

120 kN Deadweight Force Standard Machine

The machine was designed and with the acceptance of the frame and large masses manufactured at NPL and incorporates the following features:

- A rigid framework on solid foundations supporting both the device under test and the weights when at rest.
- A single crossbeam design which minimises the weight of the scalepan. Adjustment of the compression or tension working space is achieved by means of a movable earth support frame.
- A computer control system which smoothly applies and removes the selected weights.
- The first weight is suspended from the scalepan and subsequent weights from each other by an NPL designed lifting arrangement consisting of three vertical lifting pins equally spaced from the centre of the weight. The pins each incorporate two conical leads to guide the weights onto location flats, keeping the centre of gravity of the weight on the vertical axis of the machine. The process is reversed to remove the weights.
- The scalepan and weights are made from austenitic stainless steel, providing corrosion resistance, low magnetic permeability, and mass stability.



• APPLIED FORCES

2.5 kN to 30 kN in steps of 2.5 kN
30 kN to 60 kN in steps of 5 kN
60 kN to 120 kN in steps of 10 kN

• UNCERTAINTY OF APPLIED FORCE

±0.001% over full working range

• MODE OF OPERATION

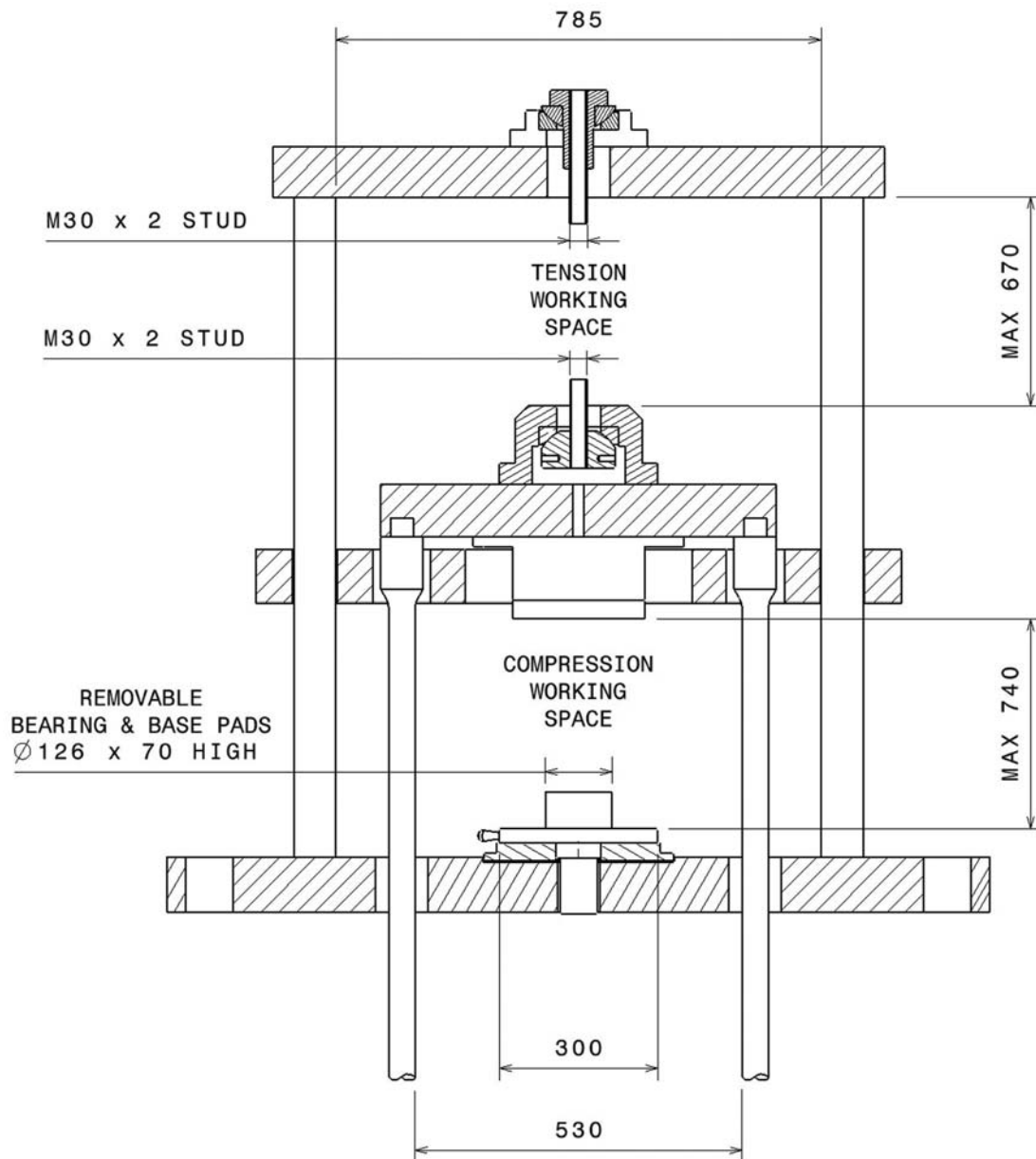
Compression and tension
Incremental and decremental loading

• CALIBRATION METHODS

BS EN ISO 376
BS 8422
ASTM E 74
Other relevant procedures

• MACHINE HIRE WITH EXPERIENCED OPERATOR

Testing to customers own procedures
Compound testing



For further information or to discuss your requirements, please contact us.

Direct line: 020 8943 6315

Fax: 020 8943 6184

E-mail: force_enquiry@npl.co.uk

Internet: <http://www.npl.co.uk/force/contacts>