

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.

24/7 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



2013.09 ENG

FiveX

TECHNICAL DATA



Front line machine technology for advanced 3D components

Our FiveX systems are Water Jet Sweden front line solutions for advanced 3D component production. They are common in high en technology industries like the Aircraft, Power Supply and Space industries.

FiveX is built with our most advanced technology and has an exceptional stable construction to repeatedly perform, hour after hour high precision five axis cutting of full 3D components. Every FiveX machine is tailored according to the customer production.

WJS FiveX machines are supported by Mastercam, the world leading and teh most flexible CAD/CAM software.

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-5
 3D Cutting: WJS 5AX
 Process: AWJ (PWJ and FAWJ compatible)

PERFORMANCE

Positioning accuracy: ± 0.050 mm/m
 Repetition accuracy: ± 0.025 mm
 A-axis movement: ± 91°
 C-axis movement: ± 220°
 Transmission accuracy A & C axis: .. < 1 arcmin
 Repetition accuracy A & C axis: < 6 arcsec

MACHINE SIZE (M)

MODEL	NC5 25	NC5 30	NC5 35	NC5 40
Width	2,5 m	3,0 m	3,5 m	4,0 m
Length*	≤ 2 m	≤ 2 m	≤ 2 m	≤ 2 m
Max Z movement	750/1000 mm	750/1000 mm	750/1000 mm	750/1000 mm

*Since every FiveX machine is designed according to customer needs the length of the machines can be variable. Standard sizes are 2, 4 and 6 meters.

FEATURES

Free form cutting

With a FiveX machine you can utilize free form cutting with an exceptionally long stroke and Z-movement up to 1000 millimeters. WJS also deliver specially designed fixturing tables according to customer needs.

Intelligent Probe Interface

The Workpiece Indicator System, (Renishaw Probe Interface) is fully integrated into PanelOne control unit with a large library of pre-designed measurement cycles, with customized measurement cycles as an option and a vector based calculation in Fanuc CNC for TCP gives improved cutting quality.

Enhanced safety

A FiveX waterjet machine cut both vertically and horizontally, therefore WJS FiveX machines has a full size wall construction and automated side and frontal protection for safe production environment.

INCLUDED

- Handy Operator Panel (HOP)
- 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

- Zero point indicator
- Workpiece Indicator System (probe function)
- Height Recorder
- Unmanned operations functions
- Jet Pen Marker system
- Quick water level adjustment
- Fixture arrangements
- 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

