QUAKELOGIC

QL-RGMS-65 Roundness & Geometry Measuring System

QL-RGMS-65 represents a complete, factory-tested, turnkey system designed for mission-critical measurement operations in U.S. Government defense manufacturing environments. Delivered with comprehensive installation, commissioning, training, and solicitation-compliant warranty support, this system ensures operational readiness from day one.

6 Gage Heads
Complete multi-point measurement configuration with 6 brackets and stylus set

Footprint Compliant
65" × 38" maximum dimensions (PC excluded) per solicitation requirements

Air-Bearing Spindle
Precision rotary system with encoder feedback for accurate angular positioning

MADE IN USA
WITH GLOBAL MATERIALS SOURCED

CUSTOMER SATISFACTION
100%
GUARANTEED

1

System Classification

Roundness & Geometry Measuring System (RGMS) designed for stacking prediction measurement workflows using multiple gage heads operating concurrently

2

Dimensional Compliance

Footprint maintained at maximum **65 inches (Length) × 38 inches (Width)** excluding PC workstation, ensuring facility integration compatibility

3

Measurement Hardware

Six (6) gage heads provided with **six (6) mounting brackets** and complete stylus set for comprehensive geometry acquisition capability

4

Alignment Capability

Manual centering and leveling worktable supports precise workpiece alignment and reduces measurement variability across repeated setups

5

Rotation System

Precision air-bearing spindle with integrated encoder feedback delivers stable, repeatable rotational measurement platform

6

Delivery & Warranty

Turnkey delivery to Tinker Air Force Base with solicitation-compliant warranty coverage and California-based technical support coordination

System Architecture & Components

Industrial Measurement Platform — Built for Repeatability

System Structure

The QL-RGMS-65 is constructed on a **granite-based measurement platform** that provides exceptional thermal stability and long-term dimensional integrity. This foundation supports a rigid measurement structure engineered to deliver repeatable precision performance across thousands of measurement cycles. The platform's mass and material properties minimize vibration sensitivity and thermal drift, ensuring measurement consistency in industrial environments.

Manual centering and leveling table capability enables operators to achieve accurate setup and alignment for each workpiece. This operator-friendly design supports efficient workpiece positioning while maintaining the repeatability essential for stacking prediction workflows. The system's ergonomic layout facilitates rapid setup procedures without compromising measurement accuracy.

Delivered Configuration

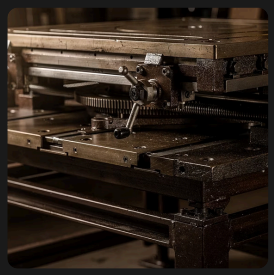
- Complete RGMS system (factory tested and verified prior to shipment)
- **6 precision gage heads** in full measurement configuration
- **6 mounting brackets** for secure gage head positioning
- Stylus set optimized for geometry measurement operations
- Integrated operator interface with measurement workflow support
- Digital operation and maintenance documentation package

Granite Platform

Thermally stable foundation for long-term measurement integrity and vibration damping

Gage Head Array

Six-point measurement capability enables comprehensive stacking prediction analysis



Alignment Table

Manual centering and leveling capability ensures accurate workpiece positioning

Rotary Spindle, Encoder & Measurement Workflow

Precision Rotation + Multi-Point Acquisition

Air-Bearing Technology

The precision **air-bearing rotary spindle** eliminates mechanical friction and wear, delivering exceptionally smooth rotation with minimal runout error. This non-contact bearing system ensures consistent rotational accuracy throughout the system's operational lifetime, reducing maintenance requirements while maintaining measurement precision. Air-bearing technology provides superior performance compared to traditional ball-bearing systems, particularly for applications requiring sub-micron repeatability.

Encoder Feedback System

High-resolution **encoder feedback** provides accurate angular positioning data throughout each measurement cycle. The encoder's precise angular resolution enables the system to capture geometry data at consistent rotational intervals, ensuring comprehensive coverage of the workpiece surface. This closed-loop feedback system maintains positional accuracy across full 360-degree rotational cycles, supporting reliable stacking prediction analysis.

Measurement Acquisition

The system architecture enables stable measurement acquisition across complete rotational cycles, with all six gage heads capturing synchronized data. This multi-point acquisition capability is fundamental to stacking prediction methodology, where understanding geometric relationships between multiple measurement locations drives assembly optimization decisions in defense manufacturing applications.

Stacking Prediction Workflow Support

The QL-RGMS-65 has been specifically designed to support **stacking prediction measurement methodology**—a critical quality control technique in aerospace manufacturing where component geometry must be precisely characterized to optimize assembly sequences and minimize accumulated tolerances. The system's multi-gage configuration supports simultaneous multi-point measurement acquisition, enabling operators to capture comprehensive geometric profiles in single measurement cycles.

Workpiece Setup

Manual centering and leveling establish measurement reference

Rotational Scan

Air-bearing spindle rotates workpiece through full 360° cycle

Multi-Point Capture

Six gage heads acquire synchronized geometry data

Stacking Analysis

Data supports assembly optimization and tolerance prediction

Delivery, Installation, Training & Support

Turnkey Delivery — Operational Readiness Included

1 Order Placement

Solicitation-compliant lead time commences upon Award/Release Order

2 Factory Testing

Complete system verification, calibration, and 6-gage configuration validation

3 FOB Destination

Delivery with protective packaging, freight, and insurance

4 Installation

On-site placement, leveling, alignment, and functional verification

5 Training

Comprehensive operator instruction on setup, operation, and maintenance

6 Operational

System ready for production measurement operations with warranty coverage

Warranty Coverage

Solicitation-compliant warranty providing comprehensive coverage for parts, labor, and system performance. Warranty terms align precisely with RFQ No. FA812626Q0013 requirements, ensuring Government protection and contractor accountability throughout the coverage period.

Technical Support

California-based support coordination provides responsive technical assistance, troubleshooting guidance, and application support. QuakeLogic's domestic support infrastructure ensures rapid response times and effective communication for mission-critical measurement operations.

Post-Warranty Service

Extended service agreements, spare parts support, and calibration services available beyond warranty period. Long-term system support ensures continued operational readiness and measurement performance throughout the system's operational lifecycle.

Partner with QuakeLogic for Precision Measurement Excellence

Corporate Headquarters

QUAKELOGIC INC.

4010 Foothills Blvd. Suite 103/194

Roseville, CA 95747, USA

Factory & Warehouse

2008 Opportunity Dr. Suite 130, Roseville, CA 95678, USA

Executive Support Line

+1 (916) 899-0391

Direct access for executive consultations and priority support.

Available Monday - Friday, 9 AM - 5 PM PST

Strategic Inquiries

sales@quakelogic.net

For strategic partnerships, enterprise solutions, and comprehensive information.

Scan to Access Cutting-Edge Solutions

Discover how **QuakeLogic's Roundness & Geometry Measuring System (RGMS) solutions**, including the **QL-RGMS-65 (6-Gage Stacking Prediction Configuration)**, can strengthen your measurement readiness—delivering **repeatable geometry verification, reliable stacking prediction workflows, and turnkey U.S.-based support** for mission-critical applications.

www.quakelogic.net

QUAKELOGIC