

# High precision cutting system for micro component manufacturing

Water Jet Sweden Micro machine is a precision system based on the fine abrasive waterjet technology (FAWJ). The machine has an innovative technical design with a unique set of features. The micro process share all the benefits of traditional abrasive waterjet cutting (AWJ). Environmentally friendly, non-thermal etc.

Micro NCM 10 is built with high-end components to facilitate high precision cutting at extreme tolerances. The FAWJ cutting system with 300 micron jets make it possible to cut very fine features with extremely high precision. A powerful control system enables capability to fully use the highly dynamic motion system. Micro NCM is a useful machine tool in branches like Electronics, Medical, Biotechnology, Fine Mechanics and Jewelry.

### TECHNICAL DATA

Construction: .....	Gantry (WJS world-wide patented guide system)
Frame: .....	Welded
Cutting Table: .....	Stainless Steel
Cutting Table Frame: .....	Mineral Casting Bearlit®
Motion System: .....	Ballscrew / Renishaw RESOLUTE RELA®
Control Unit:.....	PanelOne Operator HMI
CNC-system: .....	FANUC 31i
Number of Z: .....	1
Processes: .....	FAWJ (PWJ and AWJ compatible)

### PERFORMANCE

Table width: .....	1010
Table length:.....	1010
Maximum piece thickness:.....	100 mm
Positioning accuracy:.....	± 0.01 mm/300 mm (20° C ± 2°)
Repetition accuracy: .....	± 0.008 mm (20° C ± 2°)

### FEATURES

- WJS Micro table frame in Mineral Casting Bearlit® for excellent stiffness, accuracy and absorption.
- A high accuracy invar scale, Renishaw RESOLUTE RELA®, with extremely low expansion coefficient and high resolution.
- The Palletized cutting table offers outstanding opportunities for fixturing. WJS deliver specially designed fixturing tables according to customer needs.
- Rubber suspended stainless steel catcher to avoid vibration and thermal influence.
- Drainage including stainless steel particle settling system to avoid sewer blockage.
- Software controlled fine abrasive feeder and sensor monitoring of critical level in abrasive buffer.
- The WJS Micro Cutting Head is a state-of-the-art precision tool capable of producing one of the most precise abrasive water jets in the world. A pure water jet (PWJ) nozzle assembly can also be fitted to the high pressure jet valve.



## General Water Jet Sweden benefits

### Designed to meet your specific needs

We offer machine system solutions based on an extensive range of product categories and families, but all machines are actually designed to meet specific customer needs. Each machine will consequently be considered a unique project.

### World class CNC systems



To secure high performance, all Water Jet Sweden machines have Fanuc CNC systems. Best reliability and availability in the world.

Fast and reliable CNC systems with worldwide support.

### Five Years Performance Warranty



We guarantee a brand new machine performance after 5 years of duty - a warranty extension made possible by a unique design. Thanks to the robust mechanical design and the patented guiding system, we can ensure reliable machine performance over an extensive life span. Due to this fact, we can also offer a performance warranty spanning over 5 years or 10 000 hours of operation!



Europäisches Patentamt  
European Patent Office  
Office européen des brevets

### Turn-key Delivery and Performance Testing

All machines are thoroughly tested before delivery, with advanced testing equipment from Renishaw. We use both AS XL-80 Laser for static laser measurements and Q-10 Ballbar dynamic performance for accuracy and repetition. Our turn-key delivery always includes installation, training and performance verification to secure customer operation.

### PanelOne® HMI

All Select and Special machines have a specific operator panel designed according to industry standards. PanelOne is an easy-to-learn, simple-to-use machine control unit, developed specifically for water jet cutting. To increase efficiency, the panel has a touch screen with a number of time-saving functions and a uncomplicated operator desk with a joystick and the key functions.

### Lifetime Support by Waterjet Specialists



The WJS service team is highly specialized within the field of water jet cutting. They are rightfully appreciated for fast, efficient support, online trouble-shooting and a high degree of personal commitment. Via our hotline support, our technical expertise is available on a 24/7 basis - and we always ship your spare parts on the very same day you order them!

CERTIFICATE



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