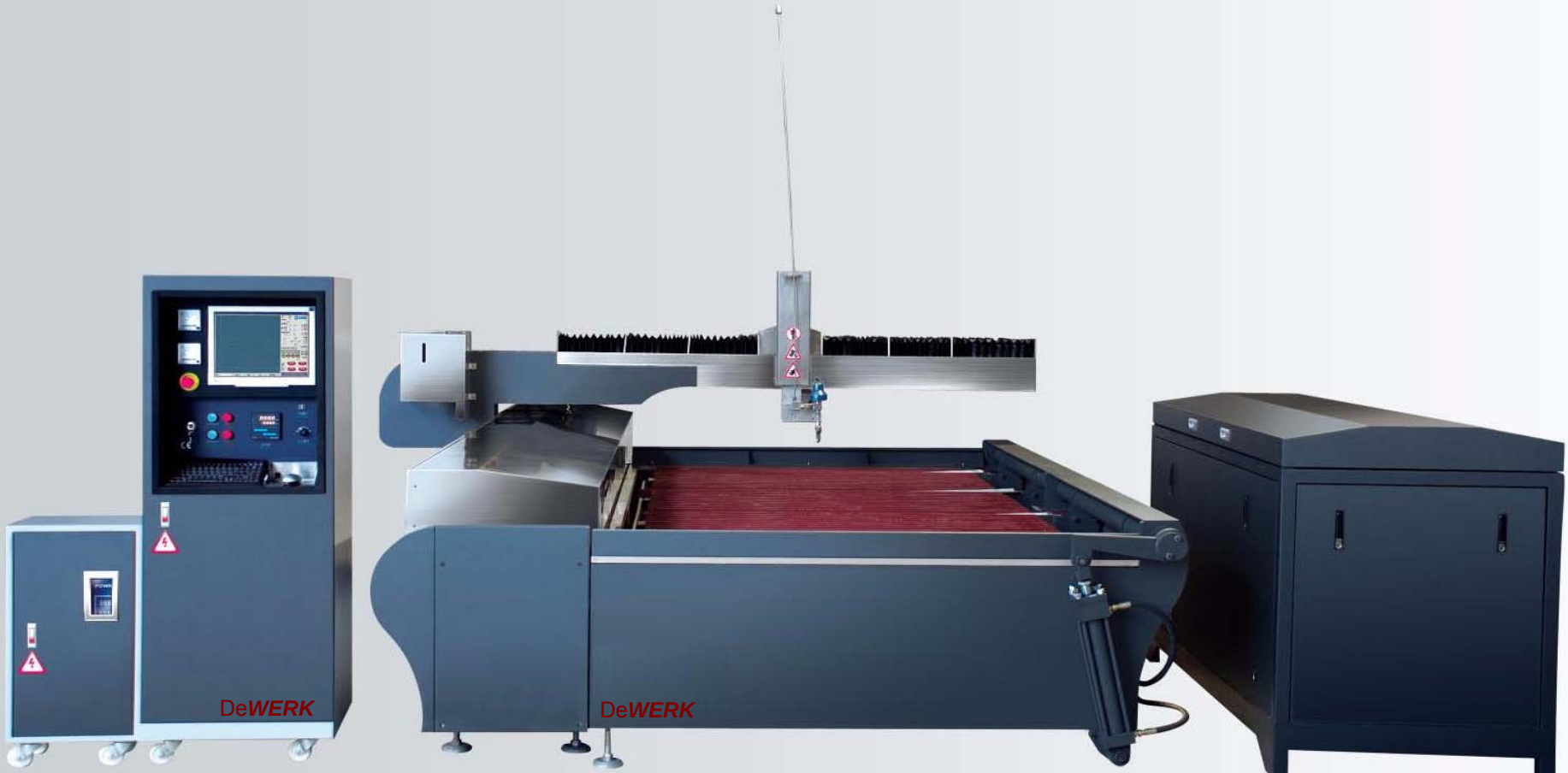
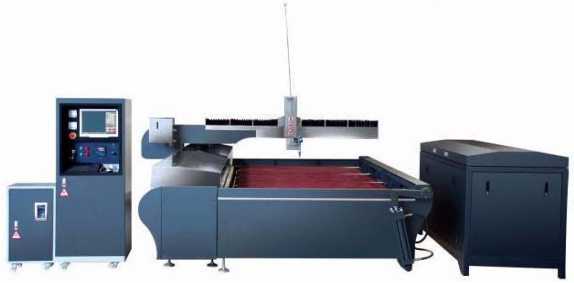
DeWERK- Power

Water Jet Cutting Machine

Type DW-HP380



Extra High Pressure Generating System



Type DW-HP380

Technical Specifications		Type DW-HP380 Parameter	Unit
Maximum Pressure		380	Mpa
Working Pressure		350	Mpa
Maximum Water Flow		3,7	L/min
Water Nozzle Diameter		Ø 0,33	mm
Nozzle Size of Sand-Mixing Pipe		Ø 1,0	mm
Mainframe Motor	Type	Y225L-4	
	Rating Power	37	kW
	Rating Rotating Speed	1480	r/min

Digital Controlled Cutting Platform

The digital controlled cutting platform is the executing front line of water jet cutting, which executes G codes of the digital control system through communication port, completing non-conventional cutting for any shape.

A. High precision rolling lead screw guiding rail, reducing friction coefficient, further ensuring high accuracy of the plaform in long term.

B. Duplex labyrinth type dust proof, ensuring cleanliness of the internal core elements - led screw guiding rail.

C. Utilizing servo technology, the motor has good stop accuracy and auto lock performance, ensuring transmission accuracy.

D. Cantilever structure, convenient to lay on and off, with high structural rigidity.

Performance	Parameter								Unit
Type	4020	4015	3020	3015	2515	2015	1615	1210	
Maximum Cutting Range	4000x2000	4000x1500	3000x2000	3000x1500	2500x1500	2000x1500	1600x1500	1200x1000	mm
Travel of Knife Rest	0 - 200								mm
Knife Driving Speed	0 - 12000								mm/min
Cutting Accuracy	± 0,20								mm
Positioning Accuracy	± 0,01								mm
Drive Motors	2 Servo Motors for X- and Y- Axis								
Air Compressor Pressure	0,6 - 0,8								
Abraslve	Garnet $(SiO_4)_3$								
Abraslve Granularity	60 - 100								

DW-HP380 Series

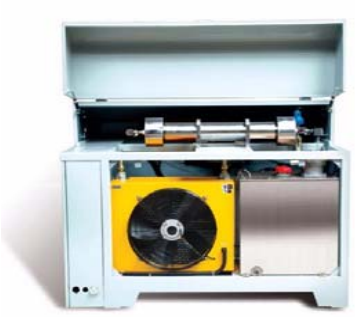
To extend application fields of water cutting and comply with the market trend of fragile and thin material high speed cutting, DeWERK Company brings Type DW-HP380 extra high pressure generating system that utilizing hydraulic transmission technology.

Rated pressure: 380MPa **Flow:** 3,7 L/min **Power:** 37 kW

Hydraulic transmission section

Power Section:

Two systems of manual variable pump + frequency converter and automatic liquid control variable pump to be select by the user.



A. Manual variable pump system: the main motor is directly connected to the manual variable plunger pump, utilizing frequency conversion energy saving technology, realizing frequency decreasing startup and frequency conversion pressure regulating, with effective energy saving ≥ 30%.

B. Automatic variable pump system: utilizing state of the art hydraulic variable technolgy, trough hydraulic changing dip angle of the sloping cam plate it directly control pump delivery of the oil pump, consequently changing the system pressure, no redundant hydraulic oil to reflow through the overflow valve. So the energy loss is very little, with effective energy saving ≥ 30%.

Operating Section:

A. Three stage filtration of the hydraulic oil, ensuring operating safety.

B. The system is equipped with oil temperature detecting and alarming device and the system will alarm and automatically stop for temperature over set value.

C. It adopts air cooling technology, free of outer cooling tower, gratly simplifying the system structure.

D. The hydraulic system is equipped with safety overflow device, providing reliable safeguard for system smooth operation.

E. The system can be set as two stage pressure, realizing low pressure perforating and high pressure cutting. Avoid of material edge crack during perforating.

F. Stainlessness steel oil tank, effective improving fluid cycle cleanliness.

Extra High Pressure Section

A. The independently developed 55K extra high pressure supercharger, core element adopting high quality materials, with supercharging ratio of 1:20, of low noise and little impact. All adopt self tightening dynamic seal, greatly improving stability of the equipment.

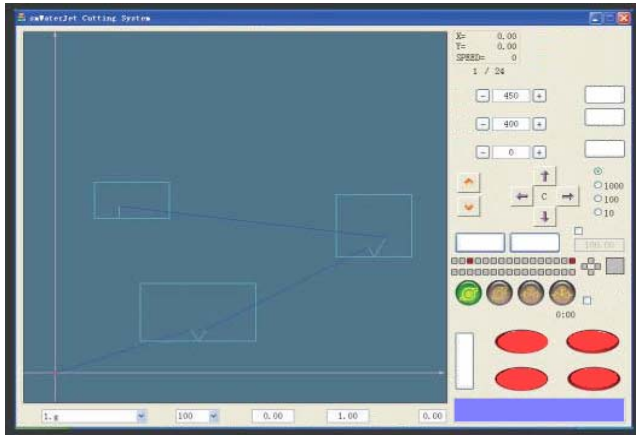
B. The extra high pressure loop is equipped with pressure relief device, which can relief the system pressure fast, instant off/on switch without resistance, realizing no load startup and idle water jet operating with no load.

C. Large capacity pressure stabilizing device, effectively controls pressure fluctuation.

D. Extra high pressure sensor, signal output to the digital display instrument in the control cabinet, while capable for automatic over pressure stop action.

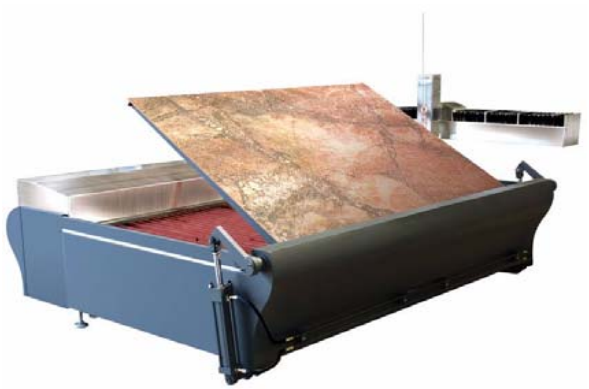
Human-Engineered Machine Dialogue Window - CNC Control Cabinet

A. Independently developed digital control system, realizing multihreading operation in Windows XP environment
B. The software can seamlessly connect to AUTO CAD software, directly converting DWG file to G code.
C. The program can execute idle water jet simulating operation before processing, avoid of processing mistakes.
D. With functions of automatic cutting in and out, corner speed down and cutting compensating, it can greatly improve product efficiensy and product quality.
E. Configured with manual operating device, realizing multi-site remote control.



1. Automatic Sand Feeding System: to optimize human configuration for the customer, reducing labor intensity, DeWERK Company provides independently developed automatic sand feeding system for customer's option.

A. Utilizing pneumatic technology, safe and reliable.
B. Capable to store 100kg of sand for one time.
C. Capable to support to machines simultaneously.



2. Hydraulic Laying on Roll over Table: traditional lay on and off manner need great time and manpower, with certain risk and the automatic laying on and off device developed by DeWERK Company utilizing hydraulic transmission technology, with reliable operation, capable for manually adjust lifting speed, settle the problem well.

A. Take hydraulic oil cylinder as power executing element, smooth in lifting.
B. Equipped with special manual operating device, capable for remote conrol.