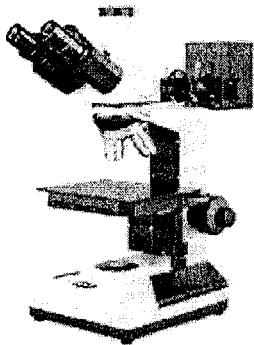


Reflected Light Only



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About this product:

VanGuard 1200MM Series

This budget priced Metallurgical Microscope series features two models, one with reflected light and the other with both reflected and transmitted light. These microscopes are ideal for work on opaque samples. The advanced features and precision optics make this an outstanding value.

The viewing head is Seidentopf and trinocular with an erect imaging, multi-coated transmission prism system. Its angle of inclination is 30 degrees, it rotates 360 degrees, and the interpupillary adjustment is from 55- 75mm.

The nosepiece is quadruple with reversed ball-bearings. Both models are supplied with four DIN Plan Achromatic long working distance objectives, 4x, 10x, 25x and 40x. A graduated mechanical stage (185 x 140mm) with low position fine focus controls, graduated to 2 microns per division allows for comfort and ease of use. The Abbe Condenser 1.25 N.A. has an iris diaphragm, easily centered spring loaded knobs and is focusable with a rack & pinion mechanism.

There is a dual halogen illumination system, upper and lower, each 6v 20w variable quartz halogen on model #1242. The transmitted illumination provides for Kohler illumination and is supplied with blue and neutral density filters and centerable knobs. The incident illumination system includes condenser, iris diaphragm; four-color filter wheel (yellow, green, blue, & neutral) and polarizing filter.

The base is stable 210 x 180mm fitted with anti skid rubber feet and made of all cast metal construction, black hand rests and stain resistant enamel finish. Dimensions are 210mm (L) x 180mm (W) x 400mm (H), net weight is 7.5 kg. The microscope comes with a five year manufactures warranty plus an additional extended one year internet for a total of six years.

Shipping dimensions are 25" (L) x 19" (H) x 19" (W), shipping weight is 30LBS.

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- Research Level
- Reflected & Transmitted Light Models
- Precision Optics

VanGuard 1200MM Series Industrial Microscopes featuring reflected illumination, as well as long working distance objectives, are perfect for the inspection of integrated circuits, wafers, electronic components, metals, polymers, paint, textiles, and essentially any other opaque sample.

Viewing Head. Trinocular (Seidentopf) heads rotate 360° and are inclined at 30°. Both models feature interpupillary and dioptic adjustment. The heads feature a sliding main prism (100/100 split) to provide either 100% of the image to the vertical tube, or 100% of the image to the eyepieces.

Eyepieces. 10X Super Widefield (DIN) with a field number of 20.

Nosepiece. Quadruple, reversed, ball-bearing nosepiece with high-grade lubricant and positive stops. The nosepiece is reversed (inward facing) to allow for easier manipulation of slides and to aid in keeping the objectives clean.

Objectives. Plan achromatic objectives come standard on both models. Objectives are made to DIN standards and are coated.

Objective Magnification.

- 4X (0.10 N.A., 17.0 mm W.D., 5.0 mm F.O.V.)
- 10X (0.25 N.A., 8.0 mm W.D., 2.0 mm F.O.V.)
- 20X (0.40 N.A., 4.8 mm W.D., 1.0 mm F.O.V.)
- 40X (0.65 N.A., 3.3 mm W.D., 0.5 mm F.O.V.)

Stage. Delivering a high level of fluid motion control and longevity, the stage measures 185 x 140 mm. Model 1242MM is fitted with a 77 x 98 mm glass insert. Motion is controlled by a right-hand, low-position coaxial control and is driven by a rack and pinion system.

Focusing Movement. Coaxial, low-position coarse and fine focus controls feature a 40 mm focusing range and are graduated to 2 microns per division. Fitted with tension adjustment and safety autostop.

Condenser. Model 1242MM comes with a 1.25 N.A. Abbe condenser mounted on a rack and pinion focusing mechanism and feature spring-loaded centering knobs and an iris diaphragm with a swing-in filter holder.

Upper (Reflected) Illumination System. Condenser, iris diaphragm; four-color filter wheel (yellow, green, blue, and neutral); polarizing filter.

Upper (Reflected) Illumination. 20 W variable quartz halogen light source.

Lower (Transmitted) Illumination. Model 1242MM only. 20W variable quartz halogen light source. Comes with blue and neutral density filters. 0.5 A, 250 V fuse.

Base. Stable 180 x 210 mm base fitted with anti-skid rubber feet.

Body. Cast-metal, ergonomic body with stain-resistant enamel finish.

Dimensions. 250 mm (L) x 200 mm (W) x 435 mm (H); 8.6 kg.

Specifications

Head Type	Trinocular Reflected
Objective Magnification	4X, 10X, 20X & 40X
Objective Type	Plan Achromatic
Illumination	20W Variable Quartz Halogen
Viewing Head	Trinocular
Viewing Head Type	Seidentopf
Head Rotation	360 °
Head Inclination	30 °
Sliding Prism	100/100 Split
Interpupillary Adjustment	55 - 75 mm
Dioptric Adjustment	-5 to +5
Eyepiece Magnification	10X Super Widefield
Eyepiece Field Diameter	20 mm
Optional Eyepieces	15X (Field Diameter 11 mm) 20X (Field Diameter 11 mm)
Nosepiece	Quadruple Reversed
Brightfield Objectives (Plan Achromatic)	10X (0.25 N.A., 8.0 mm W.D., 1.8 mm F.O.V.) 20X (0.40 N.A., 0.9 mm F.O.V.) 25X (0.40 N.A., 4.8 mm W.D., 0.72 mm F.O.V.) 40X (0.65 NA, 3.3mm W.D., 0.45mm F.O.V.) 60X (0.75 N.A., 0.3 mm F.O.V.) 80X (0.80 N.A., 0.225 mm F.O.V.)
Stage Dimensions	140 x 185 mm
Stage Motion	Right-Hand Coaxial Control/Rack & Pinion Drive
Stage Movement Range	30 x 70 mm
Focusing Movement	Coaxial Coarse & Fine Controls/Safety Autostop
Focusing Range	40 mm

**Focusing Graduation
Upper Illumination
System**

2 Microns Per Division

Condenser, Iris Diaphragm (2), Four-Color Filter Wheel, Polarizing Filter

**Upper Illumination
Fuse**

20 W Variable Quartz Halogen

0.5 A, 250 V

Voltage

110 V

220 V Available On Request

Base Dimensions

250 x 200 mm

Length

250 mm

Width

200 mm

Height

400 mm

Weight

8.6 kg

**Overall Dimensions
(W x D x H)**

250 x 200 x 435 mm

Supplied With

20 W Halogen Lamp (Spare) (cat. no. 1200-20WHL), 0.5 A, 250 V Fuse
(Spare) (cat. no. 1200-FS1), Dust Cover, Operation Manual

Warranty

Five Year Manufactures and FREE One Year Extended by Mel Sobel
Microscopes Ltd