

# YASHIMA

# TYL

# MICROSCOPE

## PHOTOGRAPHIC RESEARCH MICROSCOPE, TYL.

This TYL Trinocular type Microscope can be equipped with any type of camera and you can so easily obtain microphotographic observation by moving downward the lever below the prismatic head. Once attached the camera to the device, no special focusing procedure is required owing to our originally developed superior optical system.

### Specifications

#### (1) Model TYL-□-ED-C

- Tube : 170mm long, 45° inclined binocular tube with interpupillary adjustment : 55mm-77mm and dioptic compensation device = ±3mm in the left tube, combined with photographic tube with outfit device for microphotography camera, 360° rotatable and interchangeable with inclined monocular tube (YDL series) head.
- Stage : Fixed large rectangular stage 125×142mm, built in cross movement mechanical stage with coaxial handle in horizontal position, scanning range of 31-75mm graduated in 0.1mm with vernier.
- Focusing : Coaxial coarse and fine adjustment, stroke = 2mm, sensitivity = 0.005mm with the safet stopper.
- Condenser : Two top lenses and brightfield, Abbe type substage condenser, numerical aperture 1.25 with iris diaphragm and filter holder, focused by rack and pinion motion.
- Nosepieces : Revolving Triple/Quadruple/Quintuple nosepiece with ball bearing device, with click stops.
- Illuminator : Transmitted illuminator system built in the base controlled by means of the intensity regulator, voltage 110V-240V, 25 watt or low voltage with transformer
- Accessories : A blue filter for condenser, a vinyl dust cover, a tube of oil for 100X Obj. a spare bulb for illuminator and wooden cabinet with lock and key.

#### (2) Model TYL-□-ED

- Focusing adj : Separate knobs  
Light source : Electric illuminator  
The others are the same as TYL-□-ED-C

#### (3) Model TYL-□

- Focusing adj : Separate knobs  
Light source : Mirror illuminator  
The others are the same as TYL-□-ED-C

### Optical Combination

Model	Paired Huygenian Eyepieces	Achromatic Dry/Oil Objectives	Magnifications	Nose-pieces	CAT. NO.
TYL-1-ED-C TYL-1-ED TYL-1	B5x, BWF10x, B15x	10x(N.A.0.25), 40x(N.A.0.65) 100x(N.A.1.25)Oil	50x-1,500x	Triple	NO-YT101 NO-YT102 NO-YT103
TYL-2-ED-C TYL-2-ED TYL-2	B5x, BWF10x, B15x	4x(N.A.0.10), 10x(N.A.0.25), 40x(N.A.0.65), 100x(N.A.1.25)Oil	20x-1,500x	Quadruple	NO-YT111 NO-YT112 NO-YT113
TYL-3-ED-C TYL-3-ED TYL-3	B5x, BWF10x, B15x, B20x	4x(N.A.0.10), 10x(N.A.0.25), 20x(N.A.0.65), 40x(N.A.0.65), 100x(N.A.1.25)Oil	20x-2,000x	Quintuple	NO-YT121 NO-YT122 NO-YT123

\* Available to supply above series of Microscope with K20x eyepieces, Triple and Quintuple revolving nosepieces, Abbe N.A.1.40 condenser, on request.



Model TYL-2-ED-C



## YASHIMA OPTICAL CO., TOKYO JAPAN.

## RESEARCH BINOCULAR MICROSCOPE, BYL

### Specifications

#### (1) Model BYL-□-ED-C

- Tube : 170mm long, 45° inclined binocular tube with interpupillary adjustment : 55mm-77mm and dioptic compensation device = ±3mm in the left tube, 360° rotatable interchangeable with inclined trinocular tube (TYL series) head.
- Stage : Fixed large rectangular stage 125×142mm, built in cross movement mechanical stage with coaxial handle in horizontal position, scanning range of 31-75mm graduated in 0.1mm with vernier.
- Focusing : Coaxial coarse and fine adjustment, stroke = 2mm, sensitivity = 0.005mm with the safety stopper.
- Condenser : Two top lenses and bright field, Abbe type substage condenser, numerical aperture 1.25 with iris diaphragm and filter holder, focused by rack and pinion motion.
- Nosepieces : Revolving Triple/Quadruple/Quintuple nosepiece with ball bearing device, with click stops.
- Illuminator : Transmitted illuminator system built in the base controlled by means of the intensity regulator, voltage 110V-240V, 25 watt, or low voltage with transformer.
- Accessories : A blue filter for condenser, a vinyl dust cover, a tube of oil for 100x Obj. a spare bulb for illuminator and wooden cabinet with lock and key.

#### (2) Model BYL-□-ED

- Focusing adj : Separate knobs  
 Light source : Electric illuminator  
 The others are same as BYL-□-ED-C

#### (3) Model BYL-□

- Focusing adj : Separate knobs  
 Light source : Mirror illuminator  
 The others are same as BYL-□-ED-C



Model BYL-1-C

### Optical Combination

Model	Paired Huygenian Eyepieces	Achromatic Dry/Oil Objectives	Magnifications	Nose-pieces	CAT. NO.
BYL-1-ED-C BYL-1-ED BYL-1 BYL-1-C	B5x, BWF10x, B15x	10x(N.A.0.25), 40x(N.A.0.65) 100x(N.A.1.25)Oil	50x-1,500x	Triple	NO-B 101 NO-B 102 NO-B 103 NO-B 104
BYL-2-ED-C BYL-2-ED BYL-2 BYL-2-C	B5x, BWF10x, B15x	4x(N.A.0.10), 10x(N.A.0.25), 40x(N.A.0.65), 100x(N.A.1.25)Oil	20x-1,500x	Quadruple	NO-B 111 NO-B 112 NO-B 113 NO-B 114
BYL-3-ED-C BYL-3-ED BYL-3 BYL-3-C	B5x, BWF10x, B15x B20x	4x(N.A.0.10), 10x(N.A.0.25), 20x(N.A.0.65), 40(N.A.0.65), 100x(N.A.1.25)Oil	20x-2,000x	Quintuple	NO-B 121 NO-B 122 NO-B 123 NO-B 124

Net weight : approx. 5.2kg      Gross weight : approx. 10.5kg

\* Available to supply above series of Microscope with K20x eyepieces, Triple and Quintuple revolving nosepieces, Abbe N.A.1.40 condenser, on request..

### L-TYPE RESEARCH MICROSCOPE, YDL

#### Specifications

##### (1) Model YDL-□-ED-C

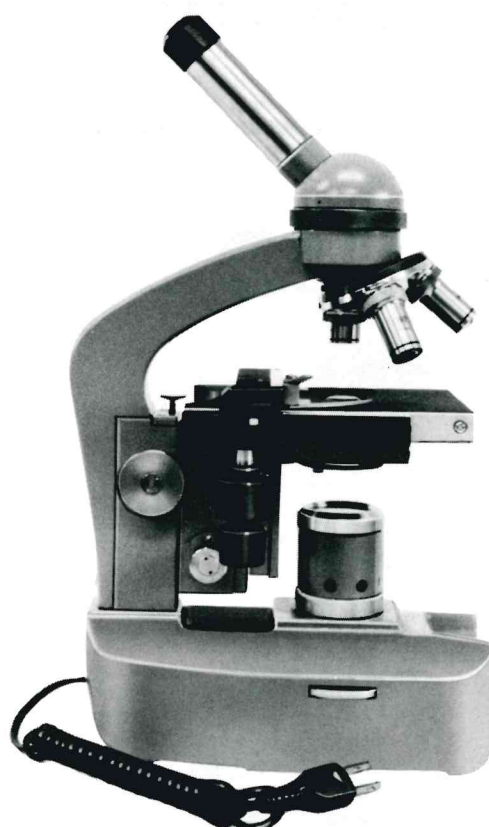
- Tube : 170mm long, 45° inclined monocular tube, 360° rotatable, acceptable any standard eyepieces for the tube diameter 23.2mm, and interchangeable the head with trinocular (TYL series) or binocular (BYL series) tube head.
- Stage : Fixed large rectangular stage 125×142mm, built in cross movement mechanical stage with coaxial handle in horizontal position, scanning range of 31—75mm graduated in 0.1mm with vernier.
- Focusing : Coaxial coarse and fine adjustment, stroke = 2mm, sensitivity = 0.005mm with the safety stopper.
- Condenser : Two top lens and bright field. Abbe type sub-stage condenser, numerical aperture 1.25 with iris diaphragm and filter holder focused by rack and pinion motion.
- Nosepieces : Revolving Triple/Quadruple/Quintuple nosepiece with ball bearing device, with click stops.
- Illuminator : Transmitted illuminator system built in the base controlled by the means of the intensity regulator, voltage 110—240V AC 25 watt, or low voltage with transformer.
- Accessories : A blue filter for condenser, a vinyl dust cover, a tube of oil for 100X obj. a spare bulb for illuminator and wooden cabinet with lock and key.

##### (2) Model YDL-□-ED

- Focusing adj : Separate knobs
- Light source : Electric illuminator
- The others are same as YDL-□-ED-C

##### (3) Model YDL-□

- Focusing adj : Separate knobs
- Light source : Mirror illuminator
- The others are same as YDL-□-ED-C



Model YDL-2-ED

#### Optical Combination

Model	Paired Huygenian Eyepieces	Achromatic Dry/Oil Objectives	Magnifications	Nose-pieces	CAT. NO.
YDL-1-ED-C YDL-1-ED YDL-1	B5x, BWF10x, B15x	10x(N.A.0.25), 40x(N.A.0.65) 100x(N.A.1.25)Oil	50x—1,500x	Triple	NO-D 101 NO-D 102 NO-D 103
YDL-2-ED-C YDL-2-ED YDL-2	B5x, BWF10x, B15x	4x(N.A.0.10), 10x(N.A.0.25), 40x(N.A.0.65), 100x(N.A.1.25)Oil	20x—1,500x	Quadruple	NO-D 111 NO-D 112 NO-D 113
YDL-3-ED-C YDL-3-ED YDL-3	B5x, BWF10x, B15x, B20x	4x(N.A.0.10), 10x(N.A.0.25), 20x(N.A.0.65), 40x(N.A.0.65), 100x(N.A.1.25)Oil	20x—2,000x	Quintuple	NO-D 121 NO-D 122 NO-D 123

Net weight : approx. 3.7kg      Gross weight : approx. 9.9kg

\* Available to supply above series of microscope with K20x eyepieces, Triple and Quintuple revolving nosepieces, Abbe N.A.1.30 condenser, on request.

## SCHOOL MICROSCOPE, YLL

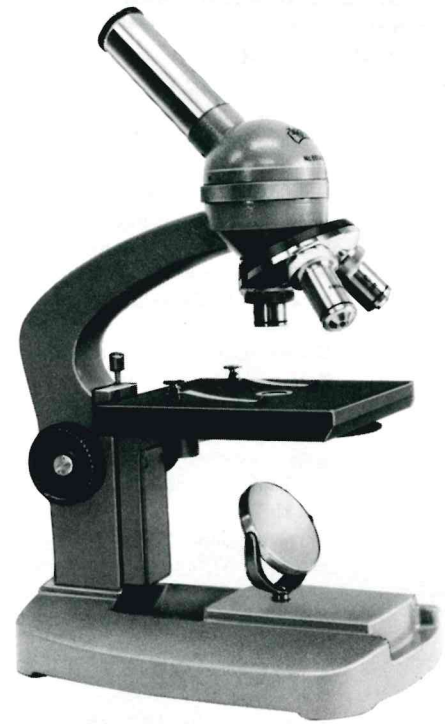
### Specifications

- Tube : 45° inclined monocular tube, 360° rotatable, acceptable any standard eyepieces
- Stage : Fixed large rectangular stage 95x 120mm, with disc diaphragm and N.A. 0.65 built in condenser.
- Focusing : Coarse focusing adjustment.....by rack and pinion system with safety stopper, stroke = 20mm/m
- Condenser : Medium aperture, N.A. 0.65 condenser in stage.
- Illuminator : 48mm in diameter, plane-concave mirror,
- Accessories : A blue filter for condenser, a vinyl dust cover and wooden cabinet with lock and key,

### Optical Combination

Model	Eyepieces	Objectives	Magnifications	Nosepieces	CAT-NO
YLL-1	H10x, H15x	10x, 40x	100x-600x	Double	NO-L-101
YLL-2	H10x, H15x	4x, 10x, 40x	40x-600x	Triple	NO-L-102

Net weight : approx. 3.1kg      Gross weight : approx. 6.8kg



Model-YLL

## SCHOOL MICROSCOPE, YKL

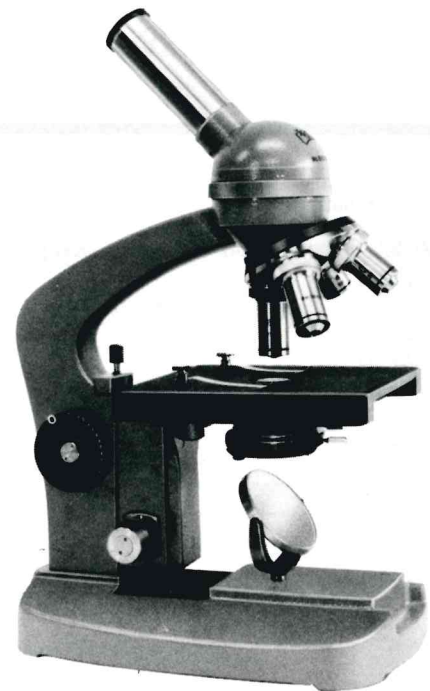
### Specifications

- Tube : 45° inclined monocular tube, 360° rotatable, acceptable any standard eyepieces fixed large rectangular stage 125x120mm, N.A. 0.65-N.A. 1.25 built in condenser.
- Focusing : Coarse and fine adjustment by rack and pinion system.
- Condenser : Model YKL-1  
N.A. 0.65 in plain stage  
Model YKL-2  
N.A. 0.95 with iris diaphragm  
Model YKL-3  
N.A.1.25 ABBE with iris diaphragm and filter holder  
Model YKL-4  
N.A. 1.25 ABBE with iris diaphragm and filter holder, mechanical stage
- Illuminator : Mirror illuminator

### Optical Combination

Model	Eyepieces	Objectives	Magnifications	Nosepieces	CAT-NO
YKL-1	W10x,H15x	4x, 10x, 40x	40x-600x	Triple	NO-K101
YKL-2	H5x,W10x,H15x	4x, 10x, 60x	20x-900x	Triple	NO-K102
YKL-3	H5x,W10x,H15x	10x, 40x, 100x(oil)	50x-1500x	Triple	NO-K103
YKL-4	H5x,W10x,H15x	4x, 10x, 40x, 100x(oil)	20x-1500x	Quadruple	NO-K104

Net weight : approx. 3.5kg      Gross weight : approx. 7kg



Model-YKL