The BG20 Gun Barrel Bore Gauge System

The BG20 has been specifically designed to modernise and improve the inspection routines of large calibre barrels.

**Series 2 BG20 System**

The gauge may be introduced into the breech or muzzle end of the barrel at the measuring head located anywhere along its length. The measuring process can be effected in minutes. In the Normal mode of operation, horizontal and vertical measurements at a particular location give rise to an indicated average bore dimension. In Ovality mode, two additional (45°) measurements are taken allowing the gauge to compute the maximum out-of-roundness, or ovality, figure. The system is made versatile by means of an interchangeable feeder-tube, thus allowing each gauge to measure a wide range of barrel types from 20-155mm in diameter.

The BG20 is supported by a Software Analysis Package which is PC based, allowing a range of barrel and measurement data to be downloaded directly from the gauge via the integral RS232 serial port onto the PC for presentation in tabular or graphical format.

The Bore Gauges are supplied in a rugged carrying case affording protection, storage and ease of transportation.

About AGI

AGI is backed by 30 years of experience in the design, development, manufacture and installations of defence systems and provides full Integrated Logistic Support services, training, installation and documentation.

AGI is accredited to International Quality Standards ISO 9001/BS5750 Part 1 and Tick-It software procedures.

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System Specifications

The BG10 Gun Barrel Bore Gauge System

- Operation
  - The BG10 system is calibrated against a reference bore (supplied) over a range of dimensions to provide a system with an accurate known reference bore before and after measurement. The gauge automatically compares the measurement taken against a removable gauge (supplied), or compares it against a known dimension, to provide an accurate reference value for each measurement.
  - The entire measuring operation normally takes less than three minutes and is completed in turn, a measurement is taken by squeezing the trigger on the hand-held electronics unit. The operator may select the measurement to be taken in the desired axis and a measurement is taken by squeezing the trigger on the hand-held electronics unit. The maximum measuring range of the system is 20-60mm, ±20 Microns (0.0008”).

- Calibration Routines
  - The BG10 system may be calibrated directly to a miniature thermal printer for an instant hard copy printout.
  - The Portable Thermal Printer or viewed directly on the electronic unit’s display panel or viewed on the unit’s display screen.

- Power Supply
  - The system is supplied with an internal rechargeable battery. The system is designed to have a battery life of in excess of 100 hours continuous use.

- Measurements
  - In either mode all dimensions taken may be observed on the instrument’s display panel and are stored in the System BG20 memory under the operator defined barrel identification number.
  - In the normal mode and the maximum out-of-roundness value in the ovality mode. The gauge automatically calculates the average bore diameter in the ovality mode. The gauge automatically calculates the average bore diameter in the ovality mode. The gauge automatically calculates the average bore diameter in the ovality mode.
  - The operator may select the measurement to be taken in the desired axis and a measurement is taken by squeezing the trigger on the hand-held electronics unit. The operator may select the measurement to be taken in the desired axis and a measurement is taken by squeezing the trigger on the hand-held electronics unit. The maximum measuring range of the system is 20-60mm, ±20 Microns (0.0008”).

- Accessories
  - The system may be connected directly to a miniature thermal printer for an instant hard copy printout.
  - The Portable Thermal Printer or viewed directly on the electronic unit’s display panel or viewed on the unit’s display screen.

AGI’s Visual Inspection Camera System

- For Use With AGI Gun Barrel Gauges

- System AGICAM 2

- Specifications
  - Illumination: 500 lumen video illuminator system
  - Media: 1/2” C mount lens
  - Resolution: 500TV lines
  - View: 90º viewing, top, bottom, side
  - Image Capture: 25 frames per second
  - View: 90º viewing, top, bottom, side
  - Image Capture: 25 frames per second
  - Memory: 4GB SDRAM flash card
  - Imaging System: 500 TV lines

- Accessories
  - Measuring head adapters
  - Interconnecting cables
  - USB power supply
  - Multi-media recorder
  - Inter-connecting cables
  - USB power supply
  - Multi-media recorder

- Options
  - System AGICAM 2 must be set up, ensuring that any necessary support data have been fitted to the camera assembly. The AGI camera assembly is then integrated into the barrel by attaching the gauge to the muzzle or breech, or by inserting the desired measurement position. The hand is then rotated using the indexed handle to measure in the desired axis and a measurement taken by squeezing the trigger on the hand-held electronics unit. The measurement may be selected by squeezing the trigger on the hand-held electronics unit. The measurement may be selected by squeezing the trigger on the hand-held electronics unit. The measurement may be selected by squeezing the trigger on the hand-held electronics unit.

- Dimensions
  - Including: 500 lumen video illuminator system
  - Media: 1/2” C mount lens
  - Resolution: 500TV lines
  - View: 90º viewing, top, bottom, side
  - Image Capture: 25 frames per second
  - View: 90º viewing, top, bottom, side
  - Image Capture: 25 frames per second
  - Memory: 4GB SDRAM flash card
  - Imaging System: 500 TV lines

- Power Supply
  - Power Supply: rechargeable battery
  - Weight: 5kg Unpacked – 16kg Packed
  - Storage Temperature: -10º to +70º C
  - Operating Temperature Range: -30º to +70º C
  - Calibre Range: 20-60mm
  - ±5 Microns (0.0002”)
  - Repeatable Accuracy: ±5 Microns (0.0002”)
  - Measurement Range: 5mm
  - Flexible Feeder Tube Length: Up to 4.5m
  - ±20 Microns (0.0008”)
  - Maximum Measuring Range: 61-155mm
  - Flexible Feeder Tube Length: Up to 4.5m
  - ±20 Microns (0.0008”)