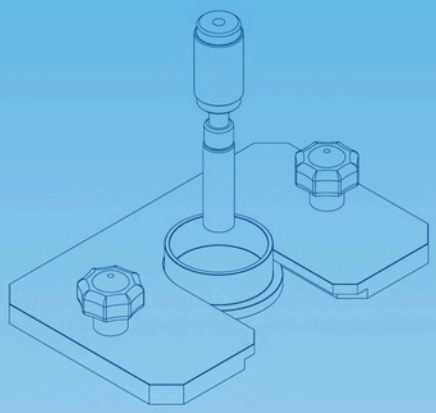
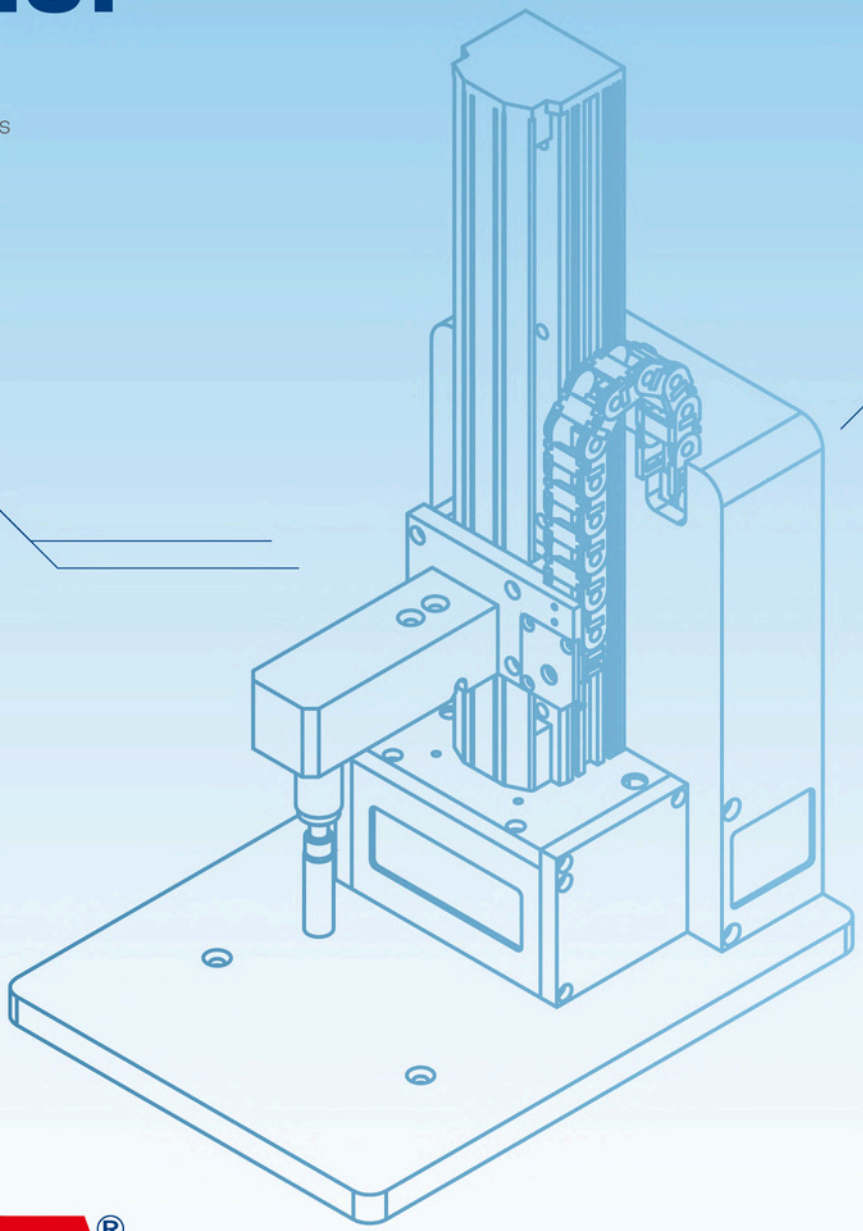
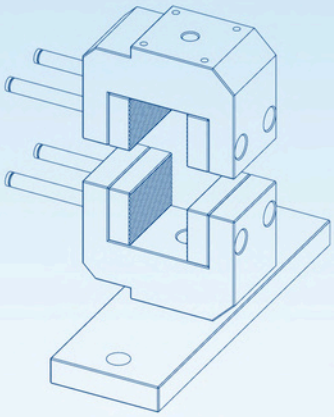
Rapid Texture Analyzer

The most reliable
partner in texture analysis

2025







rapidta.com.tw

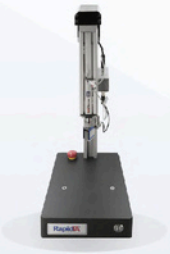
RapidTA®
Texture analyzer

Texture Testing, Made Easy – No Sweat, Just Science!

RapidTA®
Texture analyzer

THE IDEAL COMBINATION OF STROKE AND LOAD TO ACCOMMODATE A VARIETY OF NEEDS.

The complete range of products is categorized based on varying stroke and load requirements, ranging from lightweight to heavy load and from short stroke to long stroke. This comprehensive selection addresses diverse application scenarios and offers users flexible and precise testing solutions.

	Stroke	load	Test Requirements	Application Fields
RapidTA 	100mm	20kg	single	Food Research and Development & Quality Control: Ideal for assessing the hardness and rupture strength of small samples. Cosmetic Texture Testing: Surface Pressure Testing and Ductility Analysis. Academic Research: High-Precision Texture Analysis of Small Samples to Support Laboratory Research Needs.
RapidTAHD 	100mm	100kg	single	Meat and Seafood Processing: Evaluating the Cutting Force, Chewiness, and Stress Resistance of High-Density Samples. Industrial materials testing is ideal for small-scale evaluations of colloids, rubbers, and other high-toughness materials. Pharmaceutical Production: Tablet Hardness Testing and Capsule Pressure Testing.
RapidTA+ 	200mm	20kg	variety	Fruit, vegetable, and agricultural tests: for example, testing the firmness and ripeness of bananas, eggplants, and large fruits. Film and Gel Applications: Suitable for testing ductility and tear strength, such as food packaging films and edible films. Texture Evaluation of Noodles and Bread: Testing Tensile Strength and Elasticity, Including Dough Toughness and Bread Resilience Analysis.
RapidTAmax 	350mm	50kg	variety	Industrial-grade food testing includes the evaluation of stress and chewing properties in frozen products, whole turkeys, and large pieces of cheese. Large Animal Feed Testing: Analysis of Compressive and Fragmentation Properties of High-Hardness Feeds.

LIGHTWEIGHT AND USER-FRIENDLY, THIS PRODUCT IS DESIGNED FOR USERS WORLDWIDE.

Friendliness is more closely aligned with our needs.

The primary objective of RapidTA is to help users avoid unnecessary expenses for features they do not require. Many texture analyzers currently available on the market today advertise themselves as powerful and versatile; however, these features often exceed the actual needs of the user. By reducing barriers to entry, we are dedicated to serving a wider range of industries with genuine requirements. Rather than concentrating on the development of unique features using costly tools, we prioritize the optimization of workflows while providing a diverse array of functional options to enhance the user experience. This approach enables users to allocate their time and energy to more significant tasks rather than repetitive processes.

The space has been optimized to accommodate a variety of scenarios.

When designing this instrument, we aimed to keep its footprint to the size of an A4 sheet of paper. Although some models are slightly larger to enhance structural strength, they still maintain excellent mobility overall. This design offers two significant advantages: Space is valuable: The compact design optimizes space utilization. Portable and flexible: easy to carry and transport, and adaptable to a variety of environments.

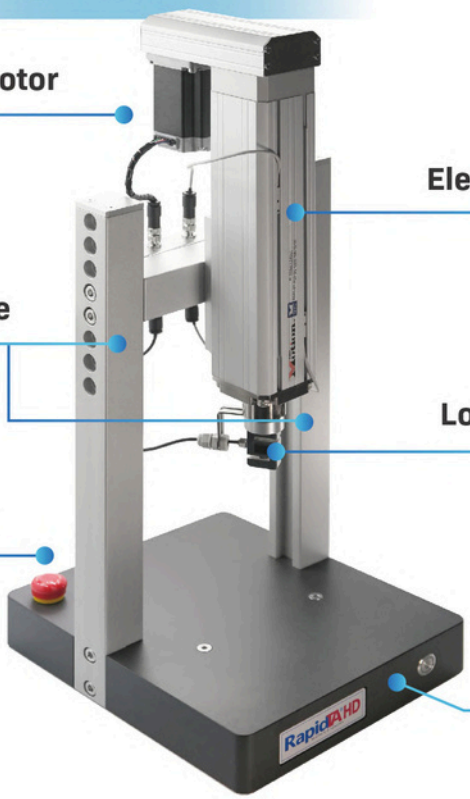
International standard certification is recognized and utilized worldwide.

By the end of 2024, a comprehensive range of products will have been sold to numerous countries, including China, the Philippines, Bangladesh, Pakistan, Armenia, Peru, Indonesia, India, and others. Researchers have published several research journals that meet international SCI standards, and this number continues to grow. We remain active in the international market and are committed to enhancing our brand.

RapidTA®
Texture analyzer

RapidTA

RapidTAHD

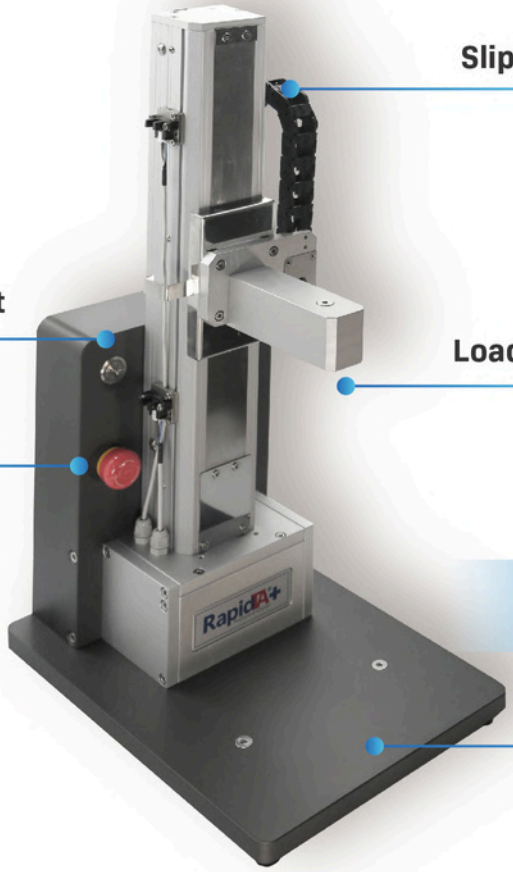


Slipway

Power indicator light

Load cell

Emergency stop



RapidTA+

Large Space Platform

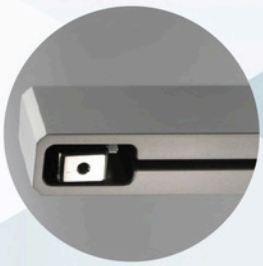
Upper limit

Slipway

Power indicator light

Load cell

Emergency stop



Stage

RapidTAmax

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Texture analyzer

APPLICATION INDUSTRIES

Meat

It is widely utilized in the meat industry to accurately assess the tenderness, elasticity, and chewiness of meat products such as steak, chicken breast, and ham. Through texture analysis, we assist manufacturers in optimizing meat processing technology, enhancing product consistency and quality, and meeting market demands for taste and overall eating experience.

Dairy product

In egg and dairy products, it can be used to measure the softness, stickiness, and breaking strength of gel products (e.g., pudding, cheese), as well as to evaluate the hardness and elasticity of cheese. This data assists the R&D team in controlling the texture of the product and ensuring stability during the production process.

Snacks

For biscuits, texture analysis evaluates crispiness, breaking point, and hardness to ensure the best taste in every bite. This is particularly important for products such as potato chips, wafers, and cookies, as it helps companies to refine their recipes and enhance consumer satisfaction.

Vegetables and Fruits

Assessing the texture of fruits and vegetables is essential for monitoring their freshness and ripeness. This evaluation can measure hardness, stickiness, and breaking strength, helping growers and suppliers to determine the optimal harvest time. Additionally, it enhances the efficiency of product quality management throughout the logistics process.

Pasta and Noodle

For noodles, bread, and other bakery products, the characteristics of elasticity, ductility, and chewiness can be analyzed to ensure that these products meet ideal taste and quality standards. This data can be utilized to optimize production processes and enhance flour formulations, thereby increasing the competitiveness of products in the market.

Pet food

It plays a crucial role in the cereal and pet food industries by evaluating the hardness, brittleness, and chewiness of feeds to ensure that the products meet the chewing needs and taste preferences of various pet breeds. Additionally, texture data can help enhance formulations, improve nutritional balance, and increase the processing stability of the feed.

Confectionery

In the pastry and confectionery industry, the softness, stickiness, and elasticity of products—such as the fluffiness of cakes and the ductility of toffee—can be accurately measured. This precise data allows manufacturers to optimize recipe ratios, ensuring a consistent and enjoyable experience for consumers from batch to batch.

Pharmaceuticals

It holds significant value in the pharmaceutical industry, particularly in the development of tablets and capsules, where it is used to assess hardness, rupture point, and dissolution properties. Through meticulous testing, we can ensure the stability of the drug's dosage form, enhance patient convenience, and comply with pharmacopoeial and quality control standards.

Material

It can be used to test the elasticity, rupture strength, and ductility of gel and film products, particularly functional films and edible packaging materials in the food, medical, and cosmetics industries. These analyses not only enhance the processability of the product but also ensure its reliability and safety in real-world applications.

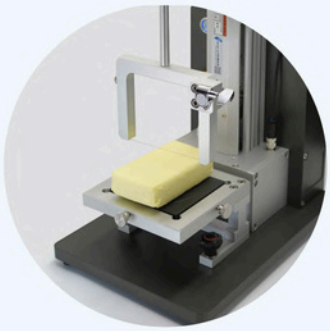
Standard test

This instrument supports a variety of standard tests, including ASTM, ISO, and other international standards, to ensure data accuracy and consistency. Whether measuring hardness, compressive strength, or shear strength, it provides research institutions and manufacturers quality control and verification tools that comply with industry standards to meet market demands.

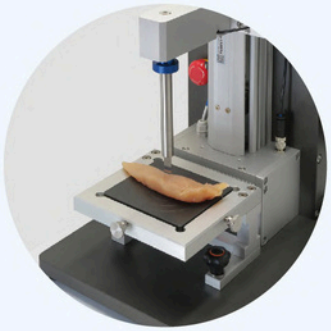
RapidTA® Texture analyzer

SOFTWARE INTRODUCTION

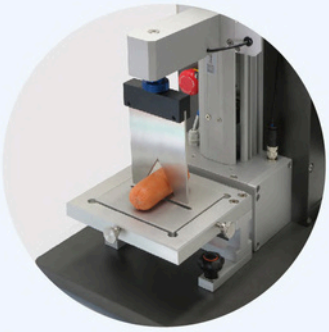
	White Collar	Blue Collar
Where to Apply	Research and Development	Quality Management
Familiarity with the Experiment	High	Low
Parameter Settings	Wide & User Friendly	Less & easily selectable
Application Requirements	Multivariate	Fixed
Results	Excellent	Highly efficient



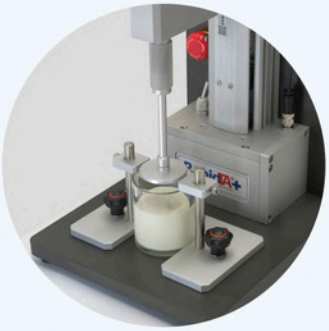
Wire butter cutter



Razor probe set

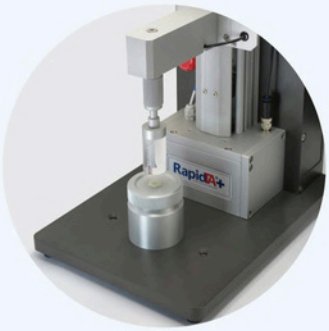


Blade of Warner Bratzler



Back extrusion rig

Bi-Vise Test Rig

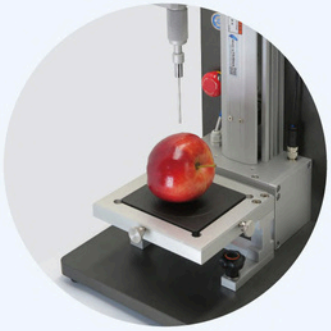


Dough Adhesion Tester

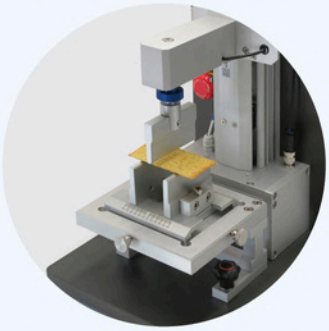
φ100 mm compression plate

Noodle stretching rig

Needle / Egg Holder



φ2 mm cylinder probe



Three-point bending rig

Syringe Tester

SPECIFICATIONS

Model	RapidTA	RapidHD	Rapid+	Rapid max
Load cell (Interchangeable)	0.5,1,5,10,20kg	0.5,1,5,10,20,50,100 kg	0.5,1,5,10,20kg	0.5,1,5,10,20,50kg
Force range	0.5 to 20 kgf	0.5 to 100 kgf	0.5 to 20 kgf	0.5 to 50 kgf
Force resolution	0.1gf			
Force accuracy	reading 0.5%<Error<Full rang 1%			
Stroke	100mm		200mm	350mm
Distance resolution	0.01mm			
Distance accuracy	0.1 %			
Speed range	0.025 – 10 mm/s			
Data Acquisition Rate	Up to 2000 points per second			
Speed resolution	0.025 mm/s			
Speed accuracy	0.1 %			
Size	210 * 290 * 550 mm	250 * 20 * 630 mm	225 * 300 * 520 mm	300 * 400 * 620 mm
Net weight	8.2 kg	15.5kg	10.5kg	14.1 Kg
Power supply	100-240 V 50/60 Hz			
Power consumption	25 W	30 W	15 W	20 W
Limit switches	Electromagnetic limit switches		Optical limit switch	
Protection	Emergency stop, force overload protection			
Software	White collar / Blue collar			
Baud rate	RS 232 Baud rate 460800			

Model	White Collar	Blue Collar
OS	windows 8,9,10,11	Windows 10 IoT Enterprise 64bit
Resolution	1920*1080	1920*1080
Language	English, Chinese	
Test mode	Stress (c), Force (c), Distance (t), Distance (c), TPA*_Strain, TPA_Distance, Adhesion(c)	
Auto-Calibration	Weight calibration, height calibration	
Data output	Raw data, curves, calculation results, reports	Screen Display/Printing
Data analysis	Overlays, Cursor mark	*

TPA * = Texture Profile Analysis

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