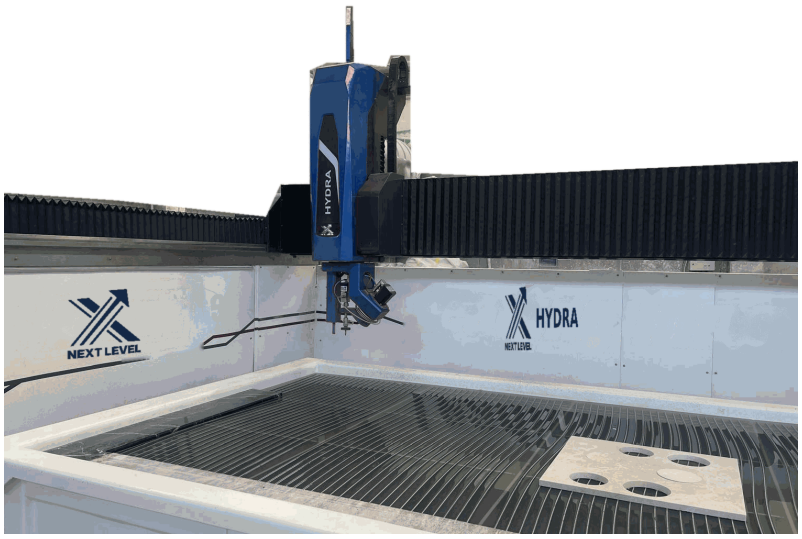


HYDRA

5-axis CNC waterjet for stone

PRODUCT OVERVIEW

HYDRA is a 5-axis CNC waterjet for stone. The cutting head cuts bevels and miters as well as straight and curved shapes on a 4,000 ×
2,000 mm hydraulic tilting table. A 37 kW (49.6 HP) intensifier pump supplies the cutting head, with automatic abrasive transfer and electronic dosing.



Cutting a sink opening



21-inch touchscreen

5 axes	CNC	37 kW	4,000 × 2,000 mm
A ±60°	5-axis cutting	Intensifier pump (49.6 HP)	Tilting work table

KEY SPECIFICATIONS

Working area	3,800 × 2,200 mm; 250 mm thick
Strokes	X 3,785 · Y 2,200 · Z 275 mm
Rapid traverse	40 m/min X and Y
Pump	37 kW (49.6 HP)
Abrasive	425 kg transfer tank; up to 4 kg/min
Table	Hydraulic tilting; net under the sheet
Control	21-inch touchscreen, Windows 10 PC
Weight	~6,500 kg (approx. 14,330 lb)

BUYER SUPPLIES

A water softener and filter for the pump water, and an air dryer for the compressed air. A digital handwheel with a 7-inch screen moves the head by hand.

BEFORE YOU ORDER

Installation and operator training are included. Warranty terms, freight and the site utilities are confirmed in your written quotation.

IDEAL APPLICATIONS

- Countertops: sink and cook-top cut-outs, curves and inside corners.
- Bevels and miters with the tilting 5-axis head.
- Inlays, medallions and detailed shapes nested on the slab.
- Book-matched and vein-matched pieces.

QUOTED CONFIGURATION

- 5-axis waterjet with hydraulic tilting table and automatic lubrication.
- 37 kW (49.6 HP) intensifier pump with proportional valve.
- Cutting head, electronic abrasive dosing, automatic abrasive transfer.
- Digital camera; Mini CAD and CAD Cuts software.
- Automatic nesting, bookmatch and vein matching software.
- Point laser and cutting from a template; slab thickness reader with mapping.
- Nozzle presetting device; digital handwheel with 7-inch touchscreen.
- Safety doors; electrical cabinet air conditioning; net under the sheet.

FIVE AXES OF WATER

Pump, abrasive and cutting head built for stone.



Tilting 5-axis cutting head

Servo motors drive all five axes. The head tilts ±60° (A) for bevels, miters and undercuts; a pneumatic on/off valve opens and closes the jet.

A-axis	±60°
Focusing tube	9.43 mm OD
Orifice	Up to 0.36 mm

POWER FOR MACHINE AND PUMP

Plan a 3-phase supply for the machine and the pump: the pump draws 72 A on a 100 A main fuse. The U.S. 60 Hz build is confirmed at order.

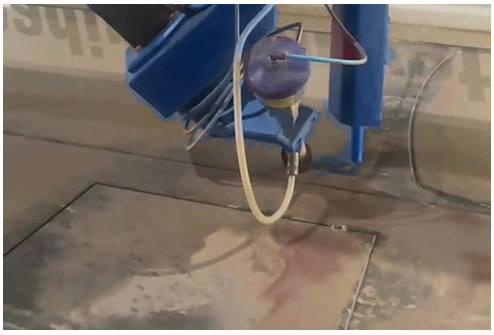
IN ACTION (STILLS FROM A FACTORY VIDEO)



Head tilted on the A-axis



Bevel cut



Inside cut on the slab

37 kW intensifier pump

49.6 HP, one intensifier at 20:1, with a proportional valve. A PLC watches oil temperature, oil level and water pressure; a blow-down valve releases pressure safely.

Automatic abrasive

The transfer unit feeds 80 or 120 mesh abrasive from a 425 kg tank at up to 4 kg/min, with an electronic dosage controller and a flashing light and buzzer warning.

Measure and position

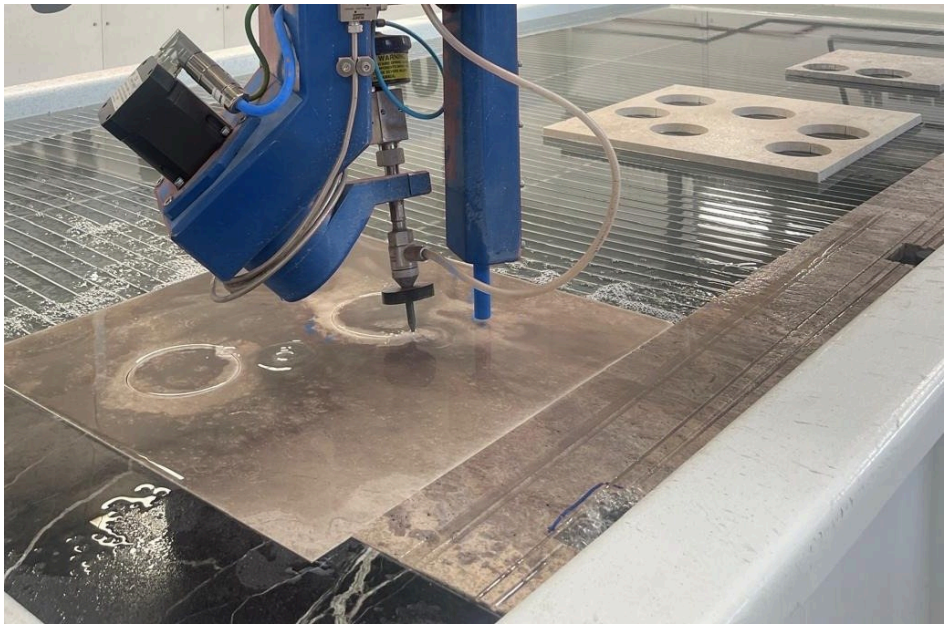
Point laser and cutting from a template, a slab thickness reader with mapping and a nozzle presetting device set each job to the real slab.

Table and safety

Hydraulic tilting table with a net under the sheet to catch small cut parts; safety doors, automatic lubrication and cabinet air conditioning.

TECHNICAL DATA

HYDRA · the 5-axis head tilted while it cuts a sink opening



MACHINE

Interpolated axes	5 (X, Y, Z, A, C)
Work table	4,000 × 2,000 mm (157 1/2 × 78 3/4 in), hydraulic tilting
Max. working area	3,800 × 2,200 mm (149 5/8 × 86 5/8 in)
Max. working thickness	250 mm (9 7/8 in)
Head rotation	A ±60°
Rapid traverse	X 40 · Y 40 m/min, servo motors
Control	21-inch touchscreen, Windows 10 industrial PC
Size (L × W × H)	6,050 × 3,800 × 3,200 mm (238 3/16 × 149 5/8 × 126 in)

SITE

Electrical	400 V; approx. 45 kW; U.S. 60 Hz build confirmed at order
Compressed air	100 L/min (approx. 3.5 cfm)

HIGH-PRESSURE PUMP

Pump motor	37 kW (49.6 HP)
Pressure	Confirm with sales
Intensifier	1 intensifier, ratio 20:1
Water flow	4.1 L/min (approx. 1.1 gal/min)
Monitoring	PLC: oil temperature, oil level, water pressure; automatic safety blow-down valve
Pump supply	380–420 V, 50–60 Hz

CUTTING HEAD AND ABRASIVE

Cutting head	Pneumatic on/off valve (normally closed); focusing tube 9.43 mm OD; orifice up to 0.36 mm
Abrasive dosing	Electronic dosage controller
Abrasive transfer	425 kg (approx. 937 lb) tank; 80 or 120 mesh; up to 4 kg/min

Questions, or ready for a written quotation? **+1 941-900-3018** · **sales@nextlevel.plus** · **nextlevel.plus**

Specifications are subject to change without notice. Factory data; weights and dimensions are approximate, inch, pound and psi values converted and rounded. Your written quotation lists the final configuration.