

# پترو فرهان گستر جنوب

📍 Tehran, Tehransar

yateks™

Industrial Videoscope



## *Realta 3D*

Measurement video Borescope

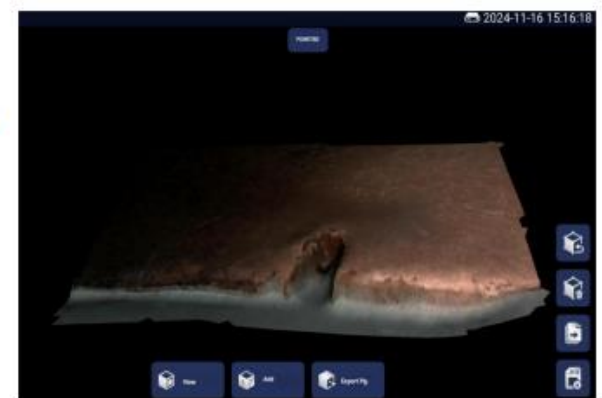
The Realta series features a 7" IPS HD LCD screen with a resolution of up to 1920 \* 1200, offering dual functionality with both touch and button controls for fast and easy operation. It incorporates Yateks patented technology and utilizes self-developed graphic processor technology, enhancing image and video response speed and resulting in a clearer and more detailed presentation of image. The probe allows for 360° omnidirectional rotation, equipped with overload protection and automatic locking&resetting capabilities, enabling long-distance image transmission for deeper channel detection. The instrument primarily consists of four components: the camera module, insertion tube, host, and operating handle. This innovative non-destructive flaw detection instrument integrates optics, precision machinery, electro-mechanics, electronic technology, and microscopic camera technology. It is commonly used to detect internal surface defects that cannot be seen by the naked eye.

## Realistic 3D display effect

2D



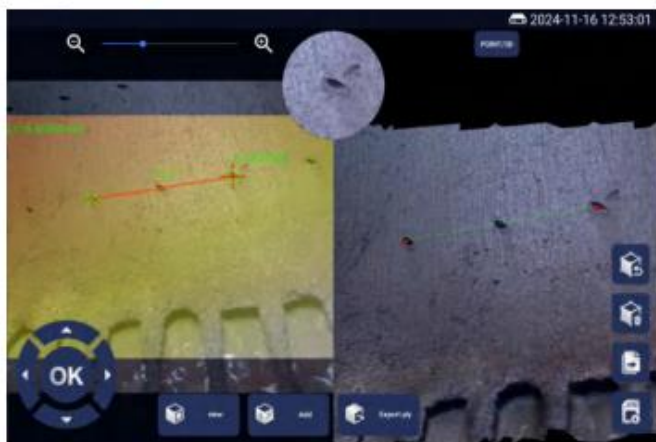
3D



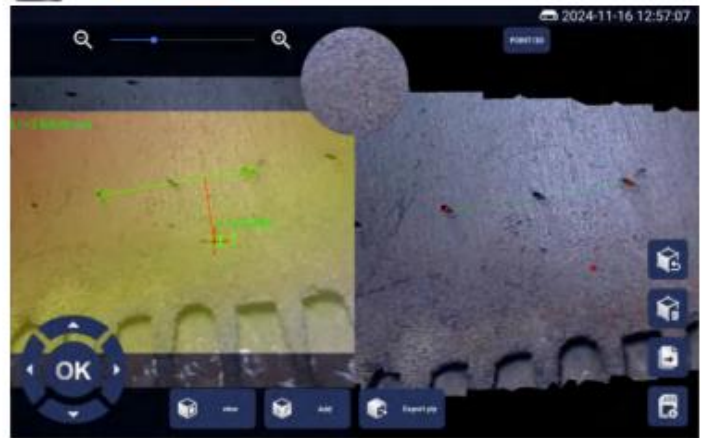
## Advanced measurement technologies

**Accurate 3D measurement function** - with the measurement function, it can generate 3D point cloud map, depth map, profile, etc. to reproduce the outer contour of the object being measured, among which the three-dimensional point cloud map can be scaled, rotated, etc., real-time verification of the accuracy of the selected points, to avoid the inaccurate measurement results caused by the selection of points error.

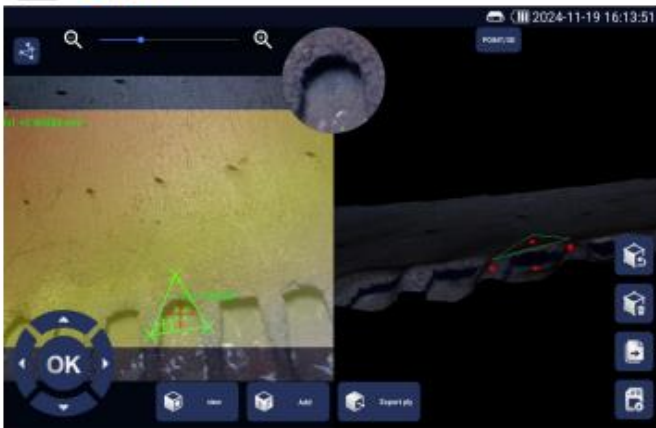
### Length



### Point to Line



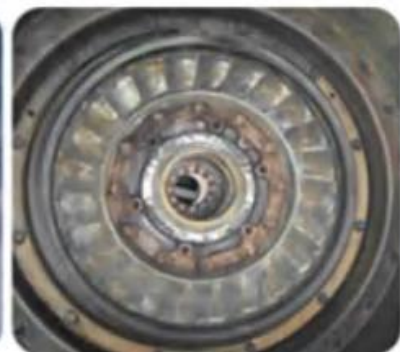
### Depth



### Area Depth Profile



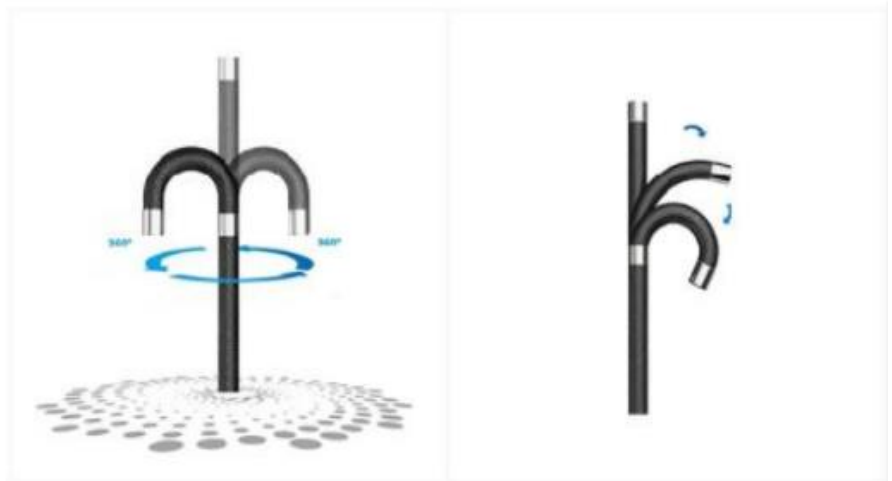
**Dual Megapixel High Sensitivity Industrial Camera** -- Can be equipped with dual megapixel HD lenses with advanced image sensors and optical systems, which can present clear, detailed images that help to accurately observe and analyze the interior of the object being inspected.



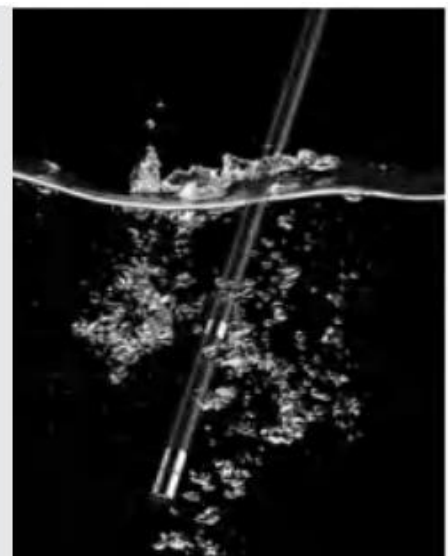
⊗ **Modular design, can be quickly disassembled and replaced** ---ergonomically designed handle, easy to hold and one-handed operation; large-capacity removable rechargeable battery pack, providing strong endurance; replaceable handle, a host can be paired with multiple handles.



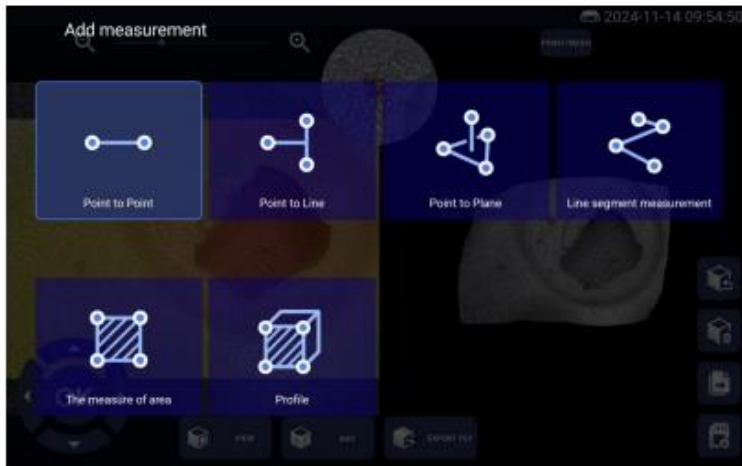
⊗ **Easy and intuitive operation** ---intelligent operating system, simple operation interface. Support menu-driven and key operation, easy to set and operate various functions, such as image shooting, storage, playback, and probe control. Yateks patented technology, step, fast and slow speed adjustment and fine-tuning locking function as well as motorized 360° steering control, maximum unidirectional 220° bending angle.



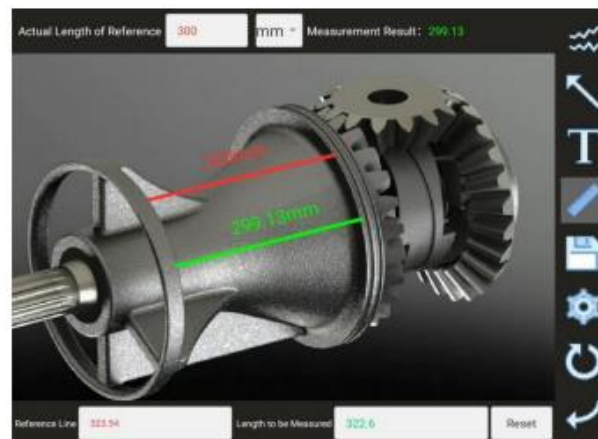
⊗ **Robust and durable** --- the host has a rugged shell and structure, the probe IP67 level waterproof, the probe part of the use of special materials and processes, with good abrasion resistance and corrosion resistance.



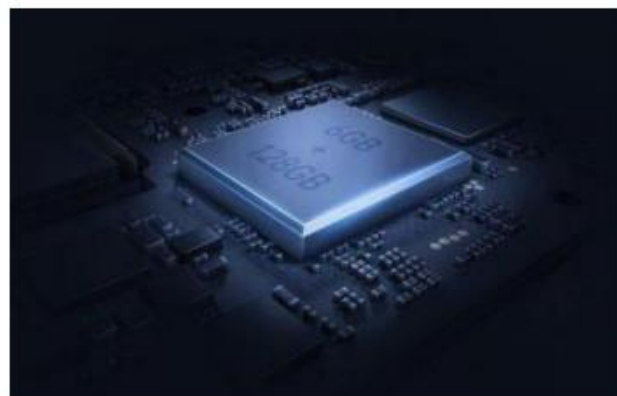
- 🔴 **Good connectivity and expandability** - equipped with a variety of interfaces, such as USB-A, USB-C, HDMI, etc., convenient to connect with external devices and data transmission, support WLAN and Bluetooth function, easy to communicate with other devices wirelessly and data sharing, to achieve remote operation and collaboration, improve work efficiency.



- 🔴 **Powerful file processing capabilities** — allows for zooming in, zooming out, restoring, deleting, adding graffiti, comparison measurement, and performing other operations on images. Both of photos and videos can be added with text annotations, facilitating the generation of later report.



- 🔴 **Powerful storage function** — host comes with 128GB internal storage + 64GB USB disk, storage space can meet the demand for storing more photos, videos and more smooth equipment operation.



	Category	Description	
System	Product Dimension	364mm*198.5mm*132.5mm	
	Weight	<2kg (2m)	
	Display screen	7"IPS ,1920*1080 (16: 9) , Industrial HD touch LCD screen	
	Main function	Photo, video, light source brightness adjustment, screen brightness adjustment, zoom in and out, screen flip, color inversion, screen freeze, color mode adjustment, aspect ratio, grid measurement, automatic white balance, image browsing, lock fine-tuning, menu	
	Joystick control	Motor rocker for 360°rotation	
	Steering control	automatic set, direction fine tuning adjustable	
	Memory	Built-in 128G + expansion 64G USB flash drive (up to 256G expansion)	
	Data I/O port	Two USB2.0 host A ports, Type-C ports, and headset ports	
	Video output	Mini HDMI interface, WIFI interface	
	Battery	Removable, independently rechargeable battery pack	
	Battery	≥4h	
	Operating mode	The host and the probe can be separated, and one host can be equipped with more than one probe.	
Software	Operating system	Multi-task intelligent operating system, menu driven and key operation	
	UI	Touch screen operation menu	
	File management	Supports image/video playback, deletion, formatting, and renaming	
	Image control	Zoom and playback	
	Negative film function	Dynamic negative	
	Digital Zoom	1-100 times	
	Image control	Screen freeze, image flip	
	Picture format	JPG、 PNG (Record the date and time)	
	Video format	AVI、 MP4 (Record the date and time)	
	Language	Simplified Chinese, English, French, Spanish, Russian, Japanese, Korean, Traditional Chinese, German, Portuguese	
	Color Settings	Near, medium, Far, custom color modes	
	White balance	Automatic white balance, manual white balance	
	3D dimensional measurement	Measuring error	≤5%
		Measurement accuracy	±0.05mm
	Text annotation	It has the function of adding text annotation, which can be annotated at any time according to the detection situation, so as to facilitate the generation of later reports	
	Software upgrade	Upgrade by using the upgrade package in the USB flash drive	
	Insertion tube Parameters	Diameter	0.85mm\1.1mm\1.7mm\2.2mm\2.8mm\4mm\6mm\8.4mm
Camera Pixels		160000 Pixel ~2 million pixel	
Insertion tube length		1~10m	
Insertion tube material		Tungsten alloy steel wire braided 4-layer tube	
Camera articulation		360° electric arbitrary direction	
Operating environment	Monitor working temperature	-10~50℃	
	Probe working temperature	-20~70℃	
	Relative humidity	Up to 90%, no condensation	
	Waterproof	Host IP54/Probe IP67	

# Models for Realta series:

Industrial Videoscope

## PROBE VERSIONS

Diameter	Working length			
	1m	1.5m	2m	3m
4mm	-	-	-	-
6mm	-	-	-	-

Diameter	Focal range				Light source
	FN	SN	FM	SM	W
	DOF(mm)	DOF(mm)	DOF(mm)	DOF(mm)	White light
4mm	3-50	4-80	/	8-100	yes
6mm	4-80	4-80	8-150	8-100	yes

FN Forward Near SN Side Near FM Forward Mid SM Side Mid Distal LEDs or Fiber optic

Model	Description														
	Diameter [mm]	Insertion Tube Length [m]	Camera			Optic		Light		Probe Bending					
			Location	Head Type	Resolution	Depth of Field	Angle of View	Type	[Lux]						
3D3910FN-WF-JB	4	1	Front	JB	720x720	3 - 50mm	120±10°	Fiber	50,000	170±10°					
3D3915FN-WF-JB		1.2								150±10°					
3D3920FN-WF-JB		2								150±10°					
3D3930FN-WF-JB		3								120±10°					
3D3910SN-WL-JQ	4	1	Side	JQ	1280x720	4 - 80mm	110±10°	LED	30,000	170±10°					
3D3915SN-WL-JQ		1.5								150±10°					
3D3920SN-WL-JQ		2								150±10°					
3D3930SN-WL-JQ		3								120±10°					
3D3910SM-WL-JQ	4	1				Side			JQ	1280x720	8 - 100mm	110±10°	LED	30,000	170±10°
3D3915SM-WL-JQ		1.5													150±10°
3D3920SM-WL-JQ		2													150±10°
3D3930SM-WL-JQ		3													120±10°
3D6110FN-WF-JM	6	1	Front	JM	1280x720		4-80mm	110±10°			Fiber			100,000	170±10°
3D6115FN-WF-JM		1.5													150±10°
3D6120FN-WF-JM		2													150±10°
3D6130FN-WF-JM		3													120±10°
3D6110FM-WF-JM	6	1				Front	JM		1280x720	8-150mm		110±10°	Fiber	100,000	170±10°
3D6115FM-WF-JM		1.5													150±10°
3D6120FM-WF-JM		2													150±10°
3D6130FM-WF-JM		3													120±10°
3D6110SN-WF-JF	6	1	Side	JF	1280x720			4 - 80mm		110±10°	LED			50,000	170±10°
3D6115SN-WF-JF		1.5													150±10°
3D6120SN-WF-JF		2													150±10°
3D6130SN-WF-JF		3													120±10°
3D6110SM-WF-JF	6	1				Side	JF	1280x720	8 - 100mm			110±10°	LED	50,000	170±10°
3D6115SM-WF-JF		1.5													150±10°
3D6120SM-WF-JF		2													150±10°
3D6130SM-WF-JF		3													120±10°

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