### Productivity Reliability Repeatability Traceability

# **Flexing**



## **De Mattia Flex Testing Machine**

The Wallace range of Flexing Machines is used to test specially moulded samples for resistance to cracking or cut growth by repeated flexing. Flex testing is recommended when the flexing encountered in service is liable to simulate the action of the test (i.e. tyre sidewalls or soles of shoes).

The De Mattia Flex Testing Machine F16 includes a range of 3 machines capable of handling 12, 24 or 36 samples in an oven with digital temperature control having a range of ambient to 150°C.

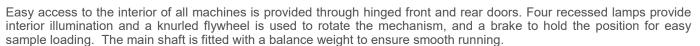
#### **Features**

- Easy access cabinet or oven versions
- Cycle counter fitted with 9 999,999 cycles allowed/test
- Internal illumination fitted
- Balanced main shaft ensures smooth operation
- Ambient to 150°C temperature range on oven versions
- Motor cut outs fitted to both doors

### Principle of Operation

Cracking and cut growth increase with increasing cycles. Samples are loaded so that they are flat when the grips are tightened and flexed but not elongated during tester operation.

The tester is stopped at intervals specified and the cracks evaluated. Two sets of grips on either side of the frame are reciprocated at constant frequency for a pre-set number of cycles controlled by a cycle counter.



#### **Test Procedure**

The samples are mounted in the tester in four banks. Two banks are accessible from the front of the instrument and two from the rear. Samples must be loaded so that they are flexed and not stretched. The central carriage moves up and down to flex the samples during operation.

#### Accessories

In accordance with the testing standards, Wallace offer the following special moulds and piercing tool for producing a groove in the edge of the test specimen. This groove helps to induce the onset of cracking during flexing.

Three cavity specimen mould
Six cavity specimen mould
F1/1/1

Piercing Tool with needle
F1/3 (BS, ASTM, & SATRA versions available)





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## **Specifications**

De Mattia Flex Testing Machine (F16)				
Version	F16/12	F16/24	F16/36	
Part Number	WAF16/12	WAF16/24	WAF16/36	
Number of Samples	12	24	36	
Dimensions (mm)	1210 (h) x 710 (w) x 570 (	1210 (h) x 710 (w) x 570 (d)		
Weight	275kg	275kg		
Maximum Power	2900 VA	2900 VA		
Oven Temperature	Ambient to 150°C	Ambient to 150°C		
Temperature Stability	±1°C	±1°C		
Operating Temperature	10 to 40°C; Altitude 2000r	10 to 40°C; Altitude 2000m maximum		
Humidity Range	10 to 80% RH non-conde	10 to 80% RH non-condensing		

### **Standards**

ISO 132, ASTM D430-06, ASTM D813

