



Art of heating

## ENERGY AUDIT

DO YOU KNOW THE CONSUMPTION OF YOUR FURNACE?  
DO YOU KNOW HOW MUCH YOU PAY FOR THE ANNUAL OPERATION?  
WE KNOW IT!

In the last few decades reducing energy costs has been more and more an important topic as the energy costs are among the highest of the costs in all industry businesses (on average up to 10% of all costs). As a reaction to increasing energy prices and the need of continuous business development and growth our company started to perform and offer energy audits and offer energy efficient products.

LAC company offers an **energy audit** in your workplace that can identify energy losses and offer a solution leading to energy efficiency and therefore to a higher profit.

### We offer:

In case you accept our offer of an energy audit our experienced specialist will come directly in your workplace where, with the assistance of your electrician, he will connect an energy set to a switchboard of the tested machine. This will cause an outage of about 5 minutes, the rest of the measurement will be performed with the machine in operation. Our specialist will collect data on the form of casting, casting stroke, operation, outages, degassing, etc. The measurement time is between 1 and 3 hours. Immediately after completing the measurement our specialist will evaluate the collected data and will present a transparent and well-arranged **protocol on the measurement with the calculated annual savings.**



Energy consumption meter

### The benefits of the energy audit:

The measurement itself allows, based on the data collected at the audit, to suggest many precautions and solutions leading to increasing the efficiency of the operation of your furnace. We are also able to check the state of insulation and heating elements of the furnace. Thanks to our long-time experience in this field and hundreds of performed measurements we are able to compare the energy intensity of your furnace with the latest products.

The outcome of the energy audit will be a graphic illustration of the measured values of your current furnace with the description of individual operation states and their energy intensity. Followed by an energy comparison with the furnaces that we offer – LAC PTE Mk.II that have extremely low energy demands on electricity consumption. Although the measurement is relatively short we are also able to calculate probable weekly and annual savings of electric energy. Based on that it very easy to calculate financial savings.

In cooperation with a bank we are able to offer such a way of financing that will in the end mean that monthly payments for a new furnace will be lower than the savings of electric energy for the same period.\*Due to this **the new PTE Mk.II furnace will be making money compared with the old one.**



PTE 650/09 Mk. II

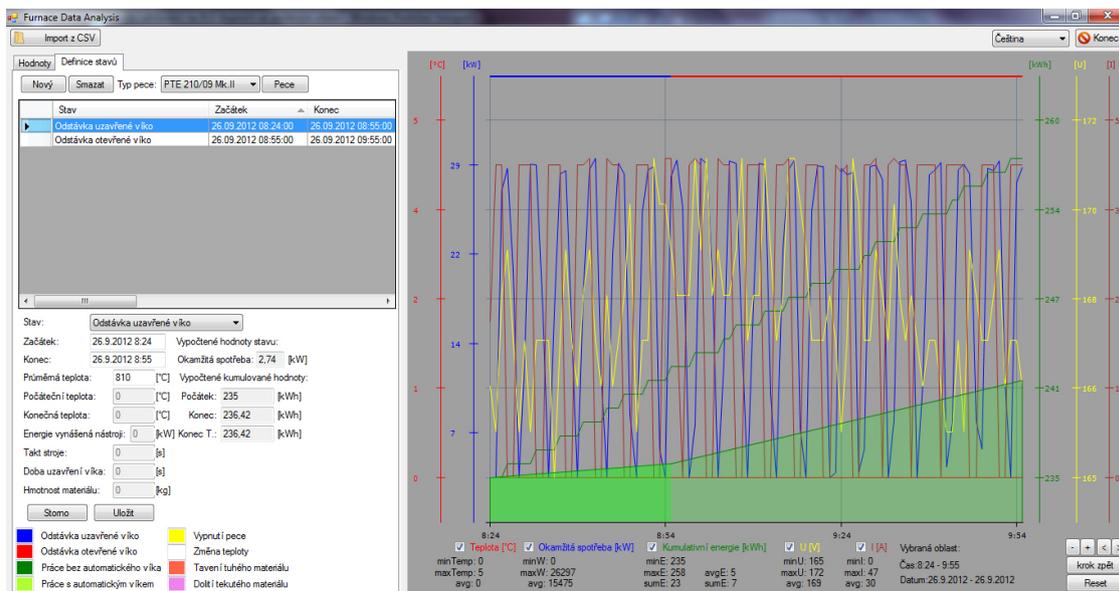
\* We offer such financing only on some markets, for more information please contact our sales partner



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## Software FDA:

Graphical representation and evaluation of the energy audit is performed in FDA program (Furnace Data Analysis). We played a major role in the development of the software.

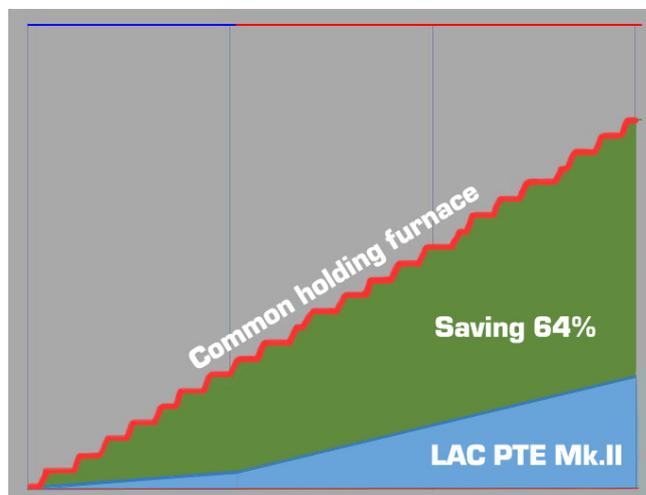
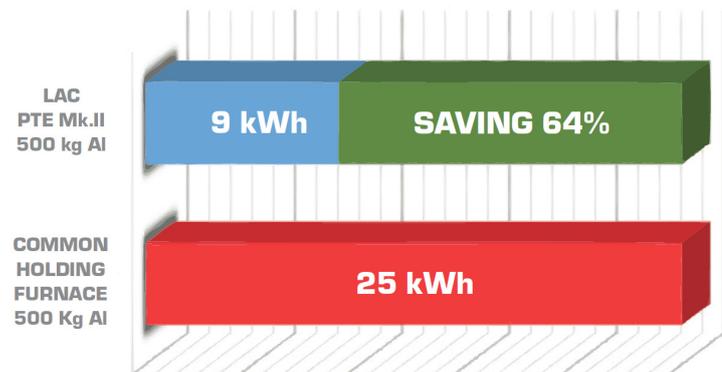


Insight into the FDA Software

From the measurements that we performed in the past we know that current holding furnaces installed in foundries show about 20 - 80% higher consumption than the furnaces that we offer - LAC PTE Mk.II. For illustration we present a measurement we performed lately on a furnace for holding 500 kg of aluminum where by a simple replacement of a furnace we can achieve a saving of 16 kW which means 384 kWh every day and with 300 working days that generates a total saving of more than 11,200 yearly (Prices for electricity in the Czech Republic).

The measured consumption is shown bottom right on the graph by a thin red line, the consumed energy is shown and equal to the field below this line. Theoretical consumption of the recommended furnace LAC PTE Mk.II in the same operation regime is in the same graph shown by a blue broken line and the consumed energy is shown as a blue field. The visible difference between those fields is the above mentioned saving of electric energy.

## HOURLY ENERGY CONSUMPTION OF THE FURNACE



Example of comparing a customer's furnace with LAC PTE Mk.II



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