



**HYDRA CAPSULE
LIMITED**

TESTING & MONITORING PRODUCT CATALOGUE

OUR SERVICES

- Pull Testing Equipment Hire
- Load Testing & LOLER Services
- Wireless Monitoring Systems
- Calibration & Certification
- Pressure & Displacement Monitoring
- Threaded Bar, Bolt and Anchor Prestressing & Tensioing



+44 (0)1885 490405



sales@hydra-capsule.com



www.hydra-capsule.com

HYDRA-CAPSULE LIMITED - GIVING CONSTRUCTION OUR SUPPORT

01	Testing & Monitoring Overview
01.1	Testing at a Glance
01.2	Our Services
02	Pull Testing
02.1	Pull Testing — Detail
03	Anchor Testing
03.1	Anchor Testing — Detail
04	Hydraulic Pull Testing
04.1	Hydraulic Pull Testing — Detail
05	Foundation Testing
05.1	Foundation Testing — Detail
06	Load Testing & LOLER
06.1	Load Testing & LOLER — Detail
07	Load Cells & Force Monitoring
07.1	Load Cells — Detail
07.2	Calibration Laboratory Services
07.3	Load Testing & Verification
08	Wireless Monitoring
08.1	Wireless Monitoring — Detail
08.2	Wireless & Realtime Data Monitoring
09.1	Displacement Monitoring
10	Displacement Monitoring — Detail
11	Pressure Monitoring
11.2	Corporate Overview
11.1	Monitoring & Load Testing Systems
12	Key Statistics — Testing & Monitoring
13	Contact Us

01 TESTING AND MONITORING OVERVIEW



Hydra-Capsule provides a complete range of testing, monitoring and calibration services for the UK construction industry. From pull testing and anchor verification through to wireless structural health monitoring and UKAS-traceable calibration.



- ✓ Pull Testing: In-house and market supplier's systems from 1 kN to 5,000 kN
- ✓ Load Testing: Proof loading and foundation testing up to 16,000 kN (1,600 tonnes and up to 1600 Bar capacity)
- ✓ Load Cells: Compression, tension & centre-hole cells from 1 kN to 16,000 kN
- ✓ Wireless Monitoring: HydraLog real-time data acquisition via 4G/WiFi
- ✓ Calibration: UKAS-traceable force & pressure calibration laboratory
- ✓ Displacement: LVDT sensors to $\pm 0.01\text{mm}$ resolution for structural monitoring

KEY CAPABILITIES

16,000 kN

Max load
capacity

200+ Channel

Wired and Wireless
monitoring

UKAS

Traceable
calibration



01.1 TESTING AND MONITORING AT A GLANCE



Hydra-Capsule provides comprehensive testing, monitoring and calibration services for construction — from pull testing and load cells to wireless data acquisition and UKAS-traceable calibration across the UK.

PULL TESTING & ANCHOR VERIFICATION

Various industry standard anchor & pull-test systems for fixings, anchors and rebar from 5-4,100 kN capacity

PROOF-LOAD TESTING & LOLER / TRDT CERTIFICATION

Proof load testing up to 16,000 kN (1,600 tonnes), LOLER inspections, lifting beam and davit certification

LOAD CELLS & FORCE MONITORING

Compression, tension and centre-hole cells from 1 kN to +25,000 kN with wireless options

HYDRA-LOG WIRED & WIRELESS MONITORING DATA-LOGGING

Real-time load, pressure and displacement data via 4G/WiFi with cloud access and alarm notifications

FULL SCALE DEFLECTION CALIBRATION & CERTIFICATION

UKAS-traceable calibration up to 25,000 kN and 1,600 bar with full test certification and asset registers

PRESSURE & DISPLACEMENT MONITORING

LVDT sensors, pressure transducers and automated logging for structural health monitoring

KEY CAPABILITIES

- ✓ Pull testing from 5 kN to 4,100 kN (anchors, fixings, rebar, stressing bars)
- ✓ Load testing and proof loading up to 16,000 kN (1,600 tonnes)
- ✓ UKAS-traceable calibration laboratory (force & pressure)
- ✓ HydraLog wireless monitoring with real-time cloud data access
- ✓ LVDT displacement monitoring to ± 0.01 mm resolution
- ✓ Nationwide coverage with full hire, sales & installation services

01.2 OUR SERVICES



Force and Pull Testing

Anchor & fixing verification
from 20kN to 1,000kN



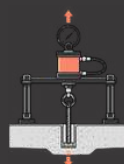
Bar & Bolt Tension & Preloading

Compression & tension /
pre-load testing up to 500T



Pad & Foundation Load-Testing

Pile & micropile capacity
verification



Anchors Testing & Bar Stressing

Proof-load and pre-stressing
testing up to 300kN



Precise Load Cell Monitoring

Force measurement from 1kN
to 25,000kN with data-logging
& recording / reporting



Wired & Wireless Monitoring

Real-time data acquisition,
recording, reporting & alert
systems



Pressure Gauges & Sensors Monitoring

Hydraulic pressure (analogue
or digital) for monitoring &
testing from 1 to 1600 bar



Displacement & Movement Sensors

Lifting equipment, hydraulic
cylinders/jacks & ancillary
inspection & certification



Calibration Testing and Services

Traceable UKAS calibration
up to 16,000kN and 1600 Bar



LOLER Inspections & Certification

Lifting equipment, hydraulic
jacks / cylinders & ancillary
approval

02 PULL TESTING



Hydra-Capsule provides on-site pull testing services using a number market suppliers and in-house bespoke purpose-built hydraulic systems for verification of mechanical anchors, chemical fixings and rebar connections from 1kN to 5,000kN capacity.

600kN

Max Capacity

BS 8539

Compliant

Same Day

Certification

Nationwide

Coverage

KEY BENEFITS

- ✓ Rapid on-site deployment with portable equipment
- ✓ Testing to BS 8539, ETAG and EAD standards
- ✓ Digital load-displacement curves
- ✓ Same-day test certification available
- ✓ UKAS-traceable calibrated equipment



TESTING SYSTEMS

- ✓ PT-025 & PT-060 Hydraulic pull testers (up to 60 kN)
- ✓ PT-12 to PT100 Heavy-duty pulling systems (up to 1,000 kN)
- ✓ PT-150 to PT200 Bar and Anchor testers (up to 2,000 kN)
- ✓ Hydra-Capsule hydraulic systems (up to 5,000 kN) fully calibrated
- ✓ Digital load recording & certification

APPLICATIONS

- ✓ Mechanical anchor verification (expansion, undercut, sleeve)
- ✓ Chemical anchor proof testing (resin, epoxy, hybrid)
- ✓ Rebar connection pull-out testing
- ✓ Facade & wall fixing verification
- ✓ Post-installed reinforcement testing
- ✓ Threaded bar, post-tensioning and pre-stressing verification proof-loading

02.1 PULL TESTING



Hilti HST3 and HSL4 anchor testing systems for on-site pull testing of mechanical and chemical fixings to European standards.



Light & Medium Duty System

Manual operated and hydraulic pull tester for mechanical anchors up to 1,000kN capacity



Heavy-Duty & High Load System

Hydra Capsule heavy-duty anchor testing for high-load fixings up to 5,000kN capacity



Chemical Fixings

Testing of resin and chemical anchor systems including HIT-RE and HIT-HY ranges



Mechanical Anchors

Verification of expansion anchors, undercut anchors and sleeve anchors



On-Site Testing

Portable equipment for rapid deployment and testing across construction sites



Standards Compliance

Testing to BS 8539, ETAG and EAD requirements with full documentation



Data Reporting

Digital test reports with load-displacement curves and pass/fail certification



Hire & Sales

Equipment available for short and long-term hire or outright purchase

03 ANCHOR & BAR TESTING



hydra Capsule's anchor testing systems for post-installed fixings verification. Non-destructive pull testing from 5-5,000 kN capacity with digital load display and certification.

5-60 kN

CAPACITY

UKAS

TRACEABLE

BS EN 1992

COMPLIANT

Non-Dest.

TESTING

KEY BENEFITS

- ✓ Non-destructive testing method
- ✓ Rapid on-site verification
- ✓ Digital load recording
- ✓ Full test certification provided
- ✓ UKAS-traceable equipment
- ✓ Trained operatives available



SYSTEM COMPONENTS

- ✓ Hydra test units 5-5,000 kN
- ✓ Digital load display & data logging
- ✓ Reaction frame & anchor adaptors
- ✓ Calibrated to UKAS standards
- ✓ BS EN 1992 compliant testing
- ✓ Non-destructive verification

APPLICATIONS

- ✓ Post-installed anchor verification
- ✓ Mechanical fixing testing
- ✓ Resin anchor testing
- ✓ Facade fixing verification
- ✓ Safety-critical fixing testing
- ✓ Structural connection verification

03.1 ANCHOR & BAR TESTING



Hydra Capsule's HydraPull hydraulic anchor testing systems for proof-load verification of fixings from 5 kN to 5,000 kN capacity.



HydraPull 25 kN

Lightweight portable unit for testing fixings up to 25kN in concrete and masonry



HydraPull 60 kN

Medium capacity testing for mechanical and chemical anchors up to 100kN



HydraPull 120 - 1000 kN

High capacity proof-load testing for heavy-duty structural fixings



HydraPull 150 - 300T

Maximum capacity system for large diameter anchors and post-installed bars



Concrete Fixings

Testing of expansion, undercut and bonded anchors in concrete substrates



Masonry Fixings

Verification of fixings in brick, block and stone masonry structures



Post-Installed Rebar

Pull-out testing of chemically bonded reinforcement connections



Test Certification

Full documentation with load-displacement data and pass/fail reporting

04 HYDRAULIC PULL TESTING & PRE-LOADING



Hydra-Capsule hydraulic pull testing systems for anchor and fixing verification. Capacities from 75-300 kN with digital load monitoring and full certification to BS/EC standards.

75-300 kN
CAPACITY

UKAS
TRACEABLE

BS/EC
COMPLIANT

24/7
AVAILABLE

KEY BENEFITS

- ✓ High-capacity testing capability
- ✓ Accurate load verification
- ✓ Real-time digital monitoring
- ✓ BS/EC compliant testing
- ✓ Full certification provided
- ✓ 24/7 availability



SYSTEM COMPONENTS

- ✓ BVA pull-ram cylinders 75-300 kN
- ✓ Hydraulic power packs
- ✓ Digital pressure gauges
- ✓ Reaction frames & adaptors
- ✓ UKAS-traceable calibration
- ✓ Full test documentation

APPLICATIONS

- ✓ Heavy-duty anchor testing
- ✓ Structural fixing verification
- ✓ Ground anchor testing
- ✓ Rock bolt testing
- ✓ Facade anchor testing
- ✓ Safety-critical connections

04.1 HYDRAULIC PULL TESTING & STRESSING



Hydra-Capsule's high-capacity hydraulic pull testing systems for heavy-duty anchor and fixing verification up to 1000kN.



100 - 500 kN System

High capacity hydraulic pull tester for large diameter anchors and structural fixings



1,000 kN System

Maximum capacity testing for heavy-duty structural connections and ground anchors



Ground Anchors

Proof-load testing of permanent and temporary ground anchor installations



Rock Bolts

Verification of rock bolt capacity in tunnelling and slope stabilisation applications



Structural Fixings

Testing of cast-in channels, holding-down bolts and base plate connections



Facade Systems

Pull testing of curtain wall brackets, cladding fixings and facade support systems



Digital Data Logging

Electronic load measurement with real-time data capture and reporting



Hire & Technical Support

Equipment hire with full technical support and on-site assistance available

05 FOUNDATION TESTING

HYDRA-CAPSULE

Hydra-Capsule foundation and pile load testing systems.

Static and dynamic testing from 30–5,000 kN capacity with real-time digital and real-time data logging and monitoring with full BS/EC certification.

30-5,000 kN
CAPACITY

Static/Dynamic
TESTING

BS/EC
COMPLIANT

Real-Time
DATA LOGGING

KEY BENEFITS

- ✓ Static & dynamic testing
- ✓ Real-time data logging
- ✓ BS/EC compliant procedures
- ✓ Full test certification
- ✓ Kentledge configurations
- ✓ Expert technical support



SYSTEM COMPONENTS

- ✓ Test frames from 25–5,000 kN
- ✓ Hydraulic jacking systems
- ✓ Load cells & data acquisition
- ✓ Kentledge & reaction systems
- ✓ Real-time monitoring
- ✓ UKAS-traceable equipment

APPLICATIONS

- ✓ Pile load testing
- ✓ Foundation verification
- ✓ Ground bearing capacity
- ✓ Settlement monitoring
- ✓ Proof load testing
- ✓ Structural foundation testing

05.1 FOUNDATION TESTING



Static load testing systems for pile, micropile and ground anchor capacity verification on construction sites.

These systems are designed to provide accurate and reliable assessments of load-bearing capabilities, ensuring



Pile Load Testing

Static maintained load testing of bored, driven and CFA piles to specification



Micropile Testing

Verification of micropile and minipile capacity for underpinning and new build



Ground Anchors

Proof and acceptance testing of temporary and permanent ground anchors



Kentledge Systems

Reaction systems using kentledge stacks for maintained load pile testing



Tension Piles

Uplift testing of tension piles and ground anchors with reaction frames



Lateral Load Testing

Horizontal load testing of piles for retaining wall and slope applications



Data Acquisition

Automated logging of load, displacement and time during maintained load tests



Test Reporting

Full test reports with load-settlement curves to ICE specification

06 LOAD TESTING & LOLER SERVICES



Comprehensive Load Testing and LOLER Inspection Services

We offer proof load testing up to 1,600 tonnes, complete with UKAS-traceable calibration and full certification.

1,600T

CAPACITY

LOLER

CERTIFIED

UKAS

TRACEABLE

6-12 Month

CERTS

KEY BENEFITS

- ✓ LOLER compliant inspections
- ✓ UKAS-traceable certification
- ✓ 6 & 12-month certificates
- ✓ Fast turnaround service
- ✓ On-site testing available
- ✓ Expert technical support
- ✓ Tailored solutions for diverse industries
- ✓ Safety and compliance prioritized
- ✓ Experienced and certified technicians
- ✓ Innovative testing methods



SYSTEM COMPONENTS

- ✓ Proof load testing to 1,600T
- ✓ LOLER inspections & certification
- ✓ UKAS-traceable calibration
- ✓ Load cell verification
- ✓ Hydraulic jack testing
- ✓ Full documentation provided

APPLICATIONS

- ✓ Lifting equipment inspection
- ✓ Hydraulic jack certification
- ✓ Load cell calibration
- ✓ Proof load testing
- ✓ LOLER compliance
- ✓ Equipment verification

06.1 LOAD TESTING & LOLER CERTIFICATION



Comprehensive load testing and LOLER inspection services for lifting equipment, temporary works, and structural verification.



Compression Testing

Proof load testing up to 15,000kN for structural and lifting equipment



Tension Testing

Pull-out and tension verification up to 5,000kN capacity



LOLER Inspections

Thorough examination of lifting equipment to LOLER 1998 regulations



Lifting Beams

Proof load testing and certification of lifting beams and spreader bars



Davits & Hoists

Testing and certification of davit arms, hoists and winch systems



Anchor Points

Verification of fall arrest anchors, eyebolts and safety systems



Bespoke Test Frames

Custom-built test rigs for non-standard equipment and structures



Certification

Full documentation with test certificates, LOLER reports and asset registers

07 LOAD CELLS & FORCE MONITORING



Compression, tension, and center-hole load cells ranging from 5 to 1,600 tonnes. Experience comprehensive real-time force monitoring with advanced wireless data logging and calibration traceable to UKAS standards.

5-1,600T

CAPACITY

±0.25%

ACCURACY

Wireless

DATA

Multi-Ch.

LOGGING

KEY BENEFITS

- ✓ Real-time force monitoring
- ✓ Wireless data transmission
- ✓ Multi-channel capability
- ✓ ±0.25% accuracy
- ✓ UKAS-traceable equipment
- ✓ 24/7 technical support
- ✓ Durable and reliable design
- ✓ Easy integration with existing systems
- ✓ Comprehensive training
- ✓ Custom solutions available



SYSTEM COMPONENTS

- ✓ Compression cells 5-1,600T
- ✓ Centre-hole cells 50-5,000 kN
- ✓ Tension load cells 1-3,000 kN
- ✓ Wireless data acquisition
- ✓ Multi-channel logging
- ✓ UKAS-traceable calibration

APPLICATIONS

- ✓ Structural load monitoring
- ✓ Bridge bearing monitoring
- ✓ Jacking force verification
- ✓ Proof load testing
- ✓ Construction monitoring
- ✓ Real-time data logging

07.1 LOAD CELLS & FORCE DATA MONITORING



Precision force measurement systems from 1kN to 15,000kN for structural monitoring, load verification and proof testing.



Compression Cells

Flat and button-type load cells for bearing and jacking force measurement



Tension Cells

Through-hole and rod-end cells for cable, anchor and tendon force monitoring



Centre-Hole Cells

Annular cells for post-tensioning strand and bar force verification



Hydraulic Cells

Flat jack pressure cells for contact stress measurement in concrete structures



Multi-Channel Systems

Simultaneous monitoring of multiple load points with centralised data logging



Wireless Load Cells

Battery-powered cells with HydraLog wireless transmission for remote monitoring



Overload Protection

Alarm systems and automatic cut-off for safe load management on site



Calibration

All cells supplied calibrated and traceable to national standards up to 16,000kN

07.2 CALIBRATION LABORATORY SERVICES



Hydra-Capsule operates a fully equipped calibration laboratory providing UKAS-traceable calibration, inspection and certification services for hydraulic jacks, load cells, pressure gauges and testing equipment.

Our laboratory is purpose-built to handle equipment from 1kN to 15,000kN capacity with full traceability to national standards.

CALIBRATION SERVICES

- ✓ Hydraulic jack calibration (up to 15,000 kN)
- ✓ Load cell calibration (compression & tension)
- ✓ Pressure gauge calibration (up to 1,600 bar)
- ✓ LVDT & displacement sensor calibration
- ✓ Torque wrench calibration
- ✓ Bespoke test equipment verification



INSPECTION & CERTIFICATION

- ✓ LOLER thorough examination
- ✓ 6-monthly & annual inspection schedules
- ✓ Hydraulic hose testing & replacement
- ✓ Jack servicing, seal replacement & repair
- ✓ Full test certification & asset registers



**STRUCTURAL
PROTECTION**



**LARGEST RANGE
IN THE UK**



**40+ YEARS
OPERATING**



**INSTALL
SERVICES**

LABORATORY CAPACITY

15,000kN

Max Force

1,600 Bar

Max Pressure

UKAS

Traceable

07.3 LOAD TESTING & VERIFICATION



Hydra-Capsule provides structural proof load testing, pile testing and anchor verification services. Our systems deliver precise, UKAS-traceable results for compression, tension and torque applications up to 15,000 kN AND 72,000 Nm

15,000 kN

COMPRESSION

5,000 kN

TENSION

72,000 Nm

TORQUE

UKAS

TRACEABLE

KEY BENEFITS

- ✓ Load testing 15,000 kN
- ✓ Tension load testing to 5,000 kN
- ✓ Torque testing to 72,000 Nm
- ✓ Pile load testing & verification
- ✓ Anchor pull-out testing
- ✓ Proof loading & dynamic testing
- ✓ Structural health monitoring
- ✓ Enhanced safety and reliability
- ✓ Cost-effective solutions
- ✓ Minimally invasive methods
- ✓ Certified technicians



SYSTEM COMPONENTS

- ✓ Load cells (5T-1,600T)
- ✓ Hydraulic jacks to 15,000 kN
- ✓ Pressure gauges to 1,600 bar
- ✓ LVDT displacement sensors
- ✓ Digital data acquisition
- ✓ UKAS-traceable equipment

APPLICATIONS

- ✓ Bridge bearing preloading
- ✓ Foundation pile load testing
- ✓ Post-tensioning strand testing
- ✓ Bolt tensioning verification
- ✓ Anchor pull-out testing
- ✓ Heavy lift proof loading

08 HYDRALOG WIRELESS MONITORING



The HydraLog wireless data acquisition platform provides real-time monitoring of load, pressure and displacement across multiple channels. Designed for construction environments, the system delivers instant site data with 4G/WiFi transmission and up to 6 months battery life.

128 Ch.

WIRELESS

6 Months

BATTERY

4G/WiFi

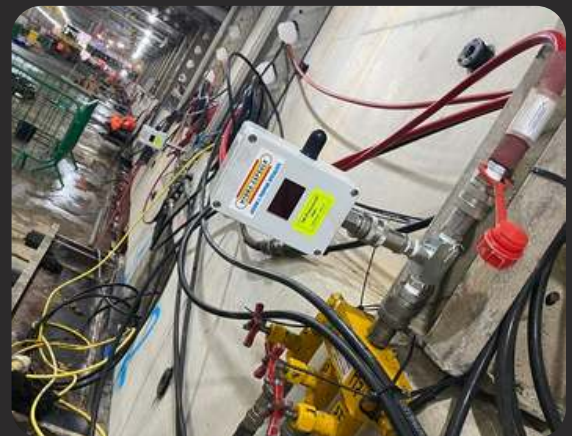
TRANSMISSION

±0.1%

ACCURACY

KEY BENEFITS

- ✓ Real-time wireless data acquisition
- ✓ Multi-channel pressure/load/displacement
- ✓ 4G/WiFi remote data transmission
- ✓ 6-month battery life per sensor node
- ✓ Cloud-based data dashboard
- ✓ Instant alerts & threshold monitoring



SYSTEM COMPONENTS

- ✓ HydraLog wireless sensor nodes
- ✓ Load cells & pressure transducers
- ✓ LVDT displacement sensors
- ✓ Gateway hub & 4G modem
- ✓ Cloud data platform access
- ✓ Rechargeable battery packs

APPLICATIONS

- ✓ Bridge bearing monitoring
- ✓ Pile load testing
- ✓ Temporary works monitoring
- ✓ Structural health monitoring
- ✓ Jacking force verification
- ✓ Settlement & deflection

08.1 HYDRA WIRELESS MONITORING SYSTEM



Hydra Cule's HydraLog wireless monitoring platform for real-time structural monitoring. Multi-channel data acquisition with 4G/WiFi connectivity and cloud-based reporting.

128+ Ch.
CHANNELS

4G/WiFi
CONNECTED

Cloud
ACCESS

Real-Time
ALERTS

KEY BENEFITS

- ✓ Real-time wireless monitoring
- ✓ Cloud-based data access
- ✓ Multi-channel capability
- ✓ 4G/WiFi connectivity
- ✓ Automated reporting
- ✓ 24/7 remote access



SYSTEM COMPONENTS

- ✓ HydraLog wireless data loggers
- ✓ 4G/WiFi connectivity
- ✓ Cloud-based data platform
- ✓ Multi-channel acquisition
- ✓ Load, pressure & displacement
- ✓ Real-time alerts & reporting

APPLICATIONS

- ✓ Bridge monitoring
- ✓ Structural health monitoring
- ✓ Construction monitoring
- ✓ Load verification
- ✓ Settlement monitoring
- ✓ Real-time data logging

08.2 HYDRALOG WIRELESS MONITORING



Comprehensive wireless monitoring and data acquisition services for construction, infrastructure and structural health applications. With enhanced data accuracy and seamless integration into existing workflows, empowering you to make informed decisions with confidence.

Real-Time Monitoring

128-channel wireless data acquisition for real-time load, pressure and displacement monitoring across site.

4G/WiFi Transmission

Remote data transmission via 4G and WiFi networks with cloud-based dashboard access from anywhere.

Multi-Channel Logging

Simultaneous monitoring of multiple sensors with automated threshold alerts and reporting.

Cloud Platform

Cloud-based data platform with real-time visualisation, automated alerts and downloadable reports.

Bridge Monitoring

Continuous structural health monitoring of bridge bearings, deflection and settlement.

Load Verification

Real-time load cell monitoring for jacking operations, pile testing and temporary works.

Displacement Sensors

LVDT and pull-wire sensors with $\pm 0.01\text{mm}$ resolution for precision displacement measurement.

Battery Powered

Up to 6 months battery life per sensor node with rechargeable battery packs for long-term deployments.

09 DISPLACEMENT MONITORING SYSTEMS



High-accuracy displacement measurement systems for structural monitoring, bridge deflection, pile testing and temporary works. LVDT and pull-wire sensors with real-time wireless data acquisition and UKAS-traceable calibration.

±0.01mm

RESOLUTION

2000mm

RANGE

128 Channel

CHANNELS

Wireless

DATA LOGGING

KEY BENEFITS

- ✓ High-resolution LVDT sensors (±0.01mm)
- ✓ Pull-wire sensors up to 500mm range
- ✓ Real-time wireless data transmission
- ✓ Multi-channel simultaneous monitoring
- ✓ Automated threshold alerts
- ✓ UKAS-traceable calibration certificates



SYSTEM COMPONENTS

- ✓ LVDT displacement sensors
- ✓ Pull-wire transducers
- ✓ Wireless data nodes
- ✓ Multi-channel data loggers
- ✓ Mounting brackets & fixings
- ✓ Cloud monitoring platform

APPLICATIONS

- ✓ Bridge deflection monitoring
- ✓ Pile settlement testing
- ✓ Temporary works movement
- ✓ Structural deformation
- ✓ Bearing displacement
- ✓ Ground movement tracking

09.1 DISPLACEMENT MONITORING



LVDT displacement sensors and monitoring systems. Precision measurement from $\pm 0.01\text{mm}$ resolution with real-time data logging and wireless transmission.

$\pm 0.01\text{mm}$
RESOLUTION

Wireless
DATA SENSORS

Multi-Point
MONITORING

Real-Time
LOGGING

KEY BENEFITS

- ✓ $\pm 0.01\text{mm}$ resolution
- ✓ Real-time data logging
- ✓ Wireless transmission
- ✓ Multi-point monitoring
- ✓ Automated alerts
- ✓ 24/7 technical support



SYSTEM COMPONENTS

- ✓ LVDT sensors $\pm 0.01\text{mm}$ resolution
- ✓ Displacement transducers
- ✓ Wireless data acquisition
- ✓ Multi-channel logging
- ✓ Real-time monitoring
- ✓ Automated reporting

APPLICATIONS

- ✓ Settlement monitoring
- ✓ Structural movement
- ✓ Bridge deflection
- ✓ Jacking operations
- ✓ Construction monitoring
- ✓ Structural health monitoring

10 PRESSURE MONITORING SYSTEMS



Digital pressure monitoring from 5–1,600 bar. Real-time hydraulic pressure monitoring with wireless data logging and UKAS-traceable calibration.

Our systems offer unparalleled precision with an accuracy of $\pm 0.1\%$, ensuring reliable performance across a variety of applications

SYSTEM COMPONENTS

- ✓ Digital pressure transducers
- ✓ Pressure range 5–1,600 bar
- ✓ Wireless data acquisition
- ✓ Multi-channel logging
- ✓ UKAS-traceable calibration
- ✓ Real-time monitoring

KEY BENEFITS

- ✓ 5–1,600 bar range
- ✓ $\pm 0.1\%$ accuracy
- ✓ Wireless transmission
- ✓ Real-time data logging
- ✓ UKAS-traceable equipment
- ✓ 24/7 technical support

APPLICATIONS

- ✓ Hydraulic jacking monitoring
- ✓ Pressure verification
- ✓ System monitoring
- ✓ Load verification
- ✓ Construction monitoring
- ✓ Real-time data logging

5 - 1,600 BAR
RANGE

$\pm 0.1\%$
ACCURACY

Wireless
DATA LOGGING

UKAS / ISO
TRACEABLE



11 TESTING, CALIBRATION & CERTIFICATION

HYDRA-CAPSULE

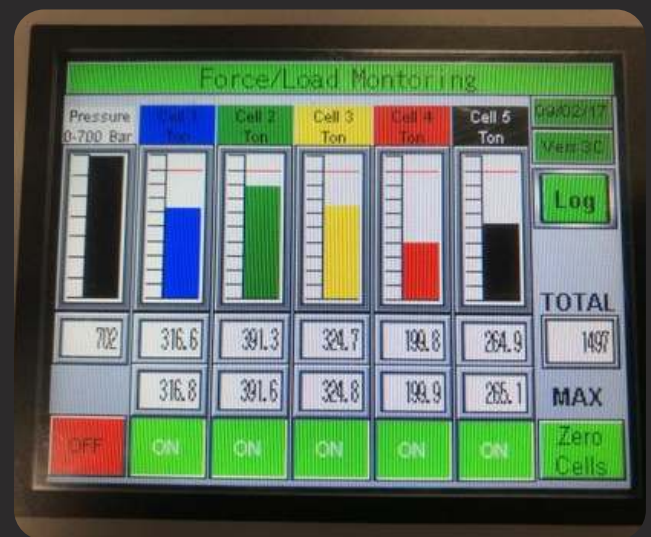
Hydra-Capsule provides calibration, verification and certification services for hydraulic, structural, geotechnical and lifting equipment.

All calibration equipment is traceable and suitable for supporting LOLER inspections, load testing programmes and quality assurance requirements.

By choosing Hydra-Capsule, you gain access to comprehensive support and expert advice, tailored to meet your specific needs

CALIBRATION CAPABILITY

- ✓ Load / Force: 0 – 16,000 kN
- ✓ Hydraulic Pressure: 1 – 1600 Bar
- ✓ Displacement: 1mm – 2000mm
- ✓ Torque: 0 – 72,000 Nm
- ✓ Bolt Tensioning: Up to 5,000 kN



TESTING CAPACITY

16,000 kN

(or 25,000 Combined)
Load / Force

1600 Bar

Pressure

72,000 Nm

Torque

EQUIPMENT CALIBRATED

- ✓ Compression & Tension Load Cells
- ✓ Hydraulic & Digital Gauges
- ✓ Pressure Transducers
- ✓ LVDT & Pull-Wire Sensors
- ✓ Hydraulic Torque Wrenches (All Types)
- ✓ Hydraulic Bolt Tensioning Equipment



11.1 MONITORING, TESTING & CALIBRATION SERVICES



Real-time structural monitoring, load testing, and UKAS-traceable calibration services. PLC-controlled data acquisition with live reporting for critical construction operations.



- ✓ LVDT / movement sensor & displacement monitoring
- ✓ Load cell monitoring & data-logging + recording
- ✓ Pile load testing (static & dynamic)
- ✓ Proof load testing 1,200+ tonnes to BS/EC standards
- ✓ UKAS-traceable jack inspection, servicing/repair and calibration
- ✓ Real-time data-logging with live reporting (wired, wireless and automated)

KEY CAPABILITIES

±0.01mm

LVDT
resolution

Real-time

Live data-logging
& reporting

UKAS

Accredited service
for service & calibration



11.2 MONITORING & LOAD TESTING SYSTEMS



Real-time wireless monitoring, load testing, and UKAS-traceable calibration across all load, pressure, and displacement parameters on site. These advanced systems offer unparalleled accuracy and efficiency, ensuring that every aspect of construction meets rigorous safety and performance standards

15,000 kN

LOAD TESTING

128 Chanel

WIRELESS

UKAS

TRACEABLE

Real-Time

DATA-LOGGING

- ✓ Pull and Anchor Testing: PT Model 5-60 kN, Pull-Ram Cylinder/Clevis
- ✓ Pull-Testing from 75-5,000 kN
- ✓ Proof-Loading and Dynamic Testing: Calibration up to 16,000 kN
- ✓ Load Cells: Compression 5T-1,600T | Centre-hole 50-5,000 kN
- ✓ Wireless HydraLog: Real-time load, pressure & displacement
- ✓ In-House Testing & Calibration Laboratory (UKAS accredited)
- ✓ Certification & Compliance: BS EN ISO 376, BS 7882, BS EN 12390
- ✓ Load Verification & Proof Testing up to 16,000 kN capacity
- ✓ Hydraulic Jack Servicing, Repair & Re-certification
- ✓ Pressure Gauge Calibration up to 1,600 bar
- ✓ LOLER Thorough Examination & Certification of Lifting Equipment



IN-HOUSE CAPABILITIES

- ✓ Dedicated calibration laboratory with controlled environment
- ✓ Full welding capability with accredited procedures
- ✓ In-house design, manufacture & assembly of test rigs
- ✓ Bespoke load frame fabrication for proof load testing
- ✓ PLC-controlled data acquisition system design & build

12 KEY STATISTICS – TESTING & MONITORING



Hydra-Capsule's testing and monitoring capabilities in numbers. Decades of precision measurement, calibration and data acquisition for the UK construction industry.

5,000+

TESTS COMPLETED
ANNUALLY

200+

WIRELESS MONITORING
CHANNELS

±0.01mm

LVDT DISPLACEMENT
RESOLUTION

UPTO 1,600

BAR MAX
PRESSURE CAPACITY

UPTO 25,000

kN CALIBRATION
CAPACITY

±0.1-0.25%

FULL SCALE DEFLECTION
(F.S.D) ACCURACY

PERFORMANCE

- ✓ **200+ LOAD CELLS IN STOCK** – Compression, tension & centre-hole from 1 kN to 16,000 kN (COMINDED SYSTEMS UPTO 50,000+ kN)
- ✓ **WIRELESS PLATFORM** – Real-time 4G/WiFi data streaming c/w cloud access
- ✓ **UKAS-TRACEABLE CALIBRATION** – Force upto 15,000 kN, pressure up to 1,600 bar
- ✓ **MULTI-CHANNEL DATA LOGGING** – Simultaneous monitoring of 128+ points
- ✓ **99.8% UPTIME** – Reliable wireless monitoring across all site conditions

CREDENTIALS

- ✓ UKAS traceable calibration to 15,000 kN
- ✓ ISO 9001 quality management
- ✓ Over 5,000+ pull tests completed annually
- ✓ LOLER examination accredited
- ✓ Large inventory of testing & monitoring equipment in the UK

13 CONTACT US



HYDRA-CAPSULE LIMITED

Hydra House
Bishops Frome
Worcestershire
WR6 5BP
United Kingdom

 +44 (0)1885 490405

 sales@hydra-capsule.com

 www.hydra-capsule.com

OUR SERVICES

- ✓ Pull Testing & Anchor Equipment Hire
- ✓ Load & Foundation Testing Services
- ✓ LOLER Inspections / Load Proof Testing (UKAS)
- ✓ Calibration Services
- ✓ Wireless Monitoring Systems
- ✓ Load Cell Hire & Sales
- ✓ Pressure Monitoring Systems
- ✓ Technical Support & Site Services

