

# STALWART

## Laboratory Metallurgical Microscope STM-6012 Series



STM-6012RF/TRF

## Introduction

STM-6012RF/TRF metallurgical microscopes are high level professional microscopes which are specially designed for metallurgical analysis and industrial inspections. With excellent optical system, ingenious stand and convenient operation, they will be your best choice.

## Features

- With the most suitable viewing degree, 30 °inclined head holds everyone in the best working state, less tension and fatigue. You can adjust the interpupillary distance to optimum according to the scale on viewing head.
  - Reflected illuminator with field/aperture diaphragm and oblique light device, as well as slots for polarizing kit and filters, adopts Koehler illumination system.
1. Comparing with other LED, single 5W LED with warm white light(3000-3300K) greatly reduces the fatigue on oSTMerver's vision.
  2. With pull-rod devices for adjusting the centers of field and aperture diaphragm, stray light can be eliminated by expanding or shrinking the illumination zone.
  3. Simple polarizing oSTMervation is available with insert polarizer kit. More ideal images are here with different filters.
- The highest sample can be tested is 28mm with transmitted & reflected frame while 78mm high sample is available with reflected frame, as the stage can be dropped 50mm by loosening the screw in the stage holder.
  - M4 wrench for socket head screws places in the frame, making the best of the available space and improving your working efficiency.
  - Up-limit device is helpful to avoid the damage caused by impact between sample and objective lens.
  - Using the outstanding swing-out condenser system, much more transmitted light can be through with bigger numerical.

## Specification

Item	Specification	STM-6012RF	STM-6012TRF
Optical System	Infinite optical system, Tube length 180mm, parfocal distance 45mm	Standard	Standard
Viewing Head	Siedentopf trinocular viewing head, inclined at 30°, interpupillary distance 54mm-75mm, left diopter ±5 adjustable, splitting ratio R:T=100:0 or 50:50, eyepiece tube Φ30mm	Standard	Standard
	Siedentopf binocular viewing head, inclined at 30°, interpupillary distance 54mm-75mm, left diopter ±5 adjustable, eyepiece tube Φ30mm	Optional	Optional
Eyepiece	High eye-point wide field plan eyepiece PL10×/22mm	Standard	Standard
	High eye-point wide field plan eyepiece PL10×/22mm, with reticle		
	High eye-point wide field plan focusing eyepiece PL10×/22mm		
	High eye-point wide field plan eyepiece PL15×/16mm		

## Specification

Infinite LWD	5×/ 0.15/∞/ 0 (BF)	WD 10.80mm	Standard	Standard
Plan Achromatic	10×/ 0.30/∞/ 0 (BF)	WD 10.0mm	Standard	Standard
Metallurgical	20×/ 0.45/∞/ 0 (BF)	WD 4.00mm	Standard	Standard
Objective	50×/ 0.55/∞/ 0 (BF)	WD 7.90mm	Standard	Standard
	100×/ 0.80/∞/ 0 (BF)	WD 2.10mm	Standard	Standard
Nosepiece	Backward quintuple nosepiece		Standard	Standard
Maximum Sample Height	28mm			Standard
	78mm		Standard	
Focusing	Transmitted & Reflected frame, coaxial focus system with tension adjustment and up-limited device, moving range: 28mm, fine precision: 0.002mm. Stage can be adjusted up and down, 28mm high sample is available.			Standard
	Reflected frame, coaxial focus system with tension adjustment and up-limited device, moving range: 28mm, fine precision: 0.002mm. Stage can be adjusted up and down, 78mm high sample is available.		Standard	
Stage	Double layer mechanical stage with X-Y coaxial adjustment, size: 175mm×145mm, moving range: 76mm×42mm.		Standard	
	Metal plate for transmitted frame; glass plate for transmitted & reflected frame.			Standard
Reflected Illumination	Wide-range voltage 100V-240V, AC50/60Hz, reflected lamp-house with single 5W LED, warm color. Koehler illuminator with oblique light device, center adjustable field and aperture diaphragm		Standard	Standard
Transmitted Illumination	Wide-range voltage 100V-240V, AC50/60Hz, transmitted lamp-house with single 5W LED, warm color.			Standard
Condenser	N.A.0.9 swing-out achromatic condenser for transmitted frame, with center adjustable aperture iris diaphragm.			Standard
Other Accessories	Yellow/neutral/IF550/LBD filter for transmitted light			Optional
	Digital camera adapter: 1X, 0.67X, 0.5X focusing C-mount adapter		Optional	Optional
	3.2X photo eyepiece		Optional	Optional

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	Photo tube with PK or MD mount for DSLR camera	Optional	Optional
	Relay lens	Optional	Optional
	Interference filter for reflected light: Blue filter $\leq 480\text{nm}$ ; Green filter $520\text{nm}\sim 570\text{nm}$ ; Red filter $630\sim 750\text{nm}$ ; White balance filter	Optional	Optional
	High precision micrometer, scale value $0.01\text{mm}$	Optional	Optional

## Application

STM-6012RF/TRF are widely used in institutes and laboratories to oSTMerve and identify the structure of various metal and alloy, they also can be widely used in electronics, chemical and instrumentation industry, oSTMerve the opaque material and transparent material, such as metal, ceramics, integrated circuits, electronic chips, printed circuit boards, LCD panels, film, powder, toner, wire, fibers, plated coatings and other non-metallic materials and so on.

## Dimension

