



“Make a better world with PM”
WORLD PM2024 in YOKOHAMA, JAPAN

WORLD PM2024

Powder Metallurgy World Congress & Exhibition
13-17 October 2024 YOKOHAMA, JAPAN

Congress Information



Organized by
Japan Powder Metallurgy Association (JPMA) Japan Society of Powder and Powder Metallurgy (JSPM)

Supported by
European Powder Metallurgy Association (EPMA) Metal Powder Industries Federation (MPIF)
Asian Powder Metallurgy Association (APMA)

www.worldpm2024.com



WORLD PM2024

Powder Metallurgy World Congress & Exhibition
13-17 October 2024 YOKOHAMA, JAPAN



Congress Information

■ Contents

Sponsors	02
Greeting from WORLD PM2024 Yokohama / Organization	04
Organizing Committee	06
Technical Committee	07
Congress Schedule	09
Invited Speakers	11
Floor Plan	13
Registration	15
Exhibition	16
JPMA Special Seminar	31
Social Events	33
Technical Visit and Optional Tour	34
General Information	35



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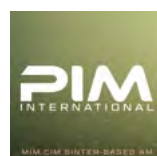
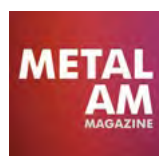
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DIAMET CORPORATION

■ Greeting from WORLD PM2024 Yokohama



©Yokohama Visitors Guide

2024 Powder Metallurgy World Congress & Exhibition, organized by Japan Powder Metallurgy Association and Japan Society of Powder and Powder Metallurgy will be held in Yokohama, Japan, from 13 to 17 October 2024.

WORLD PM2024 will include presentations on the latest PM technologies and exhibitions to introduce the latest products and technologies from the PM supply chain. In addition, various social events and special programs will be prepared.

WORLD PM2024 will provide great opportunities to exchange the useful information and solutions and enhance interactive communication and deepen friendship.



We look forward to your participation in the congress to "Make a better world with PM".

■ Organization

Organized by



Japan Powder Metallurgy Association (JPMA)



Japan Society of Powder and Powder Metallurgy (JSPM)

Supported by



European Powder Metallurgy Association (EPMA)



Metal Powder Industries Federation (MPIF)



Asian Powder Metallurgy Association (APMA)



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Fine Sinter responds to the needs of customers with its powder metallurgy technology.

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■ Organizing Committee

Congress Chairs



Mr. Hiroshi Ii

Organizing Committee Chair
JPMA President
(DIAMET CORPORATION)



Mr. Shuzo Sonoda

Organizing Committee Vice Chair
JSPM President
(FUKUDA METAL FOIL & POWDER CO., LTD.)

We are delighted to welcome you to the WORLD PM2024 Congress & Exhibition in Yokohama, one of the most popular and attractive cities in Japan.

Yokohama, one of the oldest international ports in Japan, is located in the center of Japan near Tokyo.

East met west, classic met modern, Yokohama has been grown as exotic flavored city since they opened their door for international people in 1859.

So, you can enjoy historical area such as old brick warehouse, sophisticated shopping mall, harbor walk, and finest Japanese and international cuisine within just walking distance.

Beautiful Mt. Fuji, historical Kamakura city (was capital city in Japan during late 12th and early 13th century, "Samurai" and "Zen" culture begun here in Kamakura) are in one day trip distance from Yokohama.



WORLD PM2024 will include presentations on the latest PM technologies and exhibitions to introduce the latest products and technologies from the PM supply chain. In addition, various social events and special programs will be prepared. WORLD PM2024 will provide great opportunities to exchange the useful information and solutions and enhance interactive communication and deepen friendship. We look forward to your participation in the congress to "Make a better world with PM".

Organizing Committee

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Vice Chair

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Vice Chair

Prof. Katsuyoshi Kondoh, Osaka University

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Japan)



Katsuyoshi Kondoh

Technical Program Committee Vice Chair
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Yoshiyuki Sugahara, Waseda University, Japan
Masaki Sugiyama, TOYOTA MOTOR CORPORATION, Japan
Hironori Suzuki, Kobe Steel, Ltd., Japan
Kenta Takagi, National Institute of Advanced Industrial Science and Technology (AIST), Japan
Katsuhisa Tanaka, Kyoto University, Japan
Huiping Tang, Zhejiang University City College, China
Yukinori Taniguchi, National Institute of Technology, Nara College, Japan
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Sota Terasaka, Japan Fine Ceramics Center, Japan
Ruangdaj Tongsri, National Metal and Materials Technology Center (MTEC), Thailand
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<https://www.fukuda-kyoto.co.jp/>



METAL STYLIST

Congress Schedule

*Registration Desk opens from 13 October, 2024 (Registration Open Hours: TBD)

Monday, 14 October, 2024								
Conference Center							Exhibition Hall	
3F Room A (301)	3F Room B (302)	3F Room C (303)	3F Room D (304)	3F RoomE(313+314)	3F Room F (315)	Exhibition Hall A		
9:00 ▶	Opening Ceremony 1F Main Hall							
10:00 ▶	Global Review 1F Main Hall							
11:00 ▶	Plenary Talk (10:40-11:55) 1F Main Hall							
12:00 ▶	Lunch 5F 501-503							Exhibition
13:00 ▶								
14:00 ▶	Oral Session	Oral Session	Oral Session	Oral Session	Oral Session	Oral Session		
15:00 ▶	T2 Compaction & Sintering	SIS2 Novel Processing Strategies for Beam Based AM	SIS1 Powder Production	T19 High Entropy Alloys	SIS10 Amorphous/Nanocrystalline Soft Magnetic Materials	SIS8 Sintered Materials		
16:00 ▶		T6 AM Beam Based Technologies	T1 Powder Production	T20 Materials Characterization of AM Materials	T16 Hard Magnetic Materials	T12 Ferrous Materials		
17:00 ▶								
18:00 ▶								
19:00 ▶	Welcome Reception							
20:00 ▶	Annex Hall							
21:00 ▶	Starting Time: TBD							

Tuesday, 15 October, 2024								
Conference Center							Exhibition Hall	
3F Room A (301)	3F Room B (302)	3F Room C (303)	3F Room D (304)	3F RoomE(313+314)	3F Room F (315)	3F Foyer	Exhibition Hall A	
9:00 ▶	Oral Session	Oral Session	Oral Session	Oral Session	Oral Session	Oral Session		
10:00 ▶	T3 Modeling and Sintering	T6 AM Beam Based Technologies	T1 Powder Production	SIS4 Trends and Sustainability of MIM	T16 Soft Magnetic Materials	T14 High Temperature Materials		Poster Session
11:00 ▶				SIS5 MIM Challenges for New Materials				
12:00 ▶	Lunch 5F 501-503							Exhibition
13:00 ▶								
14:00 ▶	Core Time							
15:00 ▶	Oral Session	Oral Session	Oral Session	Oral Session	Oral Session	Oral Session	Poster Session	
16:00 ▶	SIS3 Promising Future of Sinter Based AM	T6 AM Beam Based Technologies	T1 Powder Production	T8 MIM - New Processing Routes	SIS13 Circular Economy and Sustainability in PM	T13 Non Ferrous Materials		
17:00 ▶	T7 AM Sinter Based Technologies			T8 MIM - Stainless Steel and Heat Resistant Alloy				
18:00 ▶								
19:00 ▶								

Wednesday, 16 October, 2024								
Conference Center							Exhibition Hall	
3F Room A (301)	3F Room B (302)	3F Room C (303)	3F Room D (304)	3F Room E (313+314)	3F Room F (315)	3F Foyer	Exhibition Hall A	
9:00 ▶								
10:00 ▶	Oral Session T7 AM Sinter Based Technologies	Oral Session T6 AM Beam Based Technologies	Oral Session SIS6 Industrial Application of Functional Materials	Oral Session SIS11 Energy Materials	Oral Session SIS14 DX in PM	Oral Session T12 Ferrous Materials	Poster Session	
11:00 ▶			SIS7 Powder Design for Industrial Application					
12:00 ▶							Core Time	Exhibition
13:00 ▶	Lunch 5F 501-503							
14:00 ▶								
15:00 ▶	Oral Session T7 AM Sinter Based Technologies	Oral Session T5 Field Assisted Sintering Technologies	Oral Session T11 High Profile Automotive Component Technology	Oral Session T18 Non-Oxide Materials	Oral Session SIS12 Carbon Neutrality (CN) in PM	Oral Session SIS9 Hard Materials	Poster Session	
16:00 ▶			T11 Tribology in PM	T15 Metal-Based Materials		T15 Hard Materials		
17:00 ▶			T11 PM Technologies to Support Future Society					
18:00 ▶								
19:00 ▶								
20:00 ▶	Congress Party Yokohama Royal Park Hotel Starting Time: TBD							
21:00 ▶								

Thursday, 17 October, 2024							
Conference Center							
3F Room A (301)	3F Room B (302)	3F Room C (303)	3F Room D (304)	3F Room E (313+314)	3F Room F (315)		
9:00 ▶							
10:00 ▶		Oral Session T4 Hot Isostatic Pressing	Oral Session T17 Composite/Hybrid Materials	Oral Session T9 Innovative Technology	Oral Session T15 Hard Materials		
11:00 ▶							
12:00 ▶							
13:00 ▶							
14:00 ▶						Technical Visit and Optional Tour	
15:00 ▶							
16:00 ▶							
17:00 ▶							
18:00 ▶							
19:00 ▶							

■ Invited Speakers

Plenary Talk



Yansong Shen

The University of New South Wales, Australia

Metallurgy-inspired Solar Panels Recycling



Eiichi Sato

Institute of Space and Astronautical Science (ISAS) / Japan Aerospace Exploration Agency (JAXA), Japan

Mechanical Properties and Reliability of Structural Materials for Spacecraft Applications



Manabu Tsuyoshi

Iwatani Corporation, Japan

Iwatani's Efforts Towards the Realization of a Hydrogen Society

Keynote Talk



Kaveh Edalati

Kyushu University, Japan
PM TECHNOLOGY - Powder Production



Jai-Sung Lee

Hanyang University ERICA, Korea
PM TECHNOLOGY - Processing



Jian Luo

University of California, San Diego, USA
PM TECHNOLOGY - Processing



Tomoya Sako

FINE SINTER CO.,LTD., Japan
PM TECHNOLOGY - Industrial Application



Oleg Vasyilkiv

National Institute for Materials Science, Japan
PM MATERIALS - Sintered Materials



Zhigang Zak Fang

The University of Utah, USA
PM MATERIALS - Hard Materials



Ryoji Kanno

Tokyo Institute of Technology, Japan
PM MATERIALS - Functional Materials



Kohmei Halada

National Institute for Materials Science Sustainability Design Institute, Japan
HOT TOPICS - Carbon Neutrality (CN) in PM



Hirotomo Itagaki

National Institute of Advanced Industrial Science and Technology, Japan
HOT TOPICS - Circular Economy and Sustainability in PM



Isao Tanaka

Kyoto University, Japan
HOT TOPICS - DX in PM



Tetsuya Shoji

Toyota Motor Corporation, Japan
HOT TOPICS - DX in PM

Special Invited Talk (Special Interest Seminar)

PM TECHNOLOGY

- Powder Production**
- Taku Iwaoka** Tokyo Metropolitan Industrial Technology Research Institute, Japan
Naoto Shirahata National Institute for Materials Science, Japan
- Processing**
- Animesh Bose** Optimus Alloys, USA
Kenji Doi Osaka Yakin Kogyo Co., Ltd., Japan
Hyoung Seop Kim Pohang University of Science and Technology, Korea
Sebastian Boris Hein Fraunhofer IFAM, Germany
 Stefan Jones Elnik Systems, LLC, USA
- Industrial Application**
- Sachiko Masuoka** Fukuda Metal Foil & Powder Co., Ltd., Japan
Shinjiro Saigusa Toyota Motor Corporation Higashi-Fuji Technical Center, Japan

PM MATERIALS

- Sintered Materials**
- Mikio Ito** Fukui University of Technology, Japan
Toshiyuki Sawada Sanyo Special Steel Co., Ltd., Japan
- Hard Materials**
- Bin Shi** Aerospace Manufacturing Technology Centre, National Research Council of Canada, Canada
Sota Terasaka Japan Fine Ceramics Center, Japan
- Functional Materials**
- Kiyoshi Kanamura** Tokyo Metropolitan University, Japan
Hiroyuki Matsumoto TDK Corporation, Japan

HOT TOPICS FOR THE BETTER WORLD

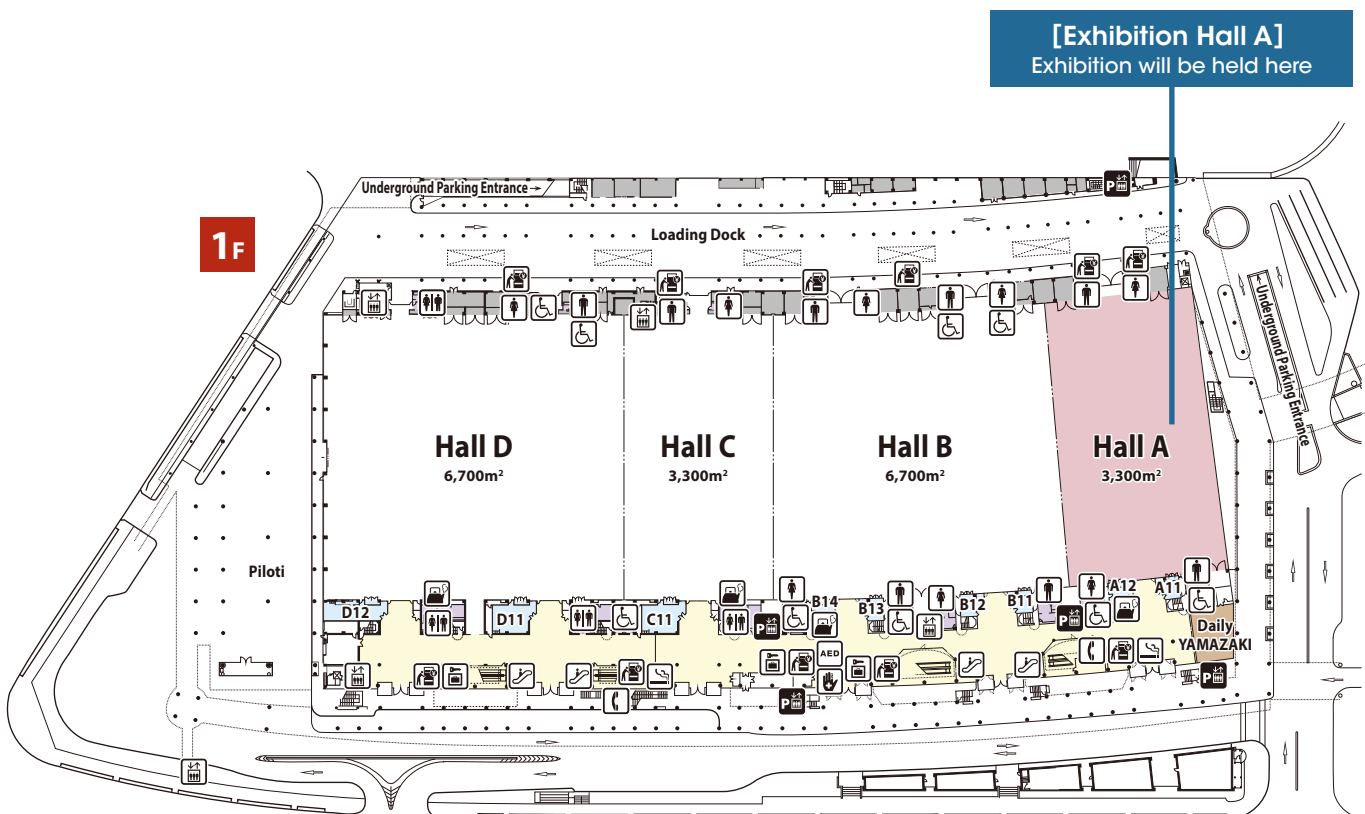
- Carbon Neutrality (CN) in PM (ECO Processes, ECO Materials)**
- Yoshinobu Takeda** International PM Consultant, Japan
Tomoyuki Ueno Sumitomo Electric Sintered Alloy Ltd., Japan
Nobuaki Yoshimura CHUGAI RO CO., LTD., Japan
- Circular Economy and Sustainability in PM (Reuse, Recycle, Remanufacturing)**
- Zhigang Zak Fang** The University of Utah, USA
Linnea Molin Höganäs AB, Sweden
- DX in PM (Material Informatics, Material Integration)**
- Kenjiro Fujimoto** Tokyo University of Science, Japan
Susanne Norgren Lund University & Sandvik, Sweden

■ Floor Plan

Overall View

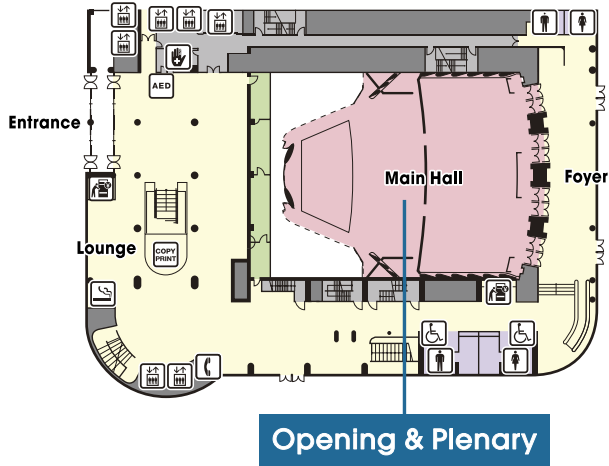


Exhibition Hall A

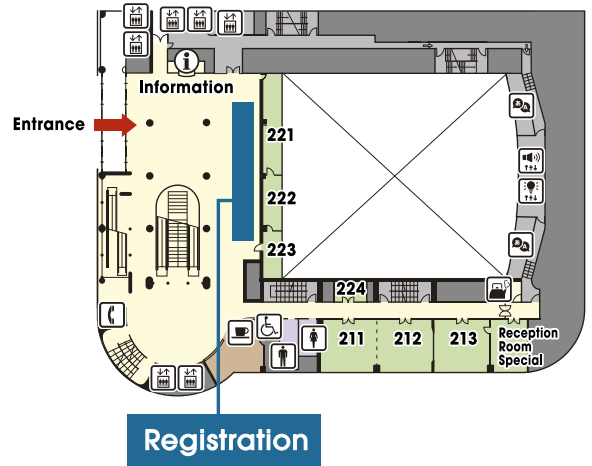


Conference Center

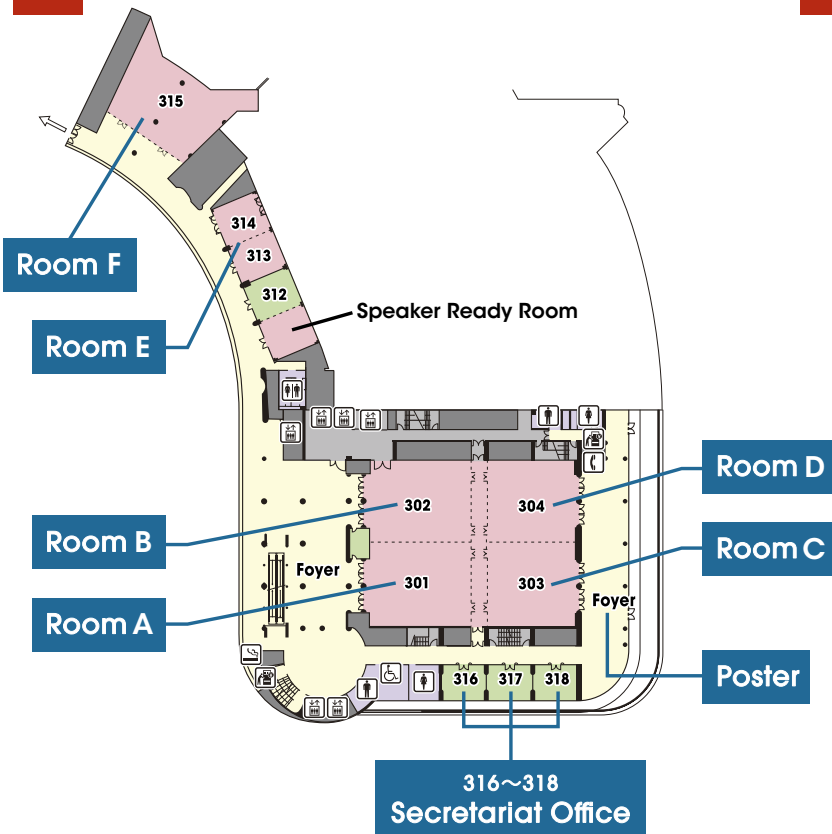
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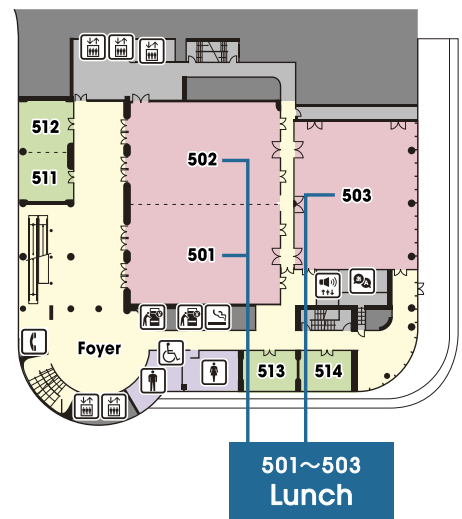
2F



3F



5F



■ Registration

Schedule

*All dates are in Japan Standard Time.

Early-bird Registration: 2 Apr. 2024 - 2 Sep. 2024

Late Registration: 3 Sep. 2024 - 12 Oct. 2024

On-site Registration: 13 Oct. 2024 - at Noon, 17 Oct. 2024

Registration Fee

*All payments must be made in Japanese yen

Category	Early-bird Registration From 2 Apr. 2024 to 2 Sep. 2024	Late Registration From 3 Sep. to 12 Oct. 2024	On-site Registration From 13 Oct. 2024 to 17 Oct. 2024
Presenting author/Session chair* ¹	125,000 JPY	150,000 JPY	165,000 JPY
JPMA/JSPM Member* ²	170,000 JPY	204,000 JPY	224,400 JPY
Non-member	190,000 JPY	228,000 JPY	250,800 JPY
Student* ³	15,000 JPY	18,000 JPY	19,800 JPY

*All registration fees are not subject to tax.

Fee includes as follow,

Category	Presenting author/ Session chair	JPMA & JSPM Member	Non-member	Student	Accompanying person	
All Scientific Sessions	14-17 Oct.	○	○	○	×	
Opening Ceremony/ Plenary Session	14 Oct.	○	○	○	○	
Exhibition	14-16 Oct.	○	○	○	○	
Refreshment Breaks	14-17 Oct.	○	○	○	×	
Lunch	14-16 Oct.	○	○	×	×	
WORLD PM2024 Proceedings		○	○	○	×	
Social Events	Welcome Reception (14 Oct.)	○	○	○	13,000 JPY	13,000 JPY
	Congress Party (16 Oct.)	○	○	○	15,000 JPY	15,000 JPY

*1 Presenting author and Session chair Registration

Reduced registration fees are available for presenting authors and session chairs. Co-authors should register at the regular congress rates. The registration deadline for presenting authors is 2 August 2024 and the inclusion of papers in the final programme and congress proceedings is dependent upon the submission of registrations and payment by this date.

*2 JPMA & JSPM Member Registration

Members of the JPMA and the JSPM will qualify for a discount on the full registration fee. The discount applies to all employees of full, associate and affiliate company members, and also to individual members.

*3 Student Registration

The student category is for undergraduate and graduate students.

Students are required to upload a scanned copy (in either jpeg or pdf format) of their student ID via online registration form. Please be advised that student category will be applied for students who have full time job.

If you are a student and a presenter, please register under the student category.

*4 Social Events' Ticket

Tickets for the Welcome Reception & Congress Party can be purchased at the congress venue.

Accompanying Person

Each participant may be accompanied by one companion.

Certificate of Attendance

A certificate of attendance for this congress will be substituted by a name badge issued at the venue on the day of the congress.

Cancellation Policy

Registration cancellations will only be accepted by email to worldp2024-reg@jtbcom.co.jp.

Date of Cancellation	Cancellation Fees
Until 13 August 2024	15% cancellation fee
From 14 August 2024	100% cancellation fee (No refund)

■ Exhibition

Date

Mon., 14 October through Wed., 16 October

Venue

Exhibition Hall A, Pacifico Yokohama (1F)

Entrance fee

Admission Free, but registration is necessary.

*On-site Exhibition Registration will be available during the open hours above.

Exhibitors

Additive Manufacturing

BGRIMM Advanced Materials Science & Technology Co., Ltd (BAMSTC)
Ipsen Co., Ltd.
Quintus Technologies
Raise3D
Japan 3D Printer Co.,Ltd
SUGIYAMA CO.,LTD.

Association

EPMA - European Powder Metallurgy Association
Metal Powder Industries Federation / APMI International

Components

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JUKI AIZU CORPORATION
Metal Technology Co. Ltd.
MTC Powder Solutions AB
MITSUBISHI MATERIALS TRADING CORPORATION
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Raw Materials

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Additive Manufacturing

BGRIMM Advanced Materials Science & Technology Co., Ltd (BAMSTC)

BGRIMM Advanced Materials Science & Technology Co., Ltd, (BAMSTC) is a new and high technology enterprise that affiliated to Beijing General Research Institute of Mining and Metallurgy (BGRIMM), a large scientific and technological enterprise directly under Chinese central government. Incorporated by BGRIMM's two subsidiaries, the Metal Materials Institute and Beijing Tungsten and Molybdenum Materials Factory, BAMSTC was found in November 2011 with 100 million RMB register capitals.

We provide five categories of products and services, including thermal spray materials, metal powders, tungsten molybdenum refractory materials, coating processing, technology consulting and training in these fields. Over 60 years experience in developing and manufacturing thermal spray materials and tungsten molybdenum refractory materials has forged our authority in these fields. By introducing international advanced powder manufacturing technology and our strength on research, we are able to provide thermal spraying powders with high quality. Our products are guaranteed by numbers of advanced research and manufacture equipments as well as the comprehensive detection system.

BGRIMM Advanced Materials Science & Technology Co., Ltd (BAMSTC)

No. 5 Fusheng Road, Shahe Town, Changping District, Beijing, China

Phone: +86 10 58915115

Web: www.bamstc.com



Additive Manufacturing

Ipsen Co., Ltd.

Ipsen is a leading company for Heat treating furnace industry with both of Vacuum and Atmosphere technology since 1948.

Ipsen is supporting not only for a new equipment selling, but also customer process and after maintenance service as well. Ipsen has deep expertise as limitedness innovation, such as more than 10,000 unites furnace in the market, 87,000+ stocked component, 100+ patent, 600+ employee who cover worldwide regions by local entities, US / Germany / India / China, and Japan.

Today we Ipsen introduces DS furnaces engineered for the additive manufacturing market, specifically for the debinding and sintering process. Our range of furnace models accommodates various part sizes in small or large batches. Equipped with an in-line filter system for collecting binder material, DS furnaces reduce the steps needed to debind and sinter AM parts and do not require the use of harsh chemicals to attain clean results.

Please contact us whatever you want to know or get support for the technology.

Ipsen Co., Ltd.

2-3-2 Yasuda, Tsurumi-ku, Osaka city, Osaka

Phone: 06-7506-9705

Web: <https://ipsenglobal.com/>



Additive Manufacturing

Quintus Technologies

Quintus Technologies is the global leader in high pressure technology. The company designs, manufactures, installs, and supports high pressure systems in three main areas: densification of advanced materials, sheet metal forming and high pressure processing for food and beverage innovation, safety, and shelf life. Quintus has delivered over 1,900 systems to customers within industries from energy, medical implants, space, aerospace, automotive and food processing. The company is headquartered in Västerås, Sweden, with a presence in 45 countries worldwide.

Quintus Technologies

SE-721 66 Västerås, Sweden

Phone: +46(0)21 32 70 00

Web: <https://quintustechnologies.com/>



Additive Manufacturing

Raise3D

Raise3D is a world-leading 3D printing company that develops, produces and sells 3D printers, materials and software. Raise3D's success is rooted in 3D printing technology, empowering various industries and implementing flexible manufacturing.

After years of development, Raise3D has built an ecosystem integrating "3D printing consultation, service and implementation". Raise3D effectively helps customers actively and flexibly respond to changing global production demands, providing 3D printing services and systematically delivering a wide array of 3D printing solutions.

Raise3D's MetalFuse offers a complete solution in the form of an indirect metal 3D printing process. It consists of the Forge1 3D printer, which is compatible with third-party MIM processes, the D-200E debinding furnace and the S200-C sintering furnace, paired with a special edition of Raise3D's ideaMaker software, integrating complete process templates. With this solution, MetalFuse's advantages include low overhead costs and the ability to perform batch production. MetalFuse is more energy efficient and is more environmentally friendly compared to peer products and even other technologies, such as selective laser melting.

Gold Sponsor

Raise3D

Floor 13 A5, 1688 North Guoquan Road, Yangpu District, Shanghai, China

Phone: +86 400 6367 888

Web: <https://www.raise3d.com/>



Co-Exhibitor

Japan 3D Printer Co.,Ltd

We have extensive experience in research and sales of various 3D printing technologies over the years. Beyond the features of the machines, we consider our knowledge, derived from practical experience, on material characteristics for various 3D printing methods (from resin to metal) and expertise in 3D data redesign for AM (Additive Manufacturing) technology, as our valuable competitive advantage.

Japan 3D Printer Co., Ltd. is capable of offering total solutions, including assistance in selecting 3D printers, material consultation for 3D printing, 3D data redesign for 3D printers, installation and training. Since our establishment a decade ago, we have successfully introduced our solutions to over 5,500 corporate clients and more than 450 educational and research institutions. We have a wide range of achievements in diverse industries, such as automotive, electronics, medical, aerospace, space, and product design.

Japan 3D Printer Co.,Ltd
1F CROSS DOCK HARUMI 7-4,
Harumi 4, Chuo-ku, Tokyo,
Japan
Phone: 03 3520 8928
Web: <https://3dprinter.co.jp/>



Additive Manufacturing

SUGIYAMA CO.,LTD.

We will introduce our system (Cold Metal fusion), which is a fusion of MIM and AM and overcomes the problems of conventional metal (Additive Manufacturing), as well as our products.

We are the only company in Asia that is working on this system(as of January 2024), and we will sell materials and manufacture products using this system.

SUGIYAMA CO.,LTD.
Kazutomi 5-13, Kisosaki-CHO,
Kuwana-Gun, MIE, 498-0823,
JAPAN
Phone: +81567-68-7077
Web: <http://www.forging-sugiyama.com/>



Association

EPMA - European Powder Metallurgy Association

The EPMA was formed in Brussels in 1989; the European Powder Metallurgy Association has three key missions –

- Promoting PM Technology
- Representing the European PM Industry
- Developing the PM Future

The EPMA serves all types of member organisations, from component producers, metal powder manufacturers, equipment producers through to end-users, research centres, universities and individuals who have an interest in Powder Metallurgy.

EPMA - European Powder Metallurgy Association
1 avenue du General de Gaulle,
60500, Chantilly, France
Phone: +33 (0)787 777 848
Web: <https://www.epma.com>



Association

Metal Powder Industries Federation / APMI International

MPIF is an international federation of related trade associations representing companies engaged in various aspects of the powder metallurgy and particulate materials industries.

MPIF is a global leader in the development of standards; professional development seminars; industry publications; and the annual PowderMet and AMPM conferences.

APMI International is a worldwide technical society for professionals interested in powder metallurgy and particulate materials technology. APMI publishes the quarterly International Journal of Powder Metallurgy; annual Who's who in PM Directory; and offers the industry's only PM Technologist certification program.

MPIF and APMI will host WorldPM2026, June 25–29, 2026 in Montreal, Canada. (www.WorldPM2026.org)

Metal Powder Industries Federation / APMI International
105 College Road East, Princeton,
New Jersey, 08540 United States
Phone: 1-609-452-7700
Web: www.mpif.org



Components

DIAMET CORPORATION

Diamet offers powder metallurgy and sintered products for automobile parts. Since 1944, Diamet has created cutting-edge products from advanced technology to offer overwhelming production efficiency. In addition, we proactively venture into new technological fields, and we are also focusing on the development and manufacture of energy-saving technologies and environmentally friendly products for all industries. Sintered machine parts and oil-impregnated sintered bearings, furthermore, we can provide soft magnetic cores(SMC) that are compatible with the compact size and high efficiency of motors and inverters, and we are proceeding with the development of SMC.

Platinum Sponsor

DIAMET CORPORATION

3-1-1 Kogane-cho, Higashi-ku,
Niigata-shi, Niigata 950-8640
Japan

Phone: +81-25-275-0111

Web: <https://www.diamet.co.jp>



Components

FINE SINTER CO.,LTD.

FINE SINTER CO., LTD. is a pioneer company in powder metallurgy in Japan with a history of 75 years. We established our headquarters in Aichi Prefecture, which is flourishing in the automobile industry, and have five factories in Japan. We also have established a global supply system with factories in Thailand, USA, China, and Indonesia.

At our exhibition booth, we are displaying our main products: high-precision and high-strength automotive parts, railway parts that put powder metallurgy characteristics to good use, also including soft magnetic powder-made products which will be our next generation of main products. Furthermore, compact hydraulic motor pump equipment that contain sintered parts are also on display. We use powder metallurgy to meet customer needs and contribute to a sustainable future.

Platinum Sponsor

FINE SINTER CO.,LTD.

1189-11 Nishinohora, Akechi-cho,
Kasugai-city,
Aichi-Prefecture, 480-0303, Japan

Phone: +81-568-88-4355

Web: <https://www.fine-sinter.com>



Components

JUKI AIZU CORPORATION

JUKI Aizu has over 40 years of history in lost wax precision casting technology, and has been involved in MIM (metal powder injection molding) for over 20 years. When considering lost wax precision casting or MIM (metal powder injection molding) products, please make use of JUKI Aizu, a technology proposal-oriented company whose motto is high technology x high skill.

JUKI AIZU CORPORATION

75-AZA-OUMI KOFUNE
SHIOKAWA-MACHI
KITAKATA, FUKUSHIMA
969-3532, JAPAN

Phone: +81-241-27-3103

Web: <http://www.jukiaizu.co.jp/>



Components

Metal Technology Co. Ltd.

Since 1960, Metal Technology Co. Ltd. has offered a variety of metal-related solutions. One of our core competencies is powder metallurgy using HIP: PM-HIP technology. Various advantages such as a reduction in materials used, multiple material availability, the capability of producing complex shapes as well as large components, and controlling the microstructure are realized from using HIP: PM-HIP.

We operate the largest HIP furnace in the world and are one of only a hand full of companies capable of producing large HIP-near-net-shape components. Major applications are: sub-sea oil and gas fields, aerospace, nuclear power, and chemical plants. These high value-added components cannot be easily replaced due to the extreme conditions of their environments, as well as for parts where deterioration due to welding is a problem.

Discover how HIP-NNS is right for you. Let our experience and know-how provide the solutions you need.

Silver Sponsor

Metal Technology Co. Ltd.

Harmony Tower 27F, 1-32-2
Honcho, Nakano-Ku, Tokyo,
164-8721, JAPAN

Phone: +81-3-5365-3035

Web: <https://www.kinzoku.co.jp/en.html>



Co-Exhibitor

MTC Powder Solutions AB

MTC Powder Solutions is a world-leading producer of near-net shape (NNS) products produced by hot isostatic pressing (HIP) and has supplied a variety of components utilized in challenging projects throughout the world.

As a company we have extensive experience working with critical components used in a variety of demanding industries such as Oil and Gas, Chemical, Nuclear, and Power Generation. This experience has resulted in a deep knowledge of various applications and a dedication to always extend the boundaries on what is possible. This enables us to assist our customers in meeting the challenges of today and achieving their goals of tomorrow.

MTC Powder Solutions AB

Returgatan 1, SE-735 31,
Surahammar, SWEDEN

Phone: +46 220 300 01

Web: <https://www.mtcpowersolutions.com/>



Components

MITSUBISHI MATERIALS TRADING CORPORATION

We are the core trading company of the Mitsubishi Materials Group.

We can add value to the products of our partner companies, not only in Japan but also overseas, and propose them to our customers.

We will mainly introduce soft magnetic materials, MIM products, and 3D metal lamination.

MITSUBISHI MATERIALS TRADING CORPORATION

17th fl. Nihonbashi Hamacho
F-Tower, 3-21-1, Nihonbashi
Hamacho, Chuo-ku, Tokyo
103-0007, Japan

Phone: +81-3-3660-1689

Web: <https://www.mmtc.co.jp>



Components

Nakahara Precision Co.,LTD.

Established in 1975 as Nakahara Precision Works specializing in secondary processing for various components aimed at movements of renowned watch manufacturers. In 1984, Nakahara Precision Co., Ltd. was founded, marking 40 years of expertise in secondary processing.

"We aim to be your one-stop solution for everything from MIM product correction to cutting."

"When primary processing lacks precision or capability, we step in."

"We address distortions in the manufacturing process before cutting."

"We offer cost-effective cutting through press correction sizing."

We offer comprehensive solutions from sizing correction to cutting. With our extensive experience, we propose the best shapes tailored for secondary processing based on numerous achievements. We await your consultation as your partner in secondary processing. Nationwide service available throughout Japan.

Nakahara Precision Co.,LTD.

1-5-28 Tōshūinden Surugaku
Shizuoka-City Shizuoka Post
code 421-0112

Phone: +81 54-258-8457

Web: www.nprec.com



Components

Sumitomo Electric Industries, Ltd.

Sumitomo Electric Industries, Ltd. started its sintering business back in 1948.

We established our mother factory of the sintering business in Okayama Prefecture, Japan in 1972, and since then we have expanded our business globally with 17 production plants in 10 countries.

The main products are structural parts such as VVT parts for engines, planetary gear carriers for transmissions, and rotors for electric oil pumps.

Furthermore, we plan to expand business of products such as brazing material parts and composite material parts for which new demand is expected in electric vehicles and various industrial fields in response to global environmental conservation.

In addition to new functional materials, we will also develop functional parts including assembly products.

Sumitomo Electric Group will strive to realize "Living in safety and comfort on our green planet" with constant efforts and our technologies.

Gold Sponsor

Sumitomo Electric Industries, Ltd.

1-1-1, Koyakita, Itami-shi, Hyogo
664-0016, Japan

Phone: +81-72-771-0570

Web: <https://sumitomoelectric.com/jp/products/sintering>



Components

Verder Scientific Co.,Ltd.

Part of Verder Scientific the Carbolite Gero brand is synonymous with high quality, leading heat technology in the design and manufacture of laboratory and industrial ovens & furnaces ranging from 30 °C to 3000 °C which are sold globally to over 100 countries.

Bronze Sponsor

Verder Scientific Co.,Ltd.

Shimoto Building, 46-3,
1-chome, Hatsudai, Shibuya-
ku, Tokyo

Phone: +81 3 6276 0073

Web: <https://www.carbolite-gero.com>



Components

Xi'an Sino-Euro Materials Technologies Co., Ltd

Xi'an Sino-Euro Materials Technologies Co., Ltd (Sino-Euro), a subsidiary of Northwest Institute for Non-ferrous Metal Research. Specializing in powder metallurgy, Prealloy Spherical SS-PREP® Powder, and HIP service & components. Sino-Euro is committed to be a valued supplier, providing high quality and reliable products to not only meet customer expectations but to exceed them. Sino-Euro is committed to continuing the bleeding-edge powder metallurgy research.

Xi'an Sino-Euro Materials Technologies Co., Ltd

No.45, 2nd Fengcheng Road,
Xi'an, Shaanxi, China

Phone: +86 187 9194 1802

Web: www.c-sem.com



Equipment

AMAZEMET

AMAZEMET is a manufacturer of equipment for metal powder production, new alloy prototyping, and heat treatment. The main focus of the company is in the areas of new materials, R&D, and industrialization. AMAZEMET supports universities and research facilities around the world in creating additive manufacturing innovations. Delivering ultrasonic atomizers it enables its customers to produce in-house highly spherical metal powders of custom alloying systems while providing compact high-vacuum furnaces allows customers to perform complex heat treatment procedures maintaining perfect purity of the parts.

Gold Sponsor

AMAZEMET

al. Jana Pawła II 27, 00-867
Warsaw, Poland

Phone: +48 573 481 303

Web: <https://www.amazemet.com/>



Equipment

DORST Technologies GmbH & Co. KG

DORST Technologies is a leading international supplier of machinery and complete production systems for ceramic and powder metallurgy components. The company specializes in raw material processing, forming and automation. DORST Technologies has in-depth knowledge of the individual process steps and interactions involved in the manufacturing of various end products. Intelligent system solutions from DORST Technologies are the result of decades of research and development and of intensive cooperation with customers and partners all over the world. Quality is part of an integrated approach at DORST Technologies. Customer satisfaction is paramount, but great importance is also placed on employees and suppliers. DORST Technologies continually strives to optimize the interaction of all involved parties within the framework of a quality management system meeting ISO 9001 requirements. Quality made by DORST Technologies means far more than good product quality. Initial consultation, order processing and excellent service are all part of a concept aimed at satisfying the high demands of customers. Being a leader means being innovative. Being innovative means having high internal standards for research and development. DORST Technologies has always been at the heart of the industrial development and application of many production processes in the ceramic and PM industries. At the DORST Technology Center with integrated tool and mould manufacturing, process technological know-how is continuously being advanced. Customers from a variety of industries are frequent visitors, as are competent partners who aid with specialized topics.

DORST Technologies GmbH & Co. KG

Mittenwalder Strasse 61, 82431
Kochel a. See, Germany

Phone: +49 8851 188 344

Web: <https://www.dorst.de>



Equipment

HEXAGON PRODUCT DEV PVT LTD

Hexagon – an ISO 9001:2015 certified company is world's one of the largest manufacturers of 3D Tumbler powder mixers. We make powder mixing machine in range from 2 Ltr hand operated, Laboratory size, Mid size and in large sizes as big as 3000 ltr and above. These mixers are ideal for uniform powder mixing with various bulk density or particle size or proportions. We export to more than 45 countries. We offer lot of customization like – stainless steel construction, liquid dosing, removable and non removable drum etc.

HEXAGON PRODUCT DEV PVT LTD

Plot no 10, Ratnakar Business Hub, Por Ramangamdi Road, GIDC, Por 391243, Gujarat, India

Phone: +91 92271 27517

Web: <https://www.alphiemixer.com/>



Equipment

Lauffer Pressen

LAUFFER is a leading manufacturer of powder and sizing CNC presses for the P/M and carbide industry with an experience for more than 150 years. During the last years, LAUFFER extended its portfolio by adding the servo-hydraulic C-Line and the servo-electric E-Line powder presses. This year, the new Lauffer E-Cell machine generation launches. The E-Cell, an integration of a servo-electric powder press with a robot-based parts handling, combines the latest developments in innovative press technology with LAUFFER's proven system knowhow for the P/M market. All Lauffer lines perfectly complement our portfolio with their smaller footprints, high energy, and cost savings.

Lauffer Pressen

Industriestrasse 101, 72160 Horb am Neckar, Germany

Phone: +49 7451 902-0

Web: <https://www.lauffer.de>



Equipment

SACMI Imola SC

SACMI is an International Group world leader in the design, manufacture and supply of industrial solutions, specialized in equipment for Powder Metal, ceramics, beverage and packaging.

SACMI Group is present in 30 Countries worldwide through 80 Companies. Driven by continuous investments in research and technological innovation, conscientious attention to market needs and customer service quality, SACMI proposes a wide range of best in class equipment and technologies for the Powder Metal Industry.

From hydraulic to full electric presses, from furnaces to fully integrated automations, Customers benefit from a complete supply with a single partner.

Silver Sponsor

SACMI Imola SC

via Selice Prov.LE, 17/A 40026 Imbola (BO) - Italy

Phone: +39 0542607995

Web: www.sacmi.com/en-US/metals



Equipment

SINTER LAND INC.

Introduction and explanation of Spark Plasma Sintering System.

SINTER LAND INC.

123, Amaike-machi, Nagaoka, Niigata 940-2055 Japan

Phone: +81-258-25-8008

Web: <https://www.sinterland.jp/>



Co-Exhibitor

NJS Co.,Ltd

NJS is a professional team promoting SPS technologies by consultation, R&D of advanced materials, sales of SPS machines, products, components. NJS has got much information and accumulated know-how since the birth of this technology in Japan.

NJS Co.,Ltd

Office-sinyokohama 3F, 2-14-8
Shinyokohama, Kohoku-ku,
Yokohama, Kanagawa,
222-0033 JAPAN

Phone: +81 45 475 1611

Web: <http://www.njs-japan>



Equipment

Sodick Co., Ltd

Sodick was established in 1976 and is a leading comprehensive machinery manufacturer. We develop, manufacture, distribute, and provide electrical discharge machines, high precision machining centers, injection molding machines, noodle-making machines, and aseptically-packaged cooked rice manufacturing systems.

In the metal injection molding (MIM), it is important to reduce flash and flow mark as much as possible for high quality and high productivity on each MIM green parts. V-LINE® injection molding machine (V-LINE®) that is sodick's original technology can help to reduce flash and flow mark on each MIM green parts because it has high stability, high reproducibility and high responsiveness. To show the superiority of V-LINE® in MIM, the experiment that compare V-LINE® to In-line injection molding machine (In-line) using spiral flow tester and the medical clip mold were carried. The experiment using the spiral-flow tester shows that the flow length using V-LINE® is 29% longer than that one using In-line. And in the experiment using the medical clip mold shows flash and flow mark that are not able to improve by using In-line can be improved by using V-LINE®.

Sodick Co., Ltd

3-12-1 Nakamachidai, Tsuzuki-ku, Yokohama, Kanagawa 224-8522 Japan

Phone: +81-45-942-3111

Web: www.sodick.co.jp/en/



Equipment

Tekna

Tekna produces high-purity metal powders for 3D printing in the aerospace, medical and automotive sectors, as well as optimized R&D plasma systems for rapid material development easily scalable to industrial solutions for 24/7 operation:

- Spheroidization process allows to transform angular powder into highly spherical powder especially designed for advanced part manufacturing processes such as Additive Manufacturing, Metal Injection Molding and near net shape Hot Isostatic Pressing.
- Nanopowder synthesis process is designed to produce a wide range of high purity materials (Ceramics, Pure Metals, Alloys,...) at high yield even below 100 nm.

Over the last 30 years, Tekna has designed and manufactured more than 250 turnkey plasma systems, supported by customer service and maintenance centers based in Americas, Europe and Asia.

Tekna

2935 Boul. Industriel,
Sherbrooke, Québec, J1L 2T9
Canada

Phone: +337 88 56 71 76

Web: www.tekna.com



MIM Components

CASTEM CO.,LTD

Both Japan and overseas factories have operated quality control under the steady management system that acquired ISO9001. Also, we have a system of quality control with various measuring equipment such as coordinate measuring machines and image measuring machines.

We have multiple factories in Japan, Thailand, the Philippines, and Colombia. It is possible to realize a steady supply even in an emergency.

Bronze Sponsor

CASTEM CO.,LTD

1808-1 Nakatsuhara, Miyuki-Cho,
Fukuyama City, Hiroshima, Japan

Phone: +81-84-955-2221

Web: <https://www.castem.co.jp/en/>



MIM Components

IWAKI DIECAST Co.,Ltd.

IWAKI DIECAST Co., Ltd. is a comprehensive die casting manufacturer producing high quality aluminum, zinc, and squeeze products as well as small and complex shaped metal powder injection molding: Moldalloy (MIM).

Among its products, the company exhibits MIM, a technology for mass-producing complex three-dimensional parts made of steel and stainless steel with high precision and high density, which is difficult to achieve with conventional machining methods.

IWAKI DIECAST Co.,Ltd.

51-2, Aza Yamazaki, Washoku,
Yamamoto-cho, Watari-gun,
Miyagi

Phone: 0223-37-3322

Web: <https://www.iwakidc.co.jp/>



IWAKI DIECAST CO.,LTD.

MIM Components

Longding New Materials Technology Co., Ltd. in Yingtan City, China

Yingtan Longding New Material Technology Co., Ltd. was established in March 2011 and is a leading supplier of stainless steel powder production in terms of technology and sales in China. The company is committed to developing advanced ultra-high pressure, high flow water gas combined atomization production technology, and the stainless steel series MIM powder prepared has reached the international advanced level.

We have stably provided domestic and foreign customers with a series of powders, including 316L, 17-4PH, 304L, 440C, HK30, F75, low alloy steel, high-strength steel, FeSiCr, FeNi, FeCo, etc., with D50 of 6um, 8um or 10um, D90 of 16um, 20um or 25um, and vibration compaction of 4.30-5.1g/cm³. The company has passed ISO9001, ISO140001 and other system certifications. The second phase of Longding Company's production base has been completed, and the 10000 ton powder production base has been put into use. Longding Company adheres to the business philosophy of "honest operation, innovation driven, and customer first". By improving its powder metallurgy atomization technology level, Longding powder's influence in the industry is enhanced, and more professional technical services are provided to customers in related fields.

Longding New Materials Technology Co., Ltd. in Yingtan City, China

Room306, Building A, Yuanhao Garden, No. A88 Caihuying East Street, Beijing, China

Phone: +86 13910824469

Web: <http://www.ldpowder.com/>



MIM Components

INDO-MIM Limited

Established in 1996, INDO-MIM embarked on its journey with a vision to become a leading global supplier of Metal Injection Molded products. INDO-MIM is a fully integrated MIM parts producer with capabilities and proficiency in design, tooling, materials and a full range of finishing and assembly operations.

INDO-MIM is a one-stop solution provider with its manufacturing plants in India, USA and UK. Additional capabilities include Ceramic Injection Molding, Precision Investment Casting, Precision Machining, Special Processes, Additive Manufacturing and Metal Powders

INDO-MIM Limited

#45(P) KIADB Industrial area
Hoskote, Bengaluru -562114,
INDIA

Phone: +91 80 22048834

Web: www.indo-mim.com



MIM Components

NIPPON PISTON RING CO.,LTD.

In recent years, diverse processing technologies and methods, such as machining, precision (lost-wax) casting, die casting, press sintering, are being selected and adopted for the forming of metal parts to meet functional and cost requirements. METAMOLD, a metal injection molding (MIM) process, developed as a new 5th generation processing technology in addition to these processing technologies based on our long cultivated metallurgy technology, enables the production of very complex shaped parts similar to plastic products or die cast products, but with savings in resources and energy.

Features of METAMOLD.

1. Costs reduced by forming of complex shaped items integrally.
2. Enables highly flexible design focused on design and functionality.
3. Excellent properties, such as high density and high strength promised.
4. Shows superb dimensional accuracy.
5. Diverse processing possible.

Bronze Sponsor

NIPPON PISTON RING CO.,LTD.

NO.1111 NOGI, NOGI-MACHI
SHIMOTSUGA-GUN, TOCHIGI-
PREF, 329-0114 JAPAN

Phone: +81-280-57-1234

Web: <https://www.npr.co.jp/english/index.html>



MIM Components

TAISEI KOGYO CO., LTD.

Our know-how is unique in the MIM industry and unmatched by any other company.

- Achieving accuracy equivalent to that of machined components.
- Enabling free-form shapes with our unique lost-core process, 3D- μ MIM®.
- Reducing lead times dramatically with our the world's leading LMM 3D printer.

TAISEI KOGYO CO., LTD.

26-1 Ikeda-Kitamachi, Neyagawa, Osaka, 572-0073, Japan

Phone: +81 072-829-3588

Web: <https://www.aisei-kogyo.com/en/>



Raw Materials

Asahi Kasei Corp.

Asahi Kasei have a lot of successful business for various application with the one of our engineering plastics line-ups, TENACTM, as trade name of POM (Polyacetal). POM is commonly used as a resin constituent of PIM binders due to the high strength of POM itself and its decomposition performance with no residue under application of acid or heat.

Asahi Kasei has accomplished to develop the first TENAC POM grade line-ups for powder injection molding (PIM) application, FF520, that offers suitable binder products for catalytic debinding in PIM. TENAC™-C FF520 obtains the superior mechanical properties of POM and also ultra-high flowability. In addition, not only TENAC™-C FF520, but we also have newly developed TENAC™-P, a polymer binder suitable for thermal debinding.

TENAC™-P is the best thermal debinding binder for Metal Injection Molding. By using this binder, it is possible to obtain a metal sintered body with less voids, particularly in metals like stainless steel. We are going to give a verbal presentation on TENACTM-P to you on this time.

Please contact Asahi Kasei, if you have any enquiry or technical regarding POM binders. As the extensive-experienced engineer in the engineering plastic field, we would provide the best solution to you.

Asahi Kasei Corp.

Hibiya Mitsui Tower (TOKYO MIDTOWN HIBIYA) 1-1-2 Yurakucho, Chiyoda-ku, Tokyo 100-0006

Phone: +81-(0)3-6699-3388

Web: <https://www.asahi-kasei-plastics.com/>



Raw Materials

DOWA ELECTRONICS MATERIALS CO.,LTD.

We offer a wide variety of metal powders and technologies for electronic applications.

The reduced iron powder is a sponge-like iron-based product obtained by reducing iron oxide. It is used for various applications including welding rods, bearing parts, surface processing media, oxygen absorbers, and disposable heating pads. The carrier powder is spherical soft ferrite used in electro-photo printers such as copiers. We are able to control the carrier powder electrical characteristics (resistivity), magnetic characteristics (magnetizing force), and physical characteristics (specific gravity and particle size distribution). Within rechargeable battery-related products, we offer coating materials for positive electrode active material and solid electrolyte powders that can be used for all-solid-state batteries. The coating materials for positive electrode active material exhibit excellent battery resistance and durability when applied on active materials. The solid electrolyte powders are characterized by a low-temperature sintering process and high ionic conductivity when used in oxide-based all-solid-state batteries. The coating materials can improve insulation and durability by forming a uniform SiO2 coating layer on powder. We offer insulation-coated magnetic powder and its coating processing, applicable for inductors.

In addition, we are introducing new materials including cerium oxide, catalyst materials, cosmetic materials, and negative thermal expansion materials.

Bronze Sponsor

DOWA ELECTRONICS MATERIALS CO.,LTD.

22F, Akihabara UDX, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo, Japan

Phone: 03-6847-1256

Web: <https://www.dowa-electronics.co.jp/en/>



Raw Materials

EPSON ATMIX CORPORATION

EPSON ATMIX is a leading manufacturer of high-quality water-atomized, spherical powders for metal injection molding, additive manufacturing, and other markets.

Alloy selection includes iron-based, nickel-based, and cobalt-based alloys with particle size ranging from sub-20 microns to sub-3 microns distributions.

Advanced in Atmix's high-pressure water atomization process have made sub-10 microns powders cost-competitive while offering improvement in surface quality, dimensional stability, and final density on your parts production.

Gold Sponsor

EPSON ATMIX CORPORATION

4-44 Kaigan Kawaragi Hachinohe Aomori 039-1161 Japan

Phone: +81-178-73-2801

Web: www.atmix.co.jp/en



Raw Materials

FUKUDA METAL FOIL & POWDER CO., LTD.

Fukuda Metal Foil & Powder Company's mission is to be a "Metal Stylist", freely designing the internal structure and surface morphology of metal foils and powders to create ever thinner and finer metal materials. Fukuda is committed to the continuing exploration of materials science and contributing to the development of industry and society.

FUKUDA supplies a wide variety of materials and other products developed to meet the needs of each new generation, based on FUKUDA's extensive metal powder and metal foil technology accumulated over many years, such as raw materials for printing or other decorative applications, metal foils capable of both high transmission speeds and bending resistance, nanoparticles, and metal powders for 3D printing applications.

Platinum Sponsor

FUKUDA METAL FOIL & POWDER CO., LTD.

20, Nakatomi-cho,
Nishinoyama, Yamashina-ku,
Kyoto 607-8305, Japan

Phone: +81-75-581-2161

Web: <https://www.fukuda-kyoto.co.jp/en/>



Raw Materials

Höganäs Japan K.K./ Höganäs AB (Co-Exhibitor)

Höganäs develops, manufactures, and sells metal powders that open up a world of opportunities. We are on an ongoing sustainability business transformation journey to become the preferred sustainability powder producer in the world. Our vision is to drive positive change through material innovation. Our product range includes pure iron powders, low-alloy steel powders, stainless steel powders, and press-ready powder mixes. Höganäs products are tailored to meet demands on part precision, productivity, performance, and cost, and many of our brands, such as Distaloy®, Astaloy™, and Starmix®, are regarded as industry standards.

In our three global Höganäs Customer Development Centers, we invite customers and end-users to work alongside our expert team with application engineering and prototyping. Alongside Pressing and Sintering Powders, we also have a wide range of metal powders for additive manufacturing.

Gold Sponsor

Höganäs AB

Bruksgatan 35, 263 39 Höganäs
Sweden

Phone: +4642338000

Web: www.hoganas.com



Raw Materials

JFE Steel Corporation

JFE Steel is a steelmaker engaged in the total steel-making process, taking iron ore raw material and turning it into final products. Boasting one of the world's greatest capacities for steel production, JFE Steel satisfies customers by producing steel under a corporate philosophy of "contributing to society with the world's most innovative technology."

Gold Sponsor

JFE Steel Corporation

Hibiya Kokusai Building,
2-3 Uchisaiwai-cho 2-chome,
Chiyoda-ku, Tokyo 100-0011,
Japan

Phone: (81)3-3597-4063

Web: <https://www.jfe-steel.co.jp/en/index.html>



Raw Materials

Makin Metal Powders

Makin Metal Powders provides Copper Powder, Bronze Powder, Tin Powder and Infiltrants from custom-built manufacturing facilities in Rochdale, United Kingdom and, for certain grades, our new facility in Thailand.

One of the largest European producers of copper and copper alloy powder and a member of the GRIPM family of companies, MMP offers global product technology and supply chain capability, with a wealth of experience in the copper powder industry stretching back over 70 years.

As a member of the GRIPM family of companies we have access to a huge R&D resource and can help customers with their needs for Additive Manufacturing (powders and components), Tin-based solder powders and pastes, NdFeB magnet powders and other high-tech materials.

We have a wide network of Agents and Distributors across Asia (including Japan, China, Thailand, Singapore, Malaysia, Indonesia and Korea), Europe and The Americas.

Makin Metal Powders

Buckley Road, Rochdale, Greater
Manchester, UK

Phone: +44 1706 717317

Web: <https://www.makin-metals.com/>



Raw Materials

MUTSUMI SPECIAL ALLOY INDUSTRY CO.,LTD.

We started material development. We manufacture the materials in-house, and we can also sell iron powder materials.

MUTSUMI SPECIAL ALLOY INDUSTRY CO.,LTD.

6-1-20 Tsuruma, Machida-shi, Tokyo

Phone: +81 42-795-0031

Web: <https://mutsumi-t.jp>



Raw Materials

OSAKA Titanium technologies Co.,Ltd.

OSAKA Titanium technologies is one of the world largest titanium sponge manufacturers and our high-quality products are used for various fields such as aerospace, medical, semiconductor, etc. We also manufacture commercially pure titanium and titanium alloy powders for MIM (Metal Injection Molding), AM (Additive Manufacturing), and other markets.

We have been producing gas-atomized spherical titanium powder (TILOP®) since 1990 by using our own designed and made ELGA (Electrode Induction Melting Inert Gas Atomization) furnace. The advantage of our ELGA is that does not require a crucible that might be a source of inclusions or contaminations. Since we are known as one of the world largest titanium sponge producers, we have established manufacturing process that prevent contamination of high-melting-point metals which enables us to provide high-quality titanium powder to customers mainly in aerospace and medical industries. In addition, we have the advantage of quality control system that can ensure consistent traceability from titanium ore to powder.

Recently we have commercialized super fine powder for MIM and Binder Jet of AM. We are pleased to introduce that we can control the oxygen value of the powder according to the customer's requirements.

OSAKA Titanium technologies Co.,Ltd.

1 Higashihama-cho, Amagasaki, Hyogo 660-8533, Japan

Phone: +81-3-5776-3103

Web: <https://www.osaka-ti.co.jp/> e/



Raw Materials

PolyMIM GmbH

PolyMIM GmbH has been producing and marketing its line of standard and custom-made polyMIM® feedstock since 2005. Metal injection moulding allows for cost-effective production of complex metal components by combining the processes of injection moulding and sintering. We developed an environmentally sound water-soluble binder system. Thus polyMIM® combines the cost and quality advantages of metal injection moulding with ecological demands. In 2013 the new polyPOM feedstock based on a catalytic binder system was added to the range. All common MIM metal alloys are available as ready-to-mould standard feedstock compounds. Our portfolio includes low alloy, stainless, copper, titanium, titanium alloy and hard metal feedstock. PolyMIM GmbH meets highest quality requirements and is certified in accordance with DIN ISO 9001.

PolyMIM GmbH

Am Gefach

Phone: +49 (0) 6751 / 85769-0

Web: <https://www.polymim.com/>



Raw Materials

Pometon Spa

Founded in 1940, Pometon is today the largest European producer of copper powder and offers a unique service to its clients producing also ferrous, non-ferrous powders and stainless steel shot.

Pometon produces pure powders such as iron, copper (both electrolytic and atomized), bronze, brass, tin, zinc, press-ready iron and bronze premixes.

Its division, Pometon Plus is fully dedicated to the production of spherical metallic powders for 3D printing using VIGA & ELGA technology, and can produce customised powders in Copper, Stainless Steel, Cobalt-Chromium, Nickel-Chromium Titanium and Alloys.

Based in Maerne, Venice, Pometon has subsidiaries in UK, Spain, Germany, India, Turkey, Korea and a second production site in Serbia, cooperates with the major automotive brands and the renowned global players in the chemical industry, aerospace and electronics sectors.

Equipped with latest technology, the R&D Centre collaborates with the most important worldwide universities with the objective of producing customized powders to meet individual customer requirements and to ensure that product quality remains consistent over time.

Pometon Spa

Via Circonvallazione, 62 – 30030 Maerne di Martellago (VE) Italy

Phone: +39 0412903611

Web: www.pometon.com



Raw Materials

SLM Technology Private Limited

SLM is an Iron Powder manufacturer based in Odisha, India operating since 1992. It produces Sponge and Atomised Iron Powder. Its products includes pre-alloyed powders, diffusion alloyed powder, premixes and bonded mixes. It supplies its products to over 25 countries and its customers includes top PM companies. SLM is a well know name in Indian industry. The company aims to become most trusted technology partner for its customers. The company also produces gas atomised spherical bronze powder for filters.

SLM Technology Private Limited

Uditnagar, Rourkela-04, Odisha, India

Phone: +91 9937822224

Web: www.slmmetal.com



Software

IDAJ Co., LTD.

Next Generation DEM Particle Simulator Ansys Rocky

Ansys Rocky is an advanced engineering simulation tool that uses Discrete Element Method (DEM) to predict the behavior of bulk solid particles including powder in the efficient design and optimization of material handling equipment and processes. Ansys Rocky is capable of modeling real particle shapes including any solids, 2D shells, and rigid and flexible fibers.

The simulations are very fast and accurate with unique GPU (Graphics Processing Unit) solver technology.

You can simulate the behavior of different shaped and sized particles in many industrial applications.

IDAJ Co., LTD.

Yokohama Landmark Tower
37F, 2-2-1-1 Minato Mirai, Nishi-Ku, Yokohama City, Japan, 220-8137

Phone: +81 45-683-1990

Web: <https://www.idaj.co.jp/english/>



Software

Thermo-Calc Software

For over 40 years, Thermo-Calc Software has been a global leader in developing software and databases used to predict and understand materials properties. Our products empower materials scientists and engineers to make better decisions by giving you access to accurate, reliable materials data. We offer over 40 databases, a flexible software platform that you can customize to meet your needs, and APIs to help you link Thermo-Calc calculations to other software programs or your own code. Our flagship product, Thermo-Calc, is used in over 60 countries around the world by top materials scientists and engineers. Our tools have been cited in over 33,000 peer-reviewed journal articles and over 1000 patent applications, and we are actively involved in collaborative research and development efforts with top universities and industry partners.

Thermo-Calc Software

Råsundavägen 18, SE-169 67
Solna, Sweden

Phone: +46-8-545 959 30

Web: <https://thermocalc.com>



Tooling

DA CHEN MOLD

With 40 years of expertise in PM Tooling manufacturing, DA CHEN MOLD, headquartered in Taiwan, has established a global presence with clients spanning across the world. Our unwavering commitment to excellence is underscored by a track record of delivering superior quality products. We pride ourselves on cutting-edge technology and a dedicated team, ensuring our customers receive the best-in-class solutions. At DA CHEN MOLD, precision is not just a standard; it's a tradition. Experience unparalleled craftsmanship and innovative solutions with us.

DA CHEN MOLD

No.436 Sec.2 Nankan Rd, Luzhu
Dist, Taoyuan City, Taiwan.
33855

Phone: +88 6332221868

Web: <http://www.dachenty.com.tw/>



Tooling

GF Machining Solutions Ltd.

System 3R offers Tooling & Automation for efficient and accurate production of punches and dies. Gives an increased productivity in the tool shop by a reduction of the set-up times, improved accuracy & quality and reduced number of rejections. System 3R Tooling products are also perfectly suitable for the powder compaction process.

GF Machining Solutions Ltd.

TVP Bldg 3-9-13 Moriya-Cho,
Kanagawa-Ku, Yokohama-
Shi, Kanagawa-Ken, 221-0022
Japan

Phone: +81-45-450-1625

Web: <https://www.gfms.com>

+GF+ GF Machining Solutions

Tooling

Jiangxi Ningheda New Material Co., Ltd.

Established in 2017, located in Fengxin Industrial Area, Yichun City, Jiangxi Province, China, Jiangxi Ningheda New Material Co., Ltd. is the subsidiary company of Jiangxi Ningxin New Material Co., Ltd.

Jiangxi Ningxin New Materials Co., Ltd. was established in 2007. It is an enterprise specializing in the research and development, production and sales of special graphite. With a full set of special graphite production equipment, the process technology has reached advanced level in domestic market, and the market share in the special graphite industry is far ahead. On November 8, 2016, Ningxin New Materials was successfully listed on the New Third Board (stock abbreviation: Ningxin New Materials, stock code: 839719). In 2020, it was selected as a national-level specialized and new little giant enterprise. In May 2023, the company was successfully listed on the Beijing Stock Exchange.

Jiangxi Ningheda New Material Co., Ltd. is mainly engaged in graphite product processing, graphite product matching service, providing graphite materials, graphite electrode and graphite products for the lithium industry, rare earth industry, machinery industry, aerospace, semiconductor and solar photovoltaic industry, together with the corresponding products technical service and technical application of update program.

With excellent production technology, good customer service, high market share, and relying on the advantage of new material, capital and management of parent company (Jiangxi Ningxin New Material Co., Ltd.), Jiangxi Ningheda New Material Co., Ltd. develops quickly. We devote to the extension of the special graphite industry chain, and make contributions for building the future whole graphite industry strategy.

Jiangxi Ningheda New Material Co., Ltd.

Fengxin Industrial Area, Yichun
City, Jiangxi Province, China

Phone: 0795-4605783

Web:

<https://www.nhdgraphite.com/>
; <https://nhdcarbon.com/>



Tooling

NIIGATA SEIMITSU Co.,Ltd

Mold for sinter parts. Helical gear , Bearing ball , others.

Prototype processed product of soft magnetic material.

(Somaloy prototyping material). stator core , others.

NIIGATA SEIMITSU Co.,Ltd

854-5 Urajionji, Iwatsuki-ku,
Saitama-city
Saitama 339-0002

Phone: +81-48-794-1911

Web: <http://www.nsmold.co.jp/>



Tooling

ProGrit GmbH

Innovative products combined with unique know how and purposeful engineering leads to the comprehensive mastery of the technology chain of compaction of metal and ceramic powders, building the base of success for our customers.

In addition to the innovative products ProGrit offers technical and economical consulting in the field of compaction, grinding, measurement, tool and production technology for the machine tool industry and the tool and die manufacturing.

ProGrit offers comprehensive and holistic consulting & engineering services - from the analysis of the current state up to the industrial realization and implementation of complex engineering solutions.

ProGrit GmbH

Kastellstrasse 6, 8623 Wetzikon,
Switzerland

Phone: +414485426

Web: www.progrit.com

ProGrit

Co-Exhibitor

Gosho Co., Ltd.

Gosho, since start of operation, introduced various top ranked machines of the world to customers in Japan. Those machines have been winning in the serious world completions for long years so that no other machine cloud catch up their technology level in the short period.

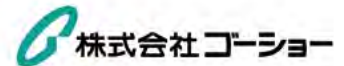
Silver Sponsor

Gosho Co., Ltd.

4-33-3, Ikebukuro, Toshima-ku,
Tokyo 171-0014

Phone: +81-3(5911)6333

Web: <https://www.gosho.jp>



Tooling

Repton Co.,Ltd./ Imae Industries,Ltd.

Innovative products combined with unique know how and purposeful engineering leads to the comprehensive mastery of the technology chain of compaction of metal and ceramic powders, building the base of success for our customers.

In addition to the innovative products ProGrit offers technical and economical consulting in the field of compaction, grinding, measurement, tool and production technology for the machine tool industry and the tool and die manufacturing.

ProGrit offers comprehensive and holistic consulting & engineering services - from the analysis of the current state up to the industrial realization and implementation of complex engineering solutions.

**Repton Co.,Ltd./
Imae Industries,Ltd.**

5-15-7,Higashiamagawa,Takats
uki,Osaka 569-0012,Japan

Phone: +81-72-660-5005

Web: <https://repton.co.jp/en/>



■ JPMA Special Seminar

Date : October 15 (Tue.) PM

Venue : Exhibition Hall A, Pacifico Yokohama (1F)

JPMA introduced JPMA Special Seminar on PM93, PM2000 and PM2012. These JPMA Seminar got favorable comment from many visitors at that time and many people attended. This time JPMA will plan JPMA Special Seminar that will be useful for visitors. This seminar will include JPMA Awards and Case Studies of Production Efficiency Improvement. We will introduce up-to-date technologies in Japan by using this chance, please attend. This Seminar will be held at the special place in exhibition place. You don't need any application to attend.

JSS1: Introduction of JPMA Awards - Selection of JPMA Awards 2019 to 2023

The categories of JPMA Awards include New Product Award, Design Award, Material Award, Production Process Development Award, Equipment Development Award and Powder Award. And from 2003, Grand Prix Award was settled for extremely good item. We introduce 4 items that we selected award winners from 2019 to 2023 at WORLD PM2024.



JSS1-4
Practical Application of High Frequency & High Strength Reactor Core

JSS1 Program

JSS1-1

Sintered part for motorcycle transmission

Mr. Toshiro Sato DIAMET CORPORATION

JSS1-2

Net shape manufacturing of complex multi-stage shaped parking parts with two-pcs simultaneous compacting.

Mr. Kohei Otomo (Sumitomo Electric Sintered Alloy, Ltd.) SUMITOMO ELECTRIC INDUSTRIES, LTD.

JSS1-3

Oil-impregnated Sintered Bearings with Excellent Wear Resistance by Applying Density Gradient

Ms. Ayaka Sagae PORITE CORPORATION

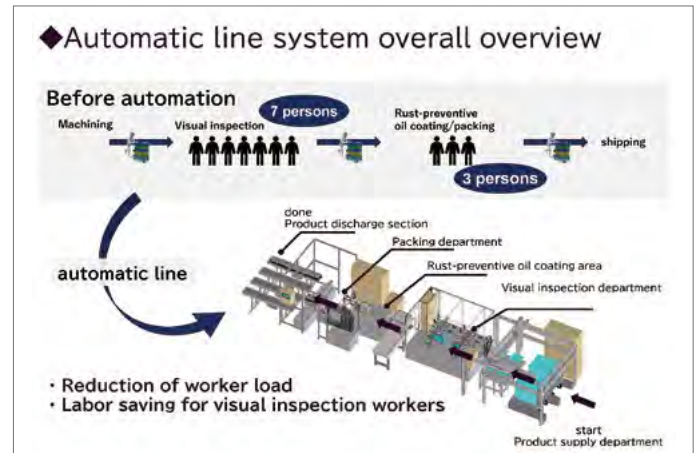
JSS1-4

Practical Application of High Frequency & High Strength Reactor Core

Mr. Yoshihiro Mikura (FINE SINTER CO., LTD.) FINE SINTER CO., LTD./Daido Steel Co., Ltd.

JSS2: Introduction of Case Studies of Production Efficiency Improvement -Selection of Case Studies of Production Efficiency Improvement 2019 to 2023

The themes in Japan's PM production are automation, energy saving, and quality improvement. By this Theme, main 5 PM companies in Japan will introduce their activities that we selected Case Studies from 2019 to 2023 at WORLD PM2024.



JSS2-4

Appearance inspection of complicated outer shape sintered equipment, application of anti-corrosion oil, construction of automatic packing line

JSS2 Program

JSS2-1

Touchless Integrated Production Line for Compacted Soft Magnetic Cores for Ignition Coils

Mr. Eisuke Hiro Sumitomo Electric Sintered Alloy, Ltd.

JSS2-2

Improved productivity of electric VCT eccentric shaft components

Mr. Mamoru Nakamura FINE SINTER CO., LTD.

JSS2-3

Improvement of Mold Maintenance for Powder Metal

Ms. Yuuko Sakuragawa NTN Advanced Materials Corporation

JSS2-4

Appearance inspection of complicated outer shape sintered equipment, application of anti-corrosion oil, construction of automatic packing line

Mr. Chihiro Enomoto DIAMET CORPORATION

JSS2-5

Quality Improvement in Machining Process

Mr. Makoto Yoshida PORITE CORPORATION

■ Social Events

WORLD PM2024 offers a number of social events in addition to the main program, the technical programs, exhibition, and JPMA Special Seminars. Accompanying persons are welcome to take part in these events.

OPENING and PLENARY SESSION

Date : Mon., 14 October, in the morning

Venue : Main Hall, Pacifico Yokohama Conference Center (1F)

*Congress Registration should be required.

Opening Ceremony

The organizers will make an opening address to mark the opening of the fourth Powder Metallurgy World Congress hosted by Japan.



Chiu-Lung Chu

Global Review

Representatives from APMA, MPIF and EPMA will give 20-minutes presentations. The speakers and the regions represented are as follows:

Asia: **Mr. Chiu-Lung Chu**, Asian Powder Metallurgy Association (APMA)

North America: **Mr. Michael Stucky**, Metal Powder Industries Federation (MPIF)

Europe: **Mr. Ralf Carlstrom**, European Powder Metallurgy Association (EPMA)



Michael Stucky



Ralf Carlström

Plenary Session

Yansong Shen, The University of New South Wales, Australia

Eiichi Sato, Institute of Space and Astronautical Science (ISAS) / Japan Aerospace Exploration Agency (JAXA), Japan

Manabu Tsuyoshi, Iwatani Corporation, Japan

Opening and Plenary Session event is sponsored by:



WELCOME RECEPTION

Date : Mon., 14 October, in the evening

Venue : Annex Hall, Pacifico Yokohama (2F)

*Congress Registration is required to attend the Welcome Reception. Registration for "Full Delegate", "JSPM/JPMA Member", "Chair/Speaker" entitles you to admission to the Welcome Reception for free.

A reception will be held to mark the opening of WORLD PM2024, beginning with a traditional "Kagamibiraki" ceremony. The reception is an opportunity for meeting old friends in the international powder metallurgy industry and making new ones with a buffet meal and drinks.

Welcome Reception event is sponsored by:



JFE Steel Corporation

CONGRESS PARTY

Date : Wed., 16 October, in the evening

Venue : Grand Ballroom HOH-SHOH, Yokohama Royal Park Hotel (3F, Banquet Bldg.)

*Congress Registration is required to attend the Farewell Party. Registration for "Full Delegate", "JSPM/JPMA Member", "Chair/Speaker" or "Accompanying person" entitles you to admission to the Congress Party for free.

This is a buffet style party featuring some attractions such as fair booths of Matsuri. This will also foster friendships among the participants and give them the opportunity to enjoy each other at WORLD PM2024.

Congress Party event is sponsored by:



■ Technical Visit and Optional Tour

ALL tours operate in the afternoon on Thursday, 17 October 2024 with the following conditions.

Guide : English-speaking guide service is included

Meals : No meals

Transportation : Bus

Technical Visit / Sightseeing

1. Yamanashi Prefectural Maglev Exhibition Center & Mt. Fuji (Half day tour)

Date : Thu., 17 October 2024 in the afternoon

Fare : 14,500 JPY per person

Course : Pacifico Yokohama and hotels 12:00 = Oshino Hakkai = Yamanashi Prefectural Maglev Exhibition Center = Mr. Fuji = 18:30 Pacifico Yokohama and hotels

Oshino Hakkai: Oshino Hakkai is a popular tourist destination near the base of Mount Fuji. It's a small area that features traditional village houses, shops and watermills set against a spectacular backdrop of Japan's most famous mountain.

Yamanashi Prefectural Maglev Exhibition Center: At the Maglev Exhibition Center that opened in conjunction with the commencement of testing at the Yamanashi Maglev Test Track, guests will not only be able to see tests with their own eyes but also learn about superconductive linear mechanisms and the Linear Chuo Shinkansen plan in detail.

Note: - Test run schedule of the week is announced on Friday evening of the previous week.

- Details such as operating hours will not be announced in advance.

- Test run schedule is the current schedule and is subject to change or cancellation without notice due to the circumstances.

Minimum number of participants necessary for the tour : 20 persons



Oshino Hakkai



Linear Chuo Shinkansen

Technical Visit

2. 3D Printing Corporation Factory (Half day tour)

Date : Thu., 17 October 2024 in the afternoon

Fare : 9,600 JPY per person

Course : Pacifico Yokohama and hotels 13:00 = 3D Printing Corporation = 16:30 Pacifico Yokohama and hotels

3D Printing Corporation Factory: 30 persons each for Resin 3D printer and Metal 3D printer. Demonstration includes designing 3D data and explanation of software.

Minimum number of participants necessary for the tour : 15 persons

Maximum attendee of the tour : approx. 60 persons



3D Printing Corporation Factory

Sightseeing

3. Hakone Sightseeing (Half day tour)

Date : Thu., 17 October 2024 in the afternoon

Fare : 15,000 JPY per person

Course : Pacifico Yokohama and hotels 13:00 = Hakone Ropeway and Owakudani = 17:45 Pacifico Yokohama and hotels

Hakone Ropeway and Owakudani: The observation platform offers breathtaking views of 'Owakudani', Hakone's most famous tourist spot. Desolate mountainside covered by plumes of smoke produce a distinct scene so fitting the area's former name of Hell Valley. Now, the Hakone Ropeway rising above Owakudani. There are also many scenic spots to be seen from the ropeway. Traveling from Sounzan to Owakudani, passengers can see the bottom of the valley below, and, when on route to Togendai, they can enjoy views of Mt. Fuji and Lake Ashi.

Minimum number of participants necessary for the tour : 20 persons



Hakone Ropeway



Owakudani

■ General Information

Congress Date

13-17 October 2024

Venue

PACIFICO Yokohama

1-1-1, Minato Mirai, Nishi-ku, Yokohama 220-0012, Japan

<https://www.pacifico.co.jp/english>

Official Language

English

Important Dates

Application for Exhibition

Deadline Tue., 30 April 2024

Application for Sponsorship / Advertisement

First Deadline Fri., 29 March 2024

Second (final) deadline Fri., 31 May 2024

Final deadline for sponsorship fee payment Fri., 28 June 2024

Registration

Registration open Tue., 2 April 2024

Early bird discount deadline Mon., 2 September 2024

Pre-registration deadline Sat., 12 October 2024

Congress Proceedings

All papers of Oral / Poster Sessions will be published in the Congress Proceedings. Guidelines for the preparation of manuscripts will be notified to authors with their acceptance letters **by the end of February 2024**.

The deadline for the manuscript will be **30 June 2024**.

The proceedings will be published after the Congress. The presenting author must complete the delegate registration and payment by **2 August 2024**.

All invited and contributed papers will be peer-reviewed by the Technical Committee.

At first, for all participants, the proceedings will be released on WORLD PM2024 website. After that all papers will be released on the online journal of JJSPM (Journal of the Japan Society of Powder and Powder Metallurgy) which has been selected the Scopus. This online Journal is the open access under the Creative Commons Attribution-Non Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) (Attribution-Non Commercial-No Derivatives) License (CC License). The authors must agree to be granted the CC license. The APC (Article Processing Charge) of the online journal of JJSPM is included the registration fee.

However, not all papers published in the proceedings of WORLD PM2024 will be published in the JJSPM online journal due to the judgment of the JSPM publication editorial board.

Permission to Use Rights of Portrait

Photographs taken by the organizer's photographer at the congress and exhibition venues may be used for the purpose of reporting on the organizer's activities (publication in the newsletter and on the official website) and for soliciting participants for this and future congresses and exhibitions.

The photographs or information provided will not be used for any other purposes unless the usage is clearly made known and accepted by the provider.

Access

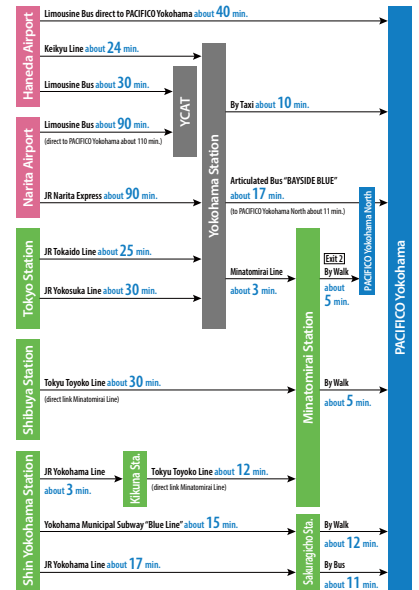
<https://www.pacifico.co.jp/english/access>



PACIFICO YOKOHAMA

ACCESS GUIDE

About 40 minutes by direct limousine bus from Haneda Airport
 Nearest stations: Minatomirai Line Minatomirai Station / JR Sakuragicho Station
 1-1-1 Minato Mirai, Nishi-ku, Yokohama 220-0012, Japan Tel: +81-45-221-2155 (General Information)
 *To PACIFICO Yokohama North: 1-1-2, Minato Mirai, Nishi-ku, Yokohama



Parking Lot Information

- P1 Minatomirai Public Parking Lot
- P2 Rinko Park Parking Lot
- P3 Bus / Large Vehicle Parking Lot
- P4 North Parking Lot

Wi-Fi Access

Free Wi-Fi access is available inside the venue.
 Select SSID: FREE-PACIFICO *Password is not necessary.

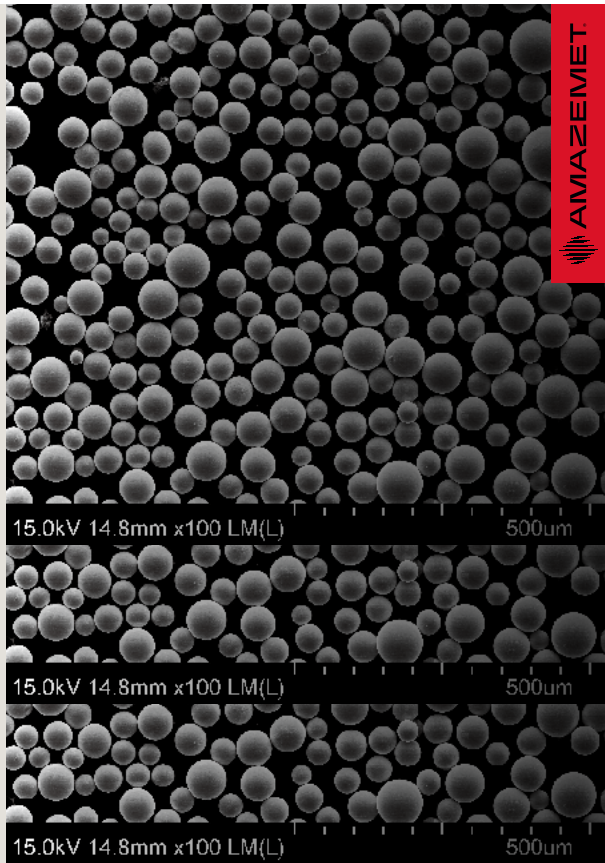
About Yokohama

Yokohama, is the first harbor city introduced to the world as the entrance to Japan. Since the time its port was opened, Yokohama has been vigorously acquiring new cultures and information from foreign countries and introducing to Japan our country's first-time-ever things from food to a wide range of cultures, which entitles Yokohama as the birthplace of Japan's modern culture. The Yokohama, referred to as "Hamakko" in Japanese, has been very cheerful at enjoying life and willing to adopt whatever is good. Such a tradition of the "Hamakkos" cultivated long ago has been incorporated into the present fashionable and sophisticated streetscape.

For more detailed information, please visit "Yokohama Official Visitors' Guide";
<https://www.yokohamajapan.com/about/>

Inquiries

WORLD PM2024 Secretariat
 c/o JTB Communication Design, Inc.
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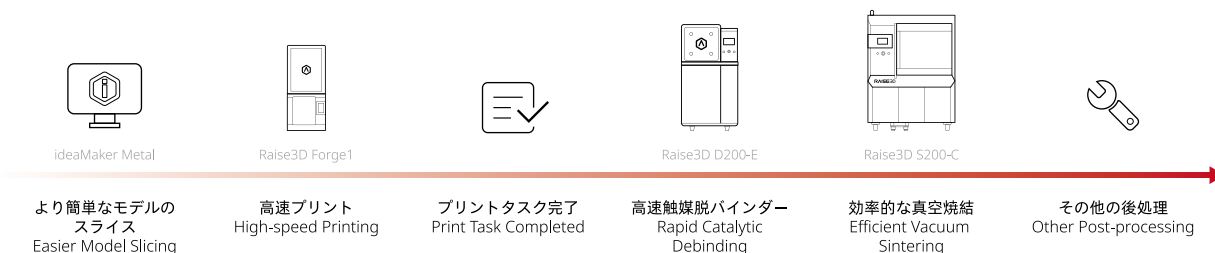


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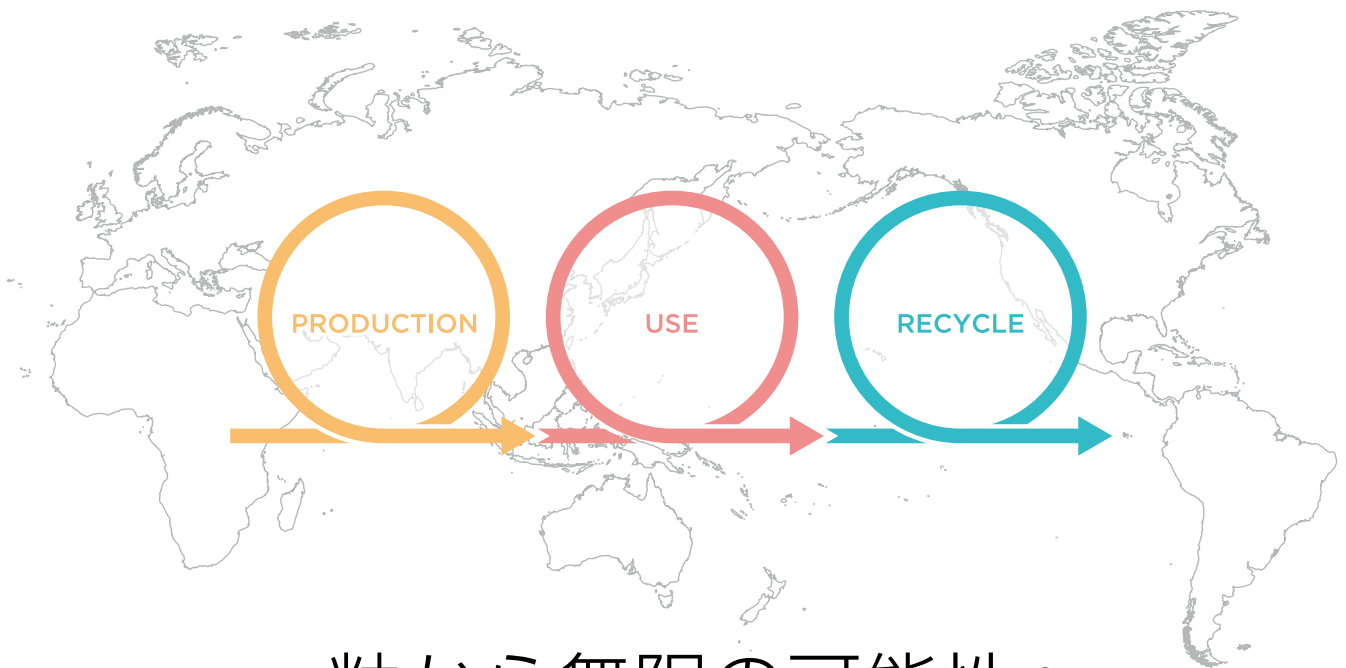
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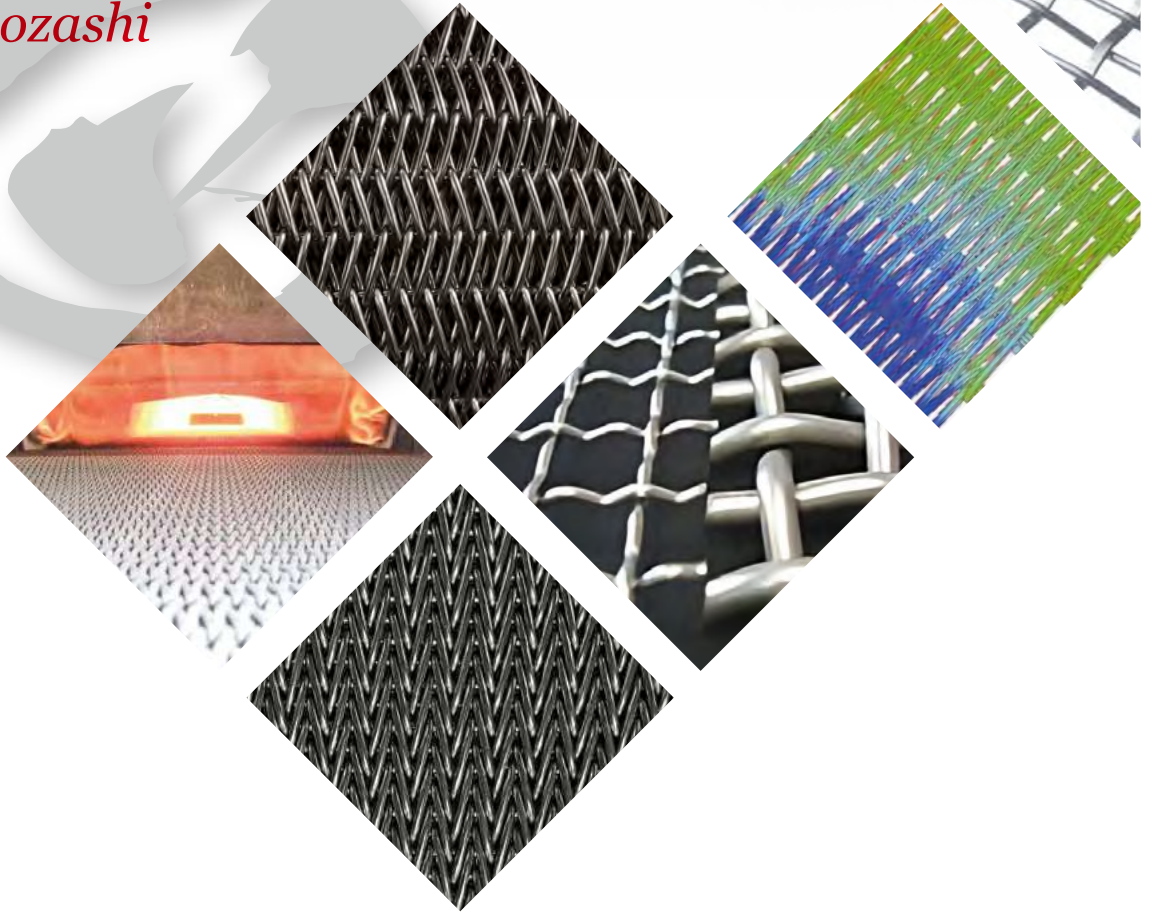
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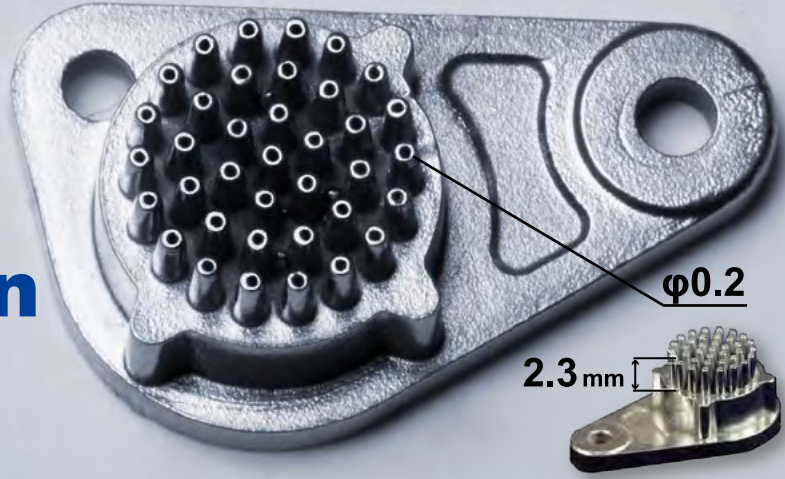
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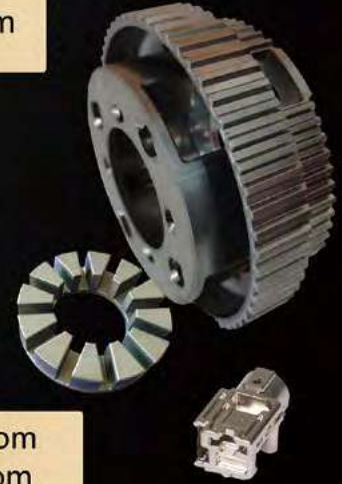
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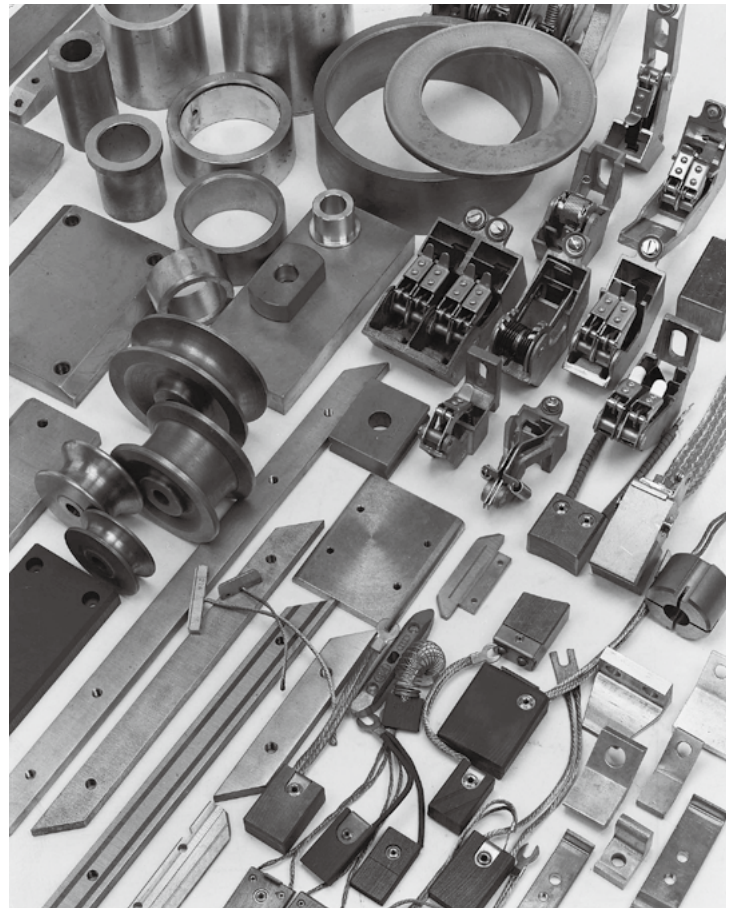
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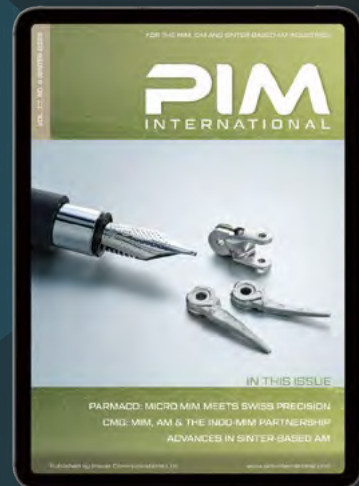
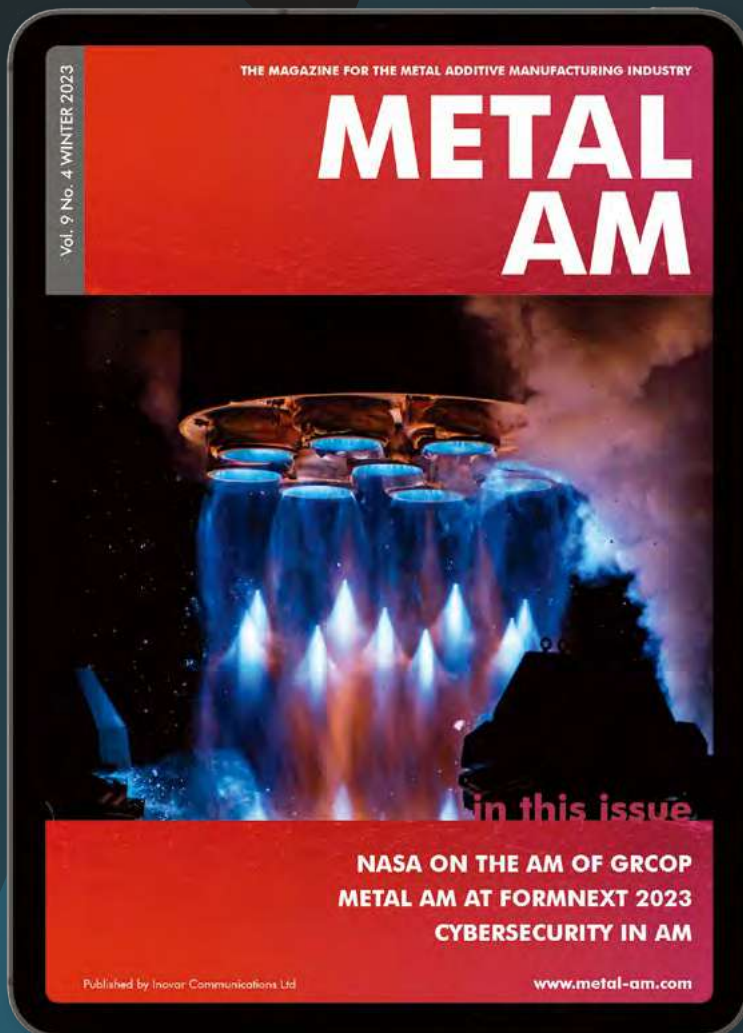
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