VEQTER

Residual Stress Experts

Aerospace

Conventional Power Generation

Manufacturing

Maritime

Nuclear Power Generation

Oil and Gas

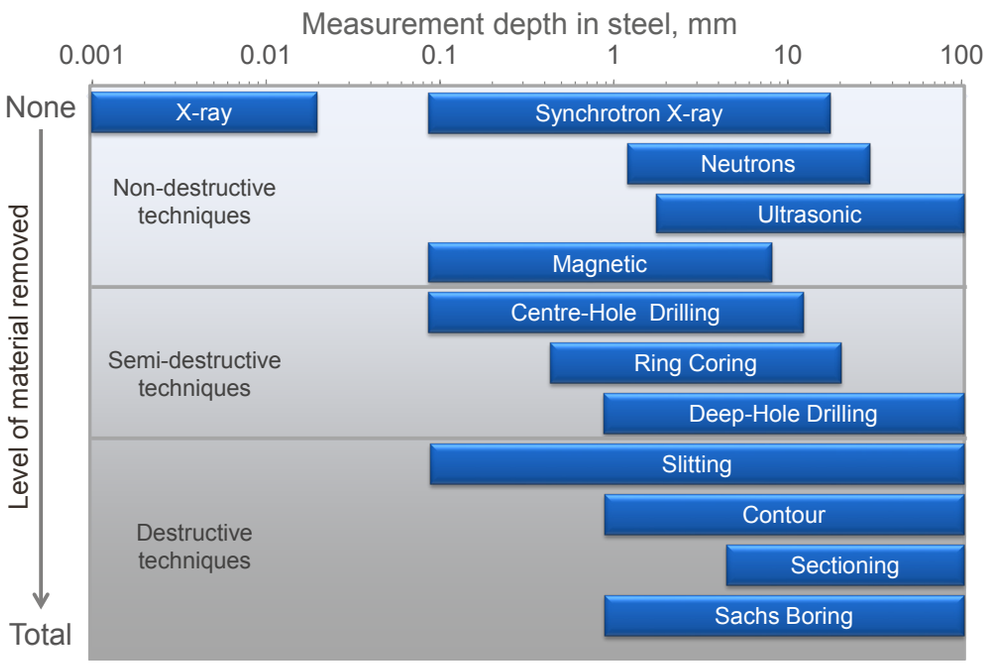
Rail and Transport

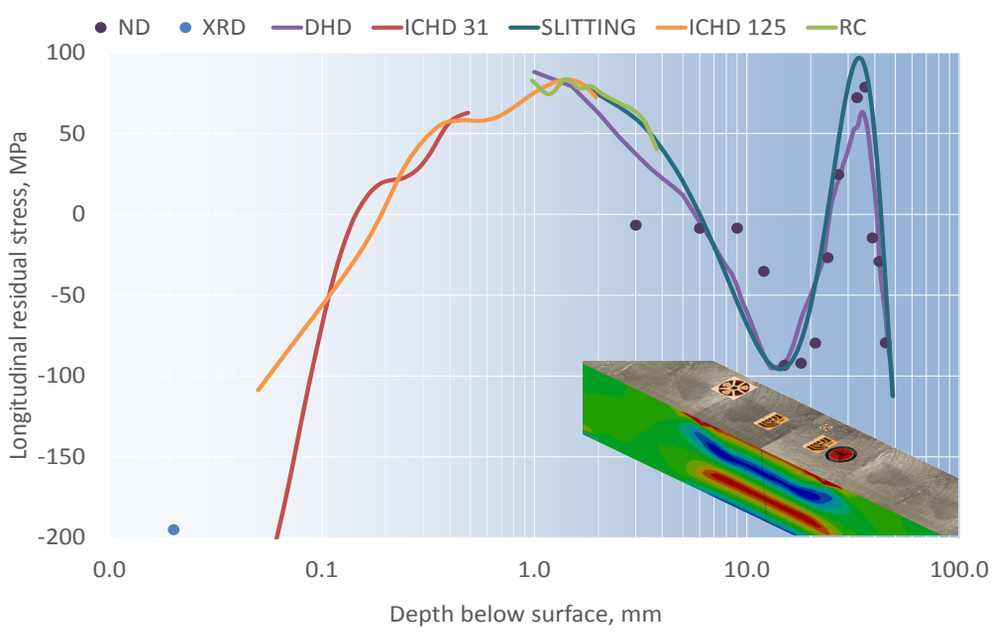
Stress Measurement Techniques

Many techniques exist for the measurement of residual stresses within engineering components and are generally classified into non-destructive and destructive techniques.

- The non-destructive techniques work on the relationship between stress and the physical or crystallographic properties of the component material.
- The destructive techniques (which include the subset of semi-destructive techniques) work on the basis of removing material from the component to release stresses and then measuring the resultant deformations.

All of the techniques have their advantages and disadvantages, and so the optimum measurement programmes will involve the complimentary use of a number of techniques, providing mutual validation and hence added confidence in the results produced.

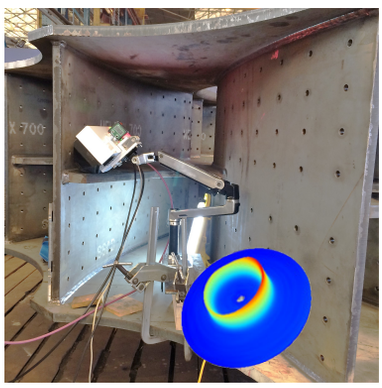




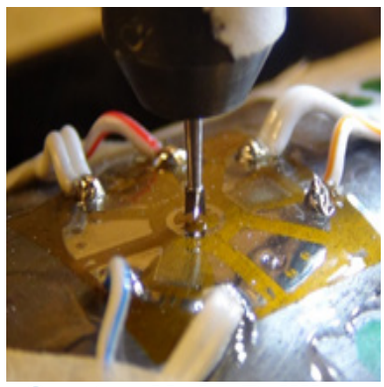
Four-point bent beam application

Measurement Services

VEQTER provides the widest range of residual stress measurement techniques available, for use in the lab or in the field, namely:



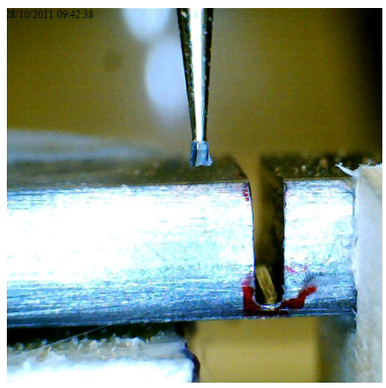
X-ray Diffraction



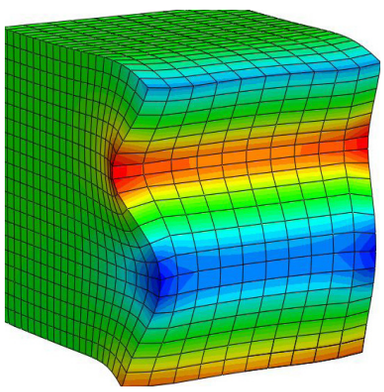
Centre-Hole Drilling

Ring Core

Ultrasonic



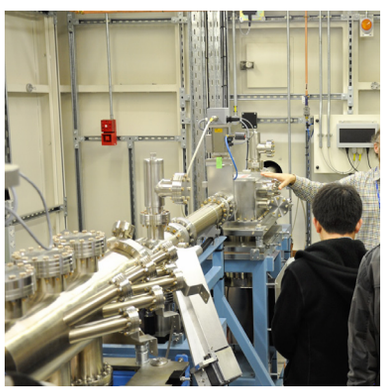
Slitting



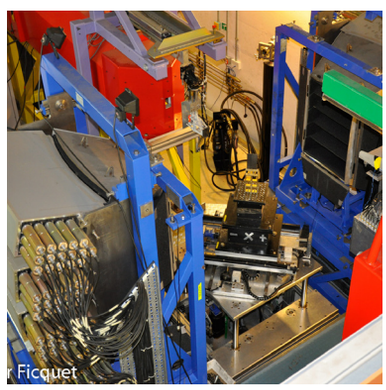
Contour

Deep-Hole Drilling

Sachs Boring



Synchrotron X-ray



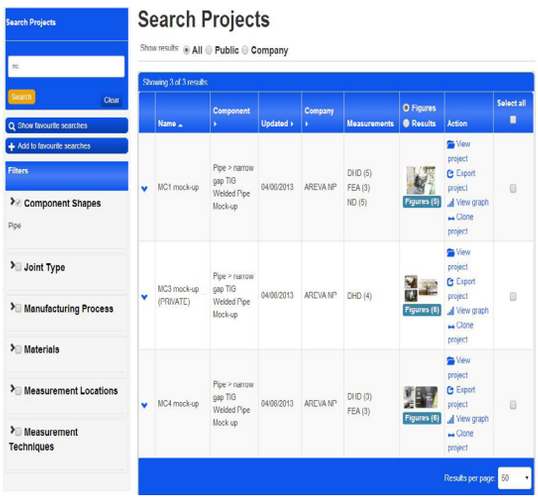
Neutron Diffraction

Other Products & Services

Residual Stress Database:

Web access software allowing the licensed user to:

- Find private and published data easily and efficiently
- Centralise the storage of the latest version of data and supporting information
- Standardise data formats to ease storage and interpretation
- Easily compare data to identify trends and increase data confidence
- Provide a central workspace to aid sharing and collaboration
- Reallocate resources from repeating lost work to filling knowledge gaps



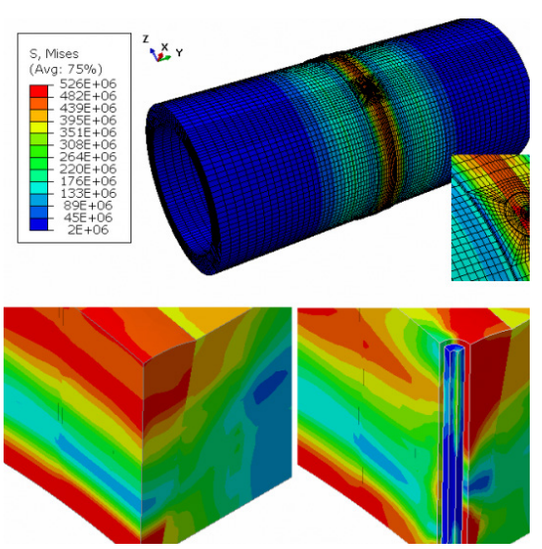
Residual Stress Training:

Our Residual Stress Workshop is a four day open event covering the most widely used measurement and modelling techniques via lectures, laboratory demonstrations and site visits.
Private tailor-made courses can also be delivered to suit specific client needs.

Residual Stress Consultancy:

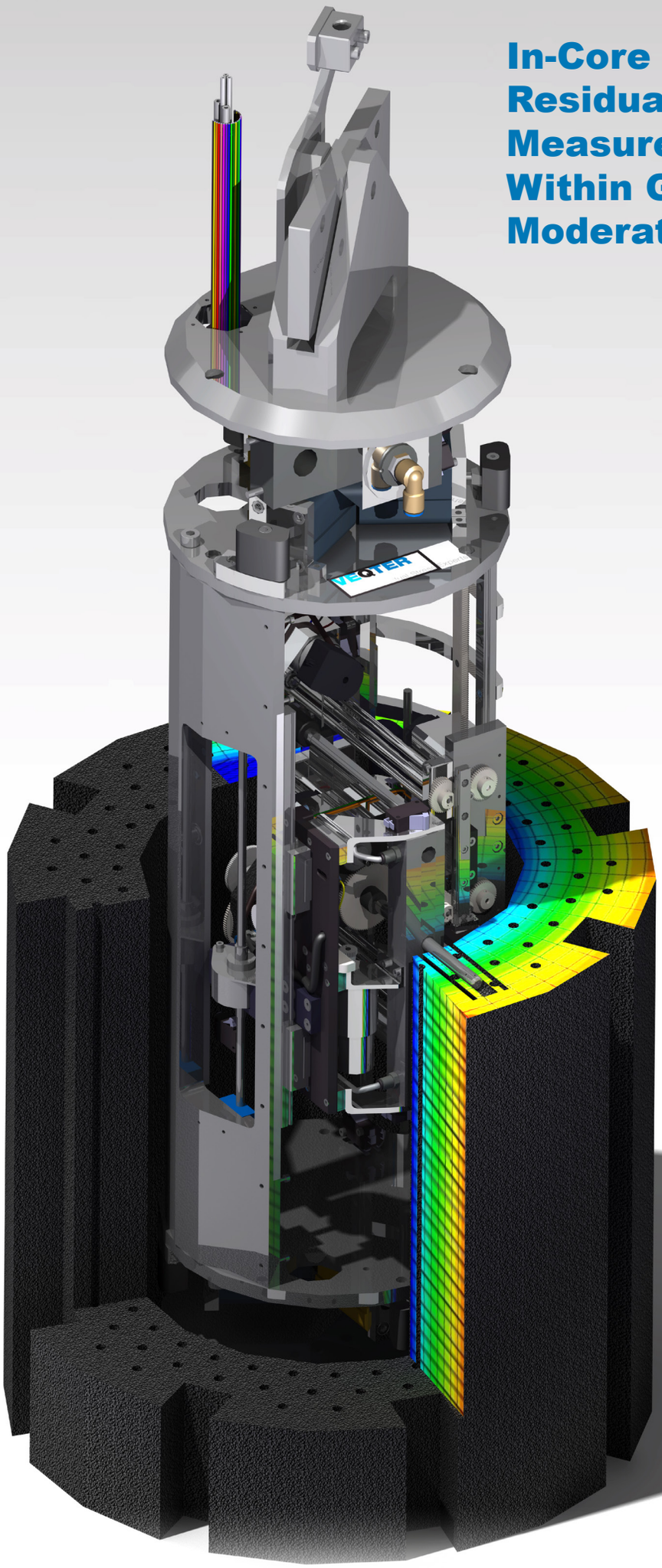
Our research and experience enables us to provide consultancy services to our clients on subject areas like:

- Measurement simulation
- Interpretation of results
- Data mapping
- Test programmes
- Mock-up design
- Residual stress management solutions
- Independent reviews of reports and results



Customised measurement equipment:

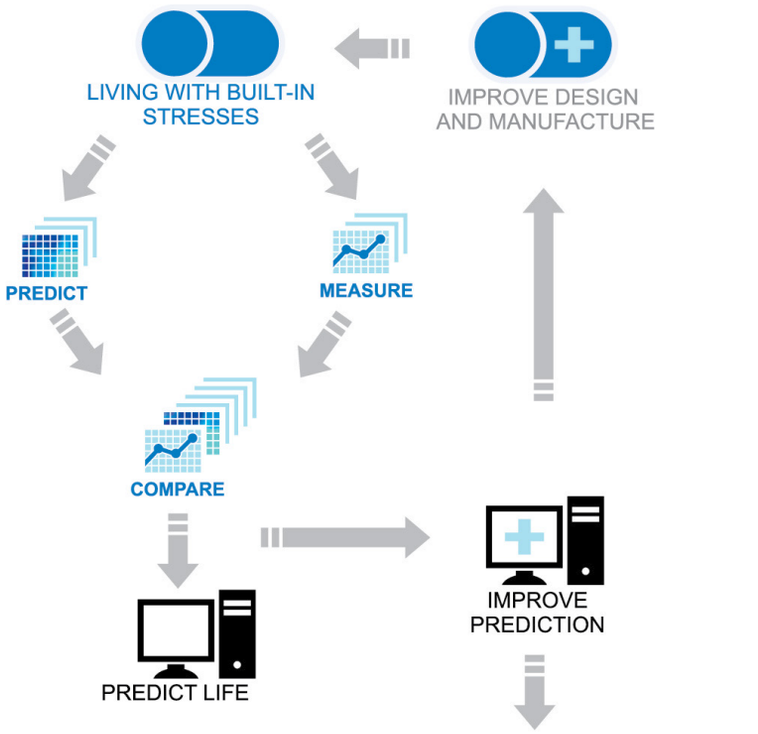
In-Core DHD Residual Stress Measurement Within Graphite Moderator Bricks



VEQTER Ltd is a leading-edge spin-out company from the University of Bristol employing unique technology and expertise for the measurement, analysis and management of residual stresses in engineering components worldwide.

Akin to its academic origins, VEQTER strives to help Clients improve system performance by adding value through technical excellence, leading-edge knowledge and experience in the field of residual stresses.

Currently serving many industrial sectors Worldwide, VEQTER is helping to reduce the frequency and duration of downtime that costs some clients more than £1,000,000 per day.



Extend Performance & Life

Strategic Perspective

VEQTER
Residual Stress Experts

VEQTER Ltd
8 Unicorn Business
Whitby Road
Bristol BS4 4EX
UK

Tel: +44 (0) 117 992 7970

experts@veqter.co.uk
www.veqter.co.uk

www.veqter.co.uk