



# Industrial Microscopes

## 1200MM Series



- 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 Widefield (DIN) with a field number of 18.

**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.

**Stage.** Delivering a high level of fluid motion control and longevity, the stage measures 185x140mm. Model 1242MM is fitted with a 77x98mm 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 40mm 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.** 20W variable quartz halogen light source.

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

**Base.** Stable 180x210mm base fitted with anti-skid rubber feet.

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

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



Model 1242MM

## Specifications

<b>Viewing Head:</b>	Trinocular	
<b>Viewing Head Type:</b>	Seidentopf	
<b>Head Rotation:</b>	360°	
<b>Head Inclination:</b>	30°	
<b>Sliding Prism:</b>	100 / 100 Split	
<b>Interpupillary Adjustment:</b>	55-75mm	
<b>Dioptic Adjustment:</b>	-5 to +5	
<b>Eyepiece Magnification:</b>	10X Widefield	
<b>Eyepiece Field Diameter:</b>	18mm	
<b>Optional Eyepieces:</b>	15X (Field Diameter: 11mm) 20X (Field Diameter: 11mm)	
<b>Nosepiece:</b>	Quadruple / Reversed	
<b>Brightfield Objectives:</b> <i>(Plan Achromatic)</i>	4X	[0.10 N.A., 17.0mm W.D., 4.5mm F.O.V.]
	10X	[0.25 N.A., 8.0mm W.D., 1.8mm F.O.V.]
	25X	[0.40 N.A., 4.8mm W.D., 0.72mm F.O.V.]
	40X	[0.65 N.A., 3.3mm W.D., 0.45mm F.O.V.]
	100X	[1.25 N.A., 0.25mm W.D., 0.18mm F.O.V.] (Optional)
<b>Stage Dimensions:</b>	140mm x 185mm	
<b>Stage Motion:</b>	Right-Hand Coaxial Control / Rack & Pinion Drive	
<b>Stage Movement Range:</b>	30x70mm	
<b>Stage Inserts:</b>	Glass Insert [Model 1242MM]	
<b>Focusing Movement:</b>	Coaxial Coarse & Fine Controls / Safety Autostop	
<b>Focusing Range:</b>	40mm	
<b>Focusing Graduation:</b>	2 Microns Per Division	
<b>Brightfield Condenser:</b>	1.25 N.A. Abbe Condenser w/ Iris Diaphragm [Model 1242MM]	
<b>Upper Illumination System:</b>	Condenser, Iris Diaphragm (2), Four-Color Filter Wheel, Polarizing Filter	
<b>Upper Illumination:</b>	20W Variable Quartz Halogen	
<b>Lower Illumination:</b>	20W Variable Quartz Halogen [Model 1242MM]	
<b>Fuse:</b>	0.5A, 250V	
<b>Voltage:</b>	110V [Standard]; 220V [Special Order]	
<b>Base Dimensions:</b>	250mm x 200mm	
<b>Overall Dimensions:</b>	250mm (L) x 200mm (W) x 400mm (H)	
<b>Weight:</b>	8.6kg	
<b>Supplied With:</b>	20W Halogen Lamp (Spare) (cat. no. 1200-20WHL), 0.5A, 250V Fuse (Spare) (cat. no. 1200-FS1), Dust Cover, Operation Manual	



**Model 1241MM**

## Ordering Information

### Reflected Light Model

Model	Head	Type	Objective Magnification	Objective Type	Illumination
1241MM	Trinocular	Reflected	4X, 10X, 25X, & 40X	Plan Achromatic	20W Variable Quartz Halogen

### Reflected / Transmitted Light Model

Model	Head	Type	Objective Magnification	Objective Type	Illumination
1242MM	Trinocular	Reflected / Transmitted	4X, 10X, 25X, & 40X	Plan Achromatic	20W Variable Quartz Halogen