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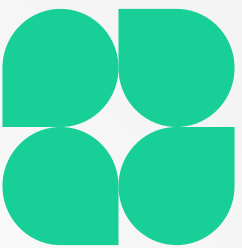
ZHONGKE INTELLIGENT(WUXI) TECHNOLOGY CO., LTD

Industrial Endoscope





ABOUT KUNSCOPE



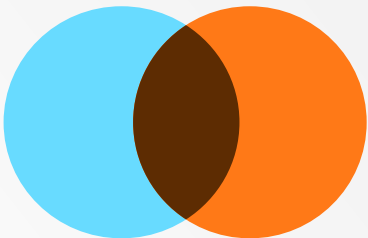
Processing Technology

With 30 years processing endoscope experience, especially focus on optic assemble, optic fiber coating technology, camera model seal assemble etc.



Mechanical Technology

Change design philosophy into reality based on technology and customer's demands.



Electronic Technology

Pioneer apply CMOS image system in endoscope with deep understanding in CMOS image system& endoscope application demands.



Optical Technology

Continuous update and innovation on optical system design especially in different kinds of processing technic in lens design.

CONCEPT

Born out of necessity

Rich product series, fully meet the request of various working conditions.

Change due to needs

Tailored to the industry, completely meet all kinds of individual needs.



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VISION

Become a leading enterprise

Promote the development of endoscopy industry

Explore infinity with technology

Develop cutting-edge product that exceed market expectations

PHILOSOPHY

Light up dreams with heart

Serve customers with innovation

Be attentive to products, employees and customers

TARGET

Not only creates products, but also talents

Not only creates wealth, but also happiness



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Core Technology

ELECTRONIC TECHNOLOGY

Pioneer in endoscopic application of CMOS image
Deep understand of using requirements on CMOS image systems

OPTICAL TECHNOLOGY

Advanced and innovative capability on optical system design
Integrated and creative capability on various lens processing

MECHANIC TECHNOLOGY

Good at making things simple and useful
Know research and know application more

PROCESS TECHNOLOGY

Process technology is the carrier of the craftsman spirit and the embodiment of the product's profound inner strength

Three decades' accumulation of assembly technology
Four decades' accumulation of processing technology

- Make the impossible possible

- Continuous breakthrough

- More easy and durable

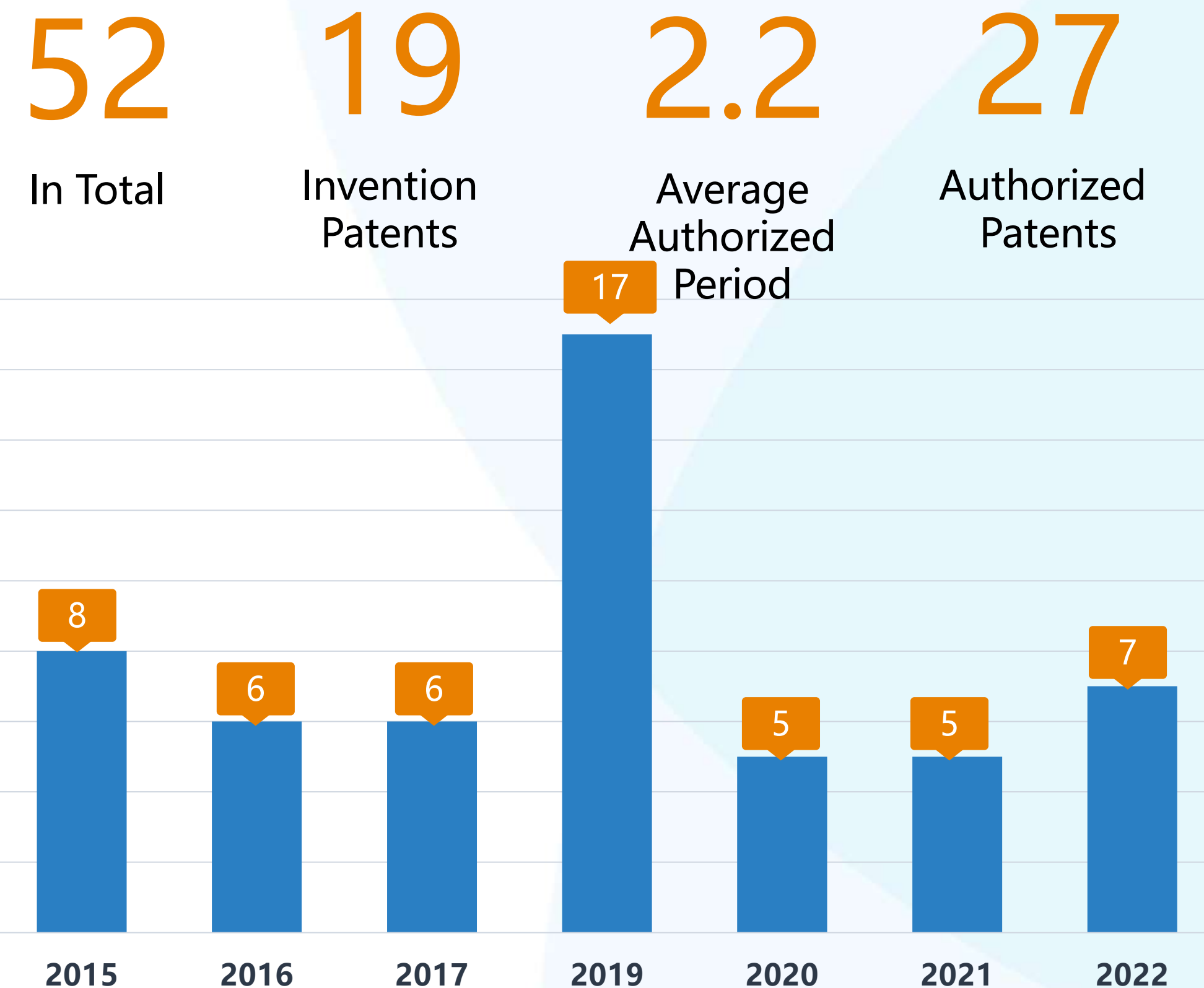


With thirty years' accumulation of the industry, we have deep insights in the products:

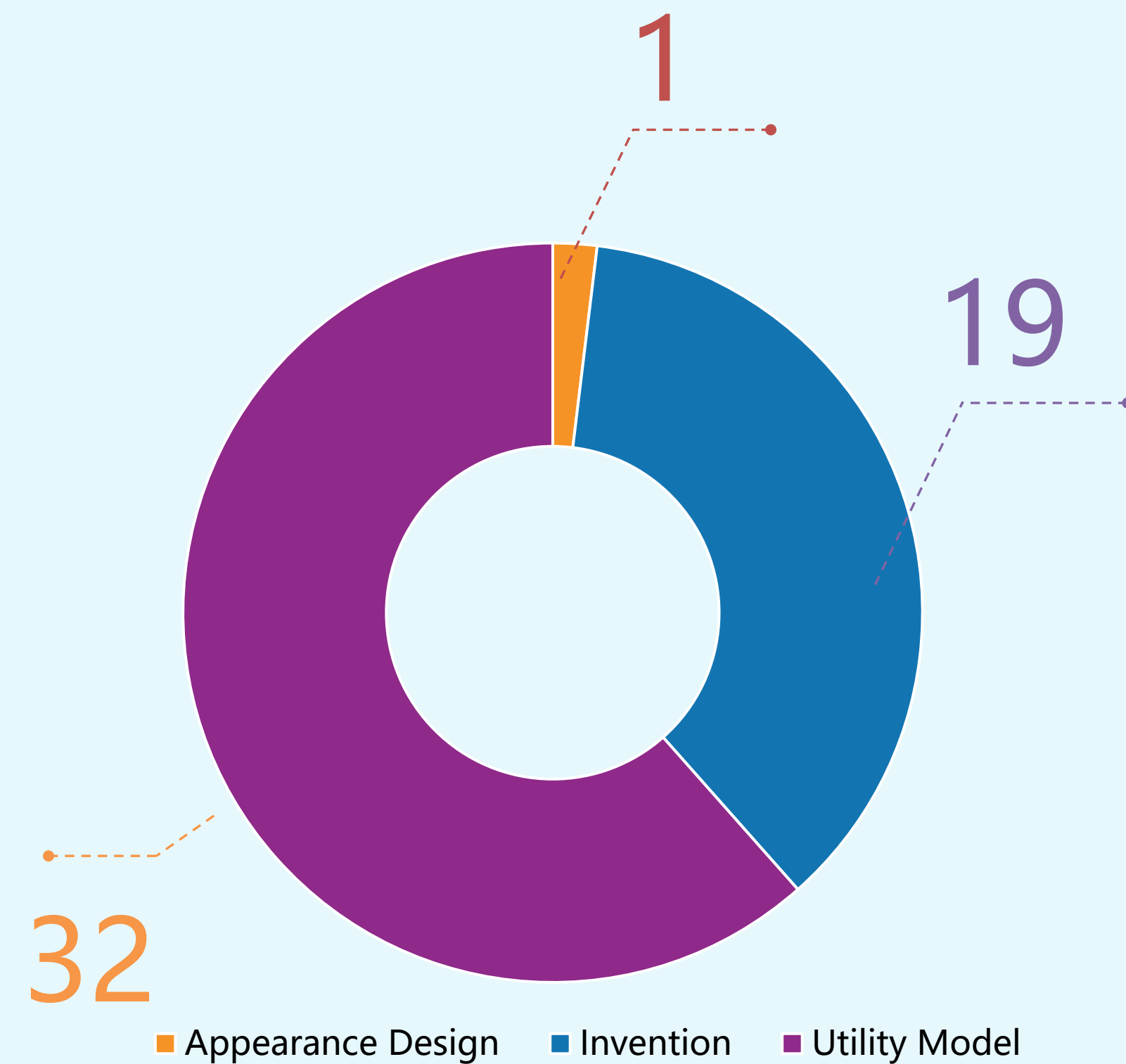




Applied Patents Quantity



Types





Technological Superiority

Unique Technology

01

No deflection on articulation
Good twist angle directivity
Strong image orientation

02

Minimized outer diameter
Maximized inner cavity
Larger working channel

03

Excellent torque transmission
Excellent rotation
Human-machine integration
Free-to-use control

04

Reliable and durable in certain
radial force and torque
Satisfied with all kinds of test

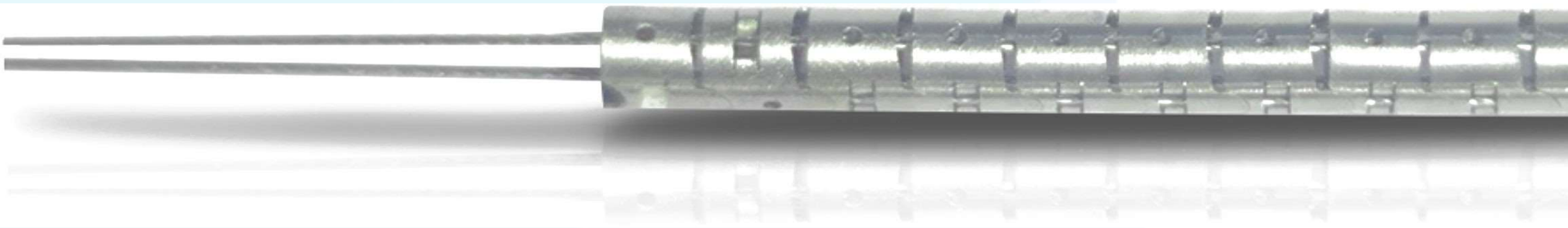
05

Changeable diameter, angle and
length of articulation due to needs
Match all kinds of entrance and
going through in the chambers

06

Competitive cost with large-scale
production
No snake bone braiding to reduce
more cost

Extremely Simple Snake Bone





Technological Superiority

Different Lighting

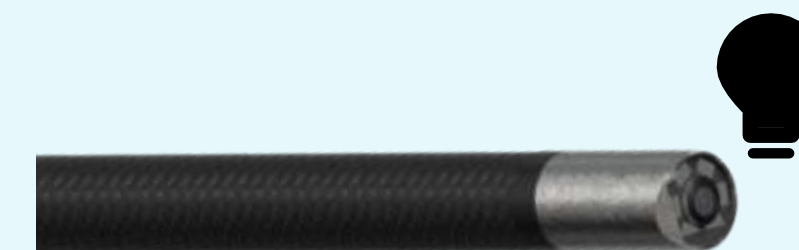
Optical Fiber

LED

Tips
Temperature



Durability
after Worn



Distance

Far

Close

Technological Superiority

Interchangeable Lens

Changeable observation and measurement lens due to needs

Changeable field of view, view angle and DOV according to request

Comparison of Interchangeable Lens Technical Solutions

Technical Solutions			Changeable Item			Accuracy	Observation Lens Resolution
Tips	Lens Changeable Solutions	Measurement Technical Solutions	View	View Angle	Depth of View		
Dual Lens	Right Angle Prism	Dual Cameras & Lens	●	×	×	High	Low
Single Len	Right Angle Prism & Beam Splitting Prism	Single Camera & Dual Lens	●	×	×	Medium	High
Single Camera	Lens & Right Angle Prism	Single Camera & Dual Lens	●	●	●	High	High

Notes: ● Changeable; × Fixed

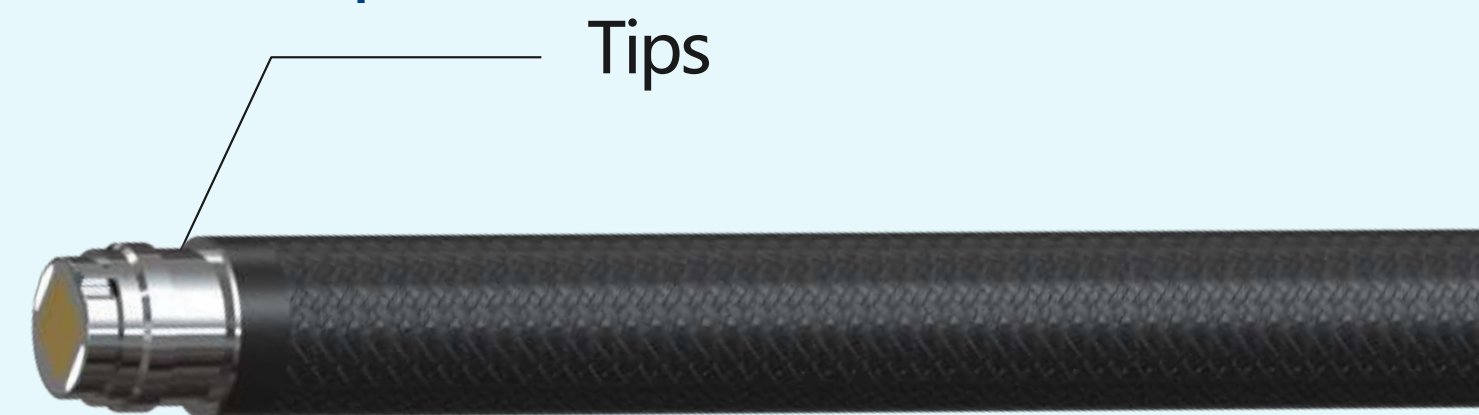
Technological Superiority

Interchangeable Lens

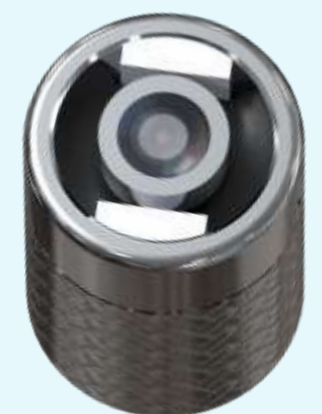
Diameter (mm)	Resolution	Lens Type	Field of View	View Angle (°)	Depth of View (mm)	Illumination Method	Articulation
4.0	1280*720	Observation Lens	Forward	90	8 ~ 150	Optical Fiber	360° All way
				120	4 ~ 65		
			Side	90	8 ~ 150		
				120	4 ~ 65		
		Measurement Lens	Forward	90	2 ~ 20		
				90	3.3 ~ 50		
				90	7 ~ 100		
			Side	90	2 ~ 20		
				90	3.3 ~ 50		
				90	7 ~ 100		
6.0	1280*720	Observation Lens	Forward	50	50 ~ ∞	Optical Fiber	360° All way
				90	4 ~ 20		
				90	8 ~ 150		
				140	4 ~ 100		
			Side	50	50 ~ ∞		
				90	4 ~ 20		
				90	8 ~ 150		
				90	8 ~ 150		

Changeable observation and measurement lens due to needs

Changeable field of view, view angle and DOV according to request



Side View Lens



Forward view Lens



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Popular Models



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SV⁺ SERIES

High density Tungsten braided probe. 99.02% Tungsten is contained

5" touchable screen

Compatible/ detachable probes
1.2mm/1.7mm/2.2mm/2.8mm/3.0mm/3.9mm/6.0mm
diameter probe, side of view and tips can be changed
based on inspection environment



Replaceable tips
Tips can be changed based on
different side of view, depth of view,
field of view



SV⁺ Series Specifications

Display	5 inches TFT LCD touch screen		
Probe Diameter	6.0mm	3.9mm	2.8mm
Resolution	Up to 1500*1500		
Probe Braiding	High Density Tungsten Steel		
Side View Solution	Available	Available	Available
Dual View Solution	Available	Available	N/A
Light Source	High-power LED with high transmission Fiberoptic		
Articulation	360° all-way articulation		
Probe Length	1.5 / 3 / 5 / 7 / 10 Meters	1.5 / 2 / 3 Meters	1.5 / 2 Meters
Depth of Field	10~100mm		
Viewing Angle	100°		
Bending Angle	≥120°		
Memory	TF card (Up to 32GB)		
Waterproof Level	Insert Tube matches IP-67 standard		
Working Time	≥2 hours		
Power	Rechargeable 18650 battery		



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T2 SERIES

High density Tungsten braided probe.
99.02% Tungsten is contained

Compatible/ detachable probes
1.2mm/1.7mm/2.2mm/2.8mm/3.0mm/3.9mm/6.0mm
diameter probe, field of view and tips can be changed
based on inspection environment

5.5" TFT LCD Monitor

Mechanic/Electronic articulation
A control selection transfer



Replaceable tips
Tips can be changed based on different
side of view, depth of view, field of
view



T2 Series Specification



Ultra-thin Articulation

Model	Diameter(mm)	Resolution	Field of View(°)	Depth of View(mm)	Illumination Method	Articulation
P12120D	1.2	400*400	120	3 ~ 50	Optical Fiber	Two ways
K17120D	1.7	400*400	120	3 ~ 50	Optical Fiber	Two ways/ 360° all-way
K22120D	2.2	400*400	120	3 ~ 50	Optical Fiber	Two ways/ 360° all-way
K30120D	3.0	400*400	120	3 ~ 50	Optical Fiber	360° all-way
Q17120D	1.7	700*700	120	3 ~ 50	Optical Fiber	Two ways/ 360° all-way
Q22120D	2.2	700*700	120	3 ~ 50	Optical Fiber	Two ways/ 360° all-way
Q30120D	3.0	700*700	120	3 ~ 50	Optical Fiber	360° all-way
N30S90D	3.0	1280*720	90	8 ~ 150	Optical Fiber	360° all-way
N30120D	3.0	1280*720	120	4 ~ 65	Optical Fiber	360° all-way
JL43120D	4.3	1280*720	120	10 ~ 100	Optical Fiber	360° all-way
J39140D	3.9	1280*720	140	4 ~ 100	Optical Fiber	360° all-way
M60140D	6.0	1920*1080	140	4 ~ 100	Optical Fiber	360° all-way

T2 Series Specification



Ultra-thin Side View

Model	Diameter(mm)	Resolution	Field of View(°)	Depth of View(mm)	Illumination Method	Articulation
K17120S	1.7	400*400	120	2 ~ 125	Optical Fiber	Two ways/ 360° all-way
KL17120S	1.7	400*400	120	2 ~ 125	LED	Two ways/ 360° all-way
K22120S	2.2	400*400	120	2 ~ 125	Optical Fiber	Two ways/ 360° all-way
KL22120S	2.2	400*400	120	2 ~ 125	LED	Two ways/ 360° all-way
N30120S	3.0	1280*720	120	4 ~ 65	Optical Fiber	360° all-way
NL30120S	3.0	1280*720	120	4 ~ 65	LED	360° all-way
N39S90S	3.9	1280*720	90	8 ~ 150	Optical Fiber	360° all-way
J39S90S	3.9	1280*720	90	8 ~ 150	Optical Fiber	360° all-way
JL60140S	6.0	1280*720	140	4~100	LED	360° all-way
JL60S90S	6.0	1280*720	90	8~150	LED	360° all-way



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M3 SERIES

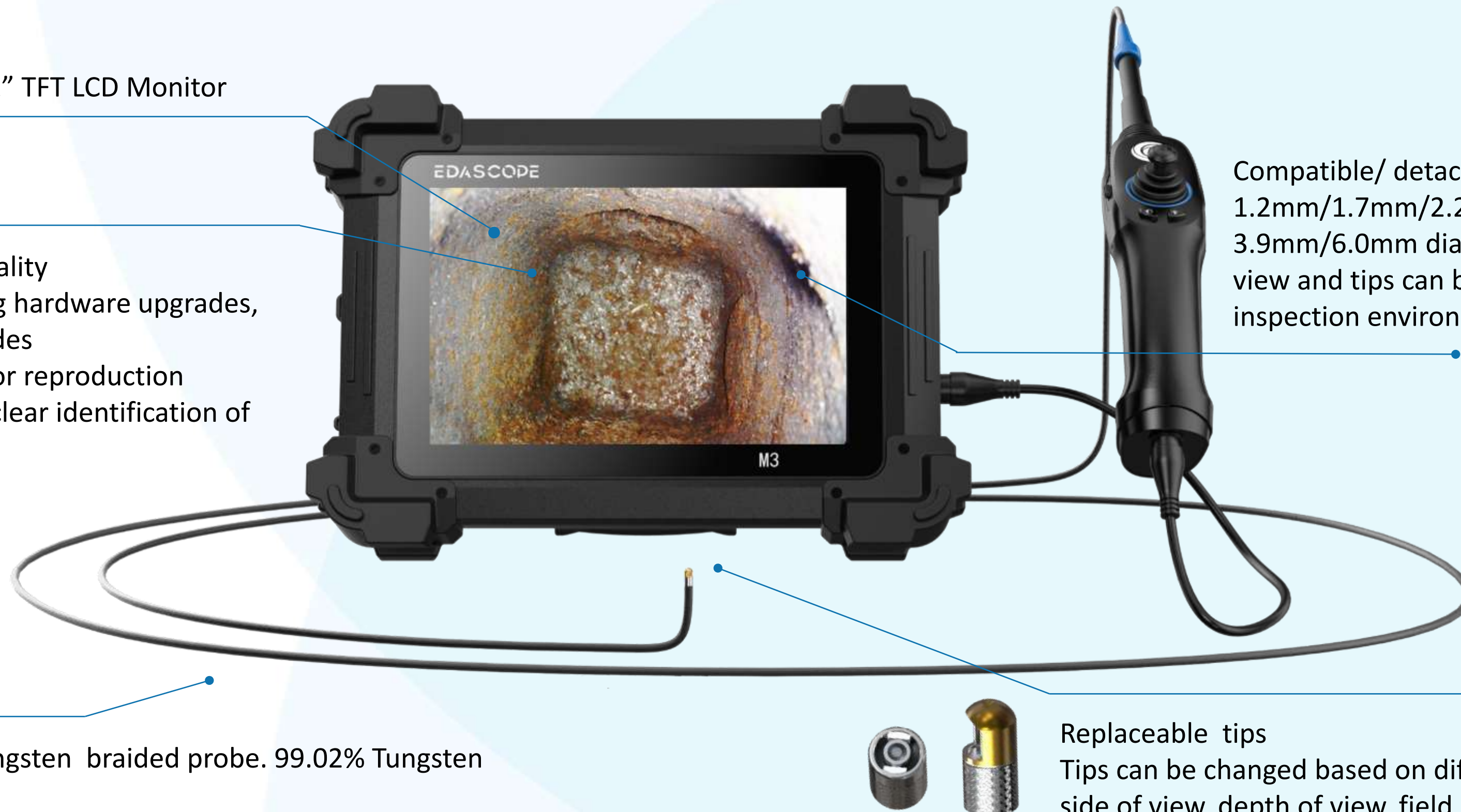
10.1" TFT LCD Monitor

Higher image quality
Image processing hardware upgrades,
algorithm upgrades
Ensures true color reproduction
Ensure fast and clear identification of
defects

Compatible/ detachable probes
1.2mm/1.7mm/2.2mm/2.8mm/3.0mm/
3.9mm/6.0mm diameter probe, side of
view and tips can be changed based on
inspection environment



















High density Tungsten braided probe. 99.02% Tungsten
is contained

Replaceable tips
Tips can be changed based on different
side of view, depth of view, field of
view





M3 Series Specification

Diameter(mm)	Resolution	Articulation	Field of View	Side View	Replaceable Tips
φ1.0	400*400	Two ways	Available		
φ1.2					
φ1.7	400*400	Two ways / 360° all-way			
φ2.2					
φ2.8	400*400	Two ways / 360° all-way			
φ3.0	1280*720				
φ3.9	1280*720				
φ6.0					
φ6.0	1280*1080				

Replaceable Tips

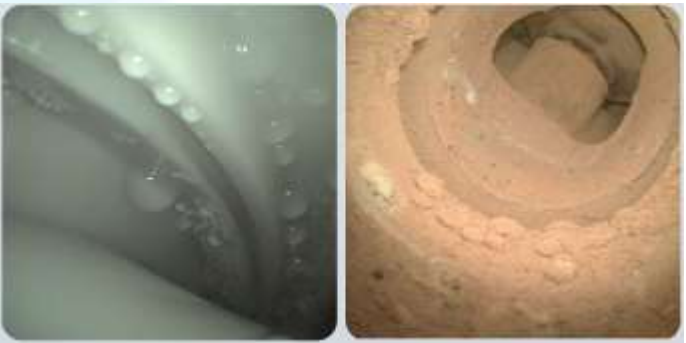


Super thin articulation

1.2mm two ways 1.7mm four ways



Super thin



φ1.0mm/400*400
Inspection photos

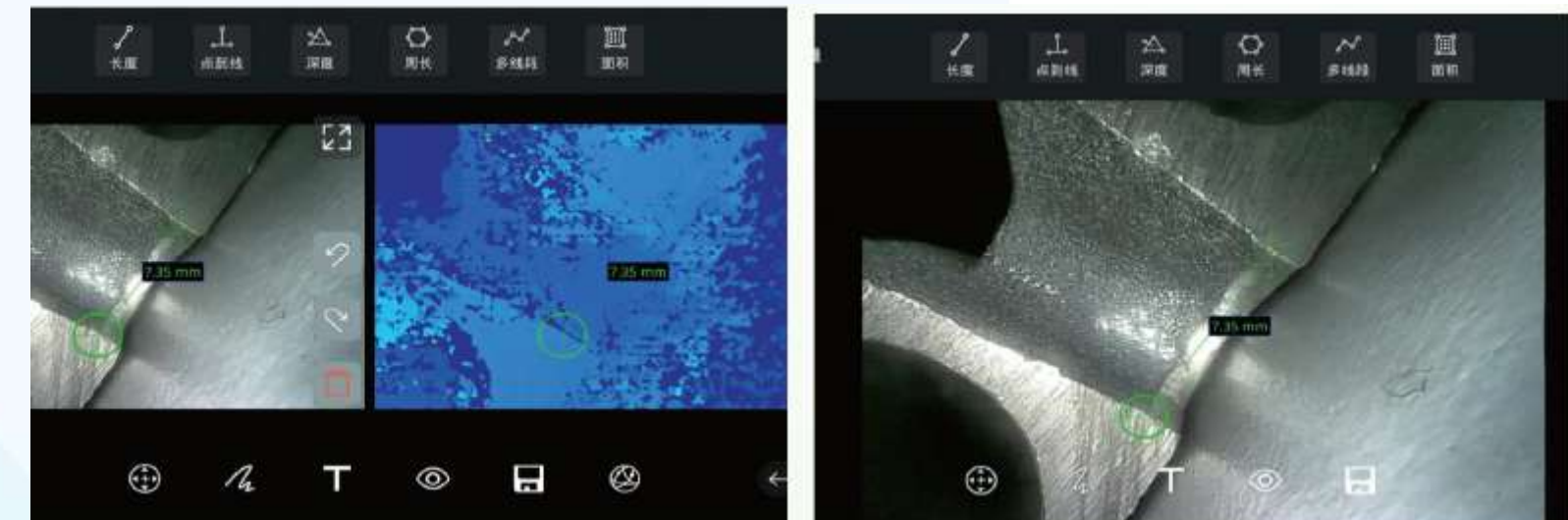


φ3.0mm/1280*720
inspection photos

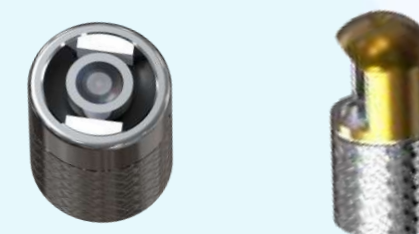


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T3 SERIES



Based on dual camera 3D measurement calculation method, we could measure any position of inspection area, reduce the time of both fixing the probes and finding the right angle, enhance inspection efficiency.

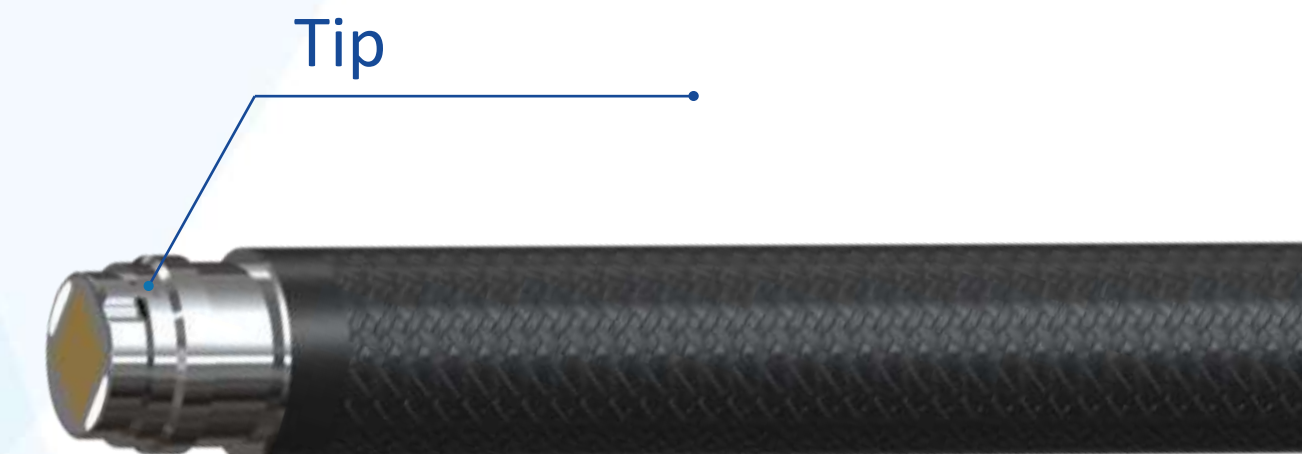


Replaceable tips
Tips can be changed based on different side of view, depth of view, field of view

T3 Series Specification

Diameter (mm)	Pixel	Tips Type	Side of view	Field of view(°)	Depth of view(mm)	Illumination method	Articulation	Working length(m)	Status
4.0	1280*720	Observation Tips	Forward view	90	8 ~ 150	Optical Fiber	4-way	1-5m	●
				120	4 ~ 65				●
			Side View	90	8 ~ 150				●
				120	4 ~ 65				●
		Measurement Tips	Forward view	90	2 ~ 20				●
				90	3.3 ~ 50				◎
				90	7 ~ 100				◎
			Side View	90	2 ~ 20				◎
				90	3.3 ~ 50				◎
				90	7 ~ 100				◎
				90	7 ~ 100				◎
				90	7 ~ 100				◎
6.0	1280*720	Observation Tips	Forward view	50	50 ~ ∞	Optical Fiber	4-way	1-5m	●
				90	4 ~ 20				●
				90	8 ~ 150				●
				140	4 ~ 100				◎
				50	50 ~ ∞				●
			Side View	90	4 ~ 20				●
				90	4 ~ 20				●
				90	8 ~ 150				●
				90	8 ~ 150				●
				90	8 ~ 150				●

- Observation tips and measurement tips that vary according to needs
- Variable side of view, field of view, and depth of view as needed



Side View Tips

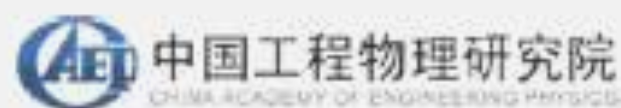


Forward view Tips



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Supported Customers





Thank you!