



# **China Electronic Fuel Injection (EFI) System Report, 2015-2018**

**Oct. 2015**

## STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

In 2002, China's gasoline engines saw an end of the application of carburetor and ushered in an era of electronic fuel injection. Starting from July 1, 2008, the implementation of National III emission standards prompted diesel engines to use electronic control. Thus, the vehicles in China have fully achieved electronic fuel injection control. On January 1, 2015, China began to comprehensively implement National IV emission standard, which has once again upgraded engine fuel electronic control.

In the field of gasoline electronic injection, the market focuses on gasoline direct injection (GDi) and hybrid injection.

- At present, quite a few models of Beijing Benz, Shanghai Volkswagen, Shanghai GM, and FAW-Volkswagen are equipped with GDi, with the market size for 2015 of an estimated 4.03 million sets, up 19.23% from a year earlier. It is estimated that in 2018 the demand will reach 6.81 million sets.

- Hybrid injection can make up for the weakness of GDi and was first applied in Highlander, Camry, and Audi Q5 in China. But hybrid injection needs two injection systems equipped simultaneously. In addition, fuel injection conversion need to change control system strategy, hence the need for high costs. In future, hybrid injection is expected to be widely used in high-grade vehicles with low sensitivity to price.

In the field of diesel electronic injection, the market is mainly targeted at high pressure common rail and passenger vehicle dieselization in 2015.

- With the implementation of the national IV emission standard, as the most suitable technology roadmap, common rail system for diesel engines witnessed rapid development. In May and June 2014, the mainstream Chinese heavy and light-duty truck manufacturers signed letters of commitment, vowing not to sell models that fail to meet emission standards, which, to a great extent, helped improve assembly rate of high pressure common rail system.

- With excellent performance in energy conservation and emission reduction, diesel-powered models have been widely recognized in the global automobile market. Made in China 2025, released by China in May 2015, said that the Government will press ahead with the application of diesel engines in passenger vehicles. At present, some automakers have kicked off diesel vehicle project. In the future, with the development of diesel-powered passenger vehicles, the proportion of high pressure common rail system equipped in passenger vehicles is expected to rise.

In terms of competitive landscape, whether gasoline electronic injection or diesel electronic injection is dominated by foreign players. Gasoline electronic injection suppliers include United Automotive Electronic Systems Co., Magneti Marelli, Valeo, and Donguan Keihin, etc. Diesel electronic injection market is monopolized by Bosch, Denso, and Delphi. And other local companies are only in the process of small-batch production or R&D stages.

WeiFu High-tech, the most important fuel injection system supplier in China, mainly produces fuel injection systems for diesel engines, including injection pumps, injection nozzles, delivery valves, plunger & barrel assy, and common rails. In the first half of 2015, affected by the downturn in heavy-duty trucks and the conversion of national IV standards, WeiFu High-tech experienced a 24.46% fall in fuel injection business. Meanwhile, as the demand for high-pressure common rail increased, the rough machining business of common rail pumps and fuel injectors supplied to Bosch Automotive Diesel Systems Co. grew significantly. In 2015, WeiFu High-tech began to construct workshops of Weifu Industrial Park Phase II. When the first and second phases of the project are completed, the company will achieve a capacity of 810,000 sets/a high pressure common rail pumps and 100,000 sets/a diesel engine WAP2 system.

China Electronic Fuel Injection (EFI) System Report, 2015-2018 by ResearchInChina mainly focuses on the following:

- Chinese policies about automotive EFI system, status quo and forecast of market demand, and import & export;
- Status quo and forecast of China gasoline EFI system market size and structure, and supply relationship of key enterprises;
- China diesel EFI system market size and structure, technology roadmap, and the development of major enterprises;
- Main EFI products, operation, development, etc of foreign companies;
- Main EFI products, operation, development, etc of Chinese companies.

## Major Chinese Automotive EFI Suppliers and Supported Customers

	Supplier	Automakers
<b>Automotive EFI</b>	United Automotive Electronic Systems Co., Ltd.	FAW-Volkswagen, Shanghai-Volkswagen, Shanghai GM Dong Yue, Chery, GAC Motor, Changhe, Zhejiang Haoqing Automobile Manufacture, Changan, etc.
	Magneti Marelli	FAW-Volkswagen, Shanghai-Volkswagen, etc.
	Valeo	Citroen, Peugeot, etc.
	Dongguan Keihin Engine Management System Co., Ltd.	Dongfeng Honda, Guangqi Honda, etc.
	Bosch China	Great Wall Motor, Chery, KARRY AUTO, Shanghai-Volkswagen, etc.
	Delphi China	Geely, Hafei Motor, etc.
	Continental Automotive Changchun Co., Ltd.	FAW-Volkswagen, etc.
	Shanxi Yuci XinTianDi Engine Manufacturing Co., Ltd.	FAW, JAC, Kinglong United Automotive Industry (Suzhou) Co., Ltd., etc.
	Mitsubishi Electric Automotive (China) Co., Ltd.	GAC Mitsubishi, etc.
<b>Diesel EFI</b>	Bosch Automotive Diesel Systems Co.	Weichai, etc.
	Shanghai Denso Fuel Injection Co., Ltd.	Shanghai Diesel Engine, Wuxi Diesel Engine Works, etc.
	Delphi China	DEUTZ FAW (Dalian) Engine, Yuchai, etc.
	WeiFu High-tech, (Partnering with Bosch)	Bosch Automotive Diesel Systems Co., Dongfeng Cummins Engine, Weichai Power, Wuxi Diesel Engine Works, Beijing Foton Engine Plant, etc.
	Nanyue Electronic Control (Hengyang) Industry Technology Co., Ltd.	FAW(Wuxi Diesel Engine Works, DEUTZ FAW (Dalian) Engine, Yuchai, Dongfeng Cummins, Weichai, etc.
	ASIMCO Tianwei	Dongfeng Cummins, Weichai, Yuchai, Tianjin Lovol Engines, CNHTC, Wuxi Diesel Engine Works, DEUTZ FAW (Dalian) Engine, Dongfeng Chaoyang Diesel, Weichai Power Yangzhou Diesel Engine, Kunming Yunnei Power, Shanghai Diesel Engine, Foton, etc.
	China Heavy Duty Truck Group Chongqing Fuel System Co., Ltd.	China National Heavy Duty Truck Group, Chongqing Commins, Yuchai, etc.
	LONGBENG Enterprise Group	Weichai, Wuxi Diesel Engine Works, Deutz (Dalian) Engine, Dongfeng Chaoyang Diesel, Yuchai, Shanghai Diesel Engine, Changchai, Zibo Diesel Engine Parent Company, etc.
	Chengdu WIT Electronic Fuel System Co., Ltd.	Yuchai, Dongfeng Cummins, Weichai Power Yangzhou Diesel Engine, etc.
	Liaoning Xinfeng Enterprise Group Co., Ltd	ShanDong HuaYuan LaiDong Internal-Combustion Engine
	Longkou Jinda Fuel Injection Equipment Co., Ltd	Under research
	Shandong Xinya Industrial Co. Ltd.	Under research
	Shandong Kangda Group Co., Ltd.	Under research

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