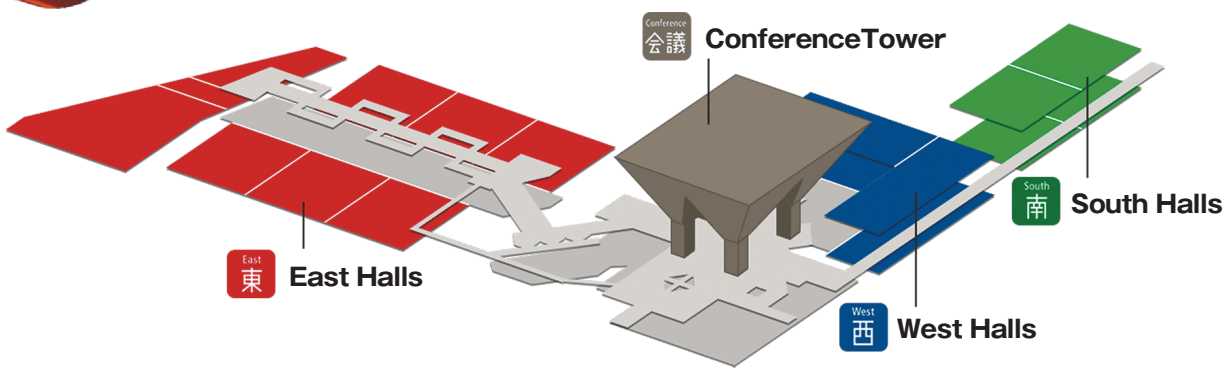
Official JIMTOF2024 The 32nd JAPAN INTERNATIONAL MACHINE TOOL FAIR

MAP & DAILY NEWS

11.7 THU
DAY 3
JIMTOF2024 Official



TOPIC

Check This Out!
~ Evolution of AI Use ~

AI is advancing, and its use is increasing across society, with developments also progressing in the manufacturing industry for AI-equipped machine tools and relevant systems. Similarly, JIMTOF features many proposals of AI-based products and technologies.

NAGASE INTEGREX is displaying AI-based ultra-precision machining that does not rely on experienced workers. It introduces an AI that recommends optimal combinations for machines, cutting tools, machining steps, and conditions tailored to the materials. The latest ultra-precision grinding machine models are equipped with AI, allowing for quality predictions based on various data collected during the machining process.

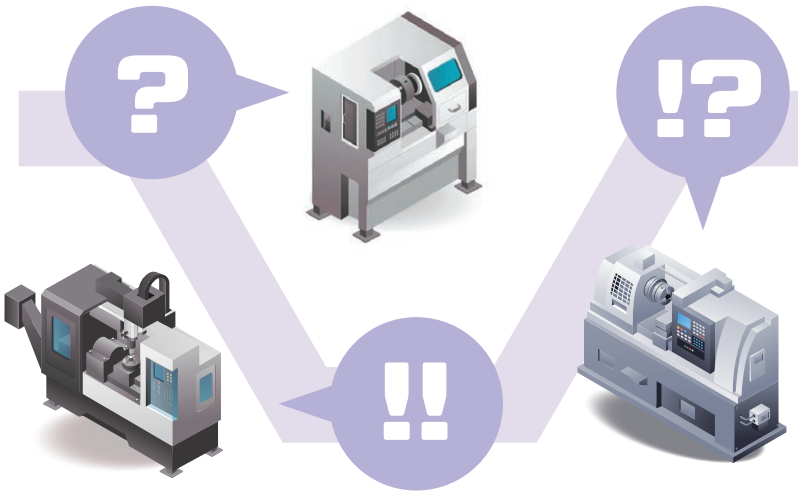
ENGLISH ver.
We deliver the latest content daily

User-friendly machine tools: design also evolving



Continue to P24

Look for it.



台北国際工作機械見本市 ufi Approved Event
TIMTOS
2025年3月3日(月)~8日(土)
台北南港第1、第2展示ホール (TaiNEX 1 & 2)
台北世界貿易センター第1展示ホール (TWTC Hall 1)
www.timtos.com.tw
30th MILESTONE EDITION
出展内容
■ 金属切削機械 ■ 金属成形機械 ■ 切削工具・ツーリング・アクセサリー ■ ワイヤー・チューブ・シート加工装置
■ レーザー加工設備 ■ 溶接・表面処理設備 ■ 検査・測定 ■ AI・制御系統&スマート・マニュファクチャリング
■ 部品・アクセサリー ■ 革新的応用とソリューション ■ ナショナル・パビリオン
主催者: TAITRA 台湾貿易センター TAMI 台湾機械工業同業公会

【Publishers】Japan Machine Tool Builders' Association (JMTBA) Tokyo Big Sight Inc. 【Editing】THE NIKKAN KOGYO SHIMBUN, LTD.

Floor Plan

- Restaurants
- JIMTOF Food Festival
- JIMTOF Café
- Rest Area
- Prayer Room
- Information
- Shuttle Bus
- Jumbo Taxi Touring the Venue

JIMTOF East

OPEN 10:00▸18:00
(Until 16:00 on the last day)

Precision measuring machines and instruments

Optical measuring instruments

Testing machinery

Controller and related software(CAD/CAM, etc.)

Other associated machinery and equipment

Metal cutting machine tools

Metal forming machine tools

Other associated machinery and equipment

Metal cutting machine tools

Other associated machinery and equipment

Controller and related software (CAD/CAM, etc.)

East Halls 1F

New East Halls

Galleria

Entrance Gate

Link Space

Entrance Gate Registration 1F

JIMTOF West & South

OPEN 9:00▸17:00
(Until 16:00 on the last day)

South Halls 4F

Gear and Gear devices

Oil hydraulic, Water hydraulic and pneumatic machinery

Grinding wheels and abrasives

Diamond, CBN tools

Machine tool accessories

Other associated machinery and equipment

Publication

West Halls 4F

Machine tool accessories

Tools for machines (Cutting tools & Wear-resistant tools)

Other associated machinery and equipment

South Halls 1F

Metal cutting machine tools

Entrance Gate

Registration

1F

Additive Manufacturing Area

Tools for machines (Cutting tools & Wear-resistant tools)

Tools for machines (Cutting tools & Wear-resistant tools)

Machine tool accessories

Machine tool accessories

West Halls 1F

Atrium

Entrance Gate

2F

ACADEMIC AREA

Special Exhibition
Machine Tool Infinity∞
Welcome to the World of Machine Tools, Carving Out Endless Possibilities

Career Matching Square

IMEC Poster Session

International Information Center

International Information Center

BoothNo.	Organizer Name
G0000	JMTBA
G0001	AMTIL
G0002	CMTBA
G0003	KOMMA/KOTORA
G0004	IMTMA
G0005	TMBA
G0006	TAMI
G0007	VDW
G0008	UCIMU
G0009	SST
G0010	SWISSMEM
G0011	MTA
G0012	FMMI
G0013	CECIMO
G0014	AMT

South Concourse

Registration

Entrance Gate

Entrance Gate Registration 2F

1F Reception hall

Conference Tower

North Concourse

7F International Conference Room

6F Conference Room 605-608

Rinkai Line Kokusai-Tenjijo Station

YURIKAMOME Tokyo Big Sight Station

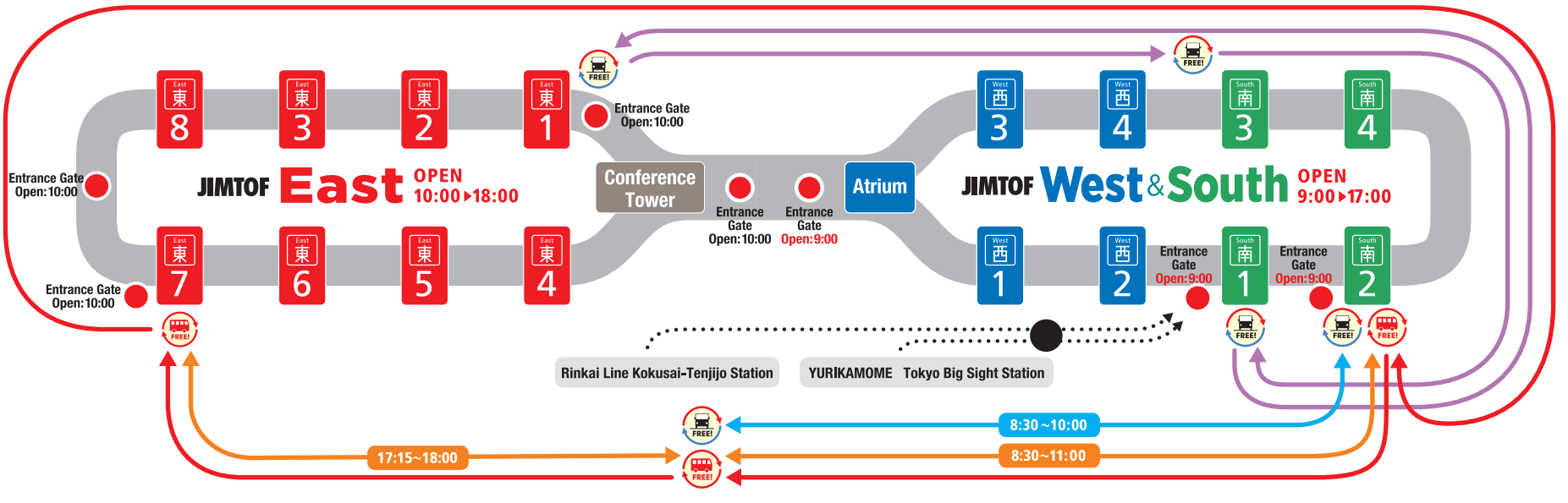
No Photography in halls

No Smoking on site
Please smoke in the predetermined smoking areas.

Route Map

Jumbo Taxi Touring the Venue 10:00~17:00

Shuttle Bus 11:00~17:15



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Taking On The Challenges Machine Tool Technologies and Software That Support Manufacturing ····· 32

Today's Program
November 7 (Thu.)

South 南 Additive Manufacturing Area　Organizers Main Stage

10:00 – 12:00

The latest status of social implementation of Japanese 3D printers Morning session

13:00 – 16:00

The latest status of social implementation of Japanese 3D printers Afternoon session





JIMTOF
MAP & DAILY NEWS
will be released daily during JIMTOF2024!
Back issues up to today are also available at Information.
Please note that numbers are limited.



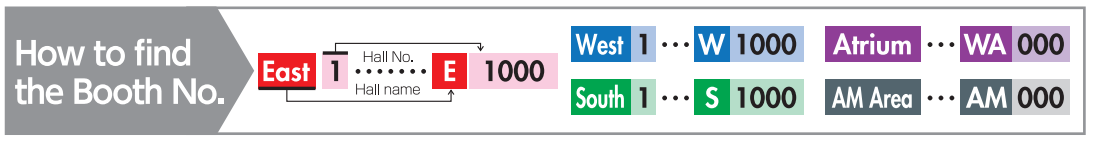




Day 4　Day 5　Day 6

South 南 / East 東 / West 西

Exhibitors List



A

W1042 A.L.M.T. Corp.
W4025 A.L.M.T. Corp.
E6023 ABICO R&D CO.,LTD.
E5052** ABSOLENT AB
W3079 ACCU-CUT INDUSTRIAL CO., LTD
E7090* ACO CO.,LTD.
E7090 ACO JAPAN.CO.,LTD.
E7062 ACS CO.,LTD.
W3065 Adachi Sogyo Co., Ltd.
E7133 Adcole LLC/Adcole Far East Co.,ltd
W1017 AFC Japan Corporation
E2008** Affolter Group SA
E1088* AGATHON AG
S3038 AHG PRECISION INDUSTRY LTD.
E4054 Ai solutions Co.,Ltd
E6028 Aichi Sangyo Co.,LTD
E1037* aichi welding
E2006* AirLoc Ltd.
E5040* Aitronix.Co.ltd
W2034 Akamatsu Electric Mfg.Co.,Ltd.
E7097 AKATSUKI MFG.CO.,LTD
E7089 AKIYAMA SEIKO CO.,LTD.
W1075** ALESA AG
E7080 ALFA MIRAGE Co.,LTD
E3003** Alfred H. Schütte GmbH & Co. KG
E1088* Alicona Imaging GmbH
E7111* Alicona Imaging GmbH
E1037 ALPHA LASER JAPAN CO., LTD.
E1080 ALPSTOOL CO., LTD.
W2009 ALPSTOOL CO., LTD.
E1072 AMADA CO.,LTD.
E7033 Amano Corporation
E7012 Ametek co.ltd
E4011 ANCA Machine Tools Japan
E7118 AnyDesign,INC
W1075** APPLITEC MOUTIER SA
E7092 AQUA CHEMICAL CO.,LTD
W4074 AQUA SYSTEM CO.,LTD
W4002 ARAI SHOKAI.CO.,LTD.
WA021 AREUSE Co.Ltd.
E1025* ARUM
W4061 ARYUNG MACHINERY IND. CO., LTD.
W2015 ASA Electronics Industry Co.,Ltd.
S3092 A-Safe K.K.
W4018 Asahi Diamond Industrial Co.,Ltd.
W3048 Asahi Shoko Co., Ltd.
W3003 ASAHI SHO-KO-SHA CO,LTD
E7149 ASANUMA GIKEN CO.,LTD
W4062 ASK CORPORATION
E1015 ASTEC Co., Ltd.
E7104 ATAGO CO.,LTD.
W4044 Atsuchi Tekko co.,LTD.
W3113* ATSUMI KOGYOU CORPORATION
E1055 Authentec Co., Ltd.
W3100 AUTOCAM TECHNOLOGY CO., LTD.
E5009 Autodesk Inc.
S3034 AUTOGRIP MACHINERY CO., LTD.
E7009 AWA SPINDLE CO.,LTD.
S3085 AXELENT JAPAN KK
WA019 Ayabo Corporation
W4078* Azbil Corporation
W4078 Azbil TA Co.,Ltd
S3077 AZUMANEJI CO.,LTD.

B

S3063 B AND K CO LTD
W2041 B.C TECH co.,LTD
S3007 BAOTN INTELLIGENT LUBRICATION TECHNOLOGY (DONGGUAN) CO.,LTD
E5019 Beckhoff Automation K.K.
W4038 Beijing Grish Hitech Co., Ltd.
E4001 Beiping Machine (Zhejiang) Co Ltd
S3090 BEISIT ELECTRIC TECH (HANGZHOU) CO., LTD
W3113* BELLBLUE
W3062 BICTOOL JAPAN CO., LTD.
W2049 BIG DAISHOWA SEIKI CO.,LTD.
E6027 Blaser Swisslube Japan Co., Ltd.
E1067 BLESS INC.
E1089* Blohm Jung GmbH
E5052** BLUE PHOTON Technology & Workholding Systems LLC
E1019 Blue Star R&D Co.,Ltd.
E7132 Blum-Novotest K.K
W1066** botek Präzisionsbohrtechnik GmbH
E6010 bp Japan K.K.
W4059 Brinkmann Pumps, K.H. Brinkmann GmbH & Co KG
E5045 Broadleaf Co., Ltd.
E6044 Brother Industries, Ltd.
E7111* Bruker Japan K.K.
W1051 BTT.co.,LTD
E2049** BUFFOLI TRANSFER S.p.A.
W3097 BUNRI Inc.
E1073 Bystronic Japan, Ltd.

C

E4048 C&G SYSTEMS INC.
E7047 CADDi inc.
W4055 Camel Precision Co., Ltd.
S3050 Campower International Precision Machinery Co., Ltd
E5031 CAMTUS INC.
E3004 Captain Industries, inc.
W3022 Carmex Precision Tools LTD
E2008* Cary SA
W1076 CemeCon K.K.
W3113 Central Japan Parts Processing Assoceiation
W1005 CERATIZIT Japan Corporation
E1065 cgkcorporation
E5042 CGTech
W4083-8 CHAIN HEADWAY CO., LTD.
E7115 Champ Casting Industry Co., Ltd.
W3076 CHAMPDIA Co., Ltd
E7137 Changchun Rongde Optics Co.,Ltd.
W3007 Changzhou North Carbide Tool Co.,Ltd
E6040 CHANGZHOU SHUANGYANG TOOLS CO LTD
E1016 Chemic Co., Ltd.
S3002 Chen Ying Oil Machine Co., Ltd.
W4083-6 CHENG FENG CASTING FACTORY CO., LTD.
W2065* Chengdu Kilowood and CLT Co.,Ltd.
W3068 Chengdu Metcera Advanced Materials Co., Ltd
E3007 CHIA LERN CO., LTD.
S3036 CHIAO FONG MACHINERY CO.,LTD.
E4003-3 CHIEN WEI PRECISE TECHNOLOGY CO., LTD.
E2047 CHIN HUNG MACHINERY CO.,LTD
E3038 China Chamber of Commerce for Import and Export of Machinery and Electronic Products
W3082 CHINA TAIZHOU SHAOSHI TOOLS CO.,LTD
E4032 CHING TAI COG MACHINE CO., LTD.
W3047 CHN-TOP SCI & TECH CO.,LTD
W1062 ChuangXin Japan Co.,Ltd.
W1050 CHUKYO CO.,LTD.
E4014 CHUNG PU LASER Co.,LTD.
E7077 CHUO PRECISION INDUSTRIAL CO.,LTD.
E5021** Cimple Technology Inc.
W1032 CIMSOURCE Japan Co., Ltd.
E5034 CITIZEN MACHINERY CO., LTD.
E2024 CKB Corporation
E7022 CKB Corporation
W4052 CKD CORPORATION
W3083 Clavis Japan Corporation
W1034** Co.,Ltd QMC
E4031 Cogentech International Ltd.
E7088 Cognex K.K
W1078 Cominix Co.,Ltd.
E4021 Comnet Co., Ltd.
E5022 Computer Engineering & Consulting Ltd.
S3005** Conprofe Technology Group Co., Ltd.
S3046 COOL TECH LTD.
E7075 CORETECH Co.,LTD.
W3086 CORTOOL MANUFACTURING GROUP
E3016 COSEN MECHATRONICS CO., LTD
W4005 Cosmotech Co., Ltd.
W2059 COYO CORPORATION
W4003 create engineering corporation
W3025 Cresstech Corporation
E2008* Crevoisier SA
S3087 CSA GROUP JAPAN LTD
S3012 CSC BEARING CO LTD
W1033 CY CARBIDE JAPAN CO.,LTD.
W3046 Cyber RC Co.,Ltd.

D

W3017 Da Shiang Automation Industrial Co., Ltd
W3050 daido kogyo kaisha
E7017 DAI-ICH SOKUHAN WORKS CO.
WA015 DAIICHISANGYO CO., LTD
W4058 DAIKIN INDUSTRIES, LTD.
E6043 DAINICHI KINZOKU KOGYO CO.,LTD
E6029* Daisei Co.,Ltd.
W4037 Daiwa Rabin Co., Ltd.
S3015 DAIYA SEIKI Co., Ltd.
E4056 Data Design Co., Ltd.
S3090* DENKA ELECTRON
W4083-14 Derstrong Enterprise Co., Ltd.
W4004 deta International
W3103 detron Machine Co., Ltd.
WA025 DEUBLIN JAPAN
W3027 DHF Precision Tool Co., Ltd.
S3049 DI CHUN IRON WORK CO., LTD.
W4083-5 DI KU DIAMOND ENTERPRISES CO., LTD.
E7003 DIATEST JAPAN LTD
W1072* DIAVAC LIMITED
W1043 DIJET INDUSTRIAL CO., LTD
WA006* DINE.INC
W1066** DIXI Polytool S.A.
W3060 DKSH Market Expansion Services Japan K.K.
E4009* DKSH Market Expansion Services Japan K.K.
E8004 DMG MORI Precision Boring Co.,LTD.
E8001 DMGMORI CO.,LTD.
W1072* DONG SUNG LASER CO.,LTD.
E6031 DONG YING HYSEN WATER PROCESSING TECHNOLOGY CO.,LTD
W3014 DONGGUAN MING ZE HARDWARE MACHINETY CO., LTD.
W3008 DONGGUAN ZHONGJI RONGYAO METAL CUTTING TOOLS CO.,LTD
E2003* Dontyne Systems Limited
E5029* DP Technology Japan
W3101 DTR CORPORATION
W2006 DURIMITEC Co. Ltd
E1033 DURMAZLAR MAKINA SAN VE TIC A.S
WA001 DYC Co., Ltd.
E5052 Dynamic Tools Corporation

E

E2006* e+a Elektromaschinen und Antriebe AG
E3009 EASTERN TECHNICS Corp.
E1084 EBA KOGYO CO.,LTD
W4083-11 ECHAINTOOL PRECISION CO., LTD.
E5041 Edgecross consortium
E6042 EGURO,LTD.
W3002 EIKO ELECTRIC INDUSTRIAL CO.,LTD.
W1003 EIKOSHA CO.,LTD.
E7106 EISEN CO., LTD.
E7038 Eishin International Co.,LTD.
S3019 Eishin Techno Co.,Ltd.
E3029 Elenix Corporation
E7075* ELGOJAPAN
W1068 EMUGE FRANKEN K.K.
E4007 ENEOS Corporation
E3040* ENSHU INDUSTRIAL Co.,Ltd
E3040 ENSHU Limited.
E2033* EPLAN
E1035 E-PLAN Co.,Ltd
E2024* Ernst GROB AG
E6005 EROWA NIPPON LTD.
E2006 Esco S.A.
E5038 Essor Precision Machinery Inc.
W3009 EST TOOLS CO.,LTD
E7060 EUCHNER Co.,Ltd.
E1025** Eureka Robotics, Co., Ltd.
E1088 EUROTECHNO Inc.
E7111 EUROTECHNO Inc.
W1049* Everloy Shoji Co., Ltd.
S3003 EVER-ON CORPORATION
E7074 EVIDENT Corporation
E1089* EWAG | Fritz Studer AG EWAG Zweigniederlassung
S3064 EXACT MACHINERY CO LTD
E4037 Exstream Corp.

F

W1010 F.P.TOOLS CO.,LTD
E1062 FABACE Co.,Ltd.
E7041 Fact Base
E5006 FACT Co., Ltd
E7008 Fagor Automation Japan K.K.
S2001 FANUC CORPORATION
E7119 FARO Japan, Inc.
E4010* FAST CORPORATION
E5052** FILTERMIST INTERNATIONAL LTD.
E6032 FIRST GIKEN CO.,LTD.
W2004 FIRSTEC CORPORATION
E1066 Fladder Danmark A/S
E6045 Flow Japan Corporation
E5047 FNS Co.,Ltd.
W3026 Fodbits (Weihai) Precision Technology Co., Ltd.
E4020 Foshan Huibaisheng Laser Technology Co Ltd
E5052** Franz KESSLER GmbH
E1061 FREEBEAR CORPORATION
E1089* Fritz Studer AG
W4030 FSK Inc.
E8002 FUCHS JAPAN LTD.
E7040 Fuji AI Precision Co., Ltd.
W1070 FUJI BC ENGINEERING CO., LTD.
E6021 FUJI CORPORATION
W1047 Fuji Die Co.,Ltd
E1002 Fuji Honing Industrial Co., Ltd.
W4010 Fuji Industries Co .,LTD.
E7142 Fuji Manufacturing Co.,Ltd.
E3031 FUJI SANGYO CO., LTD.
E1032 fuji shoji
E7020 FUJI TOOL Co., LTD.
E4012 FUJI-DENSHI
W3056 FUJIGEN KOGYO CO.,LTD.
E7141 FUJIKIHAN CO.,LTD.
E1071 FUJIKIKO Co.,Ltd.
E1007 FUJIMOTOYUKA
W1019 FUJISEIKO LIMITED
E6001 Fukuda Corporation
W3049 FUKUDA SEIKO CO.,LTD.
E1017 FUNASAW CO.,LTD
W4016 FUNIK ULTRAHARD MATERIAL CO.,LTD.
W4048 Fuqing Rihon Abrasives Co Ltd
W4028 Fuqing RongMa Grinding Wheel Co, Ltd
WA029 FURUKAWASEIKI CO.,LTD
W2043 futamura machines & tools co.,ltd.

G

W3058 Ganzhou Grandsea Cemented Carbide Co.,Ltd
E3042* GAZIRU, Inc.
E2024* Gehring Technologies GmbH + Co. KG
W3042 GEMtool Co., Ltd.
E5021 GENETEC CORPORATION
E4053 GENIO Solutions co.,ltd.
W3111** Georg Schlegel GmbH & Co. KG
W3115 German Tech Precision Manufacturing Co., Ltd
E2002 GF Machining Solutions
E2024* GFU Maschinenbau GmbH
S3054 GIFU ENTERPRISE CO.,LTD
W3113* GIFUPURO CORPORATION
S3001 GIZIN INTERNATIONAL CO., LTD.
E6008 Gleason Asia Co., LTD.
W4001 GLOBAL DIAMOND CO.,LTD.
S3033 GLOBAL PARTS CORP.
E1025* G-NET CORPORATION
E7055 GODO SOLUTION
W1009 GOLDEN EGRET CARBIDE JAPAN CO., LTD.
S3053 GONG YANG MACHINERY CO., LTD
E3003 GOSHO Co., Ltd.
E7046 GRAVOTECH K.K.
S3069 Green Plus Co., Ltd.
W1045 GREENTOOL CO.,LTD.
E6037 Grind Master Machines Pvt. Ltd.
E4003-2 GRINTIMATE PRECISION INDUSTRY CO., LTD.
E4006 GROB Japan K.K.
E5026 Grundfos Pumps K.K.
S3048 GSA TECHNOLOGY CO., LTD.
S3052 G-TEN Precision Co.,Ltd.
S3100 Guangdong Autofor Precision Intelligent Technology Corporation Co.,Ltd
W3072 GuangDong DaoFu Precision Technology Co Ltd
S3023 Guangdong Hippsc Technology Co Ltd
W3078 GUANGDONG HUASHENG NANOTECHNOLOGY CO LTD
E6015 Guangdong Ligong Technology International Co., Ltd.
E1064 Guangdong Longxin Laser Intelligent Equipment Co., Ltd
W1016 Guhring Japan Co.,Ltd.
E7135 Guilin Gemred Sensor Technology Co., Ltd
E2040 GUNKYO,INC.
W3020 Guohong Tools System (Wuxi) Co.,Ltd.
E1012 Gutenberg.co.ltd
E4024 GWEIKE TECH CO LTD

H

E2009** Haas Factory Outlet Japan
W3088 HABOR PRECISION INC.
E5027 HAIMER JAPAN K.K.
E2035 HAINBUCH Japan K.K.
E4038 HAKUSANKIKO Co.,Ltd.
E3026 HAMAI CO.,LTD
E4003-5 HAN JIE MACHINERY CO., LTD.
E7101 Hangzhou Deepvision Technology Co, Ltd.
E1011 Hann Kuen Machinery & Hardware Co., Ltd.
W2003 HANSUNG GT Co.,Ltd
E5052** Hantop Intelligence Tech.
E7096 Hanyang Filters and Engineering Corp.
E7150 Harbin Pioneer M&E Technical Development Co., Ltd
E2008** Hardinge Kellenberger AG
E4037** Hardinge Kellenberger AG
E7069 HARTING K.K.
E5014* HARU Technique Laboratory Inc.
E1044 HASEGAWA MACHINE WORKS LTD
S3042 HATSUTA SEISAKUSHO CO., LTD.
E5025 HAWE Japan Ltd.
S3079 HAYAMI MACHINE TOOL CO.,LTD.
E4008 heian corporation
E1069 HEICO
E7123 HEIDENHAIN K.K.
E1006 Heiwa Technica Co., Ltd.
W4017 HENAN BELLO NEW MATERIAL CO., LTD
W3010 Henan CA-Diamond Material CO.,LTD.
W3077 Henan E-Grind Abrasives Co Ltd
W3052 Henan Lerui Powerise Tools Co., Ltd.
W4028* HENAN XINYUAN SUPERHARD MATERIAL CO LTD
S3094 Henan Yuxing Carbon Material Co.,Ltd.
W4083-16 HER BERT ENTERPRISE CO., LTD.
E7116 Hexagon Metrology K.K.
W3023 HeYe Special Steel Co.,Ltd
W3033 HG TECHNOLOGY CO., LTD.
W3055 HICUT CO .,LTD.
E2006* Hikari Trading Co.,LTD.
E4034** HiPA Photoics Japan
E7067 HIRAOKA HYPER TOOLS, INC.
E1030 HIROCHIKU CO.,LTD.
E7138 Hirox Co.,Ltd.
W2014 Hishiko Corporation
E2009** HI-TAK CO.,LTD
W2051 HIWIN CORPORATION
E7126 HME Co., ltd.
W1075** Hommel+Keller Prazisionswerkzeuge GmbH
W1002 Honda Plus Co., Ltd.
E1026 Honma Precision Metalworking Co.,Ltd.
W3036 HONSBERG METALLSAEGEN GMBH
W2025* HORIKOSHI
E1036 Horitec Co.,Ltd.
E4049 HORKOS CORP
W1065 HORN, Paul Horn GmbH
W3090 HOSEA PRECISION CO., LTD.
E5032* HOUGHTON JAPAN CO., LTD.
E4043 HOWA MACHINERY,LTD.
E1068 HSG LASER CO.,LTD.
E5048 HTT Tiefbohrtechnik GmbH
W3030 HUNAN BOYUN-DONGFANG POWDER METALLURGY CO.,LTD
W4083-2 HWE DER MACHINERY AND HARDWARE PTY LTD.
W4067 HYDAC CO.,LTD.

I

W1066** IBAG Switzerland AG
E2023 ibaraki grinding wheel
W4036 ICHIGUCHI corporation
W3111** icotek GmbH &Co.KG
W4008 IDEC CORPORATION
W4063 idemitsu kosan company ltd
E7058 ifm efector co., ltd.
E3005 igus k.k.
WA002* IHI Bernex AG
WA002 IHI Corporation
WA002* IHI Hauzer Techno Coating B.V.
WA002* IHI Machinery and Furnace Co., Ltd.
E4050 IKEGAI Corporation
W4083-10 IKEHARA CO., LTD.
E1076 IKURASEIKI CO.,LTD.
W3084 IL JIN TOOL TECH CO.,LTD
W4009 ILJIN JAPAN Co.,Ltd
E1085 IMAHASHI MFG. CO.,LTD
W2002 IMAO CORPORATION
E2008* IMM Maschinenbau GmbH
E5007 IMPROBE Co., Ltd
S3026 INCOM Company LTD.
W3044 INCOS INC
E2008* INDEX-Werke GmbH & Co. KG Hahn & Tessky
W3041 IND-SPHINX PRECISION LTD. (Unit-B)
S3028 industria Co.,Ltd.
S3055 INNGRIT INC.
W2065 INNOTECH CO.,LTD
E7083 Innovalia Metrology
W3045 INPLUS Co.,Ltd
E5046 Integra Research Co. Ltd.,
W4019 INTERNATIONAL DIAMOND INC.
E1051 IRINOKIKO Co., Ltd.
E1089* Irpd AG
E7144 Isamu Paint Co., Ltd
E5017 ISBE GmbH
W1044 ISCAR JAPAN LTD.
E2014 ISHII HYOKI Co.,LTD.
E5032* ISHIKAWA Tool Grind Co.,Ltd.
E1034 Itaca Japan Inc.
E6006 ITOCHU MACHINE-TECHNOS CORP.
E5018 ITOCHU Techno-Solutions Corporation
E7082 itp Co., Ltd.
E1054 IWAMA Co., Ltd.
S3058 Iwamoto Kogyo Co.,Ltd.
E6012 IWASHITA INDUSTRIAL CO.,LTD.
WA014 IWATA SAW MFG CO.,LTD.
W1034** IWATA TOOL (THAILAND) CO., LTD.
W1034 IWATA TOOL Co.,Ltd.
WA026 IZUMI CORPORATION
WA032 IZUMI SANGYO CO.,LTD.
W1067 IZUSHI AND CO., LTD

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W2018 JAPAN AUTOMATIC MACHINE CO., LTD.
W1031 Japan Coating Center Co., Ltd
E1017** Japan Cutting Laboratory Co.,Ltd
E7001 JAPAN GAUGE CO., LTD.
S3011 japan industrial publishing co.,ltd
S3060 Japan Machine Tools Distributors Association
E7013 Japan Precision Measuring Instruments Manufacturers Association
E4045 Japan speed shore
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E5028 JBM Engineering Corporation
S3095 JCM JAPAN CO.,ltd.
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W3092 JFLO MACHINE TOOL ACCESSORIES
W3096 Jiachen Precision Co., Ltd.
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E6047 Jiangsu Weize Intelligent Technology Co.,Ltd.
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W3065* JIN LI CHENG CUTTINGTOOL Co., Ltd.
E4028 Jinan Bodor CNC Machine Co Ltd
W3099 JINAN XINLEI PRECISION MACHINERY CO LTD
E6009 JINN FA MACHINE INDUSTRIAL CO., LTD.
E5051 JIUH-YEH PRECISION MACHINERY CO., LTD.
E4003-1 JOEN LIH MACHINERY CO., LTD.
S3078 JOHNAN Corporation
E7048 JOHOKU CHEMICAL CO.,LTD
E6046 JSK CO.,LTD.
E3015 JTEKT CORPORATION
W4014 JTEKT GRINDING TOOLS CORPORATION
E3014 JTEKT MACHINE SYSTEMS CORPORATION
W2047 JTEKT MACHINE SYSTEMS CORPORATION

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E7063 K.MECS Automation Inc.
E2009** K.T.System Co., Ltd.
W2032 KABUTO.MFG.CO.,LTD
E1046** KADIA Produktion GmbH + Co
E6030 Kagaku keiki kenkyusho inc
W4026 KAIFENG BESCO SUPERABRASIVES CO LTD
E2038 KAIOH&CO.,LTD.
W3016 KAMIYA SAW & KNIFE Mfg.Co.,Ltd.
W3102 KAMO SEIKO CORPORATION
W1046* Kamogawa Co., Ltd
E1025* KAN MANUFACTORY CO.,LTD.
E7072 Kan Mechanical Industry, Inc
W1024 KANEFUSA CORPORATION
AM103 Kanematsu KGK Corp.
W2030 KANETEC CO.,LTD.
W1052 KANEX HAMONO KOGYO CO.,LTD
E2010 KANTO BUSSAN CO.,LTD
W2062 KANTO SEIKI Co.,LTD
E3023 KANZAKI KOKYUKOKI MFG.CO.,LTD.
E2022 Karats Precision, Inc.
E7143 KÄRCHER (JAPAN) CO.,LTD.
E3022 KASHIFUJI WORKS, LTD.
W2016 KATO MFG.CO.,LTD
W4072 Kawamoto Pump Mfg. Co., Ltd.
E5035 Kawasaki Technology Co., Ltd.
W2061 kawata chuck mfg. co., ltd
W2060 KAWATATEC CORP.
S3106 KEIHIN RAMTECH Co., Ltd.
W2040 Keijikousan Co.,Ltd.
E3003** Kelch GmbH
E2007* KEN AUTOMATION,INC.
W1023 Kennametal Japan Ltd.
E1014 Kensakukenma Co., Ltd.
W3054 Kexian Precision Tools (Zhejiang) Co.,Ltd.
W3093 KEYARROW (TAIWAN) CO., LTD.
E7059 keyence corporation
W1048 KFcarbidejapan
W4065 King Shang Yuan Machinery Co., LTD
E7028 Kintsune Seiki Co.,Ltd
E1052 KIRA CORPORATION
S3029 kirishima.co.ltd
S3061 KISOH CORPORATION
E5016 KISTEM Co.,Ltd
E7004 Kistler Japan G.K.
W2011 Kitagawa Corporation
E1083 KITAISANGYO CO,LTD
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E4044 KITAMURA MACHINERY CO.,LTD.
WA020 KITAOKA Industrial, Inc.
S3098 KITO CORPORATION
S3018 KITOSEIKISEISAKUSHO CO.,LTD.
E5014 KIWA MACHINERY CO.,LTD.
E1081 KLINGELNBERG Japan ltd.
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W3073 KOBAYASHI DIA,Ltd.
W2013 kobayashi iron works co.,ltd
W1071 Kobe Steel, Ltd.
E5015 Kodama Corporation, Ltd.
W4081 KOHARA GEAR INDUSTRY CO., LTD.
W3015 Kohsei Co.,Ltd.
E7014 KOMATANI GAUGE Co.,Ltd.
S3058* Komatsu Koki Co., Ltd.
E5012 Komatsu NTC Ltd.
E1056 Komori Safety Device Laboratory Co.,LTD
E3025 KONDO MACHINE WORKS CO.,LTD
E1050 Kondo Seisakusho Co.,Ltd.
WA011 KONITECH INC.
E7078 Kosaka Laboratory Ltd.
W2024 KOSMEK LTD.
W3098 KOWA EMTECH CO.,LTD.
E4027 KOWA MACHINERY CO.,LTD.
E1058 koyogiken Ink.
E6020 KREUZ Co.,Ltd.
S3009 Kunshan Omatei Mechanical And Electrical Equipment Co., Ltd.
W4039 KURE GRINDING WHEEL CO.,LTD.
E2001 Kuroda Precision Industries Ltd.
W1014 KYOCERA Corporation
E7086 KYOEI ELECTRIC Co.,Ltd
W1079 Kyoni Co., Ltd.
W1049 Kyoritsu Gokin Co., Ltd.
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W3108 KYOUIKU GEAR MFG.CO.,LTD.
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W1018 kyowa co.,ltd
W2046 KYUSHU KOGU CO.,LTD.

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E4030 Laser Technical Service Co.,LTD
S3074 LAUREL BANK MACHINES CO.,LTD.
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E5052** LESTOPREX AG.
W3069 Liaocheng Super New Material Co., Ltd
E4040 Liebherr-Verzahntechnik GmbH
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E7099* Linnenbrink Technik Warburg Maschinenbau GmbH
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E2045 LNS Management SA
W1066** LOADPOINT LTD.
E5052** LOCKWOOD PRODUCTS, INC.
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S3024 Luoyang Hongyuan Bearing Technology Co Ltd
W4049 LUOYANG RUNBAO SUPER ABRASIVES CO.,LTD

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E2008* Mägerle AG Maschinenfabrik
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E7011 Mahr Japan Co., Ltd.
W3113* MAKI FACTORY
E3034 MAKINO MILLING MACHINE CO.,LTD.
E1049 Makino Seiki Co.,Ltd.
W1028 MAKOTOLOY Co.,Ltd
E1020 Mamezou Co., Ltd
W1046 MANYO TOOLS CO., LTD.
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E7107 MARPOSS K.K.
W3111 Marubeni Ele-Next Co.,Ltd.
E7085 Marubeni Information Systems.co.,Ltd
E1082 MARUEI MACHINE WORKS CO., LTD.
E7020* MARUI TECHNO CO., LTD.
WA016 MARUICHI CUTTING TOOLS CO.,LTD
E1025 MARUKA FURUSATO CORPORATION
W3113* Marusyo Seiko
E7052 Masterlink
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E1042 MATSUDASEIKI.,LTD.
W4071 MATSUI Corporation
E3039 MATSUMOTO KIKAI Co., Ltd
W2055 MATSUMOTO MACHINE CO.,LTD
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W1006 MATSUOKA CUTTER MFG.CO.,LTD
E3019 Matsuura Machinery Corporation
E1027 Maxphotonics Co.,Ltd.
E4023 MCK Co.,Ltd
E1001 MECTRONINC.
S3080 Meiko industry Co., Ltd
W3113* MEINAN MACHINERY WORKS
W3075 Meister Incorporated
S3089 Mena Works Co.,Ltd.
S3099 METALEX 2024
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E7120 Metrotec Corporation
S3068* micro-AMS Inc.
E5052** MicroCentric Corporation
S3065 MicroLab Precision Technology Co., Ltd.
E1003 MICRON MACHINERY CO., LTD.
W2010 MIKI PULLEY CO., LTD
E4009 Mikron Switzerland AG, Agno
E6014 MINAMIDA CO., LTD.
S3031 MinebeaMitsumi Inc.
S3081 MING TAI MACHINERY INDUSTRIAL CO., LTD.
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E4052 MIROKU Machine Tool,INC.
E7105 MITAKA KOHKI CO., LTD.
E7013* MITAKASEIKO CO., LTD.
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S2002 Mitsubishi Electric Coporation
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W2056 Mitsuboshi Kogyo Co.,Ltd.
E7042 MITSUBOSHI MFG,CO.,LTD.
E6024 MITSUHATA MACHINERY CO.,LTD
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S3096* MITSUI & CO. MACHINE TECH LTD.
E2042 Mitsui High-tec, Inc.
WA022 Mitsui Kokuin
E3033 MITSUI SEIKI KOGYO CO.,LTD.
W4040 MITSUIGRINDING WHEEL Co.,LTD.
S3076 mitsuya industry Inc.
E7131 Mitutoyo Corporation
WA034 miyakawaindustry.co.,ltd
W4050 MIZUHO Co.,Ltd
W1029 Mizuho Industries Co., Ltd.
E6035 ModuleWorks GmbH
S3010 Mold Newspaper
W1059 MOLDINO Tool Engineering, Ltd.
S3037 Mongtec Precision Inc.
S3045 Monodukuri Review Co.,Ltd.
S3017 MORI MACHINERY CORPORATION
W3113* Morihagurumaseisakusyo
E7068 MORSON JAPAN Co., Ltd.
E7087 MOTHERTOOL CO.,LTD.
W2038 MST Corporation
W1066 MURAKI LTD.
E6019 MURATA MACHINERY, LTD.
E6019* Murata Tool, Ltd.
E6019* Muratec C.C.S., Ltd.
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E6046* MVM s.r.l.
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W1055 NACHI Tool Engineering Co.,Ltd.
E4033 NACHI-FUJIKOSHI CORP.
W1056 NACHI-FUJIKOSHI CORP.
E7021 NAGAHAMA SEISAKUSHO LTD.
E7013** NAGAI GAUGE MFG.CO., LTD.
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E5005 NAGASHIMA SEIKO CO., LTD.
E1046 Nagel Aoba Precision Co., Ltd.
W2023 Nakahara Chemical Products Industry co.,Ltd.
E7110 Nakamura Mfg. Co., Ltd.
E5033 Nakamura-Tome Precision Industry Co., Ltd.
E1063 NAKANIHON-RO KOGYO CO.,LTD.
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E5052** Nakanishi Jäger GmbH
E1024 Nakaseiki Co.,Ltd.
E7139 Nango Co.,Ltd.
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W4022 NANIWA TOISHI CO.,LTD.
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E7036 NATOCO Co.,Ltd
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S3075 NDK Inc.
S3041 NEOFLEX co.,Ltd
W1070** NEW SANKYO TOOL
W2035 NEW STRONG CO.,LTD.
W4032 NEWREGISTON Co.,Ltd.
S3027 News Digest Publishing Co., Ltd.
E7067* nextscience
E7146 Nichiko Equipment Co., Ltd.
E2031 NIDEC MACHINE TOOL CORPORATION
E2032 NIDEC OKK CORPORATION
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E3028 NIHON SEIKI CO., LTD.
WA031 NIHON SEIMITSU KIKAI KOSAKU Co.,Ltd.
E7051 Nihon Tsukuridas inc.
E5002 Nihon-ALSYS.Inc
E5011 NIIGATA MACHINE TECHNO CO.,LTD.
E7125 NIIGATA RIKEN SOKUHAN CO., LTD.
E7006 Niigata Seiki Co.,Ltd
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W2063 NIKKI TRADING CORP
E7099 NIKKO TECNO CO.,INC.
W2031* NIKKO-YPK SHOJI CO.,LTD
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W2027 Nippon Jabara Co., Ltd
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W3110 NISSEI CORPORATION
S3062 NISSHIN RUBBER CO.,LTD
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S3091 NOZUK.Ltd.
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W2026 NSK Ltd.
E5024 NSS co.,LTD
W2050 NT TOOL CORPORATION
W1027 NTK CUTTING TOOLS Co., Ltd
W2052 NTN Corporation
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W4043 NUNOME ELECTRIC CO.,LTD.

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E7112 OBISHIKEIKISEISAKUSHO
W1058 Oerlikon Japan Co., Ltd.
W3113* OFFICE KIITOS
W1036 OGASAWARA PRECISION LABORATORY CO. LTD
WA035 OHM ELECTRIC CO., LTD.
E1059 OHMINE INDUSTRY CO.,LTD
E3001 Ohmiya Machinery Co.,Ltd
E3008 Ohno Seiko Co.,Ltd.
S3022 OHNOSEIKI Ltd.
E6029 OHTORI KIKO CO.,LTD.
E7016 OJIYA SEIKI CO.,LTD.
S3014 OKADA INTELLIGENCE (JIANGSU) CO LTD
E2030 Okamoto Machine Tool Works,Ltd.
W3051 OKASUGI
W1060 OKAZAKI SEIKO CO., LTD.
W3035 OKE PRECISION CUTTING TOOLS CO LTD
S3101 Oki Electric Cable Co.,Ltd.
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E5054 O-M Ltd.
E1046* OMAT Co., Ltd.
WA005 Onwardgiken Co.,Ltd
E7013* OOKO SEIKI CO., LTD
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E5004 OPEN MIND Technologies japan
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E1075 Opton.Co.Ltd
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W4006 Osaka Seikan Co., Ltd.
W1066** OSBORN GmbH
E2025* OSG COATING SERVICE CO.,LTD.
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E7031 Otennlux Lighting Technology Co.,Ltd
E7103 OTSUKA OPTICS Co.,Ltd.
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W4073 PASCAL SYS&ENG. CO., LTD.
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E2048 PERFECT MACHINE CO., LTD.
E2025 PerformCoat Europe AG
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E7091 PETROPLAN CO. LTD.
E2027 physical photon
E7136 PhysixTechnologyInc
W2005 PIONEER TRADING COMPANY
E2008* PLATIT AG
E7050 Polytec Japan
E4037** Posalux S.A.
S3051 PRECISION MOTION INDUSTRIES
WA023 Precision Tool Makers Export Group,Ltd.
E1088** PRECITRAME MACHINES SA
E3042-5* Premier Engineering Co.,Ltd.
E3021 PRIORITY CO.,LTD
E2046* Profiroll Technologies GmbH
E3003** ProGrit GmbH
W3033* PROST CO.,LTD
E7079 Pulstec Industrial Co., Ltd.

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E5012* QUALICA Inc.
E2008* Quality Vision International Inc

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E3023* RAMPF Group Japan K.K
WA008 REGO-FIX JAPAN K.K.
W1008 REIHOU.CO.LTD
E2003 Reishauer KK
E1088* Rene Gerber AG
E7026 RENISHAW K.K.
W4033 RESITON CO., LTD.
W3059 RESMOTOOL CO., LTD.
E1021 R-GOT CO.,LTD
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W3081 RI HSIUNG PRECISION TECH CO., LTD.
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E2033 Rittal K.K.
W3112 RIX CORPORATION
E3003** Roeders GmbH
E2034 ROKU-ROKU SMART TECHNOLOGY CO.,LTD.
E2008* Rollomatic SA
WA024 Romheld Halder
E4003-6 RONG JHEN TECHNOLOGY CO., LTD
S3057 ROYAL PRECISION TOOLS CORPORATION
W1022 RYOCO SEIKI CO.,LTD

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E2049 S&F Inc.
E3017 S.Iab Inc.
E4036 SAEILO ASIANET, INC.
E4055 SAEILO JAPAN, Inc.
W4083-9 SAFEWAY MACHINERY INDUSTRY CORPORATION
S3084 Sagami Chemical Metal Co.,Ltd.
E6025 SAIDA UMS INC.
E7039 SaiSi Machine & Electric (Zhejiang) Co., Ltd
W1061 SAITO SEISAKUSHO CO.,LTD.
E7084 SAITOH KOUGAKU Co.,Ltd.
W4070 SAKAGAMI SEISAKUSHO LTD.
W3113* Sakaiseisakusyo
E5020 SAKURAI LTD.
W3074 SAKUSAKU CO.,Ltd.
S3039 Samchully Machinery Co., Ltd
E4022 SAMURAI SAW WORKS CO.,LTD
W1012 Sanalloy Industry Co., Ltd.
W1039 Sandvik K.K.(Dormer Pramet)
E7005 Sangen corporation
W4083-15 SANJET INTERNATIONAL CO., LTD.
E7035 SANKEI MANUFACTURING CO.,LTD.
WA033 Sanki-Technos Co., Ltd.
W4064 SANKO LIMITED
S3093 SANKYO REELS,INC.
W2057 Sankyo Seisakusho Co.
S3086 Sanmatsu Co.,Ltd.
E2007 Sanpo Seiki Co., Ltd.
E3042-6* Sansei Co.,Ltd.
E1039 SANSHIN
E7081 Santec Japan Corporation
W4079 SANWA ENTERPRISE COMPANY, LTD.
E1077 Sanwa Robotics Co.,Ltd.
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S3102 SANWACHEMICALCO.,LTD
E1004 SANWAKOUYU
W1037 SANWASEISAKUSYO CO.,LTD
E2019 Sanyo Machine Co., Ltd.
W2048 SANYO MFG.CO.,LTD.
E4037** Sarix S.A.
S3072 Satech Safety Technology Ltd
E4039 Sawairi Engineering Co.,Ltd
E1089* SCHAUDT MIKROSA
E7066 SCHMERSAL JAPAN K.K.
E2004 SCHUNK Intec K.K.
W2001 SDG Co., Ltd.
E3018 SEA FORCE CO.

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E2044	Seibu Electric & Machinery Co.,Ltd.
E7057	Seibu Shoko Co., Ltd
E6003	SeibuHitec
E2015	SEIJOKOGYO
E1087	Seiko Instruments Inc.
E4041	SEIWA G-TEC INC.
E4026	SENJO SEIKI CO.,LTD.
W4068	SEOAM MACHINERY INDUSTRY. CO.,LTD.
S3032	SGO CO., LTD.
E7071	SHAN DONG NANO ADVANCED MATERIALS TECHNOLOGY CO., LTD
S3013	SHANDONG OUNUOWEI NUMERICAL CONTROL TOOL CO.,LTD
W3106	Shandong Shanneng Precision Machniery Co., Ltd
W3019	Shanghai Hezuan Technology Co.LTD
W3053	Shareate Tools Ltd
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W3080	Shenyang Wemust Saws Industrial Corporation Ltd
S3030	Shenzhen Danfoo Technology Co., Ltd.
E1025**	Shenzhen Han's Robot Co., Ltd.
E4034	Shenzhen JPT Opto-Electronics Co Ltd
S3107	Shenzhen Q-mao Precision Technology Co., Ltd.
W3037	SHENZHEN YUBAO DIAMOND TOOLS CO.,LTD
E2043	SHIBAURA MACHINE CO., LTD.
E1074	SHIBUYA CORPORATION
E2021	SHIGIYA MACHINERY WORKS LTD.
E6026	SHIMADA MACHINE TOOL DRIVES CO., LTD
E4051	SHIN NIPPON KOKI CO.,LTD.
E7045	Shinano Kenshi Co., Ltd.
W4042	SHINANO KIHAN Co.,LTD
E7148	SHINING 3D Tech Co.,Ltd
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E1041	SHINKO MFG.CO.,LTD.
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E7055*	ShinMaywa Soft Technologies, Ltd.
S3020	SHIN-OH ELECTRIC CO.,LTD
W1063	SHINSEI CORPORATION
W4083-3	SHIN-YAIN INDUSTRIAL CO., LTD.
W1066**	SHIN-YAIN INDUSTRIAL CO., LTD.
E3027	SHIZUOKA MACHINE TOOL CO., LTD.
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W4082	Showa Corporation
W2012	SHOWA TOOL CO.,LTD
E7095	Showa-industory co.,ltd.
E5008	Siemens
W1019*	SIGA MACHINE TOOL Co.,LTD
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W3040*	SIMOTSU
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S3021	SKF Japan Ltd.
W4057	SMC Corporation
W2067	SMW-AUTOBLOK JAPAN INC.
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S3005	SofTool Manufacturing Co Ltd
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E7098	SOL Corporation
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W3001	STAR TOOL CO.,LTD.
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WA012	STO Co., Ltd.
W3004	Sugatsune Kogyo Co., Ltd.
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W4031	Sumflex Co.,Ltd.
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E3024	Sumitomo Heavy Industries Finetech, Ltd.
E3024*	Sumitomo Heavy Industries, Ltd.
W4077	Sumitomo Precision Products CO.,LTD.
E3010	SUN-YELL INTERNATIONAL CORPORATION
W4083-17	SUPER AIR COMPRESSOR TECHNOLOGY CO., LTD.
E5036	Suzhou Haller Intelligent Equipment Co.,Ltd.
W3091	Suzhou Huajiede Manufacturing Co Ltd
E6007	Swiss Technology Co., Ltd
E5052**	SwissChuck AG
E3032	SYNOVA JAPAN KK
E2002*	system 3R International AB
E2007*	System Engineering Co.

T

E7130	TACC Corporation
E7131*	TACC Corporation
W4021	TACS CORPORATION
E5030	TACTX Co.,Ltd.
W1027**	TaeguTec Ltd.
S3047	TAI CHONG CO., LTD
E5040*	Tainatec.co.Ltd
W4051	TAISEI KOGYO Co., Ltd.
E4003-9	Taiwan External Trade Development Council
W4083-18	Taiwan External Trade Development Council
E8003	TAIYO KOKI CO., LTD.
E3011	Taiyo-Kouki Co.,Ltd.
W1073	TAIYO-TOOL CO.,LTD.
E6041	TAIYU CO.,LTD
E6013	Taizhou Xiongfeng Machinery Co. ,ltd.
E7147	TAJIMA LIGHT METAL CO.,LTD
E1048	TAKAHASHI MACHINERY CO., LTD.
W3113*	TAKAHASHI SEIKI Co., Ltd.
WA013	TAKAHASHI TOOLS CO., LTD.
W4023	TAKAKURA KOHGYO CO.,LTD.
E6017	TAKAMATSU MACHINERY CO.,LTD.
E1040	Takashima Sangyo Co., Ltd.
S3043	TAKAYAMA TRADING CO.,LTD
E7053	TAKEBISHI CORPORATION
E2029	TAKEDA MACHINE TOOLS CO., LTD.
W2019	Takeuchi Precision Works Co.,Ltd.
W3113*	Takimoto Giken Industry Co., Ltd.
E3013	Takisawa Machine Tool Co., Ltd.
E7054	Takumi Engineering, inc.
WA010	TAKURAKOGUSEISAKUSYO
E5052**	TALLERAS MYL S.A.U.
E2016	TANIGAWA Co.,Ltd.
S3108	TANISHI
W3061	TANITEC CORPORATION
W4083-12	TANKO ENTERPRISE CO., LTD.
W1035	TANOI MFG.CO.,LTD.
W3006	Tarfilm Hi-tech Co., Ltd.
WA003	TATENO CO., LTD.
W1011	tatsuno sawing dr.co.,ltd.
E1046**	TBT Tiefbohrtechnik GmbH + Co
S3083	Tebiki, Inc.
WA009	TECH WAY ADVANCED MATERIALS CO.,LTD
W2064	Tech.yasuda CO,Ltd
W4080	Techno Dynamics Inc.
E5044	TECHNOA.INC
E4002	TechnoCoat Co., Ltd.
E5050	Techtrage Co.Ltd
E7114	TECLOCK Co.,Ltd.
W3028**	TEC-SPIRAL ENTERPRISES TOOLS CO., LTD.
W4047	TEIKEN Corporation
W2066	TEIKOKU CHUCK CO., LTD.
E6033	Telus Laser Co.,Ltd.
W4020	TENRYU SAW MFG. CO., LTD.
E4047	TERAL INC.
S3071	TE-SHIN Precision Technology CO., LTD.
S3097	TEZMAKSAN ROBOT VE OTOMASYON TEKNOLOJILERI SAN. TIC A.S
E7076	THANKO.inc
E7032	THE CREO CO.,LTD
S3059	THE KANKISANGYO SHIMBUNSHA
W3067	THE KIICHI TOOLS CO.,LTD
S3044	THE NIKKANKOGYOSHIMBUN,LTD
E3002	The SHODA Company
W4083-1	THETA PRECISION CO., LTD.
W2017	THK CO., LTD.
W1054*	three B
E7070	Three R Solution Corp.Japan
E4003-8	TIAN FENG HYDRAULIC CO., LTD.
W3106*	TIANGONG OSTTE (SHENZHEN) INDUSTRIAL TECHNOLOGY CO.,LTD
S3070	Tien Ding Industrial Co., LTD
S3004	TIM GROWING BEARING (ZHEJIANG) CO LTD
W4046	Tipton Corp.
S3035	TJR Precision Technology Co., Ltd
E3042-4*	TMW CO.,LTD
E2036	TMW CO.,LTD.
W3063	TnC SHARK Co.,LTD
E7013**	TOA PRECISION MACHINERY CO., LTD.
E7043	TOCHO MARKING SYSTEMS ,INC
WA028	TODASEIKI CO., LTD.
E1043	Tohshin Technical Co.,Ltd.
S3088	Tokai Spring Industries, Inc.
W1069*	TOKALOY CO.,LTD
W1069	Tokaloy TGK Co.,Ltd.
W1040	TOKO CO.,LTD.
W3024	TOKYO AUTOMACH CO.,LTD.
E7010	TOKYO BOEKI TECHNO-SYSTEM LTD.
E4010	Tokyo Engineering Co., Ltd.
S3105	Tokyo Hatsujyo Manufacturing co.,Ltd
E3042*	TOKYO KIKAI SEISAKUSHO, LTD.
W4053*	Tokyo Oilanalyst Co.,Ltd
E2012	TOKYO SEIKI KOSAKUSHO
E7027	TOKYO SEIMITSU CO., LTD
E1060	Tokyo seimitu hatujyou Co.,Ltd
E1086	TOKYO TAPPING MACHINE CO.,LTD.
W3114	Tokyo Technical Instruments Inc.
W2042	Tomita Co.Ltd
E4003-4	Tongtai Machine & Tool Co., Ltd.
W1081	TOOL de INTERNATIONAL CO.,LTD.
W1034**	Tool Discovery Co., Ltd
E7044	Tornex Inc.
WA017	TOWA Corporation
E3030	Toyo Advanced Technologies Co.,Ltd.
W1080	TOYO CO.,Ltd (Nagano)
E2005	TOYO CORPORATION
E7124	TOYO Corporation
W1066**	TOYO IRON
E1008	TOYO KENMAZAI KOGYO LTD.
S3016	TOYO SCREEN KOGYO CO., LTD.
E4004	TOYO SEIKI KOGYO CO.,LTD.
W3021	TOYOX CO.,LTD.
E7018	TPR OSAKA SEIMITSU KIKAI CO., LTD.
E5032	TRANSOR FILTER JAPAN CO., LTD.
E5012*	TRI ENGINEERING COMPANY LIMITED
W1034*	TRI ENGINEERING COMPANY LIMITED
WA027	Trio Inc.
E7122	Trioptics Japan Co.,Ltd.
W4053	Triple R Co., Ltd.
E1038	TRUMPF CORPORATION
S3066	Tsubakimoto Mayfran Inc
W2033	TSUDAKOMA Corp.
E6018	TSUGAMI CORPORATION
E7034	TSUKUBA ENGINEERING LTD.
E2020	TSUNE SEIKI Co.,Ltd.
W1021	Tungaloy Corporation
W3075*	TWOPLA GIKEN Co.,Ltd

U

E2036*	UEL
E6036	UJIDEN CHEMICAL INDUSTRY CO.,LTD.
E7128	umati (c/o VDW-Forschungsinstitut e.V.)
W3095*	UNIMAGTECH KK.
W3032	UNION MATERIALS CORP.
W1015	UNION TOOL CO.
E7108	UNIPULSE CORPORATION
E1089	United Grinding Group Management AG
E7056	Universal Robots
E2008*	USACH
W1001	UTSUNOMIYA SEISAKUSHO CO.,LTD.
W1034**	UYAR GmbH & Co. KG

V

E5052**	Vandurit GmbH
E7023	Vectrix Corporation
W4083-7	VERNAL MANUFACTURING & ENGINEERING CO., LTD.
E5029	Vero Software KK
S3056	VERTEX MACHINERY WORKS CO., LTD
W3031	VESSEL CO., INC.
E3042-7*	VIZEST Co.,Ltd.
E2013	Vollmer Japan Corp.
E7024	Volume Graphics Co., Ltd.
E5012*	Volumetric Accuracy Research Institute Co., Ltd.
E7026*	Volumetric Accuracy Research Institute Co., Ltd.
E6035**	VoluMill by MoudleWorks & VoluTurn by ModuleWorks

W

E3003**	Wagner Tooling Systems Baublies GmbH
E2018	WAIDA MFG. CO., LTD.
E2018*	WAIDA PRECISION MACHINERY CO., LTD.
W4054	WALRUS PUMP Co., Ltd.
E1089*	Walter Maschinenbau GmbH
W4064*	Wanner Engineering, Inc.
E7002	Watanabe Seimitsu Industries, Ltd.
E4005	Weihai Huadong Automation Co.,Ltd
E2028	WEISS MACHINERY CO LTD
E3003**	Werth Messtechnik GmbH
W4026**	WESTERN JAPAN TRADING CO., LTD.
E6002	WFL Millturn Technologies GmbH & Co. KG
WA006	WIDIN CO,LTD
E1013	WIKUS-Sägenfabrik, Wilh. H. Kullmann GmbH & Co KG
W3095	WILHELM KOENIG MTM
E1088*	WILLEMIN-MACODEL SA
W4083-4	WINSON MACHINERY CO., LTD.
E7145	WINTECH
E7025	Wintech Automation Co., Ltd.
E4013	WINTECH Co.,LTD.
E5003	WinTool AG
E1010	Wuhan Heavy Duty Machine Tool Group Corporation
E1029	WUHAN NEWWISH TECHNOLOGY CO.,LTD
E2017	Wuhan Raycus Fiber Laser Technologies Co Ltd
E3012	Wuxi Qingyuan Laser Technology Co Ltd
E2008*	WYLER AG

X

WA007	XEBEC TECHNOLOGY CO.,LTD.
S3006	Xi an Dong Long Precision Tools Co Ltd
W4011	Xiamen Chiaping Diamond Industrial Co., LTD.
W3043	XIAMEN HJ CARBIDE TECHNOLOGY CO LTD
S3008	XUANCHENG TENIO AUTOMATIC EQUIPMENT CO.,LTD

Y

W2039	Yamada Machine Tool Co.,Ltd.
W3113*	YAMADA SEISAKUSYO CO., LTD.
E7129	YAMAGUCHI SANGYO CO., LTD.
E7019	YAMAMOTO SCIENTIFIC TOOL LABORATORY CO., LTD.
E6011	YAMASAKI GIKEN Co.,Ltd.
E4045*	Yamashita works
W1074	YAMAWA MFG.CO.,Ltd.
E5037	YAMAZAKI CO.,LTD.
E5001	YAMAZAKI MAZAK CORPORATION
E6038	YAMAZEN CORPORATION
W4045	Yanase
E4035	YANGZHOU DEVELOPPING IMP&EXP CO.,LTD
W1053	YANO METALS CO.,LTD.
E5013	YASDA PRECISION TOOLS K.K.
E3042*	YEONG CHIN MACHINERY INDUSTRIES CO., LTD.
W1075*	YESTOOL CO.,Ltd
W3105	YEU LIAN ELECTRONICS CO., LTD.
W1004	YG-1 JAPAN Co., Ltd.
W4083-13	YIH TROUN ENTERPRISE CO., LTD.
E2008	YKT CORPORATION
W3104	YODOGAWA ELECTRIC TOOL MFG CO.,LTD
E3042	YONEZAWA KOKI CO., LTD.
E4003-7	YONG JU PRECISION TECHNOLOGY CO., LTD.
E1053	YOSHIKAWA IRON WORKS CO.,LTD.
E5023	Yoshikawa MAPLE Co.ltd
W3064	YU WEI INDUSTRIAL CO., LTD
E7093	YUAN JUN FONG CASTING CO., LTD
E6039	Yuan Jun industry
W3107	Yuan Yi Chang (YYC) Machinery Co., Ltd.
W2053	YUKIWA SEIKO INC.
W4034	Yuko Corporation
E1005	YUSHIRO CHEMICAL INDUSTRY CO.,LTD

Z

W3018	ZHEJIANG GEM-CHUN PRECISION INDUSTRY CO., LTD.
E6004	Zhejiang IVKE Machinery & Technology Co.,Ltd.
E4042	ZHEJIANG MEIRI INTELLIGENT MACHINERY CO LTD
S3025	ZHEJIANG SAN OU MACHINERY LIMITED COMPANY
W3011	ZHEJIANG SHANGYOU TOOLS CO LTD
E5039	Zhejiang Taixing Intelligent Equipment Co.,Ltd
E2011	Zhejiang Xinxing Tools Co., LTD.
W3012	ZHEJIANG YOUNIO TOOLS CO LTD
W3005	Zhejiang Zhiguang Precision Tools Co.,Ltd.
W3029	ZHENGZHOU DIAMOND PRECISION MANUFACTURING CO.,LTD.
W3028	Zhengzhou Sino-Crystal Diamond Co Ltd
W3038	ZHENGZHOU ZHONGNAN JETE SUPERABRASIVES CO., LTD.
W3087	ZHENGZHOU ZZDM SUPERABRASIVES CO.,LTD
W4012	Zhongye Superhard Material Co., Ltd.
W3070	Zhuzhou Cemented Carbide Works Imp. & Exp. Co.
W3071	Zhuzhou Huarui Precision Cutting Tools Co Ltd
W3039	Zhuzhou Kerno Advanced Materials Co.,Ltd.
W3013	Zhuzhou Kunrui Carbide Co.,Ltd
W3109*	Zhuzhou Sant Cutting Tools Co., Ltd.
S3068	ZIPPERTUBING(JAPAN), LTD.
E2041	ZOLLER Japan K.K.
W3034	ZUOREN CUTTING TOOLS (SHANGHAI) CO LTD

Additive Manufacturing Area in JIMTOF2024

#

AM117	3D Systems Japan
AM153	3DEO

A

AM151-1	Additive Industries
AM123	Aichi Sangyo Co., LTD.
AM140	APPLE TREE Co., Ltd.

B

AM103*	BEIJING JINGDIAO GROUP CO., LTD.
AM142	bestat Inc
AM103*	bestat Inc
AM114	Brule Inc.

C

AM104	CASTEM CO.,LTD.
AM106	CHITA MFG CO.,LTD
AM131	CKB Corporation
AM151-4	Continuum Powders
AM147	CT CoreTechnologie Asia Co., Ltd.

D

AM136	Daido Steel Co., Ltd.
AM103*	DAISEN SANGYO CO.,LTD.
AM103*	DELTA ELECTRONICS (JAPAN), INC.
AM126	DMGMORI CO.,LTD.
AM149	DMM.com, LLC,
AM121	DOHO Corporation

F

AM103*	framag Industrieanlagenbau GmbH
AM111*	Fuji Koushuha Industry Co.,Ltd.
AM109	Fusion Technology Co., Ltd.

H

AM145	haraseisakusyo.,co.ltd
AM146	HDC Co. Ltd.
AM137	Höganäs Japan K.K.
AM103*	HOUGHTON JAPAN CO., LTD.
AM139	HTL Co. Japan Ltd.

I

AM103**	IAI CORPORATION
AM103*	INNOTECH Co.,Ltd.
AM103*	INNOVATEST
AM116	IWAMA Co., Ltd.

J

AM105	JAPAN 3D PRINTER Co.,Ltd
AM124	Japan 3D Printing Industrial Technology Association
AM103*	Japan Fluid System Co., Ltd.
AM128	Japanese Society of Additive Manufacturing
AM111	JBM Engineering Corporation
AM103*	JBS System GmbH
AM113	JEOL Ltd.

K

AM118	Kanazawa University, Human Machine Innovation Laboratory
AM103*	KANEMATSU ELECTRONICS LTD.
AM103	Kanematsu KGK Corp.
AM101	KEYENCE CORPORATION
AM135	KEYENCE CORPORATION
AM103*	KOCEL JAPAN Co.,Ltd.
AM107	Kurimoto Co., Ltd.

L

AM151-3	Lumafield

M

AM103*	MAEDA SHELL SERVICE CO.,LTD
AM110	Marubeni Information Systems.co.,Ltd
AM103*	Marubishi Seisakujyo Co., Ltd
AM115	Matsuura Machinery Corporation
AM130	Matsuzawa Machinery Corporation
S2002	Mitsubishi Electric Corporation
AM103*	MST Corporation

N

AM132	NIDEC MACHINE TOOL CORPORATION
AM103*	Nihonseiki Co., LTD
AM103*	Nikuni Co.,Ltd.
AM138	nippon light metal co., ltd.
AM148	Noga Waters Ltd.

O

AM103*	OGUSU CO.,LTD
AM134	OPEN MIND Technologies Japan K.K.

P

AM151-2	PanOptimization LLC
AM103*	PATLITE Corporation

Q

AM143	Q-ho Metal Works

S

AM127	SAKURAI LTD.
AM108	SEA FORCE CO.
AM150	ShareLab
AM103*	SHIMADA Machine tool Drives Co., Ltd
AM106*	SHOHO IRONWORKS CO.,LTD.
AM144	SK Additive Innovation Co., Ltd.
AM133	SK Fine Co.,Ltd.
AM103*	SOGYO Co., Ltd.
AM119	SUGINO MACHINE LIMITED

T

AM112	TAIYO NIPPON SANSO CORPORATION
AM152	Technology Research Association for Future Additive Manufacturing
AM122	TKE Co.,Ltd.
AM106*	TOKAI KYOHAN CO.,LTD.
AM103*	TOKAI SOFT CO., LTD.
AM125	Tokoshie Inc.
AM102	Tokyo Metropolitan Industrial Technology Research Institute
AM141	Tokyo Metropolitan Small and Medium Enterprise Support Center

V

AM129	Value Finder Co.,Ltd.

W

AM103*	Watachukikai Corp.
AM103*	Wilhelm Blessing GmbH & Co. KG

Y

AM120	Yamaichi Precision Tools (Anhui) Co.,Ltd.
AM103*	YAMAMOTO METAL TECHNOS CO., LTD.

(*) Co-Exhibitor (**) Represented Company

alphabetical order

Our Latest CNC, Servo System and Digital Twin

Brand new CNC that fulfills new market demands



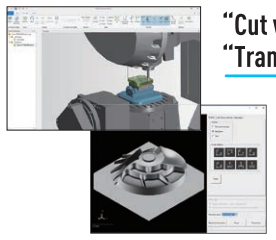
FANUC Series 500*i*-A

New generation servo system with higher speed, higher precision and enhanced energy efficiency



α *i*-D series SERVO

"Cut with Confidence"
"Transform the Workflow"



FANUC Smart Digital Twin

Labor Shortage Problems Solved with FANUC Robots!

THE ROBOT AWARD 第11回ロボット大賞 Winner of the 11th Robot Award of the Ministry of Economy, Trade and Industry Minister's Award

High rigidity robot capable of full-scale high accuracy machining

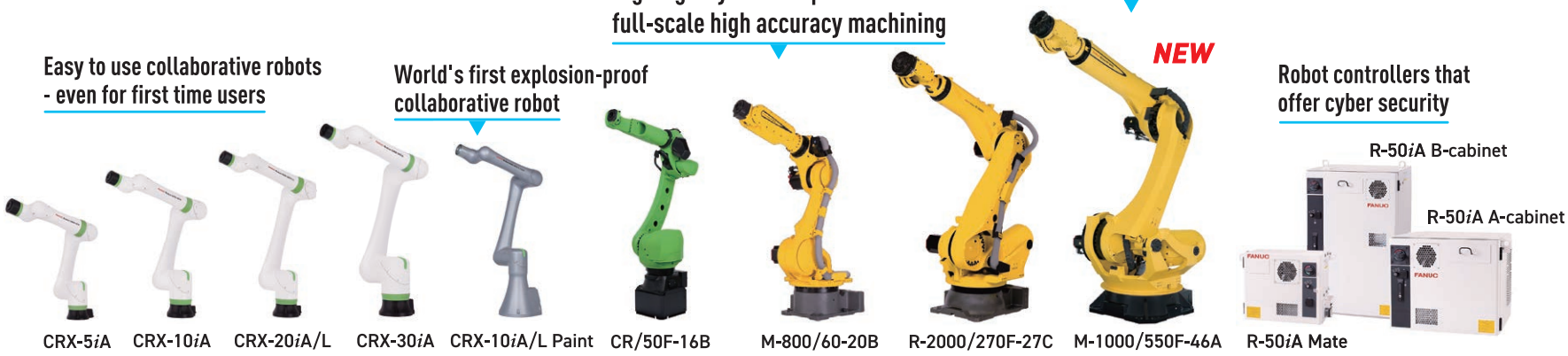
Latest large size robot with high payload and long reach

NEW

Easy to use collaborative robots - even for first time users

World's first explosion-proof collaborative robot

Robot controllers that offer cyber security



CRX-5*i*A | CRX-10*i*A | CRX-20*i*A/L | CRX-30*i*A | CRX-10*i*A/L Paint | CR/50F-16B | M-800/60-20B | R-2000/270F-27C | M-1000/550F-46A | R-50*i*A Mate

R-50*i*A B-cabinet

R-50*i*A A-cabinet

Robomachines that Contribute to Improvements in Automation and Productivity



ROBODRILL
α-D*i*B Plus series



ROBOSHOT
α-S*i*B series



ROBOCUT
α-C*i*C series

IoT Analyzes Factory Data, Paving the Way for Improvements



FIELD system Basic Package

By collecting, analyzing and using the data in factories, problems and their solutions are identified, enhancing productivity.

FANUC's Service for "Non-Stop Production"

Service First

Conforming to the spirit of "Service First," FANUC provides lifetime maintenance of its products for as long as they are used by customers, through more than 270 service locations supporting more than 100 countries throughout the world.

生涯保守

Assists achieving a high operating rate for customers around the world.

Introducing Innovation and Reassurance to Manufacturing Sites Worldwide

FANUC strives to create a factory that never stops

FANUC

Service First

one innovation fe・robot・robomachine FANUC

Reliable
Predictable
Easy to Repair

FANUC

Details on JIMTOF2024 official website:

JIMTOF 2024
November 5 (Tue.) - November 10 (Sun.), 2024

Place: Tokyo Big Sight
South Exhibition Hall 2, No. S2001

Inquiries on FANUC products:

East 東

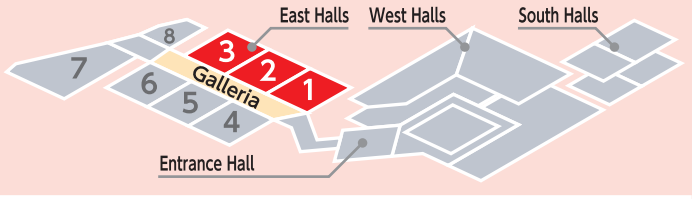
East Hall 1・2・3

Metal cutting machine tools / Metal forming machine tools / Other associated machinery and equipment



No Photography in halls
No Smoking on site

Location Map



East Hall 1

YKT E2008
AMADA E1072
BLESS E1067
Fladder Danmark E1066
MARUKA FURUSATO E1025
Nakaseiki E1024
HSG LASER E1068
Guangdong Longxin Laser Intelligent Equipment
NAKANIHON-RO KOGYO
cgk E1065
SOCO Machinery E1031
HIRO CHIKU E1030
Honma Precision Metalworking E1026
Blue Star R&D E1019
Mamezpu E1020
Nanjing Prima CNC Machinery E1023
Jiangyin Aupu Machinery E1070
HEICO E1069
E1063 E1064
fuji shoji E1033 E1032
E1029 Max photonics E1027
R-GOT E1021
FUJIKIKO E1071
FABACE E1062
Itaca Japan E1034
ST-LINK E1028
FUNASAW E1017
DURMAZLAR MAKINA SAN VE TIC
WUHAN NEWWISH TECHNOLOGY
NK WORKS E2009
Zhejiang Xinxing Tools E2011
KANTO BUSSAN E2010
Esco E2006
Sanpo Seiki E2007
TOYO E2005
United Grinding Group Management E1089
EURO TECHNO E1088
Bystronic Japan E1073
Opton E1075
SHIBUYA CORPORATION E1074
FREEBEAR CORPORATION E1061
Tokyo seimitu hatujyou E1060
OHMINE INDUSTRY E1059
koyo giken E1058
Komori Safety Device Laboratory
NUMALLIANCE E1057 E1056
Authentec E1055
TRUMPF E1038
E-PLAN E1035
Horitec E1036
ALPHA LASER JAPAN E1037
ASTEC E1015
Chemic E1016
Kensaku kenma E1014
WIKUS-Sägenfabrik, Wilh. H. Kullmann E1013
TOKYO SEIKI KOSAKUSHO E2012
Vollmer Japan E2013
SCHUNK Intec E2004
Seiko Instruments E1087
TOKYO TAPPING MACHINE E1086
IMAHASHI MFG. E1085
EBA KOGYO E1084
KITAI SANGYO E1083
Sanwa Robotics E1077
IKURASEIKI E1076
IWAMA E1054
KIRA CORPORATION E1052
YOSHIKAWA IRON WORKS E1053
Takashima Sangyo
SANSHIN E1039 E1040
Hann Kuen Machinery& Hardware E1011
Gutenberg E1012
MATSUDA SEIKI E1042
SHINKO MFG. E1041
Kyouwa Oil Lubricants E1009
Wuhan Heavy Duty Machine Tool Group E1010
TOYO KENMAZAI KOGYO E1008
ISHII HYOKI E2014
SEIJO KOGYO E2015
TANI GAWA E2016
Wuhan Raycus Fiber Laser Technologies E2017
WAIDA MFG. E2018
Reishauer E2003
KLINGELNBERG Japan E1081
MARUEI MACHINE WORKS E1082
ALPSTOOL E1080
NAGASE INTEGREX E1078
Kondo Seisakusho E1050
IRINO KIKO E1051
Makino Seiki E1049
Tohshin Technical E1043
HASEGAWA MACHINE WORKS E1044
Nagel Aoba Precision E1046
Nissin Manufacturing E1045
Heiwa Technica E1006
FUJIMOTO YUKA E1007
SANWA KOUYU E1004
E1005
YUSHIRO CHEMICAL INDUSTRY
Kuroda Precision Industries E2001
GF Machining Solutions E2002
SUGINO MACHINE E1079
TAKAHASHI MACHINERY E1048
KITAMURA MACHINE WORKS E1047
MECTRON E1001
Fuji Honing Industrial E1002
MICRON MACHINERY E1003

Jumbo Taxi Stand
FREE!
East 東 Hall 1

(2F)
Japan Forming Machinery Association
Japan Precision Machine Association
N

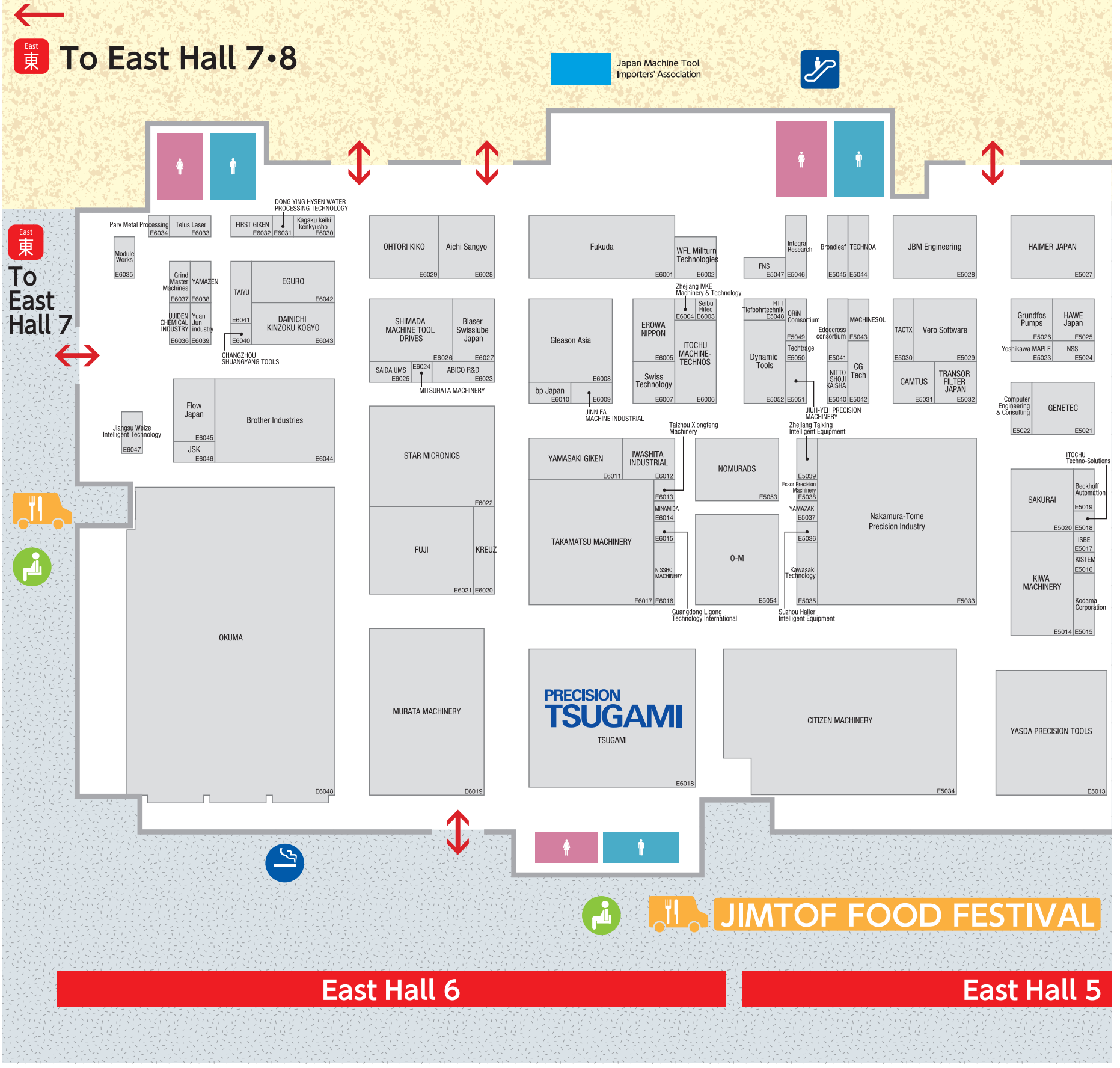




East 東

East Hall 4•5•6

Metal cutting machine tools / Controller and related software (CAD/CAM, etc.) / Other associated machinery and equipment

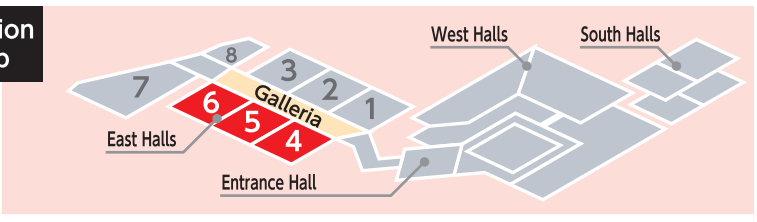






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No Smoking on site

Location Map



Galleria (1F)

YAMAZAKI MAZAK E5001

KITAMURA MACHINERY E4044

Beiping Machine (Zhejiang) E4001
TechnoCoat E4002

TOYO SEIKI KOGYO E4004
ENEOS E4007
GROB Japan E4006
E4005
Weihai Huadong Automation

Taiwan External Trade Development Council

TAIWAN EXTERNAL TRADE DEVELOPMENT COUNCIL (TAITRA) E4003

E4003-1	JOEN LIH MACHINERY
E4003-2	GRINTIMATE PRECISION INDUSTRY
E4003-3	CHIEN WEI PRECISE TECHNOLOGY
E4003-4	Tongtai Machine & Tool
E4003-5	HAN JIE MACHINERY
E4003-6	RONG JHEN TECHNOLOGY
E4003-7	YONG JU PRECISION TECHNOLOGY
E4003-8	TIAN FENG HYDRAULIC
E4003-9	TAITRA

Japan speed shore E4045
SOFIX E4046
HOWA MACHINERY E4043

heian corporation E4008
Mikron Switzerland E4009
Tokyo Engineering E4010

FUJI -DENSHI E4012
ANCA Machine Tools Japan E4011
WINTECH E4013
CHUNG PU LASER E4014

Siemens E5008
FACT E5006
IMPROBE E5007

Nihon-ALSYS E5002
Data Design E4056
WinTool E5003
SAEILO JAPAN E4055

C&G SYSTEMS E4048
TERAL E4047
HORKOS E4049

ZHEJIANG MEIRI INTELLIGENT MACHINERY E4042
SEIWA G-TEC E4041
Sawairi Engineering E4039
Liebherr-Verzahntechnik E4040

GENIO Solutions E4053
Ai solutions E4054
OPEN MIND Technologies japan E4004
MIROKU Machine Tool E4052
NAGASHIMA SEIKO E5005

NIIGATA MACHINE TECHNO E5011
Autodesk E5009
PALMARY MACHINERY E5010

HAKUSAN KIKO E4038
Exstream E4037

SAEILO ASIANET E4036
YANGZHOU DEVELOPPING IMP&EXP E4035
Shenzhen JPT Opto-Electronics E4034

Sodick E4015

コマツ NTC
Komatsu NTC E5012

SHIN NIPPON KOKI E4051
IKEGAI E4050

NACHI-FUJIKOSHI E4033

Jinan Bodor CNC Machine E4028
LIQUY HSING E4029
KOWA MACHINERY E4027

GWEIKE TECH E4024
SENJO SEIKI E4026
NITTO POLYGON E4025

Foshan Huibaisheng Laser Technology E4020
SAMURAI SAW WORKS E4022
Comnet E4021

SOMAX E4019

Cogentech International
CHING TAI COG MACHINE E4032
E4031
Laser Technical Service E4030

MCK E4023

East Hall 4

N

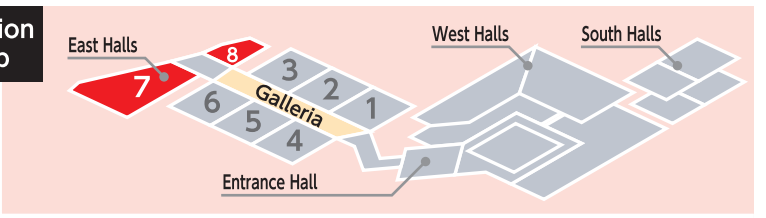
TAIWAN
SMART MANUFACTURING
未来へ受け継ぐ
台湾のモノづくり
イベント連日開催!
～台湾の“おもてなし”をあなたに～
東4ホール(East4Hall)
E4003-9
International Trade Administration
Taiwan External Trade Development Council
PIDC
Ad. by TIDA

JIMTOF 2024
East 4 Hall
E4011
FX ULTRA
PREMIUM PERFORMANCE CUTTING TOOLS
ANCA Machine Tools Japan
50 YEARS OF INNOVATION

East 東

East Hall 7・8

Location Map



Metal cutting machine tools

Precision measuring machines and instruments / Optical measuring instruments / Testing machinery / Controller and related software (CAD/CAM, etc.) / Other associated machinery and equipment

Jumbo Taxi Touring the Venue

East Halls, East Hall 1 → To West & South Halls 4F Rooftop → To South Halls 1F, South Hall 1

10:00～17:00

* The bus will take a different route between 8:30 and 10:00 (see "route map" on Page 2 for details)
* The bus runs until 16:00 on the last day of the fair

Shuttle Bus

East Halls, East Hall 7 → To South Halls 2F, South Hall 2 → To Rinkai Line Kokusai-Tenjijo Station

11:00～17:15

* The bus will take a different route between 8:30 and 11:00, and between 17:15 and 18:00 (see "route map" on Page 2 for details)
* The bus runs until 16:00 on the last day of the fair

East Hall 8

DMG MORI
DMGMORI
DMG MORI Precision Boring
E8004
TAIYO KOKI
E8003
FUCHS JAPAN E8002
DMGMORI
E8001
E8001

Link space

East 東 To East Hall 1-6

TOYO E7124
NIIGATA RENKI SOKUHAN E7125
HME E7126
Orbray E7127
Champ Casting Industry E7115
TECLOCK E7114
Magnescale E7113
OBISHIKEIKI SEISAKUSHO E7112
DAI-ICH SOKUHAN WORKS E7017
OJIYA SEIKI E7016
TPR OSAKA SEIMITSU KIKAI E7018
E7019
YAMAMOTO SCIENTIFIC TOOL LABORATORY
SOKU HANSHA E7015
KOMATANI GAUGE E7014
Japan Precision Measuring Instruments Manufacturers Association E7013
Ametek E7012
JAPAN GAUGE E7001
Watanabe Seimitsu Industries E7002
umati (c/o VDW-Forschungsinstitut e.V.) E7128
YAMAGUCHI SANGYO E7129
Hexagon Metrology E7116
Any Design E7118
E7117
Panasonic Factory Solutions Sales & Engineering Japan
EURO TECHNO E7111
Nakamura MFG. E7110
NAGAHAMA SEISAKUSHO E7021
FUJI TOOL E7020
CKB E7022
Vectrix E7023
Mahr Japan E7011
TOKYO BOEKI TECHNO-SYSTEM E7010
DIATEST JAPAN E7003
Kistler Japan E7004
Sangen E7005
FARO Japan E7119
Metrotec E7120
SIGMA ELECTRONICS E7109
UNIPULSE E7108
Volume Graphics E7024
Wintech Automation E7025
AWA SPINDLE E7009
Fagor Automation Japan E7008
TACC E7130
Mitutoyo E7131
Trioptics Japan E7122
SPI ENGINERING E7121
HEIDENHAIN E7123
MARPOSS E7107
RENISHAW E7026
OZAKI MFG. E7007
Niigata Seiki E7006
JIMTOF FOOD FESTIVAL
Shuttle Bus Stop
FREE!
East 東 Hall 7
NITTO KOGYO E7151
Harbin Pioneer M&E Technical Development E7150
ASANUMA GIKEN E7149
Blum-Novotest E7132
EISEN E7106
ATAGO E7104
MITAKA KOHKI E7105
OTSUKA OPTICS E7103
CORETECH E7075
EVIDENT
THANKO E7076
E7074
CHUO PRECISION INDUSTRIAL E7077
Kosaka Laboratory E7078
NIKON E7073
TOKYO SEIMITSU E7027
SHINING 3D Tech E7148
TAJIMA LIGHT METAL E7147
Nichiko Equipment E7146
WINTECH E7145
Guilin Gemred Sensor Technology
Opto Science E7134
Adcole LLC/ Adcole Far East E7133
Physix Technology E7136
Hirox E7138
Changchun Rongde Optics E7137
Hangzhou Deepvision Technology
Nippon Vision Engineering E7100
Shoraku E7102
E7101
NIKKO TECNO E7099
SOL E7098
AKATSUKI MFG. E7097
ALFA MIRAGE E7080
Pulstec Industrial E7079
Santec Japan E7081
itp E7082
Marubeni Information Systems E7085
Innovalia Metrology E7083
SAITOH KOUGAKU E7084
SHAN DONG NANO ADVANCED MATERIALS TECHNOLOGY
Kan Mechanical Industry E7072
Three R Solution E7071
E7070
MORSON JAPAN E7068
HARTING E7069
HIRAOKA HYPER TOOLS E7067
Polytec Japan E7050
Muratec Frontier E7049
Masterlink E7052
Nihon Tsukuridas E7051
TAKEBISHI E7053
Takumi Engineering E7054
JOHOKU CHEMICAL E7048
GRAVO TECH E7046
CADDi E7047
Shinano Kenshi E7045
TOCHO MARKING SYSTEMS E7043
Tornex E7044
Kintsune Seiki E7028
Jeil Mtech E7029
NIPPON MECHA CHEMICAL E7030
Isamu Paint E7144
KÄRCHER (JAPAN) E7143
P&C E7140
Nango E7139
Fuji Manufacturing E7142
FUJIKIHAN E7141
METROL E7094
Hanyang Filters and Engineering E7096
Showa-industory E7095
KYOEI ELECTRIC E7086
MOTHER TOOL E7087
AKIYAMA SEIKO E7089
Cognex E7088
SCHMERSAL JAPAN E7066
OPC Foundation Japan E7065
K.MECS Automation E7063
E7064
Leading Intelligent Equipment (Qingdao) Group
ifm efector E7058
GODO SOLUTION E7055
Universal Robots E7056
Seibu Shoko E7057
SaiSi Machine & Electric (Zhejiang)
Fact Base E7041
MITSUBOSHI MFG E7042
Fuji AI Precision E7040
E7039
KMKWORLD E7037
Eishin International E7038
Otennlux Lighting Technology E7031
THE CREO E7032
Amano E7033
YUAN JUN FONG CASTING E7093
AQUA CHEMICAL E7092
PETROPLAN E7091
ACO JAPAN E7090
ACS E7062
EUCHNER E7060
E7061
LANTEK SHEET METAL SOLUTIONS
keyence E7059
NATOCO E7036
SANKEI MANUFACTURING E7035
TSUKUBA ENGINEERING E7034
N

East Hall 7

JIMTOF FOOD FESTIVAL

East 東

Food festival will be held outside the East Exhibition Hall and in the East Hall 7. A wide variety of dishes will be provided throughout the venue.
Open 10:00 - 18:00 (Last day until 14:00)

JIMTOF Café

South 南

There is a cafe corner in the South Hall 2. Drinks and snacks will be provided. Available before fair opening hours.
Open 8:30 - 17:00 (Last day until 14:00)




JIMTOF FOOD FESTIVAL Japanese Local Gourmet

West 西

At the "JIMTOF Food Festival" on the west rooftop exhibition area, local gourmet food from all over Japan will gather.
Please enjoy it.
Open 9:00 - 17:00 (Last day until 14:00)


Miyagi


Akita


Saitama


Kanagawa


Osaka


Nagasaki


Miyazaki


Okinawa

YKT 100 100th ANNIVERSARY

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「オージーピー スマートスコープ」



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営業本部本社営業部 TEL 0763-22-1391 コマツ NTC 株式会社

西２ホール (West 2 Hall) W2042

- ドイツ 高速５軸門形マシニングセンタ
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- ドイツ 世界初 揺動ジェットノズル
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株式会社 トミタ

東5ホール(East 5Hall)E5010

PALMARY

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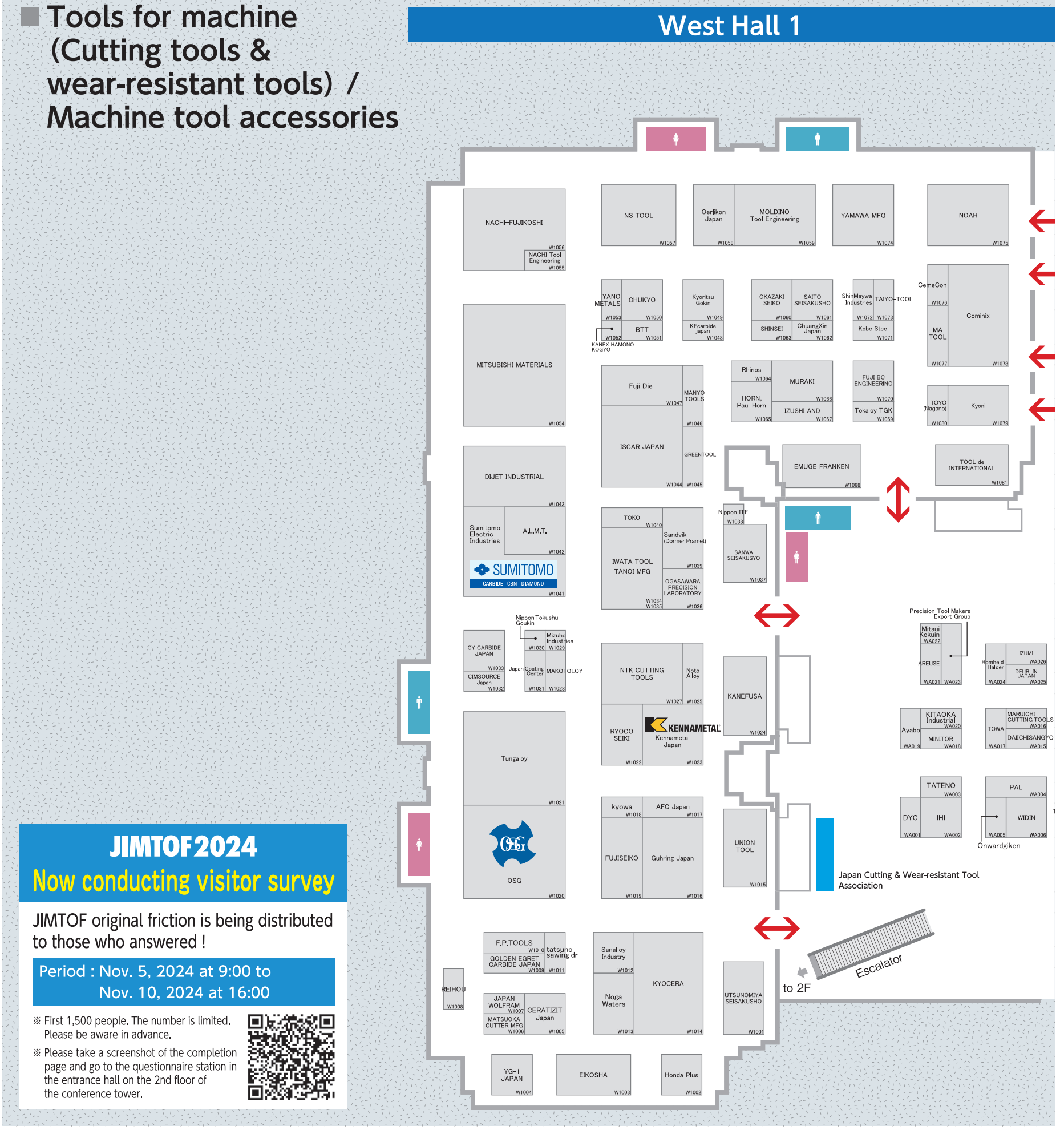


東７ホール
E7058
ifm efector 株式会社

West

West Hall 1・2

Tools for machine (Cutting tools & wear-resistant tools) / Machine tool accessories



JIMTOF2024
Now conducting visitor survey

JIMTOF original friction is being distributed to those who answered !

Period : Nov. 5, 2024 at 9:00 to Nov. 10, 2024 at 16:00

※ First 1,500 people. The number is limited. Please be aware in advance.

※ Please take a screenshot of the completion page and go to the questionnaire station in the entrance hall on the 2nd floor of the conference tower.

西1ホール **W1041**

SUMITOMO
CARBIDE - CBN - DIAMOND
Global Support, Global Solutions.
住友電気工業株式会社

Boost Master
for Multi-task Lathes

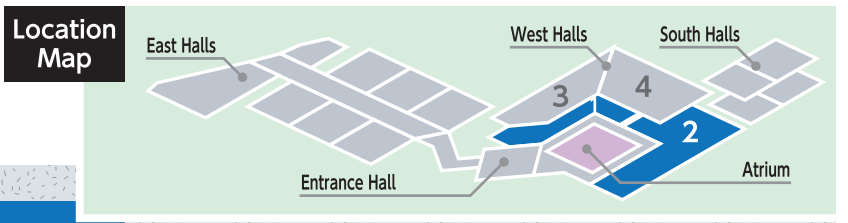
Ideal for dealing with chips on multi-task lathes! NEW

Coolant pressure is boosted to Max 15MPa and discharged to prevent chips from wrapping around the workpiece!

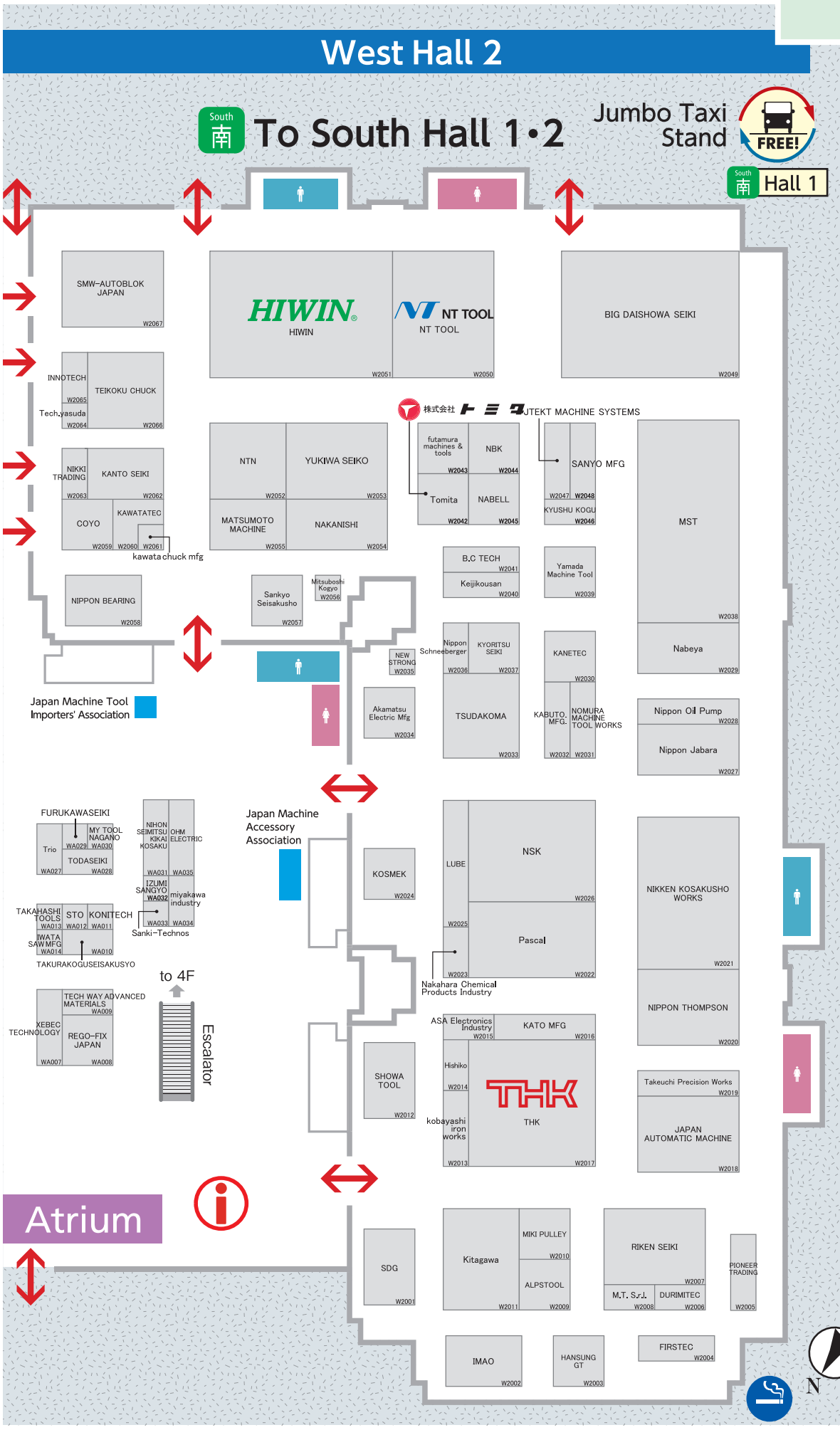

BMAL

NT TOOL CORPORATION
WEB www.nttool.com TEL 0120-04-0102
E-Mail technomail@nttool.co.jp

JIMTOF2024
WEST 2Hall W2050



West Hall 2



Attractions

JIMTOF INSIGHTS

YouTube channel empowering Japanese craftmanship!

Covering a wide range of themes with a focus on the machine tools industry. Video contents share the appeal of production!

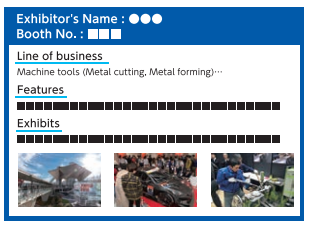


YouTube channel
JIMTOF INSIGHTS

Online Catalog

For information collection before and after

A lot of information is available about the highlights of each exhibitor and their latest products. You can search for products and exhibitors by keyword or exhibits category.



https://www.jimtof.org/en/exhi_search_pronoun

Online Channel

Limited-time recommendation video: Don't miss it!

Exhibitors provide webinars and product introduction videos. Anyone can watch these videos on the JIMTOF official website even without registration.



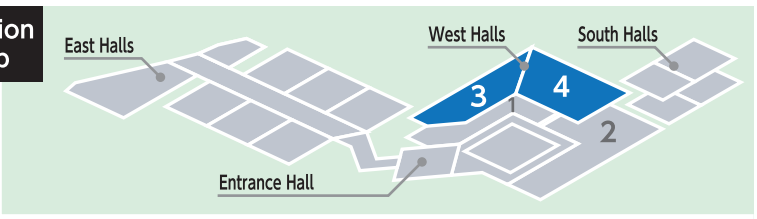
Available from Oct. 1 (Tue.) to Nov. 29 (Fri.)





West

West Hall 3•4



- Tools for machines (Cutting tools & Wear-resistant tools) / Machine tool accessories
- Gear and Gear devices / Oil hydraulic, Water hydraulic and pneumatic machinery / Grinding wheels and abrasives / Diamond, CBN tools
- Other associated machinery and equipment

FREE!

Jumbo Taxi Stand

West & South Halls 4F Rooftop

West Hall 4

West Hall 3

Taiwan External Trade Development Council
TAIWAN EXTERNAL TRADE DEVELOPMENT COUNCIL (TAITRA)
W4083-1 THETA PRECISION
W4083-2 HWE DER MACHINERY AND HARDWARE
W4083-3 SHIN-YAIN INDUSTRIAL
W4083-4 WINSON MACHINERY
W4083-5 DI KU DIAMOND ENTERPRISES
W4083-6 CHENG FENG CASTING FACTORY
W4083-7 VERNAL MANUFACTURING & ENGINEERING
W4083-8 CHAIN HEADWAY
W4083-9 SAFEWAY MACHINERY INDUSTRY
W4083-10 IKEHARA
W4083-11 ECHAINTOOL PRECISION
W4083-12 TANKO ENTERPRISE
W4083-13 YIH TROUN ENTERPRISE
W4083-14 Derstrong Enterprise
W4083-15 SANJET INTERNATIONAL
W4083-16 HER BERT ENTERPRISE
W4083-17 SUPER AIR COMPRESSOR TECHNOLOGY
W4083-18 TAITRA
W4083

Shell Lubricants Japan W4056
NUNOME ELECTRIC W4043
KAIFENG BESCO SUPERABRASIVES W4026
State Industry W4007
Fuqing RongMa Grinding Wheel
SISA ABRASIVES W4028 W4027
Nitolex W4029
A.L.M.T. W4025
IDEC W4008
Osaka Seikan W4006
ILJIN JAPAN W4009
Fuji Industries W4010
Cosmotech W4005
Xiamen Chiaping Diamond Industrial W4011
JTEKT GRINDING TOOLS W4014
Zhongye Superhard Material W4012
W4013
deta International W4004
FUNIK ULTRAHARD MATERIAL
SEA SHORE DIAMOND INDUSTRIAL
NIPPONDIAMOND W4015
HENAN BELLO NEW MATERIAL W4016 W4017
Asahi Diamond Industrial W4018
create engineering W4003
MAEDA SHELL SERVICE W4076
Showa W4082
Sumitomo Precision Products W4077
AQUA SYSTEM W4074
Kawamoto Pump Mfg. W4072
PASCAL SYS&ENG. W4073
MATSUI W4071
SAKAGAMI SEISAKUSHO W4070
King Shang Yuan Machinery W4065
SANKO W4064
NIHON PISCO W4066
idemitsu kosan W4063
SMC W4057
Camel Precision W4055
WALRUS PUMP W4054
Triple R W4053
Yanase W4045
Atsuchi Tekko W4044
Tipton W4046
SHINANO KIHAN W4042
SOWA W4041
MITSUI GRINDING WHEEL W4040
KOHARA GEAR INDUSTRY W4081
Azbil TA W4078
SANWA ENTERPRISE W4079
Techno Dynamics W4080
Nitto Kohki W4069
SEOAM MACHINERY INDUSTRY. W4068
HYDAC W4067
ASK W4062
ARYUNG MACHINERY IND. W4061
DAIKIN INDUSTRIES W4058
Brinkmann Pumps, K.H. Brinkmann W4059
CKD W4052
TAISEI KOGYO W4051
LUOYANG RUNBAO SUPER ABRASIVES
TEIKEN W4047
Fuqing Rihon Abrasives W4049 W4048
MIZUHO W4050
Beijing Grish Hitech
KURE GRINDING WHEEL W4039
W4038
Daiwa Rabin W4037
SANWA SHOKO W4035
FSK W4030
Yuko W4034
Sumflex W4031
RESITON W4033
NEWREGISTON W4032
TAKAKURA KOHGYO W4023
NANIWA TOISHI W4022
TACS W4021
NORITAKE W4024
Marubeni Ele-Next W3111
NISSEI W3110
RIX W3112
Central Japan Parts Processing Association W3113
Jiangsu Swift Machinery Technology W3109
Tokyo Technical Instruments W3114
KYOUIKU GEAR MFG. W3108
Yuan Yi Chang (YYC) Machinery W3107
German Tech Precision Manufacturing W3115
Shandong Shanneng Precision Machinery W3106
YEU LIAN ELECTRONICS W3105
Nikuni W4060
ICHIGUCHI W4036
TENRYU SAW MFG. W4020
INTERNATIONAL DIAMOND W4019
GLOBAL DIAMOND W4001
ARAI SHOKAI W4002
Jiachen Precision W3096
WILHELM KOENIG MTM W3095
BUNRI W3097
JINAN XINLEI PRECISION MACHINERY W3099
KOWA EMTECH W3098
JETON R/D & MFG W3094
AUTOCAM TECHNOLOGY W3100
KEYARROW (TAIWAN) W3093
DTR W3101
KAMO SEIKO W3102
JFLO MACHINE TOOL ACCESSORIES W3092
Suzhou Huajede Manufacturing W3091
detron Precision NC Rotary Table
detron Machine W3103
HOSEA PRECISION W3090
YODOGAWA ELECTRIC TOOL MFG W3104
Japan Fluid Power Association
Japan Gear Manufacturers Association
Japan Grinding Wheel Association
Industrial Diamond Association of JAPAN
IL JIN TOOL TECH W3084
CHINA TAIZHOU SHAOSHI TOOLS
Clavis Japan W3083
Silver Alloy W3085
RI HSIUNG PRECISION TECH W3081
W3082
ACCU-CUT INDUSTRIAL W3080
Shenyang Wemust Saws Industrial W3079
CORTOOL MANUFACTURING GROUP W3086
ZHENGZHOU ZZDM SUPERABRASIVES W3087
GUANGDONG HUASHENG NANOTECHNOLOGY W3078
Henan E-Grind Abrasives W3077
HABOR PRECISION W3088
CHAMPDIA W3076
SAKUSAKU W3074
Meister W3075
GuangDong Precision
DaoFu Technology W3072
PARKSON WU INDUSTRIAL W3089
KOBAYASHI DIA W3073
Zhuzhou Cemented Carbide Works Imp.& Exp. W3070
Liaocheng Super New Material W3069
Chengdu Metcera Advanced Materials W3068
Zhuzhou Huarui Precision Cutting Tools W3071
DKSH Market Expansion Services Japan W3060
TANITEC W3061
RESMO TOOL W3059
Ganzhou Grandsea Cemented Carbide W3058
FUJIGEN KOGYO W3056
SPEED TIGER PRECISION TECHNOLOGY W3057
BICTOOL JAPAN W3062
TnC SHARK W3063
HICUT W3055
Kexian Precision (Zhejiang) W3054
Shareate Tools W3053
YU WEI INDUSTRIAL W3064
Henan Lerui Powerise Tools W3052
Adachi Sogyo W3065
OKASUGI W3051
soneda kougyou W3066
THE KIICHI TOOLS W3067
daido kogyo W3050
FUKUDA SEIKO W3049
Asahi Shoko W3048
ZHENGZHOU ZHONGNAN JETE SUPERABRASIVES
SHENZHEN YUBAO DIAMOND TOOLS W3037
Zhuzhou Kerno Advanced Materials W3039
SOWA SYSTEM W3040
HONSBERG METALLSAEGEN W3038
OKE PRECISION CUTTING TOOLS W3035
IND-SPHINX PRECISION W3041
GEMtool W3042
HG TECHNOLOGY W3034
ZUOREN CUTTING TOOLS (SHANGHAI) W3033
XIAMEN HJ CARBIDE TECHNOLOGY W3043
INCOS W3044
UNION MATERIALS W3032
VESSEL W3031
INPLUS W3045
Cyber RC W3046
HUNAN BOYUN-DONGFANG POWDER METALLURGY W3030
CHN-TOP SCI & TECH W3047
Carmex Precision Tools W3022
TOYOX W3021
Quoheng Tools System (Wuxi) W3020
Shanghai Hezuan Technology W3019
Zhejang Zhiguang Precision Tools W3005
Tarfilm Hi-tech W3006
Fodbits (Weihai) Precision Technology
TOKYO AUTOMACH W3024
Cresstech W3025
HeYe Special Steel W3023
W3026
Da Shiang Automation Industrial W3017
W3018
DONGGUAN ZHONGJI RONGYAO METAL CUTTING TOOLS W3008
Changzhou North Carbide Tool W3007
ZHEJIANG GEM-CHUN PRECISION INDUSTRY
DHF Precision Tool W3027
Zhengzhou Sinor-Crystal Diamond W3028
KAMIYA SAW & KNIFE Mfg. W3016
Kohsei W3015
EST TOOLS W3009
Henan CA-Diamond Material W3010
DONGGUAN MING ZE HARDWARE MACHINETY
ZHENGZHOU DIAMOND PRECISION MANUFACTURING W3029
Zhuzhou (Kunrui) Carbide W3014 W3013
ZHEJIANG YOUNIO TOOLS W3012
ZHEJIANG SHANGYOU TOOLS W3011
STAR TOOL W3001
Sugatsune Kogyo W3004
ASAHI SHO-KO-SHA W3003
EIKO ELECTRIC INDUSTRIAL W3002
to 2F
Escalator
Escalator
to 1F
To South Hall 3•4
JIMTOF FOOD FESTIVAL
Japanese Local Gourmet
N



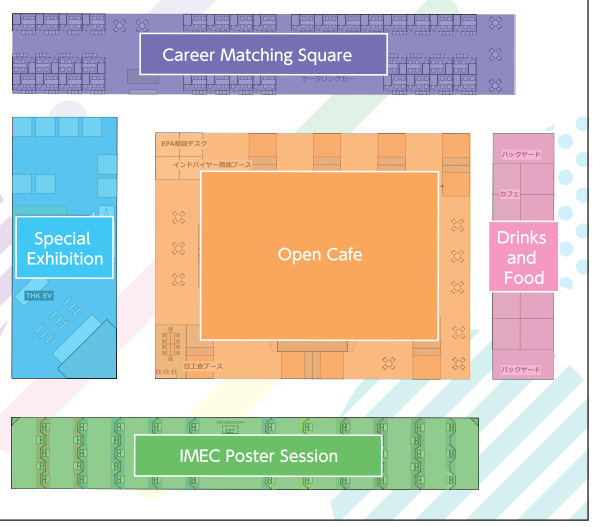




ACADEMIC AREA アカデミックエリア NEW

South 南 **South Hall 4**

Releases multi-angled information that will be instantly useful for job-hunting in the machine tool and manufacturing industries! Enjoy talks by industry leaders and YouTubers, experience manufacturing and many other types of content, as well as free drinks and food! If you are a student, go to the South Hall 4 now!!



IMEC2024 (The 20th International Machine Tool Engineers' Conference) Poster Session

"Poster session" is held in the South Hall 4 to present the results of research related to machine tools by universities and research institutes in Japan and overseas by poster format.

November 5 (Tue.) ～ November 10 (Sun.) ＊Personnel who give explanations from participating organizations are scheduled to be present from 9:00 to 12:00 on November 7 (Thu.) and 8 (Fri.) 9 (Sat.)

List of Participating Research / Themes

A Machine tool and elements

A-01 Precision Engineering Research Group, Sophia University
Friction reduction by microtextures with different area ratios on metal sliding surfaces

A-02 Yamada and Uchida Lab., College of Science & Technology, Nihon University
Effect of Workpiece Support Stiffness on Machining Accuracy in Cylindrical Grinding

A-03 Adachi Lab., Dept. of Mechanical Engineering, Chubu University
Systematic Research on Spindle Technology for Internal Grinding of Large-diameter Deep-hole Grinding

A-04 Sasahara Lab., Tokyo University of Agriculture and Technology
In process monitoring of machining operations

A-05 Manufacturing Lab., Dept. of Mechanical Engineering, The University of Tokyo
Thermal error compensation using large-scale temperature data

A-06 Tanabe Lab., Technical and Management Engineering, Sanjo City University
Development of a new FEM thermal deformation simulation technique for machine tools with enclosures and its application examples

A-07 Nakao Laboratory, Dept of Mechanical Engineering, Kanagawa University
Prediction of thermally induced axial displacement of servomotor using machine learning technique

B Machining technology and machining phenomena

B-01 Machine Tool Engineering Laboratory Endowed by OKUMA, Graduate School of Engineering, Nagoya University
Bead Shape Stabilization in Powder DED Considering Scanning Speed Fluctuations

B-02 Advanced Manufacturing Technology Institute (AMTI), Kanazawa University
Laser scan strategy for microtubule building with PBF-LB/M

B-03 Nontraditional Machining Lab., Graduate School of Environmental, Life, Natural Science and Technology, Okayama University
Surface Smoothing of Additively Manufactured Metal Products by Electron Beam Polishing

B-04 Manufacturing and Machine tool Lab., Graduate School of Science and Engineering, Saitama University
Material property control by directed energy deposition

B-05 Nagamatsu Lab., Dept. of Mechanical and Intelligent Systems Engineering, The University of Electro-Communications
Sasahara Lab., Dept. of Mechanical Systems Engineering, Tokyo University of Agriculture and Technology
Similar and Dissimilar Light Metal Depositions by Additive Manufacturing

B-06 Kakinuma Lab., Dept. of System Design Eng., Faculty of Science and Technology, Keio University
Thermal analysis of metal additive manufacturing and the application to coating technology

B-07 Ryo Koike Lab., Faculty of Science and Technology, Keio University
Development of high-speed coating with directed energy deposition

B-08 Shinozuka Lab., Div. of Systems Research, Yokohama National University
Simultaneous estimation of various kinds of tool wear from image of the chip back surface temperature by employing AI

B-09 Manufacturing Process Lab., Mechanical Engineering, Tokyo Denki University
Chip flow control in machining of holes with cutting simulation

B-10 Functional Surface Fabrication Lab., Dept. of Mechanical Engineering, Tokyo Denki University
Drilling of carbon fiber reinforced PEEK resin matrix composite material

B-11 Gotoh Lab., Dept.of Industrial Information Faculty of Industrial Technology, Tsukuba University of Technology
Grinding-Assisted Electrical Discharge Machining of CFRP

B-12 Machining Lab., Dept. of Mechanical Engineering, Meiji University
Study on machining efficiency of dry EDM of CFRP

B-13 Tomohisa Tanaka Lab., Dept. of Mechanical Engineering, Tokyo Institute of Technology
Development of a ball burnishing processing system applicable to curved thin plates

B-14 Ninomiya lab., Dept. of mechanical engineering, Nippon Institute of Technology
Development of conductive PCD rotary tools for use as discharge electrodes and grinding wheels

B-15 Okayama University, Faculty of Environmental, Life, Natural Science and Technology
Development of ball end mill tool life determination system using gradient boosting method

B-16 Production Technology Lab., Dept. of Mechanical Engineering, Setsunan University
Study on ball end milling of cemented carbide

B-17 Mizutani and Kuji Lab., Research Center for Green X-Tech, Green Goals Initiative, Tohoku University
Development of Innovative Machining Method by Microstructure Control of Amorphous Alloys

B-18 Chiba Advanced Technology & Science Lab., Chiba University
Study on crack propagation behavior and fracture surface morphology during wheel scribing of glass sheet

B-19 Precision machining and mechanism Lab., Nagaoka University of Technology
Development of special processing technology for generating functional surface and material

B-20 Enomoto-Sugihara Lab., Dept. of Mechanical Engineering, Osaka University
Exploring the role of the interface adhesion phenomena focusing on surface expansion distribution

B-21 Mechanics of Materials Lab., Dept. of Mechanical Systems Engineering, The University of Shiga Prefecture
Laser hardening and laser correction of deformation for thin steel plate

B-22 Ishida-Mizobuchi Lab., Tokushima University
Development of 3R grinding wheel using only polyvinyl alcohol bonding agent to zero emission of grinding wheel scraps

C Systems and control technology

C-01 Morishige Lab., Dept. of Mechanical and Intelligent Systems Engineering, The University of Electro-Communications
Configuration Space-Based Tool Path Generation for 5-Axis Controlled Machining with Variant Shape Tools

C-02 Advanced manufacturing systems Lab, Kobe University
Automated tool path generation with modification of workpiece deformation due to vice clamping

C-03 Nakamoto Lab., Dept. of Mechanical Systems Engineering, Tokyo University of Agriculture and Technology
Automatic Process Planning toward DX in Machining Based on Product Manufacturing Information

C-04 Manufacturing and Machine tool Lab., Graduate School of Science and Engineering, Saitama University
Intelligent planning method of NC machining process for new cutting technologies

C-05 Advanced Machining System Lab., Dept. of Mechanical Engineering, Meiji University
Trajectory Control of High-Precision Robot Machining considering Virtual Joints

C-06 Morimoto and hayashi Lab., Dpet. of Mechanical engineering, Kanazawa Institute of Technology
Development of digital twin system by VR

D Tools and tooling systems

D-01 Itoh Lab., Ibaraki University
Composite Stereolithography 3D Printer System Realizing High-Performance Grinding Wheel

D-02 Ultraprecision Machining Lab., Dept. of Mechanical Engineering, Chubu University
Effects of single-crystalline diamond quality on tool wear resistance and cutting performance

E Measurement and evaluation technology

E-01 National Institute of Technology, Sasebo College, Dept.of Control Engineering, Grinding Tools AI Evaluation Lab
Evaluation of grinding wheel surface morphology change

E-02 Murakami Lab, Department of Mechanical Systems Engineering, Faculty of Environmental Engineering,, The University of Kitakyushu
Advancement of machining and measurement technology using machine learning

E-03 Yoshioka Lab., Institute of Industrial Science, The University of Tokyo
Compensation of Workpiece Mounting Errors based on Measurement with 3D Scanner

E-04 Cyber Machining Group, Industrial Cyber-Physical Systems Research Center (ICPS), National Institute of Advanced Industrial Science and Technology (AIST)
Development of a Visual Wear Detection System for Gear Skiving Cutters

E-05 Precision Measurement and Machining Lab, Dept. of Micro Engineering, Kyoto University
Vision-based measurement of motion accuracy of machine tools

E-06 Advanced Micro Machining Lab., Dept. of Mechanical Engineering, Chubu University
Tool state estimation based on on-machine captured tool image

E-07 Digital Manufacturing Lab., School of Science and Engineering, Chuo University
Non-contact monitoring of cutting process using machining sound measurement

E-08 Micro and Nano Engineering Lab.(HASE Lab.), Graduate School of Engineering, Saitama Institute of Technology
Smart Condition Monitoring of Small Machine Tools by Dual AE Sensing

E-09 Saito Lab., College of Engineering, Nihon University
Measurement of angular indexing accuracy for 5-axis machining centers using touch trigger probe

E-10 PPSE Lab., Grad. of Integrated Science and Technology, Nagasaki University
Optical system for On-machine and In-line measurement

E-11 Nano Precision Machining Lab., Dept. of Advanced Machinery Engineering,Tokyo Denki University
Exploring the Next Generation of Manufacturing Technology using Nano-Precision Machining

E-12 Precision Lab. Osaka Institute of Technology
Simultaneous 5-axis Motion Test without CAM

E-13 Yanagihara lab., Dept. of Creative engg., National Institute of Technology, Ariake College.
Can in-process dynamics control in grinding provide innovation for grinding process?

F Production system and their components

F-01 Mechanical Design and Systems Laboratory, Graduate School of Advanced Science and Engineering, Hiroshima University
Accuracy improvement for robotic machining

F-02 Suwa Lab., Dept. of Mechanical Engineering, Setsunan University
Optimization Technology for Energy-Efficient Operations in Robotic Flexible Manufacturing Systems

Special Exhibits

S NIT Museum of Industrial Technology
NIT Museum of Industrial Technology -You can learn machine tools

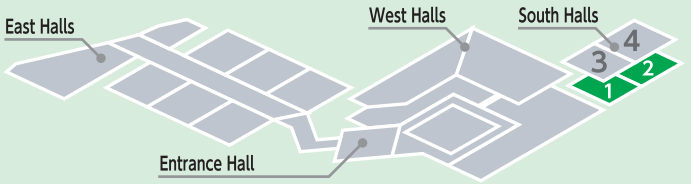




South 南

South Hall 1・2

Location Map



Metal cutting machine tools
Additive Manufacturing Area



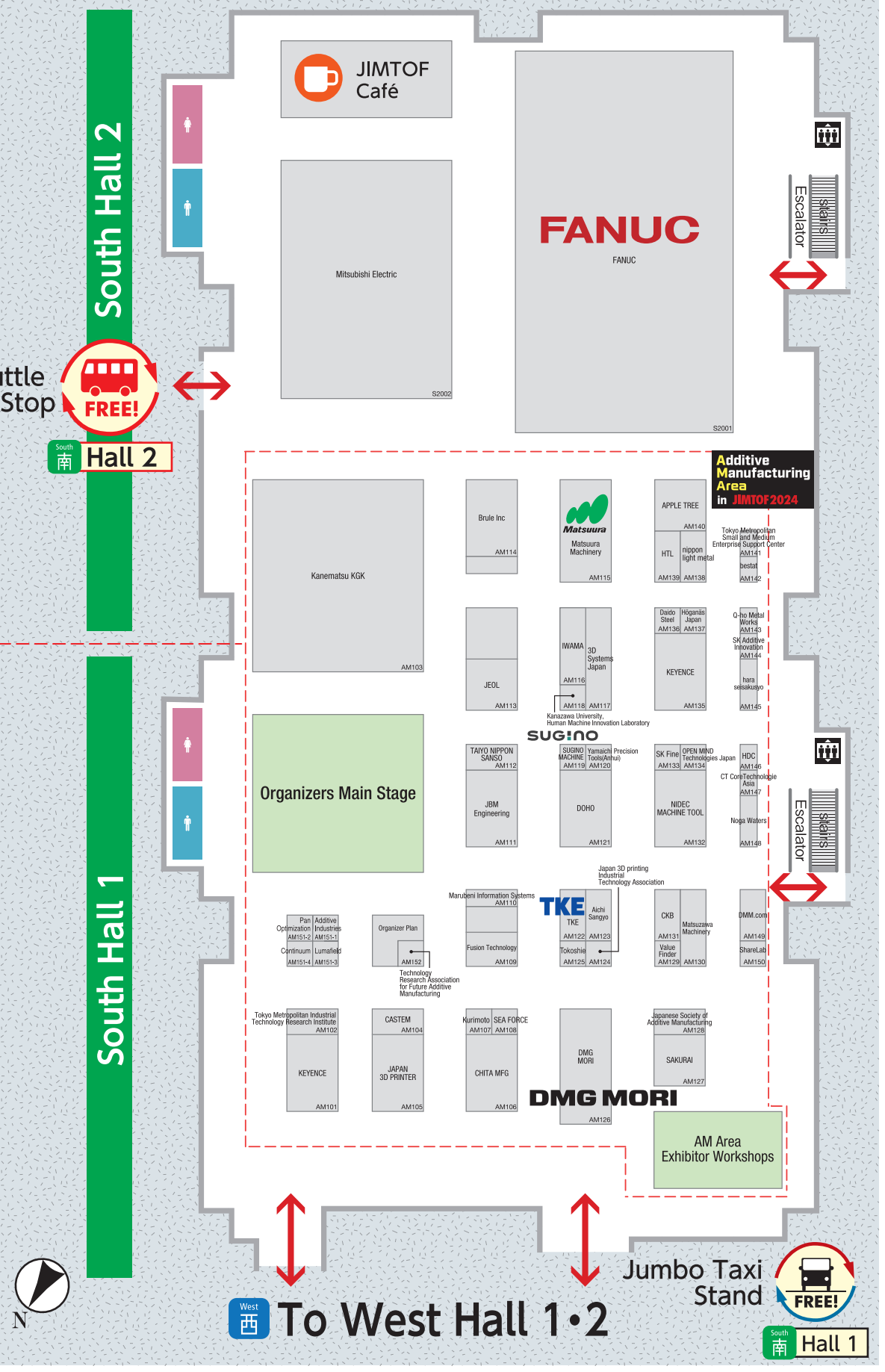


Special Concurrent Exhibition
Additive Manufacturing Area in JIMTOF2024

South 南 South Hall 1F

Additive Manufacturing (AM) and 3D printing products market is regarded as a true growth business area, with its market size increasing year by year.
AM and 3D printing are also a captivating trend in machine tools industry, and is highly expected as an innovative technology in manufacture that enables reduction in the number of parts, shorter lead time and high-mix low-volume production.
In addition to exhibitions, presentations and seminars will also be held, and it will be a place where you can efficiently discover the latest AM-related products, cutting-edge technologies and solutions!





世界初のハイブリッド
金属3Dプリンタ

LUMEX Avance-25

南2ホール
AM115［AMエリア］



サンプルワーク:フクイラプトル
モデル提供/公立大学法人福井県立大学

Matsuura 株式会社 松浦機械製作所



環境と技術は、引き算から足し算でイノベーション。
ティーケーエンジニアリングは、技術、経験、柔軟な発想で新しいものを創造し続けます。

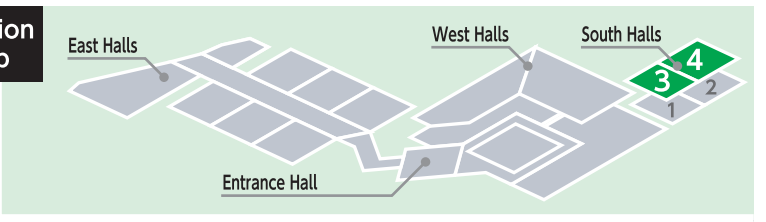
南1ホール
(South 1Hall)
AM122

CREATION AND CHALLENGE
TKE
ティーケーエンジニアリング株式会社

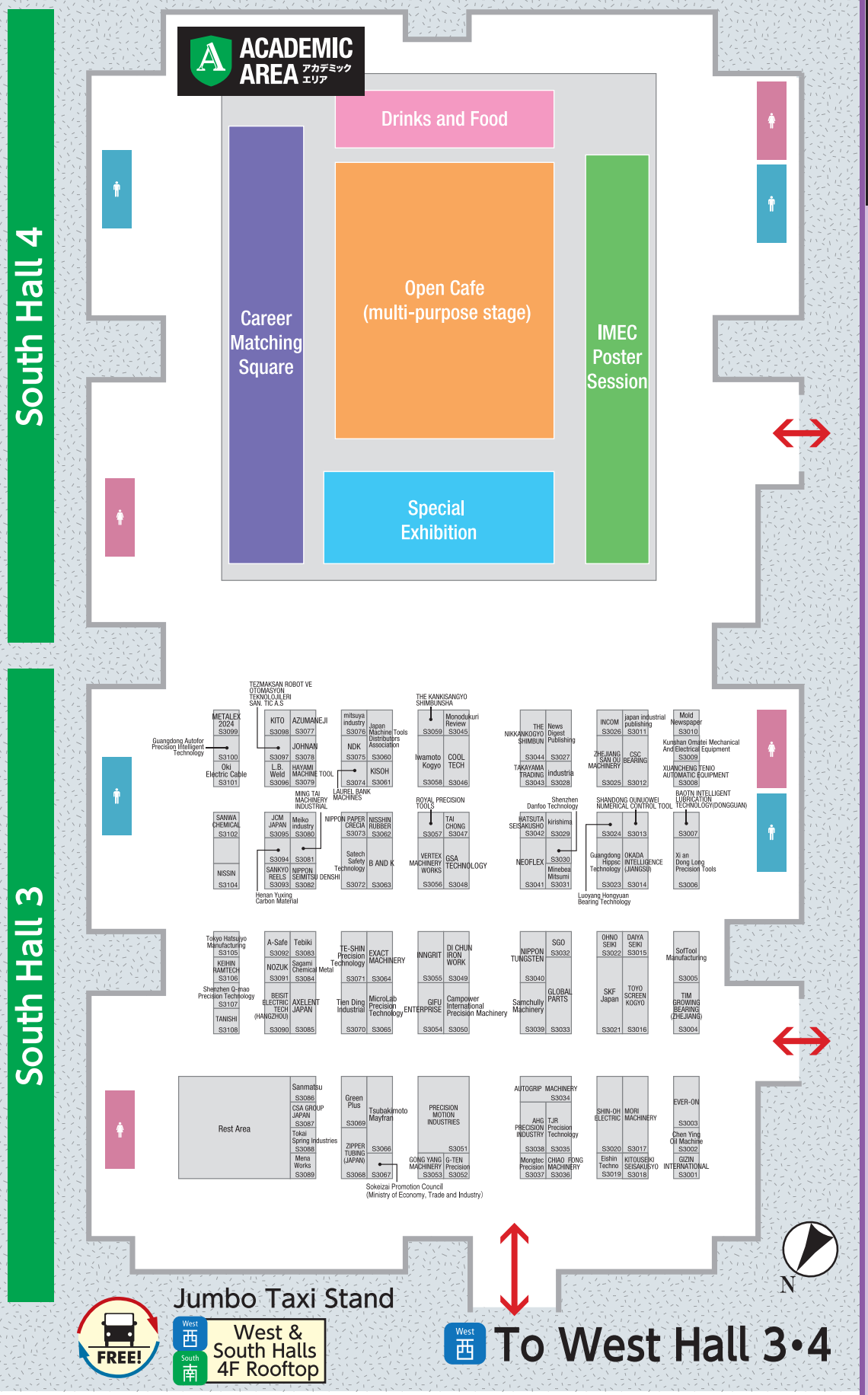
South 南

South Hall 3•4

Location Map



Machine tool accessories/ Other associated machinery and equipment/ Publications



ACADEMIC AREA アカデミックエリア

South 南 **South Hall 4**

Career Matching Square

Many students are welcomed in this area as JIMTOF2024 exhibitors' general affairs and HR personnel look forward to seeing you, whether you are a science/engineering major or not.

【Companies】

- MARUKA FURUSATO CORPORATION
- SUGINO MACHINE LIMITED
- SHIBAURA MACHINE CO., LTD.
- Toyo Advanced Technologies Co.,Ltd.
- MITSUI SEIKI KOGYO CO.,LTD.
- MAKINO MILLING MACHINE CO.,LTD.
- NACHI-FUJIKOSHI CORP.
- SHIN NIPPON KOKI CO.,LTD.
- YAMAZAKI MAZAK CORPORATION
- CITIZEN MACHINERY CO., LTD.
- FUJI CORPORATION
- OKUMA Corporation
- TOKYO SEIMITSU CO., LTD
- Santec Japan Corporation
- UNIPULSE CORPORATION
- Mitutoyo Corporation
- MITSUBISHI MATERIALS CORPORATION
- MOLDINO Tool Engineering, Ltd.
- THK CO., LTD.
- KOSMEK LTD.
- MATSUMOTO MACHINE CO.,LTD
- Tokyo Metropolitan Vocational Skills Development Center

Open Cafe

A free space for visitors, with Wi-Fi and drinks. Enjoy a break and the multi-purpose stage!

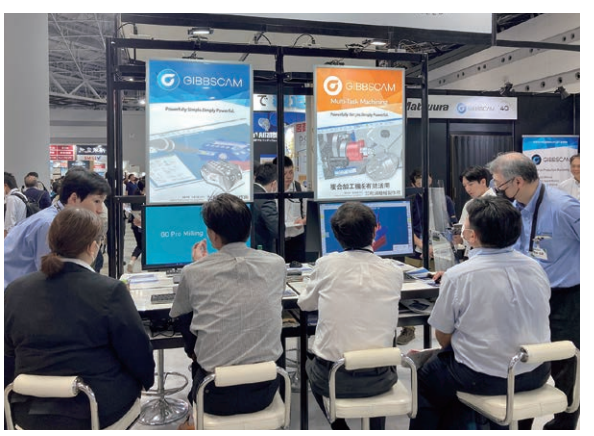
See the multi-purpose stage program here (Japanese Only) ▶

Special Exhibition Machine Tool Infinity ∞

~ Welcome to the world of machine tools that opens up infinite possibilities ~

There will be many activity contents which you will enjoy while deepening your understanding of the machine tool industry and feel the industry's potential at hand.





TAIWAN
SMART MANUFACTURING
未来へ受け継ぐ
台湾のモノづくり
イベント連日開催!
～台湾の"おもてなし"をあなたに～
西4ホール(West4Hall)
W4083-18
International Trade Administration
Taiwan External Trade Development Council
PIDC
Ad. by TDA

例えば、小売業 × 清掃ロボット



例えば、宿泊業 × スチームコンベクションオーブン



中小企業の**人手不足解消**に効果のある**「省力化製品」**を導入するための補助金

中小企業 省力化投資 補助金

補助率 1/2



随時申請受付中!

例えば、飲食サービス業 × 券売機



例えば、製造業 × 無人搬送車

中小企業省力化投資補助金とは、

人手不足解消に効果があるロボットやIoTなどの製品を導入するための経費を国が補助することにより、簡易で即効性がある中小企業の省力化投資を促進し、売上拡大や生産性向上を図るとともに賃上げにつなげることを目的とした補助金です。

補助対象となる事業

人手不足の中小企業などが、省力化製品を**対象製品のリスト（カタログ）から選んで導入**し、**販売事業者と共同**で「労働生産性 年平均成長率3%向上」を目指す事業計画※1に取り組むものを対象とします。

申請時に全ての従業員の賃金が最低賃金を超えていること、補助金の重複に該当しないことなどの要件※2を満たす必要があります。また、補助金の交付が決定された場合でも事業実績報告の審査によって補助額の減額となる場合があります。



※1. 公募要領「4−1. 補助対象事業の要件」を参照。
※2. 公募要領「4−2. 補助対象事業者の要件」を参照。

補助率と補助上限額

従業員数	補助率	補助上限額	補助事業実施期間に一定以上の賃上げを達成した場合
5名以下	1/2	200万円	300万円に引き上げ
6~20名		500万円	750万円に引き上げ
21名以上		1,000万円	1,500万円に引き上げ

補助上限額の引き上げを適用する場合、事業終了時に①給与支給総額+6%以上かつ、②事業場内最低賃金+45円以上とする計画を策定し申請する必要があります。
※補助上限額を引き上げたが事業終了までに賃上げ未達の場合は、補助額の減額となります。

※各申請における補助額の合計が補助上限額に達するまでは、複数回の応募・交付申請が可能です。

補助対象製品のカテゴリ

どんどん拡大中!

- ▶清掃ロボット
- ▶配膳ロボット
- ▶自動倉庫
- ▶検品・仕分システム
- ▶無人搬送車（AGV・AMR）
- ▶スチームコンベクションオーブン
- ▶券売機
- ▶自動チェックイン機
- ▶自動精算機
- ▶タブレット型給油許可システム
- ▶オートラベラー
- ▶飲料補充ロボット
- ▶デジタル紙面色校正装置
- ▶測量機
- ▶丁合機
- ▶印刷用紙高積装置
- ▶印刷用インキ自動計量装置
- ▶段ボール製箱機
- ▶近赤外線センサ式プラスチック材質選別機
- ▶デジタル加飾機
- ▶印刷紙面検査装置
- ▶鋳物用自動バリ取り装置
- ▶自動調色システム
- ▶蛍光X線膜厚測定器
- ▶自動裁断機　など

※一部の省力化製品については、置き換えであっても交付申請可能です。

お問い合わせは、本補助事業コールセンターまで

あらかじめ右記ホームページの掲載資料や「よくあるご質問」をご確認のうえ、お問い合わせください。

ナビダイヤル **0570-099-660**
IP電話などからのお問い合わせ **03-4335-7595**

受付時間：9:30~17:30／月曜~金曜（土・日・祝日除く）
※通話料がかかります。恐れ入りますが、繋がらない場合は、しばらくたってからおかけ直しください。

全都道府県に、インフォメーション窓口を設けています。詳しくは右記ホームページをご確認ください。

本補助金の詳細や対象製品のリスト（カタログ）、公募要領などはこちらから
中小企業省力化投資補助事業ホームページ
https://shoryokuka.smrj.go.jp/

省力化製品に関わる工業会・製造事業者・販売事業者のみなさま

カタログ登録サポートセンター 03-6746-1530 でご相談受付中!
受付時間：9:30~17:30／月曜~金曜（土・日・祝日除く）

Be a Great Small.
中小機構

三和商工株式会社
SANWA SHOKO CO.,LTD.

西4ホール
West Hall 4
W4035

金型補修もプラントメンテナンスも全方位対応
All-round support for mold maintenance and plant maintenance

三和商工は金型補修機器を製造販売しています。また、金型補修の技術と経験を生かし、業種の垣根を越えた効率化を図るご提案をいたします。「歪みがなく、補修後の寿命が長い金型補修の技術」はプラントメンテナンスや金属加工分野にも活用されています。JIMTOFでは超高精度肉盛溶接機、放電被覆装置や各種省力化機器のほか、新開発の溶接材供給機の試作品を展示します。ご興味をお持ちの方は、ぜひお越しください。



We manufacture and sell mold maintenance equipment. In addition, we utilize our technology and experience in mold maintenance to propose ways to improve efficiency across industry boundaries. Our mold maintenance technology, which is distortion-free and has a long life after repair, is also used in plant maintenance and metal processing. At JIMTOF, we will be exhibiting Ultra-precision Mold Padding Welder, Discharge Deposition Machine, various labor-saving devices, and a prototype of a newly developed welding material supply machine. If you are interested, please come and visit us.

E-MAIL contact@sanwashoko.co.jp

株式会社三協リール
SANKYO REELS, INC.

南3ホール
South Hall 3
S3093

ホースやコードを巻き取るリールの専門メーカー
Hose / Cable reel specialist

1968年から半世紀以上リールと向き合い、安全で快適な作業環境を提供するべくTRIENS（トライアンス）ブランドとしてサイズや用途別に豊富な品ぞろえのリールを取りそろえています。海外にも製造・販売拠点があり、世界150カ国以上のあらゆる産業で活用され、お客さまの声にお応えして、さまざまなものを巻き取ってきました。展示会ではスパイラルホースに代わる新製品など、安全で効率的な製品を多数出展しています。南棟4Fの南3ホールでお待ちしています。



Since 1968, for over half a century, we have been dedicated to manufacturer reels under the TRIENS brand to ensure safe and efficient working environments by offering a wide variety of sizes and types. With manufacturing and sales locations abroad, our reels are used in over 150 countries across various industries. Responding to our customers' needs, we have continuously developed solutions for a wide range of applications. At this exhibition, we are showcasing numerous safe and efficient products, including new alternatives to spiral hoses. We look forward to welcoming you at South Building, 4th floor, Hall 3.

E-MAIL info@triens.jp

ジャンボタクシーの体験 & 羽田空港と東京駅からのバス紹介

ジャンボタクシー
Jumbo Taxis

会場では各展示棟を結ぶ巡回ジャンボタクシーが運行している。常時10台ほどが稼働し、1台に7人ー9人が乗車できる。ゆとりのある車内で快適に会場を移動することが可能だ。巡回ジャンボタクシーは西・南展示棟4F、南展示棟1F、東1ホールを結び、10分から15分間隔で運行している。



At the venue, there are jumbo taxis that run between each exhibition hall. About 10 taxis are in operation at all times, and each one can accommodate 7 to 9 people. The spacious interior of the taxis allows you to move around the venue comfortably. The jumbo taxis run between the 4th floor of the West and South Exhibition Halls, the 1st floor of the South Exhibition Hall, and East Hall 1, and run every 10 to 15 minutes.

無料シャトルバス
Free Shuttle bus

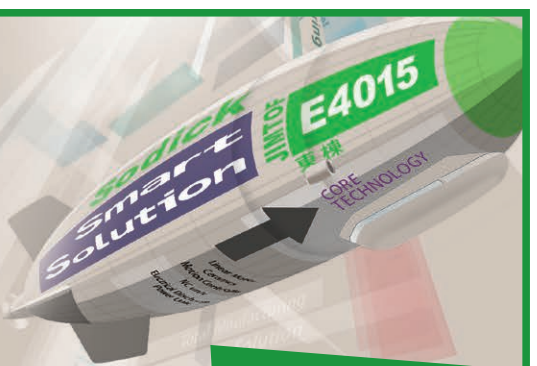
JIMTOF2024は11月9日と10日の2日間、羽田空港第一ターミナルと東京駅鍛冶橋駐車場から東京ビッグサイト中央ターミナルを結ぶ無料シャトルバスを運行する。シャトルバスを利用することで空港や駅から直接会場へ向かうことが可能だ。乗車人数には限りがあるため、時刻表に注意して乗車したい。

JIMTOF2024 will operate free shuttle buses between Haneda Airport Terminal 1 and Tokyo Big Sight Central Terminal, Tokyo Station Kajibashi Parking Lot and Tokyo Big Sight Central Terminal for two days on November 9th and 10th. By using the shuttle bus, you can go directly from the airport or station to the venue. The number of passengers is limited, so please check the timetable before boarding.

出発地		時刻								
東京駅（鍛冶橋駐車場） 羽田空港（第一ターミナル） ↓ 東京ビッグサイト（中央ターミナル）	11/9（土）	8:00	9:10	10:20	11:30	13:40	14:50	16:20	17:30	18:40
	11/10（日）	8:00	9:10	10:20	11:30	13:40	14:50	16:20	17:30	

出発地		時刻								
東京ビッグサイト（中央ターミナル） ↓ 東京駅（鍛冶橋駐車場） 羽田空港（第一ターミナル）	11/9（土）	8:40	9:50	11:00	13:10	14:20	15:50	17:00	18:10	
	11/10（日）	8:40	9:50	11:00	13:10	14:20	15:50	17:00		

Sodick
自動化・省人化・高効率化
スマートに解決
未来へ導く Sodick Smart Solution



AMR※が工程間連携を実現
※: Autonomous Mobile Robot



リニアモータ駆動
超精密
ワイヤ放電加工機
AX350L iG+E

リニアモータ駆動
高速・高性能
精密形彫り放電加工機
AL40G+

長時間大型ワーク加工を
多彩な機能で自動化・効率化



リニアモータ駆動
高速・高性能
大型ワイヤ放電加工機
ALN800G iG+E

軽量＆コンパクトな機体で
難削材の微細精密加工実現



New Model
リニアモータ駆動
フェムト秒レーザー加工機
LSP4040

精密切削加工の自動化に向け
多彩なシステムをご提案

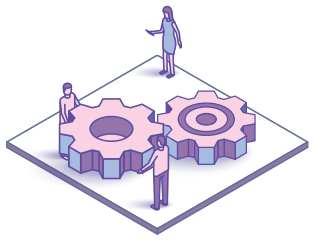


リニアモータ駆動
マシニングセンタ
& オートワークチェンジャ
UX650L & SR12

※ 出展機は都合により予告なく変更する場合がありますのでご了承ください。

JIMTOF2024
特設サイトへは
コチラから
GO!

株式会社 ソディック



操作性やデザイン性を追求した工作機械・部品 ～すべての人のために～

Machine Tools and Parts Pursuing Ease of Use and Design —For All People—

ニイガタマシンテクノ
NIIGATA MACHINE TECHNO CO., LTD.

ターンテーブル式 強力NCフライス盤 JK400Ⅲ
Turntable type High Power Milling Machine JK400Ⅲ



利便性を格段に向上させたフライス盤の新たなカタチを創出
Creating a new type of milling machine with significantly improved convenience

和井田製作所
WAIDA MFG. CO., LTD.

デジタルプロファイル研削盤 SPG-XV
Digital Profile Grinder SPG-XV



ワークと図面の差異を数値表示し、非熟練者も正確な加工ができる
Differences between the workpiece and the drawing are numerically displayed, allowing even non-skilled workers to perform accurate machining.

サイダ・UMS
SAIDA UMS INC.

21世紀の汎用旋盤　VERSEC-neo
VERSEC-neo, a 21st century general-purpose lathe



デザインが持つエネルギーを大切し、若い人も怖がらずに触れる旋盤
A lathe that values the energy of design and allows young people to use it without fear

ツガミ
TSUGAMI CORPORATION

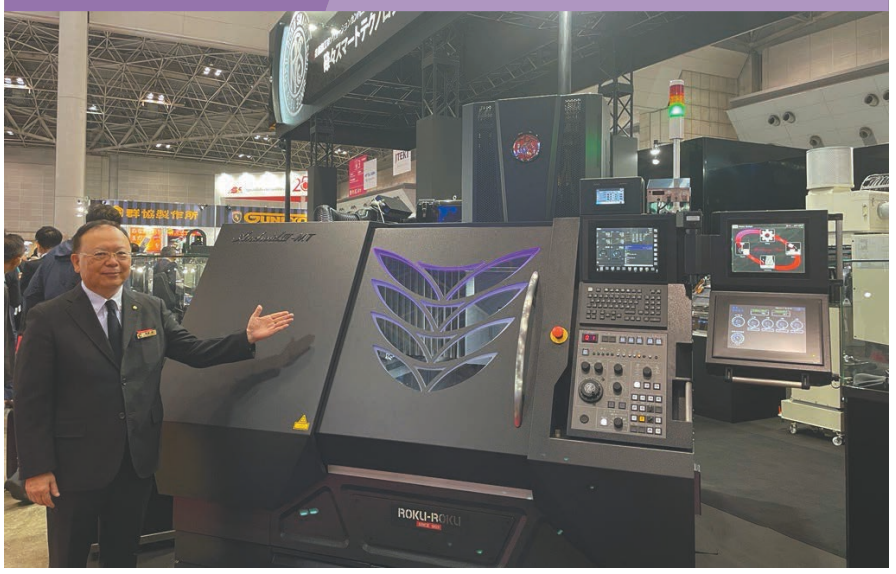
ターニングセンタ　SS20MH-Ⅲ-5AX
Turning Center SS20MH-Ⅲ-5AX



オペレーターの目線に立ち、使いやすさと加工精度の安定化にこだわる
Focus on ease of use and stable machining accuracy from the operator's perspective.

碌々スマートテクノロジー
ROKU-ROKU SMART TECHNOLOGY CO., LTD.

複合微細加工機 AndroidⅢ-MT
AndroidⅢ-MT, Composite Micromachining Machine



加工機を操る“マシニング・アーティスト”の感性に響くデザインと機能を確立
Established designs and functions appealing to the sensibilities of the “machining artists” who operate the processing machines

スガツネ工業
Sugatsune Kogyo Co., Ltd.

パワーアシストヒンジ
Power Assist Hinge



ヒンジの力で重いカバーをふわっと軽々開け、作業者負担を軽減
The hinge allows a heavy flap to open lightly, reducing the burden on the operator.



主催者企画を記者が体験！ 前編
A Reporter Experiences The Organizers' Events! (Part 1)

多分野に活用される工作機械技術
Machine Tool Technology Used in Various Fields



インホイールモーターを小型化し大型トランクを実現
In-wheel motor made smaller to create a large trunk

EVプロトタイプ展示／直動機器応用の免震技術

南4ホールアカデミックエリア内の、企画展示「マシンツール・インフィニティ」のコーナーは、実際に体験できる展示がめじろ押しだ。

まず目を引くのは、THKが独自開発した電気自動車（EV）プロトタイプ「LSR―04」。同EVは昨年発表し話題を集めた「同―05」の走行用車両だ。全長約5mの高級車仕様で、同社の自動車向け製品開発の性能を示す目的で開発された。

後輪に搭載したインホイールモーターは左右独立駆動で、高い操縦安定性を実現。同社の高剛性ボールねじスプラインを用いた可変磁束機構で、高トルクと高回転を両立する。このほかにもブレーキやサスペンションなどにも同社の技術を活用する。

また同社の直動機器を応用した免震技術を体験できる免震体験車も登場。過去に発生した大規模地震の揺れを再現する。車両の四隅に直動案内機器「LMガイド」を十字に組んだ免震装置を設置し、免震を施した建物とそうでない建物の違いが体験できる。

今回は東日本大震災を再現した揺れを体験した。最大震度7の揺れでは、上下・左右に体や家具が強く揺すられ、固定された家具を支えにしても体が浮遊した。一方、免震を施した建物は免震装置が左右の揺れを抑制。最大8分の1程度にまで揺れを抑えるため、家具の支えなしでも座っていられた。建物はもちろん、機械や美術品などにも対応する。事業継続計画（BCP）対策を考える材料として、体験してほしい。

EV Prototype Exhibition / Seismic Isolation Technology Using Linear Motion Devices

In the academic area of South Hall 4, there are many hands-on exhibits at the corner of the special exhibit "Machine Tool Infinity."

The first thing that catches your eye is the LSR-04, an electric vehicle (EV) prototype independently developed by THK. This EV is a running version of the LSR-05, which was announced last year and attracted much attention. It is a luxury car model with a total length of about five meters and was developed to demonstrate the company's performance in developing automobiles.

The in-wheel motors mounted on the rear wheels are independently driven on the left and right wheels, achieving high handling stability. The variable magnetic flux mechanism, which uses the company's high-rigidity ball screw spline, achieves both high torque and high rotational speed. The company's other technologies also were used for the brakes, suspension, etc.

Also, there is a seismic isolation vehicle on display, where visitors can experience the seismic isolation technology that applies the company's linear motion devices. It recreates the shaking of a large-scale earthquake that has occurred in the past. The seismic isolation devices, consisting of linear motion guide devices "LM guides" arranged in a cross shape, are installed at the four corners of the vehicle, allowing you to experience the difference between a building with seismic isolation and one without it.

This time, visitors could experience a simulation of the Great East Japan Earthquake. With a maximum seismic intensity of 7, bodies and furniture shook violently up and down and side to side, and even those who clung to fixed furniture for support remained floating. Meanwhile, in a seismically isolated building, the seismic isolation devices suppress side-to-side shaking. The shaking is reduced to a maximum of one-eighth, making it possible to sit without clinging to furniture. This can apply not only to buildings, but also to machinery and artwork. We hope you will experience this as a means of thinking about business continuity plans (BCP).



免振装置が手を放せる程度の揺れに抑制
Seismic proof equipment suppresses vibrations to the level of being able to keep hands off

JIMTOF 2024 JIMTOF Map & Daily News編集部主催 公開収録イベント

NUMBER X Produced by JIMINE

NumberX ～奥深い工作機械トーク in JIMTOF2024

CRT栃木放送・JIMTOF Map & Daily Newsコラボ

日時 2024年11月10日(日) 12:15～13:15

会場 東京ビッグサイト南4ホール アカデミックエリア内「多目的ステージ」

定員 約30人 ※公開収録自体への申し込みは不要で無料です。


パーソナリティー
藤田 真奈さん


ナビゲーター
海藤 満さん
（碌々スマートテクノロジー会長）

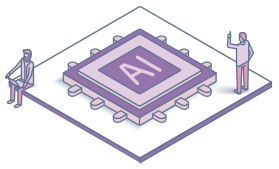

コメンテーター
川嶋 大樹さん
（栃木精工社長）


ゲスト
六笠 友和さん
（日刊工業新聞社 南東京支局長）

「Number X」は、モノづくりに関わるゲストが思い入れのある数字をテーマに語り合うラジオ番組です。

パーソナリティーは、アナウンサーの藤田真奈さん、ナビゲーターは碌々スマートテクノロジー会長の海藤満さんです。また、コメンテーターとして栃木精工社長の川嶋大樹さんが出演しています。長く工作機械の業界を取材してきた日刊工業新聞社の六笠友和さんをゲストに迎え、"工作機械にまつわる数字"を深掘りします。

詳細はこちら
https://jimtof.org/jp/evt_stu.html#academic >>>>>



ここが見どころ！～進化続くAI活用～

Check This Out! ～ Evolution of AI Use ～

社会全体で人工知能（AI）の進化や活用が進み、モノづくり業界においてもAIが搭載された工作機械や関連装置などの開発が進む。JIMTOFでもAIを活用した製品・技術の提案が多数行われている。

AI is advancing, and its use is increasing across society, with developments also progressing in the manufacturing industry for AI-equipped machine tools and relevant systems. Similarly, JIMTOF features many proposals of AI-based products and technologies.

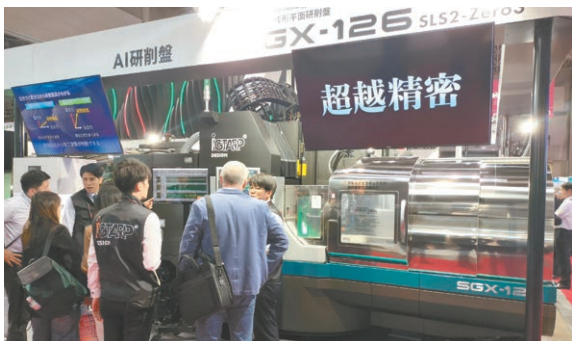
超精密研削　最適な加工手順など計算

Ultra-Precision Machining: Calculating Optimized Machining Steps etc.

ナガセインテグレックスはAIによる、熟練工に頼らない超精密研削を披露している。素材に対する機械や刃物、加工の手順や条件などの最適な組み合わせを推奨するAIを紹介。超精密研削盤の新機種にAIを搭載し、加工中の諸データによる品質予測も実演する。

超精密の研削加工は周辺機器や治具、加工助材、計測技術、環境も含め、加工結果を左右する要素が多く、組み合わせが難しい。加工中に振動や音、色、匂いから判断する加工条件の補正も必要。適正な加工には豊富な経験と知識が欠かせなかった。

同社は2024年3月に研削盤メーカー3社や北海道大学と共同で基本技術を開発した。その後も独自に開発を継続。会場で最新技術を紹介している。



AIを搭載して出品するナガセインテグレックスの超精密中型門型成形平面研削盤「SGX-126」
NAGASE INTEGREX's AI-based ultra-precision medium-sized double column surface grinding machine "SGX-126"

NAGASE INTEGREX is displaying AI-based ultra-precision machining that does not rely on experienced workers. It introduces an AI that recommends optimal combinations for machines, cutting tools, machining steps, and conditions tailored to the materials. The latest ultra-precision grinding machine models are equipped with AI, allowing for quality predictions based on various data collected during the machining process.

Ultra-precision machining involves many factors that affect the result – such as peripheral equipment, jigs, machining accessories, measuring technologies, and environments – making it challenging to achieve the ideal combination. Adjusting machining requirements based on factors like vibrations, sounds, colors, and odors has traditionally required extensive experience and knowledge.

In March 2024, NAGASE INTEGREX, along with three grinding machine manufacturers and Hokkaido University, developed a basic technology for this field. The company has since continued its development and is highlighting its latest technologies at JIMTOF.

高度なサーボチューニングを実現

Realized Advanced Servo Tuning

ファナックのコンピューター数値制御（CNC）装置「シリーズ500i-A」に対応した「サーボガイド2」には、AIサーボチューニングが標準搭載されている。サーボガイドは機械に応じ、高度なサーボ調整を可能にするツール。AIによる調整を実現し、誰でも安定して高度な調整結果を得られる。

特徴は①基本的なサーボ機能を確実に自動調整②主軸のゲイン・フィルター調整に対応しギア加工機などの性能向上に貢献③インチ表記のGコードプログラムにも対応―となっている。簡単な初期設定を行えば、自動で実行する。

FANUC's Servo Guide 2, which supports FANUC's computer numeral control (CNC) system, the "Series 500i-A," carries AI servo tuning by default. This tool enables advanced servo adjustments tailored to each machine, allowing anyone to achieve stable, high-quality tuning results through AI-powered optimization.

Servo Guide 2 is characterized by (1) Automatic adjustment of basic servo features, (2) Gain and filter adjustment of the main spindle to enhance the performance of gear machining and other applications (3) Support for inch-based G-code programs. Once the simple initial setup is complete, it runs automatically.



ファナックの最新CNC装置「シリーズ500i-A」
FANUC's latest CNC system "Series 500i-A"

機械停止時間を短縮生産ロス削減

Machine Stoppage Time Shortened, Reducing Productivity Losses

オークマが自社製の工作機械に搭載している独自のCNC装置「OSP-P500」は、AIによる予知保全など機械停止時間を抑える機能を持つ。これも注目の技術のひとつだ。

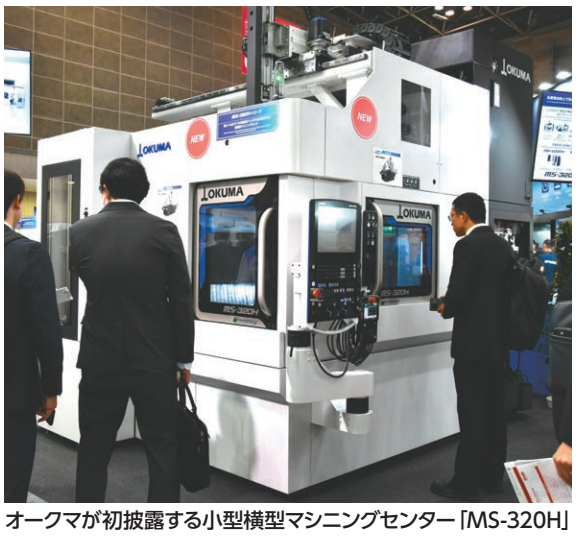
今回、初披露する新型の小型横型マシニングセンター「MS-320H」は、テーブルを垂直に配置することでテーブル上面や治具に切りくずを堆積させず、真下に落とすという革新的な機械構造を採用した。さらにAIによって機械状態を判断し、不意の生産ロスを防止する機能「AI機械診断」も特別仕様によって追加できる。

AIが主軸や送り軸に対し、異常の有無や寿命が近づいているかを診断。メンテナンスが必要な場合は利用者に知らせることで、計画的な保全活動を促し、不意な機械停止によって生産を滞らせることを防ぐ。

Okuma's proprietary CNC system, "OSP-P500," mounted on its machine tools, has a feature to reduce machine downtime by measures such as AI-based forecasting and maintenance. It is one of the technologies that is drawing attention at JIMTOF.

The new small, horizontal machining center, MS-320H, which will debut at JIMTOF, adopts an innovative machine structure. – By placing the table vertically, scraps will fall and will not pile up on the table and jigs. An additional feature, "AI machine diagnosis," can be added as a special feature, which uses AI to interpret the machine's condition and prevents unpredicted productivity losses.

The AI interprets whether there is an abnormality or nearing end-of-life in the main or feed spindle. If maintenance is needed, it alerts the user, promoting scheduled maintenance and preventing productivity losses from unexpected machine downtime.



オークマが初披露する小型横型マシニングセンター「MS-320H」
Okuma's newly debuted small horizontal machining center "MS-320H"

MT検定

工作機械検定

MACHINE TOOL

2級

日本工作機械工業会は、一般の方々にも工作機械はどのような機械かを知ってもらう「工作機械検定（MT検定）」を実施しています。JIMTOF Map & Daily Newsでは、工作機械産業に関する標準的な問題を取り上げる「2級」（合計20問）の中から12問を選び、6回にわたって掲載します。全問正解を目指し、ぜひチャレンジしてみてください。

Q.1

工作機械受注は経済環境や需要産業の設備投資動向で大幅に変動します。2008年以降、以下の事象を比較した場合、工作機械受注への影響が比較的少なかったものはどれですか。

- A リーマン・ショック
- B イギリスのEU離脱決定
- C 新型コロナウイルスの感染拡大

Q.2

2022年の工作機械受注額は1兆7596億円で史上2番目となる高水準を記録しました。受注増加をけん引した要因として考えられるものは以下のどれですか。

- A 労働力不足・人件費高騰による自動化投資
- B 燃料価格高騰による資源採掘の投資
- C 海上輸送ひっ迫に伴う造船投資

工作機械検定2級にチャレンジ！
応募期間 11月30日（土）まで。

スマホでも受験できて、その場で合否判定します！

工作機械検定はこちらから

JIMTOF Café



南2ホール内にはカフェコーナー「JIMTOF Café」が設置され、ゆったりとくつろぐことができる。ドリンクと軽食が提供され、開場時間前の8時30分から利用可能。営業時間は8時30分から17時まで（最終日は14時まで）。

南4ホールのアカデミックエリアでは「オープンカフェ」が開かれ、休憩しながらドリンクを堪能することができる。

There is a cafe corner called JIMTOF Café in South Hall 2 where you can relax and unwind. Drinks and light meals are available, and it is open from 8:30 a.m. before the doors open. Business hours are from 8:30 a.m. to 5:00 p.m. (until 2:00 p.m. on the last day).

In the academic area of South Hall 4, there is an Open Cafe where you can take a break and enjoy a drink.

JIMTOF FOOD FESTIVAL

しらす丼　Shirasu（boiled whitebait）Rice Bowl

● ご当地グルメ **神奈川県**

ご当地グルメのラインアップのうち、もっとも胃に優しそうなメニューが「釜揚げしらす丼」だ。温玉・梅・オクラの3種類のうち、記者はもっともあっさり味と思われるオクラを選択。しらすの塩味とオクラの粘り気がマッチして疲れた胃を癒してくれる。ガッツリ飯を食べたい人は別メニューの追加がおすすめ。



Local Gourmet：Kanagawa

Among the local gourmet lineup, the menu that seems to be the most stomach-friendly is the "Kamaage Shirasu Donburi (boiled whitebait rice bowl)." Of the three options, which include a soft-boiled egg, pickled plum, and okra, the reporter chose the okra, which they thought had the lightest flavor. The saltiness of the shirasu and the stickiness of the okra go well together and soothe a tired stomach. If you want to eat a hearty meal, we recommend adding another menu item.

東？西？南？どちらで楽しむ!?　East or West or South? Where to Enjoy!

JIMTOFお食事情報

JIMTOF Dining Information

多くの来場者で賑わうJIMTOFでは食事処も盛況だ。会期中、東展示棟屋内外と西展示棟屋上では飲食サービス「FOOD FESTIVAL」が催され、南2ホールでは「JIMTOF Café」が開かれている。出展者と来場者のおなかを満たす豊富なメニューが揃う。

JIMTOF is bustling with visitors, and the restaurants are also bustling. During the exhibition, the food and beverage service FOOD FESTIVAL is being held indoors and outdoors in the East Exhibition Hall and on the rooftop of the West Exhibition Hall, and the JIMTOF Café is open in South Hall 2. A wide variety of menus are available to satisfy the appetites of exhibitors and visitors alike.

JIMTOF FOOD FESTIVAL

角煮バーガー　Kakuni（braised pork）Burger

● ご当地グルメ **長崎県**

角煮バーガーの中にはレタス、角煮、細い揚げ麺、チーズが入っている。注文すればすぐに出てきて、片手で食べられるので忙しい時にもおすすめ。女性にちょうどいいボリュームで、バンズと角煮のフワフワした食感、揚げ麺のパリパリ感が同時に楽しめる。チーズの甘みも加わるとさらに美味しい！もう一つ食べたくなるやみつき味。



Local Gourmet：Nagasaki

The Kakuni Burger is filled with lettuce, kakuni, thin fried noodles, and cheese. It's prepared quickly once you order, and you can eat it with one hand, so it's recommended for busy times. The volume is just right for women, and you can enjoy the fluffy texture of the bun and braised pork, and the crispy texture of the fried noodles at the same time. The sweetness of the cheese makes it even more delicious! It's an addictive taste that will make you want to eat another one.

JIMTOF FOOD FESTIVAL

うな丼　Unadon（spicy broiled eel bowl）

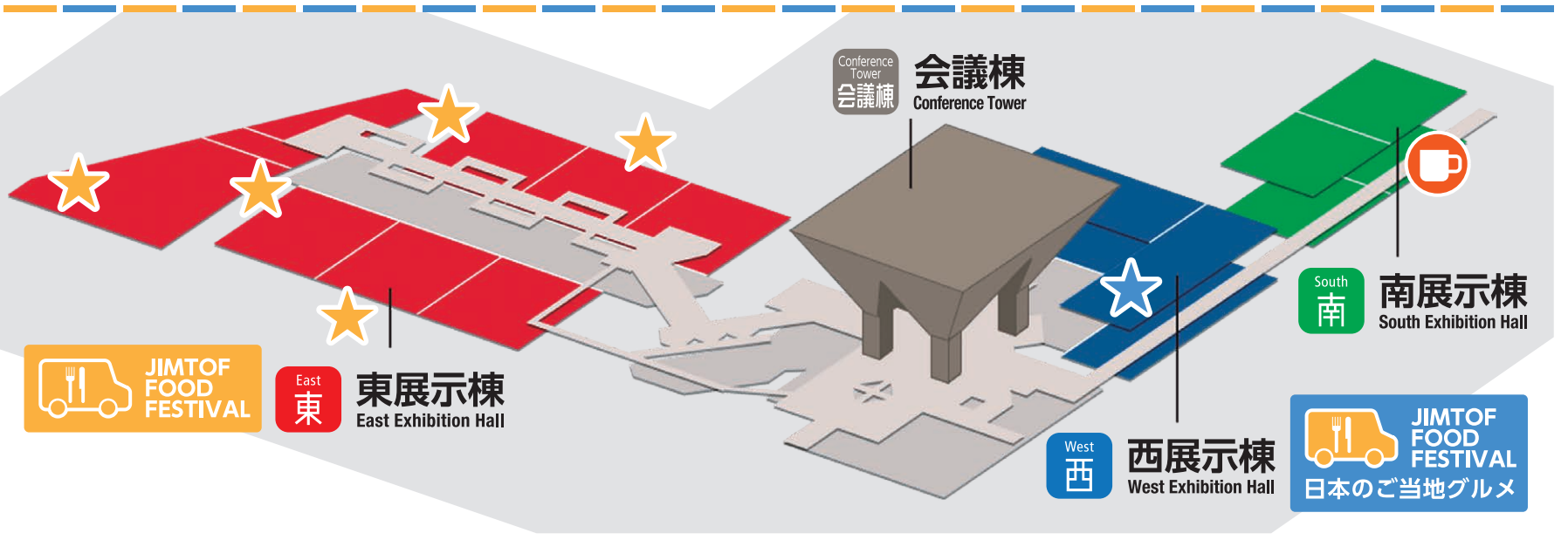
● ご当地グルメ **埼玉県**

職人が手でさばき、その場で焼いたうなぎが提供される。ほどよい弾力とフワッとした柔らかさで食感は抜群。焼きたてのうなぎに秘伝のタレをからませ、上品な味に箸が進む。さんしょうをかけると香ばしい風味が漂い、疲れた体を癒やしてくれる。会場を歩き回った後におすすめの逸品。



Local Gourmet：Saitama

The eel is hand-cut by a chef and grilled on the spot. It has a perfect texture with just the right amount of elasticity and softness. The freshly grilled eel is dipped in a secret sauce, and the refined flavor will have you coming back for more. Sprinkling some Japanese pepper on top gives it a fragrant flavor that will soothe your tired body. This is a recommended dish to try after walking around the venue.



Event Calendar

November 5 (Tue.)

Conference Tower 会議棟 International Conference Room, Conference Tower 7F

- 13:00 – 14:00 **Keynote Speech**
  Bring your dreams to manufacturing!
  THK's pursuit of a new-concept EV

South 南 Organizers Main Stage South Hall 1, Additive Manufacturing Area

- 13:00 – 14:00
  Changing The Future of Die Casting Leads to the Change of Metal AM of Mold Manufacturing
- 14:00 – 16:00
  Western companies tackling the challenges of AM head-on

November 6 (wed.)

Conference Tower 会議棟 Reception Hall, Conference Tower 1F

- 13:00 – 14:15 **Special Lecture**
  Monozukuri manufacturing is about Developing People

South 南 Organizers Main Stage South Hall 1, Additive Manufacturing Area

- 13:00 – 16 :15
  AM Seminar by Japan Machine Tool Builders' Association

November 7 (Thu.)

Conference Tower 会議棟 Reception Hall, Conference Tower 1F

- 12:30– 18:00
  IMEC2024 (The 20th International Machine Tool Engineers' Conference) Oral Session

South 南 Organizers Main Stage South Hall 1, Additive Manufacturing Area

- 10:00 – 12:00
  The latest status of social implementation of Japanese 3D printers Morning session
- 13:00 – 16:00
  The latest status of social implementation of Japanese 3D printers Afternoon session





November 8 (Fri.)

Conference Tower 会議棟 International Conference Room, Conference Tower 7F Reception Hall, Conference Tower 1F

- 13:00 – 14:00 **Special Lecture**
  International Conference Room, Conference Tower 7F
  Cross-Industry Collaboration in Action: Exploring Open Innovation Management with JSOL at Maeda Corporation Fantasy Marketing Department
- 13:00 – 18:00 Reception Hall, Conference Tower 1F
  IMEC2024 (The 20th International Machine Tool Engineers' Conference) Oral Session

South 南 Organizers Main Stage South Hall 1, Additive Manufacturing Area

- 10:00 – 11:00
  How the West is working to address the challenges of additive manufacturing
- 11:00 – 12:00
  ShareLab
- 12:00 – 13:00
  Mass Production of AM as a Business
- 13:00 – 16:00
  AM utilization starts with automation of overlay welding repair and dissimilar metal coating

November 9 (Sat.)

Conference Tower 会議棟 International Conference Room, Conference Tower 7F

- 12:30– 15:10 **Students only**
  Top Seminar by Machine Tool Manufacturers for Students

South 南 Organizers Main Stage South Hall 1, Additive Manufacturing Area

- 10:00 – 11:00
  Applications and challenges as repair techniques for metal AM
- 11:00 – 13:00
  ShareLab
- 13:00 – 14:00
  A Practical Guide to 3D Printing
- 14:00 – 15:00
  Technology and Business Trends in Additive Manufacturing and 3D Printing from Global viewpoint

November 10 (Sun.)

Conference Tower 会議棟 Reception Hall, Conference Tower 1F

- 10:30 – 11:30 **Special Lecture**
  10:30 – Development of Space Robots
  11:00 – Daily Life of Women in STEM (Monozukuri)

South 南 Organizers Main Stage South Hall 1, Additive Manufacturing Area

- 10:00 – 13:55
  Manufacturing Revolution:
  Breaking Through Manufacturing Barriers with Additive Manufacturing
  10:00 – 10:55
  Utilization of metal AM for aluminum die-casting dies
  11:00 – 11:55
  The Production of Die-Casting Mold Components Using Multi-Laser AM Equipment and Future Developments
  12:00 – 12:55
  Giga cast technology trends and die casting technology
  13:00 – 13:55
  Achievements for mold repair and technology development by 5-axis DED hybrid machine
- 14:00 – 15:55
  「Additive Manufacturing Pioneering New Frontiers in Manufacturing: Unconstrained by Conventional Wisdom」

South 南 South Hall 4 Academic Area

IMEC2024 Poster Session

November 5 (Tue.) - 10 (Sun.) 9:00-17:00

* Personnel who give explanations from participating organizations are scheduled to be present from 9:00 to 12:00 on November 7 (Thu.) and 8(Fri.) 9 (Sat.)

Open Cafe

A free space for visitors, with Wi-Fi and drinks.
Enjoy a break and the multi-purpose stage!

See the multi-purpose stage program here (Japanese Only) ▶

Conference Tower 会議棟

Lectures / Seminars

International Conference Room, Conference Tower 7F ／
Reception Hall, Conference Tower 1F

Free of charge

* Pre-registration is required for lectures and seminars.
* On-site registration is accepted on a space available basis only.

J Japanese (including interpretation) E English
M Multilingual Translation (AI Translation included)

Keynote Speech

J E M

International Conference Room, Conference Tower 7F November 5 (Tue.) 13:00～14:00

Bring your dreams to manufacturing! THK's pursuit of a new-concept EV

THK was the first company in the world to develop the LM Guide, which is a critical element of machine tools. As a result of honing this technology alongside our ball screw expertise, we were able to unveil our original EV prototype that features the latest in EV technology, the LSR-05, at JMS 2023. In this talk, SNDP's Shiro Nakamura (formerly from Nissan) and I will discuss the path that led us to today as well as the road ahead.



THK CO., LTD.
Chairman/CEO **TERAMACHI Akihiro**



SN Design Platform
President **NAKAMURA Shiro**



Special Lecture

J E M

Reception Hall, Conference Tower 1F November 6 (Wed.) 13:00～14:15

Monozukuri manufacturing is about Developing People

Manufacturing is facing a turbulent era with CN and digital transformation on the horizon. Hence, we always value "honing people for the coming era". With our"Genba First"mindset, based on our experiences by always being present on-site, We will give you presentation about value for honing people.



TOYOTA MOTOR CORPORATION
Executive Fellow **KAWAI Mitsuru**

Special Lecture

J E M

International Conference Room, Conference Tower 7F November 8 (Fri.) 13:00～14:00

Cross-Industry Collaboration in Action: Exploring Open Innovation Management with JSOL at Maeda Corporation Fantasy Marketing Department

The Maeda Corporation Fantasy Marketing Department began in 2003 as a cross-industry co-creation public relations activity and achieved success by being adapted into stage plays and movies. Together with JSOL employees, we will discuss the management methods and idea generation techniques that create something from nothing as concrete examples of co-creation



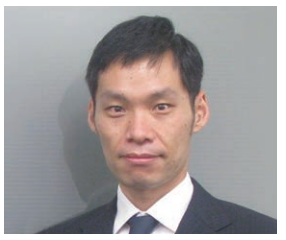
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Maeda Corporation Executive Officer
Department of Transportation Systems Engineering, College of Science and Technology, Nihon University,Visiting Professor
IWASAKA Teruyuki



JSOL Corporation
Engineering Technology Div.
Section manager **ODA Hodaka**



JSOL Corporation
Engineering Technology Div.
AMANO Shinichi

Special Lecture

Reception Hall, Conference Tower 1F November 10 (Sun.) 10:30～11:30

10:30～11:00 J E M

Development of Space Robots

With expansion of the space exploration, the robot application, "Service Robot in Space" (SRS), providing service becomes popular to a human in space. Several JAXA space robot systems will be presented and the attendees will understand the process how to manufacture the complicated systems.



JAXA, Human Spaceflight Technology Center
Senior Manager **OTSUKA Akiko**

11:00～11:30 J E M

Daily Life of Women in STEM (Monozukuri)

Through the panel discussion among women in STEM (engineer in private company, researcher in university and/or engineer in research organization), attendees can catch the clue to enter the manufacturing world.



JAXA, Human Spaceflight Technology Center
Senior Manager **OTSUKA Akiko**



Astroscale
Guidance Navigation Control Engineer
IWASAWA Aria



Nihon University,
College of Science and Technology, Department of Aerospace Engineering
Associate Professor **TAKAHASHI Akiyo**



Yamaguchi University,
Department of Mechanical Engineering, Graduate School of Sciences and Engineering for Innovation
Associate Professor **BANNO Ayana**



IHI AEROSPACE Co., Ltd.,
Corporate Planning Department, Business Development Group
General Manager **FUKUNAGA Mihoko**

IMEC2024 (The 20th International Machine Tool Engineers' Conference)

Oral Session

J E Fees required

Reception Hall A, Conference Tower 1F November 7 (Thu.) 12:30～18:00/November 8 (Fri.) 13:00～18:00

Overall theme "Manufacturing technology to create future societies"

Various speakers from Japan an overseas give the speeches on the latest technology trends in four sessions, "Challenges and the future of manufacturing towards a sustainable society","Digital technology changing the future of manufacturing industries", "Continuously evolving automation technology", "Machining technologies for new value creation".



For the registration and inquiries for Oral Session

Japan Machine Tool Builders' Association IMEC Office
+81-3-3434-3961
https://www.jmtba-imec.jp/
Email：imec@jmtba.or.jp

Top Seminar by Machine Tool Manufacturers for Students

Free of charge Students only

International Conference Room, Conference Tower 7F
November 9 (Sat.) 12:30～15:10

*A networking event with companies will be held after the seminar.



For inquiries for the Seminar

Technical Dept., Japan Machine Tool Builders' Association
+81-3-3434-3961
https://www.jmtba.or.jp/news/news2024/
Email：topseminar@jmtba.or.jp

South 南

Lectures / Seminars in AM Area

South Hall 1 - Organizers Main Stage

November 5 (Tue.)

13:00 | 14:00 Changing The Future of Die Casting Leads to the Change of Metal AM of Mold Manufacturing

NIHON SEIKI Co., LTD.
Managing Director MATSUBARA Masato



14:00 | 16:00 Western companies tackling the challenges of AM head-on

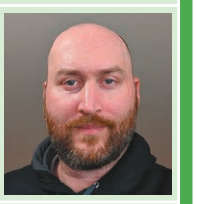
14:00 | 14:30 Challenges of Adopting Large Metal Powder Bed Fusion Printers

Additive Industries
Account Manager Tim Julsing



14:30 | 15:00 A Multi-Grid Modeling approach to thermomechanical simulation of AM parts

PanOptimization LLC
Principal Engineer Tyler Nelson



15:00 | 15:30 Software-defined inspection with industrial X-ray CT

Lumafield
Co-Founder and Head of Product Andreas Bastian



15:30 | 16:00 Sustainable Manufacturing for a Circular Economy

Continuum Powders
President - Asia Pacific Phil Ward



November 6 (wed.)

13:00 | 16:15 AM Seminar by Japan Machine Tool Builders' Association

13:00 | 15:15 Introduction of latest technology AM equipment manufactures

〈Presenters〉 SIEMENS K.K., C&G SYSTEMS INC., MITSUBISHI ELECTRIC CORPORATION, YAMAZAKI MAZAK CORPORATION, OKUMA CORPORATION, DMG MORI CO.,LTD., JEOL LTD., MATSUURA MACHINERY CORPORATION, SODICK CO., LTD.

15:15 | 16:15 Panel Discussion

〈Facilitator〉 Prof. Dr. FURUMOTO Tatsuaki (Kanazawa University)
〈Panelistr〉 Prof. Dr. SASAHARA Hiroyuki (Tokyo University of Agriculture and Technology) and Seminar Presenter

November 7 (Thu.)

10:00 | 12:00 The latest status of social implementation of Japanese 3D printers (Morning session)

10:15 | 11:10 Developments and Prospects of Next-Generation Industrial 3D Printers – Laser Beam System –

TRAFAM/Kindai University
President/Emeritus Professor
KYOGOKU Hideki



11:10 | 12:00 Research and Development in Electron Beam type Additive Manufacturing

New Industry Creation Hatchery Center, Tohoku University
Professor Emeritus (Institute for Materials Research)
CHIBA Akihiko



November 7 (Thu.)

13:00 | 16:00 The latest status of social implementation of Japanese 3D printers (Afternoon session)

13:00 | 13:20 Trends in the machine parts and tooling industry and expectations for additive manufacturing

Ministry of Economy, Trade and Industry
Manufacturing Industries Bureau
Machine Parts and Tooling Industries Office
Manager HOSHINO Masashi



13:20 | 13:50 Applications of the domestic sand casting 3D printer "SCM-1800" to the production of general industrial machinery parts

TSURUMI MANUFACTURING CO.,LTD. Technical Division
General Manager
KATSURADA Nobuya



13:50 | 14:20 Application example of sand 3D printer "SCM-800 II ".

PROTO CO., LTD.
PRESIDENT
HASEGAWA Yoshinari



14:30 | 15:00 Pioneering the future of manufacturing! Latest large-scale metal 3D printer application technology and additive manufacturing for plants and industrial machinery

JFE Engineering Corporation, Planning Section, Tsurumi Works, Infrastructure Engineering Sector
Manager MIZUGUCHI Kazuo



15:00 | 15:30 3D additive manufacturing development of copper by selective electron beam melting and its application for manufacturing induction heating coils

NDK Inc.
Department General Manager
OHNUMA Ippei



15:30 | 16:00 [GENERAL DISCUSSION] The latest status of social implementation of Japanese 3D printers

〈MODERATOR〉 TRAFAM/Kindai University
President/Emeritus Professor KYOGOKU Hideki
〈PANELIST〉 Each Presenter



November 8 (Fri.)

10:00 | 11:00 How the West is working to address the challenges of additive manufacturing



Lead Consultant, Layered Ltd
CEO
Peter Rogers



Additive Industries
Account Manager
Tim Julsing



PanOptimization LLC
Principal Engineer
Tyler Nelson



Lumafield
Co-Founder and Head of Product
Andreas Bastian



Continuum Powders
President - Asia Pacific
Phil Ward

11:00 | 12:00 ShareLab

ShareLab

業務用3Dプリンター / AM技術の情報ポータル ShareLab

12:00 | 13:00 Mass Production of AM as a Business

TÜV SÜD Japan Ltd.
Additive Manufacturing Expert
NAGANO Chiyo



Free of charge

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J Japanese (including interpretation) E English M Multilingual Translation (AI Translation included)

November 8 (Fri.)

13:00 | 16:00 AM utilization starts with automation of overlay welding repair and dissimilar metal coating. J

JSAM



〈Chairmanship〉
Japanese Society of Additive Manufacturing
managing director
SAWAKOSHI Toshiyuki



Ministry of Economy,Trade and Industry
Machine Parts and Tooling Industries Office
Manufacturing Industries Bureau
YONEHARA Makiko

BattleTalk 1 (30 Mins.)

Latest technology and mass production parts with Additive Manufacturing of DMGMORI



DMG MORI CO., LTD.
Operating Officer for R&D In charge of AM
General Manager, AM Department
HIRONO Yoko, P.E. Jp.

BattleTalk 2 (30 Mins.)

Introduction of TNSC' s Advanced AM Solution: Wire DED Metal 3D Printers



TAIYO NIPPON SANSO CORPORATION
Sales & Marketing Dept. Innovation Div.
Innovation Unit
General Manager **ASAI Junichiro**

BattleTalk 3 (30 Mins.)

Latest Technological Trends in the DED-Type 3D Metal Additive Manufacturing Machine, LAMDA



NIDEC MACHINE TOOL CORPORATION
Machining Center Division Development Group 2 Team 5
Team Leader **TAUCHI Hiroyuki**

BattleTalk 4 (30 Mins.)

Future manufacturing using the Wire Laser Metal 3D Printer AZ600



Mitsubishi Electric Corporation Industrial Mechatronics Systems Works
Additive Manufacturing System Design Section
Laser Systems Dept.
Senior Manager **KOBA Ryogo**

BattleTalk 5 (30 Mins.)

Introduction of fine-DED system [ALPION] and application examples



MURATANI MACHINE MANUFACTURE CO.,LTD.
Product Development Department
SAKON Yu

November 9 (Sat.)

10:00 | 11:00 Applications and challenges as repair techniques for metal AM J



National Institute of Advanced Science and Technology
Senior Researcher
SATO Naoko

11:00 | 13:00 ShareLab J

業務用3Dプリンター / AM技術の情報ポータル
ShareLab

ShareLab

13:00 | 14:00 A Practical Guide to 3D Printing J



Japan 3D Printing Industrial Technology Association
Researcher
YAMAGUCHI Kiyoshi

14:00 | 15:00 Technology and Business Trends in Additive Manufacturing and 3D Printing from Global viewpoint J



Japan 3D Printing Industrial Technology Association
Managing director / researcher
MATSUOKA Tsukasa

November 10 (Sun.)

10:00 | 13:55 Manufacturing Revolution: Breaking Through Manufacturing Barriers with Additive Manufacturing J



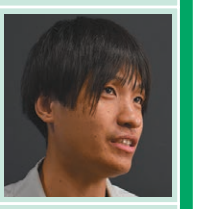
〈Chairmanship〉
Value Finder., Inc.
CEO
OYANAGI Hirofumi

10:00 | 10:55 Utilization of metal AM for aluminum die-casting dies



Production Engineering Development Center,
CS Project & Aluminum Engineering Dept. Compressor Div.
TOYOTA INDUSTRIES CORPORATION
Project Leader **SATO Ryosuke**

11:00 | 11:55 The Production of Die-Casting Mold Components Using Multi-Laser AM Equipment and Future Developments



Castec Inc.
Group Leader **HOSOBUCHI Natsumi**

12:00 | 12:55 Giga cast technology trends and die casting technology



Research and Development Department
Die Casting Planning and Development Division RYOBI LIMITED
Chief Advisor **KAMI Shigetake**

13:00 | 13:55 Achievements for mold repair and technology development by 5-axis DED hybrid machine



FUJI CO., LTD.
General Manager of AM Technology Department **YOSHIDA Natsuki**

14:00 | 15:55 [Additive Manufacturing Pioneering New Frontiers in Manufacturing: Unconstrained by Conventional Wisdom] J

〈Facilitator〉



Value Finder., Inc.
CEO
OYANAGI Hirofumi



KANAGATA SHINBUN CO.,LTD.
manager
YAMAMOTO Yoshihiro

〈Panelist〉



Production Engineering Development Center,
CS Project & Aluminum Engineering Dept.
Compressor Div.
TOYOTA INDUSTRIES CORPORATION
Project Leader **SATO Ryosuke**



Castec Inc.
Group Leader
HOSOBUCHI Natsumi



Research and Development Department
Die Casting Planning and Development Division
RYOBI LIMITED
Chief Advisor
KAMI Shigetake



FUJI CO., LTD.
General Manager of AM Technology Department
YOSHIDA Natsuki



NIHON SEIKI Co., LTD.
Managing Director
MATSUBARA Masato

Conference Tower 会議棟

Exhibitor Workshops

Conference Room 605-608, Conference Tower 6F

J Japanese (including interpretation) E English

November 5 (Tue.)

11:00 | 12:00

605 Conference Room

A1-① W1054 MITSUBISHI MATERIALS CORPORATION J
New Endmill High-efficiency, high-precision machining
Lecturer: Yuki Matsuoka

606 Conference Room

A1-② E5029 Vero Software KK J
Introduction of Hexagon solutions (measuring machines, CAD/CAM, CAE) for labor saving in design and manufacturing
Lecturer: Yuichi Kondo :Business Development,Metrology & Production Software Business Unit

607 Conference Room

A1-③ W2004 FIRSTEC CORPORATION (+81)-72-960-3340 J
How to use magnetic chucks and improve productivity
Lecturer: Yasuhito NAKAI, CEO Firstec Corporation

608 Conference Room

A1-④ S3046 COOL TECH LTD. J
Mix alkaline ionized water with cutting fluid for environmental protection!
Lecturer: Hiroki Sugioka

13:00 | 14:00

605 Conference Room

A2-① E2043 SHIBAURA MACHINE CO., LTD. J
Requirements of precision machining and introduction of the machines that meet them
Lecturer: Yu Murofushi

606 Conference Room

A2-② W1047 Fuji Die Co.,Ltd (+81)-3-3759-7124 J
Introduction of the cemented carbide V series for motor core molds
Lecturer: Fuji Die Co., Ltd. Technical Development division Materials Development Department Assistant General Manager Kouhei Wada

607 Conference Room

A2-③ S3106 KEIHIN RAMTECH Co., Ltd. (+81)-45-620-6460 J
Basic Characteristics of Synchronized Stir Welding and its Prospects
Lecturer: IPPEI SATO

608 Conference Room

A2-④ W1029 Mizuho Industries Co., Ltd. (+81)-6-6471-4721 J
Special surface modification treatment
Lecturer: Osawa Fumikazu

15:00 | 16:00

605 Conference Room

A3-① E7107 MARPOSS K.K. J
Your first step to machine and process monitoring. Start reducing since tomorrow your tool costs and monitoring your machine
Lecturer: Yasuhiro Kurahashi, Group Manager, MMS Technical Development Group

606 Conference Room

A3-② E4007 ENEOS Corporation J
Contribution to Carbon Neutrality by Using ENEOS Lubricants
Lecturer: Lubricants R&D Department, General Manager, Koji Hoshino, Ph.D.

607 Conference Room

A3-③ E7116 Hexagon Metrology K.K. J
Automation technology in measurement
Lecturer: Junichi Goto

608 Conference Room

A3-④ AM103 Kanematsu KGK Corp. (+81)-3-5579-5863 J
Introduction for JINGDIAO- Precision CNC machine tool Examples of Precision Machining Solutions
Lecturer: New Business Promotion HQ New Business Promotion Dept. New Business Development and Technical Sales Support Office

November 6 (wed.)

11:00 | 12:00

605 Conference Room

B1-① W1020 OSG Corporation (+81)-533-82-1118 J
Press conference for OSG new products
Lecturer: Tetsuya Mizoguchi, Takahiro Yamamoto

606 Conference Room

B1-② W1034 IWATA TOOL Co.,Ltd. (+81)-52-739-1080 J
Methods and examples of reducing machining time
Lecturer: Iwata Masanao

607 Conference Room

B1-③ E7123 HEIDENHAIN K.K. (+81)-3-3234-7781 J E
Advanced Encoder Technology
Lecturer: Mr. Helmut Kügel / Mr. Yuzo Ogata

608 Conference Room

B1-④ E6035 ModuleWorks GmbH J E
Target Digital Factory: Smarter Machines and Digitalization for Solving the Manufacturing Challenges on the Shop Floor
Lecturer: Fabian Tarara and Sven Odendahl

13:00 | 14:00

605 Conference Room

B2-① E1089 United Grinding Group Management AG (+81)-566-71-1666 J E
New Laser machining by WALTER
Lecturer: Dr. Claus Dold

606 Conference Room

B2-② E7111 EUROTECHNO Inc. (+81)-3-3391-1311 J
How to choose the suitable 3D measurement system
Lecturer: Fumihiko Ohara (Eurotechno), Soichi Akimoto (Bruker Japan)

13:00 | 14:00

607 Conference Room

B2-③ W2017 THK CO., LTD. (+81)-3-5730-3845 J
Further developments are expected in the near future of OMNIedge
Lecturer: THK CO., LTD. Managing Executive Officer Industrial Machinery FA Solution Sales Division FA Solution Sales Division. Head Takuya Sakamoto

608 Conference Room

B2-④ E7069 HARTING K.K. J
Maintenance Solutions for Machine Tools and Equipment: from Connectors to IoT Products
Lecturer: TBD

15:00 | 16:00

605 Conference Room

B3-① E7131 Mitutoyo Corporation J
The Future of Manufacturing Opened Up by 3D Measurement
Lecturer: Mitutoyo Corporation Fellow Makoto Abe

606 Conference Room

B3-② WA002 IHI Corporation J E
IHI Hauzer and IHI Bernex Advanced Deposition Technologies
Lecturer: Masaaki Takizawa, Daniel Schranz

607 Conference Room

B3-③ W1035 TANOI MFG.CO.,LTD. (+81)-48-092-1731 J
What is Robot Machining?!
Lecturer: Takeharu Oka

608 Conference Room

B3-④ AM103 Kanematsu KGK Corp. (+81)-3-5579-5863 J
Introduction for JINGDIAO- Precision CNC machine tool Examples of Precision Machining Solutions
Lecturer: New Business Promotion HQ New Business Promotion Dept. New Business Development and Technical Sales Support Office

November 7 (Thu.)

11:00 | 12:00

605 Conference Room

C1-① E4012 FUJI-DENSHI (+81)-72-991-1361 J
Carbon Neutrality and the Potential of High Frequency Induction Heating
Lecturer: Manabu Dohsaka, Genshi Shiota

606 Conference Room

C1-② W1057 NS TOOL CO.,LTD. J
Effective use of high-precision small diameter end mills to reduce machining errors from 0.01mm to 0.002mm.
Lecturer: Satoshi Chida, Manager, Research and Development Division, Development Group, Development Department, NS Tool Co., Ltd.

607 Conference Room

C1-③ E2008 YKT CORPORATION (+81)-3-3467-1252 J
USACH's high-efficiency grinding technology for SiC boules and PEMTEC's high speed Precision Electrochemical Machining technology for tungsten carbide and difficult-to-machine materials
Lecturer: YKT CORPORATION

608 Conference Room

C1-④ E1025 MARUKA FURUSATO CORPORATION J
ARUM Inc.
Lecturer: TAKAYUKI HIRAYAMA

13:00 | 14:00

605 Conference Room

C2-① W1056 NACHI-FUJIKOSHI CORP. J
Introduction to Burrless Series
Lecturer: Toshihiro Hoshiba

606 Conference Room

C2-② W1058 Oerlikon Japan Co., Ltd. J E
BALINIT® ALCRONA EVO - A PVD coating for outstanding performance and significant tool cost savings
Lecturer: Ivan Iovkov

607 Conference Room

C2-③ E7119 FARO Japan, Inc. (+81)-52-890-5011 J
New measurement methods using FARO's 3D measuring devices
Lecturer: Koichi Fujinaka

608 Conference Room

C2-④ E3042 YONEZAWA KOKI CO., LTD. (+81)-3-3703-2131 J
Traceability Issues and Countermeasures in Manufacturing (Individual Identification by Image Recognition)
Lecturer: GAZIRU,INC. PRESIDENT SHIGEKAZU FUKUZAWA

15:00 | 16:00

605 Conference Room

C3-① W1039 Sandvik K.K. (Dormer Pramet) (+81)-90-9136-6802 J E
Introduction to Dormer Pramet
Lecturer: Koji Ijuin

606 Conference Room

C3-② E7056 Universal Robots (+81)-3-3452-1202 J
Introducing PolyScope X, the next gen cobot system development platform
Lecturer: TBC

607 Conference Room

C3-③ E5018 ITOCHU Techno-Solutions Corporation (+81)-80-3697-6096 J
The new approach for the cutting simulation
Lecturer: Eto Hisao

608 Conference Room

C3-④ S3021 SKF Japan Ltd. J
Introduction of SKF engineering support and super precision bearings with new materials for high-speed and high-load spindles
Lecturer: Koji Kaneko

South 南 AM Area Exhibitor Workshop

South Hall 1, Exhibitor Workshops Venue

J Japanese (including interpretation)　E English

November 8 (Fri.)

Time	Room						
11:00 – 12:00	605 Conference Room	D1-①	S2001	FANUC CORPORATION			J
		①Solve labor shortages with FANUC robots! Machining automation using easy to use collaborative robots even for first-time users ②Case Study of Data Improvement at FANUC Factory Lecturer: ①Masahiro Morioka ②Yoshihito Sasuga					
	606 Conference Room	D1-②	S2002	Mitsubishi Electric Coporation			J
		AI Diagnostic Tool for CNC Machining 「NC MachiningAID」 ～The Fully Automated Line Aimed by Mitsubishi Electric CNC～ Lecturer: Tetsushi Ishida					
	607 Conference Room	D1-③	E7132	Blum-Novotest K.K	(+81)-568-74-5311		J
		The imminent reality of the manufacturing site. Start on-machine measurement and automation. Lecturer: Ryo Takamura					
	608 Conference Room	D1-④	E5019	Beckhoff Automation K.K.			J
		Monitoring research for cutting process and research cases at German research institutes by using PC-based CNC Lecturer: Junichi Kouguchi					
13:00 – 14:00	605 Conference Room	D2-①	E3034	MAKINO MILLING MACHINE CO.,LTD.			J
		Proposal of high value-added die & mold machining realized by the next generation V series Lecturer: Mishima Takahiro					
	606 Conference Room	D2-②	E1072	AMADA CO.,LTD.			J
		The next-generation manufacturing pioneered by AMADA's laser welding solution Lecturer: Harumi Nishiyama					
	607 Conference Room	D2-③	E2043	SHIBAURA MACHINE CO., LTD.			J
		New Machining Technology for Manufacturing, ～What is Friction Stir Welding (FSW)?～ Lecturer: Ken Ito					
	608 Conference Room	D2-④	W2021	NIKKEN KOSAKUSHO WORKS, LTD.			J
		Tooling & Rotary Table : Nikken unique Dual-technology Lecturer: Takahiro Kawata					
15:00 – 16:00	605 Conference Room	D3-①	E5034	CITIZEN MACHINERY CO., LTD.			J
		Support functions to reduce customers' business task. Lecturer: Application Development Section, Development Dept. Manager Kazuyuki Izumi					
	606 Conference Room	D3-②	W1043	DIJET INDUSTRIAL CO., LTD	(+81)-6-6794-0160		J
		About deep digging processing technology by carbide shank arbor and high-performance aluminum indexable tools Lecturer: Yoshihide Kurashiki					
	607 Conference Room	D3-③	W1015	UNION TOOL CO.	(+81)-3-5493-1023		J
		Tips for Optimizing Milling Experience : High Precision and Efficient Milling Techniques with Our Latest End Mills Lecturer: Watanabe Masahide Manager Milling Tool Development Section 2nd Tool Engineering Department					
	608 Conference Room	D3-④	W1071	Kobe Steel, Ltd.			J
		PVD coating technology for Cutting and Molding tools Lecturer: Kohei Otsuka					

November 9 (Sat.)

Time	Room						
13:00 – 14:00	605 Conference Room	E2-①	E4056	Data Design Co., Ltd.	(+81)-52-953-1588		J
		Proposal for improvement of machined surface quality by cutting force analysis software “Toolyzer” Lecturer: Taiki Izawa					
15:00 – 16:00	605 Conference Room	E3-①	E5022	Computer Engineering & Consulting Ltd.	(+81)-3-5789-2455		J
		Proposals for utilizing digital data to accelerate GX and examples of manufacturing DX initiatives Lecturer: Naoki Ichimura					
	606 Conference Room	E3-②	WA019	Ayabo Corporation	(+81)-566-71-1060		J
		A Quarter Century of Major Change! The Reach of the Latest Coatings and the Time-Delayed Self-Excited Oscillation Model - Cutting Tools Lecturer: Ayabo Corporation Katsushi Fujii, Naoyuki Hirata / OITA UNIVERSITY Takahiro Ryu / KAGOSHIMA UNIVERSITY Kenichiro Matsuzaki					
	607 Conference Room	E3-③	E5042	CGTech	(+81)-3-5911-4688		J
		Fllexible Machining by CAM-POST Lecturer: TODA RACING Co.,Ltd. Shigeru Nakagawa					
	608 Conference Room	E3-④	AM103	Kanematsu KGK Corp.	(+81)-3-5579-5863		J
		Introduction for JINGDIAO- Precision CNC machine tool Examples of Precision Machining Solutions Lecturer: New Business Promotion HQ New Business Promotion Dept. New Business Development and Technical Sales Support Office					

November 6 (wed.)

Time						
11:30 – 12:30	H2	AM132	NIDEC MACHINE TOOL CORPORATION			J
	The Latest Application Examples of 3D metal additive manufacturing machines (powder DED / Binder jetting) Lecturer: Yuiko Egawa					
13:15 – 14:15	H3	AM105	JAPAN 3D PRINTER Co.,Ltd			J
	Factory Floor 3D Printing in Carbon Fiber & Metal Materials Lecturer: Thomas Pang					

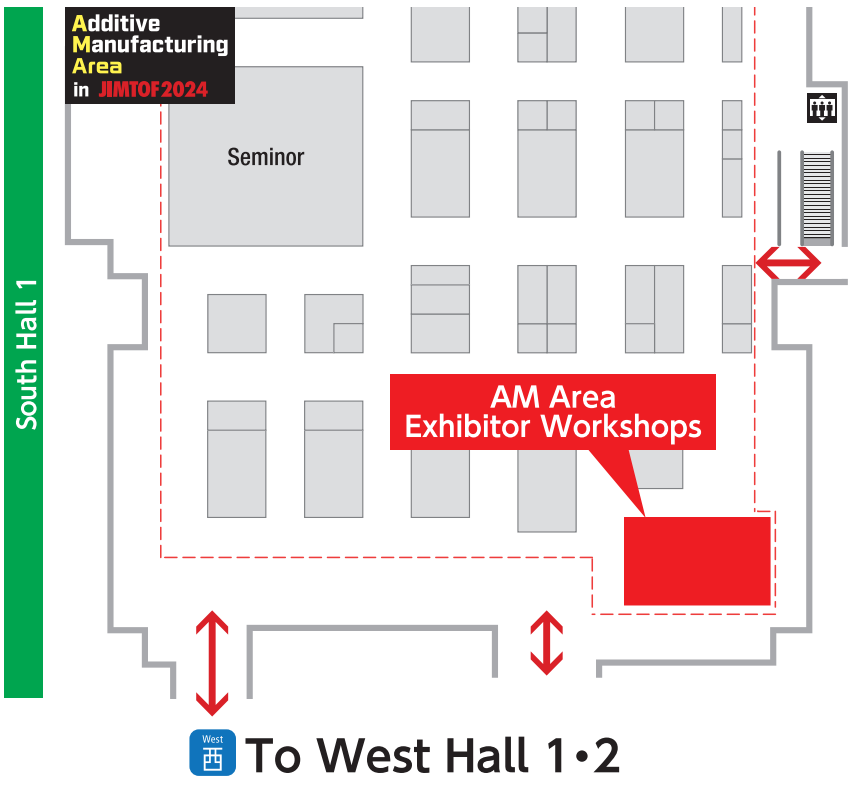
November 7 (Thu.)

Time						
11:30 – 12:30	I2	AM133	SK Fine Co.,Ltd.	(+81)-77-566-1201		J
	Ceramic 3D printer business introduction and future prospects Lecturer: Tadakatsu Asano					
13:15 – 14:15	I3	S2002	Mitsubishi Electric Coporation			J
	Introducing efforts towards practical application in the manufacturing field Lecturer: Satoshi Hattori					
15:00 – 16:00	I4	AM117	3D Systems Japan	(+81)-3-5798-2500		J
	3D SYSTEMS New Products Introduction Lecturer: Takao Namiki					

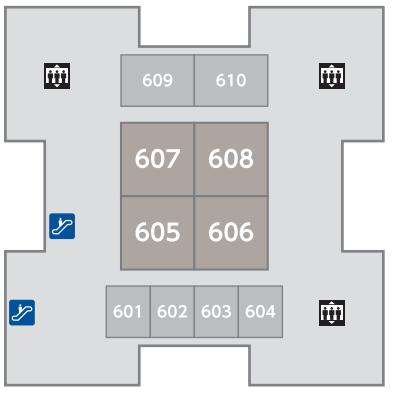
November 8 (Fri.)

Time						
11:30 – 12:30	J2	E4015	Sodick Co., Ltd.	(+81)-45-330-4816		J
	Application Examples and Proprietary Technologies for Die-Casting Molds Created by Sodick Metal 3D Printer Lecturer: Nahoko TAWARA					
13:15 – 14:15	J3	E7024	Volume Graphics Co., Ltd.			J
	Hexagon's Additive Manufacturing Solutions Lecturer: Shuhei Kinoshita					

AM Area Exhibitor Workshop



Conference Tower 6F Conference Room 605-608





主催者企画を記者が体験！ 後編

A Reporter Experiences The Organizers' Events! (Part 2)

モノづくり支える工作機械とソフトウエアの技術に挑戦

Taking On The Challenges Machine Tool Technologies and Software That Support Manufacturing

汎用旋盤で複雑造形物に溝入れ加工

南4ホールの主催者企画展示では、製造現場で実際に使われる技術を体感できる。まずはDMG森精機の汎用旋盤「LEO-80A」を使った加工体験に参加した。旋盤は加工対象物（ワーク）を回転させながら削る工作機械。特に汎用旋盤は職人の技術が仕上がりを大きく左右する。

今回挑戦したのはアクリル樹脂の内部にサイコロを削り出した複雑な造形物の最終仕上げ工程。ワークからサイコロを切り離す内径溝入れ加工を体験した。記者が旋盤を触るのは初めて。ハンドルを既定の目盛りに沿って回すと工具がワークに近づき樹脂を切削する。ハンドルは軽いので、目盛りがあっても削りすぎてしまいそうだ。熟練の職人は目盛りではなくワークの削れる音や機械の振動で加工状態を見極め、1000分の1㎜単位の精密加工が可能だという。

加工したワークは持ち帰り可能。毎日10時、11時45分、13時45分からステージでデモ加工し、その後に企画エリアで体験を受け付ける。定員は各12人。



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Instructors from the Tokyo Metropolitan Vocational Skills Development Center support you closely

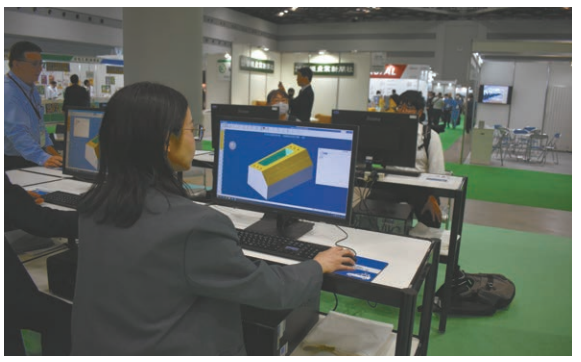
3Dモデル活用　CAM操作学ぶ

続けて参加したのは、数値制御（NC）工作機械を動かすためのプログラムを作成するCAMの操作体験。ワークの三次元（3D）モデルを用いて工具動作を指示する加工パスを作成する。体験用のワークは傾斜や穴、ポケット加工、文字の刻印など実際の部品に用いられる要素が盛り込まれ、CAM操作の基礎が学べる。

操作は主にマウスで、加工面と使用する機械・工具を選択し、材料に最適な回転速度や送り速度を読み込むだけで簡単にプログラムが作成できる。3Dデータを用いるため、詳細な工具の角度や穴の深さなどの指定は不要。加工パスの作成のみなら1日あれば習得できるという。しかし、高精度加工には機械やワークの特性に応じて回転数などをその都度、変更する必要がある。職人の技の見せどころだ。

10時45分、12時45分、14時45分から行うステージデモで体験者を募集。定員は各4人。

このほか映像コンテンツ「ものづくりZ–固い意志と柔軟発想が生み出したプロジェクト秘話–」として由紀精密（神奈川県茅ケ崎市）の取り組みを支えた工作機械が紹介される。同社は航空宇宙や医療など新分野に挑戦。DMG森精機の複合加工機「NTX1000」の導入が先端分野に挑戦するきっかけとなった。



画面上のワークを操作するだけで加工プログラムが作成できる
A machining program made by just operating the workpiece on the screen

Making Grooves in Complex-shaped Work Pieces With a Multipurpose Grinder

In the Organizer's Exhibit in South Hall 4, visitors can try their hand at the technologies actually used at manufacturing sites.

First, I tried LEO-80A, a general-purpose lathe from DMG MORI. A lathe is a machine tool that shaves workpieces as the workpieces rotate. Especially for general-purpose lathes, the operator's skills significantly affect the finish.

This time I tried the final process of a complex-shaped workpiece, which was a piece of acrylic resin with a dice cut out on the inside. I tried cutting inner grooves inside the workpiece to separate the dice. It was my first time touching a lathe. When I rotate the lathe putting the handle to a specified mark, the lathe moves close to the workpiece and starts cutting the resin. The handle is so light that even if there is a mark I feel I am going to overcut. Apparently, experienced workers can see how much the workpiece is being cut not by the mark but by the noise from the cutting and the tool's vibration and are able to machine to the precision of 1/1000 mm.

Visitors can take machined workpieces home with them. The demo machining is conducted on stage from 10:00 a.m., 11:45 a.m., and 1:45 p.m. each day, and then visitors can apply for the experience in the exhibit area. Up to 12 visitors are accepted each time.

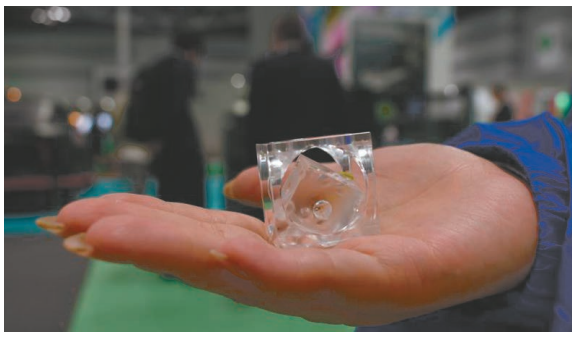
Learning How to Operate CAM Using a 3D Model

Next, I participated in the trial of operating CAM, which makes programs to work numerically controlled (NC) machine tools. I am supposed to use the workpiece's three-dimensional (3D) model to create processing paths that will tell machine tools how to operate. The workpiece provided for the activity includes elements that are used in actual machine components such as slopes, holes, pocket machining and imprinting letters, which allows visitors to learn about the basics of CAM operation.

It is mostly mouse-operated. Visitors can create a program effortlessly by choosing the surface to machine, and the machine and tools to use, and by feeding the optimal rotational speed and transfer speed for the materials. As 3D data is used, there is no need to specify the specific angles of tools and depths of holes. Apparently, it only takes one day to just to learn how to create processing paths, but for high-precision machining, the number of rotations and other factors need to be changed every time according to the characteristics of each machine and workpiece. This is where experienced workers shine.

The stage demo that is conducted from 10:45 a.m., 12:45 p.m., and 2:45 p.m. is looking for visitors to experience the activity. Up to four visitors are accepted.

Aside from this, the area will also show a film Manufacturing Z- the Backstage Story of a Project Created by Will of Steel and Flexible Thinking, introducing the machine tool that supported the initiatives of YUKI Precision (Chigasaki, Kanagawa Prefecture.) The company is taking on challenges in new fields such as aerospace and medicine. The introduction of DMG MORI's complex machining system NTX1000 was an opportunity to take on challenges in advanced fields.



旋盤体験で加工したワークはキーホルダーにして持ち帰れる
The processed workpiece can be made into a key ring and taken home.



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