

### Elastocon AB

Tvinnargatan 25  
SE-507 30 Bråmhult  
Sweden

Phone: +46 33 22 56 30  
Fax: +46 33 13 88 71  
info@elastocon.se  
www.elastocon.se



## Cable Testing

Our calibration lab is accredited  
by SWEDAC.



### Cable Testing

Elastocon manufactures instruments for testing of Rubber and Plastic materials. Some of our instruments meet the special requirements for testing of cables, according to IEC 811.

### Ageing Ovens

The cell Ovens EB 01-II, EB 19 and EB 20 together with the cabinet ovens EB 04-II and EB 10-II meet and exceed the requirements of IEC 811 for ageing tests on cable materials.

The ovens have no fans inside the test environment and have a low air speed, dependant of the air exchange rate only. Yet the ovens have a temperature variation inside of less than  $\pm 0,5$  °C throughout the test chamber. This excellent temperature uniformity is achieved by a special design and the specification is also met when the optional viewing window is fitted in the door.

All Elastocon ageing ovens have two independent temperature instruments. One for controlling the temperature and one for measuring the temperature close to the samples, which is required by some standards.

The Elastocon ovens can also be connected to a computer for monitoring the temperature over time.

### Specimen preparation

Taking dumbbells from a cable sheath is a big problem due to the curling of the sample making the cutting of clean samples difficult. Elastocon has a solution for this problem. By using a guiding rod in our pneumatic or manual cutting presses, the cutting die can stand on the sample and still be guided by the cutting press.

See a video demo on our website [www.elastocon.se](http://www.elastocon.se)



Hot Set Tester EB 16-II

### Hot Set system

Elastocon has developed a semi-automatic Hot Set System according to IEC 811, as an ageing oven is required.

The system is based on one of our ageing oven.

To avoid the common problem with temperature dropping when the door is opened, the samples are introduced via the top of the oven through a small opening. To avoid shaking the samples a servo motor driven sample holder is used.

The measuring system uses a laser pointer on a moving arm, which is connected wireless to a measuring scale linked to a computer. The measurement after the samples are taken out of the oven is done with a calliper also wireless connected to the computer. Via a special software the data values are fed into an spreadsheet template for calculations and presentation.

# Cell and Cabinet Ageing Ovens

## for precision ageing of rubber and plastic materials

All Elastocons Ovens meets or exceeds the requirements in IEC 811 and ISO 188



Cell Oven **EB01-II**, with 4 cells has the same temperature in all cells.

### Cell Ovens

Elastocon Cell Ovens with high temperature accuracy that is achieved by using aluminium block with channels for pre-heating of the air. The test piece holder in each cell can take up to 24 standard test pieces. All three models are available in two different temperature ranges: either up to 200 °C or up to 300 °C.



Cell Oven **EB 19**, with 4 cells and individual temperature in each cell.

Cell Oven **EB 20**, with 6 cells and individual temperature in each cell.

### Cabinet Ovens

Our Cabinet ovens have excellent temperature stability and uniformity within the whole inner chamber. This is achieved by using an inner chamber with a controlled air flow. The ovens can be supplied in different sizes, either 60 or 120 litre fully usable inner volume and with a maximum temperature of either 200 °C or 300 °C. Both shelves and rods are supplied with the ovens for accommodating most types of samples.



**EB 04-II** uses external air supply and flow meter that can be set between 3-20 changes per hour for the adjustment of the air exchange rate.



**EB 10-II** has a factory set throttle to give a fixed air exchange rate of 7 or 14 changes per hour.

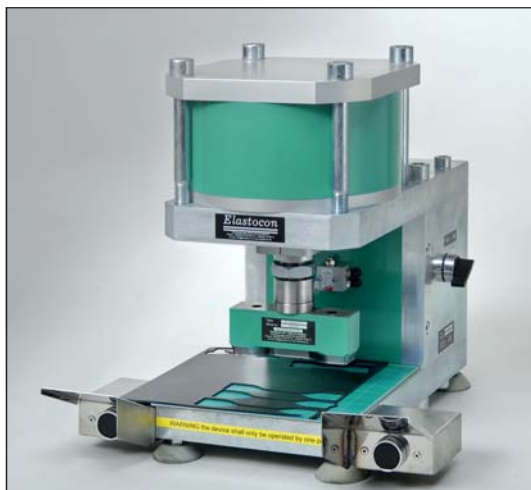
*Optional accessories for these cabinet ovens are:*

**EB 04AP** - Access port which enable the insert of an external temperature sensor or anything else without disturbing the test environment.

**EB 04IIW** - Window and light in the inner chamber.

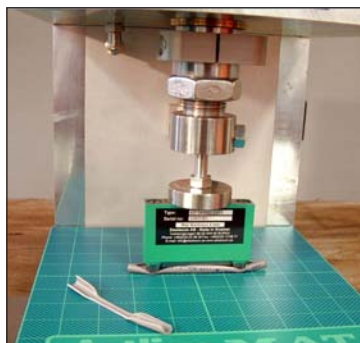
**EB 04IIDS** - Door sensor that turns off the heating and fan when the door is open.

# Specimen Preparation



**Specimen Cutting Press EP 02**, for preparation of test specimens of rubber and plastic materials, by punching.

EP 02 is a small and compact pneumatic press for preparation of test specimens in the laboratory. EP 02 stands on rubber feet and does not need to be attached to the table. The cutting press also has a system for quick change of cutting dies.



## Using of cutting dies with a guiding rod

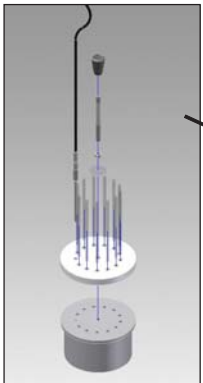
When cutting samples which curl and do not lie flat, the guiding rod (EP 04.04) can be used. The guiding rod makes it possible to have the cutting die standing on the sample and yet get guiding.



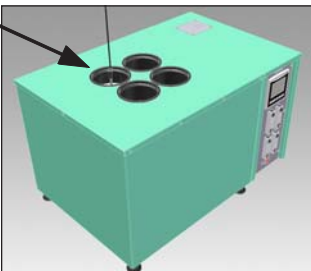
**Specimen Cutting Press EP 08**, for preparation of test specimens of rubber and plastic materials, by punching.

EP 08 is a small and compact manual press for preparation of test specimens in the laboratory. EP 08 stands on rubber feet and does not need to be attached to the table.

## New



### Insert for Heat Stability test



Insert for cell ovens for testing of Heat Stability of PVC according to IEC 811-3-2

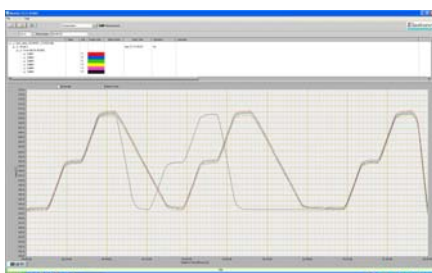
*EB 07.02*



*Rotating knives*

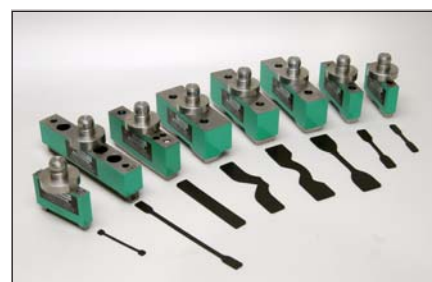
## Software

### Monitor Plus Software EC 11



Monitor plus EC 11 is a data monitoring software monitoring instruments such as ovens and laboratories for temperature and humidity.

In the software it is possible to set alarm limits.



**Specimen Cutting Dies EP 04**, are manufactured in both standard and special shapes.

A special shank for mounting in presses EP 02 and EP 08 can be fitted. All cutting dies are manufactured with an ejector plate, which helps the work and protects the edges and operator.

# Hot Set Tester EB 16-II

## Oven for determination of Hot Set according to IEC 811-2-1



*Samples with weights*



*Computer, software, caliper and weight set are included*

**EB 16-II** is made for hot set testing of cable material according to IEC 811-2-1. To avoid too high temperature loss when inserting and cutting the samples, the samples are introduced through a small opening in the top of the oven. To get a suitable working height and not shake the samples during insertion, the oven is fixed and the sample holder moves up and down by a servo motor driven screw system.

The oven has a controlled air exchange rate and low air speed which can be controlled by a flow meter, meeting the requirements for ageing ovens in IEC 811.

With a push on a button on the scale the measured values are entered in a spreadsheet template, when measuring the elongation. The set is measured outside the oven with a digital caliper also connected to the computer.

A finished report can then be produced in a spreadsheet software.

Clamps and weights for 8 samples are included as well as the computer.

Measurements are made through the window with a laser pointer mounted on a measuring scale placed on the door. The window can be taken apart for cleaning.



**Tube Oven, ES 14, according to IEC 811-4-1** for determination of carbon black and mineral filler content.

### *Phone numbers*

Martin Spetz  
Managing Director  
+4633 22 56 33  
martin.spetz@elastocon.se

Göran Spetz  
Manager Marketing and sales  
+4633 22 56 31  
goran.spetz@elastocon.se

Anna Anderzén  
Sales manager, Export area  
+4633 22 56 37  
anna.anderzen@elastocon.se

Ann-Cathrine Magnå  
Sales Manager, Nordic area  
+4633 22 56 32  
ann-cathrine.magna@elastocon.se

Andreas Svensson  
Construction and support  
+4633 22 56 34  
andreas.svensson@elastocon.se

Jonas Nilsson  
Calibration and Quality  
+4633 22 56 36  
jonas.nilsson@elastocon.se

Gun Bengtsson  
Economy and Administration  
+4633 22 56 38  
gun.bengtsson@elastocon.se

**EV 01, Thickness Gauge** for thickness measurement according to ISO 23529 and compression set measurement according to ISO 815.

