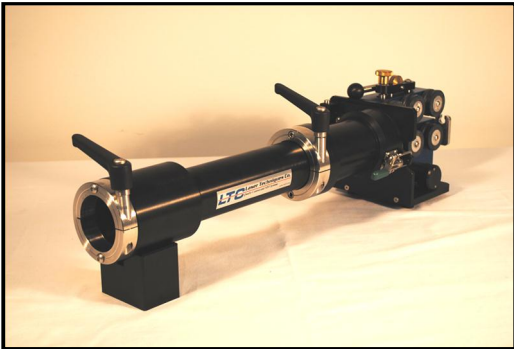


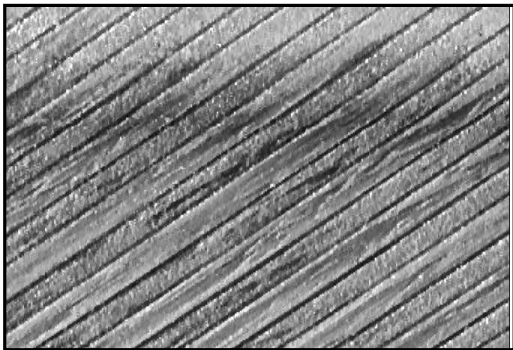
## **BEMIS-MC™ Medium Caliber (20mm – 76mm) Portable Bore Erosion Measurement and Inspection System**



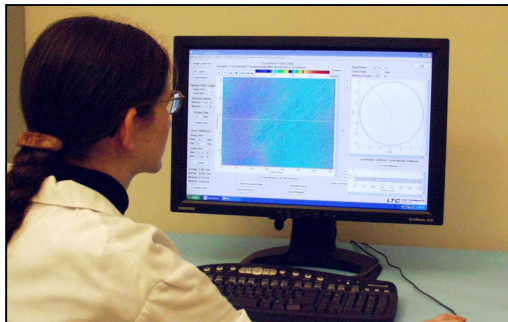
Designed to Inspect Medium Caliber Bores



35mm Portable Sensor Delivery Unit and  
Guide Tube Adapter



LaserVideo™ Image of Gun Bore

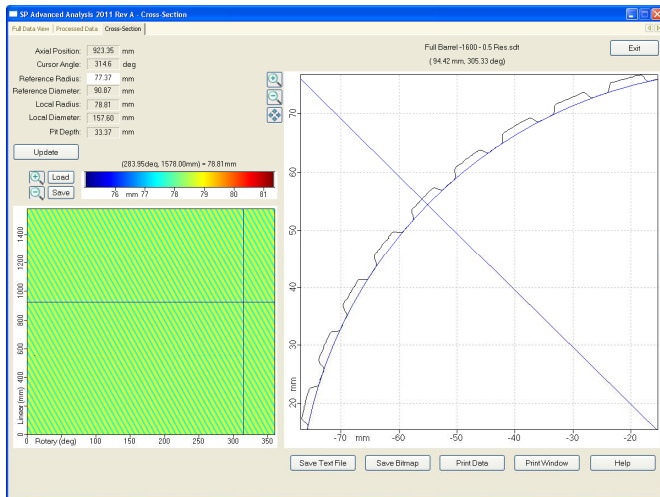


LaserViewer™ Analysis and Reporting Software

### **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

**LABORATORY SERVICES BRANCH TEST REPORT**

DATE OF MEASUREMENT: 10/12/2003 12:59:08 PM  
OPTICATOR: John Doe  
BARREL TYPE: M2 SO Caliber  
SERIAL NUMBER: XYZ123  
NUMBER OF ROUNDS: 100  
MEASUREMENT TEMP: 82 deg F  
TEST PROGRAM:  
TEST DIRECTION:

SCAN DATA FILENAME: D  
SCAN DATA ANGULAR RESOLUTION: 0.5 deg  
APPROXIMATE CIRCUMFERENTIAL SAMPLE SPACING: 0.002 in  
SCAN DATA AXIAL RESOLUTION: 0.25 in  
REPORT AXIAL RESOLUTION: 0.5 in  
NUMBER OF LAND SAMPLES PER CALCULATION: 15  
NUMBER OF GROOVE SAMPLES PER CALCULATION: 31  
REPORT GENERATED ON: 10/20/04

NOTE: Land 1 in the first land above 0 degrees at the muzzle end.

COMMENTS:

Diameter calculations										
Dist from muzzle	Scan	Land	Groove	Land	Groove	Land	Groove	Land	Groove	Average
0.5	-29.22	0.4950	0.5050	0.4955	0.5050	0.4955	0.5050	0.4950	0.5050	0.4952
1	-38.72	0.4950	0.5050	0.4955	0.5050	0.4955	0.5050	0.4945	0.5050	0.4952
1.5	-38.22	0.4950	0.5050	0.4950	0.5050	0.4950	0.5050	0.4950	0.5050	0.4954
2	-37.72	0.4955	0.5050	0.4955	0.5050	0.4955	0.5050	0.4955	0.5050	0.4954
2.5	-37.22	0.4950	0.5050	0.4955	0.5050	0.4950	0.5050	0.4955	0.5050	0.4956
3	-36.72	0.4955	0.5050	0.4950	0.5050	0.4955	0.5050	0.4955	0.5075	0.4958
3.5	-36.22	0.4955	0.5050	0.4950	0.5050	0.4955	0.5050	0.4955	0.5050	0.4962
4	-35.72	0.4955	0.5050	0.4950	0.5050	0.4955	0.5050	0.4970	0.5050	0.4954
4.5	-35.22	0.4955	0.5050	0.4950	0.5050	0.4955	0.5050	0.4950	0.5050	0.4962
5	-34.72	0.4955	0.5050	0.4950	0.5050	0.4955	0.5050	0.4970	0.5050	0.4954
5.5	-34.22	0.4955	0.5050	0.4950	0.5050	0.4970	0.5050	0.4970	0.5050	0.4956
6	-33.72	0.4955	0.5050	0.4975	0.5050	0.4970	0.5050	0.4950	0.5050	0.4955
6.5	-33.22	0.4955	0.5050	0.4975	0.5050	0.4970	0.5050	0.4950	0.5050	0.4955
7	-32.72	0.4955	0.5050	0.4970	0.5050	0.4950	0.5050	0.4950	0.5050	0.4958
7.5	-32.22	0.4955	0.5050	0.4975	0.5050	0.4970	0.5050	0.4950	0.5050	0.4958
8	-31.72	0.4970	0.5050	0.4975	0.5050	0.4970	0.5050	0.4950	0.5050	0.4952
8.5	-31.22	0.4970	0.5050	0.4980	0.5050	0.4950	0.5050	0.4950	0.5050	0.4970
9	-30.72	0.4970	0.5050	0.4980	0.5100	0.4970	0.5050	0.4950	0.5050	0.4973
9.5	-30.22	0.4980	0.5050	0.4975	0.5100	0.4970	0.5050	0.4970	0.5050	0.4974
10	-29.72	0.4980	0.5100	0.4975	0.5100	0.4970	0.5100	0.4970	0.5050	0.4977
10.5	-29.22	0.4980	0.5100	0.4980	0.5100	0.4970	0.5100	0.4975	0.5100	0.4978
11	-28.72	0.4980	0.5100	0.4975	0.5100	0.4975	0.5100	0.4980	0.5100	0.4977
11.5	-28.22	0.4985	0.5110	0.4980	0.5110	0.4975	0.5100	0.4980	0.5100	0.4980
12	-27.72	0.4985	0.5110	0.4975	0.5100	0.4980	0.5100	0.4980	0.5110	0.4981
12.5	-27.22	0.4985	0.5110	0.4980	0.5100	0.4980	0.5100	0.4985	0.5110	0.4982
13	-26.72	0.4985	0.5110	0.4985	0.5100	0.4980	0.5100	0.4985	0.5110	0.4982
13.5	-26.22	0.4985	0.5110	0.4985	0.5100	0.4980	0.5100	0.4980	0.5110	0.4987
14	-25.72	0.4980	0.5110	0.4980	0.5110	0.4990	0.5120	0.4980	0.5110	0.4988
14.5	-25.22	0.4985	0.5105	0.4985	0.5105	0.4985	0.5120	0.4985	0.5110	0.4988
15	-24.72	0.4985	0.5110	0.4990	0.5110	0.4990	0.5120	0.4985	0.5110	0.4988
15.5	-24.22	0.4990	0.5115	0.4995	0.5120	0.4995	0.5120	0.4990	0.5110	0.4991
16	-23.72	0.4990	0.5115	0.4995	0.5120	0.4995	0.5120	0.4985	0.5110	0.4992
16.5	-23.22	0.4995	0.5120	0.4995	0.5120	0.4995	0.5120	0.4990	0.5115	0.4995
17	-22.72	0.4995	0.5120	0.5000	0.5120	0.4995	0.5120	0.4990	0.5120	0.4995
17.5	-22.22	0.5000	0.5130	0.5000	0.5120	0.4990	0.5120	0.4990	0.5120	0.4995
18	-21.72	0.5000	0.5130	0.5000	0.5130	0.4995	0.5120	0.4995	0.5120	0.4999
18.5	-21.22	0.5000	0.5130	0.4995	0.5130	0.4995	0.5120	0.5000	0.5120	0.4999
19	-20.72	0.5000	0.5135	0.4995	0.5130	0.4995	0.5120	0.5000	0.5120	0.4999
19.5	-20.22	0.5000	0.5135	0.4995	0.5125	0.4995	0.5120	0.5000	0.5120	0.4999
20	-19.72	0.5000	0.5135	0.4995	0.5120	0.4995	0.5120	0.5000	0.5130	0.4999
20.5	-19.22	0.5000	0.5130	0.4995	0.5120	0.5000	0.5120	0.5000	0.5130	0.5001
21	-18.72	0.4995	0.5130	0.4995	0.5120	0.5000	0.5120	0.5000	0.5130	0.5000
21.5	-18.22	0.4995	0.5125	0.4995	0.5120	0.5000	0.5120	0.5000	0.5130	0.5000
22	-17.72	0.4990	0.5120	0.5000	0.5120	0.5000	0.5120	0.5000	0.5130	0.4998

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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