

SPECTRUM

Technology Highlights and R&D Activities at FEV

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The New FEV India Technical Center in Pune

As a result of the strong demand for engine and power-train development and testing, FEV has established a Technical Center in Pune, India. Pune is in western India and is considered a strategic location because existing Indian clients like TATA, Mahindra + Mahindra, BAJAJ,

Greaves, Kirloskar as well as multinational OEMs (e.g. GM, VW, JCB and MNEPL) have already established their headquarters there.

This Technical Center primarily provides the following key services:

- Comprehensive endurance test programs
- Engine design and CAE solutions
- Sales and service for its customers
- Skilled manpower for FEV advanced test systems commissioning and operation

The Technical Center covers an area of approximately 20,000 m² and offers direct access to Pune City and the International airport in Mumbai.

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Preface

Dear Spectrum Reader,



Preparing a vehicle to be launched in a foreign country can represent a major challenge, even when the production vehicle has been successfully launched in its home market. To ensure a successful launch, the final phase of the development process must be repeated. In addition, suppliers have to be selected, managed and qualified to consistently guarantee a high-level of quality. The influences of operating conditions and fuels have to be checked, which sometimes requires the design to be adapted as well.

Market-tailored derivatives are gaining increasing importance. Based on previously validated platforms, the specific requirements of the target market – in most cases also the production location – must be taken into account to be successful. India and China are examples of markets which justify an approach that includes additional development effort.

FEV's new technical center in India is ready to support you in meeting the local challenges of this emerging market. Pune is the central location for many Indian and international automotive manufacturers and is also the site of our technical center, with all the required design, calculation, testing and calibration resources at its disposal. Our local team of employees is equipped with detailed knowledge of the Indian suppliers, on-site conditions and combined with the experience of our employees in our headquarters in Aachen and the worldwide FEV technical centers. We would be glad to assist you in meeting these local challenges.

Yours faithfully,



Dr. Ernst Scheid, Executive Vice President

► Phase I of the Technical Center's construction has been built and will be expanded to match the future requirements of the Indian OEMs. From an economic standpoint, efficient process sequencing and high plant availability are key factors for success in the construction of such a test facility. The FEV India Technical Center is equipped with our advanced testing technology that will support the endurance and development testing requirements of future engine generations.

This center has attached special importance to efficient work flow as well as to the definition and organization of effective processes in the workshops and in test rig operations. All of the features of the building, the media supply services and the test rig technology were optimized for high test bench availability, including the necessary redundancies. Highly-standardized test rigs are featured that can be operated dynamically; however, the facility will also feature a design that is largely modular to accommodate conditioning units. FEV's usual high engine and powertrain testing standards will be maintained.

The test facility is configured into several interconnected wings, with a usable floor space of approximately 9,000 m². The structure is an excellent example of state of the art test facilities, which feature containerized test benches. The well organized structure and efficient planning will ensure continuous operation of the plant, 24 hours a day/365 days a year, with clearly defined responsibilities and work processes.

Test operations started in July 2009, with two test benches. Additional test benches are currently undergoing the commissioning process and will soon be operational for clients. These test programs in the FEV India Technical Center are conducted on fully-automated test rigs, based on the latest state of the art technology.



Fig. 1: Prof. Franz Pischinger, Prof. Stefan Pischinger and representatives of the Indian and European automotive industry after "Lighting Lamp", an Indian ceremony marking the beginning of new projects

