



# COMPANY PROFILE 2023



## CORPORATE MOTTO

# WIN-WIN RELATIONSHIPS CREATE

Our corporate brand “**ACCRETECH**” was created from the words “Accrete,” which means Grow Together, and “Technology.” In a single word, the brand name represents our corporate philosophy: growing together with partners and customers by way of creating the world’s best products by gathering the finest technology, intelligence, and information.



## Message from the Management

Since its foundation in 1949, ACCRETECH Group has consistently focused on developing products that contribute to improving our customers' productivity and providing good customer support.

ACCRETECH Group has a corporate motto; “Win-Win Relationships with stakeholders”, which outlines our view of cultivating and developing the business relationships with customers, suppliers, shareholders, and employees.

In recent years, we've been going through rapid and drastic changes in our business environment in terms of globalization, eco-friendly products, IT advancement, etc.

ACCRETECH Group, as a global corporation, has already been accommodating the required changes as well as assisting our customers with their product innovations, called “*Monozukuri*”, using our precision measuring and process technologies.



\*What our symbol mark expresses:

The spinning golden orb represents a dynamic mixture of resources (people, goods, funds, and information) concentrated from all over the world. By condensing those powers, we will introduce powerful, state-of-art products into the market with clear targets. This is expressed by the jet streams shooting out at high speed from the center of the orb.

# THE WORLD'S No.1 PRODUCTS



ACCURECH Group values the following principles: health, safety, product quality, environment, energy conservation, and the unified power of our employees.

In order to satisfy our customers and to fully contribute to our society, we continue to develop and supply our Semiconductor Manufacturing Equipments and Metrology Products with at most care and excellence.

Your continued support for our Group is greatly appreciated.



Chairman and CEO  
**Hitoshi Yoshida**

President and COO  
**Ryuichi Kimura**

Our origin and future

# Tokyo Seimitsu continues to the global market respecting cultivated for decades:

Tokyo Seimitsu, as a manufacturer of precision measuring devices and semiconductor manufacturing equipment, has been supplying Machine Control Gages, Surface Texture Measuring Instruments, Wafer Probing Machines, and more to the global market by applying our key technologies such as high precision micro positioning and measuring technologies. We will continue to introduce superb products to global market going forward.

**Metrology  
Company**

## High Precision Measuring Instruments

Our High Precision Measuring Instruments have been supplied to various industries worldwide such as automobile, heavy duty equipment, aircraft, etc., and valued and utilized in their measuring labs and production lines. We continue our product developments to achieve durability, a smaller footprint, and fully-automatic operation and so forth.

# introduce “World No.1 Products” to the core - technology we’ve



**Semiconductor  
Company**

## Semiconductor Production Equipments

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Our Semiconductor Company holds the largest global market share, specifically in the conventional fields of wafer manufacturing, test, and back-end processing. In addition, we have also been active in the fields of CMP (Chemical Mechanical Planarizers) and Polish Grinders to fulfill our customers' needs to build the optimum production systems.

Multipurpose Measuring Instruments

# Coordinate Measuring Machines

- Comply with high precision parts.
- Active scanning technology to achieve high throughput.
- AI function for easy operation.

ACCRETECH developed the first 3D Coordinate Measuring Machine made in Japan. Today, we offer various 3D coordinate measuring machines suited for respective customers' needs. First, XENOS features innovative technology called Virtual Sensor Drive in addition to the Active Scanning Technology to achieve high throughput and Navigator Function to dramatically improve high-speed precision scanning. Second, X-ray CT systems named METROTOM series can visualize microscopic internal defects non-destructively. Third, XYZAX AXCEL series are equipped with high precision, high speed, and high resistance to surrounding temperature.



### ZEISS XENOS®

- 3D Coordinate Measuring Machines with Super High Accuracy.
- Maximum Permissible length Measuring Error (E<sub>0</sub>) (μm): 0.3 + L/1000
- Y-axis drive structure advanced from center drive.
- Innovative silicon-carbide ceramic used in major structural components of the machine.

### ZEISS PRISMO® Series

- Equipped with the Navigator function, dramatically improving high-speed scanning precision.
- High-speed and high-precision VAST GOLD Active Scanning Probe realizes both scanning and point-to-point measurements.
- Unique design effectively minimizes the disturbance of temperature.

### ZEISS METROTOM

- X-ray CT equipment that visualizes tiny internal defects through non-destructive inspection using micro focus X-ray
- Can be used for a wide range of applications including nondestructive inspection, structural comparison of internal profile, and high-accuracy measurement of internal and external dimensions
- Equipped with axis control technology derived from coordinate measuring machines, ultra-high-precision positioning stage, high-resolution flat panel detector and software CALYPSO CT



### ZEISS ACCURA®

- Adapted the high precision and high-speed measurement for large-size parts and, various ZEISS scanning probes can be attached.
- Maximum speed: 800 mm/s (optional)
- CAA (Computer Aided Accuracy) adjustment enables high accuracy.



### ZEISS CONTURA® **NEW**

- CONTURA series reborn with completely new structure and design
- Multi-application sensor system enabling single machine to perform high-accuracy active scanning measurement, swing scanning measurement and non-contact measurement
- Product lineup consisting of aktive with active scanning probe as a standard feature and RDS with rotary probe head as a standard feature and RDS with rotary probe head as a standard feature



### ZEISS MICURA

- Achieved the smallest footprint and largest measurement range in the class.
- Applicable to various ultra high-precision measurement such as medical equipment and gears.





**XYZAX AXCEL RDS**

**XYZAX AXCEL RDS / PH Series**

- Maximum permissible length measurement error (E<sub>0</sub>, MPE) (µm): 1.8 + 3L/1000
- Amazing speed is achieved by review of the drive mechanism. A maximum drive speed of 700 mm/sec and maximum acceleration of 2300 mm/sec<sup>2</sup>
- Enhanced resistance to environment. Temperature to guarantee accuracy: 15°C to 30°C
- Scanning Measurement Model (RDS) equipped with the two-axle rotating head RDS and the scanning probe VAST XXT.
- Enables contactless measurement by using optional line laser probe and image probe. (RDS)
- Point-to-Point Measurement Model (PH) with wide-ranging specifications available depending on the installation environment or budget.



**XYZAX AXCEL PH**

**XYZAX mju NEX Series**

- High rigidity linear guideways on X-, Y (right)- and Z-axes and a reliable air bearing on Y (left)-axis employ hybrid guideway technology. Moreover, it achieves one-fourth of air consumption compared to our existing machines.
- Reduction of power consumption contributes to cut running costs.
- A new line-up of 5/8/4 size with Y-axis measuring range of 760 mm
- Equipped with TP200B with a real-time temperature scale correction function, which is resistant to vibration and can use a long stylus.
- Max. permissible length measurement error (E<sub>0</sub>, MPE) (µm): 2.2 + L/250 (18°C to 22°C)



**XYZAX SVF NEX Series**

- Redesigned RVF series.
- Renewal entry modeled Manual 3D coordinate measuring machine.
- Light weight design that does not cause fatigue even in long hours of measurement.
- Measure, terminate, and intermediate point operations switches are freely selectable during operation. This allows continuous operation without removing your hand from the Z-axis.



**ZEISS O-DETECT** NEW

- Innovative and easy-to-use 3D image measuring instrument with wide visibility and high precision
- Complies with ISO 10360-7 and guarantees three-dimensional length measurement error
- Overview image function makes programing and measurement easy



**ZEISS O-INSPECT**

- Covered various workpieces and evaluating area.
- Contact-type sensor VAST XXT is a standard feature.
- Image sensor telecentric zoom lense is a standard feature.
- Non-contact profile measurement in the direction of height is possible.

Multipurpose Measuring Instruments

# Surface Texture and Contour Measuring Instruments



**Integrated Measuring Machine of Surface Texture and Contour Profile**  
**SURFCOM CREST**

- Adoption of the latest technology linear motor achieves the high-accuracy and high-speed measurement.
- Roughness and contour integrated measuring instruments with the world's highest level accuracy and performance.
- The introduction of highly stable optical path type laser interferometer provides the high resolution of 0.31 nm at measuring range of 13 mm.
- One-time measurement enables the high-efficient evaluation and analysis for both roughness and contour.

## Integration of Surface Texture and Contour Profile measurements

SURFCOM CREST is a surface texture and contour profile measuring device capable of fulfilling three conflicting requirements such as high speed, high accuracy, and low vibration due to the technology of our own invention. This is considered the world's finest measuring machine that has made high speed with low vibration possible using a linear motor drive as well as achieving remarkable accuracy due to the high resolution detector. As SURFCOM CREST can perform evaluation analysis on surface texture and contour at once, it eliminates the step of replacing the detectors. Moreover, its high-speed measuring capability (200 mm/s) can further contribute to the high throughput. In the case of SURFCOM NEX series that are equipped with linear motors, high-magnification measurement with minimal vibration can be performed.



**NEW** Surface Texture and Contour Measuring Instruments  
**SURFCOM NEX series**

- Newly developed wide-range hybrid detector!
- Extremely high-speed driving enables shorter tact time.
- The linear motor tracing driver minimizing vibration and achieving highly accurate measurement.



**Surface Texture Measuring Machine**  
**SURFCOM TOUCH 550**

- Operator-Oriented Operation for the Workplace.New Surface Texture Measuring Instrument for Easy Operation.
- No need of instructions with excellent GUI.
- Supporting multi-language for worldwide use (20 languages).
- High resolution and wide-range pickup for easy leveling and zero point adjustment.



**Surface Texture Measuring Machine**  
**SURFCOM TOUCH 35/40/45/50**

- Easy-to-carry compact surface roughness measuring machines.
- No need of instructions with excellent GUI.
- Supporting multi-language for worldwide use (20 languages).
- High resolution and wide-range pickup for easy leveling and zero point adjustment (TOUCH 50).
- Palm-sized tracing drivers selectable for workpieces and measurement areas (TOUCH 35/40/45).



**Surface Texture Measuring Machine**  
**HANDY SURF+ 35/40/45**

- Portable surface texture measuring instrument reborn with sophisticated design.
- Supporting multi-language for worldwide use (20 languages).
- Superior operability and multiple analysis functions.
- The instrument has the Z direction measuring range of 370 μm, which is the widest in class, and achieved a resolution as high as 0.0007 μm over the entire range.



# Optical Measuring Instruments



Opt-scope R



Opt-scope R200



Opt-scope Rex

**Non-contact / Three-dimensional Surface Roughness and Contour Measuring Instrument**

**Opt-scope**

- High resolution 0.01 nm
- Electric XY stage moving range  
Opt-scope R : 25/50 mm, Opt-scope R 200 : 200 mm,  
Opt-scope Rex st 400 : 400 mm
- Scanning speed increased by 6times with the Optional high-speed camera.



**Laser Interferometer with Optical Fiber**

**DISTAX 300A**

- Easy setting with optical fiber  
Fully-automatic measurement of a linear and rotary axis of machine tool.



Slim Type 3-axis Measuring Interferometer



Small Rotary Indexer



**Non-contact displacement sensor**

**Opt-measure**

- Non-contact displacement sensor using the white interference method
- High accuracy and a wide temperature range.  
A compact sensor head with an optical fiber optical system provides a distance of 10 m or more between the sensor head and control section
- A maximum of 16 sensors can be connected to one control section.
- Measuring Accuracy:  $\pm 3.6 \mu\text{m}$  (15°C to 30°C)

**Multipurpose Measuring Instruments**

# Cylindrical Form Measuring Instruments



**RONDCOM CREST**

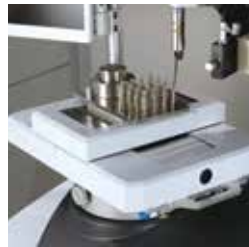
- The rotation accuracy is 0.01 μm in both radial and axial directions. Ultra-high accuracy of the world's highest level.
- The newly developed non-contact drive and guide section has realized extremely accurate positioning and long-term stable cy assurance.
- Equipped with newly developed measuring force control detector realizing automatic switching between roundness measurement and roughness measurement.
- Ultra high accuracy diameter measurement of repeatability 0.3 μm.

**Continuous flow from the measuring room to the production line**

A broad selection satisfies diversified needs. RONDCOM CREST is the flagship model with the world's highest level of ultrahigh precision. RONDCOM NEX series come with multiple functions and straightforward maintenance. RONDCOM TOUCH has a unique design and smaller footprint.

**RONDCOM 60A**

- Air bearing for Z-axis and R-axis.
- Guarantees 0.02 μm rotation accuracy.
- Achieved auto-centering and tilting within 60 seconds.



Example of using XY-Axis Automatic Stage

**NEW**

**Roundness and Cylindrical profile measuring instruments RONDCOM NEX Series**

- A 3-in-1 Machine Satisfying Various Measurement Needs with Functions to Measure Roundness, Diameter, and Roughness, as well as Selectable Specifications
- Labor-saving option: AFD(Automatic Force adjustment Detector)
- Dramatically Improving Efficiency of Measurement of multiple workpieces and multiple locations Labor-saving option: XY-Axis Automatic Stage

**RONDCOM 43C**

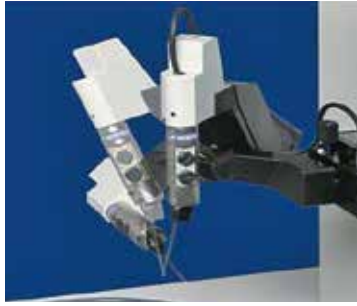
- Perfect for mass production and repetitive measurements with the automated measurement function.
- Economical type equipped with a straightness guaranteed column that is capable of cylindrical analysis.



**RONDCOM TOUCH**

- Manual roundness measuring instrument best for the entry-level machine.
- Unique design of Colum moving type. Installation area was reduced by 50% (conventional ratio).
- Employment of the Windows tablet enables the high and friendly operability through touch panel screen.





Offset type CNC Detector holder

Data Processing System  
[ACCTee Roughness]

# ACCTee



- All in One Document!
- ACCTee is developed to represent the new concept in measurement style.
- Document based measurement and analysis offer preeminent operability.
- Supports beginners to experts of the CNC programming through Easy and Expert modes.



Document Screen



## RONDCOM 76A

- Higher level of throughput with high speed drive.
- Realization of unmanned operations from positioning of measuring points to the editing of measured data.
- A top-rate machine equipped with field-proven air bearings and 7 axes CNC control functions.
- The highest level of precision in the world.
- Max loading weight of up to one ton (optional).



## RONDCOM 73A

- World highest precision.
- Best for the measurement of the cylinder block and crankshaft .
- Equipped with the safety mechanism and CNC function.



Measurement example of cylinder block and crankshaft.

**Multipurpose Measuring Instruments**

# Measuring Instruments for Shop Floor

## Tokyo Seimitsu offers the most advanced technology for production line measurements at the shop floor (production site)

When customers explore the possibility of further improving the measuring efficiency and reducing the production costs while still promoting the product quality, they seek to have the measuring process done at their production floors. Tokyo Seimitsu produces various measuring devices built to accommodate auto-measurements and adjust to any production environment. SURFCOM C5 (CNC Surface Texture Measuring Instrument) can automatically measure the surface texture of the products utilizing CNC 5 axis control function. The Three-Dimensional Coordinate Measuring Machines: CenterMax and DuraMax series have been improved to withstand any harsh production environment.



**ZEISS DuraMax®**



**ZEISS DuraMax® with Rotary Table**



**ZEISS DuraMax® HTG**

**ZEISS DuraMax® / ZEISS DuraMax® HTG**

- Simple plug-in completes measurement preparation. Plug & Play is offered
- A slender space-saving desk-top type
- Industry's first energy saving 3D coordinate measuring machines
- Accuracy is guaranteed in a wide range temperature environment

- Maximum Permissible length Measuring Error  $E_0$ , MPE:  
ZEISS DuraMax®  
2.4 + L/300  $\mu\text{m}$  (18°C to 22°C)  
2.7 + L/250  $\mu\text{m}$  (18°C to 26°C)  
2.9 + L/290  $\mu\text{m}$  (18°C to 30°C)

- ZEISS DuraMax® HTG  
2.2 + L/300  $\mu\text{m}$  (18°C to 22°C)  
2.5 + L/250  $\mu\text{m}$  (18°C to 26°C)  
2.7 + L/200  $\mu\text{m}$  (18°C to 30°C)  
3.9 + L/100  $\mu\text{m}$  (15°C to 40°C)



**CNC Surface Texture Measuring Instrument SURFCOM C5**

- Pick-up, drive unit and column are controlled with a CNC 5-axis control function.
- Makes automatic measurement of surface texture at the production site possible.
- Equipped with a horizontal trace measuring function making measurement of a variety of workpieces possible.

# Measuring Instruments for Large Works

Measuring machines perfect for large-sized and high-precision parts used in aircrafts, energy products, automobiles, machineries, and printers.



**Extra Large 3D Coordinate Measuring Machines  
ZEISS MMZ-G Series (On-floor model)**

- Products of this series make use of the floor as a measuring table to simplify measurement of heavy load and transferring large-scale work.
- Provide the highest level of measuring accuracy of large-scale 3D Coordinate Measuring Machines.

**Large-size 3D Coordinate Measuring Machine  
ZEISS MMZ-T Series (Measurement table type)**

- Ideal precision and measurement range for the large-size gear.



**Integrated measuring machine of  
high precision surface texture and contour profile  
RONDCOM GRANDE DUO**

- Newly developed high precision air bearing.
- Corresponds to parts for wind power generator with great durability, and to the simultaneous inspection of the roundness and contour of the large-size air bearing.
- Allows the flexible R-axis and the wide measurement range for radius.



Automatic Measuring Instruments

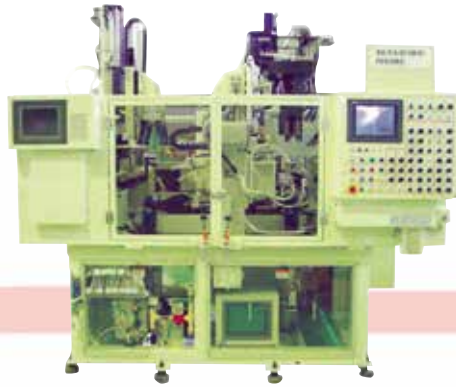
# In-Line Measuring Systems

Unequaled Reliability, Uptime and Quality



Tokyo Seimitsu became a supplier of in-line measuring instruments when Japanese automobile industries began to thrive in 1960s. From that point on, the automobile production lines have been required to operate 24 hours a day, 7 days a week, 365 days a year to produce high quality products on time. As a supplier, we have always been responding to customers' needs, for instance, by developing real time control using in-process gauge, feedback control using post-process gauge, and the integration of the two. Furthermore, we have earned superb customer reputations as a result of our total support package including shorter turnaround, high liability, and best application capabilities; not to mention the excellent local support network that we have built to assist customers on a daily basis. Our built-up experiences and accomplishments as a supplier of in-line measuring instruments became the strong backbone of the entire Tokyo Seimitsu group, including the semiconductor equipment sector.

SBS AE sensor system



**Crankshaft journal and pin outer diameter measuring and marking machine**  
Measures journal and pin diameters with dedicated triple heads and marks prescribed positions.

**Finished product**

**Integrated auto-inspection machines**

Pin / Journal finishing grinding



**Outer diameter multiple measurement + Roundness measurement**



**Finished product**

Cylinder liner Machining after boring



**Cylinder block measuring and marking machine**  
Automated machine that measures bore diameters for crankshaft, as well as crankshaft bore coaxiality, and marks a prescribed position.

Front / Rear plane cutting/drilling

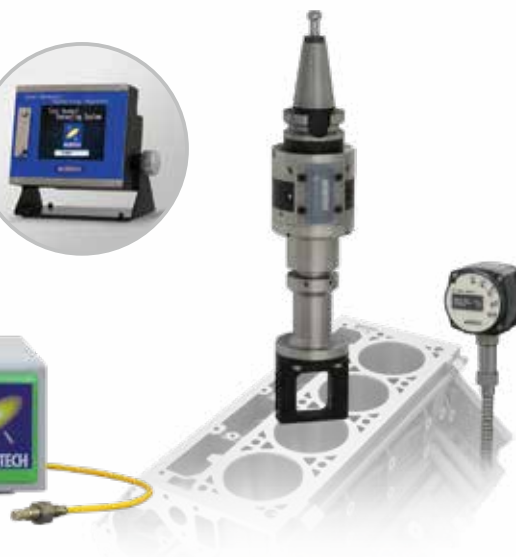


**Inner diameter measurement**



**Internal diameter measuring system for lathe post-process**

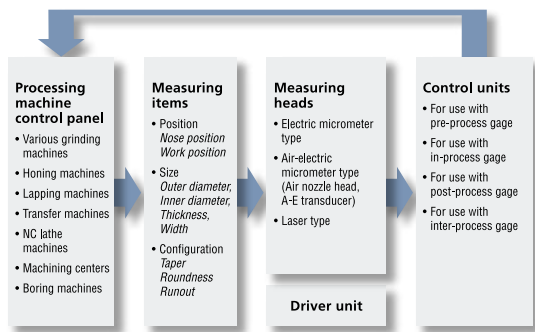
Chips



**Measuring system for machining center**

**Automatic Measuring Instruments**

# Machine Control Gages



## Powerful lineup : high-precision measurement and machine control in real time

Machine Control Gauge PULCOM utilizes the measured data collected either, before, during, or after the process to control the production machine in real time. PULCOM is mainly recognized for its high precision, which is considered second to none. PULCOM enables 0.1 μm precision measuring, which surpasses any previously introduced systems, and thus is capable of assisting our customers with their on-going pursuit for accurate machining capabilities. PULCOM is also waterproof and is suitable for any production environments so that it can be widely utilized for in-line high speed measurements and device controls. Along with PULCOM, we also customize various other auto-measuring, marking, and sorting devices that have been well accepted by global markets.

### Measuring Heads

- Improved stability (Outstanding measuring head in temperature fluctuation)
- Compact size and small space.



### Machine Control Gages Control Units

#### PULCOM V9

- High Extensibility
- Easy operation via touch-icon interface on the display.



#### PULCOM V10A + V11

- Various functions, such as circularity measurement or SPC control.



Accretech SBS Products



#### SBS automatic balance system

- Extremely robust and speedy
- Maintaining or improving machining quality



#### SBS AE sensor system

- High analytical performance and operability
- Suitable for machining monitoring and reducing cycle time



# Sensors, Analyzers and Display Units

## High accuracy and proven reliability in a compact format

Tokyo Seimitsu developed a large selection of sensors according to the measurement principles in order to fit any purposes found in the various production measuring scenes. These well-established sensors have earned high reviews over the years, as they are easy to use and observe during the line measurements, are capable of high-speed response suitable for machine built-in, and guarantee high accuracy crucial for liable inspection results. We are actively engaged in the development of various types of non-contact sensors and more to fulfill future demands.

### Air Micrometers



### PC connection type Inspection system

#### USB connection

- The data is captured by PC
- USB-Bus powered system
- Multi-gage system

#### Various lineup

- LVDT-USB : Compact measuring head, electric micrometers
- PHA-USB : High precision, wide range of measurement, optics scale gage
- Air micro USB : Converting the minute dimensional change detected by air nozzles to electric signal

### Contact Type Wafer Thickness Measuring Systems

#### WT-425 Series



### Inner-Diameter Measuring Head for ATC Wireless Bore Gauge

#### BG-300

- Bore gauge for ATC using wireless communication



### High Precision Digital Length Measurement Instruments

#### PHA Series



DELTAIR 22H

### Aluminum High-Speed Cutting Process Monitoring Device

#### ATC Run-out Detection System

- Detect tool for run-out to prevent manufacturing error.



## Semiconductor Production Equipment

# Wafer Probing Machines

Responding to the progress of device technologies and measurement needs of the next generation, Tokyo Seimitsu continues to lead the Semiconductor industry by offering solutions equipped with state-of-the-art intelligent features.

As the top manufacturer of wafer manufacturing and device test systems, Tokyo Seimitsu has always driven proactive technological development. By integrating advanced expertise accumulated over many years of operation with the latest technologies, the Company offers another range of advanced products to customers.



## AltaProv

Accretech Probing Machine for full wafer testing on a single touch down.

Developed with capability to simultaneously measure on 12 stages with dedicate XY stage and POGO tower.



## UF3000EX-i5

Probing machine for mass production with the same features as single probing machines, achieving minimum footprint.

## Next-generation ultra-high-performance probing machine

AP3000/AP3000e is a next-generation ultra-high-performance probing machine designed to achieve high precision, high throughput (index move, wafer handling, and wafer alignment), low vibration and low noise. Anti-Virus/Anti-Malware software is installed as standard software on the machine.

The functions and operability of AP3000/AP3000e are inherited from previous models, and it maintains compatibility of recipe and map data. It is very user friendly with the safety and security in mind.



### AP3000

The AP3000 is a high-end model that leverages advanced technologies to support the probing techniques that require diversified response for miniaturization and highly-dense integration of next-generation devices.

### AP3000e

The AP3000e is a general-purpose model featuring further evolved core technology that we have preserved over the years. It meets various customer needs and test environments in a very cost-effective way.



### FP3000

The thin wafer mounted on the dicing frame, diced wafer, and CSP substrate are automatically transferred by frame and gone through the probing test.

**Semiconductor Production Equipment**

# Wafer Probing Machines

## Prober variation satisfying various device demands – UF Series

The UF series probing machines were developed by combining the latest technologies of Tokyo Seimitsu.

Exhibiting high accuracy, high efficiency, and high functionality, it further offers the full automation, self-diagnostic function, use of GUI, high operation performance and stability.



**UF2000**

- High precision 200 mm Wafer Probing Machine.  
Cutting edge machine with  $\pm 1.5 \mu\text{m}$  precision, high rigidity and high throughput. This machine demonstrates its performance through utilization of a new processor and the quality of its new loader.



**FP2000**

- Machine ready for tape frame transportation.



**UF200R**

- Super high-rigid machine for memory.



**UF190R**

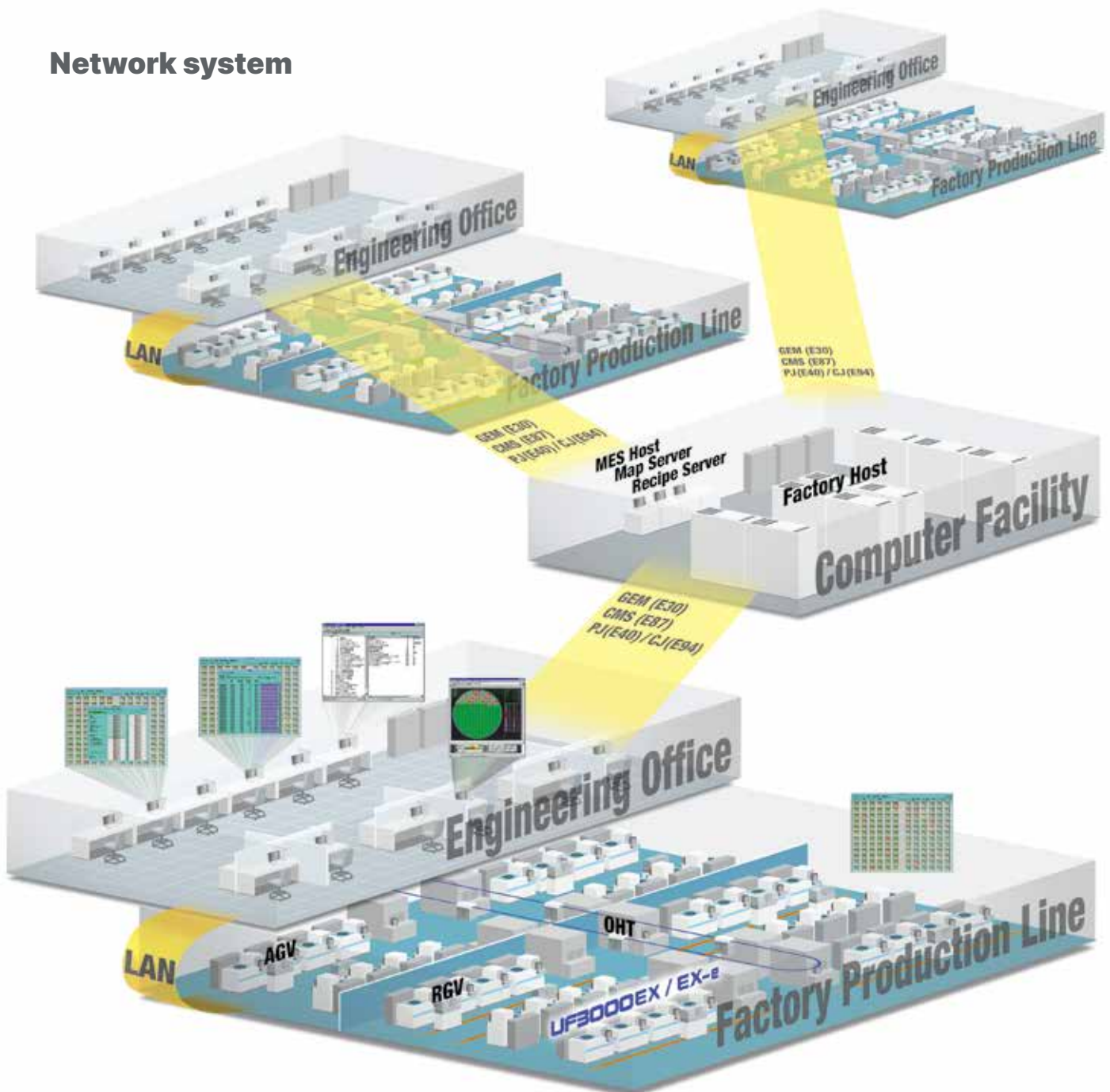
- High-speed machine for bipolar.

**ACCRETECH network useful for test process quality and data management, test result analysis and automation at customer sites.**

## System Integration

The ACCRETECH Probers take initiative in the factory automation process by employing the SEMI standards of GEM (E30), CMS (E87), PJ (E40), or CJ (E94), combined with our original networks Vega-Net, Light-Veganet, and Vega-Planet. The UF series are equipped with the next-generation remote terminal function which provide the e-Maintenance/e-Diagnostic.

## Network system



**Semiconductor Production Equipment**

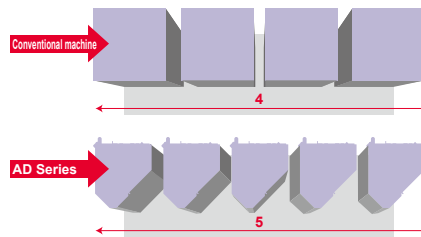
# Fully Automatic Dicing Machines



## Cutting edge technology and support system improve the customer satisfaction

Tokyo Seimitsu's Fully Automatic Dicing Machines can deliver the best CoO (Cost of Ownership) by featuring the world smallest footprint, high throughput, and remarkable processing quality due to our cutting edge technologies. We present well balanced and complete machines combining our exclusive face-to-face twin spindles and superior maintenance ability designed for diagonally positioned axis. We will strive to open the new phase of Fully Automatic Dicing Machines proudly maintaining our global customer support structure which has earned us the 10-BEST awards multiple times.

**Downsizing was achieved in both AD Series in comparison with the conventional equipment.**



**TWIN Dicing concept with the face-to-face twin-spindles**

### Fully Automatic Dicing Machine AD3000T-PLUS

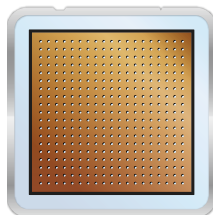
- Fully automatic dicer compliant with 300 mm work that is equipped with the face-to-face twin-spindles / single spindle.
- High power spindle as a standard feature.



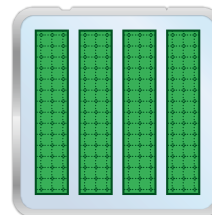
### Fully Automatic Dicing Machine AD3000TW

#### A model with face-to-face twin spindles for large packages

- Supports dicing of larger packaging substrates, including Fan-out WLPs.
- Supports dicing of multiple packaging substrates by selecting a special dicing frame or square table, contributing to improved productivity and cost reductions.
- Inherits the "diagonal layout" design concept of the AD3000T-PLUS, realizing a small footprint and high maintainability.



Capable of dicing large panels of up to 315 mm by 315 mm



Multiple substrates can be mounted at the same time (315 mm x 65 mm, an example of four substrates on a frame)



### Fully Automatic Dicing Machine AD2000T/S

- Fully automatic dicer compliant with 200 mm work that is equipped with the face-to-face twin-spindles / single spindle.
- High power spindle as a standard feature.



### Fully Automatic Dicing Machine AD3000T-HC PLUS

- Automatic switchover between wafer handling and frame handling contributes to reduction of switchover risk and downtime.
- World's first machine with automatic WH/FH switchover function

## Semiconductor Production Equipment

# Semi-Automatic Dicing Machines



### High process quality through user-friendly operations

Tokyo Seimitsu applies our refined dicing know-how, cultivated over the years, to understand the overall cutting conditions, to determine the best cutting settings for individual customer wafers, and to keep the high quality in wafer processing. Our dicers are considered cost-effective; designed to significantly save power and air consumptions, and are user friendly due to the auto-alignment function designed to reduce manual operations.



AD20T/S



SS30



SS20



SS11



A-CS-300

- The world's smallest semi-auto dicer made possible by our core technology. Footprint reduced 40% compared to our existing machines.
- Offers both the high power twin-spindle model and the single-spindle mode.
- Improved cutting quality by high rigidity and low vibration.
- Easy-to-operate new GUI (Graphical User Interface) and 17 inch LCD touch panel screen.

#### SS Series

- High power spindle as standard feature.
- Improved operability with the 17-inch LCD touch panel screen.
- Auto alignment as standard feature.
- World smallest footprint for each machine.

#### Automated wafer cleaning machine

- Wafer cleaning machine capable of cleaning and drying 300mm wafers.

**Semiconductor Production Equipment**

# Precision ACCRETECH Blades

Our blades for precision cutting are derived from our unique development technology as well as our diverse application technology. We offer products that can cut a variety of materials, cover diverse cutting applications and satisfy today's requirement of "high quality & low cost".



< NICKEL BOND BLADES >

Nickel blades manufactured by electroforming with globally acknowledged performance that supports outstanding stability. The Company continues to pursue the possibilities in cutting electronic materials by making use of the rigidity and wear-resistance of nickel blades.



< METAL BOND BLADES >

Metal bond blades uniquely manufactured to your specific dicing demands. GM series for glass and YM series for ceramics. Customized to your application.



< HUB TYPE BLADES >

Nickel plated hub blades designed and manufactured with high tolerances under strict quality controls. This ensures repeatable high cutting quality and durability.



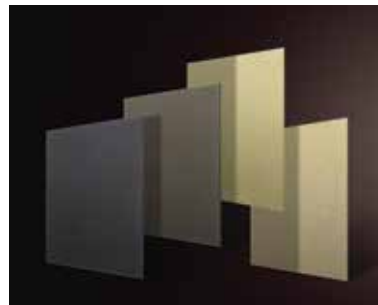
< RESIN BOND BLADES >

Resin bond blade developed to achieve high speed cutting and durability, while maintaining high sharpness. Choose different series of blades according to the usage; PG series for semiconductor packages and GC series for glass and ceramics.



< ULTRA HARD METAL SAWS >

Ultra-hard metal saw that does not allow burring on the edge through the cutting of the variety of resin and metal substrate. It can be the total solution for cutting that can respond to the new demands.



< DRESSING PLATE >

Dressing plates that work to maintain the quality and cutting ability of all types of blades. Dressing under optimized conditions maximizes the blade performance.



# Fully Automatic Laser Dicing Machines



Able to perform non-contact dicing without damaging the silicon wafer surface

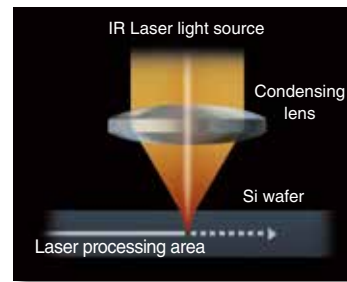
A Ø300 mm laser dicing machine equipped with IR (Infrared) laser. Various loader specifications are available to meet various needs of customers.

## 【Features】

- Supports completely dry process. Optimum choice for processing devices whose processing load should be minimized and that should be kept away from water.
- Adoption of a high output laser significantly reduced the number of scans required for processing, dramatically increasing the throughput.
- Narrow kerf width increases the yield (number of chips obtained), contributing to cost reduction.



Laser Dicing Machine  
ML3200FH



This laser dicing machine removes Low-k film, Cu wiring, TEG, etc. on the street with low damage using UV laser beam.

## 【Features】

- Ø300mm Compatible fully automatic laser dicing machine  
Automatically supports a series of processes from water-soluble protective film distribution to laser dicing and cleaning.
- Laser Grooving Process compatible  
AL3000 supports applications for removing TEG on Low-k grooves or streets.
- Achieves both high quality processing and high throughput with a unique laser engine mechanism



Laser Dicing Machine  
AL3000

**Semiconductor Production Equipment**

# High Rigid Grinders

**Realized the damage-free processing in a short amount of time.**

**Our high rigid grinder is the device to grind hard-to-cut materials such as sapphire and SiC substrates.**

HRG300 allows the processing of individual wafers with larger diameters (300 mm) and of the batch grinding of wafers with smaller diameters that are attached to the support substrates.



### HRG300

#### Features

- High-rigidity
- Processing efficiency
- Low processing cost
- Equipped with the batch processing-compliant IPG
- Continuous dressing mechanism (optional)

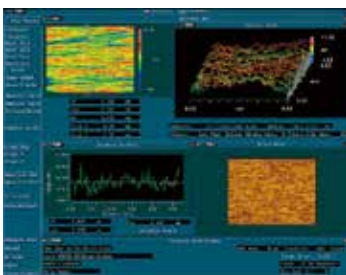


### HRG200X

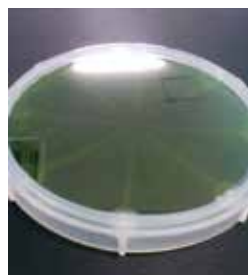
#### Features

- Fully Automatic High Rigid Twin Axis Grinder
- Less-damage Grinding with Shorter Process Time
- Low processing cost
- High Accuracy
- Mirror Finish Surface Grinding

Processing example of SiC.  
Mirror finish becomes available only with grinding.



Ra: 0.247 nm PV: 1.829 nm



Grinding wheel: HW8000V finish

**Target material**

Hard-to-cut materials such as sapphire, SiC, GaN, ALN, and LT.

**Target work**

Size:  $\phi$  2 ~  $\phi$  12 inch  
Max. thickness: 20 mm  
(including the thickness of the support substrate)

## Semiconductor Production Equipment

### Pursuing the limit of grinding machines.

ACCRETECH High Rigid Grinders enable mirror finishing with no use of chemicals and contribute to achieving high precision, high throughput and low cost in the wafer thinning process.



#### HRG3000RMX

##### Features

- Fully Automatic High Rigid Twin Axis Grinder
- Less-damage Grinding with Shorter Process Time
- Low processing cost
- High Accuracy
- Mirror Finish Surface Grinding

## Semiconductor Production Equipment

### Polish Grinders

Inspired by Tokyo Seimitsu's own innovative engineering, this polish grinder offers an integrated solution for thinner wafers and damage removal required for system-in-package products, and 3D mounting technology while eliminating wafer damage during transport.



##### Features

- Integrated operation : Handles rough and fine grinding, polishing, and wafer cleaning on both sides in a single unit
- Safety measures : All manufacturing processes are completed in a wet state, preventing the release of fine particles
- Stable wafer transfer : Ground wafers are transported throughout all processes with minimum handling
- The equipment offers integrated data control and communication systems : the RM module combines a transport mechanism for minimal transfer of thin wafers with an inline connection system ; measurement is performed by a post-process gage.
- Quality management: Data management and Communication using Post process gauge

Processing example of Si.  
Mirror finish becomes available only with the grinding.



PG3000RMX



HRG3000RMX

#### Target material

Si

#### Target work

Size:  $\phi 8 \sim \phi 12$  inch

Minimum finish thickness: 10  $\mu$

**Semiconductor Production Equipment**

# Chemical Mechanical Planarizers

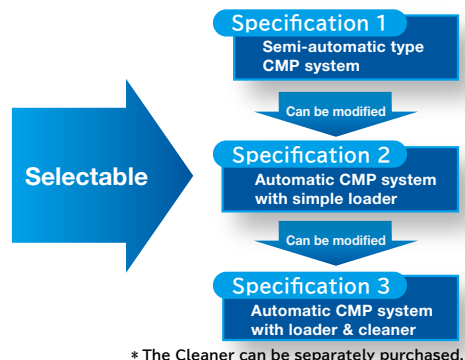
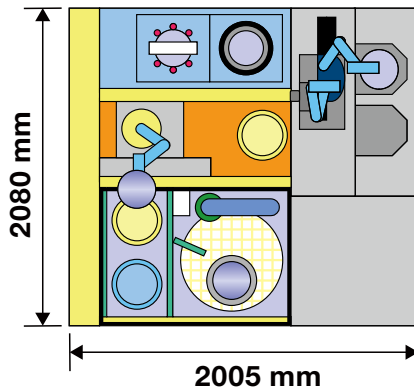
Integrating the technologies of precision measuring machines and semiconductor manufacturing systems developed thus far, Tokyo Seimitsu offers the ChaMP series Chemical Mechanical Planarizers that meet diverse process requirements. (Applicable wafer sizes: 300mm, 200mm, 150mm, 100mm)

Compact High-Performance CMP

## ChaMP-211

**Feature**

- Low price, small foot print
- High-performance CMP:  
Developed technology through the mass production line of the semiconductor device.
- Flexible customization meeting user's needs  
--->Expendable from R&D, trial, to mass production.



\* The Cleaner can be separately purchased.

Standard Model

## ChaMP-232

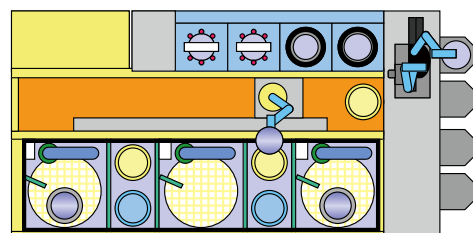
For 200 mm or 150 mm or 100 mm wafers

## ChaMP-332

For 300 mm wafers

**Feature**

- Supports all types of application with a 3 platen, 2 head configuration
- All machines supporting 300mm/200 mm/150 mm/100 mm wafers are equipped with similarly conceived polishing heads and EPD system.

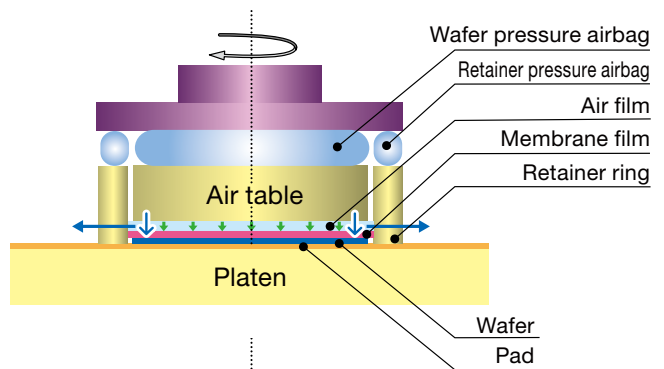


## Air-float head enables low-pressure and high planarity process “Sylphide”

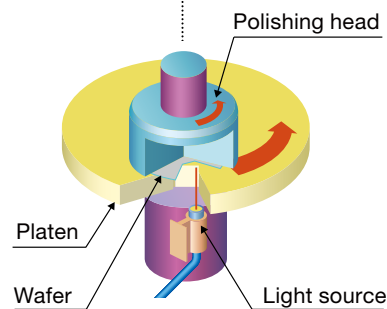
- Extremely uniform pressure distribution by air film above wafer.
- Stable pressure control at low pressures made possible with airbags independent from air films.
- Independent retainer pressure airbags enable better edge profile control.
- Unique design of retainer/membrane assembly reduces machine downtime. (Refer to below.)
- Zone control function is optionally possible.

CMP’s outstanding head work not only improves the process performance but also increases the productivity as well as reduces costs. More precisely, adapting the well refined hard pats can shorten the polishing time and thus reduce the cost of consumables.

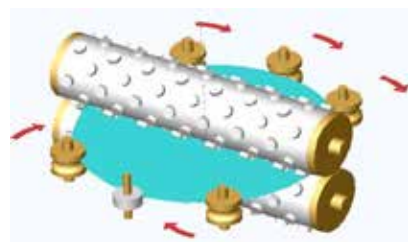
### Sylphide



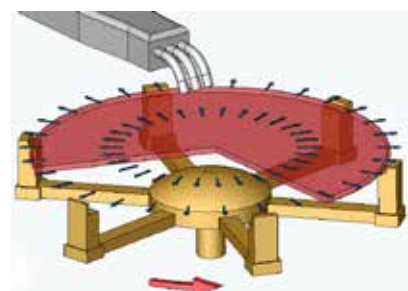
### EPD detection mechanism



### Scrub cleaning

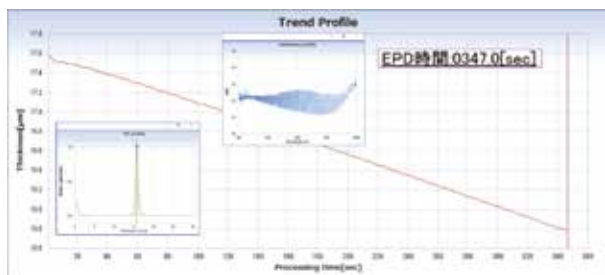


### Spin-drying



## Optical End-Point Detection System

- Uses white light source and accurately detects residual film changes with reflection data of wide wavelength range and original algorithm.
- Provides a wide range of applications.
- Equipped with intuitive GUI that allows the user to see film thickness changes.



## Cleaning machine

- Enables cleaning of 300 mm / 200 mm / 150 mm / 100 mm wafers and flexibly handles square or other special substrates.
- Achieves cleaning suitable for state-of-the-art processes.
- Enables simultaneous cleaning of front and back surfaces.

## Semiconductor Production Equipment

# Wafer Manufacturing Systems

**As the leading supplier of silicon wafer manufacturing equipment, our acclaimed engineering has succeeded in systemizing the wafer manufacturing process.**

As the semiconductor devices get smaller in size, demand for precision machining technology for silicon wafers increases. Tokyo Seimitsu provides a line of wafer manufacturing systems respectively designed for individual processes such as sliced wafer demounting and cleaning, wafer edge grinding, and more to ultimately improve product quality and productivity. We offer consultations to select the optimal systems for automation and process management as well as providing technical and maintenance support going forward. Wafer Edge Grinding for 300mm wafers and Demounting and Cleaning Systems for sliced carbon wafers are a few of our prime products that maintain high customer reviews and dominate the global market share.

### Wafer Edge Grinding Machine W-GM Series

- Newly-developed grinding unit enhances the rotative precision of the spindle, and improves the edge roughness.
- Non-contact measuring system achieves stable alignment.
- Multiple-point of thickness of pre-processed wafers, diameter and notch depth of post-processed wafer are measured by non-contact system.
- Options such as low damage grinding to reduce machining damage are available.



#### W-GM-6200

- Wafer Size  $\phi$  450 mm.
- Improve the Space Efficiency by the Compact Design.
- Highly Accurate Grinding by the Synchronized X, Y,  $\theta$  Support Control.
- Easy Operation by Touch Panel.

#### W-GM-5200E

- Machine specification ready for 300 mm ( $\phi$  12") wafers.
- Makes possible high precision and high quality 300 mm wafer processing.
- Newly-developed built-in inspection system (option) enables real-time monitoring inside the machine of wafers quality control after grinding.





### W-GM-4200E

- Machine specification ready for 50 mm ( $\phi$  2") - 200 mm ( $\phi$  8") wafers.
- Newly-developed grinding unit enhances the rotative precision of the spindle, and improves the surface roughness.
- Performs non-contact measuring of pre-processed wafer thickness, diameter and notch depth of post-processed wafer.

### W-GM-4200S

- Workpieces in various shapes (rectangular and polygoral shapes) can be processed.

### Demounting and Cleaning System (C-RW-200 / 300)

- Automatic demounting of wafers from the slicing base, cleaning and storing on the cassette.



## Grinding Service

Our edge grinding machines can be used for various applications and with various materials such as Si, SiC, GaN, sapphire, compounds and oxidized materials. We will provide you with the machining technology we have accumulated.

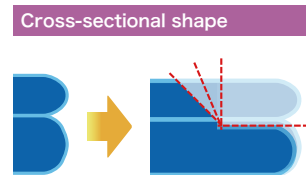
### Process Example \*Edge Roughness (Ra = 20 nm) \*Measured by Our Standard



Si Wafer 2" (50 mm) ~ 18" (450 mm)



Terrace Grinding  
Counter Measure against Knife Edge/Asymmetric Profile Grinding



Edge Trimming  
Bonded Wafer with Special Profile



Edge grinding of the mirror finished surface of sapphire wafer



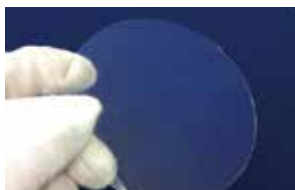
Notch grinding of SiC, sapphire, and brittle materials



Compound Materials such as SiC & GaN



Ingot Rounding  
Maximum Thickness: 30 mm



Glass Wafer Edge Grinding



Square / Rectangle Glass Substrate

# How We See CSR

Tokyo Seimitsu Group integrates the best technology, knowledge, and information acquired from all over the globe to create the world's No.1 products and is committed to work together with all the stakeholders such as customers, suppliers and others to shape a sustainable society.

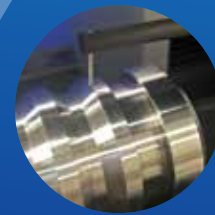
## Motto

**WIN-WIN RELATIONSHIPS CREATE THE WORLD'S NO.1 PRODUCTS!**



Wind power generation

# ACCURETECH



Precision Measuring Instruments

## Suppliers

Partners we work with to create new value



Electric components



Small components



Materials

## Corporate Philosophy

**We create the world's No. 1 products and grow together to a higher level by integrating excellent technology, wisdom and information available in the world.**



## Finished Products

Manufacturers  
Supported by  
Tokyo Seimitsu



Digital  
communication  
devices



Medical devices



Next-generation  
robots



Automobiles

# Support Manufacturing and Society with Measuring Technology

# Achieve a Sustainable Society



## Semiconductor Manufacturing Equipment



Tokyo Seimitsu Group has contributed to our society and environments through developing the high-precision measuring instruments to enhance convenience in our daily lives and the semiconductor manufacturing equipment to help create energy-efficient electronic products. In other words, our technologies in metrology and semiconductor assist our customers in manufacturing their end products that serve the entire society.

In order for us to keep providing our customers and society with various values through our products, we must stay focused on grasping their future needs in a long run as well as working closely with our suppliers who are eager to comply with our corporate philosophy.

We are determined to maintain our win-win relationships with the stakeholders to develop new technologies, which consecutively improve the quality of our everyday lives, preserve the surrounding environments, and thus change the society for their benefit.

Throughout our business practices, we ensure to respect human rights, evaluate and correct the negative impact on the global environment if any, and are pledged to stay responsible as a member of society.

As part of our efforts, we make sure that the CSR report reflects Tokyo Seimitsu as it is, as we value two-way communications with all the stakeholders.

## Outline of Company

### Name

TOKYO SEIMITSU CO., LTD.

### Establishment

March 28, 1949

### Capital

Paid-in capital : 11,064 million yen (as of March 31, 2023)

### Stocks

Listed on the Prime Market of the Tokyo Stock Exchange

### Employees

Non-consolidated : 1,176

Consolidated : 2,647

(as of June 30, 2023)

### Directors and Auditors

Hitoshi YOSHIDA	Chairman and CEO
Ryuichi KIMURA	President and COO
Koichi KAWAMURA	Executive Vice President and CFO
Takahiro HOKIDA	Director
Shuichi TSUKADA	Director
Romi PRADHAN	Director
Kiyoshi TAKAMASU	External Director
Shigenari MORI	External Director
Shinji AKIMOTO	Director(Serving as Audit and Supervisory Committee Members)
Yuriko SAGARA	External Director(Serving as Audit and Supervisory Committee Members)
Masaki SUNAGA	External Director(Serving as Audit and Supervisory Committee Members)
Tsuneko MURATA	External Director(Serving as Audit and Supervisory Committee Members)

(as of Jun 26, 2023)

### Affiliates

Tosei Engineering Corp.  
Tosei Systems Co., Ltd.  
Accretech Create Corp.  
Tosei Box Corp.  
Accretech Finance Co., Ltd.  
Accretech Powertro System Co., Ltd.  
Accretech America Inc.  
Accretech (Europe) GmbH  
Accretech Korea Co., Ltd.  
Accretech (China) Co., Ltd.  
Accretech Taiwan Co., Ltd.  
Accretech (Malaysia) Sdn. Bhd.  
Accretech (Thailand) Co., Ltd.  
Accretech Adamas (Thailand) Co., Ltd.  
Tosei Engineering (Pinghu) Co., Ltd.  
TOSEI (Thailand) Co., Ltd.  
Accretech SBS Inc.  
Accretech (Singapore) Pte. Ltd.  
Accretech Vietnam Co., Ltd.  
PT Accretech Indonesia  
Accretech-Tosei do Brasil Ltda.  
PT TOSEI Indonesia.  
TOSEI Philippines Corp.  
TOSEI Engineering Pvt. Ltd.  
TOSEI Mexico, S.A. de C.V.  
Accretech SBS UK Ltd.  
Accretech-Tosei Hungary Kft.  
Accretech (Pinghu) Co., Ltd.  
Tosei Technology Development (Shanghai) Co., Ltd.

## In-house Company System and Officer System

### Semiconductor Company

Ryuichi KIMURA	Head of Semiconductor Company
Takahiro HOKIDA	Managing Executive Officer
Akio MITSUHASHI	Managing Executive Officer
Nobukazu AOSHIMA	Managing Executive Officer
Yuichi KUBO	Managing Executive Officer
Masaki KANAZAWA	Managing Executive Officer
Romi PRADHAN	Executive Officer
Keng Hooi TEE	Executive Officer
Hiroyuki SAKAI	Executive Officer
Masayuki AZUMA	Executive Officer
Toshihiko ETO	Executive Officer
Ryoichi IDE	Executive Officer
Kazumasa ISHIKAWA	Executive Officer
Akihiro ENDO	Adviser

### Metrology Company

Shuichi TSUKADA	Executive Officer / Head of Metrology Company
Taichi FUJITA	Managing Executive Officer
Hao CHEN	Executive Officer
Masato MINEO	Executive Officer
Takashi MASUDA	Executive Officer
Mutsumi ONO	Executive Officer
Tsutomu KANZAKI	Adviser

### Administration Company

Koichi KAWAMURA	Head of Administration Company
Kenichi TAMURA	Managing Executive Officer
Asashi KATO	Managing Executive Officer
Kimoto KOIZUMI	Managing Executive Officer
Shinichi USUDA	Executive Officer

## Brief History

- 1949 • Establishment of Tokyo Seimitsu Kogu Co., Ltd.
- 1951 • Manufacture and sale of measuring machines using mechanical gages
- 1952 • Development of Japan's first flow type air micrometer
- 1957 • Development of Japan's first LVDT type electric micrometer  
• Establishment of Daiichi Seiki Co., Ltd.
- 1958 • Development of germanium pellet auto-sorter
- 1962 • Company name changed to Tokyo Seimitsu Co.,Ltd.  
• Listed on the second section of the Tokyo Stock Exchange  
• Development of surface texture measuring instrument
- 1963 • Development of Japan's first wafer slicing machine
- 1964 • Development of wafer probing machine
- 1967 • Development of roundness measuring instrument
- 1969 • Establishment of Tosei Engineering Service Co.,Ltd.  
• Development of Japan's first coordinate measuring machine
- 1970 • Development of the wafer dicing machine
- 1985 • Establishment of Tosei Systems Co., Ltd. as a software development group
- 1986 • Listed on the first section of the Tokyo Stock Exchange
- 1987 • Establishment of Research Laboratory
- 1989 • Establishment of Tokyo Seimitsu Europe GmbH (Germany) and Tokyo Seimitsu America, Inc.(USA)
- 1992 • Establishment of ACCRETECH Service Center in Korea
- 1994 • ISO 9001 awarded to the Hachioji and Tsuchiura Plants  
• Obtained a business license under the traceability system of the Measurement Law for the calibration of the "length measurement laser"  
• Establishment of the Beijing Representative Office  
• Establishment of Tokyo Seimitsu (Malaysia) Sdn.Bhd. in Malaysia
- 1995 • Obtained a business license under the traceability system of the Measurement Law for the calibration of the "Block gage"  
• Establishment of ACCRETECH America, Inc. and ACCRETECH Manufacturing Company in USA  
• Entered into a partnership with Carl Zeiss in the field of high precision measuring instruments worldwide
- 1996 • Received the "10 BEST Award" for "Customer satisfaction with a semiconductor equipment supplier" survey by VLSI Research Inc.  
• Establishment of the TSK Technical Center in Hsinchu, Taiwan
- 1997 • Establishment of Tokyo Seimitsu (Singapore) Pte.Ltd.
- 1998 • ISO 14001 awarded to the Hachioji and Tsuchiura Plants
- 1999 • Establishment of ACCRETECH Finance Co., Ltd.
- 2001 • Corporate brand "ACCRETECH" introduced  
• Establishment of Tosei Box Corp.
- 2002 • Received the "10 Best Award" in two categories : awarded for the 7 consecutive years in the Test & Material Handling Equipmentcategory, and the awarded in the Assembly Equipment category for the first time  
• Establishment of Accretech (China) Co.,Ltd.  
• Entered into a partnership with Hamamatsu Photonics K.K. for developing semiconductor manufacturing equipment and jointly developed a new laser dicing system, "MAHOHDICING MACHINE"
- 2005 • Renewed partnership agreement with Carl Zeiss for another 5 years
- 2007 • Establishment of Accretech Korea Co.,Ltd.  
• MAHOHDICING MACHINE was granted the Chairman' Award of The Japan Machinery Federation at its 27th JMF Award for Energy-Conserving Machinery.  
• Obtained a business license at Tsuchiura Plant under the traceability system of the Measurement Law for the calibration of the "length measurement laser" and "3D Coordinate Measuring Machine"
- 2008 • Received the "10 BEST Awards" in two categories :awarded for 13 consecutive years in the Test & Material Handling Equipment category, and for 7 consecutive years in the Assembly Equipment category  
• Technical cooperation with Mitaka Kohki Co., Ltd in non-contact metrology
- 2009 • Establishment of Accretech America Inc.
- 2010 • Relocation the head office to Hachioji City
- 2011 • Completed the No. 5 Plant at Hachioji Semiconductor company
- 2012 • Acceptance of Dicing Blade Business from Mitsubishi Material Corporation and started Blade Business  
• Established "ACCRETECH Application Center" accommodating to device process diversification
- 2015 • Changed company name of Tokyo seimitsu (Thailand) Co., Ltd. to Accretech (Thailand) Co., Ltd.
- 2016 • Completed the No. 6 Plant at Hachioji Semiconductor company.
- 2017 • Joint Development with Panasonic Factory Solutions Co., Ltd. to promote Laser Grooving Device used in Plasma Dicing method.
- 2019 • Establishment of Accretech Powertro System Co., Ltd.  
• Establishment of Accretech SBS Inc.  
• Establishment of Accretech SBS UK Ltd.
- 2020 • Construction of Tsuchiura Plant MI Building completed  
• Semiconductor Business Department office opened at the subsidiary in Vietnam  
• Acquisition of 100% ownership of Accretech Powertro System Co., Ltd. (former Fujitsu Telecom Networks Fukushima Ltd.) completed

## Head Office/Plant/Domestic Offices



### Head Office

2968-2, Ishikawa-machi, Hachioji-shi,  
Tokyo 192-8515, Japan  
Tel: +81(0)42-642-1701  
Fax: +81(0)42-642-1798



### Hachioji Plant

2968-2, Ishikawa-machi, Hachioji-shi,  
Tokyo 192-0032, Japan  
Tel: +81(0)42-642-0381  
Fax: +81(0)42-642-0386



### Hanno Plant

2-7-1, Akanedai, Hanno-shi, Saitama,  
357-0069 Japan  
Tel: +81(0)42-649-1371  
Fax: +81(0)42-649-1197

## Overseas Offices

### International Marketing Dept.

(Semiconductor Company)  
2968-2, Ishikawa-machi, Hachioji-shi,  
Tokyo 192-0032, Japan  
Tel: +81(0)42-642-0381  
Fax: +81(0)42-631-5234

(Metrology Company)  
4, Higashi-Nakanuki-machi, Tsuchiura-shi,  
Ibaraki 300-0006, Japan  
Tel: +81(0)29-831-1240  
Fax: +81(0)29-831-1461

### Asia



Accretech (China) Co., Ltd.

#### China

##### Accretech (China) Co., Ltd.

(Head Office / Shanghai)  
Room 2101C, No.1077, ZuChongZhi  
Road,  
Zhang Jiang Hi-Tech Park, Pudong New  
Area,  
Shanghai, China, 201203  
Tel: +86(0)21-3887-0801  
Fax: +86(0)21-3887-0805

##### (Shanghai Office)

Room212, No.118 Fu Te Bei Road,  
WaiGaoQiao F.T.Z Shanghai, China,  
200131  
Tel: +86(0)21-5064-0201

##### Accretech (Pinghu) Co., Ltd.

Building 2#, No 1389, Xinqun Road,  
Pinghu Economic Development Zone,  
Pinghu City, Zhejiang, PRC. China,  
314200  
Tel: +86(0)573-8520-8060  
Fax: +86(0)573-8520-8065

##### (Changchun Office)

Room 812, Building 1, Kaixuanshiji  
Plaza, No.278 Kaixuan Road, Kuancheng  
District, Changchun, Jilin, China, 130052  
Tel: +86(0)431-8896-1051  
Fax: +86(0)431-8896-0661

##### (Dalian Office)

Room 715, Building 3#, Yifeng Modern  
City, Jin Ma Road, Development Zone,  
DaLian City, Liaoning Province, China,  
116000  
Tel: +86(0)411-8756-5414  
Fax: +86(0)411-8756-5414

##### (Beijing Office)

Room 508, Tower B, Jinhai ShangFu  
Center, No.403, Baiziwaxili, Chaoyang  
District, Beijing, China, 100124  
Tel: +86(0)10-5820-0588  
Fax: +86(0)10-5820-0588

##### (Tianjin Office)

Room 606, Brilliant Crystal Tower, 53-1  
Weidi Road, Hexi District, Tianjin,  
China, 300201  
Tel: +86(0)22-8822-7220  
Fax: +86(0)22-2833-2125

##### (Jinan Office)

Room 1404, NO.1, Hengda City, No.58,  
Gongyebei Road, Licheng District, Jinan,  
Shandong, China, 250100  
Tel: +86(0)531-6668-8196  
Fax: +86(0)531-6668-8190



### **Tsuchiura Plant**

4, Higashi-Nakanuki-machi, Tsuchiura-shi,  
Ibaraki 300-0006, Japan  
Tel: +81(0)29-831-1234  
Fax: +81(0)29-831-4453



### **Tosei Engineering Corp. Head Office / Plant**

4-6, Higashi-Nakanuki-machi, Tsuchiura-shi,  
Ibaraki 300-0006, Japan  
Tel: +81(0)29-830-1888  
Fax: +81(0)29-832-4053



### **Tosei Engineering Corp. Nagoya Plant**

96, Shin-Ikeura, Uchikoshi-cho, Miyoshi-shi,  
Aichi 470-0213 Japan  
Tel: +81(0)561-32-3601  
Fax: +81(0)561-34-2744

#### **(Xi'an Office)**

Room 22601, Unit 2, Block B, NO.2, Heng Tian  
Guo Ji City, NO.2, Daqing Road, Lianhu District,  
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