



Inverted Microscopes

1200CMI Series



- **Research Level**
- **Brightfield & Phase Contrast Models**
- **Precision Optics**

VanGuard 1200CMI Series Inverted Microscopes are suited for observation of biological cultures or specimens within well plates, petri dishes, or vials.

Viewing Head. Trinocular (Seidentopf) heads rotate 360° and are inclined at 30°. Both models feature interpupillary and dioptic adjustment. The trinocular head features 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, ball-bearing nosepiece with high-grade lubricant and positive stops.

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 150x200mm. Comes with two stage inserts: one for a standard 1x3" slide, and one for petri dishes or similar vials. 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. Brightfield models come with a 0.40 N.A. condenser. Phase contrast models come with a 0.40 N.A. Zernike condenser with phase annulus rings for 10X, 25X, & 40X; also has a "0" setting for brightfield work. All condensers are mounted on a rack and pinion focusing mechanism and feature spring-loaded centering knobs, an iris diaphragm, and a swing-in filter holder.

Illumination. 20W variable quartz halogen light source. Comes with blue, green (Model 1293CMI only), and neutral density filters. 0.5A, 250V fuse.

Base. Stable 330x205mm base fitted with anti-skid rubber feet.

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

Dimensions. 330mm (L) x 205mm (W) x 435mm (H); 9.7kg.



Model 1293CMI

Specifications

Viewing Head:	Trinocular	
Viewing Head Type:	Seidentopf	
Head Rotation:	360°	
Head Inclination:	30°	
Sliding Prism:	100 / 100 Split	
Interpupillary Adjustment:	55-75mm	
Dioptric Adjustment:	-5 to +5	
Eyepiece Magnification:	10X Widefield	
Eyepiece Field Diameter:	18mm	
Optional Eyepieces:	15X (Field Diameter: 11mm) 20X (Field Diameter: 11mm)	
Nosepiece:	Quadruple	
Brightfield Objectives: (Plan Achromatic)	4X	[0.10 N.A., 17.0mm W.D., 4.5mm F.O.V.] (Optional)
	10X	[0.25 N.A., 8.1mm W.D., 1.8mm F.O.V.]
	25X	[0.25 N.A., 8.1mm W.D., 1.8mm F.O.V.]
	40X	[0.65 N.A., 3.3mm W.D., 0.45mm F.O.V.]
Phase Contrast Objectives: (Plan Achromatic)	10X	[0.25 N.A., 8.1mm W.D., 1.8mm F.O.V.]
	25X	[0.25 N.A., 8.1mm W.D., 1.8mm F.O.V.]
	40X	[0.65 N.A., 3.3mm W.D., 0.45mm F.O.V.]
Stage Dimensions:	150mm x 200mm	
Stage Motion:	Right-Hand Coaxial Control / Rack & Pinion Drive	
Stage Movement Range:	30x70mm	
Sample Clearance (Brightfield):	75mm (Maximum)	
Sample Clearance (Phase):	40mm (Maximum)	
Stage Inserts:	Microscope Slide (1x3") Insert & Petri Dish/Vial Insert	
Focusing Movement:	Coaxial Coarse & Fine Controls / Safety Autostop	
Focusing Range:	40mm	
Focusing Graduation:	2 Microns Per Division	
Brightfield Condenser:	0.40 N.A. Condenser w/ Iris Diaphragm	
Phase Contrast Condenser:	0.40 N.A. Zernike Condenser w/ Iris Diaphragm	
Phase Centering Tool:	Telescoping Eyepiece [Model 1293CMI]	
Illumination:	20W Variable Quartz Halogen	
Fuse:	0.5A, 250V	
Voltage:	110V [Standard]; 220V [Special Order]	
Base Dimensions:	330mm x 205mm	
Overall Dimensions:	330mm (L) x 205mm (W) x 435mm (H)	
Weight:	9.7kg	
Supplied With:	20W Halogen Lamp (Spare) (cat. no. 1200-20WHL), 0.5A, 250V Fuse (Spare) (cat. no. 1200-FS1), Dust Cover, Operation Manual	



Model 1291CMI

Ordering Information Parts & Accessories listed on pages 36-39

Brightfield Model

Model	Head	Type	Objective Magnification	Objective Type	Illumination
1291CMI	Trinocular	Brightfield	10X, 25X, 40X	Plan Achromatic	20W Variable Quartz Halogen

Phase Contrast Model

Model	Head	Type	Objective Magnification	Objective Type	Illumination
1293CMI	Trinocular	Phase Contrast	10X, 25X, 40X	Plan Achromatic	20W Variable Quartz Halogen