



Aerospace
Conventional Power Generation
Manufacturing
Maritime
Nuclear Power Generation
Oil and Gas
Rail and Transport

VEQTER

Residual Stress Experts

VEQTER is an engineering company providing excellence in the measurement, analysis and management of residual stresses. We are world leaders in our field and offer expertise on any aspect related to residual stresses in engineering components and structures.

Independent Reviews and Residual Stress Database

VEQTER's expert understanding of residual stresses uniquely positions it as a key partner in the assessment and compilation of results. We offer a full independent review of reports for the verification of Finite Element Analysis (FEA) and experimental measurements.

Also, our depth of knowledge allows us to interpret and manipulate data from other contractors, research institutions and universities. This allows us to record data in easily accessible common formats appropriate to our clients, for easy interrogation and intelligent comparison of multiple data sets.

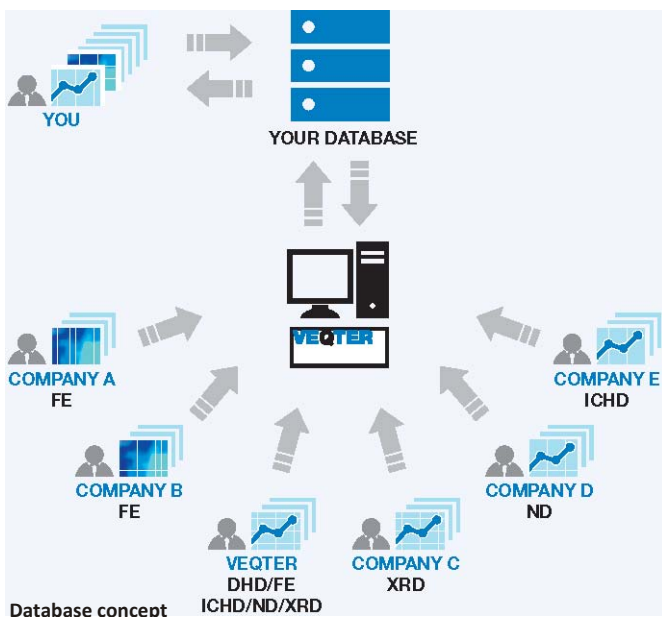
To find out how VEQTER can help you please contact us on *+44 (0) 117 987 8015* or using *experts@veqter.co.uk*

Independent reviews

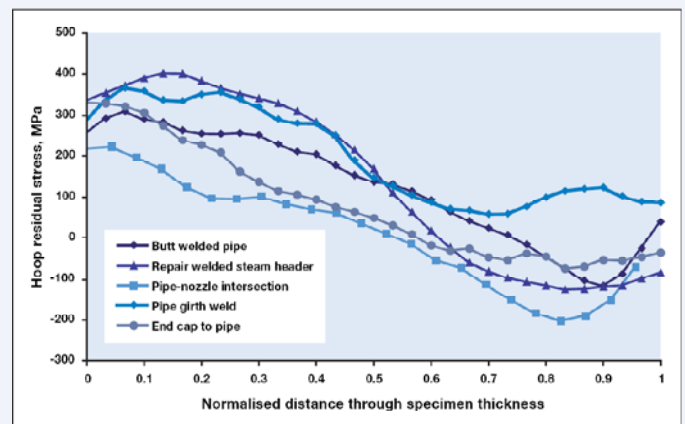
- We provide an independent review of both numerical and experimental reports concerning residual stresses and fracture
- The foundation of our review is extensive experience of using all residual stress measurement techniques, coupled with many years of leading edge numerical modelling
- We have experience of reviewing reports to all levels of quality, e.g. "spot-check" or complete re-working FEA report reviews, checking for example, convergence: meshes, time increments, boundary conditions and material properties for numerical simulations
- Measurement report reviews will check that experimental parameters, such as elastic constants, stress-free lattice spacings, gauge volumes and inversion algorithms were correctly determined and appropriately used



Residual Stress Database

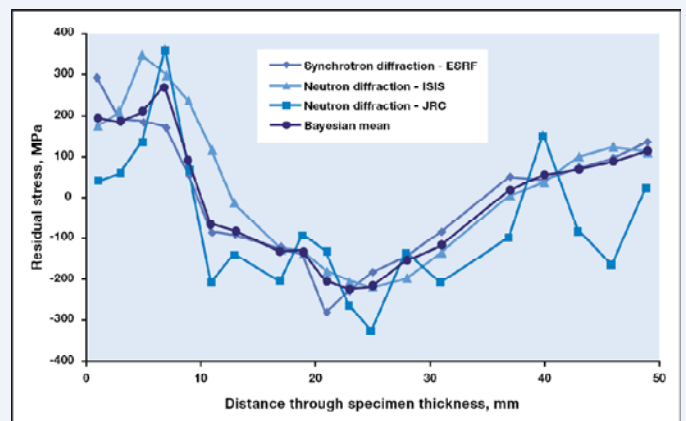


- We can create and manage a database of residual stress measurement results and numerical predictions, using data accrued from current and historical R & D projects
- The database permits interrogation of multiple data sources and ensures consistency in the format of recorded data
- The database enables rapid comparisons to be made using, for example, material type, geometry and fabrication history as search criteria



Comparison of V-weld residual stresses from different components

- We can provide a realistic error analysis of the data, and also provide a statistical (e.g. conventional and Bayesian) interpretation of the data



Bayesian mean of multiple experimental data

- The database can be generated to be consistent with R6 and other standards