



Physical Test Solutions

Innovative Solutions in Material Test Equipment

Microscopes



PTS Microscopes

Physical Test Solutions (PTS) Microscopes combine optical quality, esthetics and performance at truly attractive prices. With the best price / performance ratio in the market, **PTS** offers microscopes for metallurgical and biological applications as well as stereo microscopes.

Metallurgical Microscopes

Inverted stage microscopes (Le Chatelier) offer distinct advantages for metallographic analysis, and **PTS** has the following models to choose from.

PTIS-NIM

The PTIS-NIM is the top-of-the-line inverted stage microscope and has infinite optical system providing excellent optical functions combined with a stable stand structure due to the advanced stage design for comfortable operation. The unit is widely used metallurgical laboratories as well as in educational laboratories for metallographic analysis of metal and alloy structures including phase structure and grain size.

Components and Specifications

- Trinocular head with 30 degree inclination
- Quintuple nosepiece
- Interpupillary 48-75 mm eyepiece high-point
- Extra wide field eyepiece EW10×/20
- Plan achromatic objectives 4X, 10X, 20X, 40X
- Coarse and fine coaxial focusing adjustment
- Coarse stroke 37.7mm per rotation
- Fine stroke 0.2 mm per rotation
- Kohler illumination halogen lamp 30 W, 6 V
- Blue, yellow, green and ground glass filters
- Polarization attachment
- Plain stage 160 × 250 mm



PTIS- XJL

The PTIS-XJL series metallurgical microscope is used for identification and analysis of the structures of different metals and alloys. This trinocular facilitates camera attachment for the optional photographic device.



Components & specification

- Quadruple nosepiece
- Eyepieces 10X WF (18 mm)
- Plan achromatic objectives:
 - PL10X/0.25
 - PL25X/0.40
 - PL100X/1.25(oil)(spring)
- Trinocular Tube (30 °inclination)
- 6V 20W halogen lamp, adjustable brightness

PTIS-XJP

The PTIS-XJP combines a stylish design with fine optics. The polarizer and analyzer, coupled with plan-achromatic objectives, make this unit a most versatile microscope for metallurgical applications.

Components and specifications

- Mechanical stage with a stroke of 75 by 50 mm and size of 180 y 55
- Quadruple nosepiece
- Plan eyepiece 10x/18
- Plan eyepiece 12x/14
- Plan eyepiece 10x-14
- Plan-Achromatic objective 4/0.10
- Plan-Achromatic objective 10/0.25
- S-plan achromatic objective 40/0.65
- Plan-Achromatic objective 100/1.25 oil
- Stage plate
- Stage plate holder
- Rotating binocular head (45 degree)
- Halogen lamp 6V 30W
- Polarizer
- Analyzer



PT-XJL101

Model PT-XJL101 constitutes the ideal solution for a metallurgical laboratory that demands a robust upright microscope for metallographic analysis. The unit features a large mechanical stage with high speed gearing movement and has a built-in polarizer.



Accessories and Specifications

- Wide Field Eyepiece WF10X(18mm)
- Plan Achromatic Objective PL5X/0.12
- Plan Achromatic Objective PL10X/0.25
- Plan Achromatic Objective PL20X/0.40
- Plan Achromatic Objective PL40X/0.60
- Plan Achromatic Objective PL80X/0.80
- Stage: 250 X 230 mm
- Quintuple nosepiece
- Halogen illuminator, 20 W, 6 V, with polarizer

Stereo Microscopes

PTS stereo microscopes offer versatility for a wide variety of analysis and measurement applications with diverse configurations and accessories.

PT-SM-SZM-45 Stereo microscope features outstanding optics to ensure a sharp and high contrast image.

Features and Specifications

- Trinocular head
- Standard magnification: 7x to 45x (zoom ratio 6.4:1)
- Total range of magnification: 3.5x to 180x with optional lenses
- Focusing by means of a rack and pinion controlled by a pair of knobs located on the stand
- Pillar stand, 25 mm diameter and 22 cm high
- Wide die-cast aluminum base Size 29x23x7h cm
- Fitted with a pair of specimen clamps
- Adjustable illuminator for incident light fitted with a 12V/20W halogen bulb with dichroic mirror Illuminator for transmitted light fitted with a 12V/20W halogen bulb
- Light intensity adjustment, done using a pair of rheostats located at the side of the base, is provided for both lighting units separately.



PT-SM-MZPS0850 parallel optics zoom stereo microscope has many magnification objectives, eyepieces, auxiliary illuminators, and many stands and universal stands to be selected from.



Specifications:

- Parallel optics system, 0.8X~5X zoom body,
- 1X plane none aberrance 10X eyepiece, working distance 105 mm.
- Standard total magnification: 8X~50X, highest magnification: 300X
- With wide field, high eye point and none aberrance 10X eyepieces
- Binocular eyepiece inclined 45°
- Diopter adjusting range: ± 6
- Interpupillary distance adjustment range 50mm~76mm
- Focus adjusting range: 100 mm
- Distance from post center to body center: 140mm

PT-SM-MZS1065C Stereo microscope

- Total magnification 10X~65X, (standard), total magnification: 390X
- Zoom objective magnification 1.0X~6.5X, working distance 118mm.
- With high eye point and wide field eyepiece SWH10X ($\Phi 23$ mm)
- Binocular/ Trinocular eyepiece inclined 45°, body can be rotated 360°
- Diopter adjusting range: ± 6
- Interpupillary distance adjustment range 52mm~76mm
- Focus adjusting range is 100 mm
- Lower transmitted illumination of the fluorescent lamp (5W)
- Upper reflected halogen lamp (6V, 10W).



Biological Microscopes

PTS Biological microscopes are available for a wide variety of applications such as research, education or hobby.

PT-MC-1180 Biological Microscope

Features and Specifications:

- Coaxial coarse, fine focus system
- Tension adjustable, limited stopper with minimum division of 0.002mm
- Wide field eyepieces and high quality achromatic objectives
- Illumination with 6v20w halogen lamp, adjustable brightness
- Cmos device: 1/3", resolution: 380 lines, video out: 1vp-p75, pal/NTSC, color.



L3000 series biological microscope is equipped with plan achromatic objectives and wide field eyepieces. It provides clear image, wide field, convenience operation. It can be used for biology medicine agriculture and industry area widely. It is the ideal instrument in medical treatment, teaching demonstration and scientific research.



Features

- Coaxial coarse/fine focus system, with tension adjustable and limit stopper, minimum division of fine focusing: 2μm.
- With wide field eyepieces and plan achromatic objectives. The optical system is wide infinity with a polarizing unit and led illumination can be chosen.
- Photography eyepiece, digital & video camera, CCD adapter, and digital camera adapter can be chosen.
- Phase contract unit can be chosen, including phase contract condenser, phase contract objective and centering telescope.

MC-1080 series biological microscope is the ideal unit for cost efficient microscopy. The Mc-1080 video inspect instrument shows a clear image, is easy to use and if equipped with a cmos camera, it can observed the object with the eyepieces and with the video signal can be connected to a TV monitor or computer with a video card. The unit is an ideal tool to inspect dry blood, acarus and other biological specimens.

Specifications

- Cmos camera: Picture element: 1/3", 628(h) x528(v)(pal) 510(h)x492(v) (NTSC), resolution: 420tv lines.
- Achromatic objective: 10x
- Eyepiece: Wf10x(18mm)
- Illumination: 3lx
- Output: 1vp-p. 75 ω



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