

**AUTOMATED RESIDUAL
STRESS ANALYSIS**

iXRD

*Portable Non-Destructive
Residual Stress Measurement System*



A world of solutions

iXRD

Portable High Speed Measurement

A proven performer in the field, laboratory and shop floor. As pioneers in field residual stress characterization, we have distilled over twenty years of stress measurement experience into this unit.

We made it small and light, enabling ease of transport and positioning. We made it fast to maximize the number of measurements taken in a day. We made it nimble with our modular field stand approach, adaptable software, easy to operate controls and our uniquely designed goniometers.

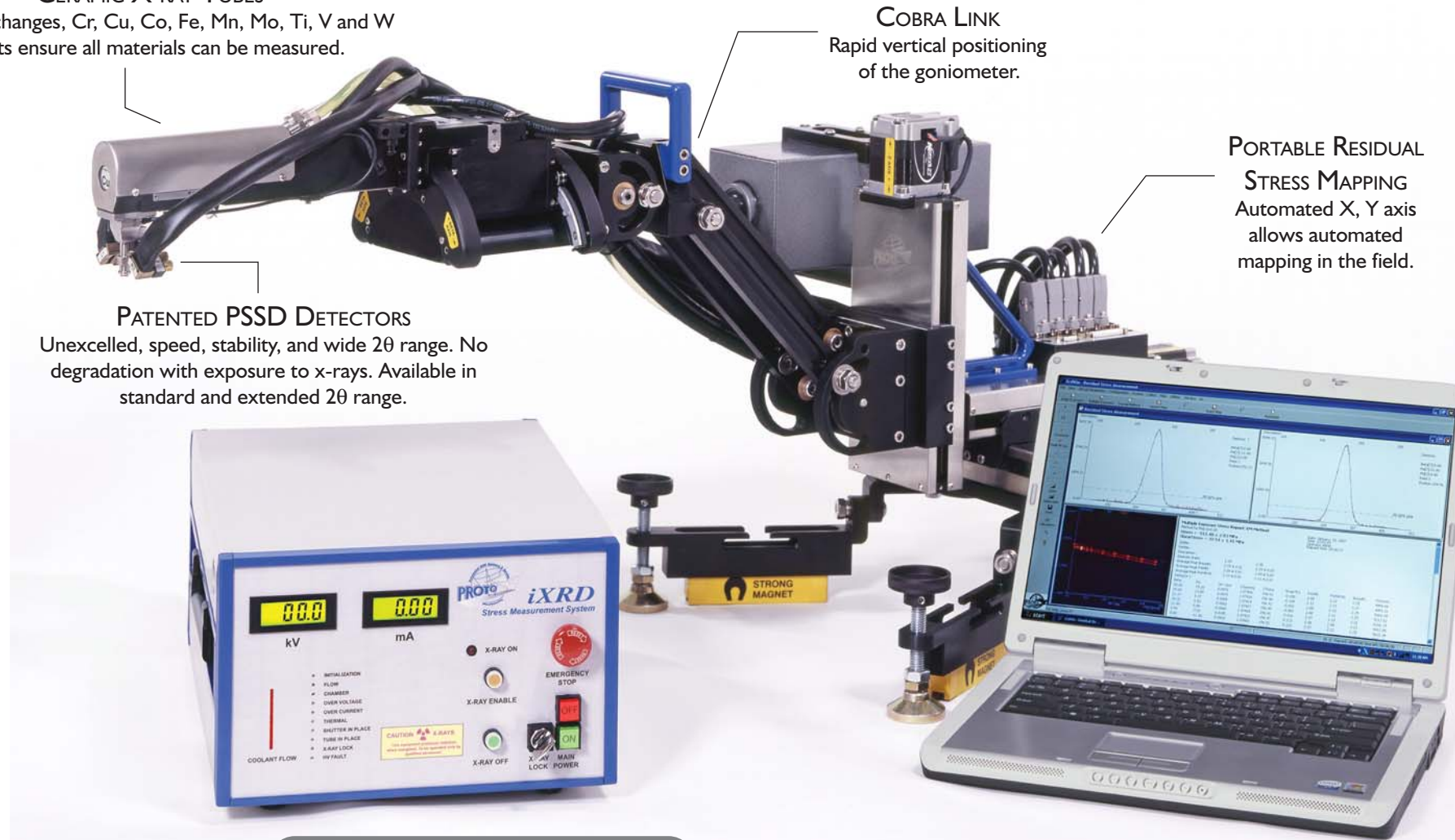
Whatever the application, whatever the industry, Proto has an iXRD system that will meet your needs.

CERAMIC X-RAY TUBES
Fast tube changes, Cr, Cu, Co, Fe, Mn, Mo, Ti, V and W targets ensure all materials can be measured.

COBRA LINK
Rapid vertical positioning of the goniometer.

PORTABLE RESIDUAL STRESS MAPPING
Automated X, Y axis allows automated mapping in the field.

PATENTED PSSD DETECTORS
Unexcelled, speed, stability, and wide 2θ range. No degradation with exposure to x-rays. Available in standard and extended 2θ range.



iXRD Combo

OPTIONAL ENCLOSURES
The iXRD Combo provides the convenience and safety of a fully interlocked enclosure. Perfect for lab settings.



Standard Enclosure



Large Part Enclosure

Goniometer Options

MG40P



Our standard portable goniometer. With a 40 mm focal distance and a 30 mm diameter x-ray tube the MG40P offers a good balance between size and versatility and can measure inside a 120 mm diameter bore.

MGR40P



With built-in phi axis rotation the MGR40P allows for fully automated triaxial measurements in the field.

MG30P



With a 30 mm focal distance and a 16 mm diameter x-ray tube the smaller MG30P is ideal for measuring in tight locations and can measure inside a 90 mm diameter bore.

MG15P



With a 15 mm focal distance, 16 mm diameter x-ray tube and miniature PSSD x-ray detectors the MG15P is capable of measuring inside 60 mm diameter bores.

Field stand options

FS1



Pipeline or pressure vessel capable
Standard features: Automated Z-axis, manual X, Y axis, magnetic flex track that allows easy positioning for measurements around piping.

FS2



A low cost basic stand for added flexibility in the field
Standard features: Automated or manual Z-axis, Cobra-link for flexible positioning of the goniometer, magnetic feet, adjustable foot pads.

FS3



Designed to be used alone or interfaced with the modular mapping system
Standard features: Automated Z-axis, Cobra-link for flexible positioning of the goniometer, magnetic feet, adjustable foot pads, security strap. Modular mapping table with automated X, Y and Φ Axis.

FS4



Our most popular stand for portable stress measurement
Standard features: Automated X, Y and Z-axis, full-featured field residual stress mapping, Cobra-link for flexible positioning of the goniometer, magnetic feet, adjustable foot pads.

FS5



Our new lightweight fully-automated field stand for portable stress mapping
Standard features: Automated X, Y and Z-axis, full-featured field residual stress mapping, Cobra-link for flexible positioning of the goniometer, adjustable foot pads, light weight. Interchangeable magnetic feet and suction cup feet for mounting to non magnetic structures such as aircraft wings.

