

General Water Jet Sweden benefits

WJS Worldwide Patent

WJS worldwide patented guide system (EP 0842009, PCT/SE96/00842). The patent is a mechanical, self-adjusting parallel axis system, which eliminate and handle the squareness error between two parallel axes. It gives the same high tolerance and quality performance to all WJS machines independent of size and shape, with benefits like:

- Finer tolerance
- Increased uptime
- Long lifetime on motion system
- Easy calibration on squareness



Fanuc CNC systems

To secure Water Jet Sweden machines as high performance production tools all machines are run with Fanuc CNC systems, who has the best reliability and highest availability in the world.



Machine Performance Testing

All Water Jet Sweden machines are thoroughly tested before delivery, using the latest technology from Renishaw, AS XL-80 Laser, ± 0.5 PPM and Q-10 Ballbar. The AS XL-80 Laser is testing the static linear, straightness, angular and circular measurements. The Q-10 Ballbar is a dynamic performance test to secure machine accuracy and repetition.

WJS Motion Systems

WJS motion systems are specifically designed to fit the waterjet cutting processes and are chosen to fit WJS worldwide patented guide system. Our Ballscrew and Linear drives gives dynamic tolerance and high cutting performance.

PanelOne® HMI

All machines are equipped with WJS PanelOne HMI. PanelOne is an easy to use and easy to learn machine control unit. PanelOne has a touch screen operator panel, operator desk with joystick and main function keys, online diagnostic and a number of time saving operating functions.

Turnkey Delivery

To secure machine performance and customer operations Water Jet Sweden always deliver turnkey production units, including installation, training and performance testing, and offer support by WJS service team.



Service and Support

WJS service team are specialized in waterjet cutting. They are famous for quick problem solving and personal engagement. With our hotline support our technical expertise is available 24/7 and we always send spare parts the same day. With WJS worldwide support and spare parts you get better machine performance, lower cost, improved uptime and longer lifetime.

CERTIFICATE



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Devoted to performance

Grand

TECHNICAL DATA

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Devoted to performance

Robust, large scale cutting system with top of the line technology

Grand machines are built for large scale production facilities with specific production needs and for large and odd size materials. It has a very robust construction based on a heavy-duty frame system and top of the line technology.

TECHNICAL DATA

Construction: Gantry machine, (WJS worldwide patented guide system)
Frame: Heavy-Duty
Cutting Table: Stainless Steel
Covers: Heavy-Duty Stainless Steel Protection Covers
Motion System: Linear Motor / Ballscrew
Control Unit:..... PanelOne Operator HMI
CNC-system: FANUC 31i or 31i -5 for Beveljet
Automatic Variable Multihead: .. 2-4 heads (nesting optimization)
3D Cutting:..... Beveljet system
Process:..... PWJ and AWJ (FAWJ compatible)

PERFORMANCE

Maximum Z-movement: 250 mm
Maximum Table load:..... 800-3000 kg/m²
Positioning accuracy: ± 0.050 mm/m
Repetition accuracy: ± 0.025 mm

TABLE SIZE (MM)

MODEL	NCG 25	NCG 30	NCG 35	NCG 40
Width	2700	3200	3550	4200
Length L1	2580	2580	2580	2580
Length L2	3080	3080	3080	3080
Length L3	3600	3600	3600	3600
Length L4	4500	4500	4500	4500
Length L5	6700	6700	6700	6700
Length L6	9200	9200	9200	9200
Length L7	11500	11500	11500	11500
Length L8	12400	12400	12400	12400
Number of Z	1-2	1-3	1-3	1-4

BEVELJET® PERFORMANCE

Maximum Z-movement: 170 mm
Cutting Performance: 60°
B-axis movement:..... ± 91°
C-axis movement:..... ± 400°
Transmission accuracy B & C axis: . < 1 arcmin
Repetition accuracy B & C axis: < ± 0.1 arcmin

Extra Large Machines

Is there a need for even larger cutting tables, Water Jet Sweden design and build extra-large machines on request as part of our Special Machine offer. With the WJS worldwide patent all machines has the same tolerance independent of size.

FEATURES

Heavy duty design features

All grand machines have a side mounted motion system to enable safe handling of large and heavy materials, and heavy duty stainless steel covers protect the machine from impact.

Efficient job handling

The heavy duty design allow access to the machine from three sides to give secure and easy loading/unloading. The Zone divided work table function make it possible to exchange jobs while processing.

Like the WJS Premium models the Grand models are extremely versatile machine tools with almost endless possibilities. The machines are designed for both 2D and basic 3D cutting, 4000 and 6000 bar system technology. You can add capacity and capability with functions like automatic multi-head, bevel cutting and tube cutting.

Every Grand machine is tailored according to the customer production process, easily adopted for multi-job processing and unmanned operations.

Heavy duty production features

To avoid backlash when cutting thick materials all Grand machines has the ability to quickly adjust the water level to under water cutting. There are a number of table grid options suitable for different cutting requirements. Except for the standard grids you can choose wave grids for thick materials and straight line cutting, or tube grids for heavy-duty material cutting.

Great versatility

The Grand machines have the same armament options as Premium machines. With automatic multiple heads you can optimize nesting and get very efficient material usage. By cutting different parts simultaneously you also minimize production time. With Beveljet cutting head with real 5-axis interpolation you get a 3D cutting much more versatile than just bevel cutting. And the turning device for tube cutting can be combined with ordinary or Beveljet cutting head, and is fully integrated into the control system for smooth operations.

INCLUDED

- Height sensor
- Manual abrasive pressure vessel with sand tower
- Abrasive level control and blockage control
- Remote control of HP Pump in HMI
- De-sludge system with tip container and sediment tank

OPTIONS

- Collision sensor
- Zero point indicator
- Drilling unit
- Workpiece Indicator System (probe function)
- Unmanned operations functions
- Jet Pen Marker system
- Online abrasive feeding system
- Electronic abrasive feeder, flow controlled from PanelOne
- Pressure monitoring of HP pump in HMI
- Proportional valve pressure control of HP pump in HMI
- Quick water level adjustment
- Zone divided work table

