



Instrumentation, Testing & Monitoring

Testconsult provides both in-situ and controlled condition testing solutions for a broad range of industries in both the UK and Ireland. Our Engineers are able to undertake complex instrumentation and load testing programs on bridges, structures, and components to assess serviceability and compliance with relevant standards. We also specialise in remote monitoring systems which clients can view directly and securely on our web based results database.

Testconsult can develop bespoke test methods and complex instrumentation solutions to suit clients needs, as control software is written in-house. Our use of many sensor types ensures that the overall aims of the sur-

vey are accomplished. Applications range from long term stress and displacement monitoring of bridges to dynamic measurement of strain and displacement over a few milliseconds. We also provide services to the manufacturing industry with instrumentation of plant and machinery and proof certification of products such as barriers and scaffolding, using our purpose built load test beds.

Our Environmental team can carry out full noise and vibration surveys on site and also advise on nuisance alleviation measures. We also hire out user friendly noise and vibration monitoring equipment if required on long term contracts.

Services

- ◆ **ISO17025 Quality Control Systems Accredited by UKAS**
- ◆ **Fast Efficient Service**
- ◆ **Bespoke Testing Solutions**
- ◆ Instrumentation and monitoring of bridges & buildings
- ◆ Structural investigations and condition surveys
- ◆ Compliance proof load testing of barriers and components
- ◆ Geophysical investigations and Corrosion surveys
- ◆ Structural testing facilities for component assessment
- ◆ Environmental Studies of Noise, Vibration, Dust and Water
- ◆ Chemical and laboratory testing of samples - UKAS accreditation
- ◆ Fully Independent Service



Testconsult Structural Testing Services

Instrumentation

Monitoring of Bridges, buildings, tunnels, dams, environment & machinery
Remote and web monitoring systems
Web data presentation and storage with client login (www.testresult.co.uk)
Real time monitoring (T-Cyclops)
Measurement of : stress, strain, temperature, noise, vibration, displacement, tilt, natural frequency, position, pressure, load, half-cell potential, acceleration and fatigue



Corrosion Surveys

Rate of Corrosion testing
Lamp post condition assessment
Transmission tower legs

Geophysical Investigations

Ground Penetrating Radar of structures
Conductivity
Micro-gravity

Laboratory Testing

Chloride ion and Sulphate content
Cement content
Compressive strength of cores
Petrographic examinations
HAC & ASR - presence and condition
Thaumasite reaction identification
Steel - identification of type & strength
UKAS accredited soils testing

Environmental Studies

Noise surveys—Leq, L90 and long term
Environmental Noise Modelling
Environmental Noise monitoring
Wind farm environmental studies
Vibration monitoring
Hand-arm-whole body vibration
Frequency analysis of rotating plant
Vibration isolation advice
Design of machine foundations, mounts
Equipment hire—vibration & noise
Dust sampling and monitoring

Structural Investigations

Bridges—BA35/90 and Post Tensioned
Buildings and Car Parks
Location of ducts and voiding
Pressure testing and imaging of voids
In-situ stress determination
Depth of cover and rebar mapping
Half-cell potential mapping
Resistivity and depth of carbonation
Delamination and rebound surveys
Pull-off and pull-out tests
Humidity and moisture levels
Ultrasonic surveys
Finite Element modelling
Borescope investigations
Sampling by dust & diamond coring
Steel, Paint and coating sampling
Tensile testing and residual stress

Compliance Load Testing

Scaffold & barrier compliance testing
Temporary structures testing to BS EN 12811-3:2002
Stadium barriers and hand rail testing
Fixtures and fittings proof certification
Anchorage performance
Vehicular and pedestrian barrier testing
In-situ proof testing of lift shaft beams
Purpose built test beds in UK & Ireland



Structural Load Testing

Static & dynamic load testing of floors
Flexural strength of beams
In-situ load testing of car park barriers
Lighting column load testing

Geotechnical Testing

Pile Integrity testing
Sonic logging of foundations
Dynamic & Static load testing of piles
Testing of foundations under structures
SPT Hammer Energy Analysis
Transmission tower assessment
Inclinometer & Piezometer installation
Gas monitoring (radon and organic)

Contact Details

Portlaoise Office

Testconsult Limited
Materials Laboratory
Clonminam Industrial Estate
Portlaoise
Co Laois
Ireland

Contact: **Dr Thomas Callanan**
Head of Structures Department
Tel : 05786 64885
Fax: 05786 64380
Email: thomas.callanan@testconsult.ie

Warrington Office

Testconsult Limited
Ruby House
40A Hardwick Grange
Warrington
Cheshire
WA1 4RF

Contact: **Simon French**
Lab Manager
Tel (direct): 01925 286897
Tel (switch): 01925 286880
Fax: 01925 286881
Email: simon@testconsult.co.uk

Harlow Office

Testconsult Limited
Unit 3, Harold Close
The Pinnacles
Harlow
Essex
CM19 5TH

Contact: **Mark Collyer**
Lab Manager
Tel : 01279 729029
Fax: 01279 416879
Email: markc@testconsult.co.uk

