

Heavy Duty – Engine Development



Heavy Duty Testing Facilities

- ▶ Fully transient test cells up to 1,000 kW/4,500 Nm
- ▶ Single cylinder test cell equipped with an external air charging system up to 440 kW/1,400 Nm
- ▶ Powertrain test cell with “engine-only”-operation up to 520 kW/7,200 Nm
- ▶ HD vehicle power testing station up to 400 kW
- ▶ Hydraulic test center for HD fuel injection systems
- ▶ Engine component test benches (friction, cooling systems, cylinder heads, catalyst efficiency, swirl & flow, turbocharger)

Emissions Measurement Systems

- ▶ Exhaust-gas analyzers (2-line-operation)
- ▶ Mass spectrometry (SESAM)
- ▶ Partial-flow dilution systems for PM
- ▶ Dynamic particulate measurement (opacity)

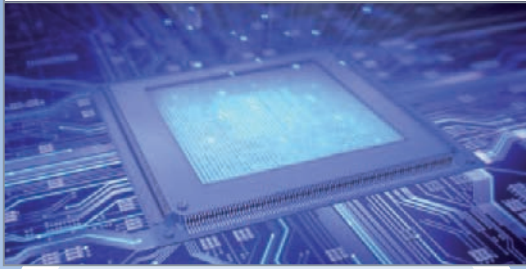


Our Services in Heavy Duty Development

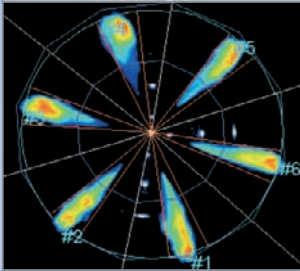
- ▶ *Exhaust Aftertreatment*
- ▶ *Thermal Management*
- ▶ *Engine Management*
- ▶ *Production Calibration*
- ▶ *Hardware Development*
- ▶ *Combustion System*
- ▶ *Fuel Injection*
- ▶ *Air Motion/Air Formation*



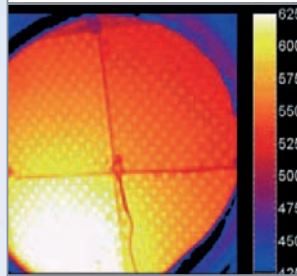
Engine Management



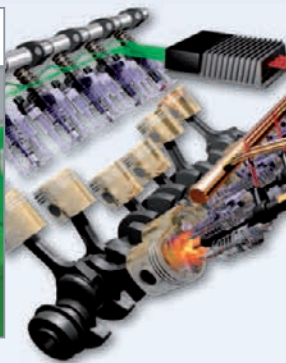
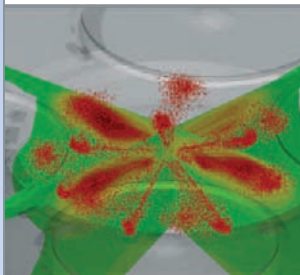
Fuel Injection



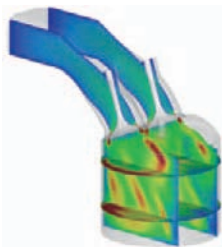
Exhaust Aftertreatment



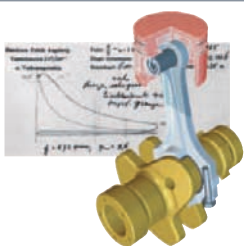
Combustion System



Air Motion/Air Formation



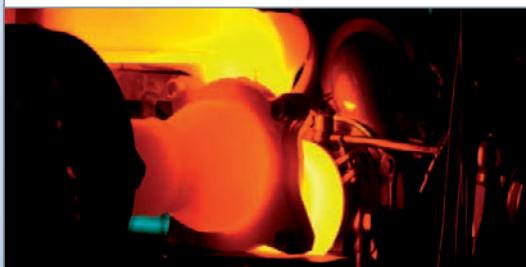
Hardware Development



Calibration for Production



Thermal Management



Supporting your way toward EURO VI and Tier 4.

IAV provides you with the full HD engine development process, starting with concept definition and ending with series production support.

Subject to change without notice. Effective: 07/2010