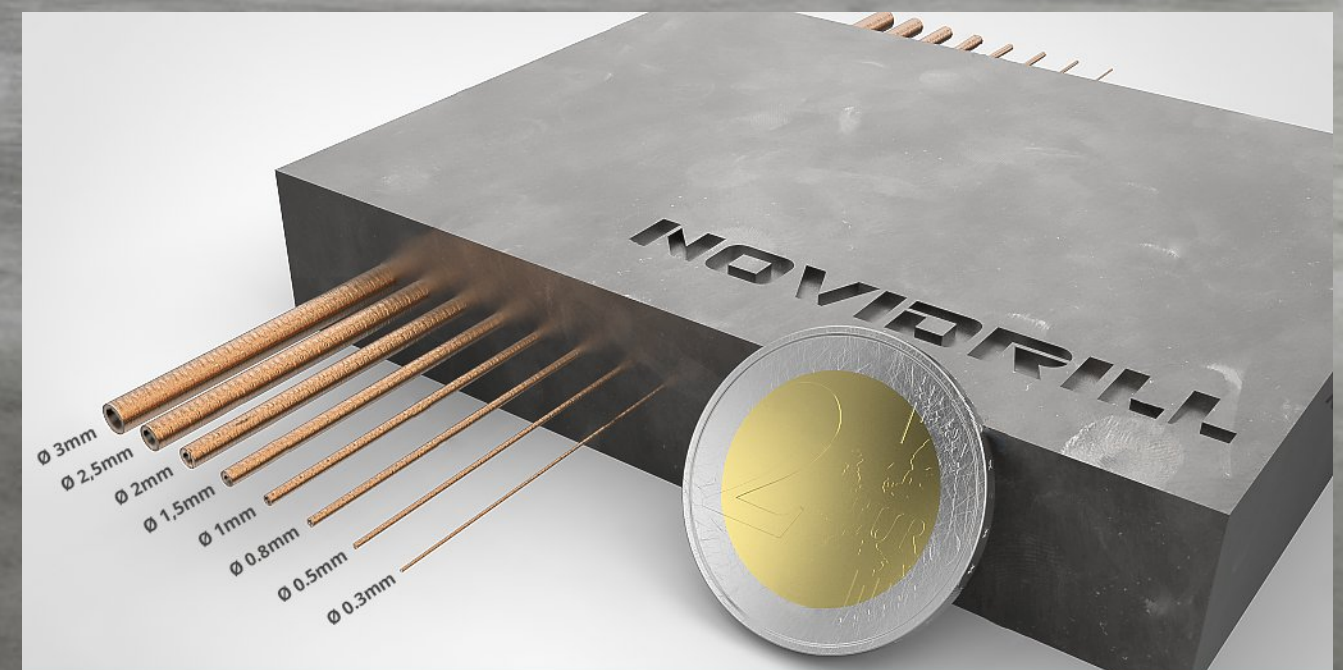


## HIGH SPEED EDM DRILLING MACHINE NOVICK TRUSTED BY INDUSTRIAL LEADERS IN EUROPE



Our new third generation of high performance, fast EDM drilling machines NOVIDRILL-III-th Generation offers an affordable alternative for all EDM drilling, deep hole drilling and high speed drilling.

Whatever is required in hole making – through holes or blind holes, small holes or large holes, in steel, in stainless, in carbide, in copper, in zirconium or in any other conductive material – you get a multitude of EDM hole making technologies at your disposal.



Precise drilling starting from **0.3mm diameter**



# NOVIDRILL-400/500 III-nd-Generation

ZNC EDM DRILLING MACHINES

Designed to meet the needs of any job shop and the most demanding Toolmaking workshop, the Novidrill 400/500-III is simply the most unique EDM Drill on the market today. This feature packed machine combines affordability, precision and versatility with a host of standard features.

Compare the features with others and we are sure you'll agree:  
**The Novidrill 400/500-III offers more than competitive machines that sell for twice the price!**



- Compact space-saving design with integral dielectric system and generator for machining of small and medium-size parts
- Machine casting frame uses high quality cast iron, heat treated for stress release to keep machine body high rigidity without deformation
- Machine construction according to computer analysis of tensile strength, compression resistance and stiffness strain.
- Highly accurate spindle head with the quill running on pre-loaded cross roller bearings
- Servo drive motor on Z axis for reliable control
- Manual central lubrication for table guides and spindles
- User-friendly, easy to learn operation; parameters are entered directly in the control panel and can be easily optimized.



Technical data	400 -III	500-III
Z axis travel (drilling stroke)	400 mm	
W axis travel (drilling guide stroke)	350 mm	
Distance director to work table	85 - 435 mm   235-585mm	
Worktable size (L x W)	600 x 400 mm   630x440 mm	
Travel of working table (manual)	400 x 300 mm   500 x 400 mm	
Max. load of work table	200   300kg	
Digital display	Three axes digital(0.001mm)	
ELECTRODE SPECIFICATIONS		
Electrode diameter	Ø 0,3 - Ø 3,0 mm	
Working liquid	Water	
GENERAL		
Max. machining current	30 A	
Power supply	380V / 50 Hz	
Total input power	3.5 KVA	
Overall dimensions	1060 x 1050 x 1950   1250 x 1150 x 2100 mm	
Weight	930 kg   985 kg	

## GRANITE forms the foundation for precision

### Big advantages with granite table:

- You can NOT drill in the table
- Granite guarantees a better flatness of the table
- Very high precision and rare possibility of deformation
- Table resist to corrosion by the dielectric fluids (drilling liquid)
- The table does not get rusty
- Maintain the super precision and keeps it longer
- Super hard surface
- Parts can not be welded to the table due to bad electrical contact with table



### Don't know which machines is best suited for your needs?

Our engineers, will gladly help choose the best configuration for you based on your production needs. Feel free to contact them for a personalized offer: [sales@novick.eu](mailto:sales@novick.eu) | +32 (0) 475 736 351 (West Europe) | +40 (0) 722 346 170 (East Europe)



# SPEED AND SIMPLICITY

100% increase in productivity due to low wear of electrode and stable high pressure



Material	Electrode Dia.	Drill Depth	Machining Time
Allow Tool Steel	0.5 mm	12.5 mm	25 ~ 35 seconds
	0.5 mm	25 mm	50 ~ 60 seconds
	1 mm	25 mm	55 ~ 65 seconds
Tungsten Carbide	0.5 mm	12.5 mm	4 ~ 5 minutes
	0.5 mm	25 mm	8 ~ 9 minutes
Aluminum	0.5 mm	12.5 mm	40 ~ 50 seconds
	0.5 mm	25 mm	90 ~ 100 seconds
	1 mm	70 mm	3 minutes

- Drilling speed can reach up to 30 - 60 mm/min, depending on material
- Can drill on inclined or curved surfaces directly
- Can be used for drilling the wire-cut starting holes, filter holes, jet holes, gas holes, group of holes and very deep holes etc.

- Can drill small holes in any conductive material like cold rolled and stainless steel, hard alloys, aluminum, copper, carbide, cobalt, zirconium, etc
- Can erode the drill or threading tap (or other tooling) which are broken inside the work-piece, without destroying the thread or holes



Novidrill 400/500-III third generation models use ordinary tap water as dielectric. This coupled with a high-pressure waterjet air pump system to provide for excellent flush and stability at the electrode during the burn makes the set-up operation more user friendly while keeping work free of oils or other contaminants. It reduces drastically the "bullet nose" effect.

**III THIRD GENERATION**

# Operation made easy

## Simple operation is the basic principle.

A single and very simple touch panel is the control center of Novidrill 400/500-III.

The user-friendly control allows simple input of cutting variables.

Included is an audible edge find, voltmeter to monitor stableness of burn and a Programmable Digital Readout for ease of positioning.



## Easy and convenience for intuitive results

- Full Digital setting
- Automatic electrode wear compensation
- Only 6 settings : T-on - T-off - Power - Gap - Voltage - Speed rpm
- Z axis retraction function
- Auto center function
- Auto parts dimension detection
- Coordinate auto calculate for drilling on circle or angular line



# INTEGRATED TECHNOLOGY DESIGN



## Main advantages

- Accommodates 0.2 mm to 3.0 mm diameter electrodes
- Electrodes up to 400/500 mm length
- High speed processing generator
- Workpiece height up to 400/500 mm
- High precision Guide for super precision drill positioning
- High precision 1  $\mu$ m Glass scales on all three axes for accuracy and user-friendly operation with 0,001mm smallest input value
- Operator friendly swivel control panel
- Best high-pressure coolant pump on the market
- Standalone (easy for cleaning) coolant tank with high capacity filtration unit with 5-Micron coolant Filtration System (low-cost commercial water filters)



## Main features

- Solid design of the machine base. The meehanite cast iron components and highgrade guides are an assurance of durability and long-term accuracy.
- Good accessibility permits convenient and swift set-up. The tidy work area is designed and optimized for easy workpiece clamping. Furthermore, the work table from granite makes the machine compact and permits loading with heavier workpieces.
- Worktable comes with 2 stainless mounting tooling rails for easy setup and good conductivity.
- Drilling rates up to 1mm/second can be achieved and obtainable hole sizes are between 0.2 and 3mm, with a length-to-diameter ratio of over 150:1.
- An EDM drilling system simply must get the job done – and must not distract from important tasks. The Novidrill 400-III is therefore designed to bring the user quickly and simply to his goal. Speed and simplicity are also all-important as far as maintenance and organization are concerned – everything is readily accessible and accommodated immediately in the machine. The perfect complement to the wire-cutting machines. The start-EDM drilling systems not only master small dimensions on start holes with 0,3–3,0 mm electrodes, but also functional bores.

# EDM ENGINEERING AT ITS BEST

- High pressure dielectric fluid is one of the most important factors, which is usually supplied to the gap through the bore of tubular electrodes.

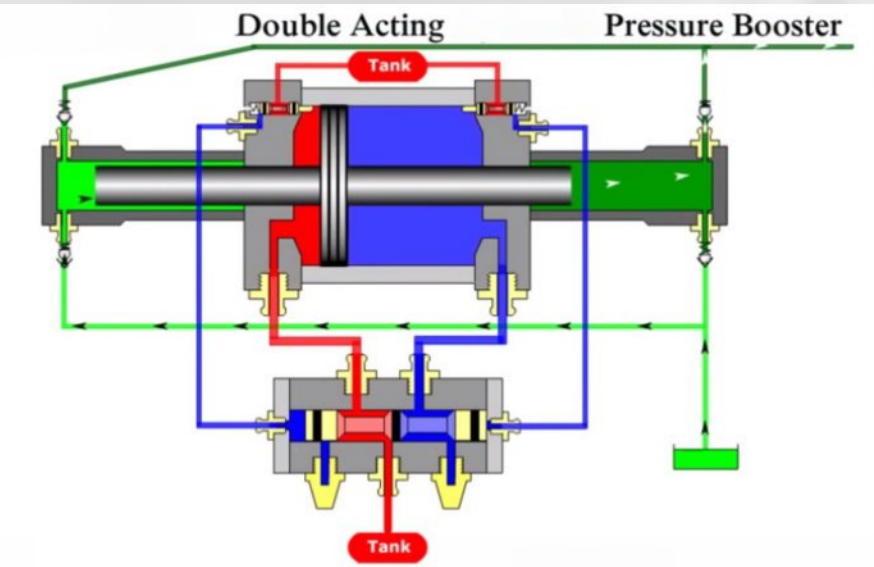
- **Novidrill's ability to use ordinary tap water as dielectric**, coupled with a unique super high pressure pump system (similar as a high pressure waterjet cutting machine) guarantees excellent flush and stability at the electrode during the burn.

- Auxiliary Flush provides continuous cleaning of die guide and work piece and aids electrode entry and breakthrough. Novidrill 400/500-III uses a unique pneumatic activated high pressure (70 – 120 bar) coolant/dielectric pump.

- The combination of the super high-pressure dielectric fluid, the rotation of the tubular electrode and the high electrode feed rate (controlled by a fast response servo) make it possible to produce holes at a very fast rate and of very small dimensions (till 0,2mm diameter)

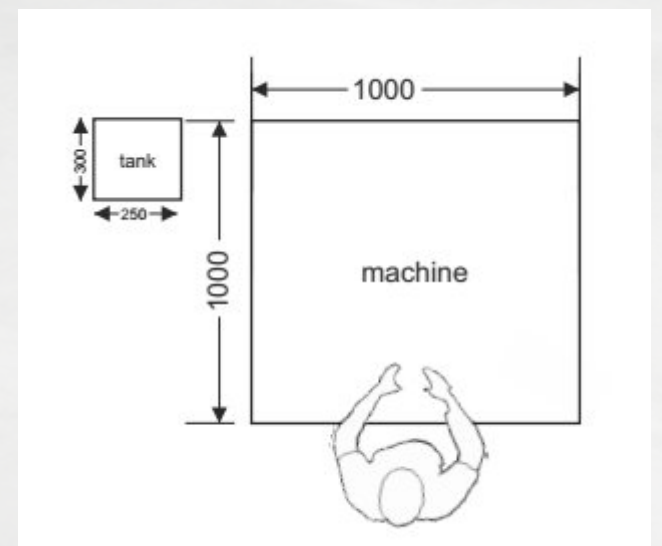
The use of our pneumatic intensifier pump results in drilling parts up to 50% faster and with lower operating costs as much as 40%! Our high-pressure pump produces 30% more pressure than a standard water jet pressure pump, resulting in a 40-50% increase in productivity for many materials.

Compared to a water jet piston pump, typical operating pressures uses 30% less water, 30% less power, and up to 50% less electrode consumption, resulting in a 40% reduction in operating costs.



## Dimensions - Floorplan

Keeping the footprint small and the machine affordable while offering the power to drill even exotic extreme hard materials, Novidrill-400/500-III does it all and punches drilling holes from 0.2 mm through 3.0 mm. **The novidrill 400/500-III comes with a 2 times bigger separate coolant tank**, this to keep the temperature stable, the coolant more clean and to be able to clean the tank easily. Tank can be placed in the back or left from the machine





# NOVIDRILL-400/500-III



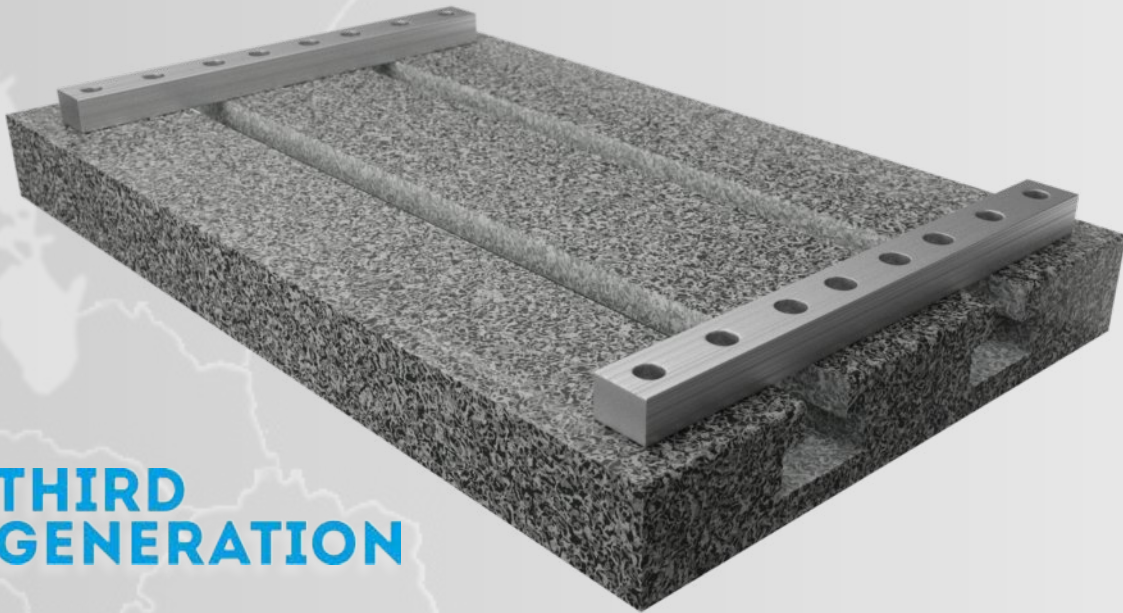
Compare the features with others and we are sure you'll agree:  
**The Novidrill-III offers more than competitive machines that sell for twice the price!**



## NOVIDRILL-III PRO and PRO+ available: CNC Drilling

Excellent quality products with reasonable prices have been increasingly welcomed by worldwide buyers. In recent years, NOVICK has made breakthroughs in technology and machine quality. Rigorous quality control is thoroughly conducted throughout the entire manufacturing processes from casting the frame parts, to machining, assembling and quality control.

Stiffness and precision are hallmarks of the new NOVIDRILL 400/500-III. State-of-the-art methods have been used in their development, while the finest of modern machining and assembly techniques have gone into their construction. Each machine is verified with a laser that checks the positioning of each axis to make sure it meets the norm of VDI 3441. Also, each machine must comply with the requirements of ISO 230-4.



**III THIRD GENERATION**



### Contact details

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