

QUAKELOGIC

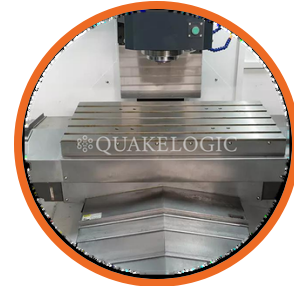
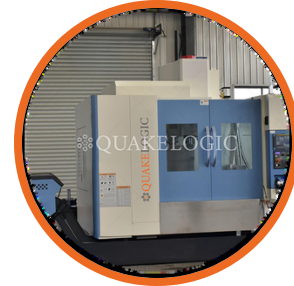
CNC VERTICAL
MACHINING
CENTRE

QL-AeroMill X



QL-AEROMILL X

CNC VERTICAL MACHINING CENTRE



DISCOVER HIGH-PRECISION MACHINING PERFORMANCE

QuakeLogic's QL-AeroMill X CNC Vertical Machining Centre is a heavy-duty, industrial-grade machining platform engineered for aerospace maintenance, defense manufacturing, precision production, tooling fabrication, and prototype development. Featuring a rigid machine structure, a 30 HP direct-drive CAT40 spindle, Siemens SINUMERIK 828D CNC control, a 24-tool arm-type automatic tool changer, through-spindle coolant, and precision linear guideways, the QL-AeroMill X delivers exceptional accuracy, reliability, and long-term operational durability.

- Improves production efficiency through high-speed rapid traverse, precision CNC control, and fast automatic tool changing across milling, drilling, boring, and tapping operations.
- Reduces operating costs with a rigid structure, precision drive components, automatic lubrication, and reliable coolant systems designed for long service life and minimal maintenance.
- Enhances accuracy with electronic thermal compensation, C3 precision ball screws, and Renishaw wireless probing and tool setting for automated in-process inspection.
- Supports mission-critical, continuous-duty operation with integrated Wi-Fi machine monitoring, high-intensity LED lighting, and full-enclosure chip and coolant management.

STANDARD FEATURES »

- Siemens SINUMERIK 828D CNC
- 30 HP CAT40 Direct-Drive Spindle
- 12,000 RPM Spindle Speed
- 24-Tool Arm-Type ATC
- Through-Spindle Coolant (TSC)
- Through-Tool Air Blast
- Programmable Coolant Nozzle
- 55-Gallon Coolant System
- Renishaw OMP60 Probe
- Renishaw TS27R Tool Setter
- Electronic Thermal Compensation
- Automatic Chip Conveyor
- Automatic Lubrication System
- Wi-Fi Monitoring Camera
- High-Intensity LED Work Light
- Cabinet Heat Exchanger
- Coolant Filtration & Sanitizer
- Fully Enclosed Guard
- Factory Acceptance Tested
- 24-Month Warranty

KEY FEATURES

- Delivers precise, repeatable machining through a rigid machine structure, precision linear guideways, and Siemens SINUMERIK 828D CNC control.
- Large 63.0 × 31.5 in (1600 × 800 mm) worktable with 3,307 lb (1,500 kg) load capacity for heavy aerospace and defense components.
- 30 HP direct-drive CAT 40 spindle operates up to 12,000 RPM for high-speed milling, drilling, boring, and tapping operations.
- 24-tool arm-type automatic tool changer enables fast tool changes and continuous production throughput.
- Through-spindle coolant, through-tool air blast, and programmable coolant nozzle improve tool life and chip evacuation.
- Renishaw OMP60 wireless probing and TS27R tool setting provide automated workpiece inspection and tool measurement.
- Electronic thermal compensation and C3 precision ball screws sustain accuracy across long production runs.
- Wi-Fi monitoring camera, high-intensity LED lighting, and three-color status indicator enhance oversight and usability.

PRODUCT FEATURES

Machine Type

CNC Vertical Machining Centre

Axis Configuration

3-Axis Machining

Working Capacity

59.1 in X Travel

31.5 in Y Travel

25.0 in Z Travel

Spindle Performance

30 HP CAT 40 Direct-Drive Spindle

12,000 RPM Maximum Speed

Tool Management

24-Tool Arm-Type Automatic ATC

Renishaw OMP60 Probe & TS27R Setter

Coolant & Chip Systems

Through-Spindle Coolant · 55-Gal System

Programmable Nozzle · Auto Chip Conveyor

Construction

Fully Enclosed Enclosure

3-Axis Roller Linear Guideways · C3 Ball Screws

Control System

Siemens SINUMERIK 828D CNC

Electrical Requirements

480 VAC / 3-Phase / 60 Hz

For more information about the features, specifications, and available configurations of the QL-AeroMill X CNC Vertical Machining Centre, please contact QuakeLogic.

MACHINE CONFIGURATION

COMPONENT	CONFIGURATION
Machine Type	CNC Vertical Machining Centre
CNC Control	Siemens SINUMERIK 828D
Spindle	CAT40 Direct-Drive Spindle
Maximum Speed	12,000 RPM
Spindle Motor	30 HP (22.4 kW)
Tool Changer	24-Tool Arm-Type Automatic ATC
Guideways	3-Axis Roller Linear Guideways
Ball Screws	3-Axis C3 Precision Ball Screws
Lubrication	Automatic Lubrication System
Cooling	55-Gallon Automatic Coolant System
Chip Removal	Automatic Chip Conveyor
Electrical Requirement	480 VAC / 3-Phase / 60 Hz

MACHINING CAPACITY

SPECIFICATION	VALUE
X-Axis Travel	59.1 in (1500 mm)
Y-Axis Travel	31.5 in (800 mm)
Z-Axis Travel	25.0 in (635 mm)
Table Size	63.0 × 31.5 in (1600 × 800 mm)
Maximum Table Load	3,307 lb (1,500 kg)
Spindle Speed	12,000 RPM
Tool Capacity	24-Tool ATC
Rapid Traverse	1,400 IPM (36 m/min)
Cutting Feed	945 IPM (24 m/min)

OPTIONAL FEATURES & ACCESSORIES

OPTIONAL 4TH AXIS

Adds a rotary axis for multi-sided part processing, reducing setup time for complex machining applications.

OPTIONAL 5TH AXIS

Provides simultaneous multi-axis machining for complex geometries, improved part accuracy, and greater flexibility.

30-POSITION TOOL MAGAZINE

Expanded disc-type automatic tool changer increases available tooling for extended unattended production runs.

PRECISION WORKHOLDING PACKAGE

Precision flat vise and clamping kit set for secure, repeatable fixturing of aerospace and defense components.

TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Product	QL-AeroMill X CNC VMC
Machine Type	CNC Vertical Machining Centre
Axis Configuration	3-Axis
X-Axis Travel	59.1 in (1500 mm)
Y-Axis Travel	31.5 in (800 mm)
Z-Axis Travel	25.0 in (635 mm)
Spindle Nose to Table	4.2 – 29.2 in (107 – 742 mm)
Table Size	63.0 × 31.5 in (1600 × 800 mm)
Maximum Table Load	3,307 lb (1,500 kg)
Spindle Taper	CAT40
Maximum Spindle Speed	12,000 RPM
Spindle Motor	30 HP (22.4 kW), Direct-Drive
Rapid Traverse	1,400 IPM (36 m/min)
Cutting Feed	0.04 – 945 IPM (24 m/min)
Tool Changer	24-Tool Arm-Type ATC
Maximum Tool Weight	17.6 lb (8 kg)
Positioning Accuracy	±0.0002 in (±0.005 mm)

SPECIFICATION	DESCRIPTION
Repeatability	±0.00012 in (±0.003 mm)
Thermal Compensation	Electronic
Coolant System	55-Gallon, Filtration & Sanitizer
Through-Spindle Coolant	Included
Through-Tool Air Blast	Included
Workpiece Probe	Renishaw OMP60 Wireless
Tool Setter	Renishaw TS27R
Machine Monitoring	Industrial Wi-Fi Camera
Guideways	3-Axis Roller Linear Guideways
Ball Screws	3-Axis C3 Precision Ball Screws
Lubrication	Automatic Lubrication System
Chip Removal	Automatic Chip Conveyor
Electrical Requirement	480 VAC, 3-Phase, 60 Hz
Machine Size (L×W×H)	120.1 × 89.4 × 94.5 in
Machine Weight	14,330 lb (6,500 kg)
Warranty	24-Month Parts & Labor

PRODUCT GALLERY



QL-AeroMill X

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About QuakeLogic:

QuakeLogic Inc. is a California-based engineering and technology company providing innovative, reliable, high-quality solutions to customers worldwide.

Our Commitment

We are committed to quality, innovation, and customer satisfaction – building lasting partnerships through reliable solutions and dependable support.

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