




JRAIA 一般社団法人
日本冷凍空調工業会
The Japan Refrigeration and Air Conditioning Industry Association
<https://www.jraia.or.jp>

Information on the next event

2026.1.27^{TUE}—1.30^{FRI}
HVAC&R JAPAN 2026

The 44th Heating, Ventilation, Air-conditioning and Refrigeration EXPO

Venue: Tokyo Big Sight

Organizer: The Japan Refrigeration and Air Conditioning Industry Association (JRAIA) 

Inquiries about the exhibition

HVAC&R Japan Secretariat

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Report

HVAC&R JAPAN 2024

THE 43RD HEATING, VENTILATING, AIR-CONDITIONING AND REFRIGERATING EXPO.

TUE 30 Jan ▶ FRI 2 Feb²⁰²⁴

Venue: Tokyo Big Sight  
<https://www.jraia.or.jp/hvacr/en/>

Organizer: The Japan Refrigeration and Air Conditioning Industry Association (JRAIA)



Find the future with HVAC&R



Report



HVAC&R JAPAN 2024
The 43rd Heating, Ventilation, Air-conditioning and Refrigeration EXPO
2024.1.30TUE ▶ 2.2FRI Tokyo Big Sight East Exhibition Hall 1, 2
Organized by: Japan Refrigeration and Air Conditioning Industry Association

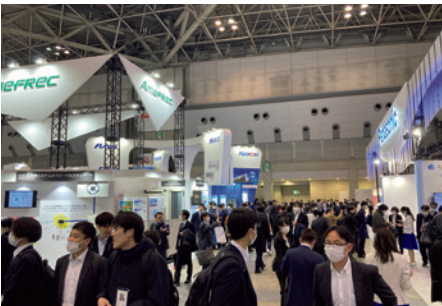
With the keywords “Find the future with HVAC&R”, the EXPO showcased high-efficiency refrigeration, air conditioning, and heating technologies that are active in all temperature ranges. We successfully completed both the exhibition and the seminars.



Tokyo Big Sight Entrance



Information



In the exhibition hall



Celebration Reception



Opening Ceremony



HVAC&R Awards Ceremony

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Greeting

After HVAC&R JAPAN 2024

HVAC&R JAPAN 2024 (the 43rd Heating, Ventilation, Air-conditioning and Refrigeration EXPO) was held at Tokyo Big Sight for four days from January 30 (Tue) to February 2 (Fri) 2024 under the main theme of “Find the future with HVAC&R”, and the event was a great success.

This exhibition is the only domestic specialty exhibition in the air conditioning and heating industry, and a very large number of visitors from overseas also visited, with a record 33,513 visitors, the highest ever number of exhibitors and organizations in the history of this exhibition at Tokyo Big Sight at 149, and 766 exhibition booths. I would like to express my sincere gratitude to the exhibiting companies and organizations who actively submitted proposals and exhibitions and to the many users who are interested in air conditioning and heating equipment.

Nowadays, environmental issues have become a common issue in the world, and awareness of carbon neutrality is increasing worldwide. At the exhibition booths of each company, many new technologies and devices that expand new business opportunities, such as the conversion to natural refrigerants that take into account future environmental regulations, the application of cutting-edge refrigerant technology and heat pump technology to various applications, the combination with various sensor and management systems, and the pursuit of energy conservation and comfort, were exhibited, and I think that the exhibits gave great hope for the future development of the air conditioning and heating fields.

We also held the third HVAC&R Awards ceremony this time. Products, solutions, services, and parts that were exhibited at HVAC&R Japan 2024 applied for the awards, and we comprehensively reviewed the corporate philosophy and business activities that created the exhibits, and commended the six most outstanding examples. The award-winning exhibits addressed issues such as carbon neutrality and refrigerant conversion, which are strongly required by society in recent years, and were recognized for their high technical capabilities. However, we expect all the products and services that applied to contribute to the development of the air-conditioning and heating equipment industry and the protection of the global environment in the future.

In addition, more than 2,100 people attended the special lecture by Tokyo Governor Yuriko Koike and numerous lectures and seminars by prominent lecturers on refrigerant trends. We also organized a facility tour of the Tokyo Gas Smart Energy Center, a student program for future air-conditioning and cooling industry personnel, and an international event, and many people participated.

Finally, I would like to express my deep gratitude for the support and cooperation of our exhibitors, relevant agencies, sponsoring organizations, academic associations and media organizations, as well as the many visitors for making the event such a great success. The next HVAC&R JAPAN 2026 will also be held at Tokyo Big Sight, and I would humbly like to ask for the support and cooperation of many companies and organizations.

Japan Refrigeration and Air Conditioning Industry Association
Chairperson **Yasumichi Tazunoki**



Outline

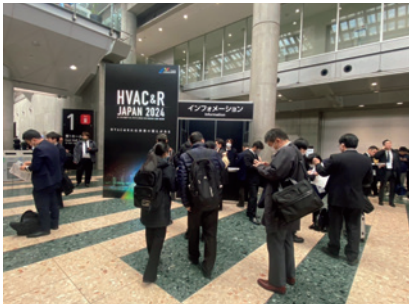
Exhibition name	HVAC&R JAPAN 2024 The 43rd Heating, Ventilation, Air-conditioning and Refrigeration EXPO
Duration	Tuesday, January 30, 2024 - Friday, February 2, 10:00 - 17:00 (last day until 16:00)
Venue	Tokyo Big Sight East Hall 1,2
Organizer	Japan Refrigeration and Air Conditioning Industry Association
Supported by	Ministry of Economy, Trade and Industry
Exhibition Size	149 companies and organizations/766 booths
Admission fee	Free (registration required on the official website)
Official video	https://youtu.be/rQGG0ofaL9M 

Sponsors

Japan Urethane Foam Association	Japan Federation of Construction Contractors
Institute for Built Environment and Carbon Neutral for SDGs	The Japan Society of Industrial Machinery Manufacturers
The High Pressure Gas Safety Institute of Japan	The Japan Food Machinery Manufacturers' Association
The Energy Conservation Center, Japan	Japan Auto-Body Industries Association Inc.
New Energy Foundation	Japan Vending System Manufacturers Association
The Japan Gas Association	Japan Federation of Mechanical & Electrical Consulting Firms Association
Japan Industrial Association of Gas and Kerosene Appliances	Japan Solar Energy Society
The Japan Machinery Federation	Japan Electric Measuring Instruments Manufacturers' Association
Japan Chain Stores Association	The Japan Electrical Manufacturers' Association
Japan Cooling Tower Institute	Japan Heating Industrial Association
Association for Electric Home Appliances	Japan Heat Supply Business Association
The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan	Japan Valve Manufacturers' Association
Japanese Association of Building Mechanical and Electrical Engineers	Japan Foam Styrene Industry Association
New Energy and Industrial Technology Development Organization	Japan Fluorocarbon Manufacturers Association
National Supermarket Association of Japan	Japan Thermal Insulation Association
National General Contractors Association of Japan	Japan Boiler Association
Electrical Products Association of Japan	Japan Floor Heating Association of Hot-Water System
Japan Solar Heat Association	Japan Society of Refrigerating and Air Conditioning Engineers
The Federation of Electric Power Companies of Japan	Japan Association of Refrigeration and Air-Conditioning Contractors
The Institute of Electrical Installation Engineers of Japan	Japan Frozen Food Association
Japan Electronics and Information Technology Industries Association	Japan Refrigerants and Environment Conservation Organization
Japan Electro-Heat Center	Japan Expanded Polystyrene Association
Japan Air Cleaning Association	Heat Pump & Thermal Storage Technology Center of Japan
Air Conditioning & Plumbing Contractors Associations of Japan	Japan Prefabricated Construction Suppliers and Manufacturers Association
Japan Air Conditioning and Refrigeration Testing Laboratory	(In no particular order)

Visitor Overview

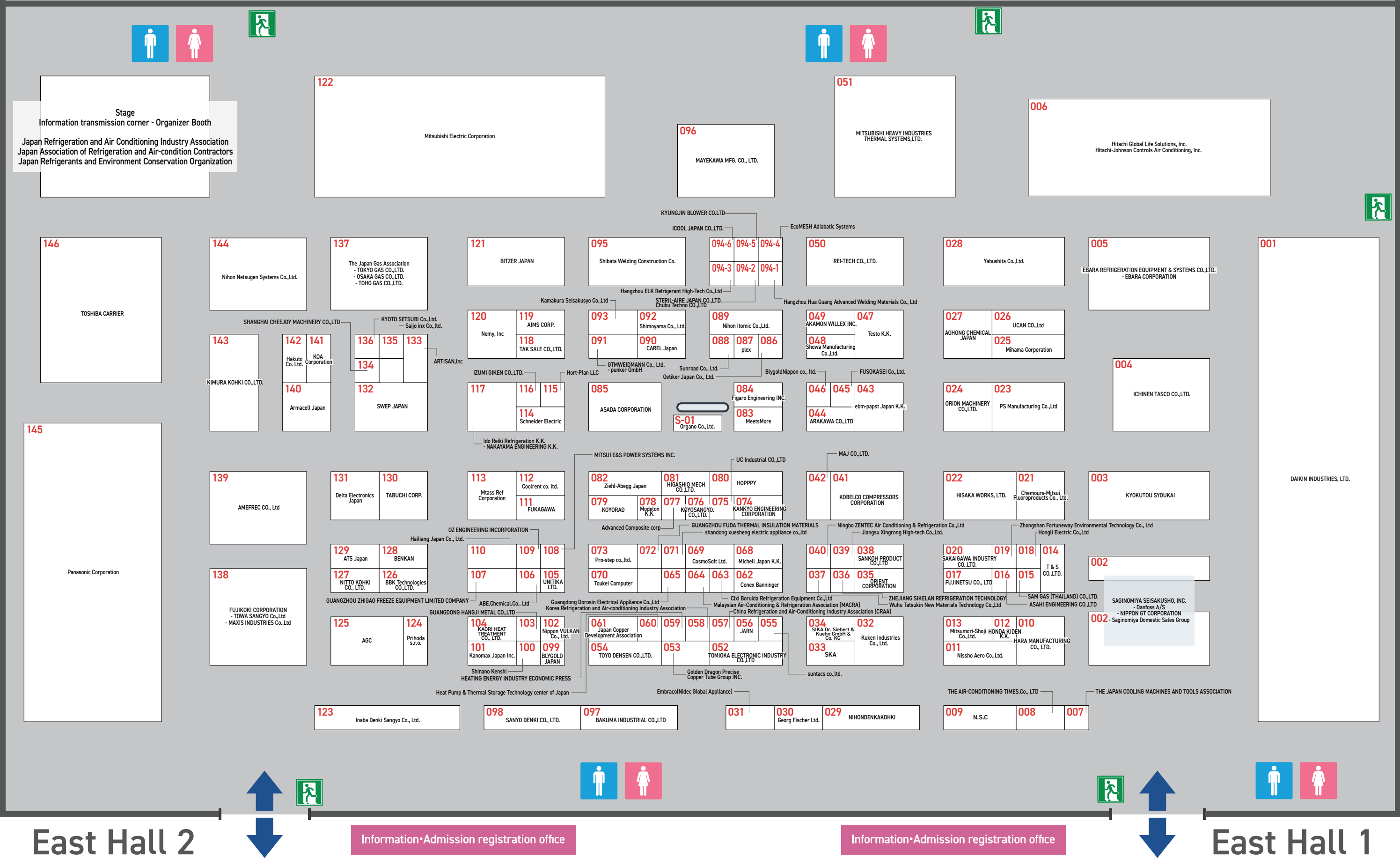
Date		2024 Number of visitors
Tue, Jan 30	Sunny	5,631
Wed, Jan 31	Sunny	7,464
Thu, Feb 1	Sunny	9,705
Fri, Feb 2	Sunny	10,713
Total		33,513



By country	Jan 30	Jan 31	Feb 1	Feb 2	Total for all days
South Korea	137	201	96	31	465
China	191	126	45	20	382
Taiwan	18	19	12	6	55
Thailand	12	7	7	4	30
Philippines	1	10	3	5	19
Singapore	2	5	9	2	18
Indonesia	0	10	2	0	12
UK	2	5	3	0	10
Malaysia	3	7	0	0	10
Germany	4	2	2	0	8
USA	1	1	2	3	7
Australia	1	1	3	0	5
India	0	2	1	0	3
Portugal	1	1	1	0	3
Republic of Maldives	0	0	3	0	3
United Arab Emirates	0	1	0	1	2
Netherlands	1	1	0	0	2
Switzerland	2	0	0	0	2
Türkiye	1	1	0	0	2
New Zealand	0	1	0	1	2
Norway	0	1	1	0	2
France	0	1	1	0	2
Italy	1	0	0	0	1
Finland	0	0	0	1	1
Mexico	0	1	0	0	1
Russia	0	1	0	0	1
Total	378	405	191	74	1,048

Industry breakdown		Unit (persons)
Facilities, electricity, plumbing, maintenance/ related services	8,622	General manufacturing (business users other than those on the left) 3,193
Refrigeration and air conditioning manufacturers and related equipment manufacturers	8,406	Electricity, gas and energy providers 1,317
Building, architecture, construction, builders	2,237	General non-manufacturing (business users other than the above) 501
Trading companies, agencies, distribution, retail, wholesale	6,595	News, media, publishing, and other press-related 182
Government, local government, organizations, education/research institutions, etc.	581	Other 1,879
		Total 33,513

Venue Map



Exhibitor List 149 companies and organizations/766 booths

A	ABE.Chemical.Co., Ltd
	Advanced Composite corp
	AGC
	AIMS CORP.
	AKAMON WILLEX INC
	AMEFREC CO., Ltd
	AOHONG CHEMICAL JAPAN
	ARAKAWA CO.,LTD
	ArmaceLL Japan
	ARTISAN,Inc
	ASADA CORPORATION
	ASAHI ENGINEERING CO.,LTD
	ATS Japan
B	BAKUMA INDUSTRIAL CO.,LTD
	BBK Technologies CO.,LTD.
	BENKAN
	BITZER JAPAN
	BlygoldNippon co., ltd.
C	CAREL Japan
	Chemours-Mitsui Fluoroproducts Co., Ltd.
	China Refrigeration and Air-Conditioning Industry Association (CRAA)
	Cixi Boruida Refrigeration Equipment Co.,Ltd
	Conex Banninger
	Coolrent co. ltd.
	CosmoSoft Ltd.
D	DAIKIN INDUSTRIES, LTD.
	Delta Electronics Japan
E	EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO.,LTD.
	- EBARA CORPORATION
	ebm-papst Japan K.K.
	EcoMESH Adiabatic Systems
	Embraco (Nidec Global Appliance)
F	Figaro Engineering INC.
	FUJIKOKI CORPORATION
	- TOWA SANGYO Co.,Ltd
	- MAXIS INDUSTRIES Co.,Ltd
	FUJINETSU CO., LTD
	FUKAGAWA
	FUSOKASEI Co.,Ltd.
G	Georg Fischer Ltd.
	Golden Dragon Precise Copper Tube Group INC.
	GTMWEIDMANN Co., Ltd.
	- punker GmbH

	Guangdong Dorosin Electrical Appliance Co.,Ltd
	GUANGDONG HANGJI METAL CO.,LTD
	GUANGZHOU ZHIGAO FREEZE EQUIPMENT LIMITED COMPANY
H	Hailiang Japan Co., Ltd.
	Hakuto Co., Ltd.
	Hangzhou ELK Refrigerant High-Tech Co.,Ltd
	Hangzhou Hua Guang Advanced Welding Materials Co., Ltd
	HARA MANUFACTURING CO., LTD.
	Heat Pump & Thermal Storage Technology Center of Japan
	HEATING ENERGY INDUSTRY ECONOMIC PRESS
	HIGASHIO MECH CO., LTD.
	HISAKA WORKS, LTD.
	Hitachi Global Life Solutions, Inc.
	Hitachi-Johnson Controls Air Conditioning, Inc.
	Hongli Electric Co.,Ltd
	HOPPY
	Hort-Plan LLC
I	ICHINEN TASCO CO.,LTD.
	ICOOL JAPAN CO.,LTD.
	Ido Reiki Refrigeration K.K.
	- NAKAYAMA ENGINEERING K.K.
	Inaba Denki Sangyo Co., Ltd.
	IZUMI GIKEN CO.,LTD.
J	Japan Copper Development Association
	Japan Refrigerants and Environment Conservation Organization
	Japan Refrigeration and Air Conditioning Industry Association
	JARN
	Jiangsu Xingrong High-tech Co.,Ltd.
K	Kamakura Seisakusyo Co.,Ltd
	KANKYO ENGINEERING CORPORATION
	Kanomax Japan Inc.
	KAORI HEAT TREATMENT CO., LTD.
	KIMURA KOHKI CO.,LTD.
	KOA Corporation
	KOBELCO COMPRESSORS CORPORATION
	KOYORAD
	KOYOSANGYO. CO.,LTD.
	Kuken Industries Co., Ltd.
	KYOKUTOU SYOUKAI
	KYOTO SETSUBI Co.,Ltd.
	KYUNGJIN BLOWER CO.LTD

M	MAJ CO.,LTD.
	Malaysian Air-Conditioning & Refrigeration Association (MACRA)
	MAYEKAWA MFG. CO., LTD.
	MeetsMore
	Michell Japan K.K.
	Mihama Corporation
	Mitsubishi Electric Corporation
	MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS,LTD.
	MITSUI E&S POWER SYSTEMS INC.
	Mitsumori-Shoji Co.,Ltd.
	Modelon K.K.
	Mtass Ref Corporation
N	Nemy, Inc
	Nihon Itomic Co.,Ltd.
	Nihon Netsugen Systems Co.,Ltd.
	NIHONDENKAKOHKI
	Nippon VULKAN Co., Ltd.
	Nissho Aero Co.,Ltd.
	NITTO KOHKI CO., LTD.
	NSC
O	Oetiker Japan Co., Ltd.
	ONDA KIDEN K.K.
	Organo Co.,Ltd.
	ORIENT CORPORATION
	ORION MACHINERY CO.,LTD.
	OZ ENGINEERING INCORPORATION
P	Panasonic Corporation
	plex
	Prihoda s.r.o.
	Pro-step co.,ltd.
	PS Manufacturing Co.,Ltd
R	REI-TECH CO., LTD.
S	SAGINOMIYA SEISAKUSHO, INC.
	- Danfoss A/S
	- NIPPON GT CORPORATION
	- Saginomiya Domestic Sales Group
	Saijo inx Co.,ltd.
	SAKAIGAWA INDUSTRY CO.,LTD.
	SAM GAS (THAILAND) CO.,LTD.
	SANKOH PRODUCT CO., LTD
	SANYO DENKI CO., LTD.
	Schneider Electric
	shandong xuesheng electric appliance co.,ltd

	SHANGHAI CHEEJOY MACHINERY CO.,LTD
	Shibata Welding Construction Co.
	Shimoyama Co., Ltd.
	Shinano Kenshi
	Showa Manufacturing Co.,Ltd.
	SIKA Dr. Siebert & Kuehn GmbH & Co. KG
	SKA Co., Ltd.
	STERIL-AIRE JAPAN CO.,LTD.
	Chubu Techno CO.,LTD
	Sunroad Co., Ltd.
	suntacs co.,ltd.
	SWEP JAPAN
T	T & S CO.,LTD.
	TABUCHI CORP.
	TAK SALE CO.,LTD.
	Testo K.K.
	THE AIR-CONDITIONING TIMES.Co., LTD
	THE JAPAN COOLING MACHINES AND TOOLS ASSOCIATION
	The Japan Gas Association
	- TOKYO GAS CO.,LTD.
	- OSAKA GAS CO.,LTD.
	- TOHO GAS CO.,LTD.
	the Korea Refrigeration and Air-conditioning Industry Association
	TOMIOKA ELECTRONIC INDUSTRY CO.,LTD
	TOSHIBA CARRIER
	Toukei Computer
	TOYO DENSEN CO.,LTD.
U	UC Industrial CO.,LTD
	UCAN CO.,Ltd
	UNITIKA LTD.
W	Wuhu Tatsukin New Materials Technology Co.,Ltd
Y	Yabushita Co.,Ltd.
Z	ZHEJIANG SIKELAN REFRIGERATION TECHNOLOGY
	Zhongshan Fortuneway Environmental Technology Co., Ltd
	Ziehl-Abegg Japan

Opening Ceremony

Date and time	Tuesday, January 30, 2024 9:50 - 10:00
Location	In front of the entrance of Tokyo Big Sight East Hall 2
Tape cutter	Director of Industrial Machinery Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry Japan Refrigeration and Air Conditioning Industry Association Chairperson Japan Refrigeration and Air Conditioning Industry Association Vice-Chairperson Japan Refrigeration and Air Conditioning Industry Association Chairman of the Policy Council
Participants	About 100



Atsushi Yasuda
Yasumichi Tazunoki
Katsuyuki Sawai
Yoshinori Watanabe

Celebration Reception

Date and time	Tuesday, January 30, 2024 11:15 - 12:00
Location	Ariake Central Tower 3F Reception 1
Greetings from the Organizer	Japan Refrigeration and Air Conditioning Industry Association Chairperson
Guest Greeting	Director of Industrial Machinery Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry Atsushi Yasuda
Participants	About 60



Yasumichi Tazunoki

Information dissemination corner

This time, we collaborated with the Japan Society of Refrigerating and Air Conditioning Engineers, the Japan Refrigeration and Air Conditioning Industry Association, and the Japan Refrigerants and Environment Conservation Organization, and developed the event as a PR venue for each organization. In addition, we held the HVAC&R Awards Ceremony.



Exchange Party with Overseas Speakers

Date and time	Wednesday, January 31, 2024 17:00-
Participants	About 40

After the international event, we held an exchange party with overseas industry association officials (MACRA/CRAA/KRAIA), exhibitors and visitors, and industry association officials in Ariake Central Tower. Toko Nakamura sang a song about the fluorocarbon method.



Tokyo Gas Smart Energy Center Facility Tour

Date and time	Tuesday, January 30 and Thursday, February 1, 2024
Participants	Total 21
First time.....14:40	Meet in front of Tokyo Gas Smart Energy Center Ends at 16:30 Tour ends at site Participants: 10
Second time.....9:50	Meet in front of Tokyo Gas Smart Energy Center Ends at 11:30 Tour ends at site Participants: 11



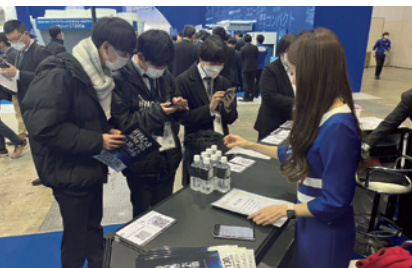
Exhibitor Presentations

On the stage in the Information Dissemination Corner, exhibitor presentations (4 times by 4 companies), JRECO (Japan Refrigerants and Environment Conservation Organization) held 8 presentation stages.

Time	Lecture name
▼Tuesday, January 30	
13:00 - 13:30	Organizer information dissemination [JRECO] Presentation Stage 1-1
15:00 - 15:30	Organizer information dissemination [JRECO] Presentation Stage 1-2
▼Wednesday, January 31	
11:00 - 11:45	Exhibitor [SWEP JAPAN] Presentation Stage
12:00 - 12:30	Organizer information dissemination [JRECO] Presentation Stage 2-1
13:00 - 13:30	Exhibitor [Georg Fischer] Presentation Stage
14:00 - 14:30	Organizer information dissemination [JRECO] Presentation Stage 2-2
15:00 - 15:45	Exhibitor [Modelon] Presentation Stage
▼Thursday, February 1	
11:00 - 11:30	Organizer information dissemination [JRECO] Presentation Stage 3-1
▼Friday, February 2	
11:00 - 11:30	Organizer information dissemination [JRECO] Presentation Stage 4-1
12:30 - 13:00	Organizer information dissemination [JRECO] Presentation Stage 4-2
14:00 - 14:45	Exhibitor [Mitsumori-Shoji] Presentation Stage
15:30 - 16:00	Organizer information dissemination [JRECO] Presentation Stage 4-3

Student Program

Special seminars were held to introduce unique companies and a booth stamp rally event in line with themes such as major exhibitions, special theme exhibitions, and HVAC&R award-winning products. The stamp rally was attended by 60 people, and special seminars were held by 2 companies.



Premium Lounge

Location	Ariake Central Tower
We used it as a space for those who had registered for social media as well as for breaks and business discussions.	



Other

During the event, meetings were held between the chairperson and executives of Japan Refrigeration and Air Conditioning Industry Association and Korean KRAIA executives, and dinners were held with industry associations from four countries: CRAA in China and MACRA in Malaysia.

Special Lecture

Thursday, February 1

Special Lecture 10:15 - 10:30

Tokyo's Vision for a Sustainable Future

Tokyo Governor
Yuriko Koike



Extraordinary Lecture

Tuesday, January 30

Extraordinary Lecture 13:00 - 13:45

Accelerated Decarbonization of Commercial Buildings
(Decarbonized Building Renovation Project)

Assistant to the Chief of the Global Warming Countermeasures
Division, Global Environment Bureau, Ministry of the Environment
Yutaka Kikuchi

Thursday, February 1

Extraordinary Lecture 13:00 - 13:45

Accelerated Decarbonization of Commercial Buildings
(Decarbonized Building Renovation Project)

Assistant to the Chief of the Global Warming Countermeasures
Division, Global Environment Bureau, Ministry of the Environment
Yutaka Kikuchi

Keynote

Tuesday, January 30

Keynote I 14:00 - 14:45

The Internal and External Situation Surround-
ing Global Warming and Japan's Challenges

Distinguished Professor, Graduate School of Public Policy, The University of Tokyo
Jun Arima



Keynote III 16:00 - 16:45

Building Multi-groups According to the JEC Standard Draft
of the Institute of Electrical Engineering FastADR System

N-Laboratory, Inc. President/Visiting Professor, Gifu University
Chuzo Ninagawa



Wednesday, January 31

Keynote IV 11:00 - 11:45

How Should We Create a Sustainable
Society?

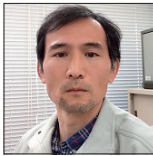
Japanese Association of Science & Technology Journalists Chairperson
Tetsuya Muroyama



Keynote V 14:00 - 14:45

Recent Situation and Prospects for Refriger-
ants for Refrigeration and Air Conditioning

Chief Senior Researcher, National Institute of Advanced
Industrial Science and Technology
Kenji Takizawa



Thursday, February 1

Keynote VI 11:00 - 11:45

Global Climate Action Towards Net-Zero Emissions - Simultaneous
Reduction of Greenhouse Gases and Short-lived Climate Forcing Factors -

Director of the Department of Social Systems, National Institute for Environmental Studies
Tatsuya Hanaoka



Keynote VII 14:00 - 14:45

Architecture and Carbon Neutrality

Professor Emeritus, Chiba University
Takaharu Kawase



Friday, February 2

Keynote VIII 11:00 - 11:45

BEMS Trends in the Digital Society
and with Decarbonization

Director, Toyota SI Engineer Office
Takeji Toyoda



Lectures

Tuesday, January 30

Lecture (1) 14:00 - 14:30

Aiming for Carbon Neutrality 2050
Issues and Responses in the Refrigeration and
Air Conditioning Industry

Japan Refrigeration and Air Conditioning Industry
Association Managing Director
Tetsuji Okada

Lecture (2) 15:00-15:45

Efforts to Adopt Low-GWP Refrigerants for
Multi-air Conditioners for Buildings

Japan Refrigeration and Air Conditioning Industry Association
A2L Multi-Joint Project for Buildings

Lecture (3) 16:00 - 16:45

Changes in Motor Technology of Air
Conditioners and Future Prospects

DAIKIN INDUSTRIES, LTD. Chief Engineer
Akio Yamagiwa



Wednesday, January 31

Lecture (4) 10:00 - 10:45

Condenser Units for R290
Compatible Multi-purpose Chillers

Mitsubishi Electric Applied Refrigeration Systems Specialist
Keiko Hosaka



Lecture (5) 13:00 - 13:45

Efforts to Adopt Low-GWP Refrigerants for
Multi-air Conditioners for Buildings

Japan Refrigeration and Air Conditioning Industry Association
A2L Multi-Joint Project for Buildings

Lecture (6) 14:45 - 15:30

Global Environmental Laws and Regulations and
JRAIA's Global Activities

Japan Refrigeration and Air Conditioning Industry
Association International Dept. General Manager
Hideaki Kasahara

Lectures 15:00-15:45

Leveraging RaMS, a Fluorocarbons Emission Control
Law Compliance and Electronic Management Tool

Japan Refrigerants and Environment Conservation
Organization (JRECO) Director of Planning and Research
Shusaku Noguchi

Thursday, February 1

Lecture (7) 10:00 - 10:45

Efforts to Adopt Low-GWP Refrigerants for
Multi-air Conditioners for Buildings

Japan Refrigeration and Air Conditioning Industry Association
A2L Multi-Joint Project for Buildings

Lectures 16:00 - 16:45

Recent Trends in the Fluorocarbons
Emission Control Law

Japan Refrigeration and Air Conditioning Industry
Association Secretariat
Tsutomu Osawa



Friday, February 2

Lecture (8) 10:00 - 10:45

Efforts to Adopt Low-GWP Refrigerants for
Multi-air Conditioners for Buildings

Japan Refrigeration and Air Conditioning Industry Association
A2L Multi-Joint Project for Buildings

Lecture (9) 13:00 - 13:45

Current Situation and Future
Prospects for Reducing the GWP of
Turbo Refrigerators

Chief Engineer, Design Section, Large Refrigerator Engineering
Department, MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.
Yoshie Togano



Technology Award Seminar

Thursday, February 1

Technology Award Seminar 13:00 - 15:30

Technology Award Seminar

Japan Society of Refrigerating and Air
Conditioning Engineers

International Event

Wednesday, January 31

International Event 15:30 - 17:00

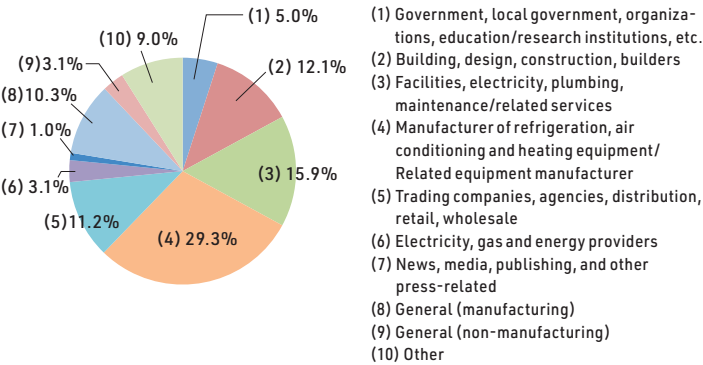
International Event

Lectures by Overseas Industry Associations

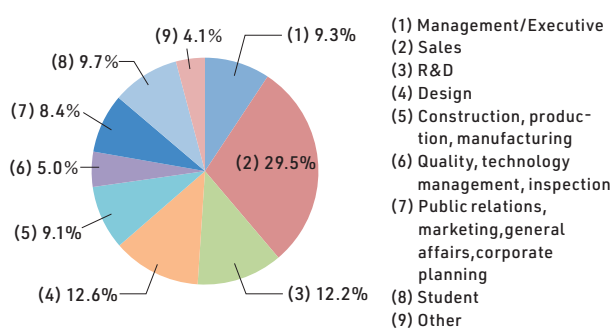
Results of the Questionnaire

Visitor Questionnaire (number of valid respondents: 580)

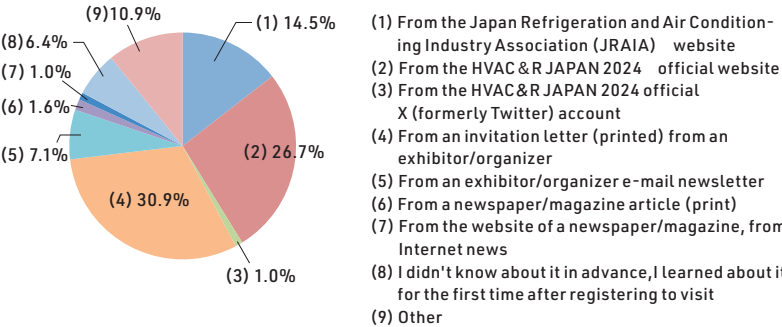
Q1 Select your industry (attributes) below.



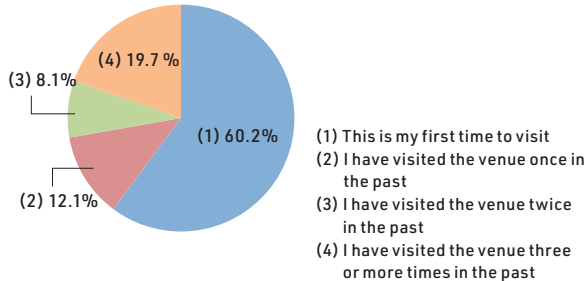
Q2 Please select your role (attributes) below.



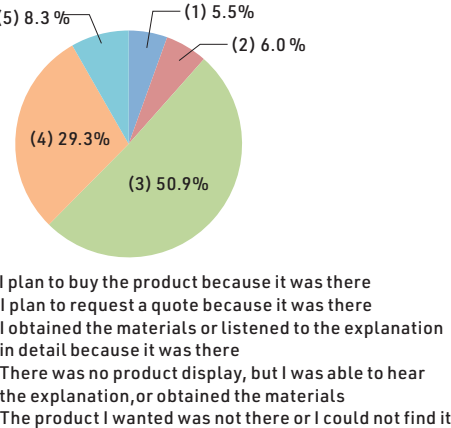
Q3 Where did you hear about HVAC&R JAPAN 2024?



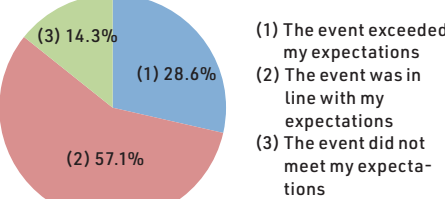
Q4 How often have you visited HVAC&R JAPAN, including in the past?



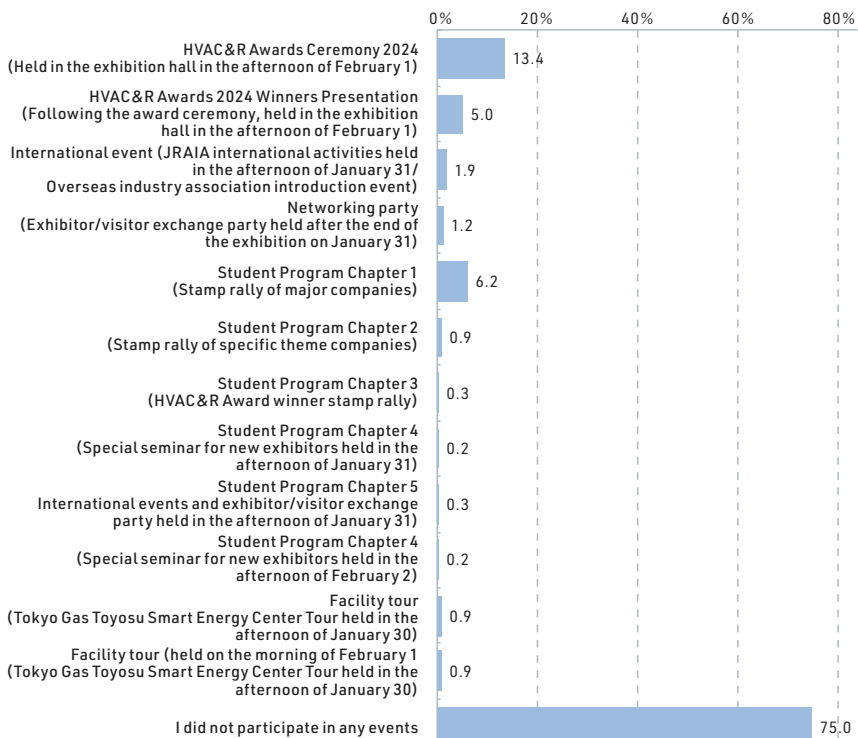
Q5 Were there any exhibits or information you wanted to see?



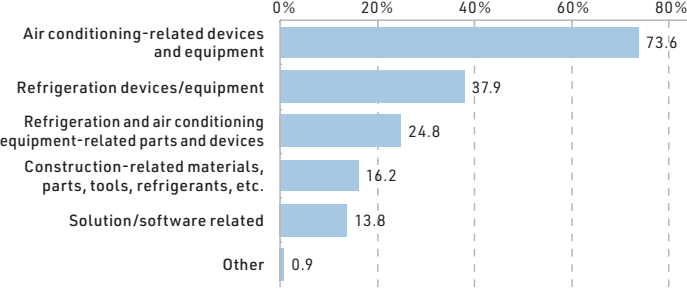
Q6 Please tell us your evaluation of the networking party you attended (the exhibitor/visitor exchange party held after the end of the exhibition on January 31). (n=7)



Q7 Of the following joint events, please select all that you participated in this time.

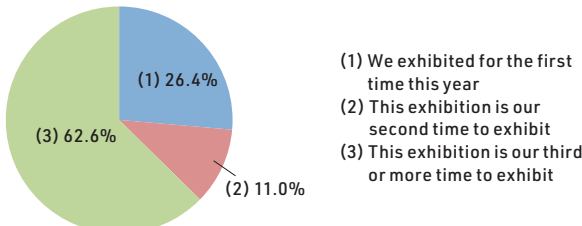


Q8 What types of exhibit are you looking for?

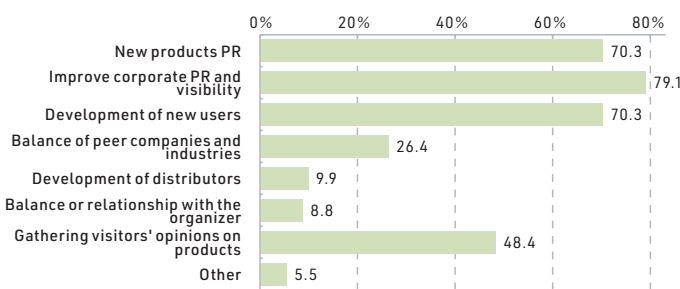


Exhibitor Questionnaire (number of valid respondents: 91)

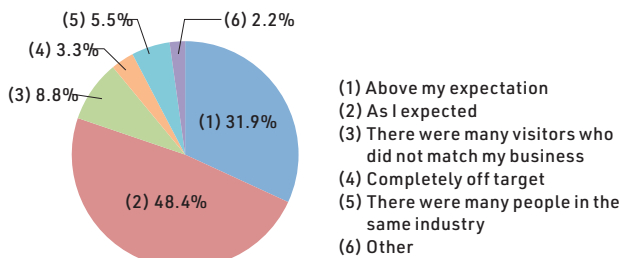
Q1 How many times have you exhibited?



Q3 Please tell us why you are exhibiting at the event. (Multiple answers allowed)



Q5 How satisfied were you with the visitors?



Views from Exhibitors

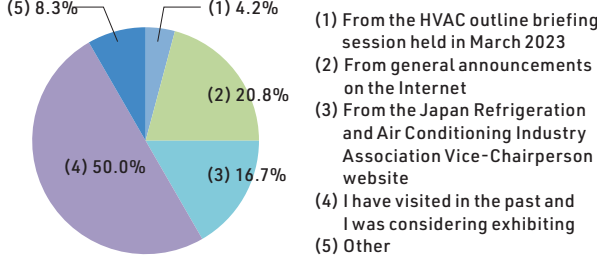
- The number of days can be 3 days. It could be every year (such as changing the venue), I plan to book a larger space next time.
- I would like to exhibit again if I have the opportunity.
- The free QR code reading service was very helpful. If it is available again next time, I would like to consider preparing a tablet and Wi-Fi environment.
- At the event, we acquired visitor information by scanning barcodes, and it was easy to use.
- I think that there were many visitors and we did not have enough time at the event. I felt it would be better if the event ran from 9:00 to 17:00.
- Thank you very much for your kind response to the staff of the Secretariat.
- The company name text on the name tag for entering was small and it was confusing. Some people were

Views from Visitors

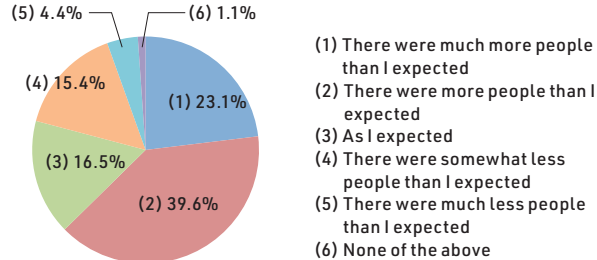
- I want it to be held every year
- I'm looking forward to the next event
- As an exhibition specializing in air conditioning, etc., I learned a lot about systems related to fluorocarbon laws and regulations.
- I gained various information and learned a lot.
- Thank you for hosting the event
- I want to know more about the refrigerant situation in Japan and abroad.
- I wanted to know some of the contents of the exhibition in advance.

Q2 Please answer the next question if this is your first time exhibiting.

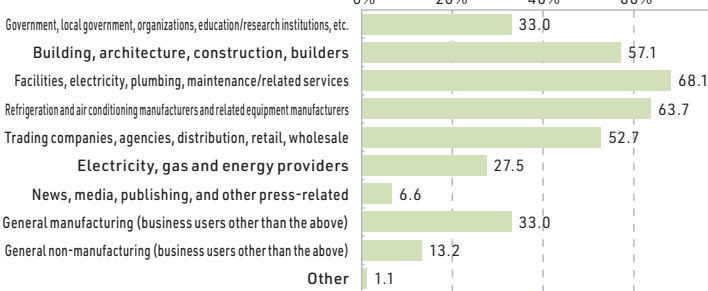
How did you hear about the exhibition? (n=24)



Q4 Regarding the answer to the previous question, How did you feel compared to the number of people you expected?



Q6 Please indicate the industry of visitors you would like to visit.




- I think that collaborations with other exhibitions held on the same date will provide a sense of unity for visitors.
- This was our first time exhibiting, and we would like to thank JRAIA for their support. As a result, we received a response that greatly exceeded our expectations, so it was a great success for us to exhibit.

HVAC&R Award Winners

A total of 6 products, technologies, and services from HVAC&R JAPAN 2024 exhibitors received awards in each of the following categories: “Products,” “Solutions and Services,” and “Parts, Devices, Construction Methods, and Others.”

Product Category



EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO.,LTD.
EBARA CORPORATION

Development of hydrogen burning absorption chiller and heater

▶Selling Points

Aiming at the realization of a low-carbon and decarbonized society, this is the world's first hydrogen burning absorption chiller and heater that runs on hydrogen, a fuel that is expected to become widely used as a next-generation form of clean energy. By using hydrogen as the fuel, the CO₂ emissions associated with the combustion of the fuel are zero, and a NO_x reduction equivalent to urban gas has been achieved in the total combustion area. The device has safety features for hydrogen, such as adding a backfiring prevention device to the hydrogen pipeline as standard in addition to the safety device for city gas, and adding a function to inject inert gas so that the gas pipe is not filled with a combustible mixture of hydrogen and air during shutdown.
https://www.ebara.co.jp/corporate/newsroom/release/company/detail/1215051_1673.html

Solutions and Services Category



ICHINEN TASCO CO.,LTD.

Simple collection system from flammable (A3) refrigerant equipment

▶Selling Points

Flammable (A3) refrigerants must be safely discharged from the equipment to the outdoors when repaired or disposed of, but in particular, refrigerants could not be safely discharged in underground buildings, etc., where the equipment cannot be easily taken outdoors and there are no windows nearby. A system that safely clears these issues and promotes the conversion to low GWP refrigerants and their popularization.


MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS,LTD.

An initiative for shifting away from boilers in factories using industrial heat pumps

▶Selling Points

This initiative is a seven-year activity that has converted the heat source for a factory's production equipment to an in-house-made industrial heat pump, achieving energy savings and a shift away from the steam boiler previously used at the factory. Under this initiative, MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS,LTD. not only replaced the heat source, but also intentionally tried multiple methods to measure the operating data, thereby obtaining knowledge that will contribute to the selection of heat source capacity and heat exchangers, and the use of cold exhaust air conditioning as an applied measure. In terms of energy-saving results, a ~40% reduction of CO₂ emissions was achieved in the equipment using the heat source. Taking this thermal solution as a single package, MHI Thermal Systems will carry out sales activities to similar factories.

Parts, Devices, Construction Methods, and Others Category



SAGINOMIYA SEISAKUSHO, INC.

HSK type pressure sensor

▶Selling Points

With the need to realize a carbon-free society, SAGINOMIYA SEISAKUSHO developed a high-precision pressure sensor with high versatility that supports CO₂ refrigerants with a low Global Warming Potential (GWP). CO₂ refrigerant is a low GWP refrigerant, but requires ultra-high pressure, so a high level of safety is required. In addition, since refrigerants are used in various temperature zones in applications such as heat pump hot water supply and refrigeration, they must be able to handle a wide temperature range from high to low temperature. In addition, since high-efficiency system operation is required from the perspectives of environmental performance and economics, higher precision pressure sensors are needed. The HSK type pressure sensor achieves a high level of safety, compatibility with a wide temperature range, high precision, and versatility.

Public Relations and Promotional Activities

In addition to the promotion activities by JRAIA, multifaceted public relations efforts were carried out with the cooperation of various media and related companies and organizations.

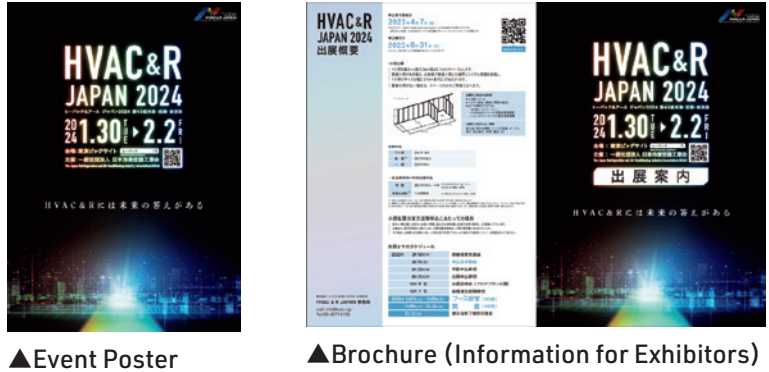
Various public relations tools



Website Top

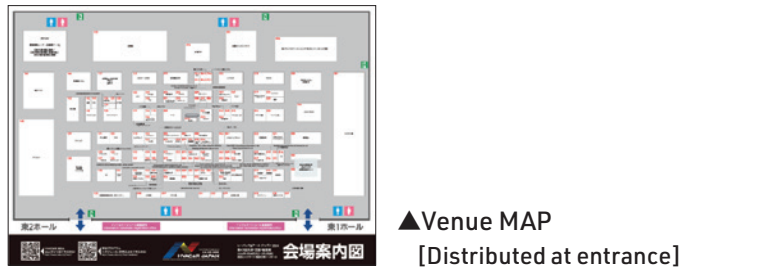


Visitor information



Event Poster

Brochure (Information for Exhibitors)



Venue MAP
[Distributed at entrance]

Overseas Promotion

Exhibited at "Chillventa 2022 (Germany)", "MARVEX2023 (Malaysia)" and "HARFKO2022 (South Korea)" as a PR booth for HVAC&R JAPAN 2024. We conducted exchanges with companies in Asia and other countries around the world, and carried out a global exhibitor invitation and visit promotion campaign for HVAC&R JAPAN 2024.



Chillventa 2022 (Germany)

MARVEX2023 (Malaysia)

HARFKO2022 (South Korea)

Advertisements and feature articles in newspapers, magazines, and online

Advertising Media

▼Total number of media (21 companies)

No.	Media name	Publication date
Newspapers		
1	Nikkan Kogyo Shimbun	January 23
2	Air Conditioning Times	December 6, January 1, January 17, January 24, January 30
3	Keizai Sangyo Shinpo	December 25
4	Denpa Shinbun	January 22
5	Nihon Setsubi Kogyo Shinbun	January 15
6	Netsu Sangyo Keizai Shinbun	January 1, January 5, January 15, January 25
7	Kensetsutsushin Shinbun	January 23
8	Denzai Ryutsu Shinbun	January 19
9	Gas Energy Shinbun	January 15
10	The Nihon Butsuryu Shinbun	January 10
Professional Journals		
1	Energy Forum	January 1
2	Smart House	January 20
3	Reito	December 15
4	Kuei	January 20
5	The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan	January 5
6	Refrigeration and Air Conditioning Equipment	January 15
7	Monthly BE Construction Equipment	January 1
8	JARN	November 25
WEB		
1	eJARN	December 1, 2023 - February 2, 2024
New Media		
1	Construction Equipment and Piping Work	December 5, January 5
2	Thermal Storage Information Magazine COOL&HOT	Early December

Publishing Page (partial excerpt)

▼The Nihon Butsuryu Shinbun (January 10)



▼Construction Equipment and Piping Work (December 5, January 5)



▼Social media posts X (formerly Twitter) *Operated on the same account as for previous events "HVAC&R JAPAN" @hvacjraia Operation period: June 19, 2023 - February 2, 2024 Total posts (tweets): 19 As of February 15

No.	Posting date	Content	Impressions
1	06/19/23	Early-bird Notice	4,830
2	07/25/23	Exhibitor Registration Notice	487
3	12/11/23	Visitor Registration Notice (1)	1,774
4	12/18/23	Visitor Registration Notice (2)	640
5	01/22/24	Special Lecture by Tokyo Governor Koike	381
6	01/29/24	Student Program Introduction Video	638
7	01/29/24	Award Decision Report	305
8	01/29/24	Award Decision Report (Reply)	258
9	01/29/24	Day Before Event post	14,369
10	01/30/24	Opening Ceremony post	313
11	01/30/24	Premium Lounge Introduction post	283
12	01/30/24	Information Dissemination Corner Introduction post	305
13	01/31/24	2nd Day Event Greeting	261
14	01/31/24	Seminar Introduction post	259
15	02/01/24	3rd Day Event Greeting	207
16	02/01/24	Award Announcement post	214
17	02/02/24	Last Day Greeting	163
18	02/02/24	Report on Special Lecture by Tokyo Governor Koike	160
19	02/02/24	Last Day/Thank You post	158

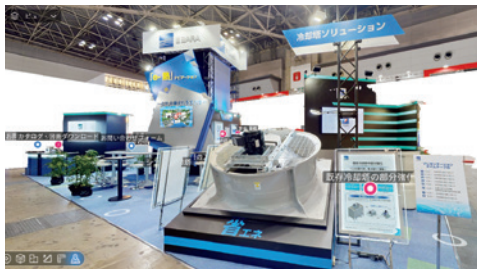
Post (excerpt)

▼No.3 Visitor Registration Notice (1)



Virtual Booths

We have photographed each booth individually and released "virtual booths".



EBARA REFRIGERATION EQUIPMENT & SYSTEMS - EBARA CORPORATION



Schneider Electric



Testo K.K.



Hitachi Global Life Solutions, Inc.
Hitachi-Johnson Controls Air Conditioning, Inc.



FUJINETSU CO., LTD

Visiting media

	Tuesday, January 30	Wednesday, January 31	Thursday, February 1	Friday, February 2	Total for 4 days
No. of media	22 companies	25 companies	12 companies	13 companies	72 companies
Number of people	30 people	32 people	18 people	21 people	101 people
Media number breakdown (companies)					
TV	1	0	0	0	1
Newspapers	14	12	4	5	35
Professional Journals	3	5	4	3	15
WEB	3	4	1	2	10
Other	1	4	3	3	11

▼Other media list

Media name	Company Name/ Department Name
냉동공조저널 (HVAC&R Journal)	ACR MEDIA
Kharn	KHARN
coldchainnews	KHARN
SUUTA	SUUTA Co., Ltd.
Impact Japan	Impact Japan
Exhibition Channel	Exhibition Co., Ltd. Sales & Marketing
Kyodo Digital	UN Geneva
ATMOsphere	atmosphere.cool
Jiji Press	Jiji Press Ltd.
MODECOM	MODECOM Co.,Ltd.