# General Catalog - Addendum

## De Mattia Flexon Check - Environmental Chamber

gibitre INSTRUMENTS

Laboratory instruments for rubber and plastic testing

# De Mattia Flexon Check - Environmental Chamber

## Dynamic tester for the execution of fatigue tests at controlled temperature in compliance with ISO 132, 6943, ASTM D 430-B, DIN 53 522 -1/2/3

### Overview
The instrument is built according to International Standards about fatigue, which describe test methods for the determination of the resistance of vulcanized rubbers under repeated deformations. This instrument permits to perform:
- Flex cracking/crack growth test
- Tension fatigue test.

### Temperature Control
The sample holding system is located in a Environmental chamber which permits to set the temperature between -40°C and 200°C.
The environmental chamber is fitted with inspection window and internal led lighting which permit to inspect the sample without opening the chamber.

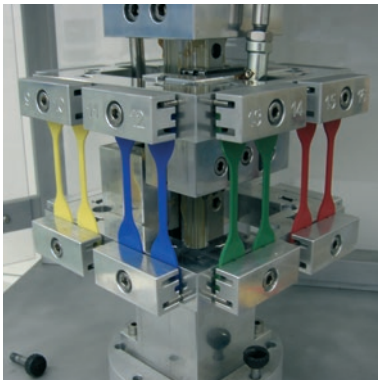
### Instrument Regulation
According to the test method and the type of sample, the test cycle can be set by the user:
- the deformation frequency can be set between 60 and 300 rpm.
- the stroke can be set between 0 and 60mm
- the distance of the grips can be set (up to 100 mm)
- the number of cycles before automatic stop can be set
- the test temperature can be set between -40°C and 200°C.

### Sample holders
The sample holder permits to test 12 samples simultaneusly.
The exclusive movement system with both sample holders moving in opposite directions ensures extremely low levels of noise and vibrations.

### Control device
The instrument is controlled using a touch screen display which permits to set the oscillation frequency, the number of cycles and the test temperature.

### Safety devices
Safety protection door fitted with safety switch. Digital Motor controller with torque overload control.
CE labelling

### Accessories
Mould for sample preparing.
Piercing tool for crack-growth test.



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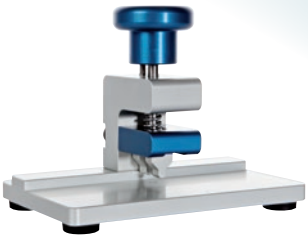

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|---|---|
| Standards the instrument complies with | ISO 132, 6943, ASTM D 430-B, DIN 53 522 -1/2/3 |
| Speed adjustment | from 60 to 300 Cycles/min - 1 to 5 Hz |
| Run adjustment | Between 0 and 60 mm |
| Distance of the grips | Maximum 100 mm |
| Maximum force in traction | 600 N (at 1 Hz oscillation speed) |
| Data displayed | Number of oscillations, test Temperature |
| Sample holder | 12 samples can be tested at the same time |
| Test temperature (without optional refrigerator) | From room temperature to 200°C (1°C resolution). |
| Test temperature (with optional refrigerator) | From -40°C to 200°C (1°C resolution). |
| Instrument Dimensions | (Width x Depth x Height) 960 x 900 x 1750 mm |
| Thermal Chamber Internal dimensions | (Width x Depth x Height) 240 x 230 x 600 mm |
| Weight | 300 Kg (optional refrigeration unit: 40 Kg) |
| Air Flow | Regulable by the user |
| Noise level | < 50 dB |
| Power supply | 220 VAC ±10%, 50 Hz ±3, 10 A, 3.5 kW -single phase - 110 VAC ±10%, 60 Hz ±3 on request |

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