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## Corporate Profile

Company Name / Unitech Co., Ltd.

Established / November 1984

Capital / ¥42,500,000

Description of business / Design, manufacturing and sales of high-precision pin gauges, various pins and punches, optical connector components, electrodes for EDM, lens molding components, various high-precision molding components, aviation parts, related jigs and tools

President / Kazutaka Moteki

Quality Management System / ISO 9001, JIS Q 9100

## Message from the President

Since our former president, Toshiyuki Miyazaki, established Unitech in 1984, the company has consistently engaged in manufacturing high precision metal mold parts, jigs, etc. for various industries, and has improved its technical strength by providing technical support through VA/VE proposals or dissolving problems for customer's products manufacturing.

Nowadays, our technology used in various industries such as semiconductor or electronics, optical communication, optical lenses, automobile, etc. to dissolve technical problems for development matters. We are focusing on daily technical improvement activities to meet customer's needs.

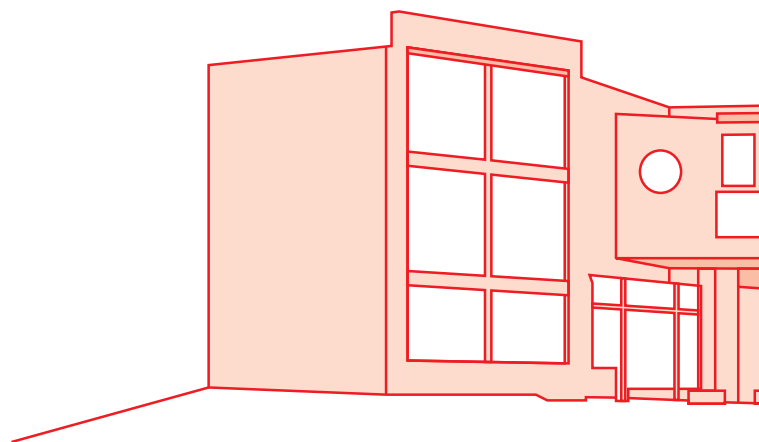
In addition, Unitech has acquired the Aerospace Quality Management System (JIS Q 9100) certification in 2013, activating processing technology and know-hows we have accumulated. Now, we have started design and manufactured jigs and tools for aircraft manufacturing. We are stepping forward for new know-hows and technology improvement activities.

Our target is continuing growth through providing high added value to customers. To accomplish the goal, we would appreciate your continued support and suggestions.

Kazutaka Moteki  
President

*K. Moteki*

**There are no demarcation lines in the  
Please consult with us when you require**



# Unitech's Technology

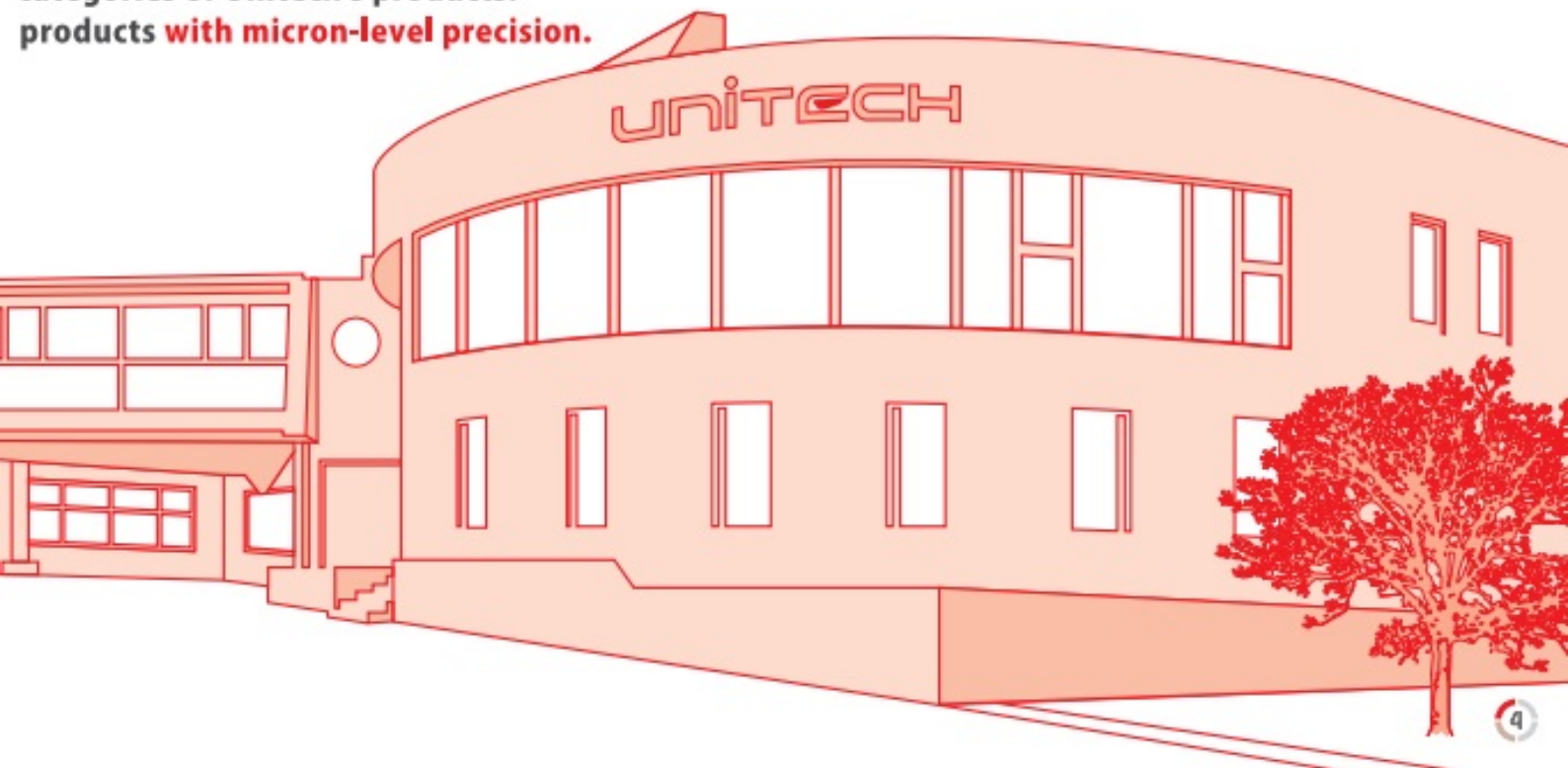
**We provide customized processing services to turn your ideas into reality.**

Processing technology with high accuracy and high quality in grinding, polishing and drilling holes as well as precision measurement technology capable of dealing with tolerance in the sub-microns.

All of Unitech's products are made-to-order. In difficult-to-cut materials such as mainly carbide and sintered diamond, ultra-high precision of sub-microns is achieved with grinding, polishing and EDM technology, thus enabling us to provide customized processing services to turn our customers requests into reality.



**categories of Unitech's products.**  
**products with micron-level precision.**



# Optical Interconnect Components

## Optical communication components

**Mating pins, guide pins, connector molds and other products using high precision grinding and EDM**

Optical communication components dispensable to high-speed communication. High-precision mold-related components and jigs and tools products will support stable communication environment.

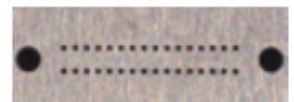
### ■ Molded components for optical fiber Connectors



Hole diameter =  $\varnothing 0.125\text{mm}$   
Hole pitch =  $0.25\text{mm}$   
Hole tolerance =  $\pm 0.2\ \mu\text{m}$   
Hole pitch tolerance =  $0.5\ \mu\text{m}$



Cross-section



Holes

## ■ Molded core pins and guide pins for optical fiber connectors (integrated processing)

### ■ For single core (Material: carbide)

Tip length  $l = 20 \text{ mm}$   
 Tip shape and cylindricity tolerance =  $\pm 0.5 \mu\text{m}$   
 Tip dimensions = from  $\varnothing 0.100\text{mm}$



### ■ Mold guide pin (Material: carbide, SKH)

Tip length  $l = 30 \text{ to } 40 \text{ mm}$   
 (Effective length approximately 20 mm)  
 Dimensions =  $\varnothing 0.7010 \text{ mm}$  etc.  
 Dimensional tolerance =  $\pm 0.1 \mu\text{m}$



### ■ For multi-core (Material: carbide, SKH)

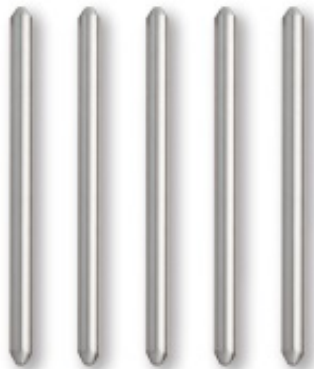
Tip length  $l = 4 \text{ to } 5 \text{ mm}$   
 Tip shape and cylindricity tolerance =  $\pm 0.1 \mu\text{m}$   
 Tip dimensions = from  $\varnothing 0.08\text{mm}$



## ■ Mating pins for optical fiber connectors

### ■ For MT type

Precision (tolerance)  
 Example:  $\pm 0.5 \mu\text{m}$   
 $\Downarrow$   
 (Range)  $0.5 \mu\text{m}$   
 $\Downarrow$   
 $\pm 0.15 \mu\text{m}$   
 $\Downarrow$   
 $\pm 0.1 \mu\text{m}$



### ■ For MT-RJ type

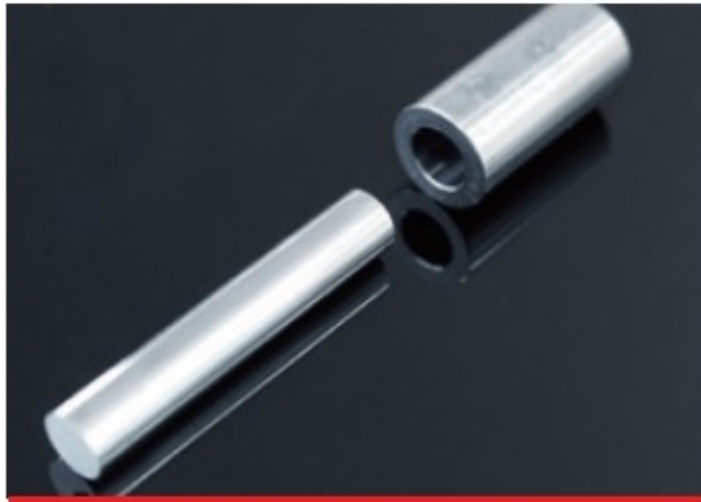








■ Components for lens molds



■ Aspherical grinding for nests of lens molds



■ Nests for lens molds



Carbide, binderless carbide, STAVAX, etc.  
 Carbide and binderless carbide  
 Spherical and aspheric machining  
 process PV value =  $0.3 \mu\text{m}$   
 Both angularity and concentricity are  
 below  $1 \mu\text{m}$

■ Sleeve for lens molds



Carbide, binderless carbide, STAVAX, etc.  
 Both angularity and concentricity are  
 below  $1 \mu\text{m}$   
 Please enquire about the shape.

■ Various precision mold bases

Carbide, binderless carbide, STAVAX, etc.  
 Machining accuracy:  $1$  to  $5 \mu\text{m}$

■ Various precision core pins

Machining accuracy: sub micron



# Semiconductor, Light Electrical Device Related Components

## Various taper pins, nozzles, and probes

**Tip diameter up to about 0.02 mm available: Various materials available including carbide, zirconia, and SUS**

Mold components and jigs and tools products supporting semiconductor manufacturing

### ■ Inspection probes



Example:  
Shaft diameter =  $\varphi$  0.7mm  
Overall length = 15mm  
Tip =  $\varphi$  0.015mm

▣ Various taper pins, guide pins, and positioning pins



▣ Nozzles





# Precision Measurement, Electrodes, EDM Products etc.

## High-precision pin gauges, EDM products, molded components, jigs and tools

### High-precision pin gauges

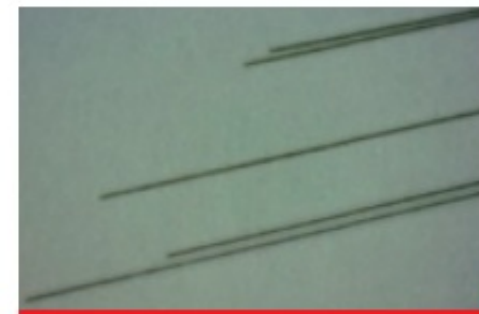
Various pin gauges with  $\pm 0.1 \mu\text{m}$  (0.0001 mm) tolerance using sub micron processing technology



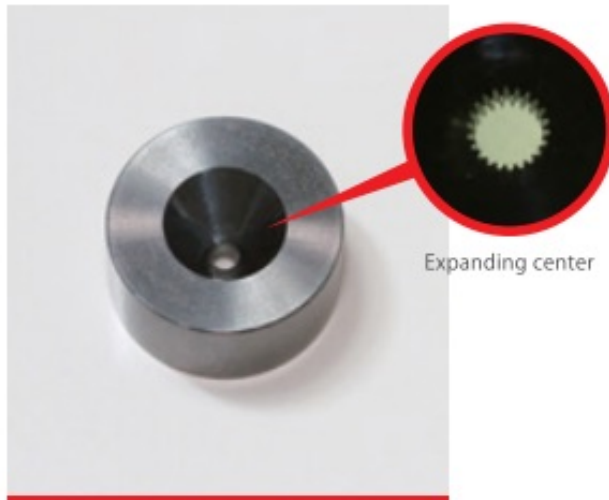
### Welding rods for EDM piercing automobile injection nozzles

We will produce high precision welding starting from  $\varnothing 0.03\text{mm}$  with tungsten and carbide

(diameter tolerance:  $1 \mu\text{m}$ , length: 450L max.)



■ EDM products



Available for various methods such as engraving, pin holing, wiring, with wire diameter of down to  $\varnothing 0.03$  mm

■ Molded components



Manufacture of various jigs and tools and molded components using precision machining



**Jigs and tools products supporting precision measurement and precision machining**

We will produce made-to-order precision jigs and tools for customers' needs.



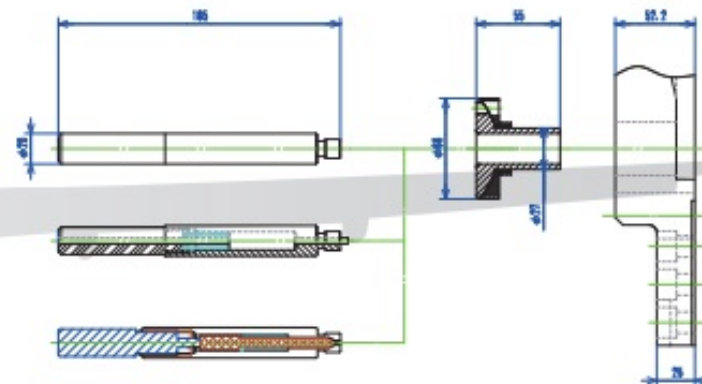


# Aircraft Industry Related Components

## Special jigs and tools for aircraft manufacturing

**Special gauges, special jigs and tools indispensable to precision aircraft components directly linked to safety**

We will produce made-to-order precision jigs and tools for customers' needs.





## Special jigs and tools for aircraft manufacturing



BUTTON GAUGE

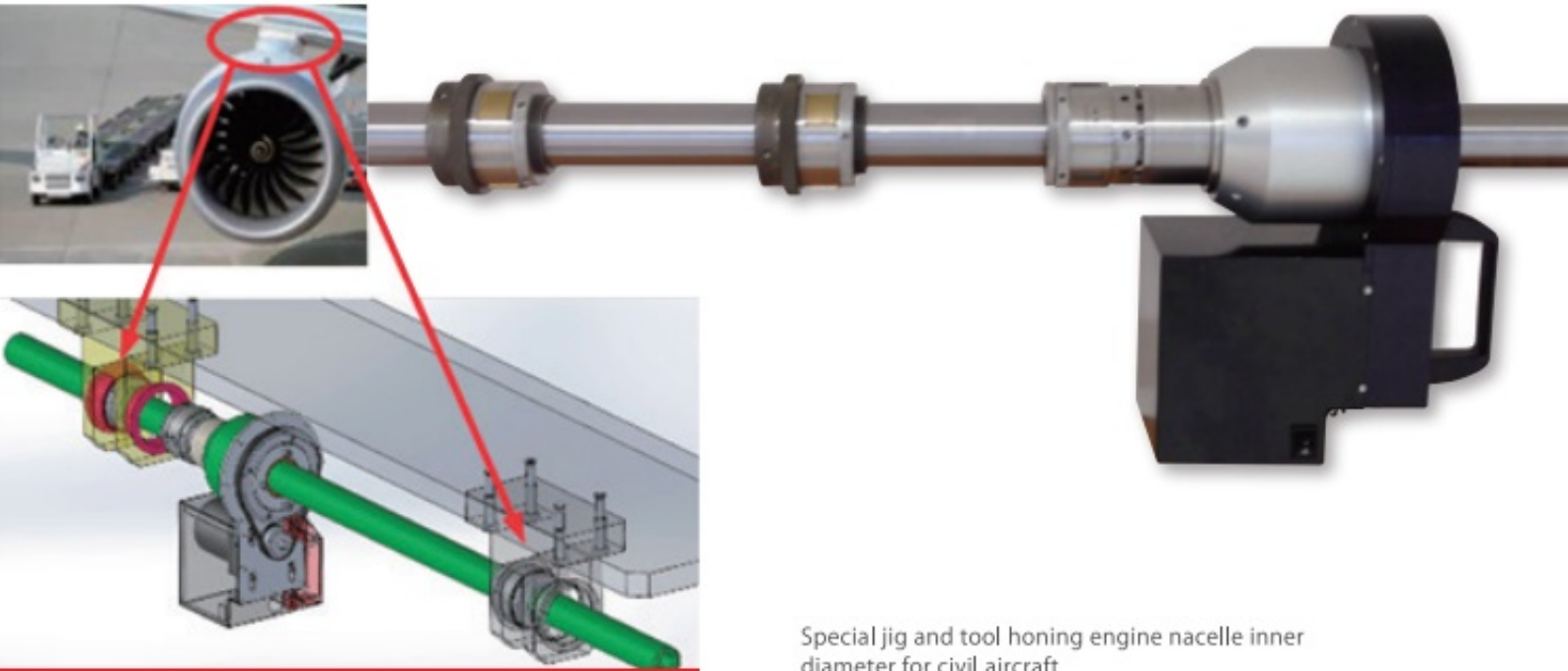
Special gauge to inspect crashed diameter and height of fastener (rivet) at civil aircraft manufacturing lines



PLATE NUT GAUGE

Drill guide jig and tool used for hole drilling fastener (rivet) at civil aircraft manufacturing lines

## Honing equipment for engine nacelle inner diameter



Special jig and tool honing engine nacelle inner diameter for civil aircraft

# Equipment

## ■ Various kinds of cutting-edge processing machinery for actualizing excellent processing technology

There are other equipment at subcontract factories, such as precision machining centers, jig grinders, profile grinders, precision automatic lathes, etc. Also, we offer total coordination of all processes including special processes such as heat treatment and surface treatment, as required.



Centerless grinding machine  
(Imahashi)



NC form grinding machine  
(Amada Machine Tools)



Ultra-precision wire EDM  
(Sodick)



Ultra-precision engraving EDM  
(Sodick)



Ultra-precision jig boring machine  
(Yasuda Kogyo)



Ultra-high-precision aspherical  
(Shibaura Machine)

## ■ State-of-the-art measuring equipment that guarantee sub-micron quality

We are pursuing the Unitech quality using various measuring equipment. We offer sub-micron quality to our customers.



Contact outer diameter measuring instrument  
(Union Tool)



Shape measuring machine  
(Tokyo Seimitsu)



Roundness measuring machine  
(Tokyo Seimitsu)

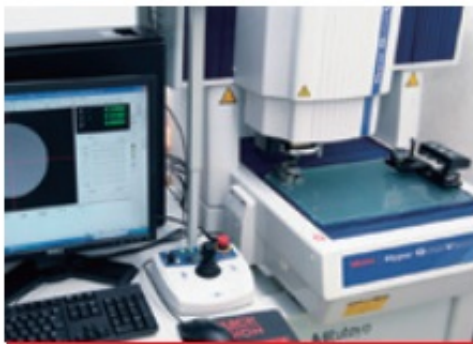


Image-processing measuring machine  
(Mitutoyo)



Ultrahigh accurate 3-D profilometer  
(Panasonic)



FARO portable 3D measuring instrument  
(FARO)





# Main Office and Factory & Shimada Factory

Scan each QR code on the map with a smartphone.  
The location will appear with Google Map.

## 〈Main Office and Factory〉

798-1 Kamikasuya, Isehara-shi, Kanagawa 259- 1141 JAPAN

+81-463-96-1132

+81-463-96-1177



### 【By car】

Proceed on National Route 246 to Odawara, turn right at the Itado intersection in Isehara (toward Oyama). While continuing straight, turn left just before Tomei Expressway overpass and Unitech will be on your right side 50 m ahead.

### 【By train or bus】

Take the Odakyu Line to Isehara Station. Take a bus that leaves from the North Exit for either Oyama Cable or Sanno University. Get off the bus at the Shimehiki Bus Stop and from there, it is a three-minute walk to Unitech. Alternatively, it is approximately 10 minutes by taxi from the North Exit.



## 〈Shimada Factory〉

2564-529 Kanza, Shimada-shi, Shizuoka 427-0032 JAPAN

+81-547-32-1132

+81-547-32-1155



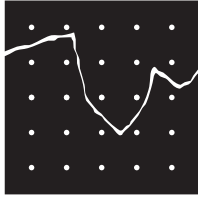
### 【By car】

Exit Shin Tomei Expwy at Shimada-Kanaya Interchange and turn right at National Route 473. Continuing on straight, and proceed National Route 1 (Bypass) to Shizuoka. Exit at Mukuya Interchange, continue on straight, proceeding Prefectural Route 64 to Kawane-honcho. After driving approximately 3 km, turn left just before Kozakura Kensetsu Kogyo Co. Ltd. The factory is approximately 200 m on the left.

### 【By train or bus】

Please get a taxi from JR Tokaido Main Line's Shimada Station. It is roughly a 20-minute ride.





**UNITECH**

〈 Main Factory 〉


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〈 Shimada Factory 〉

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