

Mitcorp

INDUSTRIAL VIDEOSCOPE

**X SERIES**



**X3000**  
3D MEASUREMENT  
VIDEOSCOPE

## Application Fields

X3000 system is designed for inspecting remote reach areas across various industries, including aerospace, automotive, power generation, oil and gas, and machinery equipment. It enables visual inspection of critical components such as turbine blades, pipes, welds, and engine parts, allowing users to detect defects, measure wear, and assess structural integrity with high accuracy.

## Exceptional Image Quality

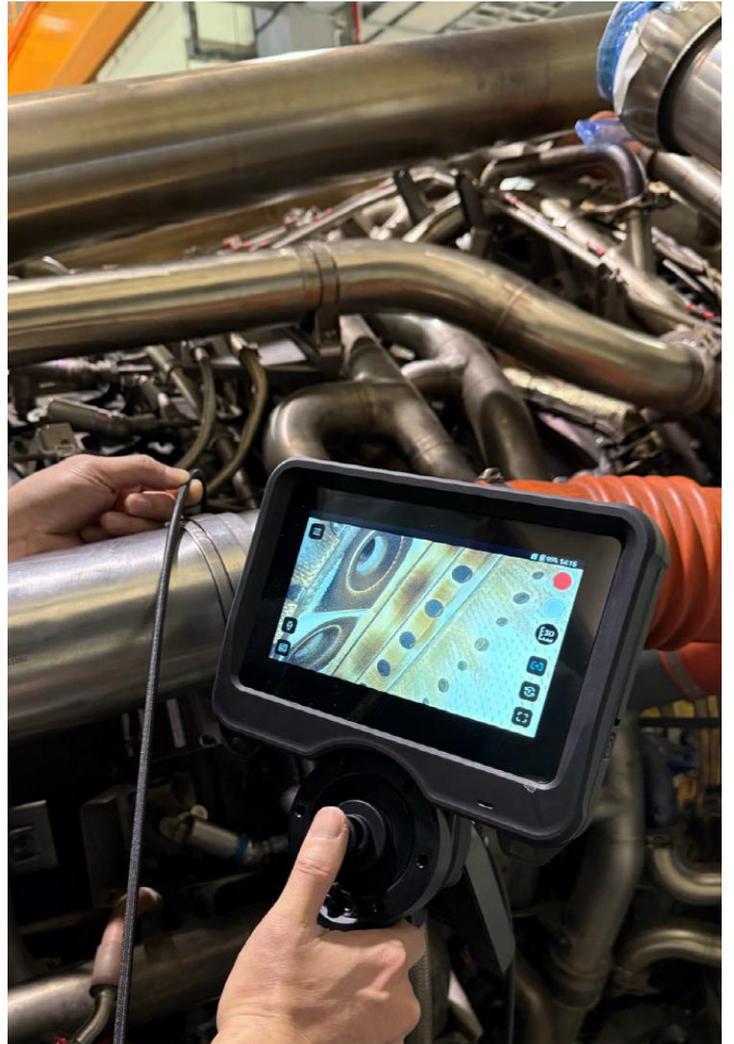
Comprehensive image adjustments: Brightness, Saturation, Contrast, White-balance, and Negative mode. 3D reconstruction quality comparable to 2D imaging, ensuring highdetail visualization.

## Fast & Easy Measurement Data Capture

High-resolution 3D reconstruction technology, making it easier and more precise than ever to select measurement points. You can inspect details from multiple angles, ensuring every measurement is accurate and reliable.

## High-Definition 3D Reconstruction

In simple steps, you can generate a detailed 3D reconstruction without any complex setup or tedious procedures. Simply capture and process in less than 10 seconds.



## 3D Measurement Functions & Annotation

Supports various measurement functions:

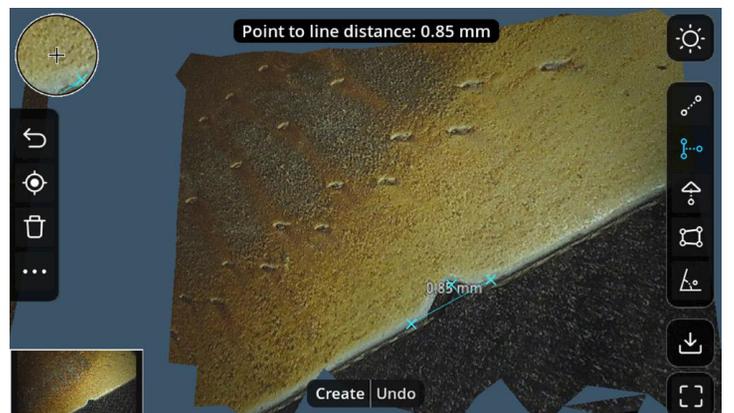


Point to Point : Distance between two points.  
Point to Line : Perpendicular distance between a point and a user-defined line.  
Point to Plane : Orthogonal distance between a point and a user-defined plane.  
Multi-point-Area : Multiple point circumference and area measurement.  
Two-lines-angle : Angle between two defined lines.



## Connect Your Way All the Outputs You Need

HDMI, USB, and Wi-Fi—everything you need for flexible image viewing and data management. Share instantly with mobile devices, or use the **VideoscopeX** app for total control.



## Interchangeable Probes

Swap modular components with ease—tailor your videoscope to every inspection challenge.

- Probes:
- 6.0mm, 3m
  - 6.0mm, 3.5m

## Smooth Mechanical Articulation Control

The X3000's advanced mechanical articulation system ensures effortless probe movement with precise joystick control. Easily maneuver in tight spaces, then lock the position instantly for stable, accurate inspections—combining flexibility with reliability.

- Equipped with a fiber optic LED for enhanced illumination.
- Dual view cameras for improved inspection efficiency.
- Designed to capture clear images in complex or dark environments.



## Host Unit

- Android 7.0, supports +30 languages.
- 7" Touchscreen – Full-screen.
- 1024 x 600.
- Full-size 3D model display.
- IP54 rated.
- Built-In Microphone. & HDMI Output.

## Swappable Battery

Large capacity battery stands over +5 hours of continuous inspection operation. with a capacity of 9800mAh.

## Hands-Free Mode

- Enables hands-free inspection for enhanced focus and precision.
- For applications requiring steady positioning and observation.

## Smart Inlay Design

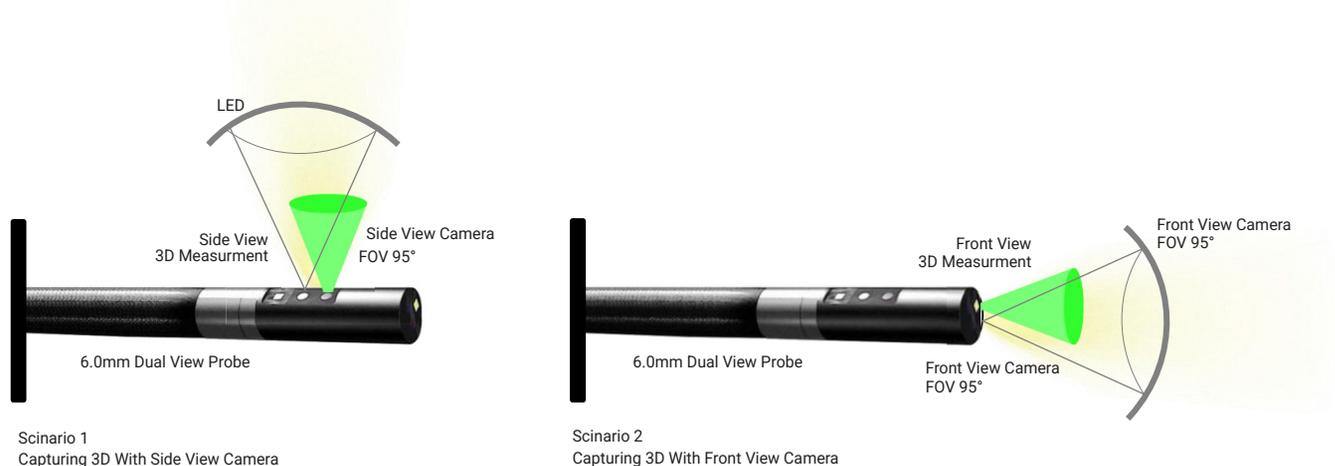
With its inlay probe design, the X3000 trolley case safeguards your probe and makes inspections smoother than ever.

## Patent 3D Active Stereo Technology

Active Stereo Technology provides an advanced alternative to traditional dual-camera inspection systems. Mitcorp's patented design integrates both a front and side camera with dedicated 3D projection outputs, enabling simultaneous forward and side viewing along with accurate 3D reconstruction. Through a refined and highly optimized 3D geometric processing algorithm, the system delivers precise reconstructed visuals that support a wide range of inspection tasks, improving detection accuracy and measurement capability across various applications.

## Patented Dual-View Cameras Measurement

The innovative dual-lens design allows you to capture multiple viewing angles without changing probes. The front camera provides general inspection, while the side camera offers side observation.



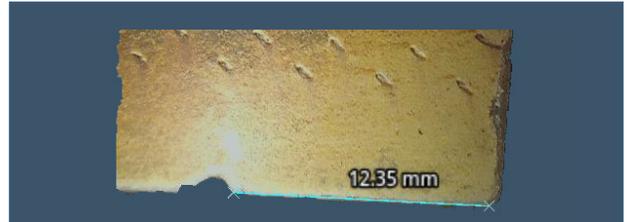
### 3D Measurement Functions & Annotation

Supports various measurement modes:



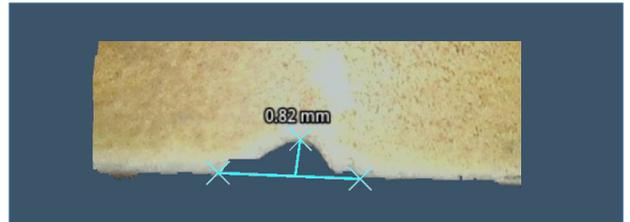
#### Point to Point

Measures the distance between two points. It helps inspectors determine the length of defects such as cracks, scratches, or weld discontinuities.



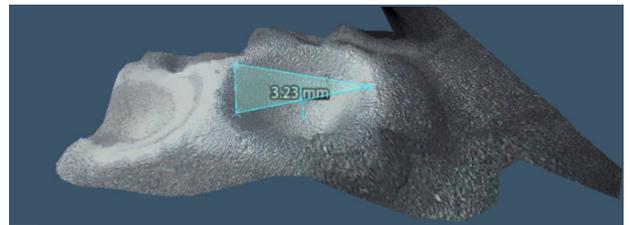
#### Point to Line

Measures perpendicular distance between a point and a user-defined line. This function is useful for evaluating the relative position of defects such as cracks or pits in relation to structural features.



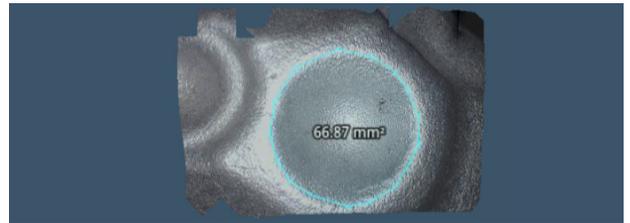
#### Point to Plane

Measures orthogonal depth distance between a point and a plane. This function is essential for assessing corrosion, pitting, and material wear in critical components.



#### Multi-Point-Area

Measures multiple point circumference and area measurement. It helps inspectors evaluate the extent of defects like corrosion spots, delamination, or coating failures.



#### Two-Lines-Angle

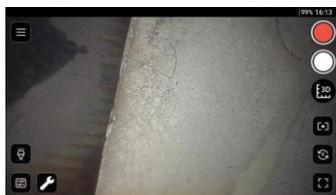
Measures angle between two defined lines. This function assists in assessing misalignment, bending, or deformation of structural components.



### Snap, Reconstruct & Measure in 10 Seconds.

In simple steps, you can generate a detailed 3D reconstruction without any complex setup or tedious procedures. Simply capture and process in less than 10 seconds. Reconstruct & Measure in 10 Seconds.

The X3000 system offers instant measurement data capture without the need for static waiting time, ensuring rapid and accurate analysis, simplifies complex measurements.



#### SNAPSHOT

Take a screenshot of the targeted inspection area.



#### PREVIEW

Define the specified measurement area by cropping down the screenshot



#### CONFIRM TO RECONSTRUCT

Confirm the successful 3D reconstruction results.



#### READY FOR MEASURE

Review and measure the 3D reconstruction model.

## Image Quality Comparison



Mitcorp X2000 - 6.0mm



Mitcorp X3000 - 6.0mm

### Corrosion



#### Exceptional Image Quality

Comprehensive image adjustments displaying the microscale fractions

### Engine Inspection



#### Advanced Image Quality

Advanced image adjustment capabilities reveal microscale details with outstanding clarity.

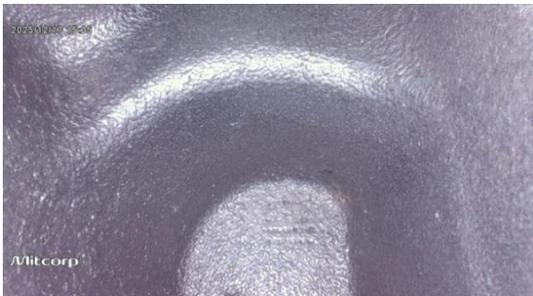
### Welding point



#### Exceptional Color Accuracy

Delivers extraordinary color rendering that enhance detail recognition and inspection confidence.

### Casting



#### Sharper Image Output

The X3000 delivers sharper image quality, making even the smallest text clearly visible.

## 6.0mm Probe Centering Device

The centering device ensures the probe remains properly aligned within the inspection environment, providing more even light distribution.

By reducing friction and direct contact between the probe body and the inspected tube, it helps extend the probe's lifespan.

Acting as both a shock absorber and a protective shield, it enhances durability and inspection reliability.



6.0mm Probe With Centering Device  
Better light distribution & overall view of the inspection environment



6.0mm Probe Without Centering Device  
Lack of light distribution & missing the upper view of the inspected environment

## ACCESSORIES

- 1 X3000 Host Unit
- 2 Probe
- 3 Swappable Battery
- 4 Rigid Sleeve
  - 2pcs, each 450mm long
- 5 Probe Clamp Plug
- 6 Calibration Block
- 7 Neck Strap
- 8 Essentials
  - USB Type-C Power Adapter
  - HDMI cable
  - USD TYPE-C cable
  - USB to DC charging cable
  - Cleaning set
  - SD Card, 64GB
- 9 Trolley Case
  - Water proof - IP67 rated
  - Drop Resistant
  - Mono-pod
- 10 Centering Devices
  - 18mm centering device
  - 38mm centering device
  - 65mm centering device



### Type-C + 8 Pin Connector & Monopod Connector

Easily attach the host unit and probes with the Type-C connector—fast, reliable, and done in a second with two secured hand-screws.

The Probe is equipped with a monopod/tripod inlay for a hands-free operation.



### Smart Inlay Design

With its inlay probe design, the X3000 trolley case safeguards your probe and makes inspections smoother than ever.

**BASE UNIT**

<b>Hardware</b>	
Operating System	Android
Display	Above 7" LCD Detachable touchscreen
Display Resolution	1024x600
Weight	2200 g (w/3m tungsten probe)
Size	355x216x214 mm
Dimensions Of Carrying Case	574x361x225 mm
Battery	Rechargeable Li-ion battery 3.6V 9800mAh, approximate operation time; 5hrs, charging time: 4hrs
Drop Resistance	1 Meter

<b>Connections</b>	
HDMI	TYPE-D HDMI
Data Transfer	USB TYPE-C
Wi-Fi	IEEE 802.11.b/g
App Connection	VideoscopeX
Power Supply	USB TYPE-C, 45W, 3A
Storage Media	MicroSD Card. Up to 128 GB
Microphone	Built-in

<b>Software Manipulations</b>	
Image Manipulations	Digital zoom and brightness control
Note Text Options	Text annotation, hand drawing (Brush /Line/Oval/Rectangle)
Watermark	*.png logo
Tags	Text tags
Image Configuration	Mirror, negative
Image Titration	WDR, white balance setup, brightness, contrast, saturation, and sharpness.
Folder Management	Sessions and folders
High Temperature Warning	3 Levels of warning, 60°C, 80°C, 100°C (Turn off)
Brightness Control	11 Levels, 0 to 10 exposure value

<b>Operating Environment</b>	
System Operating Temperature	-20°C~50°C
Battery Charging Temperature	5°C~40°C
Storage Temperature	-20°C~60°C
In Water	Not operable in water
Relative Humidity	Max 95% non-condensing
Dust And Water Resistance	IP54

<b>3D MEASUREMENT (Optional Upgrade)</b>	
Object Distance	10~25 mm
Others	Point to Point (Distance) Distance between two points
	Point to Line (Distance) Perpendicular distance between a point and a user-defined line
	Point to Plane (Depth) Orthogonal depth/height distance between a point and a user-defined plane
	Multi-point-Area (Area) Multiple point circumference and area measurement
	Two-lines-angle (Protractor) Angle between two defined lines

<b>ACCESSORIES</b>	
Cables	TYPE-C charging adapter, HDMI cable, TYPE-C cable
Others	Rigid sleeve, cleaning set, neck strap, calibration block, monopod Centering devices for 6.0mm only: 18mm, 38mm, 65mm

<b>REGULATORY</b>	
<b>Other Regulatory</b>	
International Standards Organization (IEC)	
Electromagnetic Compatibility (EMC)	
Federal Communications Commission (FCC)	
PSE (Circular)	
WEEE	
Restriction of Hazardous Substances 2011/65/EU (RoHS 2)	
Restriction of Chemicals Materials EC 1907/2006 – REACH	
Transportation for Lithium Batteries UN38.3	

<b>PROBES</b>				
<b>Full Articulation Probes - Dual View</b>				
Model	60D4W-FSM-3M-TU-M	60D4W-FSM-3.5M-TU-M		
Diameter	6.0mm	6.0mm		
Length	3M	3.5M		
Direction Of View	Dual view	Dual view		
Probe Head Length	25mm	25mm		
Field Of View (FOV)	95°	95°		
Front Depth Of Field (DOF)	10 mm~∞	10 mm~∞		
Side Depth Of Field (DOF)	10 mm~∞	10 mm~∞		
Still Image Resolution	2560x1440	2560x1440		
Video Resolution	1920x1080	1920x1080		
Articulation	Full way	Full way		
Articulation Angle	≥ 130°	≥ 130°		
Probe Head Material	S.Steel	S.Steel		
Probe Material	Tungsten	Tungsten		
Operating Temp. In Air	-10~100°C	-10~100°C		
Operating Temp. In Water	10~30°C	10~30°C		
Max Pressure Resistance	3 bar	3 bar		
Hydraulic Fluids Resistance	Gasoline, diesel, brake oil, transmission oil, engine oil			

**Mitcorp**

Medical Intubation Technology Corporation (Mitcorp).

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