AIMS - Advanced Industrial Measurement Systems

Your 5-Axis CMM Experts

Advanced Industrial Measurement Systems (AIMS) is an OEM of Revolution® CMMs, driven by Renishaw Technology. AIMS offers a wide range of measurement and inspection equipment and services for the manufacturing industry, including its exclusive Revolution® line of coordinate measurement machines.

AIMS 20,000 sq. ft. headquarters also houses training and assembly facilites.

The Revolution® line of CMMs utilizes the advanced technology of Renishaw controllers and probes, teamed with Modus software and tied together with training and support from friendly, knowlegable staff experts. This creates an unbeatable solution for our customers. AIMS also provides custom programming, software training and part inspection on a contract basis.

SUPERIOR SUPPORT AND SERVICE
AIMS offers a wide range of services for the life of your equipment. From consultation and product selection to installation, training and responsive service support, we have you covered.

REVOLUTION® SERIES OF CMMs
We have teamed with Renishaw to create a superior CMM product for the manufacturing industry that's competitively priced. Renishaw's various technologies - controller, probing systems, software, retrofits and other technologies are unparalleled in the industry.

AIMS SALES NETWORK
We have a network of regional sales managers who work with distributors in your area to help you find and maintain the right equipment.

AIMS SERVICE NETWORK
Through our extensive service network we can:
- install and calibrate many makes of new CMMs
- retrofit existing CMMs with Renishaw controllers & software
- offer warranty service and superior customer support

AIMS SOFTWARE TRAINING
We provide both onsite Renishaw CMM software training as well as custom software training in our in-house training facilities - all tailored to *your* specific needs.

Revolution®
Powered by Renishaw

QUALITY SYSTEM
CERTIFIED BY DNV
=ISO 9001/2000=

AIMS ADVANCED INDUSTRIAL MEASUREMENT SYSTEMS

2580 Kohnle Drive • Miamisburg, Ohio USA 45342 • (937) 320-4930 • Fax (937) 320-4933

Revolution®

AIR BEARING

LINEAR MOTOR CMM

The Revolution® LM Series delivers true 5-axis measurement smoother and faster than conventional air bearing sytems

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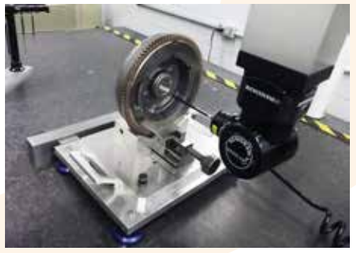
LINEAR TECHNOLOGY

The Revolution® LM Series air bearing bridge configuration offers advanced measuring platforms fully equipped with next generation 5-axis probing technology. This provides triple the productivity of conventional touch probe CMM's with over five times the scanning productivity.

These lab grade CMMs are designed with advanced CAD design technology and feature flexible and precise instruments able to carry out measurements both in point-to-point mode as well as continuous measurements with contact sensors and lasers.

Revolution® LM Series Lab Grade CMM: Technical Highlights

- Worktop structure with granite work plate incorporated, three points supporting system to the ground.
- Large Z-axis ram in light aluminum alloy able to use wide range of motorized probe heads.
- Mobile bridge is constructed of aluminum alloy for higher rigidity with lower weight to reduce inertia effects. Delivers greater accuracy and repeatability.
- Linear motor magnetic drive system for the X and Y-axis provides smooth, quiet acceleration and linear velocity. No mechanical linkages, pulleys, or belts means the linear drive typically needs no regular maintenance.
- Optical scales are free to expand lengthwise. The expansion coefficient is precisely determined on scales and the material guarantees a uniform reaction to temperature variations. The hysteresis of the scales is minimal as the steel scales are "floating" in the aluminum carrier. Resolution is 0.1 microns.
- Pneumatic counterbalance (adjustable) for Z.



AIMS TOTAL SUPPORT

Our experienced service technicians offer complete support. They can install and calibrate new Revolution® CMMs, retrofit existing CMMs with Renishaw controllers and software, offer warranty service and provide superior customer support.

- Turnkey Systems
- Complete Training Packages
  - On Site
  - At AIMS Training Center
  - Customized Training
- Installation and Calibration
- Contract Programming
- Retrofits
- Repair By Exchange (RBE)
- Nationwide Service Network

MODUS SOFTWARE

Renishaw's MODUS software includes a configurable user interface to allow native DMIS programs to be developed offline utilizing geometry, embedded dimensions and tolerance data from CAD.

- True 5-axis measurement programs
- Full simulation and crash detection
- Programs arrive ready to run
- Little or no prove-out time required
- Large variety of report formats

TECHNICAL CHARACTERISTICS

STRUCTURE
Coordinate Measuring Machine, Air Bearing DCC type, with moving bridge structure on granite table machine base
X and Y axis linear magnetic drive system has no moving parts - provides smooth, quiet, and fast motion
Thermal Compensation: Optional multi-sensor temperature compensation system
Measuring System: Linear scales, System Resolution: 0.1 µm

5-AXIS TECHNOLOGY
PH20 5-Axis Touch Trigger System
REVO ® 5-Axis Scanning System
Conventional Probes Systems and Changers also available

CONTROL UNIT
Renishaw UCC Controller and Hand Held Teach Pendant

OPTIONS
Passive vibration insulating system
Active vibration insulation system (AVM)
Multi-wire cable

AIR SUPPLY
Air Consumption: 100 Nl/min
Minimum Air Supply: 5 Bar (71PSI)

POWER SUPPLY
Power Supply Voltage: 110 V ± 10%; 60 Hz ± 2% (single phase)
Maximum Power Consumption:10A 1200 W
Optional-Voltage: 240 V ±10%; 50 Hz ±2% (single phase)

ENVIRONMENT
Temperature Range for Metrological Specification:
Temperature Range: 18 - 22° C
Max. Gradient per hour: 1.0° C/h
Max. Gradient per day: 2.0° C/24h
Max. Gradient in space: 0.5° C/m
Operating Temperature: 15 - 35° C
Relative Humidity: 40 - 80 % (non- condensing)
Acceptable Vibrations:
(Vibration acceleration between peaks)
30 mm/s2 from 1 to 10 Hz
15 mm/s2 from 10 to 20 Hz
50 mm/s2 from 20 to 100 Hz

WARRANTY
12 months from the date of acceptance test or a maximum of 15 months from date of shipment

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