



Fluorescence Microscopes

1200ECM Series



- Research Level
- Fluorescence, Phase Contrast, & Brightfield
- Precision Optics

VanGuard 1200ECM Series Fluorescence Microscopes provide the necessary specifications for diagnostic & educational use in medical/veterinary clinics, universities, and industrial laboratories.

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. Achromatic objectives come standard on both models. Model 1282ECM features plan achromatic brightfield objectives. Model 1286ECM features plan achromatic phase contrast and brightfield objectives. All objectives are made to DIN standards and are coated.

Stage. Delivering a high level of fluid motion control and longevity, the stage measures 160x140mm. Features a removable spring-clip slide holder and a chemical-resistant finish. 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 1282ECM comes with a 1.25 N.A. Abbe condenser. Model 1286ECM comes with a 1.25 N.A. Zernike condenser with phase annulus rings for 10X, 25X, 40X, & 100X; 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 and an iris diaphragm with a swing-in filter holder.

Lower Illumination. 20W variable quartz halogen light source. Comes with blue, green (Model 1286ECM only), and neutral density filters. 0.5A, 250V fuse.

Upper Illumination. Features a 100W HBO mercury light source which is mounted to the rear and is protected by a sturdy, all-metal housing. External power supply provides constant, even light. 5.0A, 250V fuse.

Fluorescence Filters. Features a 3-position (2 filter positions and 1 OFF position), sliding, filter cube assembly. Fluorescence models come standard with 2 broad band filters (blue & green).

Base. Stable 250x200mm 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); 8.8kg.



Model 1286ECM



Specifications

Viewing Head:	Trinocular	
Viewing Head Type:	Seidentopf	
Head Rotation:	360°	
Head Inclination:	30°	
Sliding Prism:	100 / 100 Split	
Interpupillary Adjustment:	55-75mm	
Dioptic Adjustment:	-5 to +5	
Eyepiece Magnification:	10X Widefield	
Eyepiece Field Diameter:	18mm	
Optional Eyepieces:	15X (Field Diameter: 11mm) 20X (Field Diameter: 11mm)	
Nosepiece:	Quadruple / Reversed	
Fluorescence Objectives:	25X	[0.65 N.A., 0.62mm W.D., 0.72mm F.O.V.]
<i>(Achromatic)</i>	40X	[1.00 N.A., 0.25mm W.D., 0.45mm F.O.V.]
Phase Contrast Objectives:	10X	[0.25 N.A., 8.0mm W.D., 1.8mm F.O.V.]
<i>(Plan Achromatic)</i>	25X	[0.40 N.A., 0.50mm W.D., 0.9mm F.O.V.]
	40X	[0.65 N.A., 0.40mm W.D., 0.45mm F.O.V.]
	100X	[1.25 N.A., 0.25mm W.D., 0.18mm F.O.V.]
Brightfield Objectives:	4X	[0.10 N.A., 17.0mm W.D., 4.5mm F.O.V.]
<i>(Plan Achromatic)</i>	10X	[0.25 N.A., 8.0mm W.D., 1.8mm F.O.V.]
	25X	[0.40 N.A., 0.50mm W.D., 0.9mm F.O.V.] (Optional)
	40X	[0.65 N.A., 0.40mm W.D., 0.45mm F.O.V.]
	60X	[0.85 N.A., 0.30mm W.D., 0.3mm F.O.V.] (Optional)
	100X	[1.25 N.A., 0.25mm W.D., 0.18mm F.O.V.]
Fluorescence Filter Cubes:	Blue Broadband <i>(Peak: 445nm, Excitation: 420-485nm, Emission: 520nm+)</i> <i>Intended Dyes: FITC, Acridine Orange, & Propidium Iodide</i>	
	Green Broadband <i>(Peak: 546nm, Excitation: 535-550nm, Emission: 580nm+)</i> <i>Intended Dyes: Ethidium Bromide & TRITC</i>	
Stage Dimensions:	140mm x 160mm	
Stage Motion:	Right-Hand Coaxial Control / Rack & Pinion Drive	
Stage Movement Range:	50x75mm	
Focusing Movement:	Coaxial Coarse & Fine Controls / Safety Autostop	
Focusing Range:	40mm	
Focusing Graduation:	2 Microns Per Division	
Brightfield Condenser:	1.25 N.A. Abbe Condenser w/ Iris Diaphragm	
Phase Contrast Condenser:	1.25 N.A. Zernike Condenser w/ Iris Diaphragm	
Phase Centering Tool:	Telescoping Eyepiece [Phase Contrast Models]	
Lower Illumination:	20W Variable Quartz Halogen	
Upper Illumination:	100W HBO Mercury	
Fuse:	0.5A, 250V [Microscope] 5.0A, 250V [External Power Supply]	
Voltage:	110V [Standard]; 220V [Special Order]	
Base Dimensions:	250mm x 220mm	
Overall Dimensions:	250mm (L) x 200mm (W) x 435mm (H)	
Weight:	8.8kg	
Supplied With:	20W Halogen Lamp (Spare) (cat. no. 1200-20WHL), 0.5A, 250V Fuse (Spare) (cat. no. 1200-FS1), Dust Cover, Operation Manual	



Model 1286ECM (Side View)



External Power Supply

Ordering Information

Model	Head	Type	Objective Magnification	Objective Type	Upper Illumination	Lower Illumination
1282ECM	Trinocular	Fluorescence	25X, 40X (Glycerin)	Achromatic	100W HBO Mercury	20W Variable Quartz Halogen
		Brightfield	4X, 10X, 40X, 100X (Oil)	Plan Achromatic		
1286ECM	Trinocular	Fluorescence	25X, 40X (Glycerin)	Achromatic	100W HBO Mercury	20W Variable Quartz Halogen
		Phase Contrast	10X, 25X, 40X, 100X (Oil)	Plan Achromatic		
		Brightfield	4X, 10X, 40X, 100X (Oil)	Plan Achromatic		