主催者発行新聞 OFFICIAL NEWSPAPER

A Gathering of Emerging Technologies The Future of Innovative Manufacturing

JIMTOF 2020 Online, which is being held from November 16, showcases numerous exhibits of the latest products and technologies that contribute to more sophisticated manufacturing, such as automation, IoT (the Internet of things), and artificial intelligence (AI). Due to the corona crisis and ongoing labor shortages, demand has become increasingly strong for automation, labor-saving measures, and digital transformation (DX) on the manufacturing floor. While reducing the environmental impact continues to be a key challenge, this JIMTOF features a noticeable amount of technology proposals that help improve the lifetime of tools, instruments, and machine tool components.

Machining Center for Machining Brittle Materials Features Automated Grinding Wheel Measurement

One of Okuma Corporation's goals at JIMTOF is to further differentiate itself in the field of machining large parts and molds. Along with the new bridge-type machining center (MC) model which is difficult to exhibit at a conventional exhibition, Okuma is presenting the MB-80V which features a 1,600-by-800-mm table, the largest in their main series of vertical MC. The MB-80V offers high-speed and advanced functionality at an affordable price. It is ideal for machining large-size aluminum parts and large molds for semiconductor manufacturing equipment that are designed for large-diameter semiconductor wafers and large-sized resin molded parts. It



Okuma's MB-80V vertical machining center

also has features that make it easy to work with large stock (work). The door and roof open 1,620 mm and 1,270 mm, respectively, for easy loading even with an overhead crane. The accessible design provides good access to the main spindle and table for greater ease of work. Chip removal and cleaning performance has been enhanced to eliminate cleaning after machining.

Making an entry into the field of machining brittle materials such as ceramics and glass is Makino Milling Machine Co., Ltd. At this year's JIMTOF,



Makino's eGrinder BG500 machining center for machining brittle materials



Makino is exhibiting the eGrinder BG500 MC designed for machining brittle materials. A major issue when machining brittle materials was the reliance on manual labor by skilled machinists for processes such as grinding wheel measurements and managing wear-and-tear. This MC is equipped with a feed axis control and electroplated grinding wheel measurement features. In addition to improving machining efficiency by automating tool measurement and other processes, these features also improve the product-life and accuracy of the grinding wheel. Equipped with a 30,000-rpm main spindle, this MC is also suitable for drilling very small holes. The pitch accuracy is held to 0.002 mm or less. Furthermore, technical innovations, such as the use of a linear motor to give the feed axis extremely fine and complex motions at high speeds, yields three times faster machining speed and longer tool life, compared to existing models.

CNC Lathe to Shorten Remaining Stocks Down to 20%

Sugino Machine Limited exhibited the Self-Center SC-V30a, a compact vertical MC with a 30-taper spindle designed on the theme of striking a balance between two extremes. This exhibit is a development concept of a new model which is scheduled to go on sale in April 2021. One set of extremes is length versus a slim profile. The SC-V30a offers an X-axis stroke of 700-mm while keeping the machine width to a slim 1,440 mm. A concept is presented for various scalable automation features based on a modular design that allows different features to be combined. The other set of extremes is high speed versus high rigidity. While vastly improving rigidity through a fully redesigned structural body, the



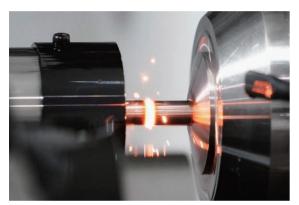
JIMTOF 2020 Online News



Sugino Machine's concept image of their new machining center, the Self-Center SC-V30a

machine also achieves high-speed acceleration and deceleration thanks to the lightweight design of the moving body to also improve production efficiency.

Citizen Machinery Co., Ltd. exhibited its Cincom L32, a sliding headstock type computerized numerical control (CNC) automatic lathe equipped with a feature to reduce the remaining stock after machining. This feature shortens the remaining stock that is typically 200 to 300 mm, to about one-fifth the previous amount, thus reducing both the environmental



Citizen Machinery's frictional bonding in action (center: bonded section; left: remaining stock; right: new stock)

impact and machining costs for highly value-added material. It uses Citizen Machinery's proprietary Friction Bonding Technology which uses frictional heat to soften the materials which are then subject to even stronger pressure that bonds the materials together. It takes about five seconds to bond the remaining stock, which is held by a bonding clamping device, to the new stock about to be fed. This recent development of a bonding clamping device that can hold the stock firmly was the key to achieving advanced bonding quality. This device applies the optimum bonding pressure that keeps the stock from slipping during the frictional bonding process.

Supporting the Manufacturing Floor with **Automation and IoT**

Among the machine tool component manufacturers, NSK Ltd. exhibited its ROBUSTDYNA precision bearings for machine tool spindles. In comparison with existing products, these bearings can improve the cutting performance of the spindle by 15% and achieve up to three times longer bearing life. As machining of difficult-to-cut materials such as carbon and special metals increases, there are many instances where heavy cutting, in which the tool is strongly pressed against the workpiece, is used to shorten the machining time of the machine tool.



ROBUSTDYNA precision bearings for machine tool spindles exhibited

Consequently, this placed stronger force on the bearings which resulted in a shorter life. NSK's new product offers stronger support by increasing the size of the ball. In addition to this, NSK also introduced ball screw technology that reduces motion error, known as quadrant protrusions which occur when the nut on the ball screw reverses. Used in conjunction with numerical control (NC), the technology can prevent streak marks which occur during cutting. The reduced need for finishing and other machining allows molds and parts to be manufactured in shorter time.

THK Co., Ltd. introduced OMNIedge, its IoT service for the manufacturing industry. This service collects and analyzes data from a user-mounted sensor attached to an LM Guide (linear motion guiding component) to ascertain the status of the equipment. Timing the announcement with JIMTOF, THK said it will add ball screws to the applicable products for this service. A vibration sensor attached to the nut of a ball screw provides data that helps predict equipment failures and provide preventive maintenance. In addition to this, THK is promoting its Technical Support Site, which provides production information and technical services online. This site offers the Optimal Product Selection Tool, CAD/Drawing Data Acquisition, and Product-Life Calculator tools which provide a one-stop solution, from product selection to CAD data, and detailed product-life calculations.

In the area of trading companies for machines, tools, and instruments, Yamazen Corporation is introducing machine tools and automation equipment. Yamazen created various presentation videos, including one for Sanwa Robotics' NEXSRT A300/A150, a compact pallet loader system for machining centers, and a collaboration video between Fanuc's ROBODRILL α-D21MiB5 and Techman Robot's (Taiwan) collaborative robot, the TECHMAN TM5-700. The presentation introduced the use of collaborative robots to automate existing machines. These robots automatically feed and unload workpieces to realize an unmanned machining process.

Lectures/ Seminars streamed on-demand

Available for viewing throughout the exhibition until 5 p.m. Friday, November 27

"Bringing the joy and freedom of movement to all"

-Automated Driving technology for the future mobility society-Toyota Motor Corporation Mr.Ken Koibuchi

Quantum computing: Status and prospect of its research and development

Tokyo Institute of Technology Dr.Hidetoshi Nishimori

"Make your dreams come true with manufacturing" Yuki Precision continues to challenge to become an innovator company that supports the aerospace industry.

YUKI Precision Co., Ltd./YUKI Holdings Inc. Mr.Masato Otsubo

Seminar ③

On our Future Living with Al

 \sim The truth is, AI is much more ignorant and far more intelligent \sim National Institute of Informatics Dr.Seiji Yamada

Future trend based on the basics of Additive Manufacturing using metallic materials

Tokyo University of Agriculture and Technology Dr.Hiroyuki Sasahara

5G Network creates new society service -From big data to dynamic big data-

Keio University Dr. Naoaki Yamanaka

Industrial Disaster Prevention against Various Disasters

Nagoya University Dr.Nobuo Fukuwa

Moving Gundam in Yokohama \sim GUNDAM GLOBAL CHALLENGE \sim Director of Incorporated Association GUNDAM GLOBAL CHALLENGE

(President & CEO, BANDAI NAMCO Entertainment Inc.) Mr.Yasuo Miyakawa GGC Leader (Professor emeritus of Waseda University) Dr.Shuii Hashimoto GGC Leader (Professor in School of Engineering, Chukyo University)
Dr.Pitoyo Hartono









SE25FR



ZE16C

内歯車研削盤

ZI20A





MPFAスケール



精密切削工具

マシンツールフェア on the Web





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Factory Automation
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ROBOMACHINE

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PORODRILL W-D/R Blue cories





COULT MY DID ---



ROBONANO W-Ni A corios

loT

Connect Monitor Think Drive



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FabriQR
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JIMTOF 2020 Online

http://jimtof.org/online/en/index.html



Dates

2020/11/16 Mon $10:00 \sim 11/27$ Fri 17:00 JST

Online archive open for viewing 2020/11/27 Fri $17:00 \sim 12/11$ Fri 17:00 JST





More technical information available from the below URL for 24 hours a day, 365 days a year.

https://pi.fanuc.co.jp/en

Online membership registration is required for this service. (Please register on the link above.)

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TEL 0555-84-5555

Featured exhibitors at JIMTOF 2020 On

To find out more, search by entering [the company name] in the search boxes on this website.

Exhibition areas

METAL MACHINE TOOL

METAL FORMING MACHINE

MACHINE ACCESSORY

TOOLS FOR MACHINES

GEARS & GEAR SPEED REDUCER

PRECISION MEASURING / OPTICALMEASURING / **TESTING MACHINE & INSTRUMENT**

CONTROLLER, COMPUTER SYSTEM Controller, Computer System (CAD/CAM etc.)

Eco-friendly devices, equipment, materials, products, technologies, technical information, publications, PR, documents, and media reports related to other machine tools

Overseas Industry Association

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Double Column type Machining Center active in many industries

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✓ tanioka.tetsuya@shibaura-m.com https://www.shibaura-machine.co.jp/en/

Captain Industries, Inc. METAL MACHINE TOOL

Compensation Revolution for On Machine Measurement

The system can generate parameter for the compensation after easy measurement for volumetric error of machine only using touch probe and special master gauge.

The system calculate 6 freedom error such as X,Y,Z Positioning and Orthogo-

It is quite easy operation because we use NC Gage teach in process for the master gauge measurement.



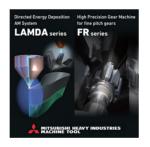
NC Gage use already compensated coordination by parameter from machine. It is fantastic tool for the on machine measurement.

Mitsubishi Heavy Industries Machine Tool Co., Ltd. METAL MACHINE TOOL

••••••

New technology capable of creating the future of "Monozukuri"

Mitsubishi Heavy Industries Machine Tool is showcasing Directed Energy Deposition AM system "LAMDA" which is capable of processing wide size range of metal deposition for additive manufacturing up to 2.5m and also has local shield nozzle depositing titanium alloy in the atmospheric condition, new hobbing machines and shaping machines "FR series" which are dedicated to manufacture fine pitch gears, and new fixed rail bridge type machining centers "MV-Bx series" so



https://www.mhi-machinetool.com

Yamada Machine Tool Co., Ltd. TOOLS FOR MACHINES

Why does he use heimatec's toolholders?

In recent years, CNC compound lathes with a milling function have rapidly become widespread in response to the needs for process consolidation and high efficiency. Heimatec's wide lineup of high-rigidity, high-precision tool holders greatly contributes to the high efficiency of CNC lathes with a milling function.

Examples of effects of introducing heimatec: Internal refueling support, supported tool size UP, high rotation / speeding up, number of mounted tools increased, external setup support, tact shortening, machining



accuracy / surface roughness UP, tool life extension, chip disposal performance UP, process consolidation, etc.



Now available for ball screws!

A predictive failure detection system that enables predictive maintenance

MNIedge

Manufacturing plants are seeking IoT solutions.

Yet, even as factories are in a hurry to implement this technology,

many struggle with operational hurdles.

We use our extensive know-how as a top manufacturer of machine components to overcome those challenges together with our customers.

OMNI edge launched in January 2020, and through customer feedback, it will continue to evolve with features such as an expanded lineup and improved user interface.

> Check out our easy video guides!





IOT Innovation Division Phone: +81-3-5730-3932 www.thk.com

*The product's outward appearance is subject to change without notice for the purpose of improvement.







MOLDINO Tool Engineering, Ltd.















主要製品: 専用機仕様横置き式 CNC円テーブル GH501H (12+1ポート)









主要製品: 超硬特殊工具









主要製品: トルクモータ回転テーブル 5軸化ソリューション





KAO FONG MACHINERY CO., LTD.





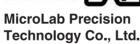


主要製品: THW-シリーズ CNCウォーム(ねじ) 研削盤+自動化

システム

















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台湾機械工業同業公会

Questionnaire for Overseas Machine Tool Associations

What Impact Has the Coronavirus Pandemic Had, and What Is Your Outlook for the Market?

In the midst of the COVID-19 pandemic, machine tool manufacturers in major countries in Europe and Asia, and also in the United States, are struggling, as are those in Japan. We have conducted a questionnaire concerning the impact of the coronavirus crisis, and countermeasures taken by 11 machine tool manufacturer associations in various countries and regions. According to the results, although orders received and production vary by country and region, in general they are expected to decrease by between 20% and 30%. While many people predict that the market will improve in 2021, some anticipate that it will take a few years to get back to the levels before the crisis. Travel restrictions have hindered business negotiations and support services. Each manufacturer has tried to overcome such difficulties with innovative ideas such as using digital technology.

Outlook for Economic Recovery in 2021

The Association for Manufacturing Technology (AMT) forecasts that production of machine tools (metal cutting tools and forge rolling machines) will decrease by 23% in 2020 compared to the previous year. In eight major member countries of the European Association of the Machine Tool Industries (CECIMO), orders received from July to September 2020 decreased by 49%, compared to the same period last year. Among them, the German Machine Tool Builders' Association (VDW) expects orders received and production will decrease by 28% and 30%, respectively, in 2020. In Asia, the Taiwan Association of Machinery Industry (TAMI) predicts exports will decrease by 30% in 2020 compared to the previous year. The Korea Machine Tool Manufacturers Association (KOMMA) also suggests that the machine tool market will decrease by 20% or more in 2020 compared to the previous year.

In such circumstances, the Chinese market seems to have recovered earlier than other countries and regions, as they are the first to successfully control the spread of COVID-19. According to the China Machine Tool & Tool Builders' Association (CMTBA), the economic indicators for machine tools dropped sharply from January to February, but have been improving month by month since March. The cumulative operating revenue of the machine tool industry (companies with revenues of over 20 million yuan) from January to June 2020 decreased only by 7.6%, compared to the same period last year.

These overseas associations expect the market environment to recover to some extent in 2021 compared to 2020. The VDW predicts that Asian countries, especially China, will be a driving force in raising orders in 2021. In contrast, SWISSMEM, the Swiss association of mechanical and electrical engineering industries, says of the domestic consumption of machine tools in 2021: "It is expected to recover to some extent, but it will not be able to recover back to the level of 2018 for at least another two years." The Manufacturing Technologies Association (MTA) of the United Kingdom Says, looking ahead, "Positive trends can be seen, but the market cannot be expected to recoup more than half of the losses incurred in 2020." The recovery may be further delayed if there are additional outbreaks of COVID-19.

Challenges Created by the Crisis

Machine tool industries around the world have overcome economic troughs many times before. However, the economic troughs of the past were critically different to the current crisis, in that people's movements and activities are now restricted due to the lockdowns and border closures. Machine tool manufacturers in each country and region are concentrating their efforts of utilizing digital technology to overcome these new restrictions.

According to the Indian Machine Tool Manufacturers Association (IMTMA), all its activities including training, meetings, and seminars, are currently held online. KOMMA emphasizes the importance of digital marketing tools saying, "They will be widely used and seen as indispensable in the next few years." The AMT says, "The use of augmented reality (AR) to support customers has been increasing dramatically as experienced engineers or service personnel cannot provide on-site services."

On the other hand, Russia has been trying to revitalize its market by raising its domestic production ratio of machine tools. According to the Russian Machine Tool Manufacturing Association (STANKOINSTRUMENT), a new system was launched in August 2020 in Russia to provide subsidies to manufacturers and discounts to buyers of Russian machinery. This has accelerated the trend in which Russian manufacturers purchase domestically manufactured machinery. Russia aims to raise the local procurement rate, which currently stands at 47%, to 70% by 2035.

The Current Trend of Online Exhibitions

COVID-19 has prevented machine tool manufactur-

ers from holding conventional exhibitions, which are important for business negotiations, and instead they have had to be replaced by online exhibitions.

The International Manufacturing Technology Show (IMTS) is held by the AMT every two years; however the exhibition, normally held in Chicago (USA), was cancelled this year and an online exhibition was held instead. The AMT explains, "The exhibition is an important tool for exhibitors to receive inquiries and learn new technologies. It is also a precious opportunity for networking as visitors interact with people in the industry." They emphasize, "It is important to have an alternative platform for the whole industry."

However, the Italian Machine Tools, Robots & Automation Manufacturers' Association (UCIMU) says, "Online events alone are not good enough." They make the point that, "the value of face-to-face networking cannot be ignored" and, "conventional exhibitions cannot be replaced by online ones." The VDW also says, "There are some reports of 'online fatigue.' Now the novelty has worn off, many people probably feel pleased to meet people in person again."

On the other hand, those who were not able to go to an exhibition because the venue was too far away, can now access the online exhibition wherever and whenever they like. There is no doubt that online events are effective in eliminating constraints on time and distance. And innovative ideas for showing machine tools using videos and the like may advance further. Now we are in a transitional period toward the time after the corona crisis. The next challenge may be for us to think about how to strike a balance between in-person and online events, to maximize customer satisfaction.

Industry Associations That Responded to the Questionnaire

- •The Association for Manufacturing Technology (AMT)
- European Association of the Machine Tool Industries (CECIMO)
- China Machine Tool & Tool Builders' Association (CMTBA)
- Indian Machine Tool Manufacturers Association (IMTMA)Korea Machine Tool Manufacturers Association (KOMMA)
- •The Manufacturing Technologies Association (MTA)
- •STANKOINSTRUMENT
- •SWISSMEM
- ·Taiwan Association of Machinery Industry (TAMI)
- Italian Machine Tools, Robots & Automation Manufacturers' Association (UCIMU)
- •German Machine Tool Builders' Association (VDW)



The recovery of the Chinese market is expected to drive the market in 2021. (Photo: China International Machine Tool Show in 2019)

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Featured exhibitors at JIMTOF 2020 On

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THK will display several solutions for accelerating automation needs such as our high precision, high speed, and high accuracy LM Guide and ball screw, as well as robots that utilize the technology we have cultivated in the development of our products. For the manufacturing industry, we offer the IoT service "OMNI edge" which



uses a unique algorithm and abundant reference data to quantify the status of components, judge their condition, and offer predictive failure detection in order to support smooth execution of production plans. This service started with the LM Guide and has recently expanded to include ball screws.

http://www.thk.com

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Taiwan Association of Machinery Industry (TAMI) Overseas Association

Nine Exhibitors in the Taiwan Pavilion

Taiwan and Japan are neighbors and business partners in Asia Pacific region. The machinery trading and engineering partnership have been very well established, with both aiming the same



goal toward the best quality in products and a complete sales services. This year at JIMTOF 2020 Online Show, we are delighted to welcome all metalworking makers to visit the Taiwan exhibitors online show booth, and hoping we could facilitate more business development together.

The 9 Taiwan exhibitors at JIMITOF Online Show are Detron / Derstrong / GEMtool / Habor / Hiwin / Kao Fong / Matrix / Microlab / Parkson Wu

...... www.japan-taiwanpavilion.com.tw

MECTRON INC.

METAL MACHINE TOOL

Challenge for unmanned operation.

MultiCell MCH81 performs 6 faces machining from bar material.

DDMotor is equipped and realize fast

Bar feeder, work auto loader and stocker realize full automated production system.



MCH81

Exhibit machines for JIMTOF2020 Online

- MultiCell Horizontal Machining Center (MCH81)
- Compact Vertical Machining Center (MTV-T361)
- Slant type Compact Vertical Machining Center (MTS-C420)

•••••

• High Precision Compact Machining Center (MTV-T212)

Kuroda Precision Industries LTD. METAL MACHINE TOOL

Suitable machine for easy operation • energy saving • vartile items

This machine has ball screw and servo motor funtion for longitudinal feed.Machine body size is 40%down, energy consumption reduced 1/3 compared to our previous drive model. No hydraulic system contributes to lesser burden on the environment and realized more easy maintenance. The option of "GS-SmartTouch" is realized variety forming grinding by simple operation. Variety grinding and dress are available.



Precision Forming Surface Grinding Machine GS-45

TIPTON CORP.

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Exhibiting the Latest Drag Finishing!

In October we released a full model change of our drag finishers for the first time in 40 years, under the product name "Cyclo-Finish ." In addition to increasing the maximum turret speed by a factor of two up to 140 m/min, the inclination angle of the work axis can be finely set from 0° to 25° in six degrees, so the polishing performance is greatly improved. Drill chucks are newly adopted for the jigs, and the setup time is shortened. It can be applied to tools, artificial bones, Additive Manufacturing parts, etc., and a



precision finish of Ra<0.01 µm can be achieved when used with special media.

SAEILO JAPAN, Inc. CONTROLLER, COMPUTER SYSTEM

Create complex conformal cooling channels efficiently

Extremely fast analysis for a quick glance at cooling efficiency based on the distance between the cooled faces and cooling channels, and conformal cooling curves can be generated by analyzing the part's geometry. Active faces that require cooling are selected and the diameter of the cooling channels is defined along with required distances from walls and from other cooling channels.



Cimatron conformal sample model

A mix of both traditional and conformal cooling capabilities enables efficient design, resulting in shorter injection cycle time and better parts quality due to reduced warpage.

https://www.saeilo.co.jp/media/cimatron_movie/cimatron_mold/a207



JIMTOF 2020 Online Exhibitor's List

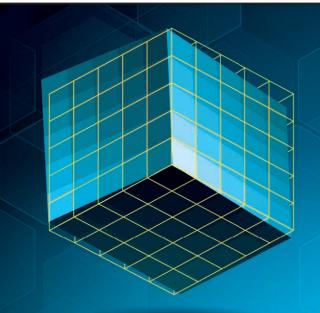
in alphabetical order

Exhibitors Company Name Area A.L.M.T.Corp. ADACHISOGYO Co., Ltd. Aichi Sangyo Co., Ltd. Akamatsu Electric Mfg.Co.,Ltd. AKEBONO MACHINE INDUSTRIES CO.,LTD. ALPS TOOL CO., LTD. AMADA CO.,LTD AMADA MACHINERY CO., LTD. Ametek Co.,Ltd. ANCA Machine Tools Japan AREUSE Co.,Ltd Asahi Diamond Industrial Co.,Ltd. ASTEC CO., LTD. Authentec Autodesk, Ltd. Japan AWA SPINDLE CO.,LTD. Ayabo Corporation Azumaneji Co., Ltd. B and K Co., Ltd. BBS KINMEI Co.,Ltd Beckhoff Automation K.K BIG DAISHOWA SEIKI CO.,LTD. Blaser Swisslube Japan Co., Ltd. BLESS INC. Blum-Novotest K.K Brinkmann Pumps Japan Co.,Ltd Brother Industries, Ltd. Bruker Japan K.K. BSQ Co., Ltd. BUNRI Inc. CAMTUS INC Captain Industries, Inc. Carl Zeiss Co., Ltd. CENTURY PRECISION CO., LTD. CHEIL E&M Co., Ltd. Chiyoda Tsusho Co., Ltd. CITIZEN MACHINERY CO.,LTD. CKB CORPORATION CKD Corporation CNC Software, Inc Cominix Co.,Ltd. COOL TECH LTD. CY CARBIDE JAPAN CO.,LTD DAIDOKOGYOKAISHA DAI-ICH SOKUHAN WORKS CO. DAIKIN Industries,LTD. dainichi kinzoku kogyo co., Itd. DAIWA KASEI KOGYO CO.,LTD. Dassault Systemes Data Design Co., Ltd. Derstrong Enterprise Co., Ltd. detron Machine Co., Ltd DFM Corporation DIJET INDUSRIAL CO.,LTD. DMG MORI CO., LTD. DP Technology Japan K.K DynamicTools Corporation EBA KOGYO CO., LTD. Edgecross Consortium EGURO.LTD Eishin Techno Co., Ltd. ELECOM Element Six

Exhibit Area				
Metal Machine Tools	■Metal Forming Machines	Machine Accessories	Tools for Machines	Diamond Tools / Grinding Wheels
Hydraulic & Pneumatic	Equipment / Gears & Gear Sp	eed Reducers Precisi	on Measuring / Optical	Measuring / Testing Machine & Instrument
Controllers, Computer	Systems Others (Other As	ssociated Machinery, Equip	oment, Raw Materials, 1	echnologies &Publications)

Company Name	Area
F.P.TOOLS CO.,LTD.	Alea
FA Service Corporation	
FABACE Co.,Ltd.	
FACT co.ltd	
FANUC CORPORATION	
FIRSTEC CORPORATION FUJI BC ENGINEERING CO., LTD.	
Fuji Honing Industrial Co., Ltd.	
Fuji Manufacturing Co.,Ltd.	
FUJI SANGYO CO., LTD.	
FUJI SEIKO LIMITED	
Fuji Seimitsu Co.,Ltd.	
FUJI-DENSHI	
FUJILLOY	
FUJITASHOJI.CO.,LTD	
Fukuda Corporation	
FUTAMURA MACHINES & TOOLS CO.,LTD. GEMTOOL CO.,LTD	
Genetec Corporation	-
Gleason Asia Co., Ltd.	
GLOBAL PARTS CORPORATION	
GOSHO Co.,Ltd	
GRAVOTECH K.K.	
GREENTOOL	
Grind Master Machines Pvt Ltd	
Grundfos Pumps K.K	
HABOR PRECISION INC.	
HAINBUCH JAPAN K.K.	
HAKUSANKIKO Co.,Ltd	
HAMAI CO., LTD.	
HASEGAWA MACHINE WORKS LTD	
HAWE Japan Ltd.	
Hayami Machine Tool Co.,ltd.	
HEIAN CORPORATION	
HEIDENHAIN K.K.	
HEIWA TECHNIA CO.,LTD.	
HIWIN corp. Honda Plus Co., Ltd.	
HORKOS CORP	
Howa Machinery, Ltd.	
Hunan Boyun-Dongfang Powder Metallurgy Co.,Ltd	
Hwacheon Machine Tool Co., Ltd.	
ICHIGUCHI corporation	
ICHIKAWA GRINDER MFG.CO.,LTD	
IDEC CORPORATION	
igus k.k.	
IKEGAI Corporation	
IKURA SEIKI CO.,LTD.	
Imao Corporation Integra Research Co.Ltd.	
ISCAR JAPAN LTD.	-
ISHII HYOKI CO., LTD.	
ITACA JAPAN Inc.	
ITOCHU MACHINE-TECHNOS CORP.	
ITOCHU Techno-Solutions Corporation	
IWAMA Co., Ltd.	
IWASHITA INDUSTRIAL CO.,LTD.	
Iwata Tool Co., Ltd.	
JAPAN AUTOMATIC MACHINE CO.,LTD.	
Japan Lagar Corporation	
Japan Laser Corporation Japan Speed Shore Co.,LTD	
JBM Engineering Corporation	
JEOL Ltd.	
JTEKT CORPORATION	
Kaesung Technologies, Inc.	
Kan Mechanical Industry.Inc	
KANEFUSA CORPORATION	
KANETEC CO.,LTD.	

Company Name	Are
KANEX HAMONO KOGYO CO.,LTD KANTO SEIKI Co.,Ltd	
KANZAKI KOKYUKOKI MFG. CO., LTD	
KAO FONG MACHINERY CO., LTD	
Karats Precision, Inc.	
KASHIFUJI WORKS, LTD.	
KATO MFG. CO.,LTD.	
KEBA Japan Co.,Ltd.	
KEIJIKOUSAN CO., LTD	
KEYENCE CORPORATION	
KF Carbide Japan Co.,Ltd.	
KIHIN KOGYOSHO CO.,LTD.	
KINTSUNE SEIKI CO.,LTD.	
KISOH	
Kistler Japan Co., Ltd.	
Kitagawa Corporation	
KITAMURA MACHINE WORKS CO.,LTD.	
KITAMURA MACHINERY CO.,LTD	
KIWA MACHINERY CO.,LTD.	
KOBAYASHI INDUSTRY CO.,LTD.	
Kodama Corporation, Ltd.	
KOHARA GEAR INDUSTRY CO., LTD.	
konitech inc.	
KOSMEK LTD.	
KOWA EMTECH LIMITED	
koyo giken Inc.	
KOYO MACHINE INDUSTRIES CO.,LTD	
KREUZ Co.,Ltd.	
KTR Japan Co., Ltd.	
KURAKI CO., LTD.	
KURE GRINDING WHEEL CO.,LTD.	
KURODA PRECISION INDUSTRIES LTD.	
KYOCERA Corporation	
Kyoritsu Gokin Co., Ltd.	
kyowaseiko	
Liebherr-Japan Co., Ltd.	
LNS Japan GK	
LUBE CORPORATION	
MACHINESOL Co.,Ltd.	
MACNICA, Inc.	
MAEDA SHELL SERVICE CO., LTD.	
Mair Research S.p.A.	
Makino Milling Machine Co., Ltd.	
Makino Seiki Co.,Ltd.	
MANYO TOOLS CO., LTD.	
MARPOSS K.K.	
Marubeni Information Systems Co.,Ltd.	
MATRIX PRECISION CO.,LTD	
Matsuura Machinery Corporation	
MECTRON INC.	
Metrol Co., Ltd.	
MicroLab Precision Technology Co., Ltd.	
MIDORI ANZEN AIR QUALITY CO., LTD.	
MIKI PULLEY CO., LTD	
MINORI INDUSTRY CO.,LTD.	
MITSUBISHI ELECTRIC CORPORATION	
Mitsubishi Heavy Industries Machine Tool Co.,Ltd.	
Mitsubishi Materials Corporation	
Mitsuboshi Kogyo Co., Ltd.	
MITSUHATA MACHINERY CO.,LTD	
Mitsui High-tec, Inc.	
Mitsui Seiki Kogyo Co., Ltd.	
Mitutoyo Corporation	
MOLDINO Tool Engineering, Ltd.	
MST corporation	
MURAKI LTD.	
Murata Machinery, Ltd.	
NABELL CORPORATION	
Nabeya Co.,Ltd.	
radoja odijeta.	



ELENIX, Inc.

EMG Lubricants

EUROTECHNO Inc.

Enshu Limited e-Tacs Corporation

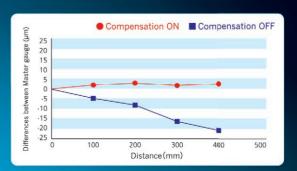
eurotec

Revolution for On Machine Measurement

Smart6

Optimized accuracy by easy volumetric compensation.

The system can generate parameter for the compensation after easy measurement for volumetric error of machine only using touch probe and special master gauge. The system calculate 6 freedom error such as X,Y,Z Positioning and Orthogonal.It is quite easy operation because already compensated coordination by parameter



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Area

JIMTOF2020 Online News

Company Nama	Aron
Company Name NAGASE INTEGREX Co.,Ltd.	Area
NAGASHIMA SEIKO CO.,LTD.	
Nakamura-Tome Precision Industry Co.,Ltd	
NAKANIHON-RO KOGYO CO.,LTD	
Nango Co.,Ltd.	
NATOCO	
NBK	
NEOS COMPANY LIMITED	
NEW STRONG CO.,LTD.	
NEWREGISTON Co.,Ltd.	
NGK SPARK PLUG CO.,LTD.	
Nihon Onkyo Engineering Co., Ltd.	
NIHON SEIKI CO. LTD	
Nihon-ALSYS.Inc	
NIIGATA MACHINE TECHNO CO.,LTD	
Nikken Kosakusho Works LTD.	
NIKKI Trading Corp.	
NIKON CORPORATION	
nikuni Co.,Ltd NIPPON BEARING CO.,LTD.	
Nippon Jabara Co., Ltd	
Nippon Schneeberger K.K.	
NIPPON THOMPSON CO.,LTD.	
NISHIJIMA CORPORATION	
NISSIN MACHINE WORKS,LTD.	
NISSIN MANUFACTURING CO., LTD.	
NITTO KOHKI CO., LTD.	
NK WORKS CO., LTD.	
NOMURA DS CO.,LTD	
NOMURA MACHINE TOOL WORKS,LTD	
NORITAKE CO., LIMITED	
NS TOOL CO.,LTD.	
NSK Ltd.	
NT TOOL CORPORATION	
NTN corporation	
Obishi Keiki Seisakusho Co.,Ltd.	
OGASAWARA PRECISION LABORATORY CO. LTD	
OHMIYA MACHINERY Co.LTD OJIYASEIKI CO.,LTD	
Okamoto Machine Tool Works,Ltd.	
OKK CORPORATION	
OKS Company Limited	
OKUMA Corporation	
OLYMPUS CORPORATION	
O-M Ltd	
ORIN Consortium	
OSG Corporation	
P&C LTD.	
PARKSON WU INDUSTRIAL CO., LTD.	
Parts Supply Center Co., Ltd.	
Pascal Corporation	
PIONEER MACHINE TOOLS,INC.	
Plant Service Co., LTD.	
PMT	
Polytec Japan	
PRIORITY.,LTD	
PULSTEC INDUSTRIAL CO., LTD.	
QMC	
REGG Inspection	
Reishauer KK	
Renishaw KK	
RIKEN SEIKI Co., Ltd.	
RIKOSHA Co., Ltd.	
ROKU-ROKU SANGYO,Ltd.	_
RPS,.LTD	
RYOYO ELECTRO CORPORATION	
S&FInc.	
S.LAB	
SAEILO JAPAN, Inc.	
SAIDA UMS INC.	
Saint-Gobain K.K.	
Caita Caigalusaha Ca I tel	

Saito Seisakusho Co., Ltd.

Company Name	Area
SAKURAI LTD.	
SAMICK MECHATRONICS CO.,LTD.	
Sanalloy Industry Co., Ltd.	
Sanki-Technos.Co.,Ltd.	
SANWA ENTERPRISE COMPANY, LTD.	
Sanwa Robotics Co.,Ltd.	
SANWA SHOKO Co.,LTD.	
SANWAKOUYU	
SANYO MFG.CO.,LTD.	
Satech Safety Technology Ltd	
SCHUNK JAPAN	
SCREEN Holdings Co., Ltd.	
SECOTOOLSJAPAN	
Seibu Electric & Machinery Co.,Ltd.	
SeibuHitecCo.,Ltd.	
Seiko Instruments Inc.	
SENJO SEIKI CO., LTD.	
SEOAM MACHINERY INDUSTRY	
SHIBAURA MACHINE CO.,LTD	
Shibuya	
SHIGIYA MACHINERY WORKS LTD.	
SHIN NIPPON KOKI	
SHINANO KIHAN CO.,LTD	
SHIN-OH ELECTRIC CO.,LTD.	
SHIZUOKA MACHINE TOOL.CO.,LTD	
SHOWA TOOL	
Siemens	
Silver Alloy Co.,Ltd.	
SMC Corporation	
Sodick Co., Ltd.	
SOFIX Co., Ltd	
SOLTON CO.,LTD.	
SOMAX CO., LTD.	
Speedy Target Group Ltd, Co.	
STAR MICRONICS CO.,LTD.	
STARTOOL CO.,LTD	
STJ CORPORATION	
ST-LINK	
SUGINO MACHINE LIMITED	
Sumitomo Electric Industries, Ltd.	
Sumitomo Heavy Industries Finetech ,Ltd.	
Systemcreate Co., Ltd.	
TAEGUTEC JAPAN LTD.	
TAIYO KOKI CO., LTD.	
TAIYU CO .,LTD.	_
TAKAHASHI MACHINERY CO.,LTD.	
TAKAMATSU MACHINERY CO.LTD	
Takashima Sangyo Co.,Ltd.	
TAKAYAMA TRADING CO., LTD	
TAKEDA MACHINE TOOLS CO., LTD.	
TAKEDA TRADE CO., LTD.	
Takisawa Machine Tool Co., Ltd.	
tanitec corporation	
TANOI MFG.CO.LTD.	
TECHNO21GROUP	

Overseas Industry Association

Organization Name
AMT (The Association for Manufacturing Technology)
AMTIL (Australian Manufacturing Technology Institute Limited)
CECIMO (European Association of the Machine Tool Industries)
CMTBA (China Machine Tool & Tool Builders' Association)
IMTMA (Indian Machine Tool Manufacturers Association)
KOMMA (Korea Machine Tool Manufacturers Association)
Metaltechnology Austria
MTA (The Manufacturing Technologies Association)
SST (Association of Engineering Technology)
STANKOINSTRUMENT
Swissmem
TAMI (Taiwan Association of Machinery Industry)
TMBA (Taiwan Machine Tool & Accessory Builders' Association)
UCIMU (Italian Machine Tools, Robots & Automation Manufacturers' Association)
VDW (German Machine Tool Builders' Association)

Company Name	Aica
TECHNOA Inc.	
TechnoCoat Co., Ltd.	
TECNISCO, LTD.	
TEIKEN Corporation	
TEIKOKU CHUCK CO., LTD.	
Telus Laser Co., Ltd.	
Teral Inc.	
THE NIKKAN KOGYO SHIMBUN, LTD.	
The SHODA Company	
THK CO.,LTD.	
Tipton Corp.	
TMW Co.,Ltd.	
TOHSHIN TECHNICAL CO.,LTD.	
TOKO CO., LTD.	
tokyo chokoku marking products co.,ltd	
Tokyo Diamond Tools Mfg. Co.,Ltd.	
Tokyo Engineering Co., Ltd.	
TOKYO SEIKI KOSAKUSHO Co.,LTD.	
TOKYO SEIMITSU CO., LTD.	
Tokyo Technical Instruments inc.	
TOMEI DIAMOND CO.,LTD	
TOOL de INTERNATIONAL CO.,LTD	
Toyo Advanced Technologies Co.,Ltd.	
TOYO Co.,Ltd	
TOYO CORPORATION	
TOYO KENMAZAI KOGYO LTD.	
Toyo Screen Kogyo Co., Ltd	
TOYODA VAN MOPPES LTD.	
Trio Engineering Co., Ltd.	
TRUMPF Corporation	
TSUDAKOMA Corp.	
TSUGAMI CORPORATION	
TSUNE SEIKI	
Tungaloy Corporation	
UNION TOOL CO.	
United Grinding Group	
UNITEK JAPAN K.K.	
Vectrix Corporation	
VOLLMER JAPAN CORP.	
WAIDA MFG. CO., LTD.	
WFL Millturn Technologies GmbH & Co. KG	
WinTool AG	
WJT Co., Ltd.	
XEBEC TECHNOLOGY CO.,LTD.	
XTIA Ltd.	
Yamada Machine Tool Co., Ltd.	
YAMASAKI GIKEN CO., LTD.	
YAMAWA MFG.CO.,Ltd.	
Yamazaki Mazak Corporation	
YAMAZEN CORPORATION	
YANO METALS CO., LTD.	
YASDA PRECISION TOOLS K.K.	
YODOGAWA ELECTRIC TOOL MFG.,	
YUKIWA SEIKO INC.	
YUSHIRO CHEMICAL INDUSTRY CO.,LTD	
ZOLLER Japan K.K.	
[Participating Countries / Regions] 9 Countries and Regions	

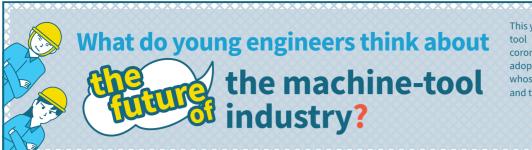
Company Name

[Participating Countries / Regions] 9 Countries and Regions Austria, China, India, Italy, Japan, Korea, Switzerland, Taiwan, U.S.A.

■ Organizer and Cooperating Organizations

Organizer and Cooperating Organizations
Organization Name
Japan Machine Tool Builders' Association
Japan Machine Tool Importers' Association (JMTIA)
Japan Forming Machinery Association (JFMA)
Japan Precision Machine Association (JAPMA)
Japan Cutting & Wear-resistant Tool Association (JTA)
Japan Machine Accessory Association (JMAA)
Japan Precision Measuring Instruments Manufactures Association (JMA
Japan Grinding Wheel Association (JGWA)
Industrial Diamond Association of Japan (IDA-J)
Japan Optical Measuring Instruments Manufacturers's Association (JOMA
Japan Fruid Power Association (JFPA)
Japan Testing Machinery Association (JTM)
Japan Gear Manufacturers Association (JGMA)





This year, JIMTOF will be going online, and the environment surrounding the machine tool industry is undergoing great change, as it not only deals with the novel coronavirus, but also the digitalization of the industry including IoT and AI, and the adoption of work style reform as well. We have interviewed young engineers, on whose shoulders the future of the manufacturing rests, about their everyday work and the work that they would like to be engaged in going forward.



Tungaloy Corporation

Hisato Fujii

Marketing Division Product Group Non-Rotating Tools

I am in charge of the grooving and cut-off tools for lathe turning. I work in a department responsible for the entire product development process, from the development of new products, to sales strategy and after-sales follow up. Studying English is indispensable as we receive many inquiries from overseas. This will be my eighth year since joining the company. I was engaged in business activities in Nagoya until two years ago and it was a great experience, as I was able to learn a great deal, including the pros and cons of our products and trends in the industry.

Recently, we are communicating with our customers significantly more online due to the coronavirus pandemic. We can respond quickly without wasting time, and I feel our business has sped up. However, I still want to continue visiting our customers. It is only when we meet face to face



and have conversations that we can identify the issues that surround the entire product development process.

Our current mission is to develop impressive tools that impress our customers. I have two daughters and my days are very busy, but I would like to devote myself to creating products that kids will be excited about.

Nakamura-Tome Precision Industry Co., Ltd.

Yuina Matsuda

Development and Design Sect.

I studied mechanical engineering at university, where I attended a training workshop that allowed me a chance to actually operate a machine. It was there that my interest in working for a mechanical tool manufacturing company took root.

In my first year at the company I received on-site training in assembly and customer service, and later studied design and CAD. In my second year, I was involved in the design of mass-produce machines. For the last five years I've been working on designing new products. At first, I was mostly doing preparatory work, but it has gradually expanded to areas in unit design, which I feel is very rewarding.

The way we work in design has changed due to COVID-19. Our meetings are now mostly held remotely, and we have made great progress in going



paperless with plans and other documents now being exchanged digitally. Any difficulties I felt at first with this change have now completely gone.

Currently, I am in charge of designing a model. Aside from emphasizing its strengths in rigidity and space-saving design, we have added updated features as well. But above all else, my goal is to make it an easy-to-use machine.

ISCAR Japan Ltd.

Akihiro Konda

Technical Center Marketing Dept.

I wanted to be engaged in manufacturing since my days as a student because I've always enjoyed coming up with ideas and giving them concrete shape. I feel that the industries involved in machining tools are especially vital to manufacturing in Japan. I chose this job because it can expand my potential in a wider perspective.

Our company regularly gives semi-

nars to create opportunities for our customers to actually touch and use our tools. We are currently creating new ways to hold online seminars and deliver information about product technology, as it has become difficult to invite customers to attend our seminars due to the novel coronavirus. We are also conducting machining tests and proposing improvements to some of our customers

online, and would like to provide these services to more customers.

Going forward, I would also like to contribute to improving the company by using workshops to quickly share cases of improvements and successes to our salespersons in all parts of the country. I think being able to adapt to the current environment quickly will be the key factor in the future.



Next JIMTOF

Next JIMTOF is planned to be held at Tokyo Big Sight in the fall of 2022.

