

Features

- Convenient for one-off tests.
- Large range of equipment available.
- Minimum hire period of one week.
- Equipment calibrated prior to each hire.



Overview

If your application is a one-off test, or you cannot justify the expense of purchasing a new load cell system, we have a selection of load cells (ranging up to 500tf) and instrumentation available for hire.

As requirements vary, our load cells and instruments are not permanently paired and as such we can cater for most projects. By doing this, we find that we can offer you better flexibility without affecting the availability/lead time of the equipment.

Once we have identified which load cell and instrument best suit your test, we will provide a quotation which will include an initial set up and calibration. As standard, a calibration traceable to National Standards is performed before every hire which ensures the results of your test are accurate, every time; a UKAS accredited calibration can also be provided if preferred.

For your convenience, the system can be set up and calibrated in the engineering unit of your choice (i.e. KG, N, kN, tf, or lbs etc). Calibrations are generally performed over five incremental points and repeated three times to demonstrate the repeatability of the system. When you receive the hire equipment you will also have the calibration certificates, these also include information regarding our test rig and calibration instrument reference numbers to give you full traceability.

We don't just hire out load cell systems either; also available for hire are +100 channel data logging systems and spot welders for site spot-weldable strain gauging applications.

With our data logger hires, our experienced personnel work through the requirements of your project with you to ensure we offer the most suitable system. We set up the logger ready for your test with parameters to ensure that the results are as meaningful as they should be. We also provide free in-house data logger training for you and one other colleague here at our offices in Kenilworth, UK allowing you to take full control of the project.

Much of our work is commercially confidential and we take care to ensure that we protect your trust in us by guaranteeing project confidentiality. By providing us with clear details of the project, environment, accuracy, expectations, allows us to offer provide the ideal solution.

If you require a Non-Disclosure Agreement (NDA) to be in place before a project can be discussed, please send that over to us for completion.

The minimum hire period for all hires is one week and will be charged on a rolling weekly basis for continuous hire unless otherwise agreed.

Terms and Conditions of Hire

Payment If your company does not already have an account set up with us, pre-payment in full is required with order. We accept payment via bank transfer (BACS) or credit/debit card using SagePay.

Liability All equipment released for hire has been thoroughly checked, in full working order and where applicable, calibrated by our technicians prior to despatch.

Responsibilities PCM does not accept responsibility for loss or damage arising from use or misuse of any hire equipment. It is assumed that the hirer has sufficient skill and knowledge to operate the hired equipment correctly.

Returns The return of hire equipment is the responsibility of the hirer. All equipment must be returned including any accessories in the condition they were released for hire.

Loss and Damage The hirer will be charged for replacement or repair for lost or damaged goods at retail cost. Any accessories missing when goods are returned will also be charged at retail cost to the hirer.

Hire Insurance Insuring the hire equipment is the responsibility of the person/persons hiring the equipment.

Features

- Up to 50tf in tension.
- Up to 500tf in compression.
- Various designs available to suit the application.

Description

We have a broad range of load cell designs available for hire along with their associated accessories, such as loading heads, spherical washers, etc.

Available Equipment Load Cells

DESCRIPTION	IMAGE
C2S Compression Diaphragm Load Cell Accessories Available: Loading Head.	
FW Compression Force Washer Load Cell Accessories Available: Spherical/Hardened Washers.	
CM Compression Diaphragm Load Cell Accessories Available: Loading Head	
DIA Compression Diaphragm Load Cell Accessories Available: N/A	
CNC Compression Load Cell Accessories Available: N/A	
BD-ST-TS Bi-Directional S-Type Load Cell Accessories Available: Rod Ends	

DESCRIPTION	IMAGE
BD-ST-614 Bi-Directional S-Type Load Cell Accessories Available: Rod Ends	
BD-ST-615 Bi-Directional S-Type Load Cell Accessories Available: Rod Ends	
BD-ST-620 Bi-Directional S-Type Load Cell Accessories Available: Rod Ends	
BD-ST-TCE Bi-Directional S-Type Load Cell Accessories Available: Rod Ends	
T-TL-T20 Tension Link Load Cell Accessories Available: Shackles	
T-TLL Tension Link Load Cell Accessories Available: Shackles	
T-SLP Shackle Load Pin Accessories Available: N/A	

These load cells are available to cover a wide capacity range, please contact us and let us know more about your requirement and we can issue a quotation and the relevant product data sheets for your consideration.

Features

- Handheld devices, radio telemetry and signal conditioners.
- Digitiser modules for direct link to laptop for basic logging.
- Strain indicator for quarter bridge, half-bridge and full Wheatstone bridge strain gauge measurement.

Description

We have a broad range of instruments available for hire along so that you can choose the appropriate device that best suits your requirement.

Available Equipment Instruments

DESCRIPTION	IMAGE
PSD Handheld Display Battery powered display with peak-hold functionality.	
DSCUSB Load Cell Digitiser Module Convert a PC/laptop into a load cell display. Has basic data logging facility. Software is free to download from our website.	
T24 Wireless Radio Telemetry Software is free to download from our website. The software is capable of CoG measurement.	
SGA Load Cell Amplifier Selection of analogue outputs available.	
SG4 Load Cell Junction Box To connect up to 4x load cells for a summed reading.	
P3 Strain Indicator Suitable for 1/4, 1/2 or full bridge strain measurement.	

Features

- Sample rates of 1 to 20kHz per channel.
- ¼, ½ and full strain gauge bridge input.
- ±10V, 4-20mA or PT100 inputs also accepted.

Applications

- Research and development for virtually all industries.
- Static, vibration, and impact testing.
- Strain and thermal measurements.



Description

For a strain gauge or load cell test to take place, some form of instrumentation is required. PCM has data loggers available for hire. Our experienced technical team will discuss the application in detail with you to ensure the operator and analyst are acquiring the correct amount of data and determine what format the data needs to be in post-test.

We provide free in-house training at our premises in Kenilworth, Warwickshire to demonstrate how you can connect the sensors, capture results, and export the data post-test. This allows you to be in full control of the test, which when compiling a post-test report gives more understanding of the events and time stamps. Commercially, this saves money as our engineers will not be required to attend site to assist.

All instrumentation from us is supplied calibrated at a minimum, to traceable international standards. Contact us to discuss your application with one of our engineers and we can advise the best solution for your project.

Available Equipment Quantum MX1615B

A data acquisition of strain gauges in full bridge, half bridge and quarter bridge configuration. The Quantum can also be used for strain gauge based transducers, potentiometers, resistance thermometers (PT100) or normalised voltage (±10V).

The MX1615B and MX1616B modules are equipped with 16 sensor inputs, arranged in a very compact housing. Typical application areas include static stress tests for FEM models, quasi-dynamic fatigue tests for live analysis, monitoring tasks, material investigations, residual stress analysis, maintenance tasks (i.e. for mechanical testing of PCB circuit boards), as well as for general record of load data in the field.

Peak sample frequency of 19200Hz per channel, real-time is achievable.

Hire Equipment: Model 700 Spot Welder

Features

- Portable and lightweight.
- Available for hire or purchase.
- Perfect for on-site strain gauge welding/soldering.



Description

The Model 700 spot welder has separate visual and audible indicators that monitor welder status. Weld energy is continuously adjustable from 3 to 50 joules, making the Model 700 an excellent choice for installing weldable strain gauges and temperature sensors, as well as small thermocouples and light-gauge metal.

Supplied with a lightweight soldering pencil, the spot welder has a front panel control to adjust the soldering tip temperature for a wide range of soldering applications in the field or laboratory.

A useful feature, the "Low Battery" light warns the user when the internal, sealed lead-acid battery requires charging. A battery charger is included to charge the battery to full, with no danger of overcharging. Indicator lights monitor the battery charge rate.

Compact and portable by design, the Model 700 features a convenient integrated storage space for cables, battery charger and instruction manual.

Typical Specification General

PARAMETER	VALUE	UNITS
Weight	9.5	KG
Overall Size	230 x 230 x 250	mm
Recharging Power	115 or 230 (50-60Hz)	Volts AC
Operating & Storage Temperature	-20 to +50	°C

Typical Specification Welding

PARAMETER	VALUE	UNITS
Weld Energy Range	3-50 ⁽²⁾	Joules
Weld Repetition Rate <small>MAXIMUM</small>	20	Per Minute ⁽³⁾
Welds Per Battery Charge	Approx. 2000 at 30 joules ⁽⁴⁾	Welds
Battery Charge Time <small>FROM EMPTY</small>	12 hours to 75%, 18 hours to 100%	-
Battery	Sealed, rechargeable lead-acid (non-liquid) 12V	-
Welding Probe	Manually fired with trigger control and 'steady rest'	-
Welding Cables	2x 1.5m cables, fully flexible.	-
Weld Energy Monitor	Calibrated front panel control with READY and WAIT indicators; audible indication selectable.	-

⁽²⁾ Maximum open circuit voltage less than 25VDC.

⁽³⁾ At typically 30 joules.

⁽⁴⁾ The equivalent of approximately 40 LWK gauge installations.

Typical Specification Soldering

PARAMETER	VALUE	UNITS
Temperature Control	Continuously variable with bands indicating melting range of solders.	-

Hire Equipment: Model 700 Spot Welder

PARAMETER	VALUE	UNITS
Soldering Pencil	31g rated at 25 watts. 12-volt operation. Tip temperature adjustable from +90°C to 480°C.	-
Soldering Duration	4 hours using +183°C melting point solders (with initial full charge).	-

Panel Control Features



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