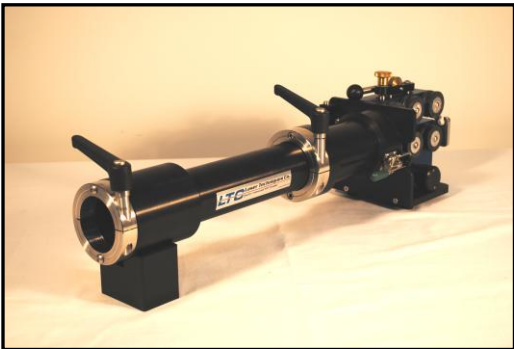


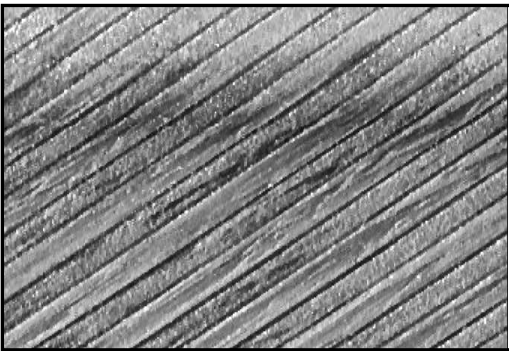
## **BEMIS-MC™ Medium Caliber (20mm – 76mm) Portable Bore Erosion Measurement and Inspection System**



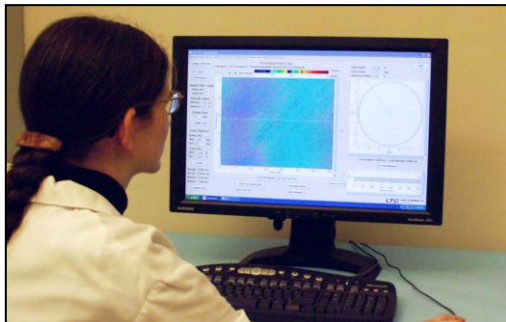
Designed to Inspect Medium Caliber Bores



35mm Portable Sensor Delivery Unit and  
Guide Tube Adapter



LaserVideo™ Image of Gun Bore

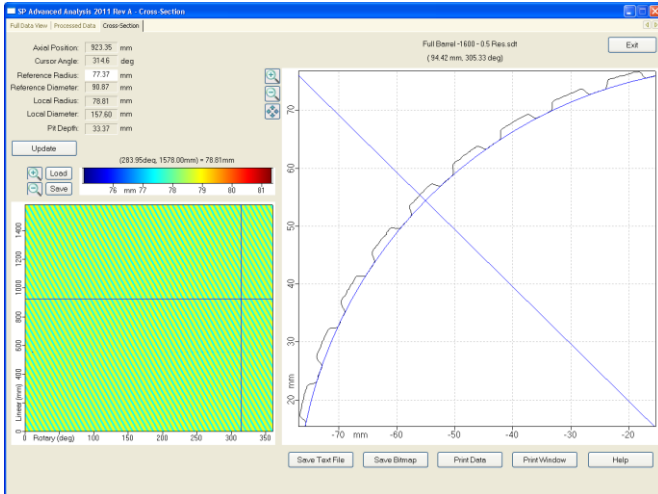


LaserViewer™ Analysis and Reporting Software

### **BEMIS-MC™ Features**

- **High Resolution** laser-based inspection system for assessment of weapon bore condition
- **Rugged and Portable Design** for use in the field or shop
- **Automated** inspection process removes operator subjectivity
- **3D Precision** bore erosion profiling and laser-based dimensional measurement
- **High Resolution LaserVideo™** provides camera-like image of entire gun tube surface
- **Quantitative data** for unparalleled gun tube surface and erosion analysis
- **Advanced analysis and reporting** software provides data in hard-copy summary or exportable to text file
- **Transportable Inspection Data** can be reviewed stored and reviewed at remote locations
- **Automatic report generator** software provides tabular summary of test results
- **Operator-Configurable** motion and scan control
- **Quick setup** with automatic calibration routine
- **On-Site training** available

**LTC...Making Heroes<sup>SM</sup>**



Typical Display allows operators in-depth analysis of test results



Medium Caliber Laser Scanning Sensor

**Basic Specifications:**

**Axial scan resolution: Up to 0.1 mm (0.004 inch) per increment**

**Rotary scan resolution: Up to 0.1 mm (0.004 inch) per increment**

**Sensor resolution: 5 microns (.00025 inch)**

**Sensor Linearity: 12 microns (.0005 inch)**

**Laser Power: < 4 mW**

**Laser Spot Size (max): 0.05 mm (0.002 inch)**

**Laser Power Classification: Class II**

**Power: 110/240 VAC – 50/60 Hz**

**Test Results Displayed: Contour view and cross sectional**

**Surface contour display with 256 color, grey-scale, thermal and solid color options**

**LABORATORY SERVICES BRANCH TEST REPORT**

DATE OF MEASUREMENT: 10/12/2003 12:50:08 PM  
OPERATOR: John Doe  
SERIAL TYPE: M2 50 Caliber  
SERIAL NUMBER: XYZ-123  
NUMBER OF ROUNDS: 1000  
MEASUREMENT TEMP: 82 deg F  
TEST PROGRAM:  
TEST DIRECTOR:

SCAN DATA FILENAME: D  
SCAN DATA ANGULAR RESOLUTION: 0.8 deg  
APPROXIMATE CIRCUMFERENTIAL SAMPLE SPACING: 0.002 in  
REPORT AXIAL RESOLUTION: 0.02 in  
REPORT AXIAL RESOLUTION: 0.5 in  
NUMBER OF LAND SAMPLES PER CALCULATION: 16  
NUMBER OF GROOVE SAMPLES PER CALCULATION: 31  
REPORT GENERATED ON: 1/20/2004  
NOTE: Land 1 is the first land above 0 degrees at the muzzle end.

COMMENTS:

Diameter	Land	Groove	Land	Groove	Land	Groove	Land	Groove	Average
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1	-38.72	0.4950	0.5080	0.4955	0.5085	0.4950	0.5080	0.4945	0.5085
1.5	-38.72	0.4955	0.5085	0.4960	0.5090	0.4955	0.5085	0.4950	0.5085
2	-37.72	0.4955	0.5090	0.4955	0.5080	0.4950	0.5085	0.4955	0.5085
2.5	-37.22	0.4960	0.5085	0.4955	0.5085	0.4950	0.5080	0.4955	0.5080
3	-36.72	0.4955	0.5085	0.4960	0.5085	0.4955	0.5080	0.4950	0.5085
3.5	-36.22	0.4955	0.5090	0.4960	0.5085	0.4955	0.5080	0.4970	0.5085
4	-35.72	0.4955	0.5085	0.4960	0.5085	0.4955	0.5080	0.4970	0.5085
4.5	-35.22	0.4955	0.5085	0.4960	0.5085	0.4955	0.5080	0.4965	0.5085
5	-34.72	0.4955	0.5085	0.4960	0.5080	0.4955	0.5080	0.4970	0.5085
5.5	-34.22	0.4955	0.5090	0.4960	0.5080	0.4970	0.5080	0.4965	0.5085
6	-33.72	0.4955	0.5085	0.4970	0.5085	0.4965	0.5080	0.4955	0.5085
6.5	-33.22	0.4955	0.5085	0.4965	0.5080	0.4970	0.5090	0.4965	0.5085
7	-32.72	0.4955	0.5085	0.4970	0.5085	0.4965	0.5080	0.4955	0.5085
7.5	-32.22	0.4955	0.5090	0.4975	0.5085	0.4970	0.5095	0.4965	0.5090
8	-31.72	0.4975	0.5085	0.4965	0.4970	0.5095	0.4965	0.5090	0.5092
8.5	-31.22	0.4970	0.5090	0.4960	0.5095	0.4965	0.5095	0.4965	0.5090
9	-30.72	0.4975	0.5095	0.4960	0.5100	0.4970	0.5095	0.4965	0.5095
9.5	-30.22	0.4960	0.5095	0.4975	0.5105	0.4970	0.5095	0.4970	0.5095
10	-29.72	0.4965	0.5100	0.4980	0.5105	0.4975	0.5100	0.4970	0.5100
10.5	-29.22	0.4960	0.5105	0.4980	0.5105	0.4975	0.5100	0.4970	0.5105
11	-28.72	0.4960	0.5105	0.4975	0.5110	0.4975	0.5100	0.4980	0.5100
11.5	-28.22	0.4965	0.5110	0.4980	0.5110	0.4975	0.5105	0.4980	0.5105
12	-27.72	0.4965	0.5110	0.4975	0.5105	0.4980	0.5105	0.4985	0.5110
12.5	-27.22	0.4965	0.5110	0.4980	0.5110	0.4975	0.5105	0.4985	0.5110
13	-26.72	0.4965	0.5110	0.4985	0.5105	0.4985	0.5105	0.4990	0.5110
13.5	-26.22	0.4965	0.5110	0.4985	0.5105	0.4990	0.5110	0.4990	0.5110
14	-25.72	0.4960	0.5110	0.4985	0.5110	0.4990	0.5120	0.4990	0.5110
14.5	-25.22	0.4960	0.5105	0.4985	0.5105	0.4990	0.5125	0.4985	0.5110
15	-24.72	0.4965	0.5110	0.4990	0.5110	0.4990	0.5125	0.4985	0.5110
15.5	-24.22	0.4960	0.5115	0.4995	0.5125	0.4995	0.5125	0.4990	0.5110
16	-23.72	0.4960	0.5115	0.4995	0.5125	0.4995	0.5125	0.4985	0.5110
16.5	-23.22	0.4965	0.5120	0.4995	0.5130	0.4995	0.5125	0.4990	0.5115
17	-22.72	0.4965	0.5125	0.5000	0.5125	0.4995	0.5120	0.4990	0.5115
17.5	-22.22	0.5000	0.5130	0.5000	0.5130	0.4990	0.5125	0.4990	0.5125
18	-21.72	0.5005	0.5135	0.5000	0.5130	0.4995	0.5120	0.4995	0.5125
18.5	-21.22	0.5005	0.5135	0.4995	0.5130	0.4995	0.5120	0.5000	0.5120
19	-20.72	0.5005	0.5135	0.4995	0.5130	0.4995	0.5120	0.5005	0.5125
19.5	-20.22	0.5000	0.5135	0.4995	0.5125	0.4995	0.5125	0.5005	0.5125
20	-19.72	0.5000	0.5130	0.4995	0.5120	0.5005	0.5125	0.5005	0.5125
20.5	-19.22	0.5000	0.5130	0.4995	0.5120	0.5005	0.5125	0.5005	0.5127
21	-18.72	0.4995	0.5130	0.4995	0.5120	0.5005	0.5125	0.5005	0.5125
21.5	-18.22	0.4995	0.5125	0.4995	0.5120	0.5005	0.5125	0.5005	0.5125
22	-17.72	0.4995	0.5120	0.5000	0.5120	0.5005	0.5125	0.5000	0.5125

Test results can be generated in tabular format

**BEMIS-MC™ includes:**

- LP-4210F™ Field-Grade Data Acquisition and Control Unit Including LaserViewer™ Software
- Portable Sensor Delivery Unit
- Laser Sensor Scanning Assembly
- Shielded Anti-Twist Sensor Cable
- Guide Tube Adapter and Calibration Set
- Hard-sided Shipping Cases



Complete BEMIS-MC™ System

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