


Excellent product stem from the limitless creativity of designer.

# DESIGN comes THRU



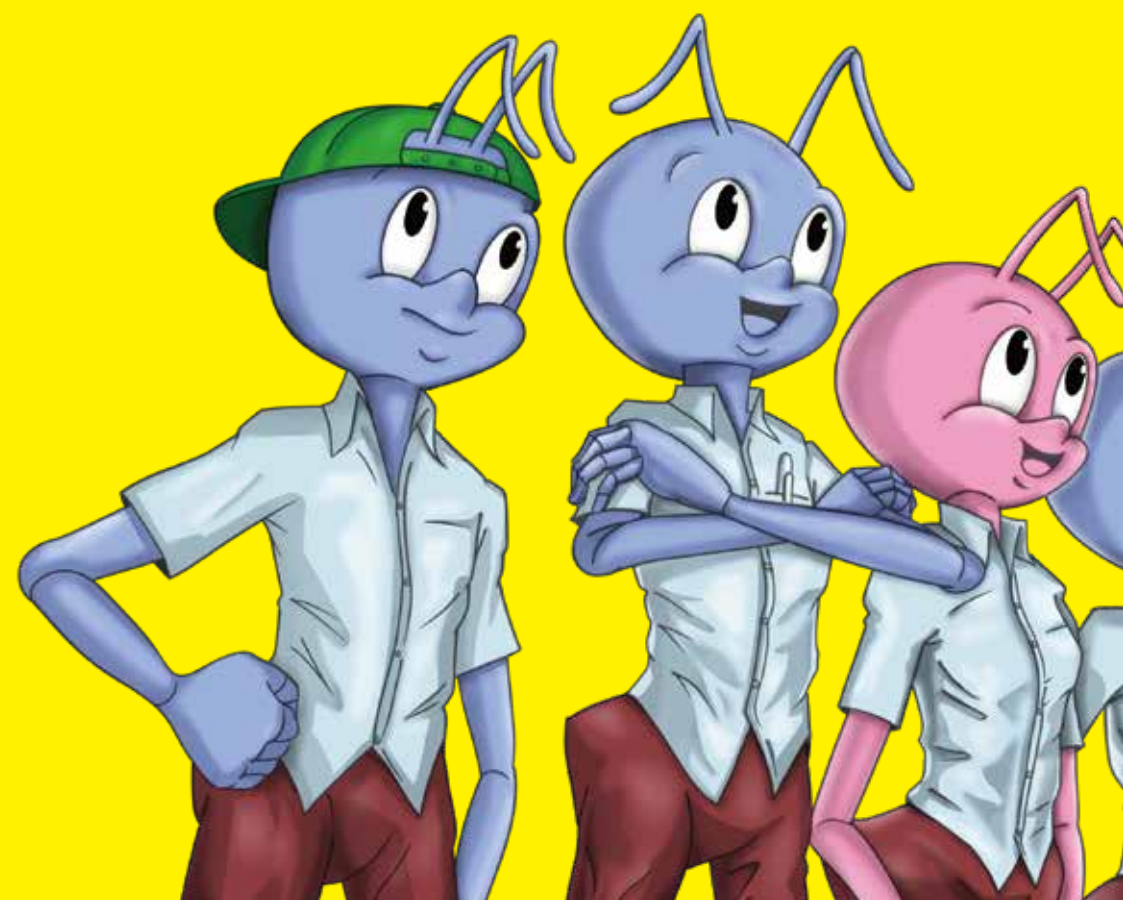
The outstanding  
manufacturing  
technology is  
important key to a  
perfect product.



We provide  
the best  
manufacturing  
solution for  
designer.



**VERNAL**



# The Power of Empathy

*" The great gift of human beings is that we have the power of empathy."*

Meryl Streep

We adopt a company-wide participation approach to workplace cleaning instead of hiring dedicated cleaner.

All employees take turns to do the cleaning work. By experiencing dual role as cleaner and user, we cultivate mutual empathy among team members.

We firmly believe that the best way to maintain cleanliness is to prevent contamination from occurring in the first place. This philosophy is deeply embedded in our daily operations.

Currently, from bathroom to the work place, we maintain a high-quality environment free of oil stains and odors. This corporate culture, rich in a sense of meticulousness, is reflected not only in cleanliness management but also extends to every stage of product manufacturing, ensuring that we consistently provide the highest quality service to our customers.



## Service Fields

We provide comprehensive services from customized components manufacturing to assembled products.

- **Engineering assistance**
- **High-pressure die casting**
- **Investment casting**
- **Gravity die casting**
- **Hot and cold forging**
- **Fine blanking stamping**
- **Aluminum extrusion**
- **Metal injection molding (MIM) & Powder metallurgy (PM)**
- **Plastic injection molding**
- **Precision machining**
- **Heat treatment**
- **surface treatment**
- **Quality verification**
- **Assembly**

## Precision Machining

In a temperature and humidity-controlled environment with an independent foundation, we utilize high-precision CNC machine centers to process components with micron-level dimensional and geometrical tolerances.





· Precision machining in a temperature-controlled room  
(Micron-level accuracy)









## Engineering Assistance

*VERNAL finds a better way to make your project.*

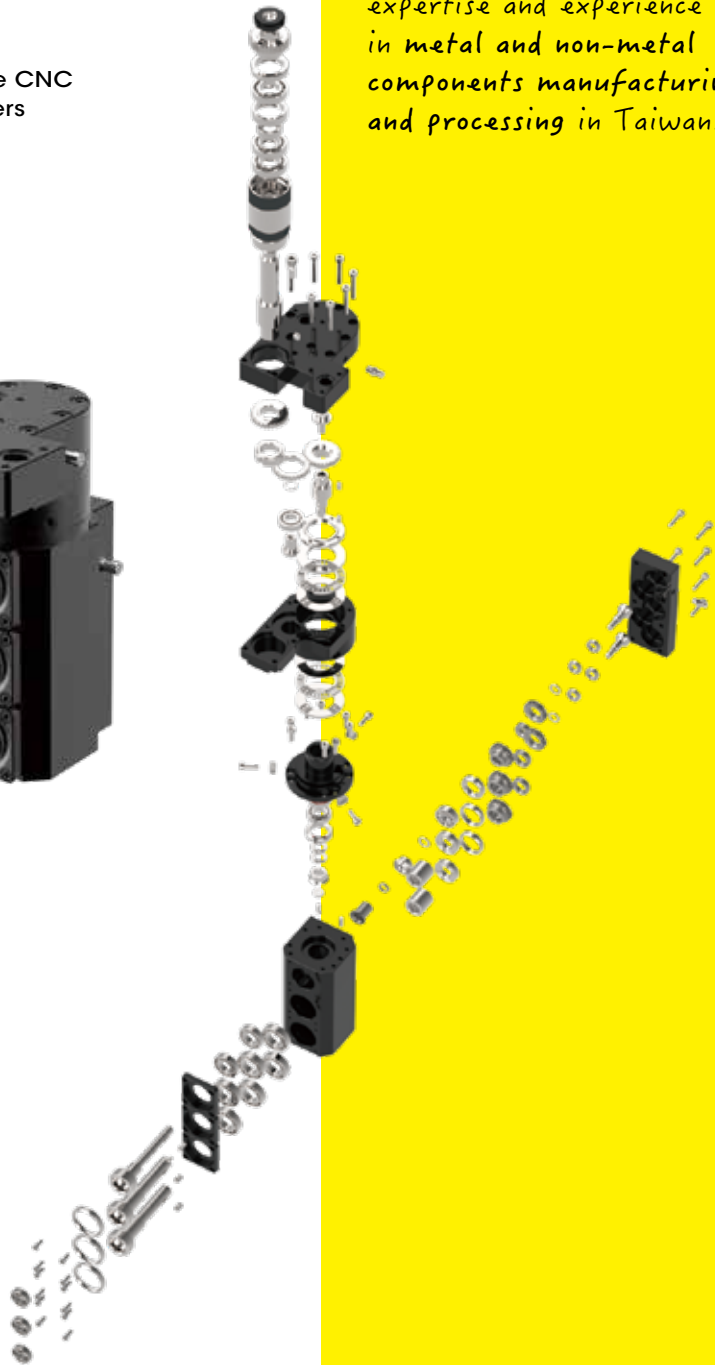
In addition to supplying semi & completed assembly products to meet customers' drawing requirements and specifications, we also provide engineering assistance for customers' new design through our engineering team and long-term cooperated subcontracting partners.

By the essential engineering assistance, we'll convert customers' perfect design into real and valuable products in the shortest time.



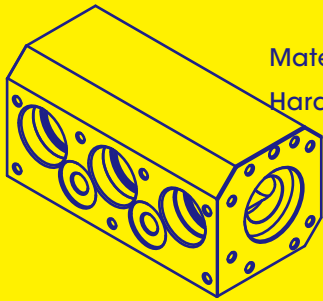
## Driven Tool Holders

For swiss type CNC turning centers



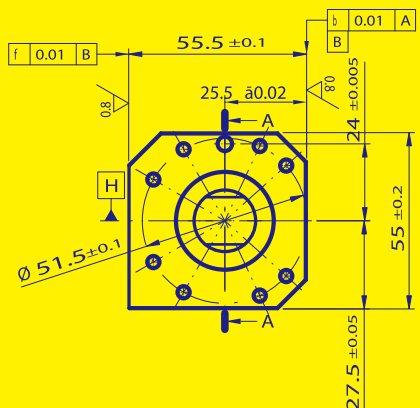
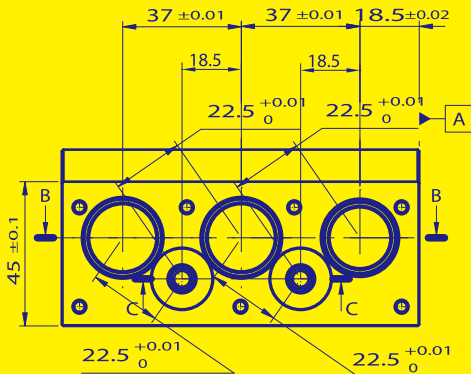
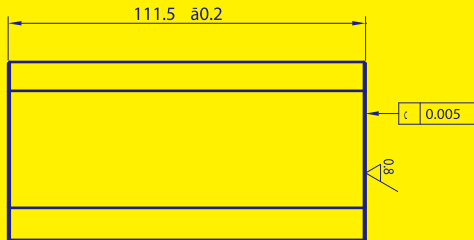
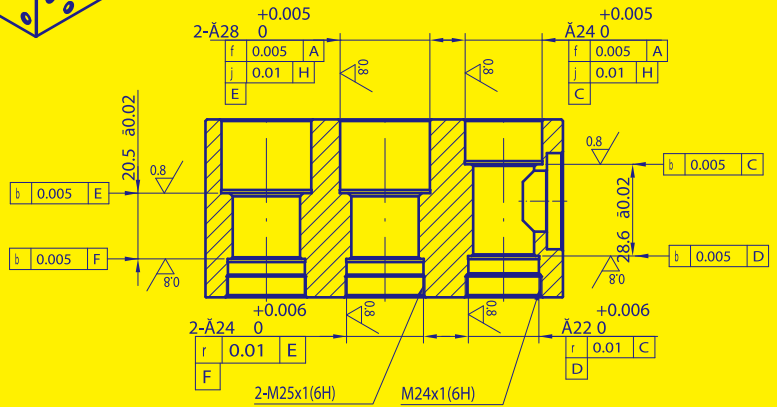
Vernal has 40 years of expertise and experience in metal and non-metal components manufacturing and processing in Taiwan.





Material: JIS S50C (ISO C50E4,AISI 1050,DIN CK50)

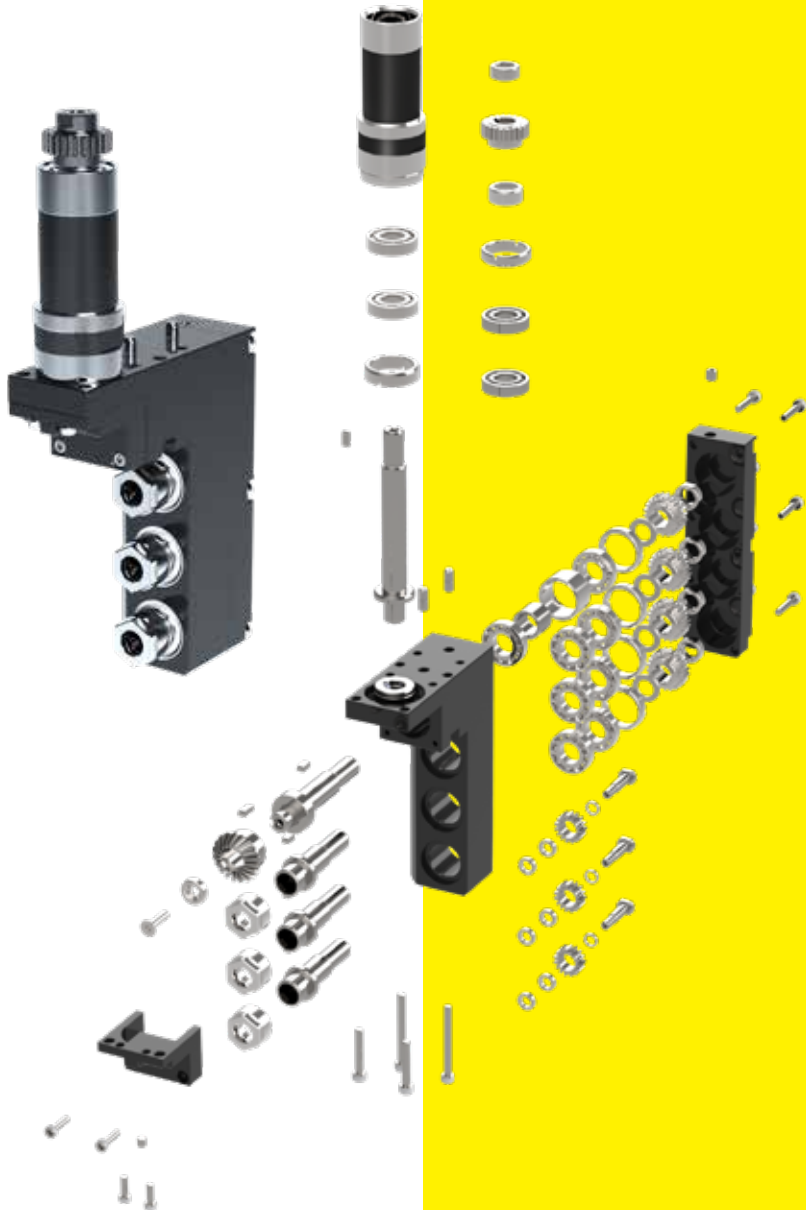
Hardness: HRC 20+5



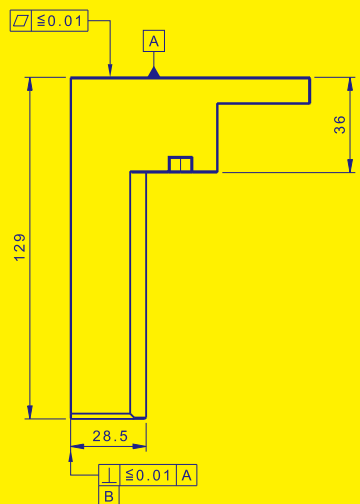
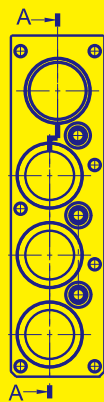
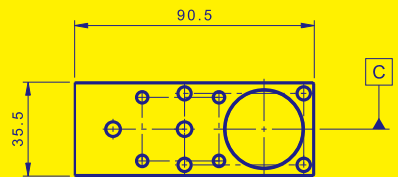
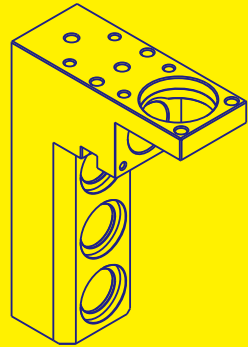
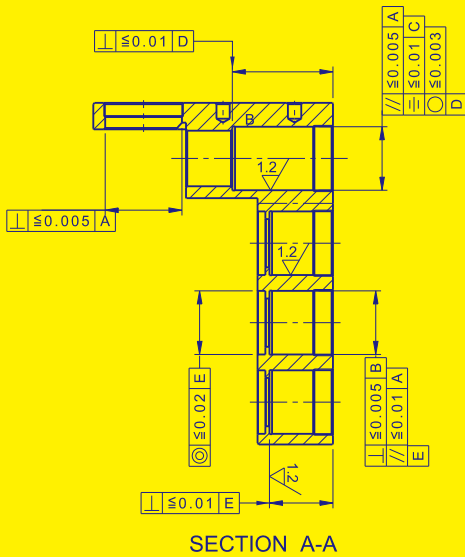
## Driven Tool Holders

For swiss type CNC turning centers

*Since 2023, the company has started manufacturing its self-developed driven tool holders.*



Hardness: HRC 20+5

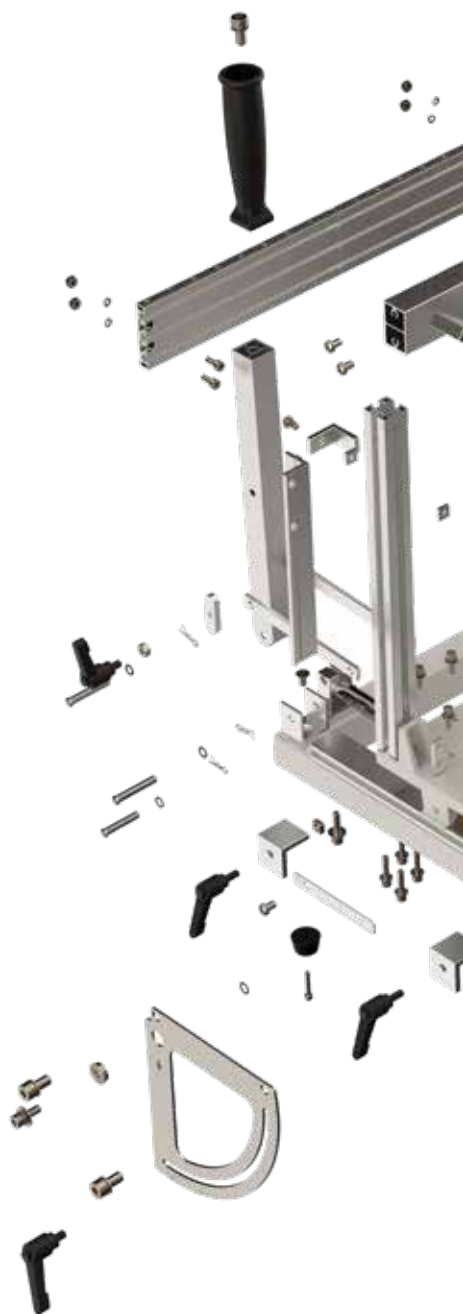


# Woodworking Joinery Machine

In order to accomplish the purposes of high-precision and lightweight, Almost all the components are design and made by precise machined aluminum material.

The manufacturing processes include gravity die casting, high-pressure die casting and extrusion.

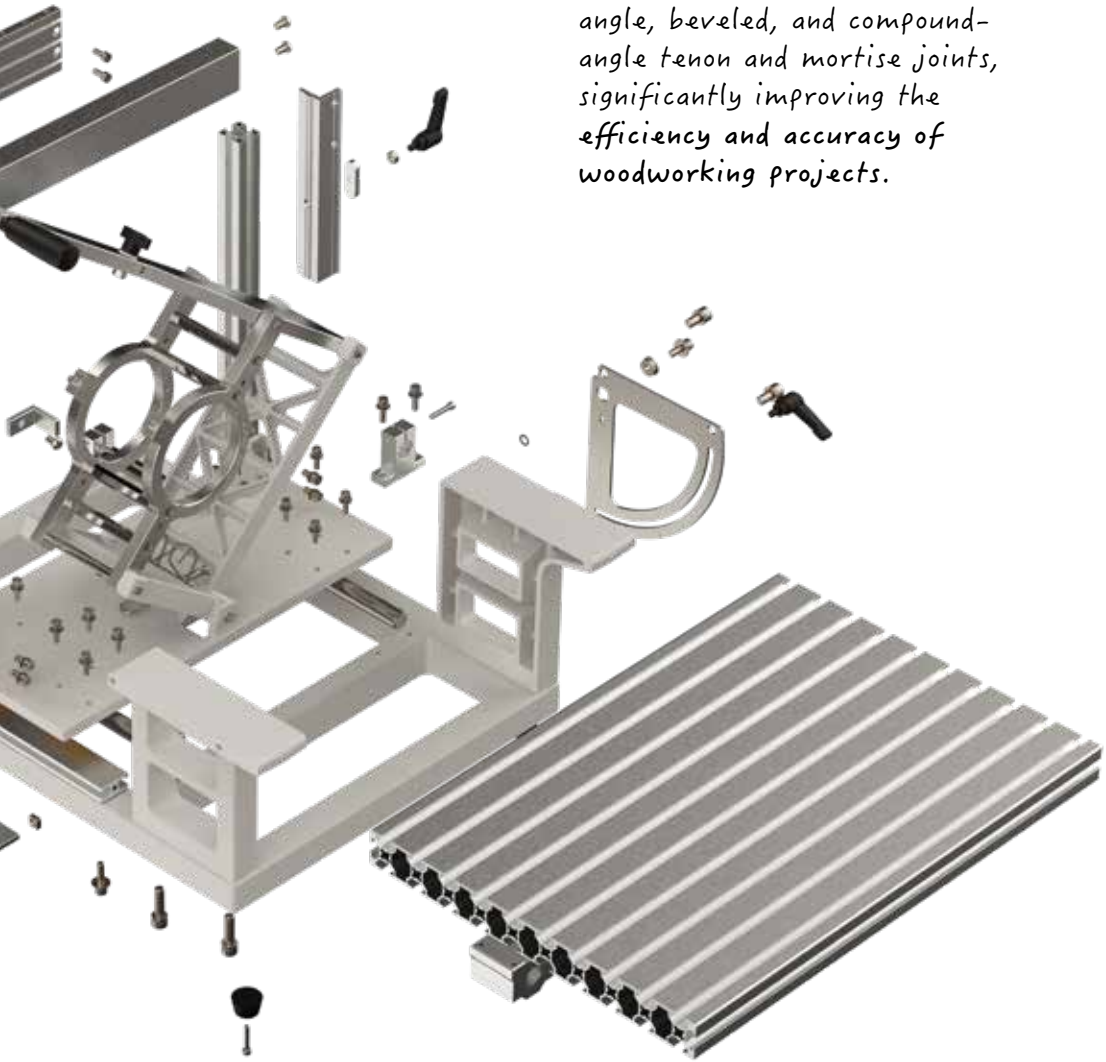
※ For detailed usage instructions and product features, please scan the QR code





PantoRouter is a high-precision woodworking joinery machine that can be used for various woodworking joints.

It is capable of machining right-angle, beveled, and compound-angle tenon and mortise joints, significantly improving the efficiency and accuracy of woodworking projects.



MACHINERY	SPECIFICATION	Q'ty.
■ CNC Jigborer YASDA YBM950V V.III	X900 Y500 Z350	1
■ CNC Horizontal 4 – AXIES Machine Center 6APC MITSUI SEIKI HU50A	X720 Y700 Z650	2
■ CNC Horizontal 4 – AXIES Machine Center MITSUI SEIKI HU50A-1	X720 Y700 Z650	1
■ CNC Vertical 5 – AXIES Machine Center YAMAZAKI MAZAK VARIAXIS 500-5X	X510 Y510 Z650	1
■ CNC Turning and Milling Compound Machine YAMAZAKI MAZAK INTEGREX 200-IVSY	X580 Y160 Z1045	1
■ CNC Turning and Milling Compound Machine YAMAZAKI MAZAK INTEGREX 200-IIISY	X580 Y160 Z1045	1
■ CNC Turning and Milling Compound Machine YAMAEAKI MAZAK INTEGREX 100-IISY	X350 Y120 Z985	1
■ CNC Lathe. MORI SEIKI SL-15	X230 Y— Z520	1
■ Robodrill FANUC T14 i A	X500 Y380 Z300	3
■ Robodrill FANUC T14 i E	X500 Y400 Z330	1
■ Machine Center QUASER MV184	X1020 Y610 Z610	2
■ Machine Center YCM NSV102A	X1020 Y600 Z600	3
■ Machine Center YCM NDV102A	X1020 Y600 Z600	1
■ Horizontal Special Function Drilling & Tapping Machine		7
■ Vertical Special Function Drilling & Tapping Machine		39

INSPECTION EQUIPMENT		SPECIFICATION	Q'ty.
■ Coordinate Measuring Machine (CMM)			
· ZEISS CONTURA G2	X-Y-Z= 1000-1600-600mm		1
· ZEISS CONTURA G2	X-Y-Z= 600-1000-600mm		1
· ZEISS CONTURA	X-Y-Z= 600-1000-600mm		1
· ZEISS WMM 850	X-Y-Z= 800-1200-600mm		1
■ Vision Measuring Machine (VMM)			
· KEYENCE IM-7030			1
· KEYENCE IM-8000			1
■ Elemental Analyzer			
· SPECTRO SPECTROMAXx LMX 06			1
■ Profildmeter			
· TAYLOR-HOBSON Talyrond 131C			1
■ Spectrophotometer			
· KONICA MINOLTA CM-26d			1
■ Glossmeter			
· BYK-GARDNER BYK 4586, Micro-TRI-gloss with Standard Holder			1
■ Surface Roughness Measuring Gauge			
· TESA. RUGOSURF 90-G			1
■ Coating Thickness Handheld Gauge			
· FISCHERSCOPE DUALSCOPE FMP20			1
■ Electric Plating Thickness Tester			
· CHUO SEISAKUSHO THA-11			1
■ Hardness Tester			
· FUTURE-TECH. LC-200RB ,Rockwell Type Hardness Tester			1
· FUTURE-TECH. FM-700, Microhardness Tester (HV)			1
■ Salt Spray Corrosion Test Chamber			
· CHERN JIA. SST-CB			1
■ Metrology-Grade Handheld 3D Laser Scanner			
· CREAFORM HandySCAN BLACK ™   Elite			1

# VERNAL

[www.vernal.tw](http://www.vernal.tw)



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