

Measuring Instruments

影像尺寸測量儀



金品企業有限公司 HUNSON ENTERPRISE CO.,LTD.

電話 02-7756-6308

傳真 02-8192-4291

E-mail info@hunson.com.tw

台灣總公司 116010 台北市文山區保儀路11號4樓

湖南工廠 湖南省株洲市淥口區南洲鎮科創產業園區B2棟3樓

www.hunson.com.tw

官方LINE@



官方網站



規格參數可能有變化，恕不另行通知。 Product specifications may vary as we continue to improve our designs.

www.hunson.com.tw



目錄 / Contects

公司介紹 Company Profile

核心產品 Core Product

- 04 一鍵式閃測儀 HN-100Pro One Click Flash Tester HN-100 Pro
- 06 臥式影像尺寸測量儀 HN-100WS Horizontal Image Size Measuring Instrument HN-100WS
- 08 一鍵式閃測儀 HN-190Pro One Click Flash Tester HN-190 Pro
- 10 水平連接器彈高測量機 HN-1010WS Horizontal Connector Spring Height Measuring Machine HN-1010WS
- 12 垂直連接器PIN針測量機 HN-1220垂直 Vertical Connector Pin Measuring Machine HN-1220立式
- 14 立臥式影像尺寸測量儀 HN-1010LWS Vertical-Horizontal Image Measuring Machine HN-1010LWS
- 16 全自動影像拼接閃測儀 HN-3020PLUS Automatic Image Stitching Flash Tester HN-3020 PLUS
- 18 全自動複合閃測儀 HN-5040(p) Fully Automatic Composite Quick Measurer HN-5040(P)
- 20 PCB油墨高度3D偵測機 3D Inspector for PCB Ink Height
- 21 CCD視覺篩選機 CCD Visual Inspection & Sorting Machine

公司介紹 Company Profile

金品企業創立於2013年，主要以視覺系統、AOI軟體、AOI硬體及配件為主，並於2015年擴展中國大陸版圖。2018 年金品企業為了滿足眾多客戶需求，協助導入自動化生產，以機器視覺的專業技術，為企業提供客製化機器視覺檢測系統與應用整合方案，並遍及各領域產業。

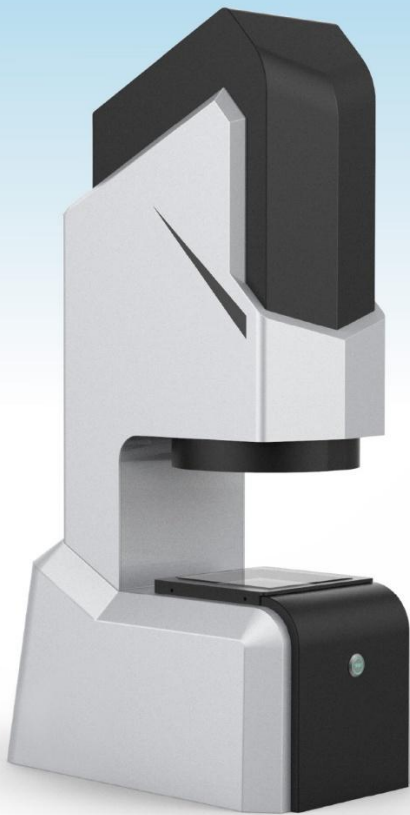
金品與客戶建立長期合作夥伴關係，協助技術評估，除了提供客戶完整解決方案，更可以從與我們的直接合作當中受益，豐富的視覺系統及人機介面之整合經驗，全面提高生產效率，縮短檢測時間，能夠迅速解決應用問題和產品技術難題。

Founded in 2013, Hunson Enterprise primarily focuses on vision systems, AOI software, AOI hardware, and accessories, expanding its footprint into mainland China in 2015. To meet growing customer demands and assist in implementing automated production, Hunson Enterprise leveraged its expertise in machine vision in 2018 to provide customized machine vision inspection systems and application integration solutions across various industries.

Hunson establishes long-term partnerships with customers and assists in technical evaluations. In addition to providing complete solutions, customers benefit directly from collaborating with us. With our extensive experience in integrating vision systems and human-machine interfaces (HMI), we comprehensively improve production efficiency, shorten inspection times, and swiftly resolve application challenges and product technical difficulties.



一鍵式閃測儀 HN-100Pro



功能介紹 / Function Introduction

-  整機底座，立柱全部採用高密度、高精度的合金材質，結構緊密，穩定性極高。
The whole machine base and column are all made of high-density and high-precision alloy material, with tight structure and high stability.

 表面光源採用可控LED環形光源，可配置同軸光源，確保表面測量抓取更加精準。
The surface light source adopts programmable LED ring light source, which can be configured with coaxial light source to ensure more accurate surface measurement and gripping.

 二維平面尺寸快速編程，無需座標定位，產品任意擺放。
Fast programming of 2D plane dimensions, no need for coordinate positioning, arbitrary product placement.

 雙側遠心鏡頭，遠心平行光源，高景深，無畸變。
Bilateral telecentric lenses, telecentric parallel light source, high depth of field, no distortion.

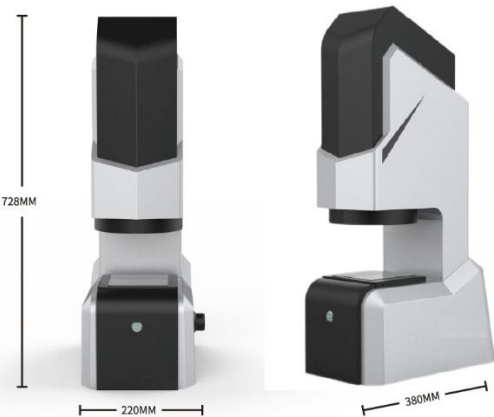
 可以導入 WORD、EXCEL 等報表格式，可以呈現直方圖，曲線圖，CPK等數據分析。
You can import WORD, EXCEL and other report formats, and can present histograms, graphs, CPK and other data analysis.

 自主研發的 HN-VISION V1.0，已申請國家專利技術，核心演算法經過權威部門認證，功能強大。
The self-developed HN-VISION V1.0 has applied for national patent technology, the core algorithm has been certified by authoritative departments, and is powerful.

 一鍵測量99個尺寸，同一視野內瞬間閃測。
Measure 99 dimensions at the touch of a button, with instantaneous flash measurements in the same field of view.

 高精度Z軸升降平台，測量升降時機器更加穩定。
High-precision Z-axis lifting platform makes the machine more stable when measuring and lifting.

結構圖 / Structure

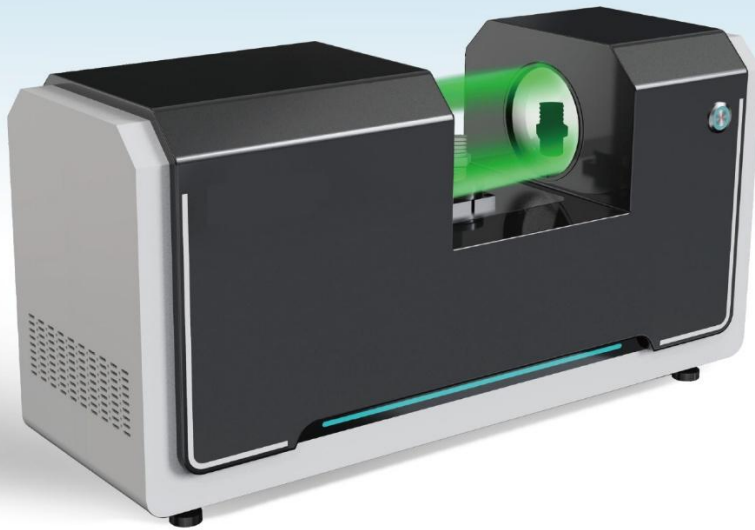


- 標配LED表面光源 LED surface light source as standard
- Z軸載物平台 Z-axis load platform
- 一鍵啟動測試鍵按鈕 One key start test button
- 整機淨重18KG The net weight of the whole machine is 18KG
- Z軸標配自動升降平台 Z-axis standard with automatic lifting platform

參數配置 / Parameter Configuration

型號(Model)		HN-100Pro		
影像感測器 Industrial camera		2000萬像素CMOS (20 megapixel CMOS)		
顯示器 Display screen		24吋LCD顯示器(24"LCD display)		
鏡頭 Lens		雙側遠心鏡頭(Bilateral telecentric lens)		
照明系統 Lighting	落射系統 Falling light	LED照明(白光) LED lighting (white light)		
	透射系統 Transmitted light	遠心透過照明(綠色) Telecentric transmission lighting (green)		
	同軸光源 Coaxial light source	同軸落射光源(選配) Coaxial light source (optional)		
測量視野 Measuring range	廣視野(mm) Wide field of view (mm)	100×80		
影像測量重複精度 Repeatability	廣視野(um) Wide field of view (mm)	±1.5		
影像測量測量精度 Repeatability	廣視野(um) Wide field of view (mm)	±3		
測量軟體 Measuring software		HN-Vision V1.0		
顯示解析度(um) Display resolution(um)		0.1		
Z軸電動座標台(mm) Z-axis electric coordinate table (mm)		移動範圍 Movement range	40	70
外形尺寸(L X W X H)(mm) External dimensions		380×220×728		380*220*820
承重(KG)Bearing(KG)		3		3
重量(KG)Weight(KG)		18		28
工作電源 Working power supply		AC220V/50Hz		
工作環境 Work environment		溫度10°C~35°C，濕度30~80%，振動<0.002g，低於15Hz Emperature 10°C~35°C, humidity 30~80%, vibration<0.002g, below 15Hz		

臥式影像尺寸測量儀 HN-100WS



功能介紹 / Function Introduction

-  整機底座，立柱全部採用高密度、高精度的合金材質，結構緊密，穩定性極高。
The whole machine base and column are all made of high-density and high-precision alloy material, with tight structure and high stability.

 高精度測試平台且360度旋轉，旋轉過程可以即時抓拍測量。
High-precision test platform with 360° rotation, enabling real-time snapshot measurement during rotation.

 自動對焦，二維尺寸快速編程，無需座標定位，產品任意擺放。
Auto-focusing, fast 2-D dimension programming, no coordinate positioning required, free-placement of workpieces.

 雙側遠心鏡頭，遠心平行光源，高景深，無畸變。
Bilateral telecentric lenses, telecentric parallel light source, high depth of field, no distortion.
-  可以匯入WORD，EXCEL等報表格式，可以呈現直方圖，曲線圖，CPK等資料分析。
You can import WORD, EXCEL and other report formats, and can present histograms, graphs, CPK and other data analysis.

 自主研發的HN-VISION V1.0，已申請國家專利技術，核心演算法經過權威部門認證，功能強大。
The self-developed HN-VISION V1.0 has applied for national patent technology, the core algorithm has been certified by authoritative departments, and is powerful.

 一鍵測量99個尺寸，同一視野內瞬間閃測。
Measure 99 dimensions at the touch of a button, with instantaneous flash measurements in the same field of view.

 2000萬像素工業相機，確保測量精度更加精準。
20-megapixel industrial camera ensures superior measurement accuracy.

MAKES MEASUREMENT ACCURATE AND EFFICIENT

結構圖 / Structure



參數配置 / Parameter Configuration

型號(Model)		HN-100WS	
影像感測器 Industrial camera		2000萬像素CMOS (20 megapixel CMOS)	
顯示器 Display screen		24吋LCD顯示器(24"LCD display)	
鏡頭 Lens		雙側遠心鏡頭(Bilateral telecentric lens)	
照明系統 Lighting	落射系統 Falling light	LED照明白光(選配) LED lighting white light (option)	
	透射系統 Transmitted light	遠心透過照明(綠色) Telecentric transmission lighting (green)	
測量視野 Measuring range	廣視野(mm) Wide field of view (mm)	100×80	
影像測量重複精度 Repeatability	廣視野(um) Wide field of view (mm)	±1.5	
影像測量測量精度 Repeatability	廣視野(um) Wide field of view (mm)	±3	
測量軟體 Measuring software		HN-Vision V1.0	
顯示解析度(um) Display resolution(um)		0.1	
X軸自動鏡頭對焦 X-axis automatic lens focusing		移動範圍 Movement range	40
電動旋轉座標台(mm) Electric rotating coordinate table (mm)		360度旋轉 360 degree rotation	
外形尺寸(L X W X H)(mm) External dimensions (mm)		715× 255× 366	
承重(KG)Bearing		3	
重量(KG)Weight		46	
工作電源 Working power supply		AC220V/50Hz	
工作環境 Work environment		溫度10℃~35℃，濕度30~80%，振動<0.002g，低於15Hz Emperature 10 °C~35°C, humidity 30~80%, vibration<0.002g, below 15Hz	

一鍵式閃測儀 HN-190 Pro



功能介紹 / Function Introduction

-  整機底座，立柱全部採用高密度、高精準度的大理石材質，結構緊密，穩定性極高。

The base and column of the complete machine are both made of high-density, high-precision marble material, featuring compact structure and excellent stability.
-  表面光源採用可程控LED環形光源，可配置同軸光源，確保表面測量抓取更加精準。

The surface light source adopts programmable LED ring light source, which can be configured with coaxial light source to ensure more accurate surface measurement and gripping.
-  二維平面尺寸快速編程，無需座標定位，產品任意擺放。

Fast programming of 2D plane dimensions, no need for coordinate positioning, arbitrary product placement.
-  雙側遠心鏡頭，遠心平行光源，高景深，無畸變。

Bilateral telecentric lenses, telecentric parallel light source, high depth of field, no distortion.
-  可以匯入WORD、EXCEL等報表格式，可以呈現直方圖，曲線圖，CPK等資料分析。

You can import WORD, EXCEL and other report formats, and can present histograms, graphs, CPK and other data analysis.
-  自主研發的 HN-VISION V1.0，已申請國家專利技術，核心演算法經過權威部門認證，功能強大。

The self-developed HN-VISION V1.0 has applied for national patent technology, the core algorithm has been certified by authoritative departments, and is powerful.
-  一鍵測量99個尺寸，同一視野內瞬間閃測。

Measure 99 dimensions at the touch of a button, with instantaneous flash measurements in the same field of view.
-  高精度Z軸升降平台，測量升降時機器更加穩定。

High-precision Z-axis lifting platform makes the machine more stable when measuring and lifting.

結構圖 / Structure



- 雙遠心轉角鏡頭 Dual telecentric corner lens
- LED表面環形光源 LEDsurface ring light source
- 遠心平行光源 Telecentric parallel light source
- 內建電腦主機 Built-in computer host
- 顯示器 Display
- 一鍵測試按鈕 One-touchtest button

參數配置 / Parameter Configuration

型號(Model)		HN-190 Pro	
影像感測器 Industrial camera		2000萬像素CMOS (20 megapixel CMOS)	
顯示器 Display screen		24吋LCD顯示器(24"LCD display)	
鏡頭 Lens		雙側遠心鏡頭(Bilateral telecentric lens)	
照明系統 Lighting	落射系統 Falling light	LED照明白光(選配) LED lighting white light (option)	
	透射系統 Transmitted light	遠心透過照明(綠色) Telecentric transmission lighting (green)	
	同軸光源 Coaxial light source	同軸落射光源(選配) Coaxial light source (optional)	
測量視野 Measuring range	廣視野(mm) Wide field of view (mm)	190×120	
影像測量重複精度 Repeatability	廣視野(um) Wide field of view (mm)	±1.5	
影像測量測量精度 Repeatability	廣視野(um) Wide field of view (mm)	±4.5	
測量軟體 Measuring software		HN-Vision V1.0	
顯示解析度(um) Display resolution(um)		0.1	
Z軸電動座標台(mm) Z-axis electric coordinate table(mm)		移動範圍 Movement range	80
		標尺精度 Scale accuracy	—
外形尺寸(L X W X H)(mm) External dimensions (mm)		800×910×1850	
承重(KG) Bearing		10KG	
重量(KG) Weight		360KG	
工作電源 Working power supply		AC220V/50Hz	
工作環境 Work environment		溫度10℃~35℃，濕度30~80%，振動<0.002g，低於15Hz Emperature 10 °C~35°C, humidity 30~80%, vibration<0.002g, below 15Hz	

臥式連接器彈高測量機 HN-1010WS



功能介紹 / Function Introduction

-  獨立的機台設計，適合多款連接器側視檢測，檢測項目包括彈高，PIN間距等二維尺寸。
Independent-stand-alone machine design, suitable for side-view inspection of multiple types of connectors. Inspection items include spring height, PIN pitch and other 2-dimensional dimensions.

 自帶Y軸運動治具台，可一次測量多個孔位，一鍵檢測。
Built-in Y-axis fixture moving table, capable of measuring multiple hole positions at one time with one-click inspection.

 兼用多種治具，設備可移動，不受區域限制，適用生產組裝全檢。
Compatible with a variety of fixtures. The movable machine is free from site-area restrictions and applicable to 100%-inspection in the whole production and assembly process.

-  自動對焦，適配多組光源，可以相容於不同規格連接器的尺寸檢測。
Auto-focus function with compatibility for multiple light sources, enabling dimension inspection of connectors in various specifications.

 設備有安全光幕，擁有極高的安全標準，通過業界知名企業安全認證。
Equipped with safety light curtains, the machine meets high-level safety standards and has passed safety certification issued by well-known enterprises in the industry.

結構圖 / Structure



參數配置 / Parameter Configuration

型號(Model)			HN-1010WS	
影像感測器 Industrial camera			2000萬像素CMOS (20 megapixel CMOS)	
顯示器 Display screen			22吋LCD顯示器(22"LCD display)	
鏡頭 Lens			雙側遠心鏡頭(Bilateral telecentric lens)	
照明系統 Lighting	臥式照明系統 Horizontal Illumination System	表面光照系統 Surface Illumination System	LED環形多角度照明系統 LED Multi-angle Ring Illumination System	
		透射系統 Transmitted light	平行透過照明系統 Parallel Transmission Illumination System	
測量視野 Measuring range		廣視野(mm) Wide field of view (mm)	30×20 (Field-of-view selectable according to workpiece)	
靜態重複精度 Static Repeatability		(um)	±4	
影像測量測量精度 Repeatability		廣視野(um) Wide field of view (mm)	±5	
測量軟體 Measuring software			HN-Vision V1.0	
顯示解析度(um) Display resolution(um)			0.1	
X軸自動鏡頭對焦 X-axis Auto Lens Focusing			移動範圍 Movement range	50
Y軸自動移動測量 Y-axis Auto-moving Measurement			移動範圍 Movement range	100
外形尺寸(L X W X H)(mm) External dimensions			900×860×1650	
承重(KG) Bearing(KG)			5KG	
重量(KG) Weight(KG)			105kg	
工作電源 Working power supply			AC220V/50Hz	
工作環境 Work environment			溫度10℃~35℃，濕度30~80%，振動<0.002g，低於15Hz Emperature 10℃~35℃, humidity 30~80%, vibration<0.002g, below 15Hz	

立式連接器PIN針測量機 HN-1220立式



功能介紹 / Function Introduction

-  獨立的機台設計，外接顯示器。附獨立測量和急停按鍵，擁有極高的安全標準，通過行業知名企業安全認證。

Independent-stand-alone machine design with external monitor. Equipped with dedicated measurement and emergency-stop buttons. It meets high-level safety standards and has passed safety certification issued by well-known enterprises in the industry.
-  自動對焦，適配多組光源，可以相容於不同規格連接器的尺寸檢測。

Auto-focus function with compatibility for multiple light sources, enabling dimension inspection of connectors in various specifications.
-  獨立的機台設計，適合多款連接器側視檢測，檢測項目包括彈高，PIN間距等二維尺寸。

Independent-stand-alone machine design, suitable for side-view inspection of multiple types of connectors. Inspection items include spring height, PIN pitch and other two-dimensional dimensions.
-  自帶有多種光源，如環形、遠心底光、條形光。

Built-in multiple light sources, including ring light, telecentric backlight and bar light.
-  兼用多種治具，設備可移動，不受區域限制，適用生產組裝全檢。

Compatible with a variety of fixtures. The movable machine is free from site-area restrictions and applicable to 100%-inspection in the whole production and assembly process.

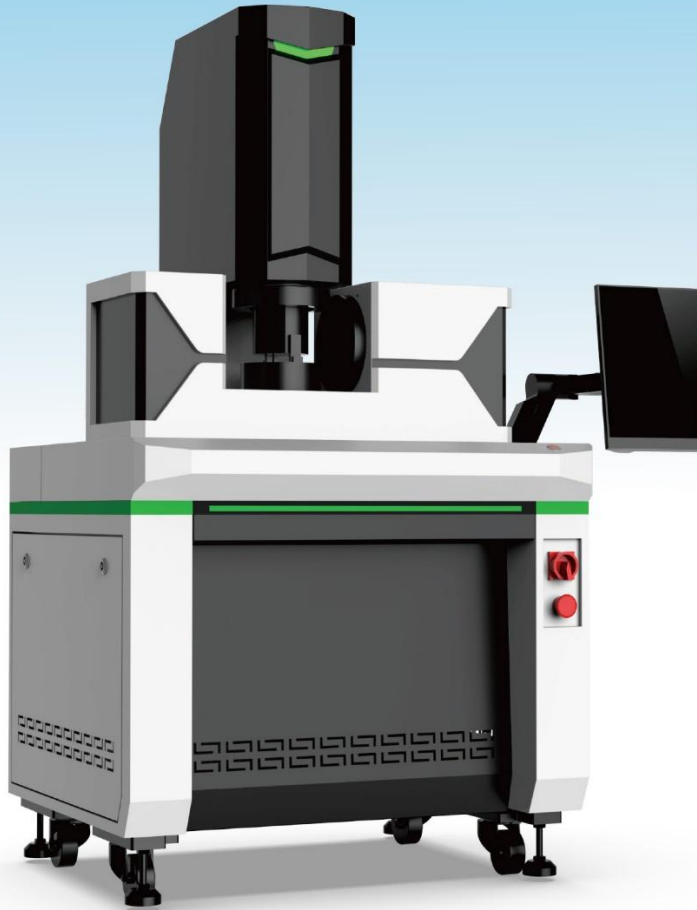
結構圖 / Structure



參數配置 / Parameter Configuration

型號(Model)		HN-1220 立式	
影像感測器 Industrial camera		2000萬像素CMOS (20 megapixel CMOS)	
顯示器 Display screen		22吋LCD顯示器(22"LCD display)	
鏡頭 Lens		雙側遠心鏡頭(Bilateral telecentric lens)	
照明系統 Lighting	立式照明系統 Vertical Illumination System	表面光照系統 Surface Illumination System	LED環形多角度照明系統 LED Multi-angle Ring Illumination System
		透射系統 Transmitted light	平行透過照明系統 Parallel Transmission Illumination System
測量視野 Measuring range	廣視野(mm) Wide field of view (mm)	30×20 (Field-of-view selectable according to workpiece)	
靜態重複精度 Static Repeatability	(um)	±4	
影像測量測量精度 Repeatability	廣視野(um) Wide field of view (mm)	±5	
測量軟體 Measuring software		HN-Vision V1.0	
顯示解析度(um) Display resolution(um)		0.1	
Z軸自動鏡頭對焦 Z-axis Auto Lens Focusing		移動範圍 Movement range	50
外形尺寸(L X W X H)(mm) External dimensions		800×850×1650	
承重(KG)Bearing		5KG	
重量(KG)Weight		90 kg	
工作電源 Working power supply		AC220V/50Hz	
工作環境 Work environment		溫度10℃~35℃，濕度30~80%，振動<0.002g，低於15Hz Emperature 10 °C~35°C, humidity 30~80%, vibration<0.002g, below 15Hz	

立臥式圖像尺寸測量儀 HN-1010LWS

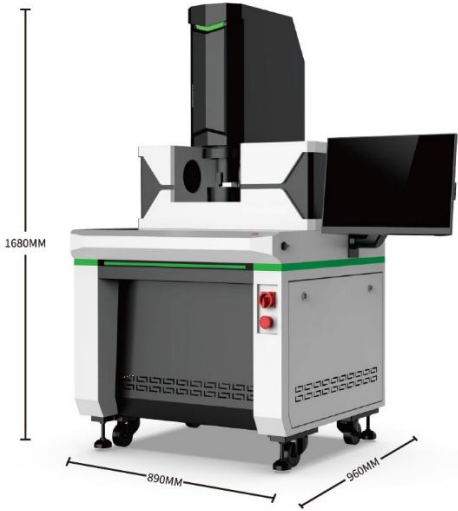


功能介紹 / Function Introduction

- 整機底座，立柱全部採用高密度、高精準度的大理石材質，結構緊密，穩定性極高，無形變。**
The base and vertical column of the complete machine are entirely made of high-density and high-precision marble with compact internal structure, delivering excellent stability and zero deformation.
- 高精度測試平台360度旋轉，可以測量任意角度的尺寸檢測，可以測量圓跳動值。**
The high-precision measuring platform supports 360° rotation, enabling dimensional inspection at any angle and circular runout measurement.
- 二維尺寸快速編程，一鍵測量99個尺寸，同一視野內瞬間閃測。**
It supports rapid 2D dimension programming, one-click measurement of up to 99 dimensions, and instant flash measurement within the same field of view.
- 雙側遠心鏡頭，遠心平行光源，高景深，無畸變。**
Dual telecentric lenses and telecentric parallel light sources are adopted, featuring large depth of field and distortion-free imaging.

- 可以匯入WORD、EXCEL、TXT等報表格式，可以自訂報表格式，可以對接MES系統，可以與機器人對接。**
Measurement reports can be exported in Word, Excel, TXT and other formats. Custom report templates are available. The system can connect to MES systems and realize docking with robotic arms.
- 自主研發的 HN-VISION V1.0，已申請國家專利技術，核心演算法經過權威部門認證，功能強大。**
The self-developed HN-VISION V1.0 has applied for national patent technology, the core algorithm has been certified by authoritative departments, and is powerful.
- Z軸鏡頭自動對焦，光源自動適配功能，X軸自動對焦，表面光源輔助，可以同時測量兩個面的尺寸，一機兩用。**
It is equipped with Z-axis automatic lens focusing, automatic light source adaptation, X-axis automatic focusing and surface auxiliary light source functions. It can measure dimensions of two surfaces simultaneously, realizing dual-purpose with one single device.
- 2000萬像素高頻高像素工業相機，確保測量精度更加精準。**
20-megapixel high-frequency and high-pixel industrial camera ensures more precise measurement accuracy.

結構圖 / Structure



參數配置 / Parameter Configuration

型號(Model)			HN-1010 LWS	
影像感測器 Industrial camera			立式2000萬像素CMOS (Vertical 20-megapixel CMOS)	
			臥式2000萬像素CMOS (Horizontal 20-megapixel CMOS)	
顯示器 Display screen			24吋LCD顯示器(24"LCD display)	
鏡頭 Lens			立式雙側遠心鏡頭 (Vertical Dual-sided Telecentric Lens)	
			臥式雙側遠心鏡頭 (Horizontal Dual-sided Telecentric Lens)	
照明系統 Lighting	立式照明系統 Vertical Illumination System	落射系統 Falling light	LED自動升降照明系統 LED Auto-Lifting Illumination System	
		透射系統 Transmitted light	平行透射照明 Parallel Transmitted Illumination	
	臥式照明系統 Horizontal Illumination System	表面光照系統 Surface Illumination System	LED環形多角度照明系統 LED Multi-Angle Ring Illumination System	
		透射系統 Transmitted light	遠心透射照明系統 Telecentric Trans-illumination System	
立式測量視野(mm) Vertical Field-of-View(mm)			100×80	
靜態重複精度(um) Static Repeatability(um)			±1.5	
影像測量精度(um) Image Measurement Accuracy(um)			±3	
臥式測量視野(mm) Horizontal Field-of-View(mm)			80×80	
測量軟體 Measuring software			HN-Vision V1.0	
顯示解析度(um) Display resolution(um)			0.1	
Z軸自動鏡頭對焦Z-axis Auto Lens Focusing			移動範圍 Movement range	75
X軸自動鏡頭對焦X-axis Auto Lens Focusing			移動範圍 Movement range	40
電動旋轉座標台(mm) Electric rotating coordinate table(mm)			360度旋轉 360 degree rotation	
外形尺寸(L X W X H)(mm) External dimensions			890× 960× 1680	
承重(KG)Bearing			10	
重量(KG)Weight			195	
工作電源 Working power supply			AC220V/50Hz	
工作環境 Work environment			溫度10℃~35℃，濕度30~80%，振動<0.002g，低於15Hz Emperature 10 °C~35°C, humidity 30~80%, vibration<0.002g, below 15Hz	

全自動圖像拼接閃測儀 HN-3020 PLUS



功能介紹 / Function Introduction

- 整機底座，立柱全部採用高密度、高精度的鋁合金材質，結構緊密，穩定性極高。
The whole machine base and column are all made of high-density and high-precision alloy material, with tight structure and high stability.
- 無需座標定位，一鍵自動拼接測量，測量效率1PCS/2-5秒。
No need for coordinate positioning, one-click automatic splicing measurement, measurement efficiency 1PCS/2-5 seconds.
- 二維平面尺寸快速編程，移動拼接測量。
Quick programming of 2D plane dimensions and mobile splicing measurement.
- 自主研發的HN-VISION V1.0，已申請國家專利技術，核心演算法經過權威部門認證，功能強大。
The self-developed HN-VISION V1.0 has applied for national patent technology, the core algorithm has been certified by authoritative departments, and is powerful.

- Z軸鏡頭與光源可以自動升降，可以自動對焦，可以快速測量產品的高度尺寸，可配置線陣雷射進行3D測量，保證測量精度更準。
The Z-axis lens and light source can automatically rise and fall, can automatically focus, can quickly measure the height dimensions of the product, and can be configured with a line scan laser for 3D measurement, ensuring more accurate measurement.
- 高精度運動平台，耐磨擦係數高，耐腐蝕性較強，測量移動時機器較穩定。
High-precision motion platform, high friction resistance, stronger corrosion resistance, and more stable machine during measurement and movement.
- 交叉導軌及研磨級絲桿，平台移動更加穩定，四軸伺服馬達運動，定位更加精準。
Cross guide rails and ground-grade lead screws make the platform movement more stable, and the four-axis servo motor movement makes the positioning more accurate.

結構圖 / Structure



- LED同軸光源 LEDcoaxiallight source
- Y軸移動平台 Y-axis mobile platform
- 測試指示燈 Test indicator light
- 14吋液晶顯示器 14-inch LCD display
- LED環形表面光源 LEDring surface light source
- X軸移動平台 X-axis mobile platform
- 電源開關鍵按鈕 Power switch button
- 一鍵啟動測試鍵按鈕 One-touch start test button

參數配置 / Parameter Configuration

	型號(Model)		HN-2020 PLUS	HN-3020 PLUS
	影像感測器 Industrial camera		2000萬像素CMOS (20 megapixel CMOS)	
	顯示器 Display screen		14吋LCD顯示器 XGA:1024x768 (14"LCD display)	
	鏡頭 Lens		雙側遠心鏡頭 (Bilateral Telecentric Lens)	
照明系統 Lighting	落射系統 Falling light		LED照明(白光) LED lighting (white light)	
	透射系統 Transmitted light		遠心透射照明(綠色) Telecentric Transmission lighting(Green)	
測量範圍 Measuring range	廣視野(mm) Wide field of view (mm)		200×200 (4角R50)	300×200(4角R50)
	高精度(mm) High precision(mm)		120×120	230×130
影像測量精度(um) Repeatability	廣視野 Wide field of view	座標台未移動 Coordinate table has not moved	±1μm	±1μm
		座標台移動 Coordinate table move	±2μm	±2μm
	高精度 High precision	座標台未移動 Coordinate table has not moved	±0.5μm	±0.5μm
		座標台移動 Coordinate table move	±1.5μm	±1.5μm
影像測量精度(um) Repeatability	無拼接*1 No splicing*1	廣視野 Wide field of view	±5μm	±5μm
		高精度High precision	±2μm	±2μm
	有拼接*2 With splicing*2	廣視野 Wide field of view	±(5+0.02L)μm	±(4+0.02L)μm
		高精度High precision	±(3+0.02L)μm	±(3+0.02L)μm
	測量軟體 Measuring software		HN-Vision V1.0	HN-Vision V1.0
XY電動工作台	顯示解析度 Display resolution		0.1μm	0.1μm
	X移動範圍 X-Movement range		120mm	220 mm
	Y移動範圍 Y-Movement range		140mm	140mm
Z向電動座標台 Z- axis electric coordinate table	移動範圍 Movement range		75mm	
	標尺精準度 Scale accuracy		—	
高度測量 Height measurement	可測量範圍(XY) Measurable range(XY)		140mm×60 mm	160mm×110mm
	最大測量深度 Maximum measuring depth		75mm	
	探頭直徑 Probe diameter		Φ1mm	
	測量力 Measuring force		0.13N	
	重複精度 Repeatability		±2 μm	
	測量精度 Measurement accuracy		±(3+0.02L)μm	
外形尺寸(L X W X H)(mm) External dimensions		579 × 492×810mm		
承重(KG)Bearing		5KG		
重量(KG)Weight		85kg		
工作電源 Working power supply		AC220V/50Hz		
工作環境 Work environment		溫度10℃~35℃，濕度30~80%，振動<0.002g，低於15Hz Emperature 10 °C~35°C, humidity 30~80%, vibration<0.002g, below 15Hz		

全自動複合閃測儀 HN-5040 (P)



功能介紹 / Function Introduction

整機底座，立柱全部採用高密度、高精準度的大理石材質，結構緊密，穩定性極高，無形變。

The base and vertical column of the complete machine are entirely made of high-density and high-precision marble with compact internal structure, delivering excellent stability and zero deformation.

高精度運動平台，耐磨擦係數高，耐腐蝕性較強，測量移動時機器較穩定。

The high-precision motion platform features a low friction coefficient and superior corrosion resistance, ensuring highly stable machine movement during measurement travels.

二維平面尺寸快速編程，移動拼接測量。

Quick programming of 2D plane dimensions and mobile splicing measurement.

直線導軌及研磨級絲桿，平台移動更加穩定，四軸全閉環伺服馬達運動，定位更加精準。

Equipped with linear guides and ground-grade ball screws, the platform delivers ultra-smooth and stable movement. Four-axis full closed-loop servo motors are adopted for ultra-precise positioning.

無需座標定位，一鍵自動拼接測量，測量效率比傳統三座標效率快至3-5倍。

No coordinate origin positioning is required. One-click automatic stitching measurement is available, boosting efficiency 3 to 5 times higher than traditional CMM equipment.

自主研發的 HN-VISION V1.0，已申請國家專利技術，核心演算法經過權威部門認證，功能強大。

The self-developed HN-VISION V1.0 has applied for national patent technology, the core algorithm has been certified by authoritative departments, and is powerful.

Z軸雙側遠心鏡頭與 LED 全角度光源可以自動升降，可以自動對焦，可以快速測量產品的高度尺寸，可配置線陣雷射進行3D測量，保證測量精度更準。

The Z-axis dual telecentric lenses and full-angle LED light source support automatic lifting and auto-focusing, enabling fast height dimension measurement of workpieces. A line laser scanner can be optionally configured for 3D measurement to guarantee outstanding measuring accuracy.

2000萬像素高頻高像素工業相機，確保測量精度更加精準。

20-megapixel high-frequency and high-pixel industrial camera ensures more precise measurement accuracy. It has been certified by authoritative departments, and is powerful.

結構圖 / Structure



參數配置 / Parameter Configuration

型號(Model)			HN-542	HN-652	HN-862	HN-1612
影像感測器 Industrial camera			2000萬像素CMOS (20 megapixel CMOS)			
顯示器 Display screen			24吋LCD顯示器 (24"LCD display)			
鏡頭 Lens			雙側遠心鏡頭 (Bilateral Telecentric Lens)			
照明系統 Lighting	落射系統 Falling light		LED照明(白光) LED lighting (white light)			
	透射系統 Transmitted light		遠心透射照明(綠色) Telecentric Transmission lighting(Green)			
測量範圍 Measuring range		廣視野(mm) Wide field of view (mm)	500*400	600*500	800*600	1600*1200
		高精度(mm) High precision(mm)	420*350	520X450	720*550	1520*1150
影像測量精度(um) Repeatability	廣視野 Wide field of view	座標台未移動 Coordinate table has not moved	±1μm		±1μm	
		座標台移動 Coordinate table move	±3.5μm		±4.5μm	
	高精度 High precision	座標台未移動 Coordinate table has not moved	±1.5μm		±1.5μm	
		座標台移動 Coordinate table move	±2μm		±2.5μm	
影像測量精度(um) Repeatability	無拼接*1 No splicing*1	廣視野 Wide field of view	±5μm		±5μm	
		高精度High precision	±2μm		±2μm	
	有拼接*2 With splicing*2	廣視野 Wide field of view	±(4+0.02L)μm		±(4+0.02L)μm	
		高精度High precision	±(3+0.02L)μm		±(3+0.02L)μm	
測量軟體 Measuring software			HN-Vision V1.0			
顯示解析度 Display resolution			0.1			
XY電動工作台	X移動範圍 X-Movement range		400	500	600	1200
	Y移動範圍 Y-Movement range		500	600	800	1600
Z軸運動結構 Z- axis Moving Structure	移動範圍(mm) Travel Range (mm)		200 (可訂製)		200 (可訂製)	
	光幕尺精度(um)Linear Scale Accuracy (pm)		0.5		0.5	
高度測量 Height measurement	可測量範圍(YX) Measurable Range (YX)		500mm×400mm	600mm×500mm	800mm×600mm	1600mm×1200mm
	雷射點直徑 Probe diameter		Φ0.02mm			
	最大測量深度 Maximum measuring depth		200mm			
	重複精度Repeatability		±2 μm			
	測量精度 Measurement accuracy		±(3.5+0.02L)μm			
外形尺寸(L X W X H)(mm)External dimensions			1220×1533×1676	1330×1631×1710	1420×1831×1710	1820×2031×1710
承重(KG)Bearing						
重量(KG)Weight			680	760	960	1680
工作電源 Working power supply			AC220V/50Hz			
工作環境 Work environment			溫度10℃~35℃，濕度30~80%，振動<0.002g，低於15Hz Emperature 10 °C~35°C, humidity 30~80%, vibration<0.002g, below 15Hz			

PCB油墨高度3D檢測機 3D Inspector for PCB Ink Height

主要針對PCB板油墨高度尺寸檢測。

功能介紹：快速偵測PCB板油墨高度尺寸不良，二維碼辨識及MES系統對接功能。

設備特點：

整機設計結構緊密，大理石平台，穩定性極高。

· 放置治具可依據產品的規格調整，確保每一產品放料流程的穩定性。

· 配置專業工控電腦管理，確保產品運作穩定。

· 配置十組3D線陣雷射組合掃描，可呈現3D效果雲圖，自動找取油墨超差區域。

· 產品透過範本編程保存測試記錄，能快速準確判定產品狀態，可以透過掃描二維碼記錄產品資訊，同時有MES對接功能。

· 通過自主研發3D軟件測試每一規格產品的狀態，不良數據清晰可見。

· 操作人員只需將產品放在測試治具載台上即可，設備對產品進行試壓，保證測試效果的一致性。

· 自主研發測量軟體，軟體操作介面人性化，通用易懂，可以依據客戶要求進行標準參數修改，同時可以增加客戶所需的功能。

Mainly used for dimensional inspection of ink height on PCB boards.

Function Introduction :

Quickly detect defects in PCB board ink-height dimensions. Support QR code recognition and MES system interconnection.

Equipment Features :

· Compact overall machine structure with marble platform for excellent stability.

· Custom-adjustable fixture according to product specifications to ensure stable loading for every product.

· Equipped with an industrial control computer for reliable equipment operation.

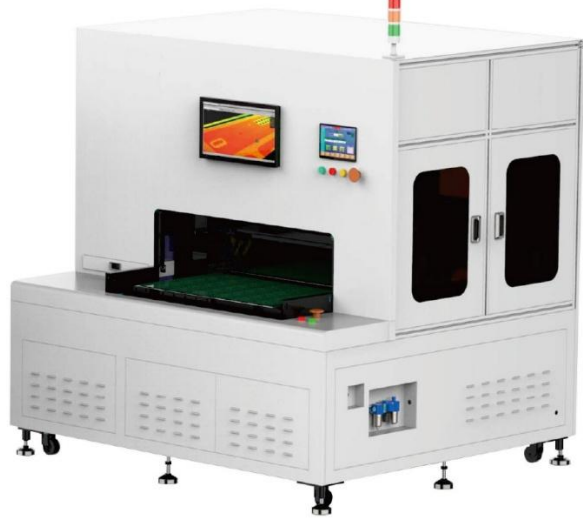
· Adopts ten sets of combined 3D line-scan laser scanners to generate 3D cloud maps and automatically locate areas with out-of-spec ink height.

· Template-based programming is available, with test records saved locally. Product status can be judged rapidly and accurately. Product information is recorded via QR-code scaming, and MES system connection is supported.

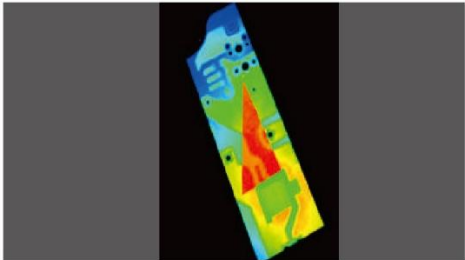
· Self-developed 3D software evaluates the status of products of each specification, with defective data clearly displayed.

· Operators only need to place products onto the carrier. The machine performs pre-pressing on products to guarantee consistent testing results.

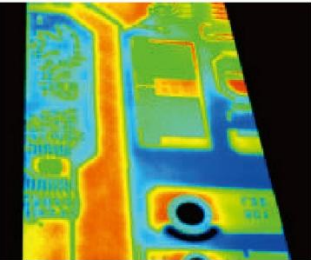
· Self-developed measurement software features user-friendly and intuitive operation interface. Standard parameters can be modified and additional functions can be added upon customer requirements.



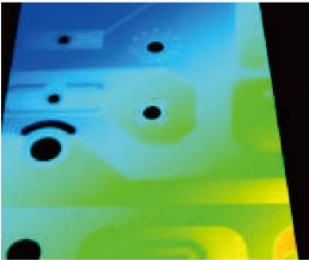
型號(Model)		HN-8050LS
測量行程(mm) Measuring Stroke (mm)		800*500*150mm
外形尺寸(mm) Overall Dimensions (mm)		1100*880*1760mm
重量(kg) Weight (kg)		200kg
承重(kg) Load Capacity(kg)		50kg
定位精度(um) Positioning Accuracy (um)	XY軸 X-Y Axis	8(um)
線陣雷射 Line-scan Laser		3D雷射感測器3DLaserSensor
測量精度(um) Measurement Accuracy(um)		8(um)
重複測量精度(um) Repeat Measurement Accuracy (um)		3(um)
光幕尺(um) Linear Encoder(um)		0.5(um)
伺服/運動控制 Servo/Motion Control		伺服馬達/高精度運動控制卡 Servo Motor/ High-precision Motion Control Card
軟體 Software		HN-VisionV1.0
工作環境 Operating Environment		溫度18°C~26°C,濕度45%-75% Temperature: 18°C ~ 26°C, Humidity: 45%-75%
電源 Power Supply		220V±10%,50HZ,接地電阻<40 220V±10%,50Hz,Grounding resistance <40



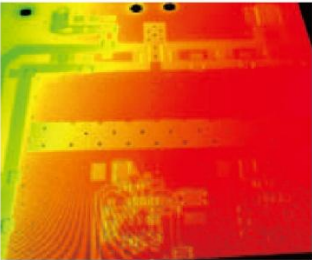
3D渲染 / 3D rendering



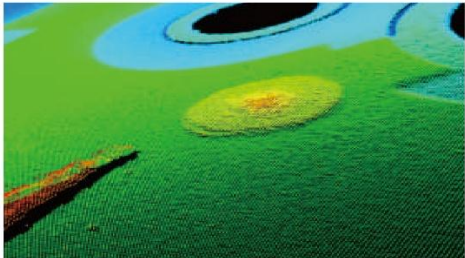
3D渲染 / 3D rendering



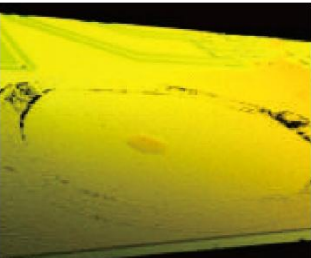
3D渲染 / 3D rendering



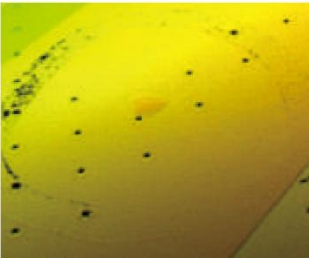
3D渲染 / 3D rendering



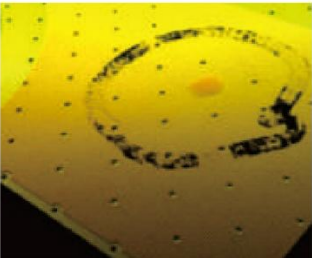
3D效果細節圖 / Detailed 3D rendering



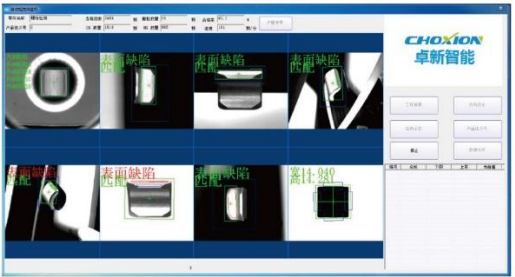
3D效果細節圖 / Detailed 3D rendering



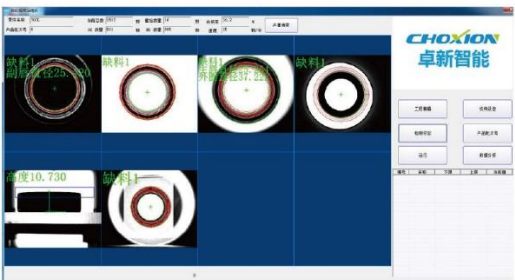
3D效果細節圖 / Detailed 3D rendering



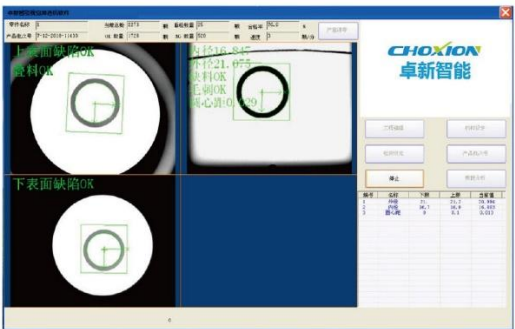
3D效果細節圖 / Detailed 3D rendering



Software Measurement Interface



Oil Seal Product Sorting



Oil Seal Product Sorting

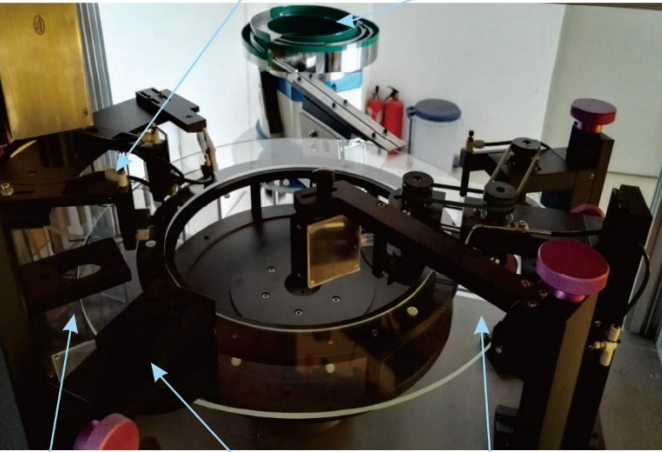
CCD視覺篩選機 CCD Visual Inspection & Sorting Machine

設備工作原理 Working Principle of Equipment

自動上下料
Automatic Loading & Unloading

自動分料裝置
Automatic Material Separating Device

震動盤上料
Vibratory Feeder Loading



CCD3

CCD2

CCD1

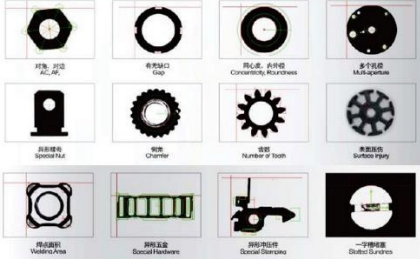
流程說明:

1. 經流水線自動上料到玻璃盤位置;
2. 經過導輪產品移動到位置1, CCD1測量產品表面特徵及尺寸不良;
3. 經玻璃盤產品移動到位置2, CCD2測量產品表面特徵不良;
4. CCD3工位, CCD4, 工位可以依據產品需求而選擇增加;
5. 系統辨識產品尺寸, 自動分料裝置將良品與不良品自動分開。

Process description:

1. Automatically feed to the glass plate position through the assembly line;
2. After the guide wheel product moves to position 1, CCD1 measures the surface characteristics and size defects of the product
3. After moving the glass disc product to position 2, CCD2 measured that the surface characteristics of the product were poor;
4. CCD3 workstation, CCD4 workstation can be added according to product requirements;
5. The system identifies the product size, and the automatic material separation device automatically separates good and bad products.

【一】垂直檢測功能 [1] Vertical detection function



【二】水平檢測功能 [2] Horizontal detection function



【三】選別功能 [3] Selection function



機械功能:

全方位、多角度檢測篩選物件尺寸外觀包括:

多段高度、多度寬度, 斷針、塞孔; 無效牙長(頸下牙高), 牙底徑, 牙外徑, 牙距, 斜牙、搓牙不良; 螺絲長度, 頭部有無電鍍, 有無倒角, 塞孔, 偏心, 有無牙等。

Mechanical function:

Comprehensive and multi-angle detection and screening of object size and appearance.

Including:

Multiple heights and widths, broken needles, and plugged holes; Invalid tooth length (neck lower tooth height), tooth base diameter, tooth outer diameter, tooth pitch, oblique teeth, and poor tooth rubbing;

The length of the screw, whether the head is electroplated, whether there are chamfers, plug holes, eccentricity, and whether there are teeth.