



Dear readers,

Here is the second CETA newsletter, in which we would like once again to inform you on the latest developments in our company CETA Testsysteme

GmbH.

You will find this newsletter certainly worth more than a quick glance.

Wishing you a pleasant reading,

Yours sincerely

*Günter Groß*

Managing Director

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## CETA at the MOTEK in Sinsheim 27.-30. September 2005



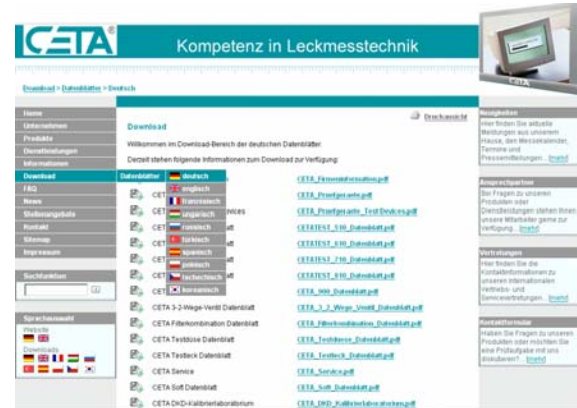
This year too, CETA Testsysteme GmbH will be represented at the MOTEK. You will find us in **hall 3, stand 3405**. There, we will introduce for the first time to the public our newly developed mass flow sensor, the CETATEST 610. Get acquainted with the functions of the CETATEST 610 by means of practical demonstrations. You can already get information on this new device on our internet site. We will be pleased to send you a free ticket for the MOTEK. We are looking forward to meeting you.

## New CETA internet site - [www.cetatest.com](http://www.cetatest.com)

CETA Testsysteme GmbH is pleased to present you the new internet site, officially open since 08.08.2005.



The completely new design features among other things a comfortable navigation thanks to the improved contents structure. Flyout menus and links to the sub-pages make it possible to get additional information rapidly and in various ways. The promo boxes on the side change according to the selected main topic and allow a quick access to relevant additional information. A full-text search function, also extending to the CMS sector (Content Management System), offers additional comfort.



The whole site is available in two languages (German/English). In the download area, you can find our data sheet in further languages. You can reach the download area either by the menu item „download“ on the welcome page, or directly by clicking on the flags in the language selection field. Furthermore, it is possible to go directly from the topic pages (e.g. product description) to the relevant data sheet.

+++ CETA newsletter no. 2 of 16.08.2005 +++



The short descriptions of the available CETA test devices have been completed by a zoom function for the device illustrations as well as a link for download of the data sheet. The menu item "information" contains a lot of useful explanations and background information on leak and flow tests.



In our CMS sector (Content Management System), you will find regularly updated information, for example device innovations, exhibition dates, press releases. The FAQ and application page is continuously upgraded according to customers' needs. We are thankful for any suggestions. We wish you a good time surfing and would be glad to get your feedback from a customer's point of view.

### Preview of the CETA newsletter no. 3

We will issue the next CETA newsletter on time for the MOTEK 2005 exhibition. In it, you will find information on our CETATEST 610, an advance notice on our 30 bar leak detector, which is actually in the engineering phase, as well as interesting announcements.

### CETA representative in Hungary

Since January 2005, CETA Testsysteme GmbH has been represented in Hungary, too. Here are the contact details of our representative:

**Intertest Labortechnikai BT.**  
**Bocskai u. 23.**  
**1043 Budapest**  
**Tel.: +36 1 370-7777**  
**Fax: +36 1 3600-599**  
**E-mail: buza@intertest.t-online.hu**  
**Contact partner: Mr Barnabás Buza**

In the meantime, we also have Hungarian data sheet of our products and services, as well as Hungarian texts on the displays of the leak detectors of the CETATEST 810 series.

### CETA practical tip:

#### Thermal related pressure changes

As a rule, the volume of the test part is constant during the leak test. The physical relationship between pressure and temperature is characterized in this case by an isochoric change of state (derived from the ideal gas equation):

$$\text{We have } \Delta p = p_1 \cdot \frac{\Delta T}{T_1}, \text{ with}$$

the output temperature  $T_1$  given in K (Kelvin) (i.e.  $T_1 [K] = \vartheta_1 [^{\circ}C] + 273,15 K$ ) and test pressure  $p_1$  to be given as absolute pressure in Pa (Pascal).

p relativ	p absolut	$\vartheta_1$	$\Delta T$	$\Delta p$
1 bar	200.000 Pa	20°C	0,1 K	68,2 Pa
5 bar	600.000 Pa	20°C	0,1 K	204,7 Pa
10 bar	1.100.000 Pa	20°C	0,1 K	375,2 Pa
20 bar	2.100.000 Pa	20°C	0,1 K	716,4 Pa

A temperature modification of only 0,1°C (= 0,1 K) during the measuring phase of the leak test can lead to considerable pressure changes. These thermal related pressure changes can be so great that they cover the leak-related pressure changes. The higher the test pressure, the greater the temperature-related pressure changes. Temperature is a critical factor in leak testing technology. To bypass this difficulty, the CETA test devices can be equipped as an option with the additional function „temperature compensation“. This function also allows the process reliable leak test of warm test parts.