

Metallographic Inverted Microscope STXJP/STDM Series



2024 V1

For customized projects please Contact us:

[**info@simtrum.com**](mailto:info@simtrum.com)

Metallographic Inverted Microscope – STXJP 6A

The SIMTRUM STXJP-6A Inverted Metallurgical Microscope is designed for industrial and research applications where detailed analysis of metal structures is required. Its capabilities include a range of objective lenses for various magnification needs, a rotatable stage for comprehensive viewing of specimens, and precise focusing for high-resolution imaging. This microscope is suitable for tasks in metallurgy, material science, and quality control, offering the versatility needed for both reflective and transmitted light observation. It is also adaptable for digital imaging integration, enhancing its utility in detailed material analysis.

Features

- Excellent optical system design ensures that the field of view is wide, flat and clear.
- Using the ergonomic design concept, the structure is reasonable and reliable, and the operation is very convenient and easy.
- The high contrast objective can improve the contrast of objects with low reflective surfaces.
- Binocular observation can be synchronized with photography and videography.
- Polarization optics are extremely clear for the analysis of metallographic structure, crystal powder and inclusions.



Application

- Identifies and analyzes microstructures of metals, alloys, and non-metallic substances.
- Inspects surfaces of integrated circuits, microparticles, wires, fibers, and surface coatings.
- Widely utilized in metallurgical, casting, machinery, and shipbuilding industries.
- Essential for quality inspection in industrial and educational lab settings.

Standard Configuration Technical Parameters

Frame	The all-metal die-cast body is strong and stable, and the side cover structure is easy to disassemble and maintain.
Observation tube	Hinge-type binocular observation head, observation angle 45°, interpupillary distance 55~75mm
Eyepiece	Anti-mildew function, flat field 10X (broadband film system) eyepiece, field of view (FN=18mm), eye point distance 18mm
Objective lens	Plan achromatic objective lens (anti-mildew function), 10X/0.25, 20X/0.35, 40X/0.65(s), 100X/1.25(s)(oil)
Converter	Four-hole internal positioning converter
Focusing mechanism	Coarse action coaxial focusing handwheel, with elbow rest; micro handwheel 0.2mm/turn, grid value 0.002mm; coarse action tightness adjustable, workbench upper limit device, maximum stroke 5mm (Z direction)
Stage	180X155mm, the moving range is 80X53mm, and it is equipped with three inner hole sizes of slides: Φ16, Φ25, and Φ40, suitable for observing samples of different sizes. The X and Y direction low-position coaxial adjustment handwheels
Concentrating system	Equipped with four color filters (yellow, blue, green, gray) and polarizing plate jack, suitable for observing samples in various ways

Metallographic Inverted Microscope – STDM series

The SIMTRUM STDM2000X & STDM5000X Inverted Metallographic Microscopes offer exceptional insights into the structural composition of materials. These inverted metallographic microscopes are engineered for precision, durability, and clarity, enabling detailed analysis of a wide range of metallurgical samples.



STDM2000X



STDM5000X

Features

- UCIS optical system for clear, high-resolution images.
- Wide range of objective lenses for various magnifications.
- Large mechanical stage for precise sample handling.
- High-intensity halogen lighting for bright, consistent illumination.
- Coaxial focusing mechanism for sharp, easy adjustments.

Application

- Industrial material inspection and analysis.
- Metallurgical research in laboratory settings.
- Educational use for studying material properties.
- Quality control processes in manufacturing.

Standard Configuration Technical Parameters

	STDM2000X	STDM5000X
Optical system	UCIS infinite chromatic aberration independently corrected optical system	UCIS infinite chromatic aberration independently corrected optical system
Observation tube	Hinged binocular/trinocular observation head, interpupillary distance 48–75mm, adjustable diopter	Hinged binocular observation head, 45° tilt angle, interpupillary distance 52–75mm, adjustable diopter
Eyepiece	High eye point plan eyepiece 10X/Φ20mm, plan reticle eyepiece 10X/Φ18mm, adjustable diopter	High eye point plan eyepiece 10X/20mm
Objective lens	Infinity long working distance plan achromatic objective lens 10X, 20X(S), 50X(S), 80X(S)	Infinity long working distance plan achromatic objective lens 10X, 20X(S), 50X(S), 80X(S)
Converter	Internally positioned five-hole converter	Internally positioned five-hole converter
Stage	Mechanical moving stage 180×155mm, moving range 80X50mm; water droplet slide (Φ110); tablet pressing group	Mechanical moving stage, size 350×208mm, moving range 50X50mm; water droplet slide (Φ118); tablet press set
Starting & Analyzing device	Polarizer group, analyzer group	Polarizer group, analyzer group
Color filter	Blue, yellow, green color filter set (Φ32)	Blue, yellow, green color filter set (Φ32)
Camera connector	1X camera C-port	0.5X camera C-port
Lighting system	100W halogen lamp light box, 12V/50W Osram halogen bulb, 12V/50W halogen lamp power pack, metallographic epi-illuminator	12V/100W halogen lamp light box, 12V/50W Osram halogen bulb, 12V/50W halogen lamp power box