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## STAKKAbOX MODULA 600mm x 600mm : EN124 CLASS D400 40 TONNES FATIGUE

**Bodycote** MATERIALS TESTING  
METAL TECHNOLOGY

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Report No. 802295/1  
Order No. 10341  
Job No. D802295

Test Date.  
1-5 May 1998

### TEST REPORT

#### FATIGUE TESTS OF 600 x 600mm MANHOLE

##### Item:

Bodycote ref No T23048  
Item No 1. Sectional construction, internal dimensions 600 x 600 mm made up of 300mm wide flat sections and 150mm corner sections, each sectional slice approximately 156mm height, approximate total liner height = 5 x 156mm = 780mm + end face lip.

##### Test Equipment.

All samples were tested in a Dartec 2000kN universal testing machine, The testing machine load readout and measured output was calibrated in accordance with the requirements of the BS1610 part 1:1992. The testing machine internal position transducer was calibrated against a traceable reference to an internal technical work procedure.

##### Test Specification.

The sample was fatigue loaded at  $68.75 \pm 56.25$ kN (Max load 125kN min load 12.5kN) for 24 hours at 1 cycles per second (actual 84441 cycles) followed by 24 hours at 1 cycle per second (actual 88140 cycles) at  $220 \pm 180$ kN (Max load 400kN min load 40kN).

Subsequent to meeting the above test requirements without damage, the sample was then loaded to the point where the structure began to buckle.

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The contents of this report are governed by the terms and conditions overleaf.



# TEST CERTIFICATE

006

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**Results.**

Sample T23048

The sample has been cyclically loaded to the levels as given in the specification above and has survived with no visible deterioration.

The subsequent compressive loading to buckling result is given below. The test was stopped before the structure became totally unstable, the figures quoted are the figures achieved at this point and are not necessarily the maximum values achievable.

The plot of load against displacement is appended to this certificate.

Sample	Stack height (mm)	Internal dims. (mm)	Buckling load (kN)	Displacement at Buckling load (mm)	Max load achieved. (kN)	Displacement at maximum load (mm)
T23048	780	600 x 600	417	2.76	680	5.04

Tested by  
L.Best  
T.Stocks

Reported by  
L.Best

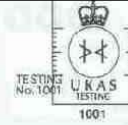
**L. C. BEST**  
Senior Project Engineer

Signed .....  
For and on behalf of  
BODYCOTE MATERIALS TESTING LTD

Issue Date. 6-May-98

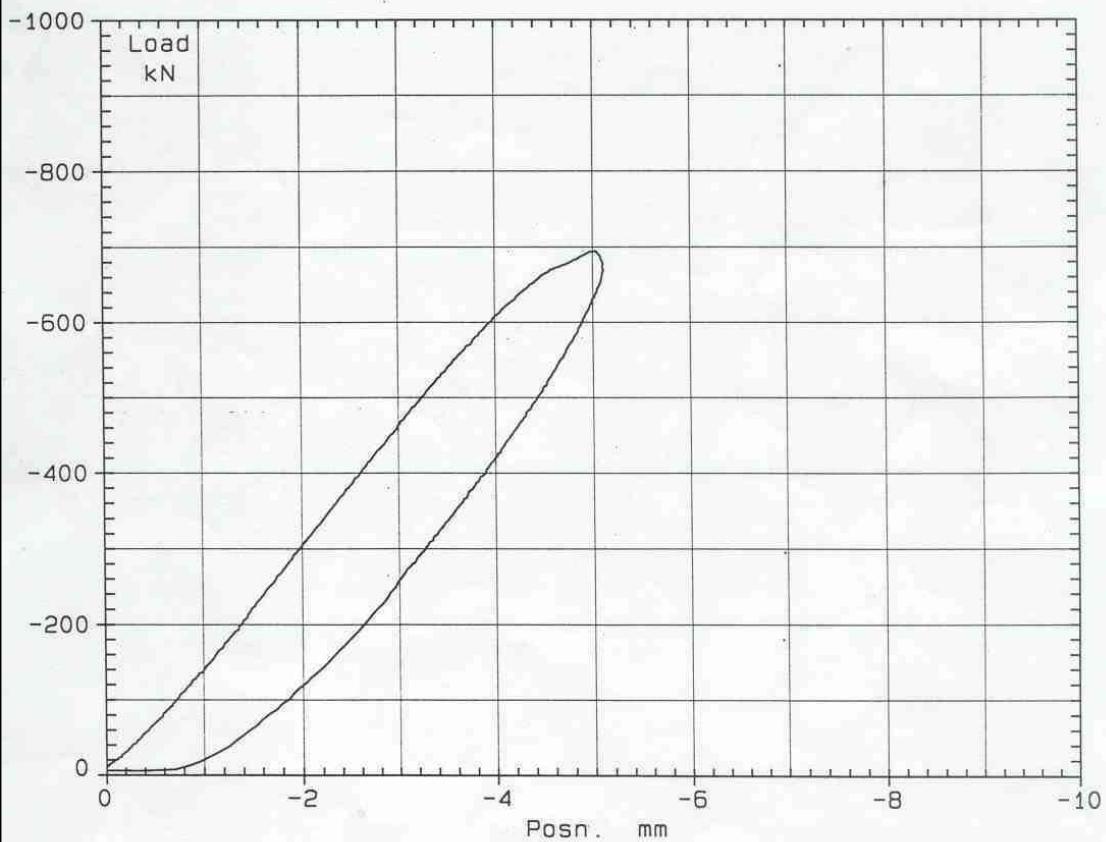
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**Bodycote** MATERIALS TESTING  
METAL TECHNOLOGY



Results File Name ..... : t23048b  
 Test Reference ..... : 600 x 600 manhole  
 Test Machine ..... : 2000kN DARTEC  
 Date of Test ..... : 05-05-1998  
 Tested by ..... : TS  
 Comment ..... : MAN HOLE DISPLACEMENT

Load/Displacement



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