



## COURSE DATASHEET

<b>Semester:</b>	2012/13/1
<b>Course:</b>	Flow and Heat Engineering Machines (Lab.Pract.)
<b>Code:</b>	VEMKGEB233H
<b>Responsible department:</b>	Department of Mechanical Engineering
<b>Department code:</b>	MKGE
<b>Responsible instructor:</b>	Dr. András Bálint

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### Course objectives:

To make the students acquainted with the machines of fluid technic. Measuring of characteristics some thermal apparatuses.

### Course content:

General knowledge about the measuring, the working conditions. Making the laboratory record. Rules of the work in the laboratory, electrical apparatuses, high pressure mediums (steam, compressed air) quickly rotating parts. Measuring of distribution of velocity of a gas running in cylindrical tube. Characteristic curve (P-V) of a fan. Examination of type of the flow. Coefficient of pipe friction. Characteristic curves of a centrifugal pump. Examination of a tube in tube type heat exchanger. Calculation of hydraulic resistance of a heat changer with measuring on a model. Measuring the heat transfer coefficient with respect boiling. Indicating of a cylinder of a Whortington-pump. Measuring of centrifugal pumps in series and in parallel Calibration of a metering elbow pipe. Characteristic curve of a metering orifice Examination of deflection of ring plate. Stress analysis of plain cover of pressure tight equipment Test paper.

### Requirements, evaluation and grading:

Taking part in lab. exercises, successful test

### Required and recommended readings:

Baróti-Bálint-Bordás-Pálma-Szalay-Veres-Zsiros: Gépek üzemtana laboratóriumi gyakorlatok, VE 1995.