



Akira Yamamura,
President

Ferrotec Holdings Corporation (6890)



Company Information

Exchange	JASDAQ
Industry	Electric Equipment (Manufacturing)
President	Akira Yamamura
HQ Address	Nihonbashi Plaza Building, Nihonbashi 2-3-4, Chuo-ku, Tokyo
Year-end	March
Website	https://www.ferrotec.co.jp/en/

Stock Information

Share Price	Shares Outstanding		Market Cap.	ROE (Act.)	Trading Unit
¥649	37,116,134 shares		¥24,088 million	3.6%	100 shares
DPS (Est.)	Dividend Yield (Est.)	EPS (Est.)	PER (Est.)	BPS (Act.)	PBR (Act.)
-	-	-	-	¥1,303.89	0.5 x

*Share price as of closing on June 30, 2020. The number of shares issued at the end of the latest quarter excludes its treasury shares.

Consolidated Earnings Trends

Fiscal Year	Sales	Operating Income	Ordinary Income	Net Income	EPS (¥)	DPS (¥)
March 2017 (Act.)	73,847	5,678	5,675	3,256	105.67	18.00
March 2018 (Act.)	90,597	8,437	7,157	2,678	77.08	24.00
March 2019 (Act.)	89,478	8,782	8,060	2,845	76.90	24.00
March 2020 (Act.)	81,613	6,012	4,263	1,784	48.12	24.00
March 2021 (Est.)	-	-	-	-	-	-

*The full-year forecast is undecided. Unit: million yen.

This Bridge Report reviews the overview of Ferrotec's earnings results of the fiscal year March 2020 and earnings estimates for fiscal year March 2021.

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Key Points

- **In the term ended March 2020, sales fell 8.8% year on year, and operating income decreased 31.5% year on year. As for sales, although the sales in the Electronic Device Business increased, the sales in the Equipment Related Business declined due to a decrease in semiconductor and FPD investment and production. Also, sales were affected by the withdrawal from the Photovoltaic Business. In terms of profits, the company secured the same level of gross profit as the previous fiscal year because the cost of sales ratio improved due to the effect of withdrawing from the Photovoltaic Business, etc. However, the company was burdened with the increase in SG&A expenses due to an expansion in R&D expenses and the allowance for doubtful accounts of its Chinese subsidiary, the full-scale operation of the subsidiary, etc. The year-end dividend is 24 yen, unchanged from the previous year (12 yen at the end of the first half and 12 yen at the end of the fiscal year).**
- **As the economic outlook is extremely uncertain due to the spread of the novel coronavirus, the earnings forecast for the term ending March 2021 is limited to the forecast for the first six months. The forecast for the first half includes a 4.4% year-on-year decrease in sales and a 15.9% year-on-year decline in operating income, assuming an exchange rate of 108 yen per dollar. Regarding the full-year forecast, the company will promptly disclose it together with the dividend forecast when it can rationally calculate it.**
- **After the continuation meeting scheduled to be held on July 31, following a resolution of the Board of Directors, Akira Yamamura, Representative Director and President, will be appointed as Representative Director and Chairman, and He Xian Han, Vice President and Representative Director, will be appointed as President and Group CEO (Chief Executive Officer). Ferrotec will swiftly respond to changes in the external environment such as 5G, IoT, and electric vehicles, and will work to improve corporate value further. We would like to expect from their growth strategy under the leadership of the new President, He Xian Han, who possesses wide-ranging insights and knowledge in manufacturing and finance as he launched the company's business in China in collaboration with President Yamamura.**

1. Company Overview

Ferrotec Holdings Corporation conducts business mainly on the basis of the following two segments: the Equipment Related Business, in which it offers parts for semiconductors and fine panel display (FPD) manufacturing equipment, consumable materials and wafers used in the process of manufacturing semiconductors, and semiconductors for equipment offering cleaning services of equipment parts, and the Electronic Device Business that focuses on the thermal element “thermoelectric modules,” with 48 companies serving as Ferrotec’s subsidiaries (41 consolidated subsidiaries and 7 non-consolidated affiliated companies accounted for by the equity method and other related companies).

Ferrotec was born as a company with highly unique technologies including thermoelectric modules with uses in thermal elements and vacuum technologies that respond to magnetic fluids that were born from the NASA space program in the 1980s. Over the course of its 40 years history of operations, the Company has developed a wide range of diverse technologies with applications in the automobile, electronics, next generation energy and other industries. As a transnational company, Ferrotec deploys its businesses in Japan, Europe, the Americas, China, and Asia, and boasts of marketing, development, manufacturing, sales, and management capabilities in various countries and regions. A holding company structure was implemented from April 2017.

【Corporate Philosophy】

Bringing Satisfaction to Customers

Caring About the Environment

Providing Dreams and Vitality to the World

From a global perspective, Ferrotec operates in harmony with international and local communities, acting in good faith as a company that provides products and services that contribute to everyday life of people. Ferrotec's corporate philosophy is to earn satisfaction and trust from the customers, contribute to solving global environmental problems, and be devoted to serving society through manufacturing.

1-1. Business Segments

Ferrotec's operations includes semiconductor seal related products such as vacuum seal, quartz products, ceramic products, etc. used in manufacturing equipment of semiconductor, FPD, LED etc., electronic device business centering on thermo modules and business segments that are not included in the reportable segments. Other businesses, which handle silicon crystal, PV wafer, saw blades, machine tools, surface treatment, silicon products for solar cells, etc.

Semiconductor equipment related business

Ferrotec provides total engineering services in the Equipment Related business segment, including the manufacture and sale of Vacuum Feedthrough of equipment parts for solar power, semiconductor, FPD and LED applications, consumable products used in manufacturing of devices, quartz products, ceramic products, CVD-SiC products, quartz crucibles, silicon wafer processing and equipment cleaning services.

Its vacuum seal boasts of top market share in the world, and is a functional part that insulates the interior of manufacturing equipment from gas and dust contamination while supporting rotating action of the above-mentioned equipment. These Vacuum Feedthrough use magnetic fluids (Fluids that respond to magnetic fields), which has been a core technology of Ferrotec since its founding. Because of instability in these applications arising from their link with corporate capital investments cycles, the Company focuses its marketing efforts upon expanding sales to applications for which demand is more stable, including transportation equipment, precision robots, and general industry usages. In addition, Ferrotec has also focused its efforts upon assuming consigned manufacture of vacuum chambers that use Vacuum Feedthrough and gate valves (Both use vacuum related equipment). At the same time, quartz, ceramic, and CVD-SiC products are critical elements in the process of semiconductor manufacturing. Quartz products are able to resist high temperature conditions that exist in the semiconductor manufacturing process, and are a high purity silica glass product that protects semiconductors from undergoing chemical reaction by preventing it from activating with gas. The Company boasts of semiconductor manufacturing equipment manufacturers as their main clients in Japan and overseas who purchase ceramic products, which are Ferrotec's core material and technology. At the same time, semiconductor inspection tools for machinable ceramics and fine ceramics used in semiconductor manufacturing equipment are two main products in this CVD-SiC.

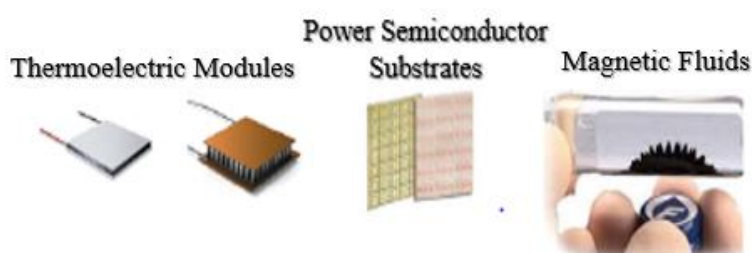
*CVD-SiC products are the term used to describe SiC products manufactured by "CVD method (Chemical Vapor Deposition method)" (created from compounds of silicon and carbon gas). Currently, semiconductor equipment and structural parts are provided, and research and development for products used in aeronautics and space (Turbine, mirrors), automobile (Power semiconductors), energy (Nuclear power related), information technology (Semiconductor manufacturing equipment parts) and other applications are also being conducted. As for silicon wafer processing, Ferrotec handles six-inch (diameter) and eight-inch wafers, and has a leading share of more than half of the manufacturing equipment cleaning services market in China.



(From the company website)

Electronic Device Business

Thermal element “thermoelectric modules” are products that can instantly raise or lower temperatures to a highly precise degree and are a core product of this business. Thermoelectric modules are used primarily in heated automobile seats, and also in a wide range of other applications including heated wafers in semiconductor manufacturing equipment, genetic analysis equipment, optical communications, and consumer electronics and power semiconductor substrates that is sold as unitized products. Ferrotec is also working on developing new demand and expanding further applications through cost reduction and quality improvement through development of new products using high performance materials and introduction of automated lines. Earnings of magnetic fluids, including applications currently being developed for use in linear vibration motors for smartphones and speakers for 4K televisions, are also conducted.



(From the company website)

Other business



(From the company website)

2. Fiscal Year ended March 2020 Earnings Results

2-1. Consolidated Earnings

	FY 3/19	Ratio to sales	FY 3/20	Ratio to sales	YoY	Revised Forecast at 2Q	Difference from the forecasts
Sales	89,478	100.0%	81,613	100.0%	-8.8%	85,000	-4.0%
Gross Income	27,137	30.3%	26,928	33.0%	-0.8%	27,405	-1.7%
SG&A	18,354	20.5%	20,915	25.6%	+14.0%	20,880	+0.1%
Operating Income	8,782	9.8%	6,012	7.4%	-31.5%	6,500	-7.5%
Ordinary Income	8,060	9.0%	4,263	5.2%	-47.1%	4,500	-5.3%
Net Income	2,845	3.2%	1,784	2.2%	-37.3%	2,500	-28.6%

*Unit: million yen

Sales decreased 8.8% year on year, and operating income fell 31.5% year on year

Sales fell 8.8% year on year to 81.61 billion yen. Although the sales in the Electronic Device Business increased, the sales in the Equipment Related Business decreased due to a decline in semiconductor and FPD investment and production. Also, the withdrawal from the Photovoltaic Business substantially affected sales.

In terms of profits, the company secured the same level of gross profit as last fiscal year because the cost of sales ratio improved due to the effect of withdrawing from the Photovoltaic Business, etc. However, operating income decreased 31.5% year on year to 6.01 billion yen due to an increase in SG&A expenses as the company saw an augmentation in R&D expenses and the allowance for doubtful accounts of its Chinese subsidiary, the full-scale operation of the subsidiary, etc. While non-operating income and expenses worsened due to increased foreign exchange losses and provision of allowance for doubtful accounts, net income declined 37.3% to 1.78 billion yen because the company recorded an extraordinary loss of 1.24 billion yen due to impairment loss and loss due to disasters, etc. (In the previous fiscal year, an extraordinary loss of 3.06 billion yen was recorded including an impairment loss of 2.42 billion yen)

A year-end dividend of 12 yen per share was paid. When combined with the interim dividend at the end of the first half, the annual total of dividends was 24 yen/share (dividend payout ratio of 49.9%).

2-2. Business Segment Trends

	FY 3/19	Ratio to sales Profit margin	FY 3/20	Ratio to sales Profit margin	YoY	Revised Forecast at 2Q	Difference from the forecasts
Equipment Related	57,001	63.7%	52,880	64.8%	-7.2%	54,485	-2.9%
Electronic Device	12,897	14.4%	13,489	16.5%	+4.6%	13,300	+1.4%
Others	19,579	21.9%	15,243	18.7%	-22.1%	17,215	-11.5%
Total Sales	89,478	100.0%	81,613	100.0%	-8.8%	85,000	-4.0%
Equipment Related	9,143	16.0%	4,192	7.9%	-54.2%	-	-
Electronic Device	2,365	18.3%	2,768	20.5%	+17.0%	-	-
Others	-1,930	-	260	1.7%	-	-	-
Adjustments	-796	-	-1,208	-	-	-	-
Total Operating Income	8,782	9.8%	6,012	7.4%	-31.5%	-	-

*Unit: million yen

Semiconductor related business

Sales fell 7.2% year on year to 52.88 billion yen, and operating income decreased 54.2% year on year to 4.19 billion yen. The sales of cleaning parts for semiconductor manufacturing equipment and organic EL panel manufacturing equipment increased due to the operation of the new factory, and silicon wafer processing also remained robust. Nonetheless, the company could not compensate for the fall in vacuum seals and contract processing due to the decline in capital investment of semiconductor and organic EL panel manufacturers and the decrease in material products (quartz, ceramics, etc.) due to inventory adjustments by device manufacturers.

Electronic Device Business

Sales were 13.48 billion yen (up 4.6% year on year), and operating income was 2.76 billion yen (up 17.0% year on year). As for mainstay thermos modules, the sales of products for automotive temperature control seats fell due to a decrease in vehicle sales in the North American and Chinese markets and a decline in industrial applications because of the US-China trade friction. However, the sales of products used in mobile communication system equipment for 5G and medical testing equipment such as PCR increased. Moreover, although sales of power semiconductor substrates (DCB substrates) expanded, magnetic fluids decreased due to a decline in sales for speakers and smartphones. As for power semiconductor substrates, the company is proceeding with the acquisition of AMB substrate certification.

2-3. Financial Condition and Cash Flow

Balance Sheet Summary

	3/19	3/20		3/19	3/20
Cash	31,555	23,709	Payables	20,887	18,251
Receivables	21,460	20,435	ST Interest-Bearing Liabilities (Lease obligations)	20,475	26,169
Inventories	16,276	17,269	Current liabilities	60,180	61,074
Current Assets	77,271	71,059	LT Interest-Bearing Liabilities (Lease obligations)	41,032	55,245
Tangible Assets	76,133	110,840	Noncurrent liabilities	53,069	78,418
Intangible Assets	3,557	500	Net Assets	49,848	50,147
Investments and Others	6,136	7,241	Total Liabilities and Net Assets	163,098	189,641
Noncurrent Assets	85,827	118,582	Total Interest-Bearing Liabilities	61,507	81,414

*Unit: million yen

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Total assets at the end of the term rose 26.54 billion yen from the end of the previous term to 189.64 billion yen. Tangible assets and interest-bearing liabilities increased due to aggressive capital investment in China. Capital-to-asset ratio was at 25.5% (30.3% at the end of the previous term).

In addition to entering into a business tie-up agreement with Advantage Advisors Co., Ltd., Ferrotec issued convertible bonds with stock acquisition rights to a fund which Advantage Advisors Co., Ltd provides services, raising approximately 3.7 billion yen. The company will receive new business formulation support, M&A and business alliance support, profit optimization support, productivity improvement support, and organizational foundation strengthening support from Advantage Advisors Co., Ltd., which will lead to improved corporate value and sustainable growth.

Cash Flow

	FY 3/19	FY 3/20	YOY	
Operating cash flow (A)	11,466	8,902	-2,563	-22.4%
Investing cash flow (B)	-37,063	-34,472	+2,590	-
Free Cash Flow (A + B)	-25,597	-25,569	+27	-
Financing cash flow	34,507	17,996	-16,511	-47.8%
Cash and Equivalents at the end of term	31,555	23,709	-7,846	-24.9%

*Unit: million yen

The company secured an operating CF of 8.9 billion yen due to the increase of working capital including a pretax profit of 3.54 billion yen (5.64 billion yen in the previous term), a depreciation of 7.6 billion yen (5.75 billion yen in the previous term), and payment of income tax of 1.88 billion yen (3.60 billion yen in the previous term).

Reference: Trends of ROE

	FY 3/16	FY 3/17	FY 3/18	FY 3/19	FY 3/20
ROE	5.58%	8.36%	5.92%	5.65%	3.65%
Net income margin	3.11%	4.41%	2.96%	3.18%	2.19%
Total asset turnover [times]	0.88	0.86	0.86	0.64	0.46
Leverage [times]	2.04x	2.19x	2.33x	2.79x	3.60x

3. Fiscal Year ending March 2021 Earnings Forecasts

3-1. First-half Consolidated Earnings

	1H of FY 3/20 Act.	Ratio to sales	1H of FY 3/21 Est.	Ratio to sales	YoY
Sales	41,849	100.0%	40,000	100.0%	-4.4%
Operating Income	3,566	8.5%	3,000	7.5%	-15.9%
Ordinary Income	2,472	5.9%	2,500	6.3%	+1.1%
Net Income	1,539	3.7%	1,500	3.8%	-2.6%

*Unit: million yen

Only the first-half forecast is disclosed, and the full-year forecast is undecided. The first half forecast includes a 4.4% decline in sales and a 15.9% decrease in operating income.

As the economic outlook is extremely uncertain due to the spread of the novel coronavirus, the earnings forecast for the term ending March 2021 is limited to the forecast for the first six months starting from April 2020 to September 2020. The exchange rate, which is the premise of the earnings forecast, is 108 yen per dollar.

Regarding the full-year forecast, the company will promptly disclose it together with the dividend forecast when it can rationally calculate it.

3-2 Initiatives for the term ending March 2021

In the Equipment Related Business, the company will focus on increasing parts cleaning services for semiconductor and FPD manufacturing equipment as the new factory started operations in the previous fiscal year. Also, the company is planning to expand the production line (OEM) of silicon wafers and material products (quartz, ceramics, etc.) in response to customer requests. In the Electronic Device Business, Ferrotec will strengthen sales of thermoelectric modules for the mobile communication equipment domain, where growth is expected, medical field such as DNA amplification equipment (PCR test equipment) and blood analysis equipment, and home appliances and consumer goods applications where stable demand is forecasted. The company is also planning to augment the production of DCB substrates for power semiconductors, where demand is expected to increase due to the trend of energy saving.

3-3 Changing of the Representative Director

After the continuation meeting scheduled to be held on July 31, 2020, following a resolution of the Board of Directors, Akira Yamamura, Representative Director and President, will be appointed as Representative Director and Chairman, and He Xian Han, Vice President and Representative Director, will be designated as President and Group CEO (Chief Executive Officer).

Ferrotec replaced its president because of the need to respond swiftly to changing external environments such as 5G, IoT, and electric vehicles, and to improve corporate value further. President He Xian Han is a firm believer in the hands-on approach to management who has been the Director of the Chinese subsidiary since the initial launch of the Chinese business. After that, he became its Director in June 2001. Since June 2011, he has laid the foundation for the growth of the Group today by working on reforming existing businesses and expanding business areas as the Representative Director, Vice President and Executive Officer in charge of business operations. Also, he possesses wide-ranging views and knowledge about both manufacturing and financial issues. So, as the President and Group CEO, he will execute the business operations of the entire Group and drive the improvement of corporate value appropriately. Also, new Chairman Yamamura will support the new President He Xian Han in promoting the Group's growth strategy as its founding chairman.

Based on changes in the business environment, the company has decided to revise the mid-term management targets (from the term ended March 2020 to the term ending March 2022) announced on May 27, 2019.

4. Conclusions

In China, the immigration ban continues, and local semiconductor device manufacturers have been forced to postpone capital investments because equipment startup personnel could not enter the country. Also, supply chain disruption has led to delays in delivery of parts and soaring shipping costs, and some customers see excessive inventory buildup, which could lead to inventory adjustments in the second half of the year. Other than semiconductors, the automotive industry and the linen industry for hotels are expected to struggle, and there is concern about the impact on the company's business results for the term ending March 2021.

However, according to WSTS (World Semiconductor Trade Statistics), the global semiconductor market in 2020 is expected to increase 3.3% year on year, despite concerns about the impact of the spread of the novel coronavirus. It is also forecasted to continue to rise in 2021 by 6.2% year on year, showing positive growth for two consecutive years. It can be expected that demand will augment due to lifestyle changes such as telecommuting and the "stay at home" demands. According to US financial institutions, semiconductor investment (investment in semiconductor manufacturing equipment) is expected to decrease 4.2% from 2019. However, in China, which is the main battlefield of Ferrotec Holdings, the semiconductor industry is viewed as an essential industry in the long-term industrial policy "Made in China 2025," and it is working on domestic production of semiconductors as a national policy.

As mentioned above, there is some uncertainty about the future, but the future is not necessarily entirely bleak. We have high hopes pinned on the management skills of the President and Group CEO, He Xian Han.

Reference: Regarding Corporate Governance

◎ Organization type, and the composition of directors and auditors

Organization type	Company with board of auditors
Directors	8 directors, including outside ones 2
Auditors	3 directors, including outside ones 3

◎ Corporate Governance Report (Updated on July 17, 2019)

Basic policy

The company considers that it is important to improve its corporate value, emphasize the soundness of its business administration to become an enterprise that will be trusted and supported by stakeholders, including shareholders, customers, business partners, and local communities, and also establish a managerial system responding the rapid changes to the business environment swiftly and accurately. The organizational chart of the corporate governance of our company as of the submission date is included in "V. Others, 2. Other items regarding the corporate governance structure, etc."

Our company's board of directors is chaired by the representative director and president Akira Yamamura. The other 8 members (including 2 outside directors) are the representative director and vice-president Takeru Yamamura, the representative director and vice-president He Xian Han, the director Hiroo Wakaki, the director Takanori Suzuki, the director Eiji Miyanaga, the outside director Kyuzo Nakamura, and the outside director Kuniaki Yanagisawa. In addition to monthly meetings of the board of directors, we hold an extraordinary meeting of the board of directors flexibly, when there is an important matter to be discussed. The board of directors determines important items in accordance with the regulations for the board of directors in addition to laws and the articles of incorporation, and oversees the business operation of each director. All auditors attend meetings of the board of directors, to oversee the business operation of directors. The term of directors is one year, so that we can respond to changes in the management environment swiftly.

Our company adopted a system of the board of auditors, which is composed of the full-time outside auditor Takamasa Higuchi, the outside auditor Go Fujimoto, and the auditor Masaru Yoshida, that is one full-time auditor and two part-time auditors, including 2 outside auditors. It is stipulated that a meeting of the board of auditors is held 8 or more times per year, once per month in principle, and extraordinarily when necessary. Full-time auditors attend meetings of the board of directors and other important meetings, such as meetings of the board of executive officers, and express their opinions when necessary, so as to oversee the business operation of directors. They also exchange information and opinions with the internal audit division and comptrollers, and hold regular meetings, to cement cooperation and improve the auditing function.

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For business operation, 9 executive officers (composed of 8 male officers and 1 female officer, including 5 male directors) serve as chiefs of respective sections, so that their roles for business operation are clarified. Monthly meetings of the board of executive officers are held, to deliberate important items, including the items to be discussed at a meeting of the board of directors.

The company receives advice about legal affairs from Goto Law Office when this is necessary for business, in accordance with a legal consultancy contract. The comptroller Ernst & Young ShinNihon LLC audits our accounting in accordance with the audit contract, and provides us with their reports, including their comments during and after audit, and tries to disclose information without delay as a company listed in the standard section of the JASDAQ market of Tokyo Stock Exchange, if an event specified in the provisions regarding disclosure occurs.

This report is intended solely for information purposes, and is not intended as a solicitation to invest in the shares of this company. The information and opinions contained within this report are based on data made publicly available by the Company, and comes from sources that we judge to be reliable. However, we cannot guarantee the accuracy or completeness of the data. This report is not a guarantee of the accuracy, completeness or validity of said information and or opinions, nor do we bear any responsibility for the same. All rights pertaining to this report belong to Investment Bridge Co., Ltd., which may change the contents thereof at any time without prior notice. All investment decisions are the responsibility of the individual and should be made only after proper consideration.

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