QUAKELOGIC

INDUSTRIAL MACHINES & SYSTEM

PRODUCT CATALOG

2026

Industrial Technologies for Cutting and Machining

for laser, plasma, routing & more

ABOUT QUAKE LOGIC

QuakeLogic Inc. is an engineering company based in Northern California, delivering advanced industrial technologies worldwide. The company provides CNC and other advanced machining systems, along with laser & plasma equipment and precision manufacturing solutions. With a strong commitment to performance and reliability, QuakeLogic supports modern manufacturing with precision, durability, and efficiency.

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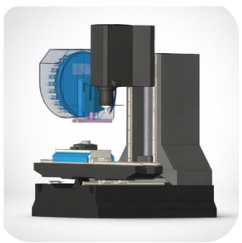

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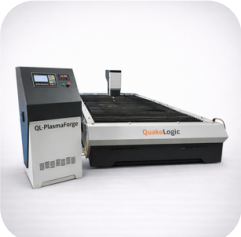

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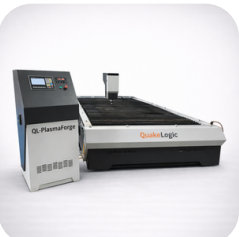

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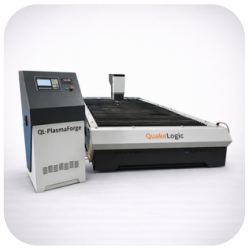

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QL CNC Simulator

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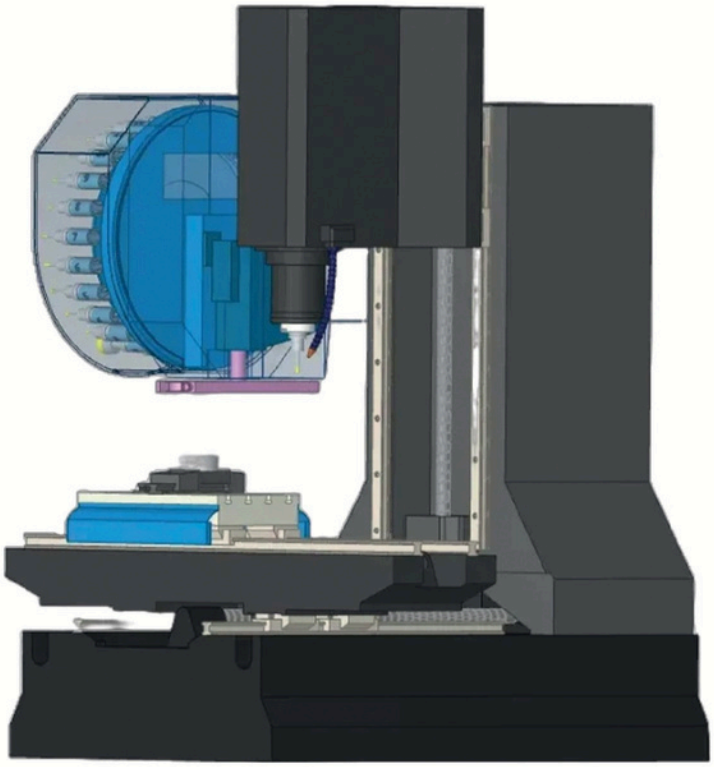


OVERVIEW

CNC Simulator is a high-performance virtual machining system designed to replicate real CNC milling and turning operations with industrial accuracy. It enables safe G-code validation, toolpath testing, and operator training without risking machines, tools, or materials.

Built for education, production optimization, and industrial onboarding, it delivers a realistic and cost effective machining environment.

KEY FEATURES

- Full milling & turning simulation
- Real-time G-code execution and debugging
- Fanuc controller integration
- Toolpath optimization
- Collision detection & error guidance
- Customizable tool library
- Workpiece setup (G54–G59)
- Real-time 3D visualization

TECHNICAL SPECIFICATIONS

- High-fidelity 3D machining environment
- Adjustable speed, feed, depth & offsets
- Tool customization (diameter, length, angles)
- Workpiece configuration & clamping setup
- Multi-axis machining support
- Standard PC compatibility

APPLICATIONS

- CNC operator training & certification
- Technical schools & vocational programs
- Industrial onboarding
- G-code validation before real machining
- Toolpath research & development

WHAT'S INCLUDED

- CNC Simulator Software
- Milling & Turning Modules
- G-code Editor
- Fanuc Interface
- Tool Library System
- Performance Tracking & Reporting

QL - CleanPro 2000

Industrial 2kW Fiber Laser Cleaning System

OVERVIEW

QL-CleanPro 2000 is a 2 kW Continuous Wave (CW) industrial fiber laser cleaning system designed as a direct replacement for sandblasting and abrasive methods. It delivers controlled, high-power surface preparation with no consumables, no dust, and no secondary waste.

Engineered for heavy-duty fabrication and maintenance environments, it ensures precise, repeatable results with stable long-cycle operation.

KEY FEATURES

- 2 kW Continuous Wave (CW) fiber laser
- Direct replacement for sandblasting
- No consumables or abrasive media
- Dust-free and substrate-safe cleaning
- Integrated closed-loop water cooling
- Single-operator mobile cart system
- Multi-layer safety interlocks & emergency stop
- ANSI Z136 & CSA compliant

TECHNICAL SPECIFICATIONS

- Laser Type: Continuous Wave (CW) Fiber
- Output Power: 2,000 W (2 kW)
- Cooling: Integrated closed-loop water system
- Configuration: Self-contained mobile cart
- Operation: Single-operator capable
- Compliance: ANSI Z136 / CSA
- Warranty: 2-Year Comprehensive Coverage

APPLICATIONS

- Heavy rust & mill scale removal
- Paint and coating stripping
- Weld preparation
- Surface preparation before coating
- Contaminant and oxidation removal

WHAT'S INCLUDED

- QL-CleanPro 2000 system
- Integrated cooling unit
- Safety package
- On-site installation & commissioning
- Operator training
- Technical documentation
- 2-Year warranty

QL-FusionCore 1200

All-in-One Enclosed Fiber Laser System

OVERVIEW

The QL-FusionCore 1200 is a fully enclosed, industrial all-in-one fiber laser system integrating laser welding, CNC cutting, cleaning, and engraving in a single platform. Powered by a 1200W fiber laser with CNC motion control, it delivers precise, repeatable performance for modern metal fabrication and prototyping environments.

KEY CAPABILITIES

- Welding, CNC cutting, cleaning & engraving in one system
- 1200W industrial fiber laser source
- ±0.1 mm positioning accuracy
- 24" × 24" (610 × 610 mm) working area
- Supports steel, stainless, aluminum, brass & titanium
- Pre-configured material parameter library

SAFETY & CONTROL

- Fully enclosed Class 4 safety architecture
- Interlocked access doors & emergency stops
- CNC controller with touchscreen HMI
- Manual & automatic modes
- USB & Ethernet connectivity
- Integrated fume extraction port

TECHNICAL HIGHLIGHTS

- Fiber laser – 1200 W (CW & pulsed)
- Positioning accuracy: ±0.1 mm
- Repeatability: ±0.05 mm
- Max cutting (steel/stainless): up to 3 mm
- Max single-pass welding: up to 3 mm
- CNC servo-driven motion system
- Integrated closed-loop water cooling

DELIVERY & SUPPORT

- Turnkey installation & commissioning
- Operator training included
- California-based technical support
- 1-year warranty

QL-MarkPro

Enclosed Fiber Laser Engraving System

OVERVIEW

The QL-MarkPro is a compact, industrial-grade enclosed fiber laser engraving system engineered for precise, repeatable, and permanent marking of metals and engineered materials. Featuring a fully enclosed Class-1 safety cabinet and integrated workstation, it delivers safe, stable, and production-ready marking performance for industrial and training environments.

KEY FEATURES

- Fully enclosed Class-1 laser safety cabinet
- Industrial fiber laser marking technology
- Integrated control workstation (no external PC)
- Motorized Z-axis height adjustment
- Optional rotary attachment for cylindrical parts
- Network-ready for digital manufacturing workflows

TECHNICAL HIGHLIGHTS

- Precision-welded steel frame construction
- Multiple optical field size options
- Advanced parameter control (power, speed, frequency, focus)
- Integrated fume extraction support
- Ethernet connectivity
- Production-grade stability for continuous operation

APPLICATIONS

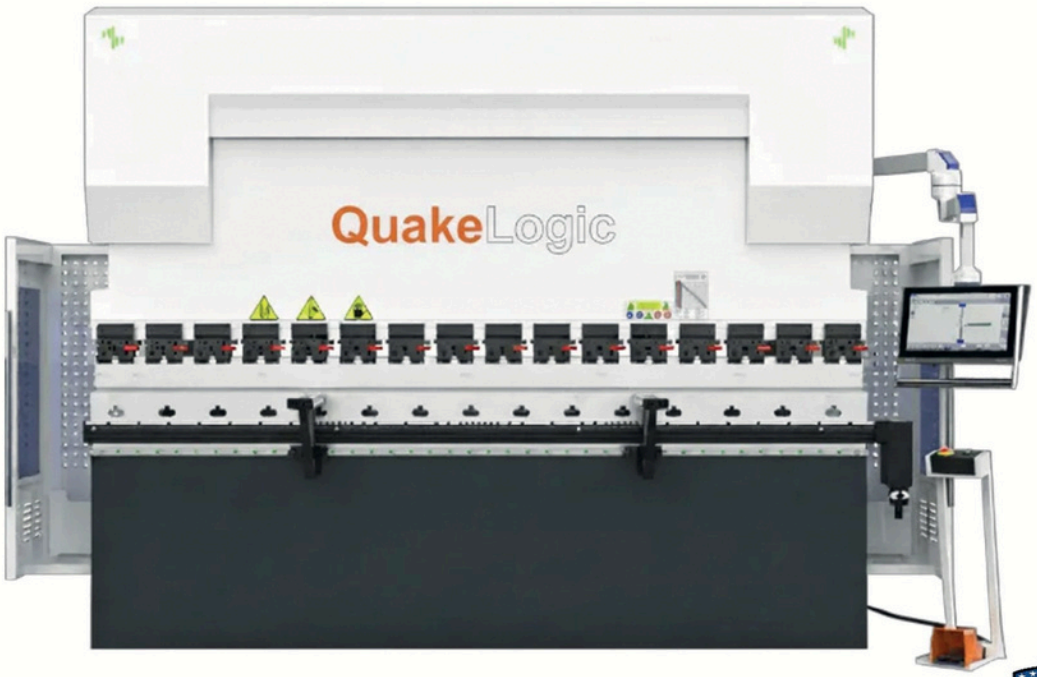
- Serial numbers & part traceability
- QR codes & barcodes
- Logos & branding marks
- Compliance labels & nameplates
- Prototyping & small-batch production

CONTROL & OPERATOR INTERFACE

- Intuitive user interface for fast job setup
- Full laser parameter customization
- CAD/CAM workflow compatibility
- Supported Raster: BMP, JPG, PNG, GIF
- Supported Vector: AI, PDF, DXF, NC
- MES / network integration ready

QL-BendPro 250T4000

CNC Precision Press Brake



OVERVIEW

The QL-BendPro 250T4000 is a 250-ton, 4000 mm CNC electro-hydraulic press brake engineered for high-accuracy, heavy-duty metal forming. Featuring Delem DA58Tx control, closed-loop Y1/Y2 ram positioning, and CNC crowning, it delivers consistent bend angles, structural rigidity, and long-term industrial reliability.

KEY FEATURES

- 250-ton forming capacity
- 4000 mm effective bending length
- Electro-hydraulic synchronized dual-cylinder drive
- Closed-loop Y1/Y2 ram control
- Delem DA58Tx CNC controller
- CNC-controlled automatic crowning
- Multi-axis CNC back-gauge
- Heavy-duty stress-relieved steel frame

TECHNICAL HIGHLIGHTS

- Forming Capacity: 250 tons
- Bending Length: 4000 mm
- Ram Control: Closed-loop Y1/Y2 positioning
- Drive System: Electro-hydraulic dual cylinder
- Crowning: CNC automatic compensation
- Back-Gauge: High-repeatability multi-axis system
- Frame: Welded steel, stress-relieved

SAFETY & INSTALLATION

- Light curtains, safety mats & dual-palm controls
- Multi-stage interlocks & emergency stops
- OSHA-compliant protection system
- FOB destination delivery
- On-site installation & commissioning
- Operator training (English)

WARRANTY

- One-year parts & labor warranty
- Full hydraulic, electrical & control documentation
- Institutional & public-sector compliance

QL-Vertex 855

Vertical Machining Center

OVERVIEW

The QL-Vertex 855 is an industrial-grade vertical machining center designed for precision milling, drilling, and tapping applications. Built with a rigid cast iron frame and high-precision servo drive system, it delivers stable, repeatable performance for technical training centers and applied manufacturing environments.

KEY FEATURES

- Rigid cast iron structure for vibration control
- BT40 spindle interface for versatile tooling
- High-precision AC servo drives (X/Y/Z)
- Ball-screw motion system for repeatability
- Automatic Tool Changer (ATC)
- Flood coolant system
- Fully enclosed safety-guarded design

TECHNICAL HIGHLIGHTS

- Spindle Interface: BT40
- Drive System: AC servo + ball screw
- Motion Platform: CNC-controlled multi-axis
- Tool Change: Automatic (ATC)
- Frame: Heavy-duty cast iron
- Safety: Full enclosure with interlocks

APPLICATIONS

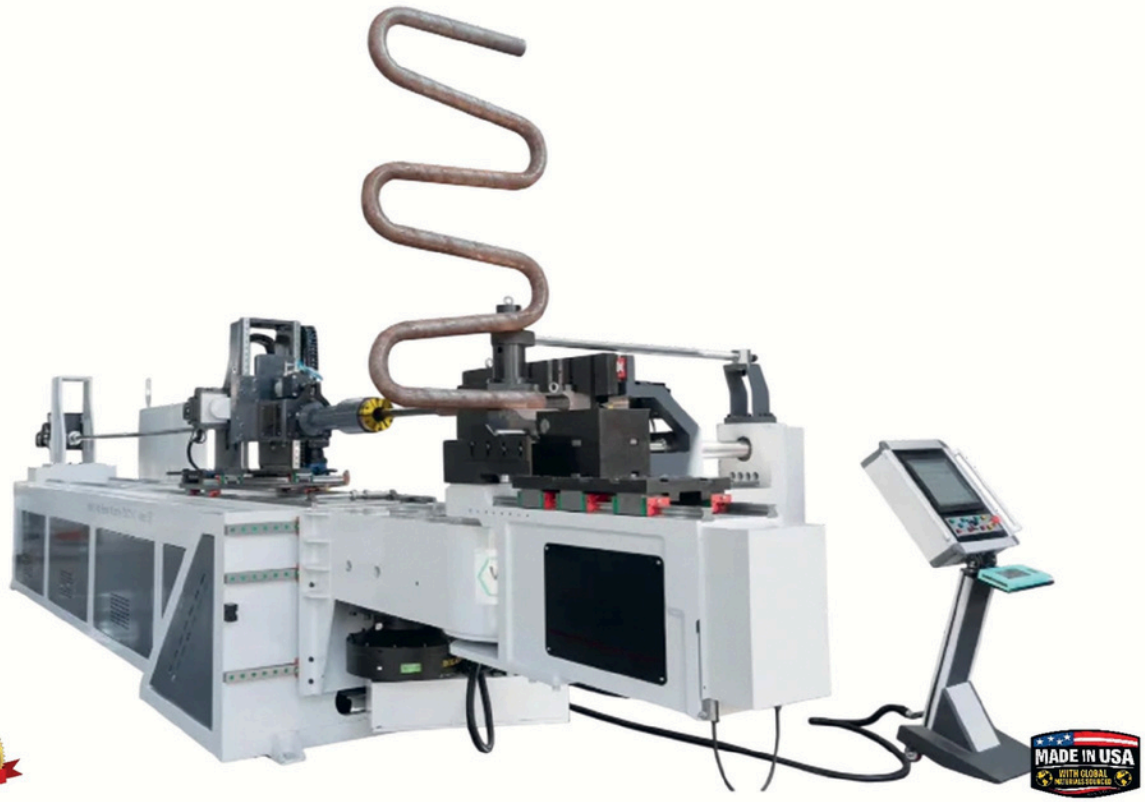
- Precision milling
- Drilling & boring
- Tapping & threading
- 3D contour machining
- Technical training & batch production

CONTROL & OPERATOR INTERFACE

- English-language CNC control system
- Graphical programming support
- DXF file import capability
- Integrated diagnostics & fault monitoring
- Simplified workflow for training environments

QL-TubeMaster Pro X

CNC Electric Mandrel Bender



OVERVIEW

The QL-TubeMaster Pro X is a fully electric CNC mandrel tube bending system engineered for aerospace, defense, and high-reliability manufacturing. Powered by FANUC servo controls, it delivers ±0.003″ bending accuracy with vibration-free motion. The hydraulic-free architecture ensures superior repeatability, long-term stability, and minimal maintenance.
Designed for mission-critical tube fabrication, it supports complex multi-plane and variable-radius bending programs.

KEY FEATURES

- Fully electric CNC architecture (no hydraulics)
- FANUC industrial servo control system
- ±0.003″ bending accuracy
- Clockwise & counterclockwise bending
- Variable radius & multi-plane programs
- 1,000+ programmable bend sequences

TECHNICAL SPECIFICATIONS

- Maximum bend angle: 180°
- Minimum tube OD: 1.00 in
- Minimum wall thickness: 0.083 in
- Power requirement: 208V / 3-Phase / 60Hz
- Programming capacity: 1,000+ programs
- CSA C22.1:21 & UL compliant

TOOLING & SAFETY

- Complete bend, clamp & pressure die set
- Mandrel assembly with lubrication system
- Keyence area scanner protection
- Light curtains & safety interlocks
- LOTO compatible design

SUPPORT & WARRANTY

- 24-month comprehensive warranty
- Installation & commissioning included
- On-site operator training
- Remote diagnostics & technical support

QL-MillBridge 450

Precision Vertical Turret Milling Machine

OVERVIEW

The QL-MillBridge 450 is a heavy-duty vertical turret milling machine built for precision machining, fabrication, and maintenance workshops. Featuring rigid cast-iron construction, factory-installed DRO, and X/Y/Z power feeds, it delivers reliable accuracy and continuous-duty performance in demanding industrial environments.

KEY FEATURES

- 12" × 50" precision-ground table
- 3 HP spindle motor (50–4,500 RPM, Hi/Lo)
- R-8 spindle taper
- Factory-installed DRO
- X/Y/Z power feeds
- Air power drawbar
- 850 lb table load capacity

TECHNICAL SPECIFICATIONS

- X Travel: 33"
- Y Travel: 17.5"
- Z Travel (Knee): 17.5"
- Quill Travel: 5.5"
- Ram Travel: 22"
- Drilling Capacity: 0.75"
- Electrical: 208–230V, 3-Phase

INCLUDED EQUIPMENT

- Digital Readout (DRO)
- X/Y/Z Power Feed System
- Air Power Drawbar
- Industrial Angle-Lock Vise
- Integrated Lubrication System

WARRANTY & SUPPORT

- Full manufacturer warranty
- Mechanical & electrical coverage
- Spindle & feed system protection
- Factory-trained technical support
- Replacement parts availability

QL-Atlas 570DY

CNC Machines

OVERVIEW

The QL-Atlas 570DY is a high-precision CNC slant bed turning center engineered for advanced training and production environments. Featuring a rigid slant-bed structure, integrated C-axis, and live tooling capability, it enables multi-process machining in a single setup while maintaining excellent stability and thermal accuracy.

KEY FEATURES

- Rigid slant-bed architecture for vibration control
- Integrated C-axis for indexed positioning
- 12-station powered turret
- Live-tool milling, drilling & tapping
- Servo-driven axes with precision ball screws
- Full enclosure with safety interlocks

TECHNICAL HIGHLIGHTS

- CNC Slant Bed Turning Center (DY configuration)
- C-axis positioning for live-tool operations
- 12-station powered turret system
- High-accuracy ball-screw transmission
- Flood coolant system for chip evacuation
- English-language CNC control with DXF import

APPLICATIONS

- Precision turning & facing
- Threading (internal & external)
- Grooving & parting
- Live-tool milling & drilling
- CNC operator training

CONTROL & OPERATOR INTERFACE

- Intuitive CNC programming environment
- DXF file import capability
- Integrated diagnostics & monitoring
- Training-friendly interface
- OSHA-aligned safety architecture

QL-LinearWire 650 Pro

CNC Machines

OVERVIEW

The QL-LinearWire 650 Pro is a mission-ready industrial Wire EDM system engineered for government, defense, and high-precision manufacturing applications. Featuring AC servo-driven multi-axis motion, advanced pulse control, and rigid structural design, it delivers exceptional accuracy, stability, and reliable long-term performance in demanding environments.

KEY FEATURES

- AC servo-driven motion system (X/Y/Z/U/V)
- Simultaneous multi-axis interpolation
- Automatic wire threading with servo tension control
- Advanced pulse generator with adaptive cutting control
- Heavy-duty welded steel frame for vibration stability
- Designed for continuous industrial operation

DELIVERY & SUPPORT

- Turnkey installation & commissioning
- Acceptance testing & verification
- On-site operator training
- 12-month full-system warranty
- Minimum 10-year spare parts availability
- U.S.-based technical support & remote diagnostics

TECHNICAL HIGHLIGHTS

- Axis Travels: X 650 mm / Y 500 mm / Z 480 mm
- U/V Taper Adjustment: ±60 mm
- Maximum Taper: ±10° at 200 mm thickness
- Maximum Workpiece Weight: 600 kg
- Maximum Workpiece Thickness: 200 mm
- Multi-stage dielectric filtration (to 5 microns)

CONTROL & COMPLIANCE

- Industrial CNC control (English interface)
- Closed-loop positioning with pitch-error compensation
- CAD/CAM compatible (Mastercam & standard platforms)
- Ethernet (LAN), USB connectivity
- UL 508A, NFPA 79, OSHA 29 CFR 1910 compliant
- Dual emergency stop & full machine guarding

QL-Plasma Pro

CNC Plasma Cutting Machine

OVERVIEW

QL-Plasma Pro is a production-grade CNC plasma cutting system engineered for precision cutting of carbon steel, stainless steel, aluminum, and other conductive metals. Built on a rigid welded steel frame with precision linear guideways and rack-and-pinion drive, it integrates STARFIRE CNC control, Automatic Torch Height Control (THC), and FASTCAM nesting software for accurate, repeatable, and efficient performance in industrial environments.

KEY FEATURES

- 1300 × 2500 mm work area
- Up to 25 mm cutting capacity
- HIWIN linear guides
- Rack & pinion drive
- STARFIRE CNC + Auto THC
- FASTCAM nesting software
- Integrated water table
- Collision-protected Z-axis

TECHNICAL SPECIFICATIONS

- Cutting speed: up to 38 m/min
- Accuracy: ±0.5 mm
- Repeatability: ±0.05 mm
- Plasma source: 125A / 200A
- Power: 3-Phase 380V
- Data transfer: USB
- Weight: ~1200 kg

APPLICATIONS

- Structural steel fabrication
- Marine & shipbuilding
- Tanks & pipelines
- Automotive components
- Industrial manufacturing

DELIVERY & SUPPORT

- CNC controller + THC
- Plasma source included
- FASTCAM software
- Starter consumables
- On-site installation & training

QL-AegisCut 6025

Defense-Grade 5-Axis CNC Plasma Cutting System

OVERVIEW

QL-AegisCut 6025 is a defense-grade five-axis CNC plasma cutting system engineered for aerospace, naval, and mission-critical fabrication environments. Built on a rigid, stress-relieved steel gantry structure, it delivers exceptional dimensional stability and long-term production reliability. Powered by a 400A industrial plasma source and advanced multi-axis motion control, the system enables high-precision bevel cutting, contour profiling, and heavy-duty metal processing with consistent, repeatable results.

TECHNICAL FEATURES

- Five-axis torch motion (X, Y, Z, B, C)
- B-axis bevel range: +45° to −40°
- C-axis rotation: ±180°
- 400A industrial plasma source
- Automatic torch height control
- Real-time kerf & feed-rate optimization
- 15" industrial touchscreen CNC
- DXF / DWG compatible CAD/CAM system

APPLICATIONS & MATERIALS

APPLICATIONS

- Defense maintenance & fabrication
- Aerospace structural components
- Naval ship repair & metal processing
- Heavy industrial steel fabrication
- Precision bevel cutting & weld preparation

MATERIALS

- Mild Steel (ASTM A36, A572, HY-80 / HY-100)
- Stainless Steel (304, 316, Duplex)
- Aluminum Alloys (5052, 5083, 6061, 7075)

DELIVERY, SAFETY & COMPLIANCE

- Turnkey delivery (installation & commissioning included)
- Integrated downdraft table with automatic airflow control
- 11 kW multi-stage dust collection system
- NFPA 484 compliant explosion protection
- OSHA / ANSI / NFPA / IEC / NFPA 79 compliant
- Emergency stops & interlocked safety systems
- On-site operator training & documentation

QL-PlasmaForge 1530

CNC Plasma Cutting System

OVERVIEW

The QL-PlasmaForge 1530 is a turnkey industrial CNC plasma cutting system engineered for precision cutting of ferrous and non-ferrous metals. Featuring a 1500 × 3000 mm working area and Hypertherm Powermax85 SYNC technology, it delivers reliable performance for educational, institutional, and professional fabrication environments.

KEY FEATURES

- 1500 × 3000 mm effective cutting area
- Hypertherm Powermax85 SYNC plasma system
- CNC mechanized torch + SmartSYNC handheld torch
- Gantry-style rack-and-pinion motion system
- Automatic Torch Height Control (THC)
- Heavy-duty welded steel frame

TECHNICAL HIGHLIGHTS

- Industrial gantry CNC platform
- Real-time torch height adjustment
- Smooth, repeatable positioning accuracy
- Supports ferrous & non-ferrous metals
- USB-compatible CAD/CAM workflow
- Continuous operation capable

SAFETY & CONTROL

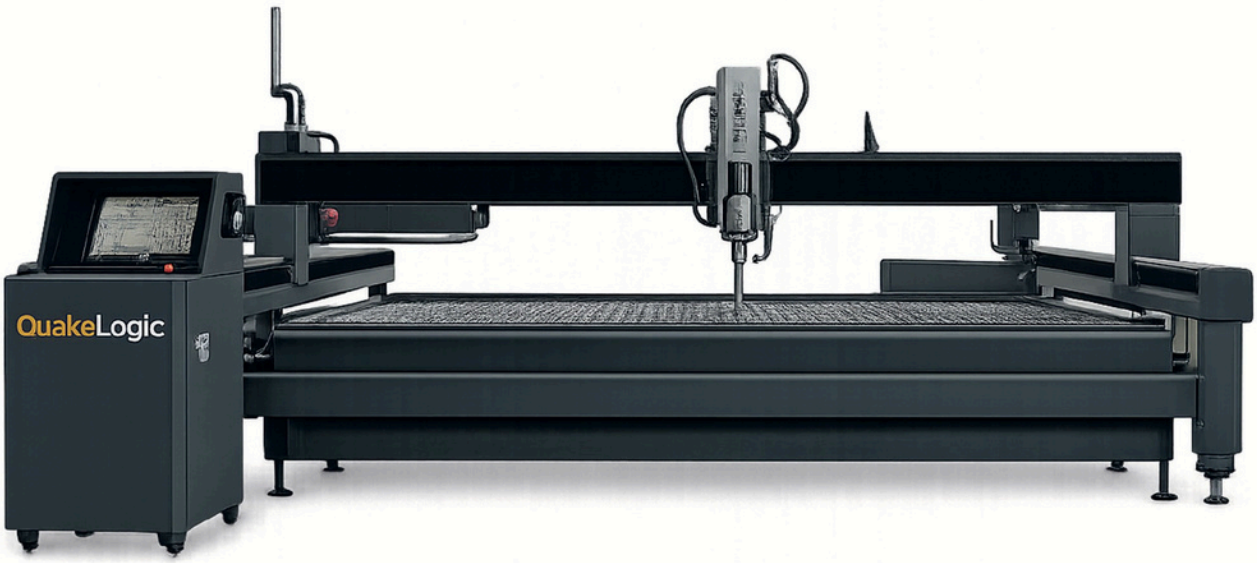
- Emergency stop system
- Controlled operating modes
- Integrated CNC console with nesting software
- Educational-friendly safety configuration
- Stable arc performance & extended consumable life

DELIVERY & SUPPORT

- FOB Destination delivery
- On-site installation & commissioning
- Operator training included
- Starter consumables kit
- 1-year parts & labor warranty
- Full technical documentation package

QL-AquaForge 6031

Industrial CNC Waterjet Cutting System



OVERVIEW

The QL-AquaForge 6031 is a high-performance industrial CNC waterjet cutting system engineered for continuous-duty operation in demanding production environments. Powered by a ≥60,000 PSI intensifier pump and featuring a cantilever architecture, it delivers precision cutting across metals, composites, stone, and advanced materials while meeting strict public-sector procurement standards.

KEY FEATURES

- ≥60,000 PSI industrial intensifier pump
- Cantilever-style open-access architecture
- Dual cutting modes: Abrasive & pure waterjet
- Fully CNC-controlled 3-axis cutting head
- Extended programmable Z-axis travel
- Continuous-duty high-volume operation
- Municipal & government procurement compliant

TECHNICAL HIGHLIGHTS

- Cutting Pressure: ≥60,000 PSI
- Pump Power: 30+ HP
- Cutting Area: ≥ 2000 × 3100 mm
- Architecture: Cantilever design
- Z-Axis Travel: > 8 in programmable
- Cutting Modes: Abrasive / Pure Waterjet
- Production Mode: Continuous industrial duty

APPLICATIONS

- Hardened steel & aluminum cutting
- Titanium & aerospace alloys
- Stone & architectural materials
- Rubber & plastics
- Composite panel processing
- Municipal & industrial fabrication

CONTROL & SOFTWARE

- Windows-based CNC control platform
- Touchscreen interface
- DXF / DWG / IGES file support
- Automated nesting
- Cut-restart & recovery function
- Real-time diagnostics

QL-PlasmaForge 1530EDU

CNC Plasma Cutting System

OVERVIEW

The QL-PlasmaForge 1530EDU is an industrial-grade CNC plasma cutting system designed for education, vocational training, and light-to-medium fabrication environments. Built on a heavy-duty steel frame with rack-and-pinion motion control, it delivers stable, repeatable cutting performance across a 1500 × 3000 mm working area.

KEY FEATURES

- 1500 × 3000 mm cutting area
- Heavy-duty welded steel frame
- Gantry-style CNC motion system
- Rack-and-pinion driven axes
- Automatic Torch Height Control (THC)
- Continuous operation capability

PLASMA SYSTEM & CONTROLS

- Hypertherm Powermax85 SYNC equivalent plasma system
- Mechanized CNC torch (25 ft lead)
- Included handheld plasma torch
- Integrated CNC control console
- Cutting & nesting software
- USB CAD/CAM file transfer

SAFETY & INSTALLATION

- Emergency stop system
- Controlled training operation modes
- On-site installation & commissioning
- System calibration & testing
- On-site operator training
- 1-year parts & labor warranty

INDUSTRIAL PERFORMANCE

- Stable arc performance
- Long consumable life
- Smooth rack-and-pinion motion
- Repeatable cut accuracy
- Production-ready configuration

QL Fortis 850 5X

High-Precision 5-Axis CNC Machining Center for Advanced Manufacturing

OVERVIEW

The QL Fortis 850 5X is a high-performance five-axis CNC machining center engineered for complex, multi-surface precision machining. Built on a rigid U-type structure with a direct-drive rotary cradle and full closed-loop control, it enables complete part processing in a single setup—delivering exceptional accuracy, stability, and reduced cycle times for advanced manufacturing environments.

KEY FEATURES

Simultaneous 5-axis CNC machining
- Rigid U-type machine structure
- Direct-drive A/C rotary cradle
- Full closed-loop positioning (all axes)
- RTCP (Rotational Tool Center Point) functionality
- High-torque electric spindle (HSK-A100)
- 32-tool automatic arm-type ATC
- Single-setup complex part machining
- Designed for continuous industrial operation

APPLICATIONS

- Aerospace structural components
- Automotive precision parts
- Medical device manufacturing
- Mold & die production
- Complex 3D and multi-surface machining
- Advanced industrial fabrication

TECHNICAL HIGHLIGHTS

- Table Diameter: Ø800 mm (H7 precision)
- Linear Travel (X/Y/Z): 850 / 800 / 600 mm
- A-Axis Tilt: -60° to +120°
- C-Axis: 360° continuous rotation
- Table Load Capacity: 1000 kg
- Spindle Speed: 1 – 12,000 rpm
- Spindle Power: 54 kW
- Tool Magazine: 32-position automatic ATC
- Positioning Accuracy (X/Y/Z): 0.006 mm
- RTCP Accuracy: 0.04 mm

STRUCTURE & MOTION SYSTEM

- Rigid U-type machine base for vibration control
- Direct-drive A/C rotary cradle with circular grating feedback
- Precision roller linear guideways
- High-stability multi-axis servo system
- Thermal stability for long-term accuracy retention

QL-LinearWire 400 CNC Wire EDM System

Industrial Precision for Research and Advanced Manufacturing

OVERVIEW

The QL-LinearWire 400 is an industrial-grade CNC Wire EDM system engineered for universities, research laboratories, and advanced manufacturing environments. Featuring fully enclosed construction and high-precision multi-axis CNC control, it delivers stable, repeatable machining of all electrically conductive materials—regardless of hardness. Designed to bridge education and full-scale production, it provides industrial capability in a safe laboratory-ready platform.

KEY FEATURES

- Fully enclosed machining chamber
- 5-axis CNC system (X, Y, Z, U, V)
- Non-contact wire EDM cutting
- Automated wire tensioning & threading
- High-frequency adaptive EDM power supply
- CAD/CAM & G-code compatibility (DWG/DXF)
- Closed-loop dielectric filtration system

TECHNICAL HIGHLIGHTS

- X/Y Travel: 400 × 400 mm
- U/V Travel: 50 × 50 mm
- Max Workpiece Load: 400 kg
- Positioning Accuracy: ±0.005 mm
- Repeatability: ±0.003 mm
- Surface Finish: ≤ 0.6 µm Ra
- Max Cutting Speed: ≥ 300 mm^2/min
- Max Taper: ±6°

APPLICATIONS

- Precision component manufacturing
- Tool & die fabrication
- Aerospace & defense components
- Medical device prototyping
- Materials science research
- Mold & insert manufacturing
- Machining of hardened & exotic alloys

DELIVERY & SUPPORT

- Professional installation & commissioning
- Operator training & documentation
- Starter consumables package
- One-year comprehensive warranty
- Ongoing technical support

QL-PlasmaForge EDU Series

Industrial CNC Plasma Cutting System

OVERVIEW

The QL-PlasmaForge EDU Series is an industrial-grade CNC plasma cutting system designed for technical schools and workforce training programs. It delivers real production-class cutting performance while maintaining safety and instructional flexibility for supervised learning environments. Built on a rigid steel frame with closed-loop servo control, it provides repeatable accuracy and real-world fabrication experience.

KEY FEATURES

- Industrial CNC plasma platform for education
- Closed-loop NEMA 34 servo motion system
- Heavy-duty steel frame & aluminum gantry
- Four-axis capability (X, Y, Z, Rotary)
- Automatic torch height control (VST)
- Magnetic breakaway torch protection

TECHNICAL SPECIFICATIONS

- Working Areas:
  - 60" × 60" (1616 EDU)
  - 48" × 90" (1325 EDU)
- Closed-loop servo motors with positional feedback
- Precision planetary gearboxes
- Automatic voltage-sensing torch control
- Mild steel, stainless steel, aluminum & copper compatibility

SOFTWARE & SAFETY

- Industrial 4-axis CNC controller
- Integrated CAD & plasma-optimized CAM software
- IP65-rated control enclosure
- USB & Ethernet connectivity
- Emergency stop & supervised operating modes

DELIVERY & WARRANTY

- Factory tested before shipment
- On-site installation & commissioning
- Instructor-focused training program
- 2-year parts & labor warranty
- 24/7 technical support

QL-EduCut X

Industrial Fiber Laser Cutting System for Education

OVERVIEW

The QL-EduCut X Fiber Laser Cutting System is a fully enclosed, classroom-ready industrial CNC solution designed to bridge education and modern manufacturing. Built on professional fiber laser technology, it enables students to work with real-world materials, tolerances, and processes while maintaining Class 1 laser safety compliance.

Delivered as a turnkey instructional platform, the system includes installation, commissioning, instructor training, CAD/CAM software, and a minimum three-year warranty.

CUTTING CAPABILITIES

- Up to 1/2 in Mild Steel
- Up to 3/8 in Stainless & Aluminum
- 5′ × 10′ Cutting Bed
- Automatic focus & height control
- Kerf width ≤ 0.040 in
- Integrated 4th Axis Rotary (Ø25–200 mm tubes)

TECHNICAL SPECIFICATIONS

- Laser Type: Industrial Fiber Laser
- Cutting Bed: 5 ft × 10 ft
- Multi-axis CNC controller with touchscreen interface
- File Support: DXF, DWG & standard CAD/CAM formats
- Multi-axis machining capability

EDUCATIONAL APPLICATIONS

- Welding & fabrication training
- CNC programming & CAM instruction
- Student certification projects
- Tube cutting & joint preparation
- Prototyping & lab tooling production
- Multi-axis machining skill development

SAFETY & INSTRUCTIONAL PACKAGE

- Fully enclosed Class 1 system
- Interlocked housing & emergency stops
- Integrated CAD/CAM & nesting software
- Installation, instructor training & 3-Year Warranty

QL-RouteMaster EDU-Pro

Educational 48″ × 96″ CNC Router System

OVERVIEW

The QL-RouteMaster EDU-Pro is a 48″ × 96″ educational CNC router designed specifically for schools, STEM labs, and technical training centers. It combines industrial cutting performance with classroom-focused safety, ease of use, and structured workflow integration.

KEY FEATURES

- 48″ × 96″ full-sheet cutting area
- 3.0 kW spindle (6,000–18,000 RPM)
- ER20 precision collet system
- Compatible with wood, plastics, composites & soft metals
- USB & Ethernet connectivity
- VCarve / VCarve Pro compatible

TECHNICAL SPECIFICATIONS

- Z travel: ≥ 150 mm
- Accuracy: ±0.05 mm
- Repeatability: ±0.03 mm
- Rapid traverse: ≥ 15 m/min
- Air-cooled maintenance-free spindle
- 120V or 220V single-phase power

SAFETY & CLASSROOM INTEGRATION

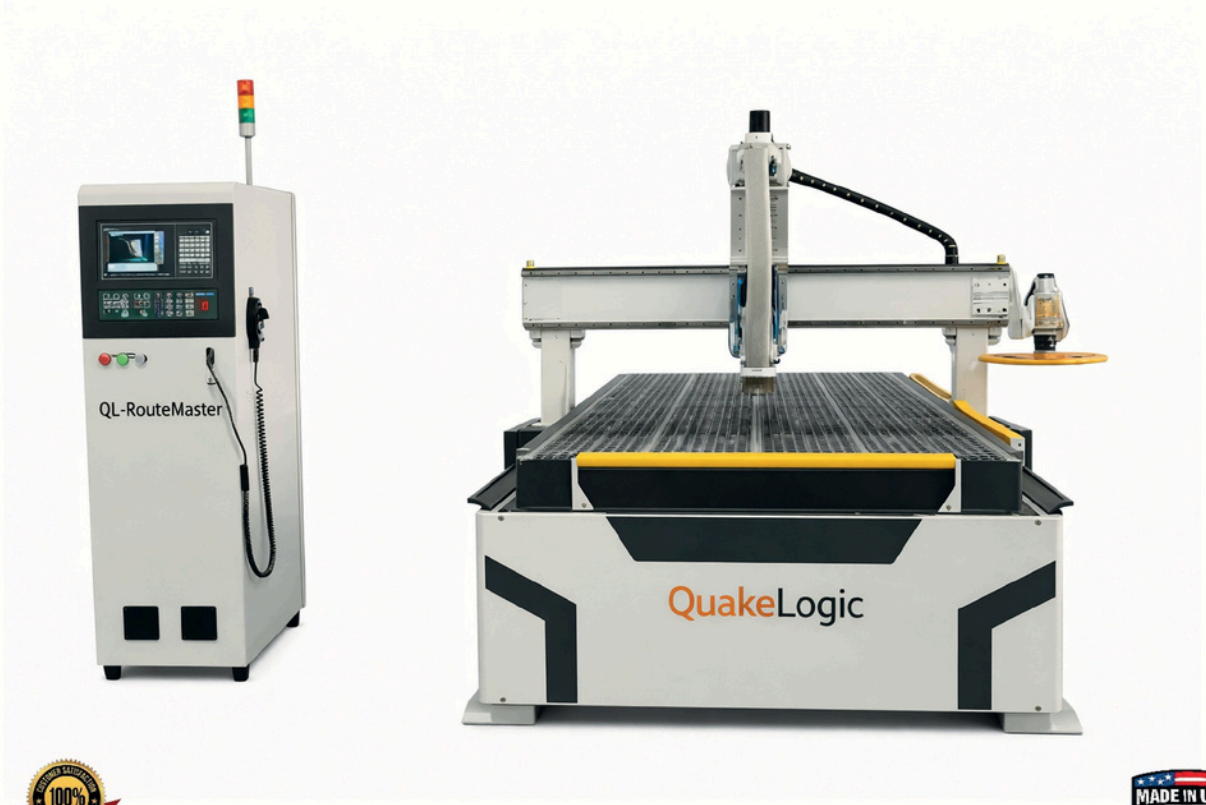
- Latching emergency stop
- Software & hardware axis limits
- Enclosed control cabinet
- Dust collection interface
- ≤ 75 dB operating noise
- Designed for supervised educational use

DELIVERY & SUPPORT

- On-site installation & commissioning
- Instructor training included
- Performance verification
- Warranty coverage
- Ongoing technical support

QL-RouteMaster

ATC CNC Router Cutting System



OVERVIEW

The QL-RouteMaster ATC is a production-grade CNC router engineered for high-speed, large-format sheet processing. Featuring a 12-position automatic tool changer, high-power ATC spindle, and precision servo-driven motion system, it delivers repeatable accuracy and stable performance in demanding manufacturing environments.

KEY FEATURES

- 12-position rotary carousel ATC
- ≥ 13 HP high-speed ATC spindle
- HSK63 compatible / ER40 tooling
- Full-surface vacuum table with zone control
- Surface probe & automatic tool sensor
- Programmable dust boot system
- Industrial servo-driven motion platform

TECHNICAL HIGHLIGHTS

- Work Area: ≥ 60" × 140"
- Z Clearance: ≥ 5"
- Cutting Speed: ≥ 1200 in/min
- Rapid Traverse: ≥ 2300 in/min
- Repeatability: ±0.005"
- 12-Tool Automatic Carousel
- Industrial 3-Phase Power Configuration

WORKHOLDING & AUTOMATION

- Zoned vacuum hold-down system
- Precision locator pins
- Industrial dust collection (≥ 6 HP)
- Automated calibration & axis referencing
- Integrated probing for fast setup

DELIVERY & SUPPORT

- Integrated operator station
- 30 KVA transformer (480V → 380V)
- FOB destination delivery
- On-site installation & commissioning
- Operator training & documentation

QL-Atlas 4×8 Pro ATC

Industrial CNC Router System

OVERVIEW

The QL-Atlas 4×8 Pro ATC is an instruction-grade industrial CNC router engineered for full-sheet machining, high precision, and continuous operation.
Featuring a full 4 ft × 8 ft working area, closed-loop servo motion, and an integrated Automatic Tool Changer (ATC), it delivers exceptional accuracy, repeatability, and productivity. Designed for education, workforce training, and professional fabrication environments.

KEY FEATURES

- Full 4 ft × 8 ft (48" × 96") working envelope
- Closed-loop servo motors on all axes
- High-power variable-speed spindle
- Integrated 6-position Automatic Tool Changer (ATC)
- Industrial vacuum table with sectional control
- Linear guide rails for smooth precision motio

TECHNICAL SPECIFICATIONS

- Working Area: 48 in × 96 in
- Z-Axis Travel: 3.75 in+
- Positioning Accuracy: ±0.005 in
- Repeatability: ±0.003 in
- Motion System: Linear rails & ball screws
- Materials: Wood, plastics, composites, aluminum
- Dust Collection: 4" port compatible

SOFTWARE & CONTROL

- Intuitive CNC interface (education optimized)
- Real-time toolpath simulation
- Multi-level user access control
- Production monitoring & reporting
- Automatic backup & recovery
- Compatible with major CAD/CAM platforms

DELIVERY & SUPPORT

- FOB Destination – freight prepaid
- Professional installation & commissioning
- 24+ hours on-site operator training
- 1-year manufacturer warranty
- 10-year parts availability commitment
- Ongoing technical support

QL-4 Axis Linkage

4 AXIS - CNC ROUTER

OVERVIEW

The QuakeLogic 4 Axis Linkage CNC Router is engineered for advanced cylindrical and column material processing. Designed for newel posts, balusters, handrails, crown moulding, and decorative architectural components.
Unlike standard 4th-axis routers, the 4-axis linkage system enables full synchronized rotary positioning, allowing precise machining of irregular and complex patterns on cylindrical materials.

KEY FEATURES

- True 4-axis linkage rotary control
- Precise rotary positioning at any angle
- Suitable for irregular & decorative engraving
- Rack & pinion drive (X/Y)
- Linear guide rails for smooth motion
- Rotary diameter capacity: 70–200 mm

4TH AXIS VS 4 AXIS LINKAGE

- 4th Axis (DSP A11): Continuous rotary motion only
- Suitable for regular, repeating patterns
- 4 Axis Linkage (DSP A15): Full rotary positioning control
- Allows complex, non-symmetrical engraving
- Higher precision for architectural detailing

TECHNICAL SPECIFICATIONS

- X/Y Travel: 1300×2500 / 1500×3000 / 2000×3000 mm
- Z Travel: 200 mm (customizable)
- Spindle: 3kW water-cooled (24,000 rpm) or HSD air-cooled
- Repeatability: ±0.05 mm
- Rapid Speed: 15–40 m/min
- Drive: Rack & pinion (X/Y), lead screw (Z)
- Rotary Device: 70–200 mm capacity

SYSTEM & POWER

- Controller: DSP / NC Studio / Syntec
- Command Language: G-Code & M-Code
- Motor: Stepper or Servo
- Voltage Options: 220V / 380V / 440V, 3PH
- Work Surface: T-slot + Vacuum Table
- Collet: ER20 / ER25 / ER32

QL-4TH Axis CNC

4 AXIS - CNC ROUTER

OVERVIEW

The QuakeLogic 4th Axis CNC Router is designed for column engraving, cylindrical processing, and flat material machining.
Equipped with a rotary attachment, the system enables machining of stair components, newel posts, handrails, corbels, and decorative architectural elements. It supports both side-mounted rotary devices and optional table-mounted configurations for larger diameter materials.

KEY FEATURES

- Integrated 4th axis rotary attachment
- Suitable for cylindrical & flat material machining
- Optional table-mounted rotary configuration
- Custom support for large diameter workpieces
- Rack & pinion drive system (X/Y)
- Linear guide rails for stable motion

ROTARY CONFIGURATION

- Rotary diameter capacity: 70–500 mm
- Side-mounted rotary device
- Optional table attachment rotary system
- Custom support for 200–300 mm large cylinders
- Designed for stair & architectural components

TECHNICAL SPECIFICATIONS

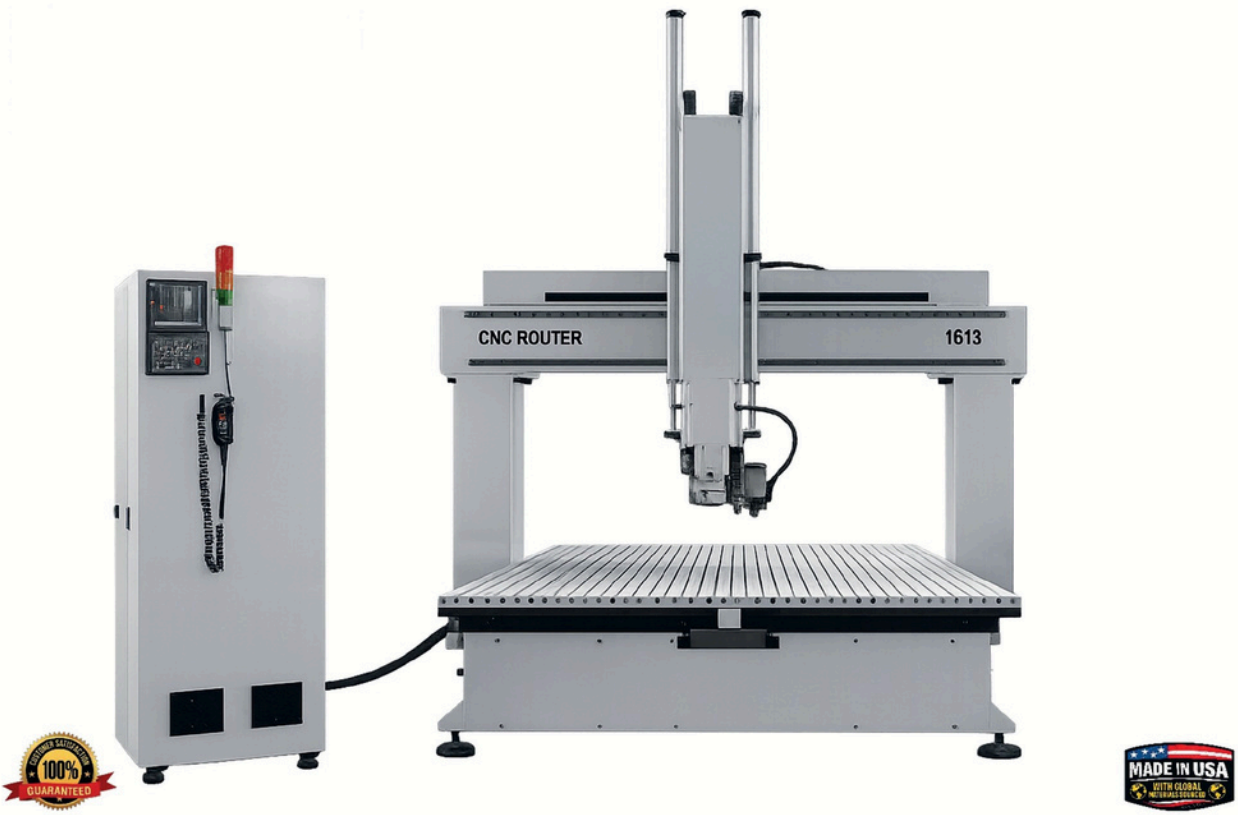
- X/Y Travel: 1300×2500 / 1500×3000 / 2000×3000 mm
- Z Travel: 200 mm (customizable)
- Spindle: 3kW water-cooled (24,000 rpm) or HSD air-cooled
- Repeatability: ±0.05 mm
- Rapid Speed: 15–40 m/min
- Drive: Rack & pinion (X/Y), lead screw (Z)

SYSTEM & POWER

- Controller: DSP / NC Studio / Syntec
- Command Language: G-Code & M-Code
- Motor: Stepper or Servo
- Voltage Options: 220V / 380V / 440V, 3PH
- Work Surface: T-slot + Vacuum Table
- Collet: ER20 / ER25 / ER32
- Spindle temperature monitoring (water-cooled models)

QL-4 Axis CNC

4 AXIS - CNC ROUTER



OVERVIEW

The QuakeLogic 4 Axis CNC Router Series is engineered for medium and large-scale 3D mould processing across EPS, automotive, marine, and industrial manufacturing applications.
Available in Gantry Moving and Table Moving configurations, the system enables full-surface carving on curved and multi-angle components without deformation. Designed for continuous, high-precision production environments.

KEY FEATURES

- True 4-axis curved surface machining
- C Axis rotation: ±135°
- Heavy-duty cast iron frame (vibration dampening)
- HSD 9kW industrial spindle
- Rack & pinion drive system (X/Y)
- Servo motor precision control

TECHNICAL SPECIFICATIONS

- X/Y Travel (Gantry): 1300×2500 / 1500×3000 / 2000×3000 mm
- X/Y Travel (Table): 1600×1800 / 1300×2500 mm
- Z Travel: 400 mm (Gantry) / up to 1000 mm (Table)
- Spindle: HSD 9kW air-cooled (18,000 rpm+)
- Repeatability: ±0.05 mm
- Rapid Speed: 15–40 m/min
- Controller: Syntec
- Collet: ISO30 / ER32

CONFIGURATION OPTIONS

Gantry Moving 4 Axis

- Ideal for large 3D mould processing
- High rigidity frame structure
- Z Travel up to 400 mm

Table Moving 4 Axis

- Dual-table continuous production design
- Load/unload without production interruption
- Z Travel up to 1000 mm

MATERIAL CAPABILITY

- Wood: MDF, plywood, hardwood, chipboard
- Plastics: Acrylic, ABS, PVC, HDPE
- Stone: Granite, marble, ceramic
- Metals: Aluminum, brass, copper, mild steel
- Composites: Aluminum & titanium composite panels

QL-MH Series

3 AXIS - CNC ROUTER

OVERVIEW

The MH Series Pneumatic Tool Change CNC Router delivers fast cutter switching, multi-spindle flexibility, and high-efficiency production.
Designed for batch manufacturing, the system enables automatic spindle switching in as little as 2 seconds, reducing downtime and eliminating traditional ATC failure risks. Ideal for woodworking, panel processing, and mass production environments.

KEY FEATURES

- Pneumatic spindle switching (≈2 sec change time)
- Multi-spindle configuration (2–8 heads standard)
- Optional synchronized multi-spindle (up to 12 heads)
- Independent tool paths per spindle
- No ATC tool change failure risk
- Cost-effective alternative to ATC systems

PRODUCTION ADVANTAGES

- *Continuous multi-head operation*
- *Pre-warm spindle capability*
- *Lower maintenance vs. ATC systems*
- *Easy spindle replacement*
- *Reduced production downtime*
- *Optimized for batch processing*

TECHNICAL SPECIFICATIONS

- Models: OMNI1325MH / 1530MH / 2030MH
- X/Y Travel: 1300×2500 / 1500×3000 / 2000×3000 mm
- Z Travel: 200 mm (customizable)
- Spindle: 3kW water-cooled or HSD air-cooled
- Repeatability: ±0.05 mm
- Rapid Speed: 15–40 m/min
- Drive: Rack & pinion (X/Y), lead screw (Z)

SYSTEM & MATERIAL CAPABILITY

- Controller: DSP / NC Studio / Syntec
- Command Language: G-Code & M-Code
- Motor: Stepper or Servo
- Voltage Options: 220V / 380V / 440V, 3PH
- Work Surface: T-slot + Vacuum Tab

Materials:

- Wood & MDF
- Plastics & acrylic
- Stone & ceramic
- Aluminum & non-ferrous metals

QL-AutoLoader

3 AXIS - CNC ROUTER

OVERVIEW

The AutoLoader Series CNC Router is a high-efficiency nesting system designed for cabinet, closet, and furniture production.
Equipped with a 9kW HSD air-cooled spindle, double workbench configuration, and automatic loading/unloading, the system enables continuous production of 80+ boards per day. Built for speed, accuracy, and modern cabinetry workflows.

KEY FEATURES

- Double workbench continuous production
- 9kW HSD air-cooled spindle (24,000 rpm)
- Automatic load & unload conveyor system
- Integrated drill bank for multi-hole processing
- Layout optimization software
- Yaskawa AC servo drive system

CUTTING & DRILLING UNIT

- 9kW HSD spindle with ATC function
- Drill Bank: 9+2+2 / 5+4 vertical configuration
- Horizontal drilling capability
- Optional CNC cutting saw
- 32 mm standard drilling spacing
- Fully programmable drilling operations

TECHNICAL SPECIFICATIONS

- Models: OMNI1325 / 1530 / 2030 Autoloader
- X/Y Travel: 1300×2500 / 1500×3000 / 2000×3000 mm
- Z Travel: 300 mm
- Tool Change: BT30 / ISO30 (8–24 positions)
- Repeatability: ±0.05 mm
- Voltage: 220V / 380V / 440V, 3PH

PRODUCTION SYSTEM

- Sheet dragging & pop-up alignment pins
- Vacuum table with secure sheet positioning
- Rapid speed up to 45 m/min
- Positioning accuracy: 0.02 mm
- Syntec control system
- Compatible with Aspire, VCarve, Fusion360

QL-Pro Series

3 AXIS - CNC ROUTER

OVERVIEW

The OMNI Pro Series ATC CNC Router delivers high-performance machining with exceptional reliability at an optimized cost.
Designed for volume-oriented production, it combines automatic tool changing, industrial-grade components, and above-average uptime to handle sheet processing, solid wood, and precision routing applications.

KEY FEATURES

- ISO30 9kW HSD spindle (up to 18,000 RPM)
- 8-position automatic tool changer (Carrousel / Linear)
- Syntec industrial controller
- All-steel reinforced gantry construction
- High-precision linear guide systems
- Servo motor drive system

MACHINE STRUCTURE & CONTROL

- Rack & pinion drive (X/Y), ball screw (Z)
- HPCC high-precision contour control
- Smooth trajectory processing
- NEMA 4 electrical cabinet
- European IEC wiring & CE components
- Compatible with Aspire, VCarve, Fusion360

TECHNICAL SPECIFICATIONS

- Models: OMNI1325Pro / 1530Pro / 2030Pro
- X/Y Travel: 1300×2500 / 1500×3000 / 2000×3000 mm
- Z Travel: 200 mm+
- Spindle: 9kW HSD air-cooled
- Repeatability: ±0.05 mm
- Rapid Speed: 45 m/min
- Tool Change: BT30 ISO30 (8 positions)
- Controller: Syntec

PRODUCTION ADVANTAGES

- Reduced setup time with automatic tool change
- High uptime for volume-oriented production
- Stable cutting performance on solid wood & panels
- Low maintenance requirements
- Consistent surface finish quality
- Optimized for continuous industrial use

QL-5×10 Router Table

3 AXIS - CNC ROUTER

OVERVIEW

The 5×10 Router Table Series delivers large-format cutting capability with a reinforced steel structure and precision motion control.
Designed for woodworking, plastics, and composite processing, this machine combines durability, high-speed motion, and operator-friendly control for reliable daily production.

KEY FEATURES

- Solid 5′ × 10′ working table
- Thick welded steel gantry & frame
- Dual Y-axis drive system
- High-frequency tool calibration
- DSP handheld controller
- Vacuum table (optional)

MACHINE STRUCTURE

- Helical rack & pinion drive (X/Y)
- Linear guide rails on all axes
- Ball screw drive on Z-axis
- 1500 KG heavy-duty frame
- Z travel: 200–300 mm
- Rapid speed up to 40 m/min

SPINDLE & DRIVE OPTIONS

- 3kW–11kW spindle options
- HSD / Hiteco air-cooled spindle (optional)
- Water-cooled spindle option
- Stepper or servo motor system
- Digital spindle temperature monitoring

SYSTEM & COMPATIBILITY

- Controller: DSP / NC Studio / Syntec
- Command Language: G-Code & M-Code
- Voltage: 220V / 380V / 440V, 3PH
- Compatible with Aspire, VCarve, Fusion360
- Post-processor support included

QL-4×8 Router Table

3 AXIS - CNC ROUTER

OVERVIEW

The 4×8 Router Table Series is a cost-effective CNC solution designed for woodworking, plastics, composites, and non-ferrous metals.
Featuring a solid steel structure and high-speed spindle options, it delivers reliable performance and precise cutting for small to mid-scale production environments.

KEY FEATURES

- 4′ × 8′ working area
- Reinforced all-steel gantry
- Thick welded steel frame construction
- 3kW high-speed spindle (up to 24,000 RPM)
- Handheld DSP controller
- Tool length sensor included

SPINDLE & CONTROL

- Air-cooled or water-cooled spindle options
- Stepper or servo motor system
- Digital spindle temperature monitoring
- Offline DSP handheld controller with USB support
- Compatible with Aspire, VCarve, Fusion360

MACHINE STRUCTURE

- Tubular steel gantry with welded reinforcement ribs
- Helical rack & pinion drive (X/Y)
- Ball screw drive (Z-axis)
- Rapid speed up to 40 m/min
- Z travel: 200 mm+
- Vacuum table (optional)

TECHNICAL SPECIFICATIONS

- Models: OMNI1325E / 1530E / 2030E
- X/Y Travel: 1300×2500 / 1500×3000 / 2000×3000 mm
- Repeatability: ±0.05 mm
- Drive: Rack & pinion (X/Y), lead screw (Z)
- Voltage: 220V / 380V / 440V, 3PH
- Command Language: G-Code & M-Code

QL-2026 Enterprise

5 AXIS - CNC ROUTER

OVERVIEW

The 2026 Enterprise 5 Axis CNC Router is a large-format, industrial-grade machining system engineered for complex 3D applications and heavy-duty production.
Featuring a powerful 18kW HITECO spindle, Siemens numerical control, and Yaskawa servo drives, it delivers exceptional precision, stability, and performance for advanced manufacturing environments.

KEY FEATURES

- Full 5-axis simultaneous machining
- 18kW HITECO high-torque spindle
- 8–16 position rotary ATC (HSK precision clamping)
- Siemens PC-based control system
- Yaskawa servo drive system
- Large-scale table moving configuration

CONTROL & DRIVE SYSTEM

- Siemens numerical control interface
- High-speed trajectory processing
- Yaskawa servo motors & drivers
- Smooth multi-axis interpolation
- Optimized for complex 5-axis geometry

MACHINE STRUCTURE

- Heavy-duty reinforced gantry construction
- Industrial-grade frame for vibration stability
- Designed for large 3D mould & panel processing
- Built for continuous high-load operation
- Premium component integration

PRODUCTION ADVANTAGES

- Reduced tool change time with rotary ATC
- Capable of machining demanding materials
- Ideal for aerospace, mould, railway, marine sectors
- High rigidity for large-format components
- Engineered for enterprise-scale production

QL-48 Table Moving

5 AXIS - CNC ROUTER

OVERVIEW

The 48 Table Moving 5 Axis CNC Router delivers advanced multi-axis machining for complex 3D woodworking and composite applications.
Featuring a heavy-duty frame, 10kW HSD spindle, and synchronized servo motion, it ensures precision, stability, and high-efficiency production in demanding manufacturing environments.

KEY FEATURES

- Full 5-axis simultaneous machining
- 10kW HSD liquid-cooled spindle (1,000–24,000 RPM)
- ±213° C-axis / ±135° A-axis travel
- 8–16 position rotary ATC (HSK precision clamping)
- Table moving configuration
- Yaskawa servo drive system

CONTROL & DRIVE SYSTEM

- Syntec / OSAI / Siemens control options
- PC-interfaced numerical control system
- Rack & pinion drive (X/Y)
- Lead screw drive (Z)
- Smooth multi-axis interpolation
- HSK63F tool holder system

MACHINE STRUCTURE

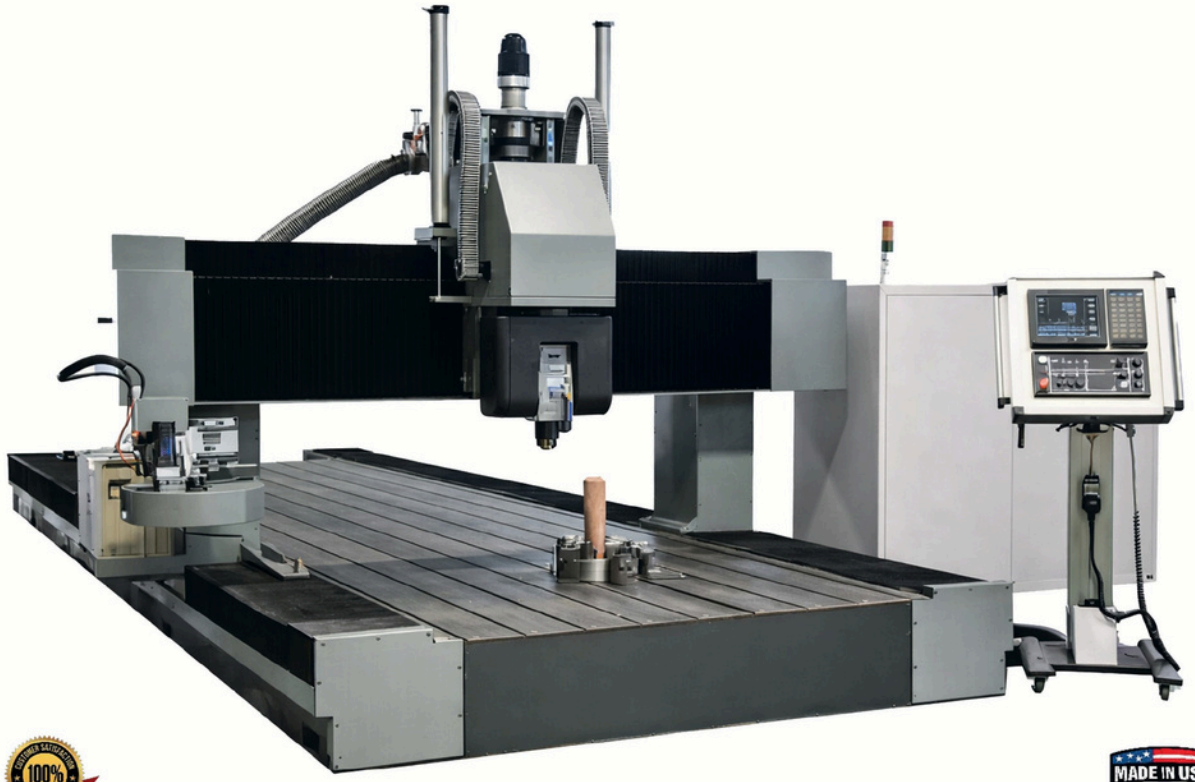
- Extra solid cast steel frame
- Heavy-duty welded gantry construction
- Beam height: 2150 mm
- Designed for complex 3D carving
- Maximum lifting capacity: 7.5T
- Rapid speed up to 25 m/min

TECHNICAL SPECIFICATIONS

- Travel: 1220 × 2440 × 950 mm
- Spindle: 10kW HSD liquid-cooled
- Repeatability: ±0.05 mm
- Total Power: 24 kW
- Tool Magazine: 8-position carrousel
- Motor: Yaskawa servo
- Voltage: 220V / 380V / 440V, 3PH
- Command Language: G-Code & M-Code

QL-48 Gantry Moving

5 AXIS - CNC ROUTER



OVERVIEW

The 48 Gantry Moving 5 Axis CNC Router is a heavy-duty industrial machining platform engineered for large-scale mould production and advanced composite processing.
Designed for automotive, marine, defense, medical, and energy industries, it delivers high-precision 3D contouring, trimming, and surface machining on complex geometries.

KEY FEATURES

- Full 5-axis simultaneous machining
- 10kW HSD / 30kW HITECO spindle options
- ±213° C-axis / ±135° A-axis travel
- 8–16 position rotary ATC (HSK precision clamping)
- Heavy-duty moving gantry configuration
- Yaskawa servo drive system

CONTROL & DRIVE SYSTEM

- Syntec / Siemens control options
- PC-interfaced numerical control system
- Rack & pinion drive (X/Y)
- Lead screw drive (Z)
- High-speed multi-axis interpolation
- HSK63F tool holder system

MACHINE STRUCTURE

- Extra solid cast steel frame
- Reinforced welded gantry construction
- Beam height: 2150 mm
- Designed for mould & composite machining
- Maximum lifting capacity: 7.5T
- Rapid speed up to 25 m/min

TECHNICAL SPECIFICATIONS

- Travel: 1220 × 2440 × 950 mm
- Spindle: 10kW HSD / 30kW HITECO (liquid-cooled)
- Repeatability: ±0.05 mm
- Total Power: 24 kW
- Tool Magazine: 8-position carrousel
- Motor: Yaskawa servo
- Voltage: 220V / 380V / 440V, 3PH
- Command Language: G-Code & M-Code

QL-Atlas 3218

Gantry Vertical Machining Center

OVERVIEW

The QL-Atlas 3218 Gantry VMC is a high-rigidity, large-format CNC machining center engineered for precision steel and aluminum component manufacturing.
Designed for aerospace, defense, automotive, and energy industries, it delivers exceptional structural stability, advanced motion control, and reliable 24/7 production performance.

KEY FEATURES

- Large-format travel: 3200 × 1800 × 800 mm
- 6-ton workpiece capacity (3000 × 1400 mm table)
- CAT-50 spindle, 6000 rpm, 236 N·m torque
- FANUC 31i-B Plus CNC control
- 60-tool automatic tool changer
- Optional 4th axis rotary table

CONTROL & PRECISION

- FANUC 31i-B Plus with 15" display
- 3-axis contouring & 3D simulation
- 1000-block look-ahead processing
- Renishaw-type tool & workpiece probing
- Laser interferometer factory calibration
- CE & ISO compliant manufacturing

STRUCTURE & MOTION SYSTEM

- HT300 resin-sand cast iron gantry frame
- Double-layer high-rigidity structure
- Japanese THK 55 mm roller guideways
- C3-grade precision ball screws
- Automatic lubrication & spindle balancing
- Dual spiral + chain-type chip conveyor

TECHNICAL SPECIFICATIONS

- Travel (X/Y/Z): 3200 / 1800 / 800 mm
- Table Size: 3000 × 1400 mm
- Max Load: 6 tons
- Spindle Motor: 15 / 18.5 kW
- Feed Rate: 12 000 / 12 000 / 10 000 mm/min
- Positioning Accuracy: ±0.010 mm / 1000 mm
- Repeatability: ±0.006 mm / 1000 mm
- Tool Magazine: 60 tools
- Machine Weight: 21 tons
- Power Requirement: 35 KVA

QL-Axis Compact 3

Axis Vertical Machining Center

OVERVIEW

The QL-Axis-Compact 3-Axis Vertical Machining Center is a high-precision CNC solution engineered for metal cutting, prototyping, and small to medium batch production. Powered by the Siemens 828D CNC system and built on Hiwin linear guideways, it delivers stable performance, repeatable accuracy, and reliable operation in compact workshop environments.

KEY FEATURES

- 3-Axis travel 650 / 500 / 500 mm
- BT40 spindle up to 8000 rpm (optional 10000 / 12000 rpm)
- Siemens 828D CNC touch control
- 16-tool automatic tool changer
- ±0.005 mm positioning accuracy

STRUCTURE & PRECISION

- Heavy-duty cast iron base for vibration damping
- Hiwin linear guideways with C3 ball screws
- Renishaw tool setter & workpiece probe
- Automatic lubrication and cooling system

PERFORMANCE & DRIVE

- 5.5 kW main motor
- Rapid traverse up to 24 m/min
- Stable belt-drive spindle system
- Optional 4th / 5th axis rotary table integration

APPLICATIONS

- Precision component manufacturing
- Aerospace & automotive prototyping
- Tool & die production
- Research laboratories & technical institutes

QUAKELOGIC

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