Provider of machine tools calibration and repair services
**Renishaw calibration solutions**

**XL-80 laser measurement system (+/-0.5 ppm, 4.0 m/s performance)**

Linear measurement accuracy is assured +/-0.5 ppm thanks to a precision stabilized laser source and accurate environmental compensation. Readings can be taken at up to 50 kHz, with a maximum linear measurement speed of 4 m/s and a linear resolution of 1 nm, even at maximum speed. All measurement options (not just linear) are based on interferometric measurements, giving confidence in the accuracy of the data recorded.

**Benefits of laser verification of machines**
- Increase machine uptime
- Improve machine performance
- Prove the performance of your machines
- Increase your machine manufacturing capabilities
- Comply with quality assurance procedures and standards
- Provide a professional maintenance service

**System performance specifications**
- ±0.5 ppm Certified linear measurement accuracy over the full range of environmental operating conditions
- 1 nm Linear resolution (even at max. velocity)
- 4 m/s Maximum travel velocity
- 7 seconds Between each automatically updated environmental compensation
- 50 kHz Dynamic capture rate
- 80 m Linear range as standard

**QC20- W telescoping ballbar system**

The QC20-W system draws on Renishaw’s many years of experience with ballbar testing and offers significant performance and operational benefits:
- Bluetooth wireless technology ensures no wire hanging issues, closed door operation and reduced possibility for system damage
- New hardware and software which allows a “partial arc” (220°) test. This gives you greater test flexibility including:
  - Improved Z axis testing
  - Tests where axis travel is limited (typically Z-axis on machining centres and X-axis on lathes)
  - Ability to test 3 planes from a single set up, using “partial arc” tests for 2 of the tests and present a “volumetric analysis”
  - Faster data reading for enhanced analysis

**Features and benefits**
- Compact and lightweight
- Handling and fixing on machine can be achieved single-handed
- Easy, cost-effective transportation
- Clearance issues on machine minimised

**Flexible mounting system**
- Can be configured to allow fitment to a wider variety of rotary tables, lathes and other rotary axes than existing rotary calibrators
- Simpler and quicker setup

**Wireless operation**
- Lithium batteries and Bluetooth® communications give truly wireless operation
- Provides for easier and quicker setup and avoids issues with trailing cables, eliminating the safety hazards these create

**Integrated target optics**
- Factory set alignment to base unit minimises alignment and resulting measurement errors

**Built in alignment targets**
- Simple optics-to-laser “alignment aid” to help minimise measurement errors. Optics adjustments made via software provides quicker and safer working for the operator

**Auto calibration and pre-test cycles**
- Pre-calibration measurement cycle compensates for remaining angular alignment errors
- Tests known sampling detects and sets axis direction sense and axis feedrate

**Use of Renishaw system**
- Provides a high integrity, non-contact reference measurement, remote from the axis under test

**Traceability**
- All XR20-W systems are calibrated and delivered with traceable certification

**Servo controlled drive**
- Rotary axis measurement speeds for larger angles (> 90°) of up to 10 rpm
- Uses unique, integrated rotary encoder technology

**New data collection software**
- Enables quicker and more consistent test setup to give faster test results with increased confidence

**Material normalisation accuracy at 10 ppm/ºC**

**System linear measurement accuracy vs. environmental temperature**

**Calibration service provider works faster and smarter to create more revenue**

**Why Calibrate?**
- Reduce scrap, improve machine accuracy and keep your machine tool in specification
- Reduce hours to mechanically align a machine. After an alignment or crash, the machine should always be calibrated
- Calibrate the kinematic parameters of the Tool Center Point (TCP) to enhance your machine
- Market calibrated machines to customers
- Make full use of your Control’s capabilities. Often, we find many machines with empty compensation tables. Machine owners should utilize their Controller’s capabilities to increase machine accuracy and prevent unnecessary wear
- Regular calibrations will help to recognize abnormal wear and tear so problems can be addressed and managed
- End customer requirement

**Calibration service request form**

To request for calibration services, please fill up the form below:

**Contact information**
- Company name
- Phone/mobile
- Email
- Office phone
- Address
- Zip/postal code

**Service information**
- Machine status
  - Up
  - Down
- Model number
- Serial number

**Description of problem**

For more information, please contact our Tech Support:
DKSH Technology Pte Ltd
Richmond Goh
Calibration Specialist
625 Lorong 4 Toa Payoh #03-00, Singapore 319519

Service hotline +65 6643 6837
Mobile +65 9666 3892
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