ORCA JET

5-axis CNC abrasive waterjet



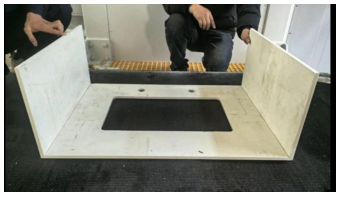
Orca Jet with pump, sand feeder and control cabinet; actual machine shown in Next Level colors

PRODUCT OVERVIEW

Orca Jet is a pure abrasive waterjet: no saw blade, one 5-axis cutting head. The head turns 360° and tilts up to 76°, so it cuts curves, sink holes, inside corners and bevels in granite, quartz, marble, sintered stone, porcelain and glass. It uses the same high-pressure pump and abrasive system as our TurboJet.



Mobile control cabinet



Basin cut by the jet

C 360° · A 76°	65,000 psi	165⅜ × 86⅝ in	±0.004 in
5-axis cutting head	Rated pressure (450 MPa)	Worktable (4,200 × 2,200 mm)	Cutting accuracy (±0.1 mm)

KEY SPECIFICATIONS

Worktable	165⅜ × 86⅝ in (4,200 × 2,200 mm)
X / Y stroke	153½ × 74¾ in (3,900 × 1,900 mm)
Cutting head	C 360° rotation; A 0–76° tilt
Accuracy	±0.004 in cutting; ±0.001 in repeat
Traverse speed	20–49 ft/min (6–15 m/min)
Pump motor	49.6 HP (37 kW)
Jet pressure	46,000–55,000 psi working; 65,000 psi rated
Abrasive	100 L automatic sand feeder
Files	DXF, DWG, IGS, ASC
Build	Galvanized; tilting table

PURE WATERJET, NO BLADE

Every line is cut by the jet, so curves, holes and inside corners need no blade passes. For fast straight blade cuts on the same bridge, see TurboJet.

IDEAL APPLICATIONS

- Sink and basin cut-outs, inside corners and small radii.
- Sintered stone, porcelain, ceramic and glass as well as granite, quartz and marble.
- Bevels and chamfers with the 0–76° A axis.
- Inlays, medallions and shapes from DXF and DWG drawings.

INCLUDED CONFIGURATION

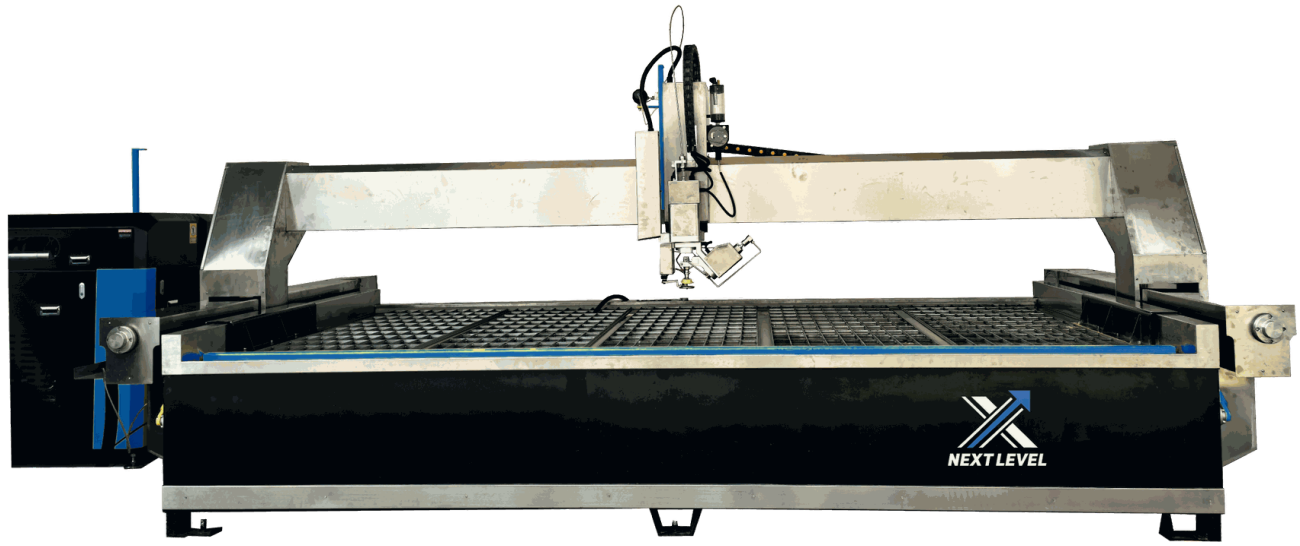
- Cutting table with 5-axis (A + C) waterjet head.
- 49.6 HP (37 kW) intensifier pump, 65,000 psi rated.
- Control cabinet with automatic nesting CAD/CAM.
- 100 L automatic sand feeder with low-sand alarm.
- Hot-dip galvanized build.
- Tilting table.

BEFORE YOU ORDER

Plan floor space for the pump, sand feeder and control cabinet next to the machine, plus 87 psi (6 bar) compressed air. Abrasive and wear parts are separate. Front sliding doors are an option. Confirm your 3-phase voltage at order.

ONE JET. FIVE AXES.

Curves, holes and bevels without a blade.



5-axis gantry waterjet

The cutting head turns 360° on the C axis and tilts to 76° on the A axis. AC servo drives run on ball screws and linear guides sealed in an oil bath, on a cast, annealed bridge.

Repeatability	±0.001 in (±0.025 mm)
Nozzle	0.33 mm orifice; 1.02 mm mixing tube

REFERENCE CUTTING SPEED, 60-MESH GARNET

Factory table; actual speed depends on stone, abrasive and pressure.

72 in/min	37 in/min	22 in/min	98 in/min	35 in/min
Marble ⅜ in (1,820 mm/min at 10 mm)	Marble ¾ in (950 mm/min at 20 mm)	Marble 1⅛ in (550 mm/min at 30 mm)	Ceramic ⅜ in (2,500 mm/min at 10 mm)	Glass ⅜ in (900 mm/min at 10 mm)



65,000 psi intensifier pump



Automatic sand feeder



Sink cut by the jet



Inlays and shapes

Pump and abrasive

Pressure detection and precision water filters protect the pump. The sand feeder refills by air from a barrel up to 16 ft (5 m) away.

From your CAD, while it cuts

DXF, DWG, IGS or ASC files by USB or PC link; nesting CAD/CAM; draw the next job while the machine cuts.

Pump and sand feeder: shared with the TurboJet (Next Level colors). Samples: parts cut on the factory's 5-axis waterjet.

TECHNICAL SPECIFICATIONS

Orca Jet · complete technical data

WORK AREA

X / Y / Z stroke	153½ × 74¾ in; Z 5⅞–7⅞ in (3,900 × 1,900 mm; Z 150–200 mm)
Table	Tilting table, hot-dip galvanized

CUTTING HEAD

Axes	5-axis gantry: X, Y, Z + A and C
C axis	360° rotation
A axis	0–76° tilt
Water switch	Pneumatic high-pressure water switch

ACCURACY AND MOTION

Cutting accuracy	±0.004 in (±0.1 mm)
X / Y axis accuracy	≤ ±0.002 in per 11.8 in (≤ ±0.05 mm per 300 mm)
Drives	AC servo; ball screws and linear guides in a sealed, oil-immersed stainless-steel structure
Bridge	Cast structure; low-temperature annealing heat treatment

HIGH-PRESSURE PUMP

Rated pressure	65,000 psi (450 MPa)
Working pressure	46,000–55,000 psi (320–380 MPa)
Maximum flow	0.98 GPM (3.7 L/min)
Motor rated current	66 A
Noise	< 85 dB
Protection	Pressure detection, limit alarm and automatic protection; precision water filters; fan cooling
Pump size (L × W × H)	5 ft 10⅞ in × 4 ft 3⅛ in × 4 ft 8¼ in (1,800 × 1,300 × 1,430 mm)

HIGH-PRESSURE PUMP (CONT.)

Pump weight	2,205 lb (1,000 kg)

ABRASIVE FEED

Automatic sand feeder	100 L; holds 331 lb (150 kg) of abrasive
Feed pressure	29 psi (0.2 MPa)
Function	Refills by air from a sand barrel up to 16 ft (5 m) away; stops when full; low-sand alarm; feeds up to two jet heads

CONTROL

CNC	Mobile control cabinet with built-in display; PLC; independent power supply for drives, CNC and PLC
Software	Automatic nesting CAD/CAM; draw the next job while the machine cuts; self-check and diagnosis
Files	DXF, DWG, IGS and ASC; USB and PC-to-CNC transfer
Cabinet size / weight	29½ × 23⅝ × 63 in (750 × 600 × 1,600 mm); 265 lb (120 kg)

UTILITIES AND SIZE

Electrical	3-phase; factory builds 220 V, 380 V or 415 V, 50/60 Hz
Water	0.9 GPM (0.2 m³/h)
Compressed air	87 psi (6 bar)
Machine size (L × W × H)	17 ft 4⅝ in × 9 ft 10⅛ in × 7 ft 2⅝ in (5,300 × 3,000 × 2,200 mm)
Machine weight	11,023 lb (5,000 kg)
Shipping	One 40 ft high-cube container; the cutting table can be taken apart

Factory data (quotation, Nov 2026); U.S. values are converted and rounded. Pressures and flows are pump ratings; cutting speed depends on material, thickness and abrasive. Specifications are subject to change without notice.

SITE. UTILITIES. DELIVERY.

Plan the machine, pump, sand feeder and cabinet together.

ORCA JET OR TURBOJET?

	Orca Jet	TurboJet
Cutting tools	Abrasive waterjet only	Saw blade + abrasive waterjet
Waterjet head	5-axis: C 360°, A 0–76°	5-axis RTCP; jet tilts 0–50°
Pump	49.6 HP (37 kW), 65,000 psi	49.6 HP (37 kW), 65,000 psi
Worktable	165⅜ × 86⅝ in (4,200 × 2,200 mm)	157½ × 82⅝ in (4,000 × 2,100 mm)
Table	Tilting, galvanized	Tilts to 85°, galvanized tank
Machine weight	11,023 lb (5,000 kg)	28,660 lb (13,000 kg)
Control	Mobile control cabinet; PLC; nesting CAD/CAM	5-axis RTCP CNC; 21-inch industrial PC
Camera / height gauge	—	20 MP camera; laser height gauge
Water	0.9 GPM (0.2 m³/h)	13.2 GPM (3 m³/h)
Compressed air	87 psi (6 bar)	87 psi (6 bar)

Factory figures; U.S. values converted and rounded. Orca Jet uses the same pump and abrasive system as the TurboJet.

SITE REQUIREMENTS

- Level concrete floor with clear access, operating space and service space around the machine.
- Offloading, rigging and final placement, with a forklift or crane, are by the customer unless the quotation says otherwise.
- A licensed electrician makes the final power connection; you provide water, drainage and compressed air as specified.
- The electrical build for your 3-phase, 60 Hz supply is confirmed on the order.
- Leave floor space beside the machine for the pump, the sand feeder and the mobile control cabinet.

INSTALLATION AND TERMS

- Installation, operator training and warranty terms are stated on your Next Level quotation.
- Site and utilities must be ready before the technician arrives.
- Abrasive, orifices, mixing tubes, seals and other wear parts are not included unless listed.
- Final configuration, electrical build and delivery are confirmed in writing at order.

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

Budgetary equipment information. U.S. and metric values appear together; added conversions are approximate. This sales document does not replace the delivered manual, drawings or safety labels.