

# C3/C4 Compression Set Apparatus



Specification 1 version, single daylight	
Diameter	150mm
Weight	3.2Kg
Height	60mm
2 version, double daylight	
Diameter	150mm
Weight	4.5Kg
Height	80mm
2 version, double daylight	
Diameter	150mm
Weight	6.3Kg
Height	100mm
Standards	BS ISO 815, ASTM D 395

- Measures set at constant strain
- Machined to high quality
- One, two or three samples per fixture
- Rotary cutters to prepare samples

## Jig Description

Machined to a very high-quality standard, these fixtures measure the residual strain in a rubber sample after it has been compressed for a specified period and then allowed to recover. Samples of either 13mm or 29mm diameter are placed between the plates and the bolts tightened. Spacer rings around the bolts control the compressive strain applied.

Wallace offer single daylight (i.e. 2 plates), double daylight (3 plates) and triple daylight (4 plates) versions. When ordering please specify whether C3 (BS) or C4 (ASTM) models are required and specify the number of daylight (plates).

## Preparation of Test Pieces

For use with a bench drill to produce parallel sided test samples, two rotary cutters are available 13mm diameter (ref S6/4/1) and 29mm diameter (S6/4/2).

## Definition

Set is the residual strain in a rubber test piece after it been subjected to stress for a given time and then allowed to recover for a given time, the temperature being constant during the test.

Compression set at constant strain is the difference between the original thickness of the test piece and that after recovery expressed as a percentage of the initially applied compression:

$$= \frac{t_o - t_r}{t_o - t_s} \times 100$$

Compression set at constant strain

Where  $t_o$  = original thickness of test piece

$t_r$  = thickness of test piece after recovery

$t_s$  = thickness of the spacer