



## PRECISIONBALL

competitive prices  
finest quality  
prompt shipment  
efficient service



### U.S.A (Sales Office):

20630 Harper Ave. Suite 201  
Harper Woods, MI 48225

Phone: 313-881-8585  
Email: info@detsales.com

### Taiwan (HQ):

24, Alley 8, Lane 44, Sec. 1 Hsin Jen Rd.  
Taiping City, Taichung County, Taiwan

Phone: +886-4-22785523  
Email: info@tankong.com

### China:

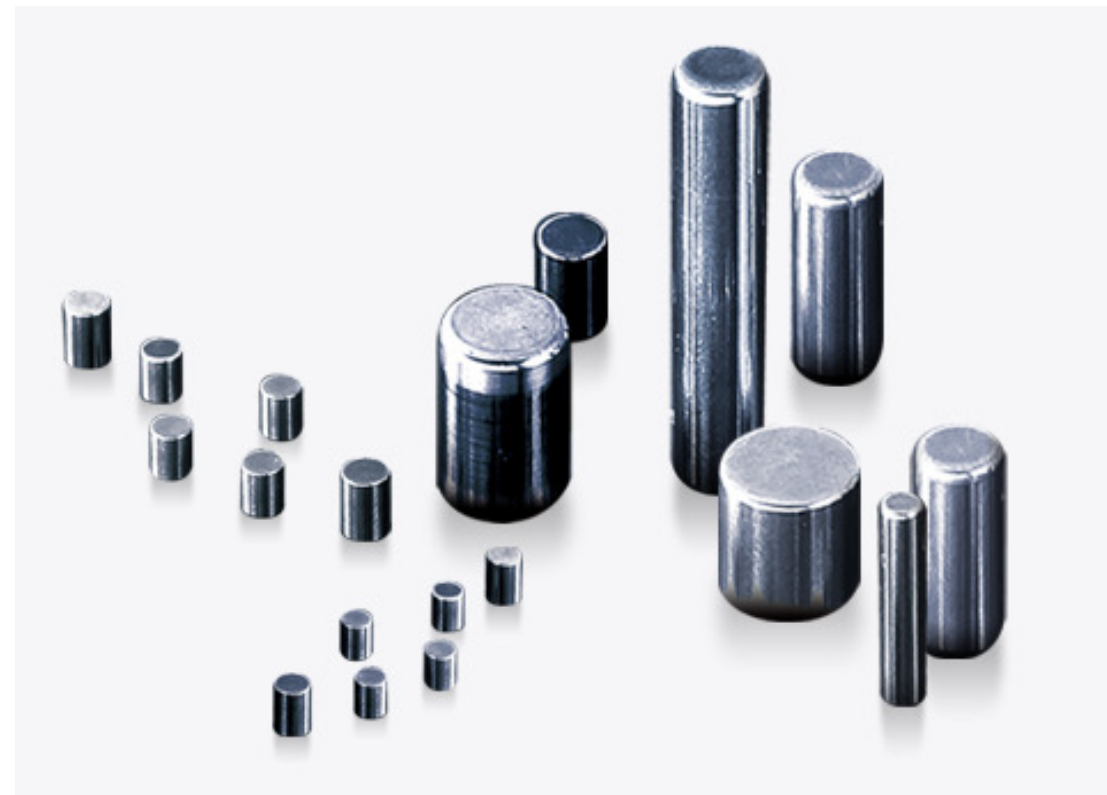
Seaside Industrial Park, Da Ju Shan Town, Jiao  
Nan City, Qing Dao, Shan Dong Province, China

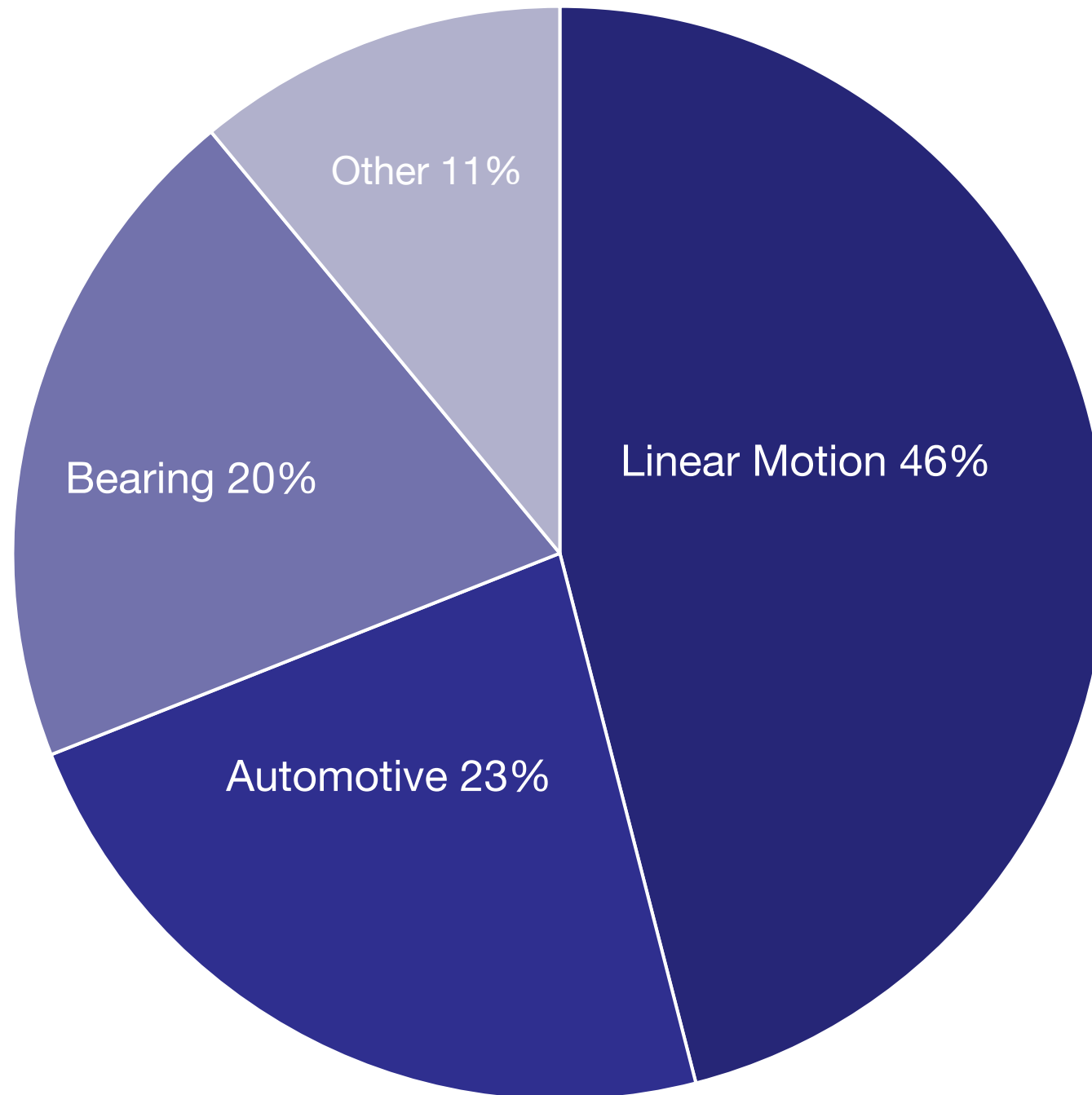
Phone: +86-532-8412-2101  
Email: info@tankong.com

[WWW.TANKONG.COM](http://WWW.TANKONG.COM)

Established in 1978, Tan Kong Precision Tech Co., Ltd. has been a professional ball manufacturer providing the world with quality steel ball products.

Our mission has always been to satisfy every client's specific requirement in terms of cost reduction, production efficiency, product quality and service.









## Sizes

1mm to 25.4 mm (1")

## Carbon Steel Balls

- Low Carbon : AISI 1010~AISI 1018
- Medium Carbon : AISI 1045
- High Carbon: AISI 1065~AISI 1086

## Stainless Steel

- AISI 304~AISI 316
- AISI 420~AISI 440C

## Chrome Balls

- AISI C52100 - Chrome



Grade	VDS	W	VDL	Ra
3	0.08	0.08	0.16	0.010
5	0.13	0.13	0.25	0.014
10	0.25	0.25	0.50	0.020
20	0.5	0.5	1.0	0.032
40	1.0	1.0	2.0	0.06
60	1.5	1.5	3.0	0.08
80	2.0	2.0	4.0	0.1
100	2.5	2.5	5.0	0.1
200	5.0	5.0	10	0.15
300	7.5	7.5	15	x
500	12.5	12.5	25	x
800	20	20	40	x
1000	25	25	50	x
2000	50	50	100	x

**μm:** micrometer

**VDL:** Lot diameter variation

**VDS:** Ball diameter variation

**Ra:** Unit of surface roughness (μm)

**W:** Deviation from spherical form (Roundness)

**Reference:** ISO 3290-2001

- According to DIN 5402 / ISO 3096 standard
- Several material options (100Cr6, 440C, High Carbon, etc.)
- Hardness (740+140) HV 0r (60+6) HRC after heat treatment (in 100Cr6, SUJ-2)



## Product Range:

- O.D. 2-12 mm
- Length: 2-12mm

## Product Precision:

- O.D. tolerance: 1um
- Parallelism: 0.01mm
- Length tolerance: 0.01 – 0.05mm
- O.D. roughness: Ra 0.05um
- End roughness: Ra 0.1um

# Specialty Products

## Chrome



## Plastic Balls



## Brass and Bronze



## Hollow balls



## Burnishing Media



## Ceramic

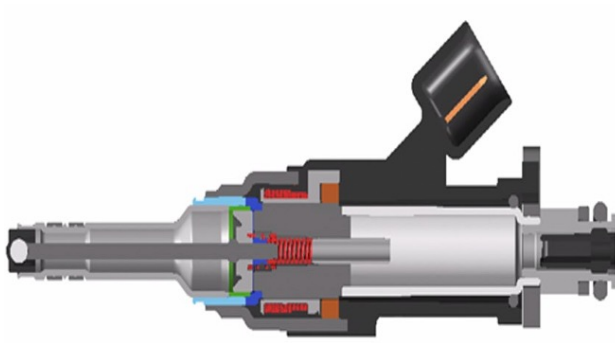




## Linear Motion Products



## Fuel Injectors



## Miniature Bearings



## Harmonic Drives







## **New facility opening Q4 2022**

We are pleased to announce the near completion of our 270,000 ft<sup>2</sup> state-of-the-art Taiwanese facility housing our offices and production operations.







## **Two levels of production:**

Ground floor (Ball Production) = 55 production lines = 500,000,000 pcs/month

Upper floor (Roller production) = 12 production lines = 40,000,000 pcs/month



All raw material will enter the building on the South side.

Our manufacturing lines will then move toward the front or north of the building.

This greatly improves workflow while significantly enhancing the efficiency and quality of our products.

**460 feet  
(140 m)**



**394 Feet  
(120 m)**

- ← Shipping
- ← Washing
- ← Lapping
- ← Grinding
- ← Heat Treat
- ← Flashing
- ← Heading
- ← Raw Material

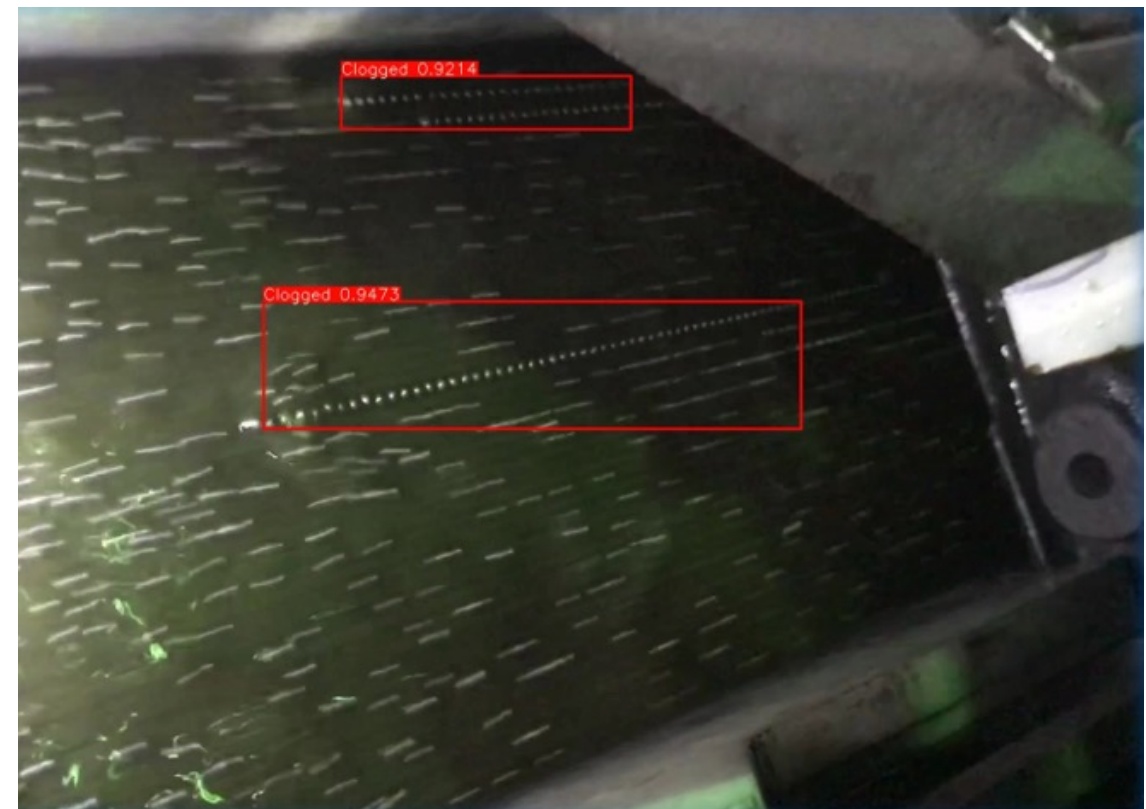


Tan Kong has invested in state-of-the-art Edge Computing Capability which allows for:

- APS Process Control
- Image recognition for trouble shooting
- Prognostic and Health Management
- Auto Stop



Smart Machine Box  
(In-house designed)



AI image recognition and trouble shooting

# Advanced Manufacturing

## AGV In House Designed

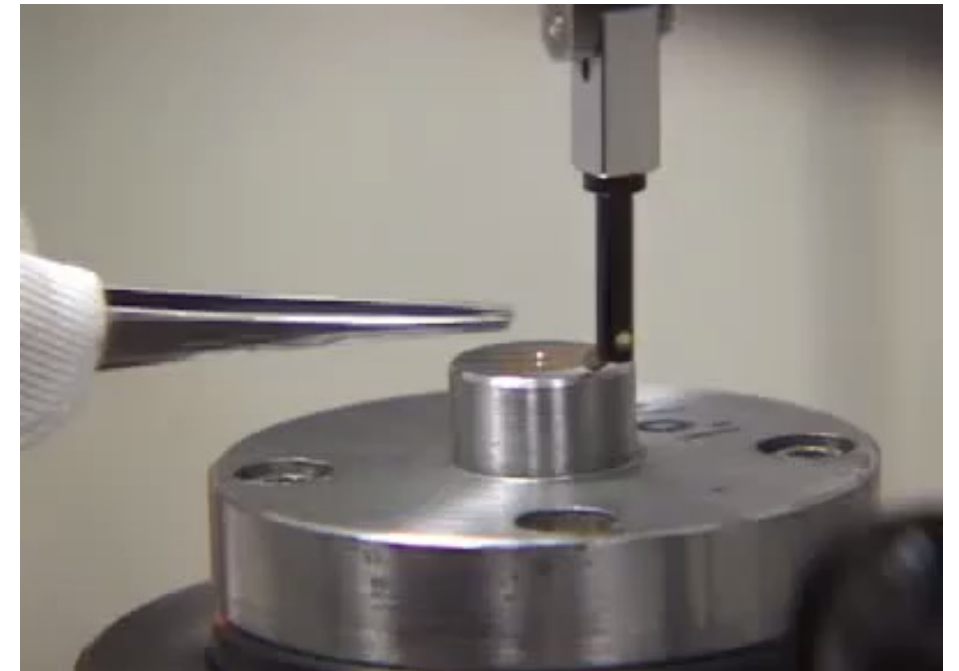
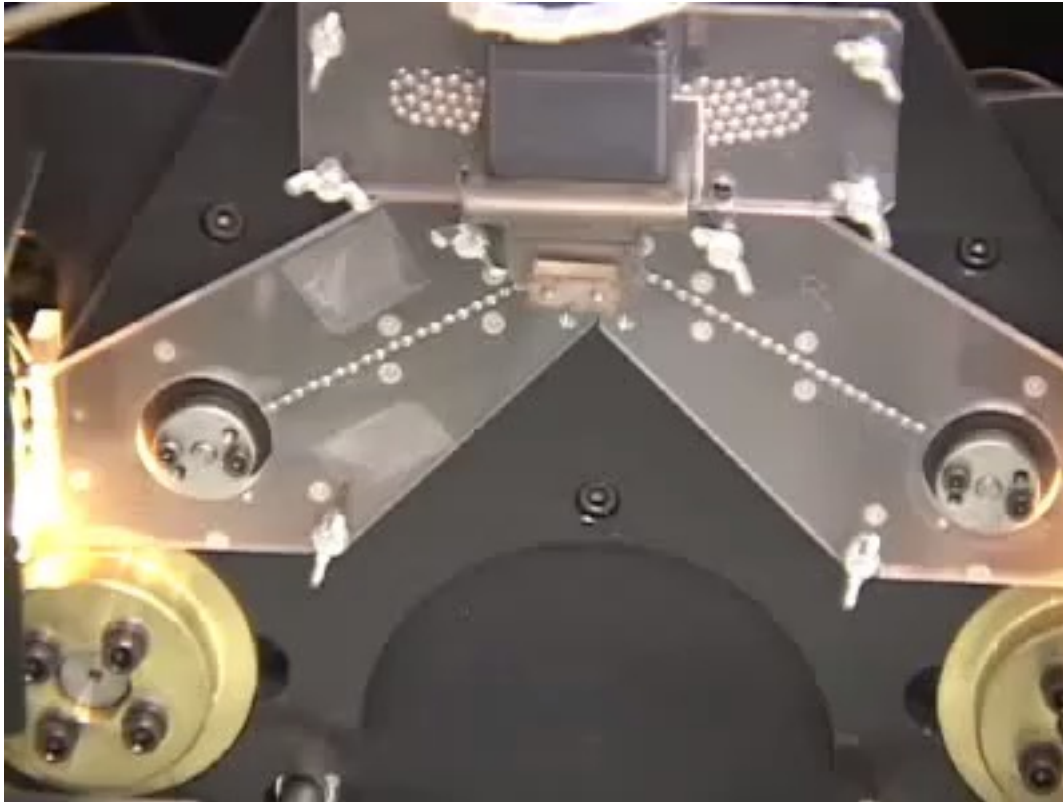


- Automatically checks production condition in process
- Robot arm conducts sample quality check on the AGV
- CCD Camera on robot arm for instant trouble shooting on machine



# Final Inspection

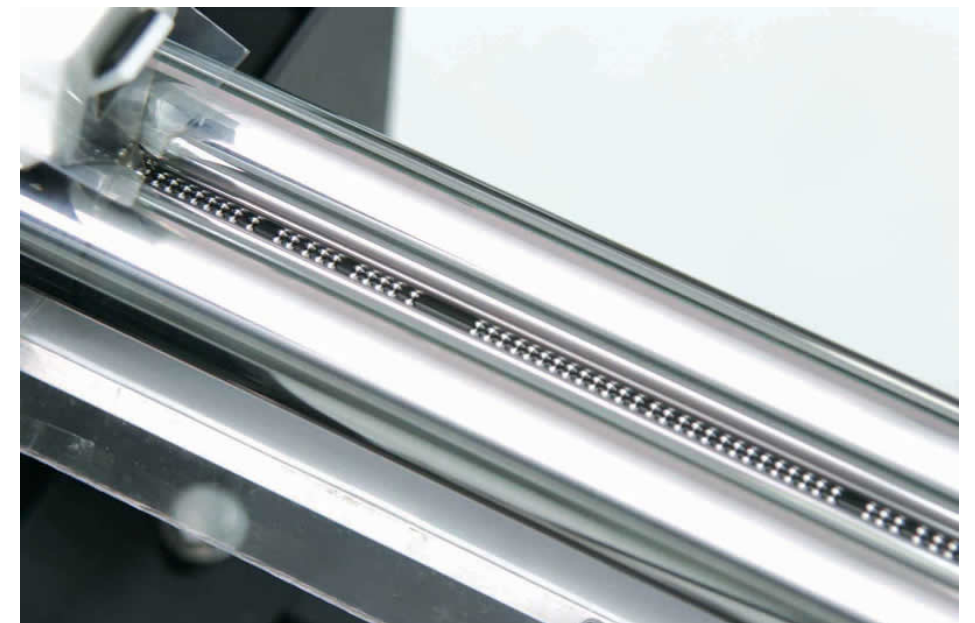
## 100% Eddy Current Testing



Optical and roller checking for size

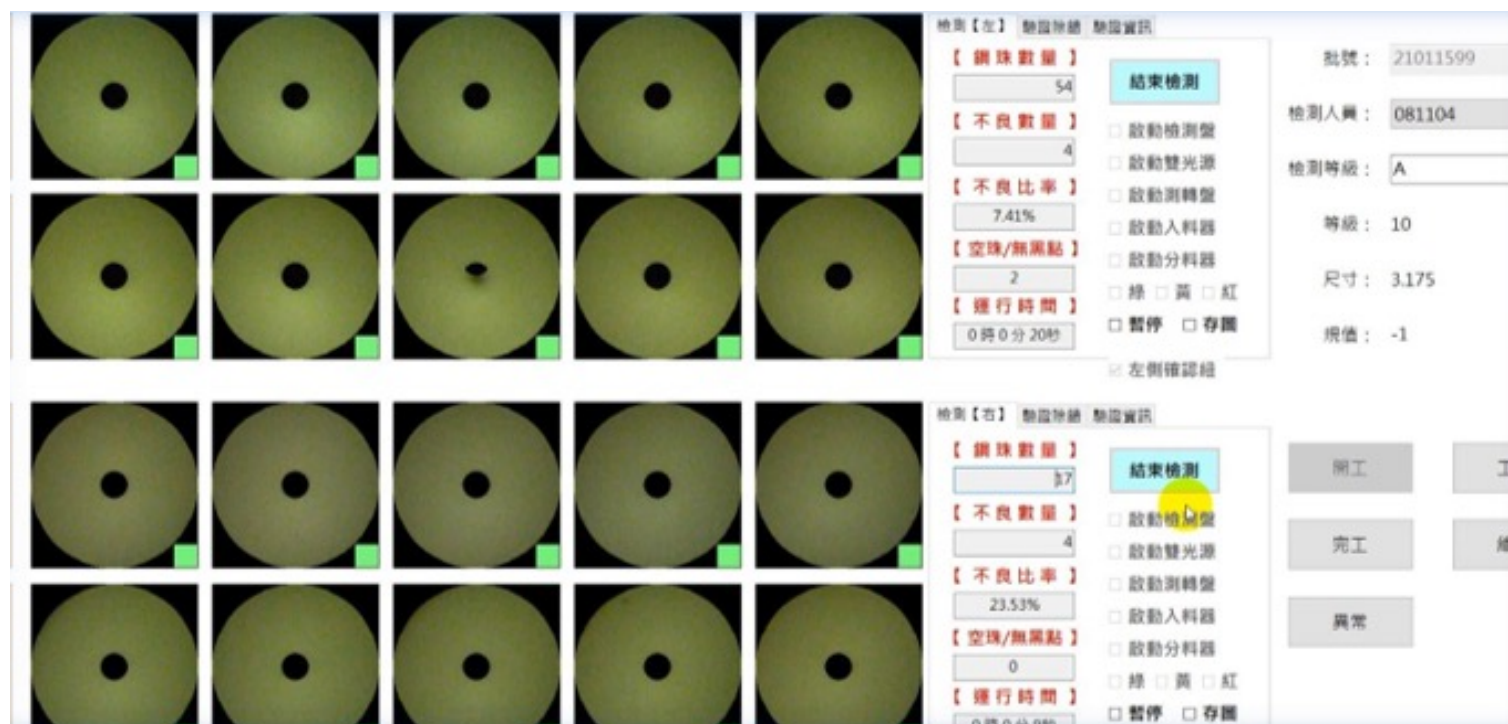
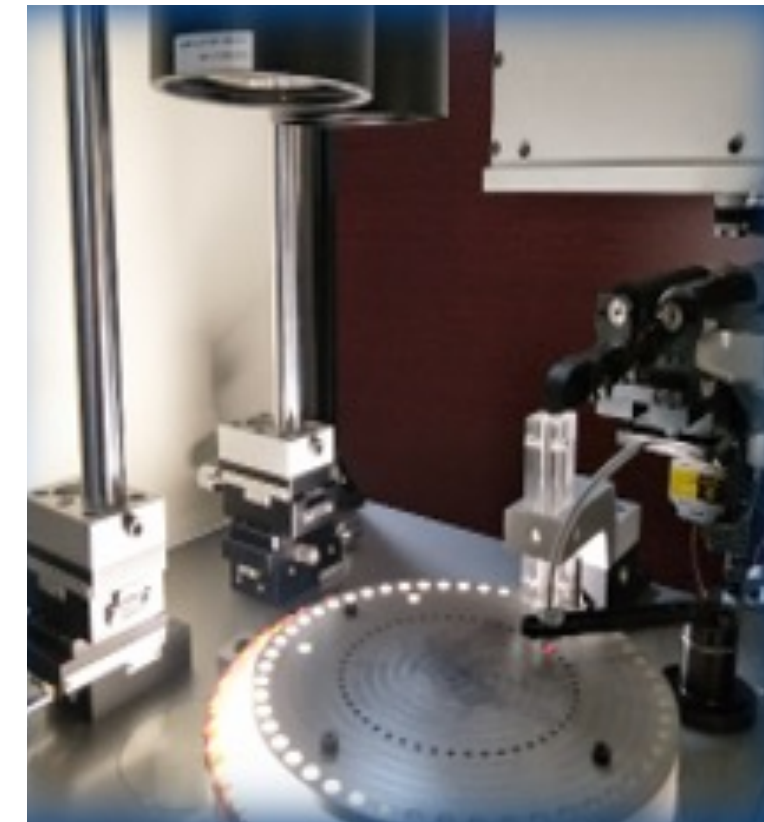
Full testing capabilities including:

- Optical & Eddy Current check
- Optical Length Gauge
- Precision Roller Micrometer
- Vibration Testing
- Metallurgical Microscope
- HV Micro Hardness
- Desktop Roundness Measuring Instrument
- Surface Finish





## Machine Learning 100% Optical Sorting (In House Designed)

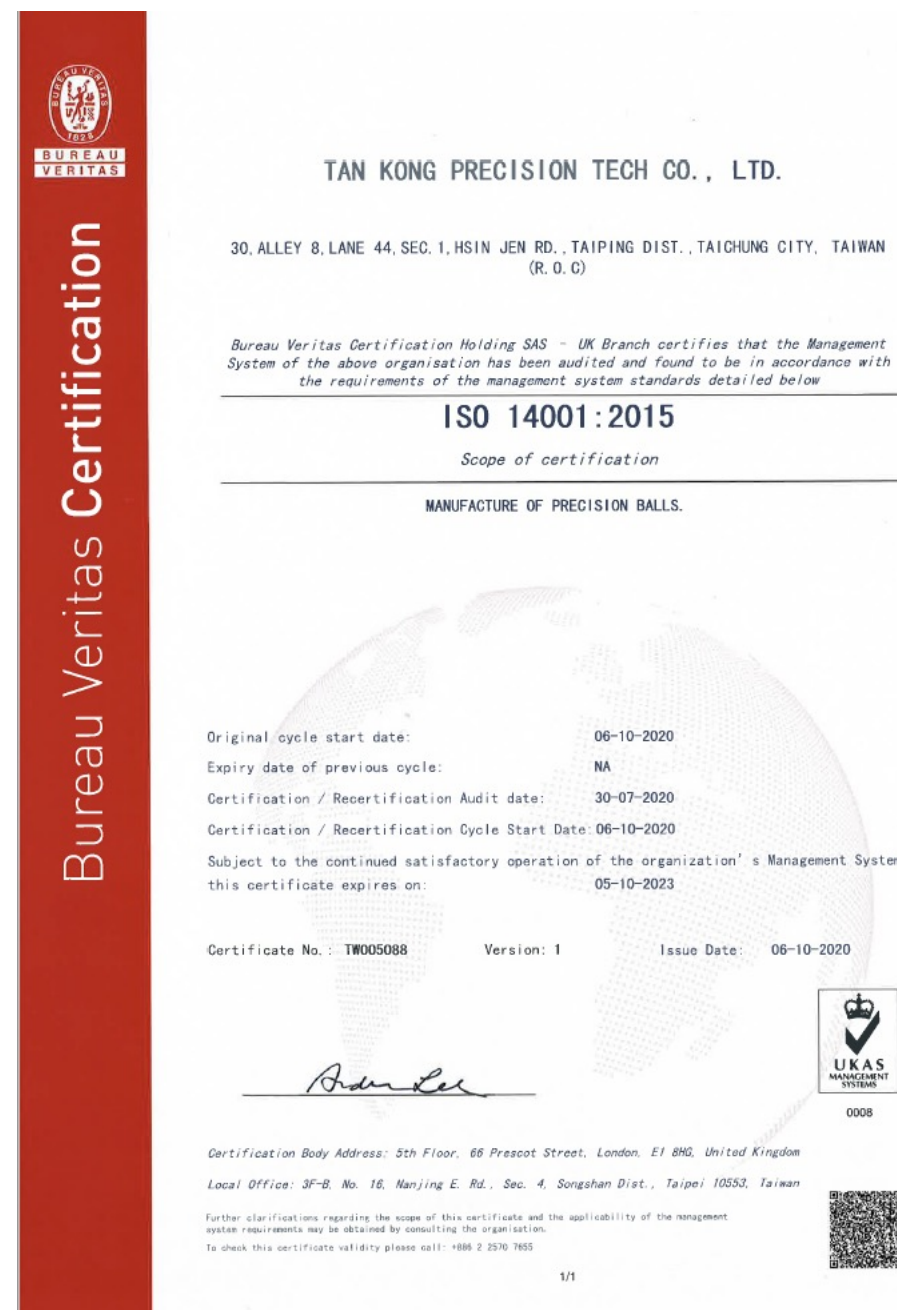






Tan Kong is capable of precision cleaning to the highest standards.





Tan Kong is continually investing in new technologies, equipment and processes. This includes the following in 2022:

- 150 grinders
- 8 high speed ball forging machines
- 2 complete heat treat lines
- 7 roller headers
- 97 100% visual inspection sorters





We are looking forward to serving  
you from our new plant!

Thank you!