

Chugai Ro

78th

April 1, 2019 — March 31, 2020

Annual Report



Energy



Information/
Communications



Environment

CHUGAI RO CO., LTD.

To Our Shareholders

Once again, as with every year, we thank you for your unstinting support. On 31 March 2020, the Chugai Ro Group completed the 78th fiscal period (the year up to March 2020) – thus, we would like to provide you with an outline of the business report for that period.

■ Business Environment

In this accounting period of consolidation, the global economy entered a period of heightened sluggishness in which future prospects have become extremely uncertain. This is due to the global spread of the novel coronavirus disease (COVID-19), as well as the effects of protracted trade friction between the US and China.

Conditions are extremely tough in the Japanese economy, too, due to restrictions on the movement of people and the suspension of economic activities that countries have been putting in place since the beginning of the year in response to COVID-19, coupled with bearish market conditions in terms of exports and production stemming from the impact of the global economic slowdown.

In terms of the markets our group is involved in, the steel industry suffered from stagnating market conditions and a drop in demand for steel materials. Against this background, producers moved to cut production capacity for crude steel, such as by limiting capital investments. In the automobile industry, too, manufacturers continued to exercise caution over capital investments due to a drop in global automobile production. Meanwhile, in the display industry, while further progress was made in the shift to organic light-emitting diodes (OLED) for high-end smartphones, capital investments came increasingly under strain due to stagnating demand in the market for medium- and small-sized flexible organic light-emitting diode panels.

■ Market Conditions

Within this economic environment, our group has actively sought to secure orders to ensure favorable business results. We obtained contracts for stainless steel production equipment for clients in China, flexible display related precision coater systems for clients in China, etc. However, unlike in the previous year, we did not have many large projects, and received orders remained at ¥23,987 million, down to 57.8% of the previous year.

In terms of turnover, work has been proceeding on energy-saving type reheating furnaces for steel, and net sales reached ¥38,090 million, an increase of 102.7% from the previous year.

In terms of profitability, in addition to the effects of increased revenue, the cost rate also improved, as a result of which operating profit was ¥1,711 million, an increase of 173.3% from the previous year, and ordinary income was ¥1,875 million, an increase of 162.0% from the previous year. In addition, fixed assets in the field of information and communications were revaluated, resulting in a net income pertaining to shareholders of the parent company of ¥1,120 million, an increase of 148.5% from the previous year.

Regarding the dividend for the current period, overall consideration of the current profit performance has led to the decision to set the dividend at ¥60 per share.

■ Future Perspectives and Our Company Themes

The outlook for the future is not certain. The global spread of the novel coronavirus disease (COVID-19) shows no signs of abating, and the road to economic recovery will be long and hard.

In this harsh business environment, we at the Chugai Ro Group are actively working to help prevent the spread of infection by, among other things, having employees refrain from business trips and work from home. Since April this year, we have been working under a new system to improve our technological and development capabilities, as well as put in place more robust human resource training. By doing so, we aim to play a part in achieving a sustainable society for all, such as through facilities relating to energy saving, reducing CO₂ emissions and sustainable energy.

We are taking steps to bring about evolution in thermal technology, a vital aspect of the manufacturing industry, by meeting the needs of society for environmentally friendly, low carbon facilities and products that help reduce manpower, the utilization of AI/IoT, and the switch to electric cars and lighter vehicles. In addition to making steady progress in the implementation and management of overseas projects, we shall continue to take steps to expand our maintenance systems to enable support according to the lifecycle of delivered equipment, and to construct a revenue base.

To this end, we look forward to the ongoing support and understanding of our shareholders.

June 2020



President
Akira Ozaki

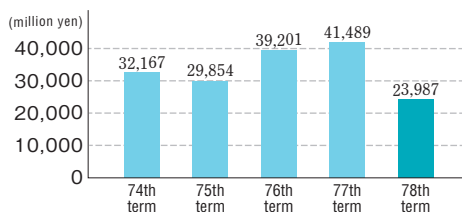
Summary of Achievements

Shifts in Consolidated Business Operation Performance

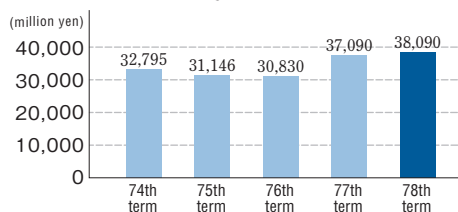
(Unit : million yen)

	74th term March 2016	75th term March 2017	76th term March 2018	77th term March 2019	78th term March 2020
Orders received	32,167	29,854	39,201	41,489	23,987
Net sales	32,795	31,146	30,830	37,090	38,090
Ordinary income (loss)	792	919	1,287	1,157	1,875
Profit (loss) attributable to owners of parent	545	978	864	754	1,120

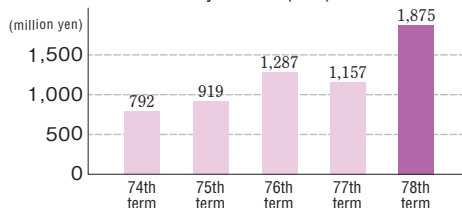
Orders received



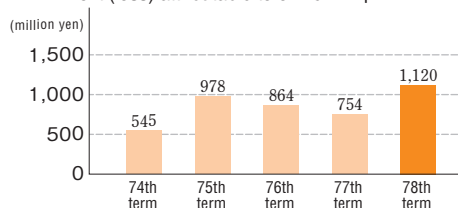
Net sales



Ordinary income (loss)



Profit (loss) attributable to owners of parent



78th term sales by field category

Field of Environment

2,124 million yen (5.3%)

Others

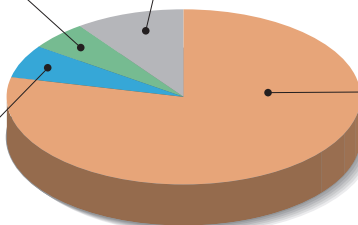
3,971 million yen (9.8%)

Field of Information and Communications

2,494 million yen (6.2%)

Field of Energy

31,757 million yen (78.7%)



NB: Net sales figures by segment are prior to eliminating offset associated with inter-segment trading.

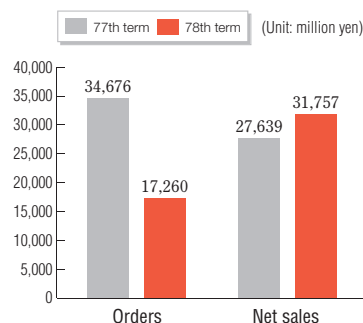


Field of Energy

Net Sales 31,757 million yen (Compared with 77th term 114.9%)

In terms of order intake, in addition to gaining contracts for stainless steel production equipment for a client in China and an energy-saving type steel reheating furnace for a client in Taiwan, we also gained contracts for exhaust gas treatment facilities for steel production, heat treatment furnaces for automobile components, etc. However, unlike in the previous year, we did not have many large projects, and received orders remained at ¥17,260 million, down to 49.8% of the previous year.

In terms of turnover, in addition to delivering a high-quality special steel sheet continuous annealing line, heat treatment furnaces for automobile components, a wire coil continuous annealing line, etc., work progressed on copper strip continuous annealing lines, energy-saving type reheating furnaces for steel, a metal strip continuous rubber coating line, etc., with turnover increasing to ¥31,757 million, an increase of 114.9% from the previous year.

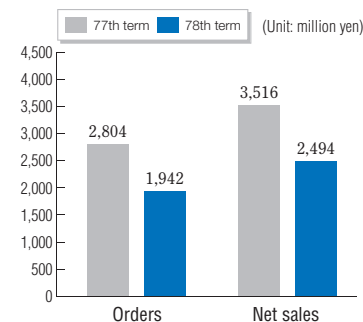


Field of Information and Communications

Net Sales 2,494 million yen (Compared with 77th term 70.9%)

In terms of order intake, while we concluded contracts for flexible display related precision coater systems for clients in China, etc., as a result of the spread of COVID-19 during the second half of the year, companies continued to postpone their investment periods and a series of business negotiations were cancelled, meaning that received orders remained at ¥1,942 million, down to 69.2% of the previous year.

In terms of turnover, in addition to delivering improvement work on heat treatment furnaces for sheet glass for clients in Vietnam, flexible display related ovens for clients in Japan, etc., work progressed on flexible display related precision coater systems for clients in China, etc., but the initial level of received orders was low, and turnover remained at ¥2,494 million, down to 70.9% of the previous year.

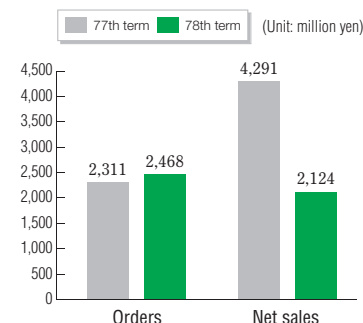


Field of Environment

Net Sales 2,124 million yen (Compared with 77th term 49.5%)

In terms of order intake, in addition to regenerative thermal oxidizers (RTO), we concluded contracts for rotary kilns for activated coke, etc., with received orders amounting to ¥2,468 million, an increase of 106.8% from the previous year.

In terms of turnover, we delivered regenerative thermal oxidizers (RTO), rotary kilns for activated carbon, etc., but the initial level of received orders was low, and turnover remained at ¥2,124 million, down to 49.5% of the previous year.



Other

Net Sales 3,971 million yen (Compared with 77th term 100.2%)

In terms of order intake, at our overseas subsidiaries, we concluded contracts for devices for stainless steel production equipment, motor core annealing furnaces for clients in China, etc., as a result of which received orders increased to ¥4,602 million, an increase of 126.9% from the previous year.

In terms of turnover, we delivered heat treatment furnaces for automobile parts to clients in China, etc., with turnover reaching ¥3,971 million, an increase of 100.2% from the previous year.

Note that order intake and turnover by segment are shown as amounts prior to the offset and elimination of inter-segment transactions.

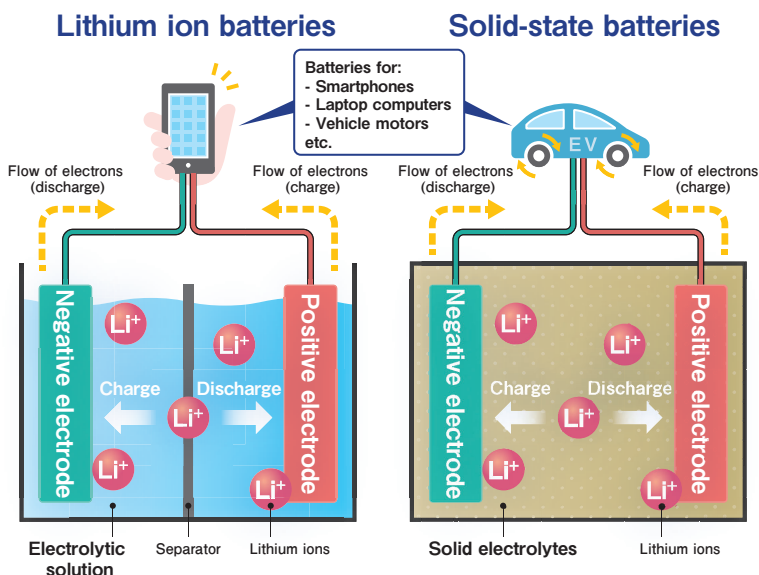
NB: Total orders and net sales by segment are figures prior to eliminating offset associated with inter-segment trading.

Development of powdered heat treatment technologies for use in the manufacture of solid-state batteries, and further expansion of secondary battery-related business

Today, secondary batteries are widely used not only in consumer products such as hybrid electric vehicles (HEV), electric vehicles (EV), smartphones, and laptop computers, but also in electric power storage systems for industrial use. As such, this market is anticipated to keep growing into the future.

We continue to develop and deliver a range of landmark products in this field. These include a “shaft-type powder baking furnace,” in which we applied our much acclaimed firing technologies for powdered materials to graphitization processing for negative electrode materials for secondary batteries to achieve a containerless method completely different to conventional mass batch processing that is carried out over a period of 3 to 4 weeks. And we have also developed a “vertical-type flour calciner” that are suited to pretreatment baking for positive electrode materials. In these furnaces, fine powder materials are heated momentarily to increase the temperature in a process of free fall from the top section.

And in recent years, we have also been developing manufacturing equipment for materials for solid-state batteries based on an inquiry from a customer. We are now focusing our efforts in anticipation of future mass production, and are working tirelessly to establish original technologies that will fulfill a supporting role for our group in business ventures related to secondary batteries.



<Features of solid-state batteries (differences to lithium ion batteries)>

- Safer because the materials are resistant to burning and are solid, meaning no risk of liquid leakage
- Stable performance at both high and low temperatures
- Solid electrolytes, enabling a greater degree of freedom to set electrodes in the form of lamination
- Superlative heat resistance makes even quicker charging possible

Thermal technologies for use in a hydrogen-based society, development of hydrogen burners for industrial use and their performance

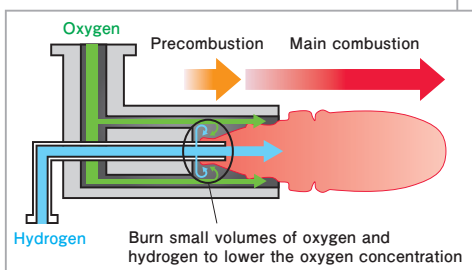
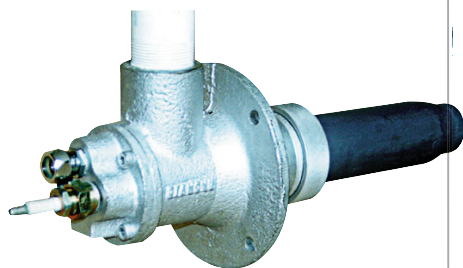
Large emissions of greenhouse gases are said to be the main cause of abnormal weather phenomena in recent years, such as colossal typhoons, torrential rain and droughts, which is why initiatives to cut greenhouse gas emissions are required at a global scale. Among the many options on the table, hydrogen-based technologies have been receiving much attention as innovative technologies which are in need of further development and diffusion.

However, it is difficult to achieve innovation in hydrogen manufacturing technologies and transportation technologies in a short period of time. These technologies are vital if we are to reduce the cost of hydrogen, without which hydrogen-based technologies will not take off and come into common use. This is why such an initiative of this scale would have to be undertaken from a long-term stance, and would be a national project involving infrastructure development.

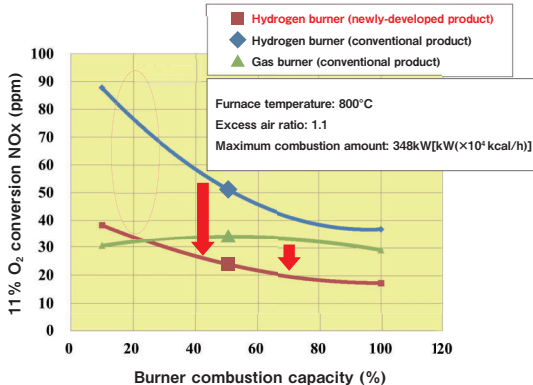
In a world first, the Chugai Ro Group has developed a general purpose hydrogen burner aimed at industrial use as part of a joint development with Toyota Motor Corporation. Not only does this burner boast zero CO₂ emissions, but it also achieves a level of NO_x reduction surpassing that of hydrogen burners produced by other companies. In addition to building a lineup of products that can cope with hydrogen use and laying the groundwork for us to assume a leading role in a hydrogen-based society as a member of the industrial furnace industry, we are also taking firm steps to play our part in helping the world achieve the Sustainable Development Goals (SDGs).



SDGs and goals relating to industrial furnaces (enclosed in red box)



NO_x reduction performance compared with conventional products (due to slow combustion)



Structure of hydrogen burner and NO_x reduction effect

Focusing on manufacturing equipment for devices that support remote work, online lessons, online retail, etc.

Over the past few years, we at Chugai Ro Co., Ltd. have been promoting work-style reforms aimed at achieving a work-life balance as part of a drive to improve productivity. To this end, we have proactively sought to adopt remote meetings, including business talks with customers, as well as remote work utilizing laptop computers, tablets and smartphones. In addition, in response to the COVID-19 global pandemic that began at the end of 2019, we have also been making the necessary adjustments to our business systems.

It is quite likely that communications equipment such as high-performance displays and 5G will be increasingly adopted across the world in the fields of information and communications, which includes remote work, online lessons, online retail, etc. With the aim of helping provide these means of communication, which could be considered lifelines, we will continue working to further improve and develop precision coating systems and a clean oven for flexible organic light-emitting diode (OLED) substrates and polyimide resin for semiconductor packages. To do so, we intend to promote the sustainable development of our business operations, taking all possible steps to ensure we have all the necessary internal infrastructures in place.



Clean oven for flexible OLED

Others

Taiwan Chugai Ro Co., Ltd. receives recognition as an outstanding Japanese-affiliated company in Kaohsiung, Taiwan

On December 19, 2019, our subsidiary Taiwan Chugai Ro Co., Ltd. (NTCR) was selected as one of 3 Japanese-affiliated companies to receive an award at the 2019 Kaohsiung Outstanding Japanese Company Award Ceremony, held by the Economic Development Bureau, Kaohsiung City Government.

This award is presented to Japanese companies with business operations in this city that have made contributions to the city's growth. The ceremony was attended by Mr. Fujimori, general manager of Taiwan Chugai Ro, who made the following comment: "Air pollution has become a serious problem in Kaohsiung in recent years. We will continue working hard not only to enhance the quality of our products but also to take measures against air and environmental pollution." The bestowal of this award has increased expectations in Kaohsiung that Taiwan Chugai Ro will play even more significant roles as a member of the local community.

Taiwan Chugai Ro Co., Ltd. was established in 1987 as part of Chugai Ro Co., Ltd.'s efforts to expand sales into overseas markets, and subsequently relocated to Kaohsiung in 1995. The company delivers products to Japanese-affiliated manufacturers based in Taiwan along with major local companies, including energy-saving type industrial furnaces, burning appliances and display manufacturing equipments, as well as the latest regenerative thermal oxidizers (RTO) that comply with stricter exhaust gas regulations which have come into place in recent years. Going forward, Taiwan Chugai Ro will continue to devote itself wholeheartedly to increasing its global presence as a driving force behind our overseas operations.



Mr. Akira Fujimori (right), general manager of Taiwan Chugai Ro, receiving a certificate



TAIWAN CHUGAI RO CO., LTD.

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Lingya Chiu, Kaohsiung 802,
Taiwan R.O.C.

TEL: +886-7-535-7898

Chairman: Tsunehiko Magara

Consolidated Financial Statements

Consolidated balance sheet

(Unit: million yen)

By fiscal period	Prior fiscal period	Current fiscal period
Item	(As of March 31, 2019)	(As of March 31, 2020)
Assets		
Current assets		
Cash and deposits	5,169	8,658
Notes and accounts receivable - trade	25,147	26,941
Cash disbursed for work in progress, etc.	1,600	1,619
Other	172	109
Allowance for doubtful accounts	(7)	(7)
Total current assets	32,082	37,320
Non-current assets		
Property, plant and equipment		
Buildings and structures	6,123	6,132
Accumulated depreciation	(4,286)	(4,387)
Buildings and structures, net	1,837	1,745
Machinery, equipment and vehicles	2,080	1,916
Accumulated depreciation	(1,726)	(1,598)
Machinery, equipment and vehicles, net	354	317
Land	2,090	2,090
Construction in progress	151	166
Other	1,148	1,130
Accumulated depreciation	(859)	(912)
Other, net	288	218
Total property, plant and equipment	4,721	4,538
Intangible assets	156	149
Investments and other assets		
Investment securities	5,310	4,336
Net defined benefit asset	215	46
Deferred tax assets	3	5
Other	283	325
Allowance for doubtful accounts	(41)	(27)
Total investments and other assets	5,770	4,687
Total non-current assets	10,648	9,375
Total assets	42,731	46,696

By fiscal period	Prior fiscal period	Current fiscal period
Item	(As of March 31, 2019)	(As of March 31, 2020)
Liabilities		
Current liabilities		
Electronically recorded obligations - operating	1,855	2,088
Accounts payable - trade	11,166	10,545
Short-term loans payable	3,807	9,300
Income taxes payable	372	169
Advance received for work in progress	650	754
Provision for bonuses	291	289
Provision for loss on construction contracts	0	0
Other	1,455	1,310
Total current liabilities	19,600	24,457
Non-current liabilities		
Long-term loans payable	1,188	688
Deferred tax liabilities	690	570
Net defined benefit liability	171	170
Other	125	121
Total non-current liabilities	2,175	1,551
Total liabilities	21,775	26,008
Net assets		
Shareholders' equity		
Capital stock	6,176	6,176
Capital surplus	1,544	1,544
Retained earnings	11,649	12,309
Treasury shares	(251)	(252)
Total shareholders' equity	19,118	19,777
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	1,732	934
Deferred gains or losses on hedges	2	0
Foreign currency translation adjustment	28	24
Remeasurements of defined benefit plans	(7)	(147)
Total accumulated other comprehensive income	1,756	812
Non-controlling interests	80	98
Total net assets	20,955	20,687
Total liabilities and net assets	42,731	46,696

NB: Figures are rounded down to the nearest million yen.

Consolidated Financial Statements

Consolidated statement of income (Unit: million yen)

Item	By fiscal period	Prior fiscal period (April 1, 2018 – March 31, 2019)	Current fiscal period (April 1, 2019 – March 31, 2020)
Net sales		37,090	38,090
Cost of sales		31,898	31,787
Selling, general and administrative expenses		4,204	4,591
Operating income		987	1,711
Non-operating income		222	237
Interest and dividend income		158	159
Other		63	78
Non-operating expenses		52	73
Interest expenses		31	54
Other		20	18
Ordinary income		1,157	1,875
Extraordinary income		19	—
Gain on sales of investment securities		19	—
Extraordinary losses		—	174
Impairment losses		—	123
Loss on valuation of investment securities		—	51
Profit before income taxes		1,177	1,701
Total income taxes		395	542
Profit attributable to non-controlling interests		26	37
Profit attributable to owners of parent		754	1,120

Consolidated Cash Flow Summary (Unit: million yen)

Item	By fiscal period	Prior fiscal period (April 1, 2018 – March 31, 2019)	Current fiscal period (April 1, 2019 – March 31, 2020)
Cash flows from operating activities		(1,348)	(580)
Cash flows from investing activities		(478)	(442)
Cash flows from financing activities		279	4,510
Effect of exchange rate change on cash and cash equivalents		(39)	0
Net increase (decrease) in cash and cash equivalents		(1,587)	3,488
Cash and cash equivalents at beginning of period		6,724	5,137
Cash and cash equivalents at end of period		5,137	8,625

NB: Figures are rounded down to the nearest million yen.

Parent-alone Financial Statements

Balance Sheet (Summary) (Unit: million yen)

Item	By fiscal period	Prior fiscal period (As of March 31, 2019)	Current fiscal period (As of March 31, 2020)
Assets			
Current assets		29,599	34,699
Non-current assets		10,783	9,669
Total assets		40,383	44,369
Liabilities			
Current liabilities		17,952	22,840
Non-current liabilities		2,248	1,649
Total liabilities		20,201	24,490
Net assets			
Shareholders' equity		18,446	18,943
Capital stock		6,176	6,176
Capital surplus		1,544	1,544
Retained earnings		10,977	11,475
Treasury shares		(251)	(252)
Valuation and translation adjustments		1,735	934
Valuation difference on available-for-sale securities		1,732	934
Deferred gains or losses on hedges		2	0
Total net assets		20,181	19,878
Total liabilities and net assets		40,383	44,369

Statement of income (Summary) (Unit: million yen)

Item	By fiscal period	Prior fiscal period (April 1, 2018 – March 31, 2019)	Current fiscal period (April 1, 2019 – March 31, 2020)
Net sales		32,822	34,373
Cost of sales		28,823	29,268
Selling, general and administrative expenses		3,432	3,797
Operating income		566	1,306
Non-operating income		388	359
Non-operating expenses		19	55
Ordinary loss		935	1,610
Extraordinary income		19	—
Extraordinary losses		—	174
Profit before income taxes		954	1,436
Total income taxes		310	477
Profit		643	958

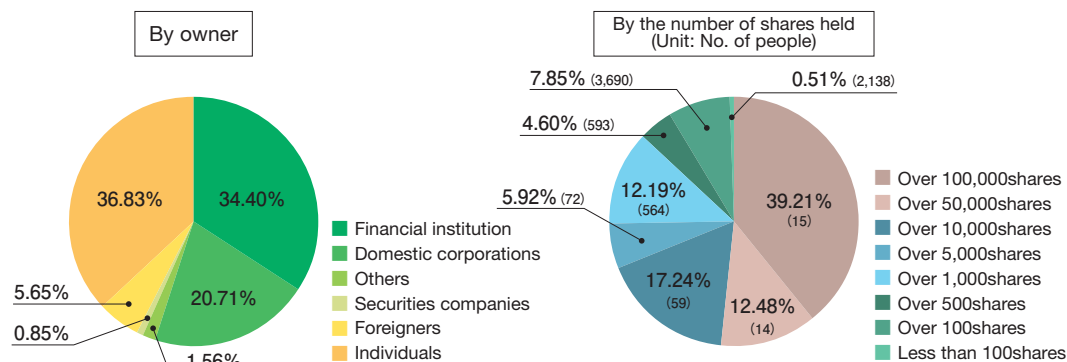
Stock Condition (as of March 31, 2020)

- Total number of shares that can be issued: 25,000,000
- Total number of shares already issued: 7,800,000 (Includes 121,911 shares of treasury stock)
- Number of shareholders: 7,145
- Major shareholders (ten largest) (Units below a thousand shares have been truncated)

Major shareholder	Number of shares held	Investment ratio
The Dai-ichi Life Insurance Company, Limited.	464 thousand	6.04 %
Resona Bank, Ltd.	380	4.96
The Master Trust Bank of Japan, Ltd. (trust account)	320	4.17
Chugai Ro Affiliate Company Holdings	264	3.45
Mizuho Bank, Ltd.	189	2.47
Japan Trustee Services Bank, Ltd. (trust account)	188	2.45
Mitsubishi Corporation	179	2.34
The Zenitaka Corporation	175	2.28
Nippon Life Insurance Company	149	1.95
Japan Trustee Services Bank, Ltd. (trust account 5)	136	1.78

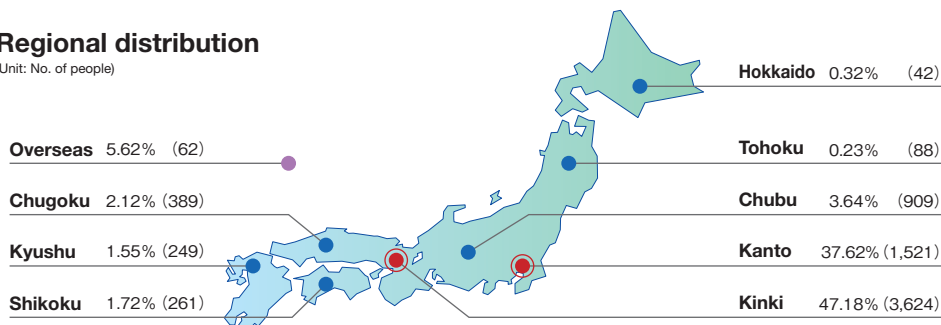
NB: The investment ratio has been calculated with the common stock for treasury omitted.

Share distribution



Regional distribution

(Unit: No. of people)



Outline of The Company (as of March 31, 2020)

Name	Chugai Ro Co., Ltd.
Head Office	3-6-1, Hiranomachi, Chuo-ku, Osaka 541-0046, Japan
Incorporated	April, 1945
Capital	¥6,176,720,000
Office	Sakai Works, Sakai Center, Tokyo Branch, Nagoya Sales Office, Combustion Laboratory, Kokura Factory
Foreign Subsidiaries	Taiwan:Kaohsiung China:Shanghai Thailand:Bangkok Indonesia:Jakarta Mexico:Aguascalientes

■ Board of Directors (as of June 24, 2020)

Chairman of the Board	Yuji Nishimoto
President	Akira Ozaki
Managing Director	Kenichiro Nanba
Director & Senior Executive Officer	Kazuhisa Fujita
Director & Senior Executive Officer	Shigeki Negoro
Director & Executive Officer	Masanori Niiya
Director & Executive Officer	Mamoru Sakata
Director & Executive Officer	Mitsuru Nagahama
Director	Masaaki Nomura
Director	Ryo Sato
Full-time Auditor	Ikuya Ikeyama
Auditor	Syozo Seki
Auditor	Paul Ch'en
Executive Officer	Isamu Ikeda
Executive Officer	Tsunehiko Magara
Executive Officer	Yoshifumi Sakamoto
Executive Officer	Yuji Sakurai
Executive Officer	Terunori Shiotsuki
Executive Officer	Masashi Imajo
Executive Officer	Yasuyuki Kimoto

■ Employee's conditions (as of March 31, 2020)

736 employees within the group.
The number of employees is as follows.

Number of Employees	473
Compared with the previous period	0
Average age	43.8
Average length of employment	17.9 years