

# Engine adaptation for gas exchange analysis

## Seminar description

Accurate knowledge of the gas exchange is critical for the successful development and efficient operation of modern engines with minimal contaminant levels. The seminar answers key questions about sensor installation for gas exchange analyses on the intake and exhaust side of an engine. Using various case examples, participants will learn about different methods for minimizing gas exchange work. The training will provide theoretical and practical fundamentals for preparing measuring points for gas exhaust analyses. In the practical component, participants will practice setting up typical measuring chains.

## Seminar content

- Fundamentals of gas exchange analysis, application examples on the engine
- Measurement technology requirements for the suction and exhaust side
- Gas dynamics, influence of sensor installations and their positioning
- Sensor features
- Selection of sensors, vibration damping, cooling
- Mechanical design of measured parts
- Handling, installation and servicing of pressure sensors, practical exercises
- Zero-bias adjustment of pressure signals, practical exercises

## Goal

Participants will become familiar with the requirements of signal quality during gas exchange analyses, as well as the influences of low pressure measuring points on the gas dynamics of the engine and the measured pressure signals. They will also be able to assess the possible adaptation solutions for common measuring tasks.

## Target group

Employees in Testing and R&D departments

## Prerequisite for participation

Practical experience with combustion engines

## Duration

1/2 day

9:00 a.m.–1:30 p.m.

## Seminar number

9966B11-0-1-2

This seminar can also be held on-site at your company upon request. Please inquire about dates and cost.

## Register at:

[training.de@kistler.com](mailto:training.de@kistler.com)