



The Hidden Technology
that Supports JAMCO

To Our Shareholders

The **81**st Term

April 1, 2020

→ September 30, 2020

Interim Business Report



Have you heard
about our initiatives
to bring about
a **New Normal**
for aircraft?

[Go to P.5](#)



Interim Digest for Fiscal 2020

Topics for the First Half of the Fiscal Year



June 30, 2020
Selected as a Global Niche Top Company,
certified by the Ministry of Economy,
Trade and Industry (METI)

[Go to P.8 TOPICS](#)

June 25, 2020
Held the 80th Annual General
Meeting of Shareholders

July 1, 2020
Niigata JAMCO Corporation
received an Honorable
Mention from the Japan
Aeronautical Engineers'
Association



June 24, 2020
Launched Project Blue Sky



[Go to P.5 Feature](#)

JAMCO Glossary

Please take a look at JAMCO Corporation's glossary for the aviation industry.

Lavatories

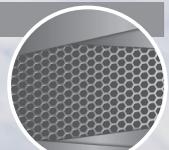
The lavatory is the only private room on an aircraft, where many passengers spend time together in the same cabin.

* JAMCO's lavatories occupy a market share of around 50% worldwide (for medium and large aircraft, according to a survey by JAMCO)



Honeycomb Panel

Honeycomb panels, made by enclosing a honeycomb core, a key material for weight reduction, between two thin glass fiber or carbon fiber boards, are used in applications such as the walls of aircraft interiors.





Harutoshi Okita

Representative Director,
President & CEO

Greeting

I would like to begin by offering my sincere best wishes for those who have been affected by COVID-19, and their families.

I would also like to express my deep gratitude to the healthcare workers and others who are making every effort, every day, to combat the pandemic.

Results for the First Half of Fiscal Year 2020

Travel restrictions remain in place in countries around the world due to the impact of the COVID-19 pandemic, and air passenger demand has declined sharply. In the air transportation industry, the business environment has deteriorated significantly due to unprecedented flight reductions and cancellations, and aircraft manufacturers including Boeing and Airbus have been forced to substantially reduce production.

The JAMCO Group has also been significantly affected by this impact. As a result, on a consolidated basis, during the second quarter of FY 2020,

the Company posted net sales of ¥25,860 million (down ¥14,694 million compared to the same period of the previous fiscal year), operating loss of ¥4,591 million (an operating income of ¥784 million in the same period of the previous fiscal year), ordinary loss of ¥5,409 million (an ordinary income of ¥384 million in the same period of the previous fiscal year), and net loss attributable to shareholders of parent company of ¥4,294 million (a net income attributable to shareholders of parent company of ¥73 million in the same period of the previous fiscal year).

Outlook for the Fiscal Year

The consolidated financial results forecast for FY 2020 reflects an extremely harsh outlook as it remains unclear when COVID-19 will come to an end. We forecast net sales of ¥58,400 million, operating loss of ¥10,200 million, ordinary loss of ¥11,100 million, and net loss attributable to shareholders of parent company of ¥8,800 million. The exchange rate assumed for the consolidated financial results forecast is ¥105 per US\$1.

Corporate
Philosophy

The JAMCO Commitment

JAMCO, a Technology-Oriented Company with Samurai Values

- Rising to the eternal challenge to realize our aspirations.
- Bringing joy and satisfaction to our customers and employees.
- Striving for coexistence with nature, contributing to a prosperous and progressive society.

We have previously determined the amount of dividends based on a target consolidated payout ratio of 20-30%, but regret to inform shareholders that we will not pay any dividends, including interim dividends, for this fiscal year.

I would like to express our sincere apologies and request the understanding of shareholders in this matter.

Initiatives for the Future

At present, air passenger demand has suffered a significant impact from the spread of COVID-19. However, the International Air Transport Association (IATA) predicts that demand will recover to 2019 levels by around 2024. Although uncertainty will persist until then, a gradual recovery is expected, followed by strong growth after 2024.

At present, the Group is promoting business process reforms and measures to enhance the efficiency of its production system on a company-wide level, aiming to improve quality and profitability, while striving to reduce cost through a reduction in workforce, limiting investment, and working to reorganize production bases. As already announced in Project Blue Sky, we are promoting the development of products for preventing infection, such as lavatory door handles that can be opened and closed hands-free, allowing passengers to use them with a sense of security.

In addition to these emergency initiatives in response to the COVID-19 crisis, we have also started preparations to respond to a market recovery.

While reorganizing our production bases, we are proceeding with preparations to expand the scale of some facilities in order to ensure that our manufacturing capability is sufficient to keep up with the expected recovery in demand when aircraft operations recommence. We will also promote initiatives for products targeting the narrow-body and single-aisle aircraft market, for which relatively strong growth is anticipated in the future, such as enhancing our mass production systems.

Regarding our ESG initiatives, results have already been reported for our CONTRAIL Atmospheric Observation Project utilizing aircraft (a global-scale CO₂ measurement project, undertaken in coordination with the National Institute for Environmental Studies, Japan Meteorological Agency, and Japan Airlines). In addition, we will continue to contribute toward reducing CO₂ emissions through aircraft weight reduction, specifically by promoting initiatives such as the productization of lightweight honeycomb panels and the development of new manufacturing technologies for thermoplastic carbon fiber composite. We aim to transform our business structure with a view to other applications for these composite products in

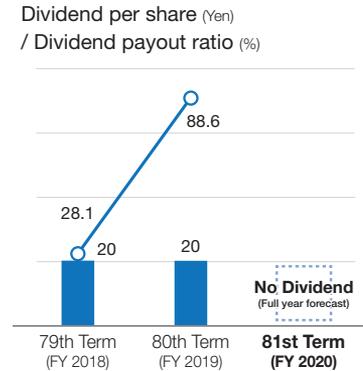
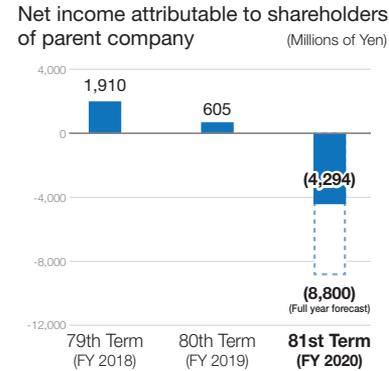
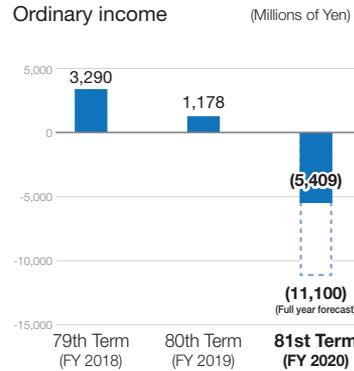
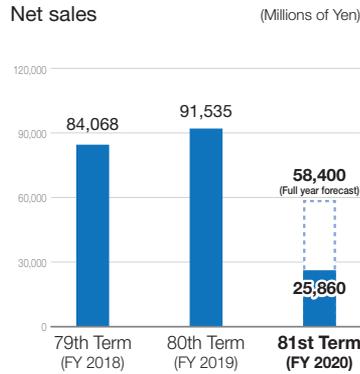
addition to aircraft. These ESG initiatives hold the potential for expansion across new business domains, not limited to the aviation industry, and we intend to continue to promote them steadily, even in the adverse environment that we face at present.

The aviation industry currently faces a business environment of unprecedented severity. We also believe, however, that the decisive, emergency countermeasures we have taken to overcome this adverse environment, and the medium-term measures we are promoting, will give the Group an even greater degree of agility, executive capacity and flexibility. Of course, we are striving to bring about a recovery in financial results as soon as possible. At the same time, however, we are working to remodel ourselves into a lean business by 2024, when air passenger demand is expected to recover, enhancing efficiency through operational process reforms and improving profitability in the aircraft seat business. In this way, we aim to achieve a consolidated ordinary income margin of 7%, a goal of our Medium-term Vision, as well as further growth.

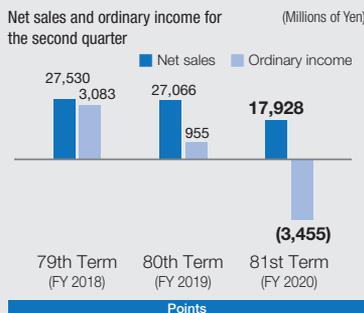
I would like to request the understanding and further support of our shareholders in these efforts.

Financial Highlights

For details, please access JAMCO's website by scanning the QR code on the right, and select "IR Library."
<https://www.jamco.co.jp/en/ir/materials.html>



Business Performance by Segment

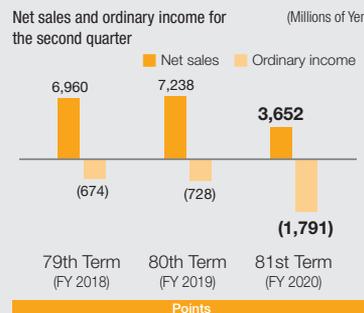


Net sales

- Shipments of galleys and lavatories decreased as aircraft manufacturers reduced production and changed production schedules
- Sales of cabin retrofit kits for airlines and spare parts decreased

Ordinary loss

- An ordinary loss was reported due mainly to the decrease in net sales

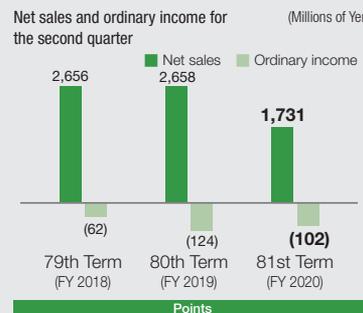


Net sales

- Changes to the delivery dates and some cancellations by customers occurred

Ordinary loss

- Costs increased, including an increase in provision for loss on construction contracts for custom-made products

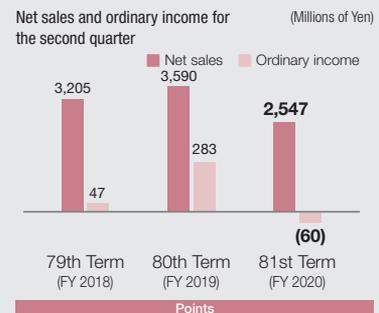


Net sales

- Shipments of heat exchangers and other equipment were robust
- Shipments of CFRP structure parts and aircraft engine parts declined

Ordinary loss

- An ordinary loss was reported due mainly to the decrease in net sales



Net sales

- Orders decreased from airlines for wheels, brakes and other items

Ordinary loss

- An ordinary loss was reported due mainly to the decrease in net sales

Project Blue Sky Gets

—A program from JAMCO for the aviation industry & the “New Normal”—

Project Blue Sky

Recognizing the impact of the spread of COVID-19 on the aviation industry, the JAMCO Group has been working to develop products to ensure a clean and hygienic cabin so that passengers onboard can feel a sense of security. A number of stringent regulations and requirements must be met before a product can be installed in an aircraft.

The JAMCO Group is implementing a variety of solutions, business ideas, products and services for the aviation industry ones that only it can provide.

1 | Products for Aircraft Lavatories

Hands-free Toilet Seat Lid and Seat

JAMCO is investigating a mechanism that uses a foot pedal to enable toilet lids and seats to be raised and lowered hands-free.



Hands-free Waste Flap

JAMCO's foot-pedal operated waste flap enables the waste receptacle lid to be opened and closed hands-free. This waste flap is already in use, and can be installed on various aircraft.



Touchless Faucet

JAMCO's touchless faucet uses an infrared sensor to enable the user to wash his/her hands simply by placing them underneath it.



Electrostatic Disinfection

By spraying liquid disinfectant charged with static electricity, this product enables the automation of the disinfection process for the entire lavatory. This method will enable a smaller amount of disinfectant to work effectively over a large area and greatly reduce the amount of time spent on cleaning when compared to the regular method of wiping down surfaces.



Underway

For details, please scan the QR code on the right.
<https://www.jamco.co.jp/en/news/news/news7663784778381888305.html>



2 | Products for Aircraft Seats

Clean Cabin Divider

This clear divider serves to increase passengers' sense of security and prevents the direct spread of airborne droplets. This product uses transparent materials to ensure visibility and a feeling of openness, together with a low-cost and weight-reducing header design and a method of attachment that does not affect seat reclining.



Soft Cabin Divider

A leather-wrapped divider with a luxury feel.



3 | UV Irradiation

UV Disinfection

Ultraviolet (UV) irradiation deactivates viruses and kills bacteria (disinfects) by destroying the DNA structures in these organisms. JAMCO is looking into its application as a disinfection method for galleys and seats, as well as lavatories, which combines various UV wavelengths and gives thought to the safety of the human body and areas to be irradiated.



Also presenting the world's first
onboard lavatory that can be exited
hands-free!

P.7



The Hidden Technology that Supports JAMCO

Anticipating the New Normal with a Lavatory That Can Be Exited Hands-free!



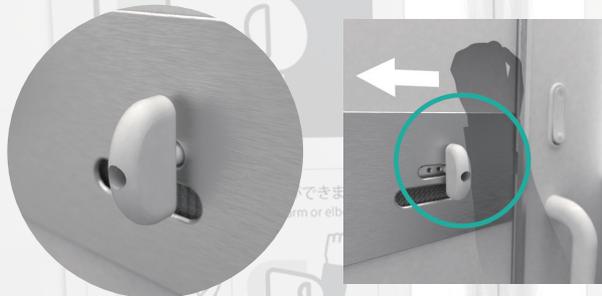
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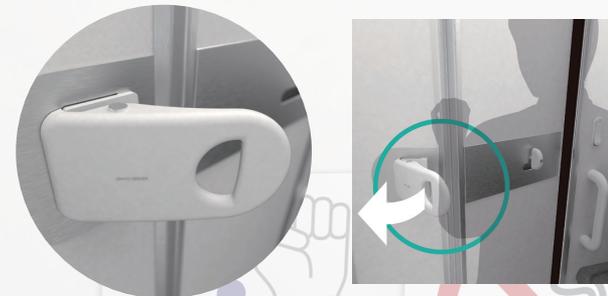
<https://www.jamco.co.jp/en/news/news/news5053477019373840093.html>

JAMCO is proposing the world's first onboard lavatory that can be exited hands-free, to enable passengers on each airline to use it with a sense of security.

This is a hands-free solution that enables passengers to open the lavatory door easily using their forearm or elbow, allowing them to return to their seats with clean, freshly-washed hands.



Hands-free Door Lock Knob



Hands-free Door Handle

These products enable door locks and handles to be operated with the forearm or elbow, giving passengers an alternative to opening and closing lavatory doors with their fingers. Larger latches make them easier to move and open.

Interview with the Developer

The most difficult aspect of product development was designing a shape that would enable users to intuitively perceive how to open and lock the door, despite the differently shaped door handle, and at the same time help them to discern that the door can be opened hands-free, using their forearm or elbow.

We installed prototypes on actual lavatories and carried out a monitored survey of around 130 employees to determine the optimal shape. In the survey, we monitored the interior of the lavatory to observe the behavior of participants as they opened the door handle and evaluated the results. Initially, we tried a simple, flat, board-shaped handle, but we found that this gave users the impression that they needed to press the flat surface. When they pressed the handle and the door didn't open, many participants became confused about how to open it. In addition, we discovered discrepancies among participants' perceptions regarding how to open and close a door handle in a way that prevents infection. While some used their forearm or elbow to exit, as the development team had hoped, others used their fingers, or sometimes even a single finger, to open the door. From this survey, we realized that the most important thing was to give users more choice about how they open the door; in other words, to enable users to open the door as they wished.

Based on the results of this survey, we decided on a final shape for the door handle that uses smooth, gentle curves to encourage users to open it with their forearm or elbow, and also features an aperture (hole) that fingers can grasp, in an effort to prevent users from intuitively opening it with their hands.

Moreover, we made the handle out of materials satisfying fire-resistance requirements for aircraft interiors and strong enough to withstand a person's entire weight if used as a support in the case of sudden turbulence. We also included a mechanism that allows users to exit the lavatory safely in the unlikely event that the door handle breaks.

Published the 2020 CSR Report

This report introduces the JAMCO Group's approach and initiatives for corporate social responsibility (CSR) for the purpose of further improving our CSR promotion through communication with stakeholders.

For details, please refer to the CSR page on JAMCO's website.

[▶ https://www.jamco.co.jp/en/csr.html](https://www.jamco.co.jp/en/csr.html)



Selected as a Global Niche Top Company

On June 30, 2020, JAMCO was chosen as one of the 2020 Global Niche Top Companies Selection 100. The Global Niche Top Companies Selection 100 is an initiative where the Ministry of Economy, Trade and Industry (METI) selects companies that have succeeded in niche fields in the global market, as well as outstanding companies with business operations involving parts, materials, etc. that are becoming increasingly important within supply chains in the context of the changing global situation. Through certification and public recognition by METI, this initiative is aimed at enhancing the reputation and supporting the overseas expansion of selected companies, while also serving as a guide for the management of those aspiring to be new global niche top companies.

JAMCO will use its selection as an opportunity, striving to further enhance its corporate value as a global company.



Towards Preventing the Recurrence of Inappropriate Quality Issues

JAMCO sincerely regrets the concern caused over a long period of time by the inappropriate quality issues that occurred in the work of its Aircraft Interiors Business, a Japan Civil Aviation Bureau (JCAB) approved organization.

We continue to earnestly undertake a range of measures to prevent recurrence.

Measures to Prevent Recurrence (some specific examples)

(1) Stronger education management systems

- In January 2020, JAMCO established a new Education and Training Group in order to clarify responsibility and authority for education and training and strengthen the management of education and training.
- JAMCO has reconsidered education content across different sections of the company, and is engaged in constructing education management systems to prevent duplication of education content and ensure that employees are able to acquire knowledge and skills steadily and progressively.

(2) Initiatives to enhance the quality and capabilities of the Engineering and Technology Division

- By thoroughly disseminating details of a chart containing information such as the authority for signing or stamping documents and the skills and authority of each employee, JAMCO has developed an environment that enables immediate confirmation of each employee's skills as well as which employees have authority to sign or stamp documents.
- JAMCO is working to enhance quality, having newly established a period of two weeks in the design schedule for a designated employee to thoroughly examine design plans.
- With education by external experts and former employees, contractor visits and revision of the content of in-house training, JAMCO is endeavoring to enhance the abilities of each individual employee.

First,
Quality.
Commitment to Integrity

Quality First

We promise to strengthen our corporate culture to prioritize quality and safety, through a perception of ethics based on the integrity, fairness, and respect that form the foundation of our existence.



Corporate Data



Corporate Data (As of September 30, 2020)

Corporate Name	JAMCO Corporation
Registered Office	6-11-25 Osawa, Mitaka-shi, Tokyo, Japan
Head Office	1-100 Takamatsu-cho, Tachikawa-shi, Tokyo, Japan
Date Established	March 15, 1949
Date Founded	September 1, 1955
Principal Business Activities	<p>Aircraft Interiors Business Manufacturing galleys, lavatories and various galley insert products</p> <p>Aircraft Seat Business Manufacturing aircraft seats and seat consoles</p> <p>Aircraft Components Business Manufacturing heat exchangers, CFRP aircraft structure parts and commercial aircraft engine parts</p> <p>Aircraft Maintenance Business Maintenance and alteration of aircraft, cabins and onboard accessories</p>
Capital	¥5,359,893,000
Number of Employees	Consolidated: 3,218 Non-consolidated: 1,251



Directors and Executive Officers (As of September 30, 2020)

Representative Director, President & CEO	Harutoshi Okita	Outside Audit & Supervisory Board Member*	Hitoshi Takahashi
Representative Director & EVP	Takashi Yonekura	Outside Audit & Supervisory Board Member*	Koichiro Watanabe
Director & Senior Managing Executive Officer	Toshikazu Kimura	Managing Executive Officer	Masamichi Kato
Director & Senior Managing Executive Officer	Tsutomu Tadokoro	Managing Executive Officer	Kazuyoshi Ichihara
Director & Managing Executive Officer	Kentaro Goto	Executive Officer	Hiroshi Uchijo
Director & Managing Executive Officer	Toshihisa Kasuya	Executive Officer	Akihiro Waki
Outside Director	Hiroshi Fujikawa	Executive Officer	Yukio Kamiyama
Outside Director	Toshihiko Noguchi	Executive Officer	Naoya Osaki
Outside Director*	Shinichi Suzuki	Executive Officer	Keiji Ozawa
Outside Director*	Juichi Watanabe	Executive Officer	Takeshi Momozono
Audit & Supervisory Board Member	Noriyoshi Isogami	Executive Officer	Yukihiko Kimoto
Audit & Supervisory Board Member	Noboru Kaburaki	Executive Officer	Saburo Koide
			Usio Itakura

Asterisk (*) indicates independent officers stipulated by the Tokyo Stock Exchange.

Business Locations (As of September 30, 2020)



List of Offices / Facilities, Subsidiaries and Affiliates

Head Office Tachikawa-shi, Tokyo, Japan

Aircraft Interiors and Components Group

- Aircraft Interiors and Seat Manufacturing Division Tachikawa-shi, Tokyo, Japan
- Aircraft Components Manufacturing Division Chofu-shi, Tokyo, Japan

Aircraft Maintenance Group

- Marketing & Sales Department Shinjuku-ku, Tokyo, Japan
- Aircraft Maintenance Center Iwanuma-shi, Miyagi, Japan

Itami Branch Toyonaka-shi, Osaka, Japan

- Accessories Maintenance Center Narita-shi, Chiba, Japan
- Ota-ku, Tokyo, Japan

MRO Japan Co., Ltd.

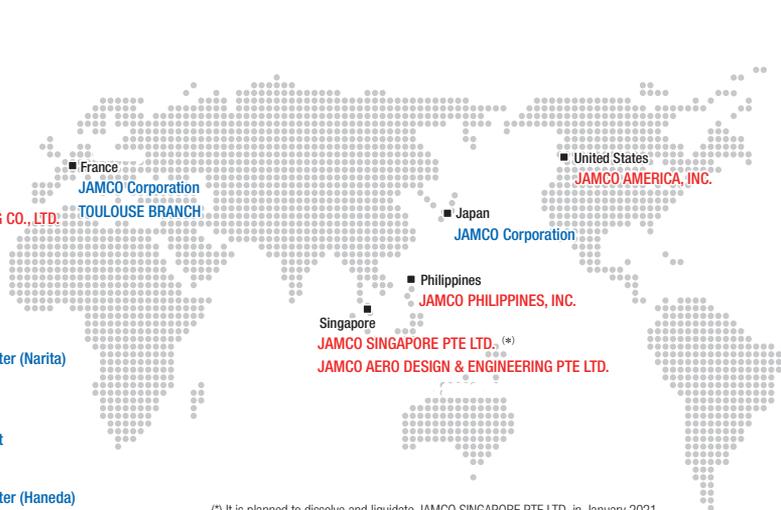
Miyazaki JAMCO Corporation

Tokushima JAMCO Corporation

JAMCO offices, factories, and branches

JAMCO subsidiaries and affiliates

- Niigata Branch** Material Distribution Center Niigata JAMCO Corporation Nakajo JAMCO Corporation
- Head Office** Aircraft Interiors and Seat Manufacturing Division Orange JAMCO Corporation
- Itami Branch**
- Aircraft Maintenance Group** Aircraft Maintenance Center JAMCO AEROMANUFACTURING CO., LTD.
- Aircraft Components Manufacturing Division** Chofu Factory
- Aircraft Maintenance Group** Accessories Maintenance Center (Narita) JAMCO AEROTECH CO., LTD.
- Aircraft Maintenance Group** Marketing & Sales Department
- Aircraft Maintenance Group** Accessories Maintenance Center (Haneda)



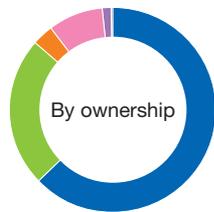
(*) It is planned to dissolve and liquidate JAMCO SINGAPORE PTE LTD. in January 2021.

Share Data (As of September 30, 2020)

✈ Number of Shares, Number of Shareholders and Listed Stock Exchange

Authorized	80,000,000 shares
Issued	26,863,974 shares
Shareholders	6,827
Listed Stock Exchange	Tokyo Stock Exchange, First Section (Code: 7408)

✈ Distribution of Shareholders



Other corporations:	16,871 thousand shares
Individuals and others:	6,396 thousand shares
Foreign corporations:	873 thousand shares
Banks and insurance companies:	2,342 thousand shares
Financial instruments business operators:	340 thousand shares
Treasury stock:	38 thousand shares

✈ List of Major Shareholders (TOP 10)

Name of Shareholder	Shares Held (Thousands)	Ratio of Shareholding (%)
ITOCHU Corporation	8,956	33.38
ANA HOLDINGS INC.	5,373	20.03
Showa Aircraft Industry Co., Ltd.	2,003	7.46
The Master Trust Bank of Japan, Ltd. (Trust Account)	462	1.72
JAMCO Employees' Stock Holding Association	422	1.57
Mitsubishi Corporation	221	0.82
Custody Bank of Japan, Ltd. (Trust Account 5)	208	0.77
Mizuho Bank, Ltd.	200	0.74
MUFG Bank, Ltd.	200	0.74
JP MORGAN CHASE BANK 385781	147	0.55

Note: The percentage of shares is calculated after deducting treasury stock (38,932 shares).

✈ Shareholder Memo

Fiscal year	April 1 through March 31 of the following year
Record date for year-end dividends	March 31
Record date for interim dividends	September 30
Annual general meeting of shareholders	Every June
Administrary of shareholder registry Account management institution of the special account	Mitsubishi UFJ Trust and Banking Corporation
Contact of the above institution	Stock Transfer Agency Division, Mitsubishi UFJ Trust and Banking Corporation, 1-1 Nikko-cho, Fuchu-shi, Tokyo, Japan Tel. 0120-232-711 (toll-free in Japan) Mailing address: Stock Transfer Agency Division, Mitsubishi UFJ Trust and Banking Corporation, P.O. Box 29, Shin-Tokyo Post Office, 137-8081 Japan
Method of public notices	The public notices of the Company shall be published via electronic media. URL for public notices: https://www.pronexus.co.jp/koukoku/7408/7408.html (However, where publication via electronic media is impossible due to an accident or other unavoidable circumstances, the Company's public notices shall be published in the Nikkei.) Information on the Non-consolidated and Consolidated Financial Statements is available on the Company's corporate site (https://www.jamco.co.jp/).

Precautions

1. With the introduction of electronic share certificates, various procedures, including changes in addresses of shareholders and purchase request, are in principle performed by account management institutions (securities companies, etc.) where shareholders have established accounts.
Please contact the securities companies, etc. where you have accounts. Such procedures may not be handled by the administrator of the share registry (Mitsubishi UFJ Trust and Banking Corporation).
2. With regard to various procedures concerning shares recorded in the special account, please contact Mitsubishi UFJ Trust and Banking Corporation, the account management institution.
Such procedures are also handled at each branch office of Mitsubishi UFJ Trust and Banking Corporation in Japan.
3. As for dividends receivable, please contact the main and branch offices of Mitsubishi UFJ Trust and Banking Corporation.



Introducing our Domestic Facilities

Aircraft Interiors and Components Group -Engineering and Technology Division-

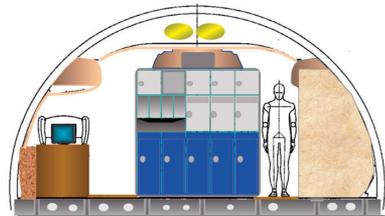
JAMCO's Head Office and Aircraft Interiors and Components Group are located in Tachikawa, Tokyo. The Aircraft Interiors and Components Group contains many divisions, including the Aircraft Interiors and Seat Manufacturing Division, the Aircraft Components Manufacturing Division, the Marketing & Sales Division, and the Engineering and Technology Division. Around 1,000 employees work here, many of them in the Engineering and Technology Division. They are responsible for the design of JAMCO's main products, such as galleys, lavatories and seats, as well as research on new materials and technological innovation in areas such as weight reduction. This facility forms JAMCO's pivot as a technology-oriented company. Here is an introduction to the Engineering and Technology Division.



Tell us about the work of the Engineering and Technology Division.

The main work of the Engineering and Technology Division is designing products. Maybe this is a bit of an over-simplification. Actually, the scope of the Division's work is closely related to each stage of development, from draft proposals to manufacture, modification, and response to defects.

Specifically, we receive requests from customers through the sales division. We then examine whether it is technically feasible to respond to these requests, and how much such a response would cost. We then conduct repeated discussions with airlines and aircraft body manufacturers, and produce a more detailed design blueprint. The manufacturing division then makes a prototype based on this design blueprint, and we consult further with airlines and aircraft body manufacturers based on this prototype, to arrive at the final product design. The product is manufactured according to this design. Even after aircraft equipped with our products commence operation, we pay close attention to customer feedback and occasionally revise our designs to further enhance our products. In this way, the Engineering and Technology Division's work is fundamental to manufacturing.



Is there anything that you endeavor to do in particular?

We have to accurately understand customers' requirements, then reflect these in actual product design and manufacture. For this we need imagination and inventiveness to take an abstract idea and turn it into the design for a concrete, three-dimensional product. In addition, we need an understanding, for example, of the kind of pressures experienced by an aircraft body as it flies at an altitude of 30,000 feet, the degree of vibration and distortion created, and an accurate knowledge of the materials and structures that could safely be used in such an environment. At the same time, we must consider the necessity for all passengers to be able to escape from the aircraft within 90 seconds in the case of an emergency.

As a manufacturer of aircraft accessories, we are striving to leverage our rich experience and diverse education to enhance our technological capabilities, based on qualities such as imagination, inventiveness, and broad knowledge. We endeavor to continue improving, nourished by the technological capabilities we ourselves have developed, constantly pursuing customer satisfaction, high quality, prompt delivery, and low cost.

Tell us about your challenges and goals for the future.

As a technology-oriented company, JAMCO had enjoyed high acclaim for responding meticulously to the special requirements related to each airline's unique cabin service design and proposing solutions based on innovative ideas. At the same time, we perceive the challenge of passing on these capabilities to the younger generation. We will continue to enhance our technological capabilities and constantly strive to improve our work, providing high quality designs to meet customer requirements.



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