

» Heating Microscope with Automatic Image Analysis Upgrade of Leitz Heating Microscopes

» Upgrading Your Equipment

Besides offering new, complete heating microscope systems, **Hesse Instruments** also offers to upgrade your available Leitz or Leica heating microscope with state-of-the-art components.

The objective of our technical service is to retain all components that function well and to exchange or add exactly those parts that optimize your heating microscope with regard to your demands.

So you can decide for a sustainable, resource-saving and cost-saving option to adapt your Leitz or Leica heating microscope to state-of-the-arts standards and to increase its efficiency.

» Individual Upgrade Options

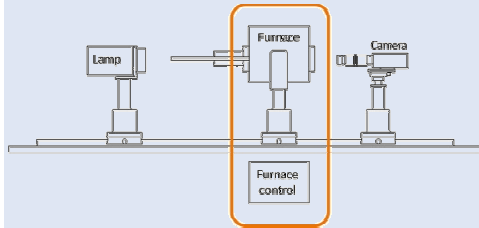
In this information sheet, we give you three common examples for upgrade options of Leitz or Leica heating microscopes. These examples are supposed to give you a first impression of the variability of the heating microscope and the existing upgrade options.

If you decide to upgrade your equipment, we will

- ... inform you about the current scope of our service
- ... discuss the optimal adaptation to your situation and your demands
- ... and finally specify the solution in a detailed offer.

We refer to our data sheets for technical details of the components for your upgrade.

» Example 1: Furnace System



Your requirements

- ... Replacement of a defective or low-performance furnace by one with a high life cycle and high heating rates
- ... Use of high performance tube furnaces with high heating rates and lifetimes

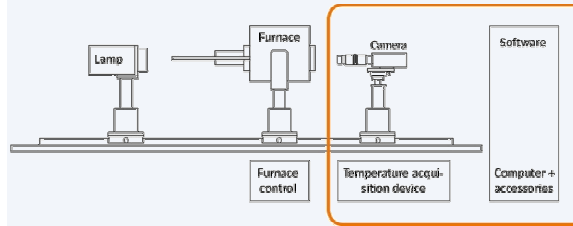
Your solution

- ... Tube furnace **M16**, **M17** or **R175**
- ... Furnace control unit **EPA-6** or **EPA-8**, depending on furnace model

Your benefits

- ... **Higher safety standards** due to furnace control with extra monitoring of the maximal furnace temperature and the water cooling system
- ... **Higher lifetime of the furnace** due to advanced material selection for the heating conductor
- ... Higher heating rates allow for a **more efficient use of the heating microscope** due to shorter measurement cycles

» Example 2: Automatic Image Analysis



Your requirements

- ... Automatic image analysis and data management as well as presentation and documentation of measurement results for Your Leitz / Leica heating microscope
- ... Use of your existing furnace control

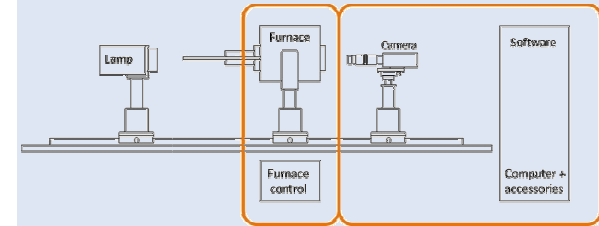
Your solution

- ... Integration of **Hesse Instruments'** heating microscope software **EMI III** and measurement workstation computer with accessories
- ... Camera with macro lens and stand
- ... Temperature acquisition device, which processes and transmits the signal of the specimen temperature to the software

Your benefits

- ... **Simplification and saving of time** due to methods with preset measurement parameters, automatic image analysis, evaluation in real-time and easy documentation
- ... **Better comparability of measurements** due to standardization of processes
- ... **Higher accuracy of measurement results** due to reduction of systematic errors

» Example 3: Automatic Image Analysis and Furnace System



Your requirements

- ... Automatic operation of your Leitz / Leica heating microscope
- ... Software-supported furnace control
- ... Use of high performance tube furnaces with high heating rates and lifetimes

Your solution

- ... Software **EMI III** and measurement workstation computer with accessories
- ... Camera with macro lens and stand
- ... Furnace **M16**, **M17** or **R175**
- ... Furnace control unit **EPA-6** or **EPA-8**, depending on furnace model

Your benefits

- ... **All benefits** of **EMI III** as in **example 1**
- ... **Higher safety standards** due to furnace control with extra monitoring of the maximal furnace temperature and the water cooling system
- ... **Simplification and saving of time** due to software-supported furnace control
- ... **Higher lifetime of the furnace** due to advanced material selection for the heating conductor
- ... Higher heating rates allow for a **more efficient use of the heating microscope** due to shorter measurement cycles