

The model WC5WA6020H abrasive cutting system:

Cut all kinds of metal, marble, granite, glass, tile, plastic, rubber, and almost all materials.

Pump: model WIP5

Pump type: dual plunger reciprocal intensifier.

20:1 intensifier ratio

Max pressure: 60,000psi (420Mpa).

Continuously adjustable cutting pressure.

Max water flow rate: 0.8Gal/min (3.2L/min).

High pressure water attenuator to dampen cutting pressure fluctuations.

Reliable electronic shift

Intensifier driven by: hydraulic pump.

Hydraulic pump type: Axial piston hydraulic pump.

Hydraulic filtration in return oil path

Hydraulic accumulator for damping the oil pressure pulsations

50HP high efficiency motor with Wye Delta soft start

Water filter: 2 stage filtration included inside the pump unit.

Cooling method: water cooling with high efficiency all copper plate heat exchanger. Use of electric chiller is optional with additional cost.

Integrated Control panel with heavy gauge metal framework

CE certified Electronic components

All stainless fittings and tubing

Power source: 3 phase, 220/380/415/460VAC, 50/60Hz 37kw.

Form size: 1600 x900 x1400mm, weight 1200kg.



Automatic safety shut off under the following circumstances:

- Over pressure limit.
- Over temperature limit.

CNC Cutting table:

The table consists of water tank, X-Y motion system, Z axis motion, cutting head assembly, and abrasive mini-hopper with adjustable abrasive feeding control.

Style: gantry, welded frame, includes supports and slats.

Water tank made of stainless steel.

Effective cutting area: 2000x6000mm.

Maximum Z-axis travel: 6" (150mm).

X-Y axis motion system: rack-pinion/ball screw, and linear motion guide.

X-Y axis motion drive: AC servo motor.

Z axis motion: AC motor with speed reducer. (servo motor optional)

Cutting tolerance: +/-0.25mm/m. Repeat accuracy +/-0.15mm/m.

Maximum X-Y axis travel speed 10m/min.

Maximum work piece weight: 500kg/m².

This machine can cut all kinds of metal, marble, granite, glass, ceramic tile, rubber, plastic, virtually any materials. This machine can cut metal up to 100mm thick.

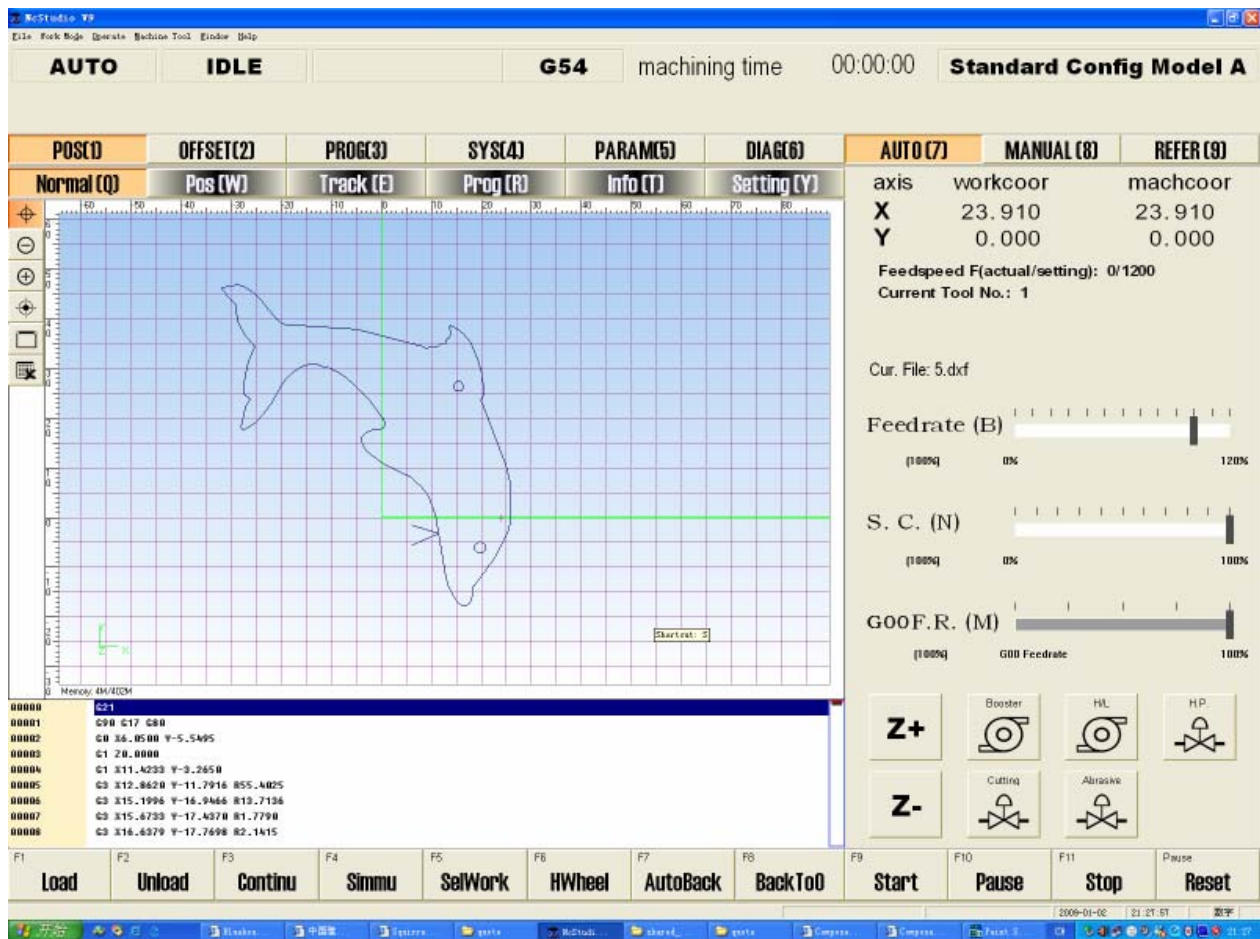
CNC controller:

Advanced industrial grade computer. The controller is capable of X-Y axis interpolation movement. Accelerate or decelerate the motion and high speed travel from point to point. Simulation without motion or dry-run with axis movement but no jetting of water/abrasive are features included. Error stop and trace repeat are also very useful features. Other features include out of range warning and hard stop to prevent damage of the cutting head. Emergency shut off switch is provided. CNC system is based on Windows operating system winXp/Vista and is very easy to learn and operate. Controller software interface runs on Microsoft Windows 98/XP/VISTA. Both metric and imperial versions are available.

DXF file compatible:

The controller is compatible to dxf file format. Users can save design drawing as .dxf from AutoCAD and read the file into the controller. Controller will post the dxf file to G-code. The controller can also read G-code generated from other CAM software.

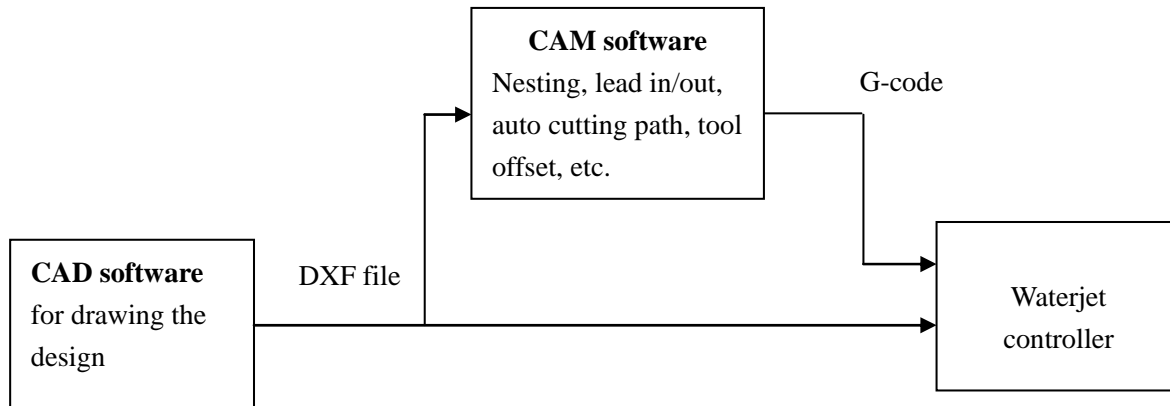
CNC screen:



User Interface of Controller

Advanced CAD/CAM software (optional):

We offer optional CAD/CAM software for design drawing, automatically generating machine path, lead in/out, nesting, tool offset, and posting G code. This software has two parts, one is similar to AutoCAD (computer aid design), and the other is with rich features of CAM (computer aid machining). This software can also read dxf file generated from other software.



CNC Programming flow chart

UHP tubing and plumbing kit for connection:

1/4" or 7mm OD UHP tubing from intensifier to cutting head mounted on cutting table
Stainless fittings. Rack kit to supporting installation of the tubing.

Mini hopper for abrasive feeding:

Large size to enable long working time without floor size abrasive hopper.
Clear side view for easy monitoring.
Abrasive valve attachment for easy abrasive on/off control and abrasive flow rate adjustment.

Automatic abrasive feeder:

- Requires 70psi pneumatic source
- Capacity 40 Gallon.
- Self detecting empty/full status of reservoir and start/stop feeding.
- Model number ADS-04-170.

**Cutting head:**

Cutting head has pneumatically operated on/off valve. Compressed air source is necessary. An air compressor is optional item from manufacturer. Capable of cutting up to 50mm mild steel and 25mm stainless steel. Optional feature: bevel cutting up to 45 degree with straight lines parallel to X or Y. Dual cutting head is also optional.



Abrasive Removal System (ARS): Optional

Instead of shoveling used abrasive from catch tank by a person, this sub-system is designed to remove used abrasive from the catch tank automatically. The system includes agitation setup to stir up the abrasive for more efficient removal of the abrasive. The used abrasive is collected in a smaller tank (not showing on photo) that can be dumped with a fork lift

**Accessories included in standard package:**

High pressure tubing, Water hoses, Electrical cable, 1 pcs nozzle, 2 pcs orifice, 1 tube of Blue Goop.
1 set of special tools for pump maintenance.

Spare parts kit (optional).