RSI
Model 50
Upgrades for Isotope Gauges

THE AFFORDABLE SOLUTION FOR UPDATING LEGACY ISOTOPE GAUGES

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Upgrade Packages

The Model 50 Electronics package has been used successfully to upgrade legacy isotope gauges from major manufacturers such as Eberline, Loral, Boyle Controls, DMC, Radiometrie, AccuRay, and ThermoFisher.

- The most cost-effective solution to gauge obsolescence. Roughly half the cost of a new gauge.

- No need to purchase expensive new gauges to benefit from newer technologies. Existing measurement sensors can often be retrofitted with the latest technology as part of the upgrade.

- Reusing the existing measuring sensors, c-frames, junction boxes, and cabling minimizes installation costs and keeps down-time to a minimum. Most upgrades can be completed in just a few days.

- Modernizing and reusing existing measurement sensors negates the need to purchase expensive new sensors to support the system.

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Model 50 Features

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- Integrated 17-inch Touchscreen Operator's Panel

- Remote Mounting of Operator's Panel

- Additional Operator's Panels (optional)

- Multiple language options for main operator pages

- Single and Dual Gauge Configurations

- Coating compensation for Sn, Zn, Zn/Al, Zn/Fe

- AC line conditioner/UPS inside cabinet (optional)

- Side Mounted Air Conditioner for ambient temperatures warmer than 35C/95F (optional)
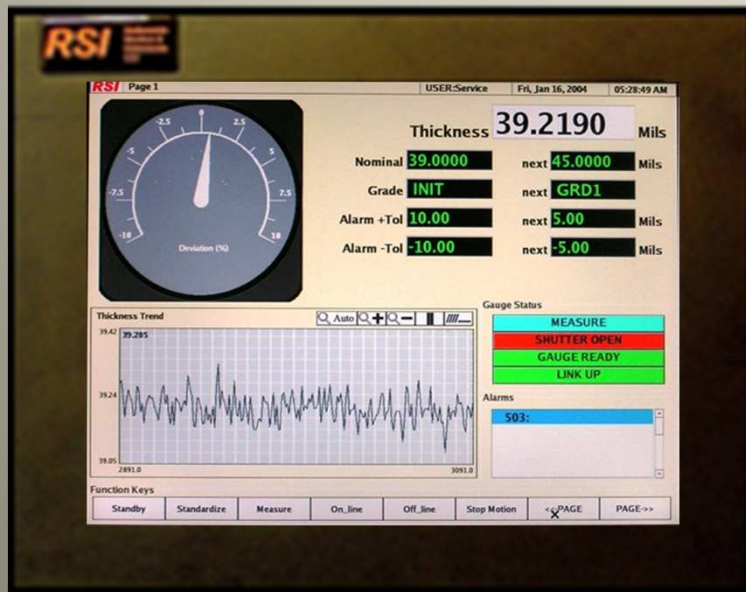
Gauge Processor Configuration...Added Reliability !!!

- Industry Standard "Computer-On-Module", ETX (Embedded Technology eXtended) modules minimize long term "hardware obsolescence" issues

- Solid State Drives for enhanced reliability

- Separate Processors for system measurement and communications. "Core" measurement software continues to run even if display application software crashes.

- 16 bit - A/D Channels

- Four Independent Analog Output Channels

- Up to 48 Channels of Digital I/O, configurable

- Connectivity for remote monitoring and troubleshooting (optional)

- Linux Real Time O/S with "C++" language modularized

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The Operator's Terminal is mounted on the front door of the MEC. The terminal is used for system configuration, set-up of measurement parameters, diagnostics, fault finding, etc.

- Touchscreen LCD color display

- Rugged, industrial quality for tough environments

- Simple, easy-to-use interface

- Password controlled, multiple access levels

- Display of thickness, deviation from set point, current and "next" nominal values

- Manual entry of thickness, alloy/grade

- Gauge status and alarms

- Customer configurable displays

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Screen Shots

Measurement

Setup

Alarm Log

Calibration

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Diagnostic Features

- Access via internet for remote diagnostics and troubleshooting (optional)

- Cabinet temperature monitoring with alarms

- Full diagnostics with multiple screens

- Calibration curve building capabilities built in; includes curve order selection, display of coefficients and curve error display

- Alarm and event logging by time and date

- Analog input and output scaling

- Digital I/O checks

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System Interfaces

- TCP/IP, Profibus or OPC interface to Level II computer
  - Download nominal thickness, tolerances, alloy name, alloy chemistry, etc.

- RS232C serial links available for older systems

- Four scalable analog outputs (standard)….additional outputs are optional

- Isolation amplifiers available for Control Interfaces
  - $\pm$ 10 VDC or 4 – 20 mA current loop, 1000 vdc isolation

- Digital Inputs and Outputs (Solid State or Relay) for system status
  - Gauge healthy, measuring, calibrating, on/off-line, etc.

The Remote Operator's Panel permits the viewing and entry of measurement values and parameters. Multi-level password control allows access to system extensive diagnostic and configuration tools.

- Touchscreen LCD color display
- Rugged, industrial quality for tough environments
- Display of thickness, deviation from set point together with present and next nominal values
- Manual entry of thickness, alloy/grade
- Gauge status and alarms
- Mounting options…Surface, Desktop, or Rack
- Chassis mounted CPU simplifies installation
- Ethernet fiber-optic interface
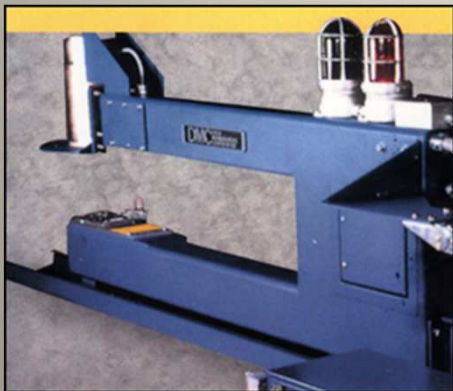- Optional keyboard, trackball and mouse operation

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Detectors ...

- Detectors from Boyle Controls, DMC and Radiometrie isotope gauges can be reused in the upgrade without modification

- Detectors from Loral / Accuray systems will need to be retrofitted or replaced
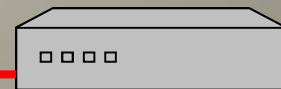
Model 50
Main Electronic
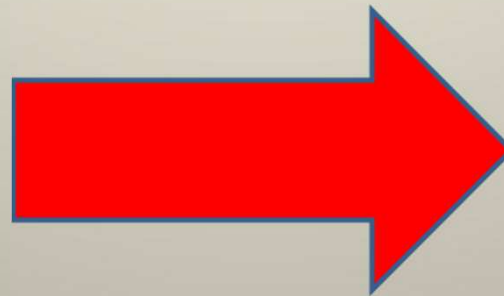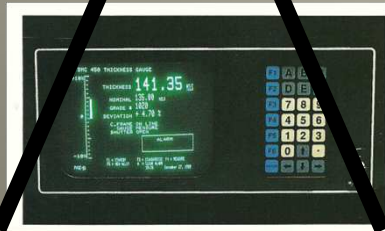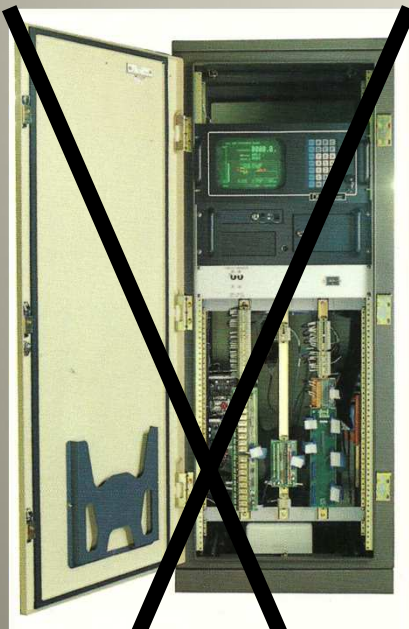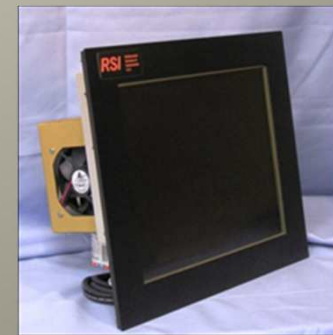# Cabinet (MEC)

C-frame(s) (One or Two)

Optional Remote
Operators' Panel(s)

Optional Link to Level II
Computer

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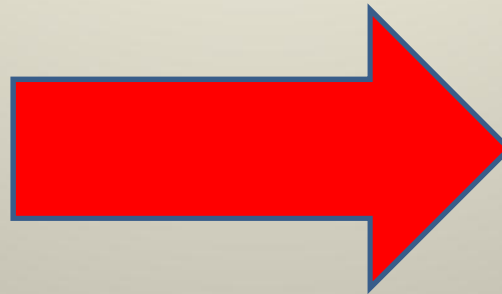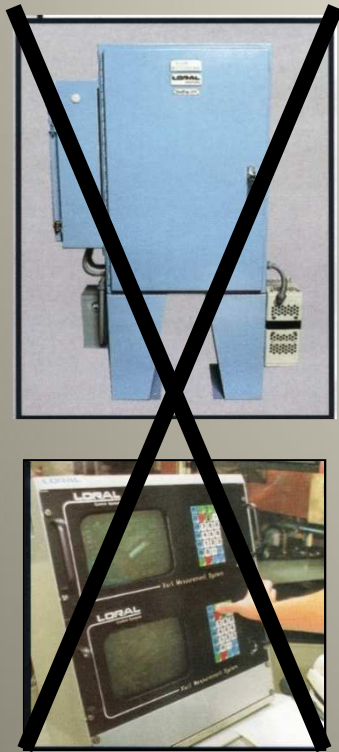# DMC Model...DMC 420 and 450 Thickness Gauges

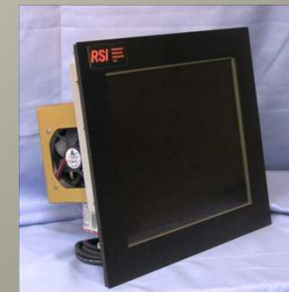Existing Detector is reused without Modification

Optional Remote Operator's Panel

Model 3000, 3500, 5310 Weston/Loral
Isotope Thickness Gauges

Existing Detector is updated with a
modern Ion Chamber and Preamp

Optional Remote Operator's Panel

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RSI …now #1 in Service Support!

RSI provides more service support than any other North American supplier, using experienced test and service personnel

- Free emergency service Hot Line (+1) 717-476-9012
- North American Service from Frederick, MD, Wheeling, WV and Detroit, MI
- European Service from the UK and Italy
- Service in Asia from Beijing, China
- Maintenance contracts designed to meet your requirements
- Discounts on spare parts
- Wipe tests
- Competitive Service Rates
- Visit our website: www.rsi-xray.com

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Why Work with *RSI* ?

- Our thickness gauges and coating gauges are proudly Made in the USA

- Field Service and Technical Support are always available

- Free telephone hot line for customer emergencies

- Affordable preventive maintenance contracts and call-out service

- Fast turn-around on fully tested repairs – large inventory of spare parts

- Our x-ray sources and detectors are mechanically and electrically backwards compatible with those used in many legacy gauges

- An experienced technical staff with a proven track record

- We have more than 200 years of combined gauging experience

At RSI, the Customer is #1

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