TSC INSPECTION SYSTEMS

TSC *Stressprobe*

Instrument for non-contacting stress measurement

The **TSC *Stressprobe*** is now available for use on any steel surface where mechanical stresses need to be measured. ***StressProbe*** is based on the measurement of stress induced magnetic anisotropy. It is non-contacting and can be used on any ferro-magnetic material.

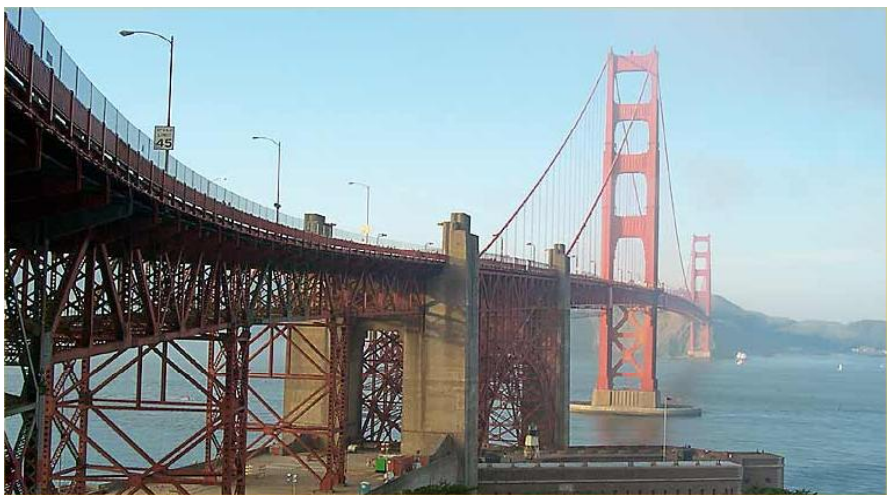
Description:

The Stressprobe equipment consists of a probe, an instrument and a laptop computer. The whole system is easily portable.

The probes can be adapted to the customer requirement, though a standard probe is available for use on large surfaces, such as bridge decking, beams and universal columns, ships, offshore tubular joints, pipes, and pressure vessels.

The instrument is housed in a robust splash proof case, containing all the necessary electronic hardware.

The laptops used are toughbook style, chosen for their water-resistance and sturdy nature. The stress measurement is controlled by TSC's SP software, which is user-friendly and gives immediate solutions.



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Applications:

Measurement of stress in service is important as it can confirm the service loading and any deterioration in the state of the structure. Stressprobe is a major step forward as it allows non-contacting measurement, which can be through coatings (up to 5mm) and be either spot measurement, stress distribution (mapping), or monitoring of stress.

Stressprobe can be used to map the stress distribution in structures. It can for example be used for measuring the distribution along a loaded beam or alternatively the stress at a particular site e.g. the flange and web distributions around a cross-section.

Stressprobe can be used to measure the stress already in structures and also any changes in stress with time, for example residual stresses caused by welding or cyclic stress changes. Monitoring changes in stress is easy with Stressprobe and monitoring changes up to 3Hz is possible.

Stressprobe comes in a range of configurations suitable for different applications. For distribution measurement for example an encoder can be fitted to give position and stress at each location. Probes can be adapted to the customer requirement, though a standard probe is available.

Why use Stressprobe?

- Non Contacting, no adhesives necessary
- Requires minimal surface cleaning – no need to remove coatings or to clean to bare metal finish
- Easy to set up and portable.
- Instant data logging, retrieval and analysis

For further information please contact:

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