

XJL-20/20BD



- **XJL-20/20BD** Inverted metallurgical microscope is equipped excellent UIS optical system and modularization function design so that update system expediently and achieved polarization, darkfield observation. Compact and steady main frame body is the embodiment for the shock resistance. The ideal ergonomic design is adopted in this unit and has an easier operation and wider space. This is the ideal optical instrument for micro observation in metallographic structure and surface morphology. It is suitable for research in metallography, mineralogy, precision engineering, etc.



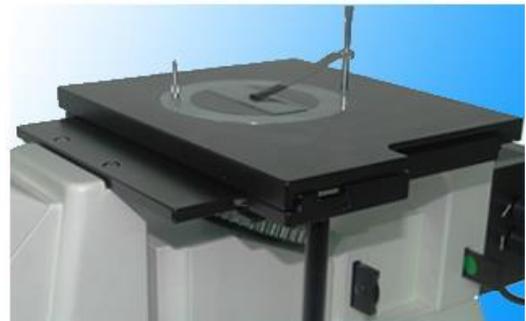
Observation system

The gemel mode binocular is inclined 45 degree. The operator cervix and shoulder are released from tired in period of time keeping bow or head-up.

The eyepiece field of view number is $\Phi 22\text{mm}$ and eyepatch can be added.

Mechanical Stage

The circular chromeplate substage is located in the center of mechanical stage so that enable rotate the specimen in the polarization observation. The abnormity observation window is suit for different size specimen.





Illumination System

Integrated illumination can make up the difference of halogens by adjusting the spacial position. The illumination mode is “Kohler illuminatio” and the adjustment of field and aperture diaphragm is achieved by turning the control plate, the adjustment mode is smooth and comfort.

Fully taken into account the cooling effect of illumination system so that the surface temperature of lamp house is lower, the operation is safer.

Simpler and quicker way to replace the bulb without any tools.

Dark Field Observation(for XJL-20BD)

Equip high quality bright and dark field objectives and dark field illumination device. Avoid the stray light of illumination system and improve the image quality in the dark field.

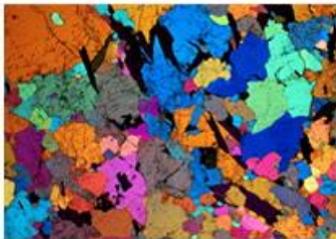


Photography Unit

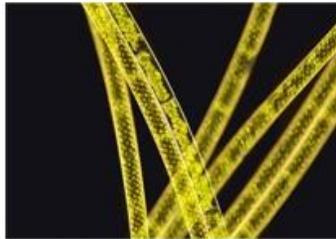
The photographic observation output is seting up on the back of main body frame, so that the accessories of camera don' t cause interference to eyepiece observation.

Microphotography in 100% light flux, suits for low illuminance microphotography.

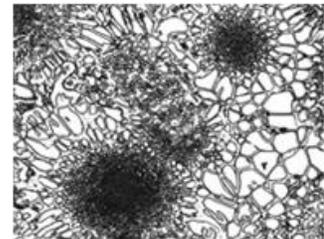
Digital camera photography:



Polarized observe



Dark type observe



Bright type observe

Specification

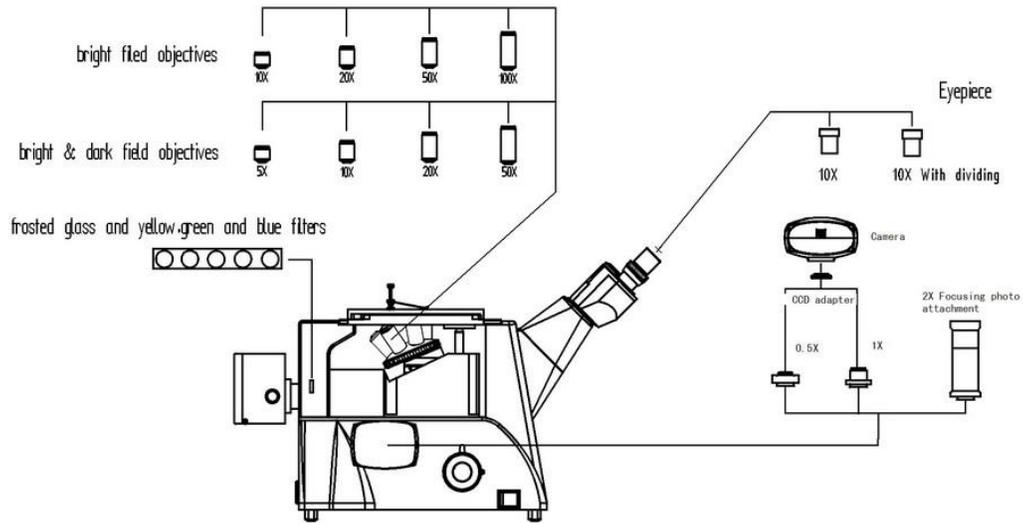
| Specification | | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Eyepiece | Wide field WF10X(field number: Φ 22mm) | |
| Objective | XJL-20 Equipped with bright field objectives | PL L10X/0.25 (Work distance) : 5 mm |
| | | PL L20X/0.40 (Work distance) : 8.80 mm |
| | | PL L50X/0.70 (Work distance) : 3.68 mm |
| | | PL L100X/0.85 (Dry) (Work distance) : 0.40 mm |
| | XJL-20BD Equipped with bright & darkfield objectives | PL L5X/0.12 BD (Work distance) : 8.05mm |
| | | PL L10X/0.25 BD (Work distance) : 7.86 mm |
| | | PL L20X/0.40 BD (Work distance) : 7.23mm |
| | | PL L50X/0.70 BD (Work distance) : 2.50mm |
| Eyepiece tube | Inclination angle is 45° and interpupillary distance is 53~75mm. | |
| Focus system | Coaxial coarse/fine focus, with tension adjustable, minimum division of fine focusing, is $2\mu\text{m}$. | |
| Nosepiece | Quintuple (Backward ball bearing inner locating) | |
| Stage | Mechanical stage overall size: 242mmX200mm and moving range: 30mmX30mm. | |
| | Rotundity and rotatable stage size: maximal measurement is Φ 130mm and minimal clear aperture is less than Φ 20mm. | |
| Illumination system | 6V30W halogen and brightness enable control., use in XJL-20 | |
| | 12V50W halogen and brightness enable control., use in XJL-20BD | |
| | Integrated field diaphragm, the aperture diaphragm, and puller type polarizer. | |
| | Equipped with frosted glass and yellow, green and blue filters | |

Optional accessories

| Name | Sort/Technique parameter | NO. | |
|-------------|-----------------------------------------------------------|----------------------------------------------------|---------|
| Eyepiece | Dividing eyepiece(Φ 22mm) | 1122010 | |
| Objective | PL L5X/0.12 (Work distance) : 26.1 mm | Equipped with bright field objectives | 2260105 |
| | PL L40X/0.60 (Work distance) : 3.98 mm | | 2260140 |
| | PL L60X/0.70 (Work distance) : 2.08mm | | 2260360 |
| | PL L80X/0.80 (Work distance) : 1.28 mm | | 2260180 |
| | PL L40X/0.60 BD (Work distance) : 3.00 mm | Equipped with bright & dark field objectives | 2120140 |
| | PL L60X/0.7 BD (Work distance) : 1.65mm | | 2120160 |
| | PL L80X/0.80 BD (Work distance) : 0.80mm | | 2120180 |
| | PL L100X/0.85 BD (Work distance) : 0.4 mm | | 2120111 |
| CCD Adapter | 0.5X | 812004 | |
| | 1X | 812002 | |
| | 0.5X with dividing 0.1mm/Div | 812003 | |
| Camera | DV-1 Video output 380/520 TV line USB output 0.42 M pixel | 800001 | |

| | | |
|------------------------|-------------------------------------------|--------|
| | DV-2 With USB output 1.3M,2.0M,3.0M pixel | 800003 |
| | DV-3 With video output 380/520 TV line | 800005 |
| Digital camera adapter | CANON(EF) NIKON(F) | 820001 |

Diagram



Dimensions

