

# SYNTEST F Starter Set Horizontal Immersion Microscopy



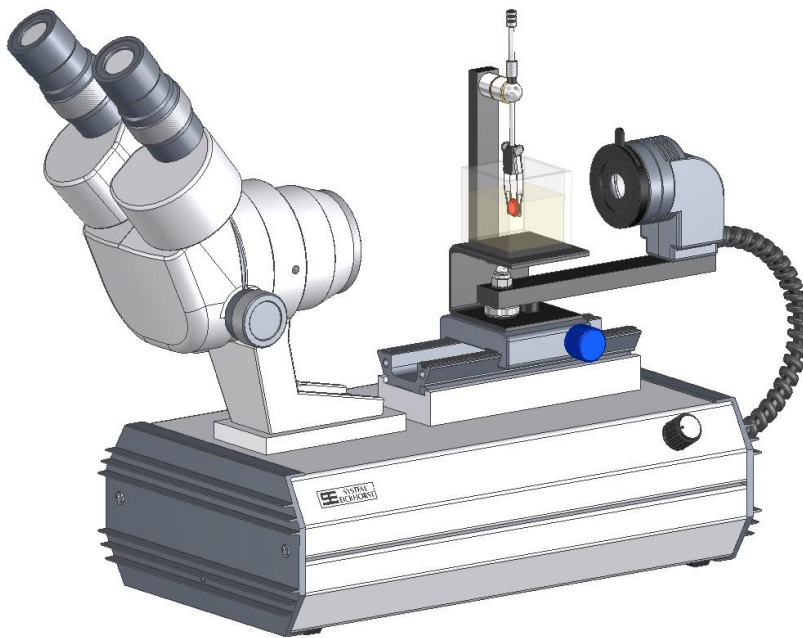
Made in Germany

Information

SYN F

Horizontal immersion microscope base for examination of coloured stones in immersion liquids of corresponding refractive index. The exclusive access to the “Internal World of Gemstones”.

The traditional European gem microscopy following the famous design of Prof. Schloßmacher, Idar-Oberstein.



**Binocular  
Optical System**

StereoZOOM optical system totally magnifying 10x - 40x at **SYNTEST** horizontal microscope base.

**Extension  
Options  
for Vertical  
Microscopes**

By a corresponding adaption ring, most StereoZOOM optical systems, used with vertical darkfield microscopes, can easily be mounted onto the SYNTEST F base, such as GIA's BAUSCH & LOMB, AMERICAN OPTICAL, LEICA or OLYMPUS; MEIJI, KYOWA, MOTIC and more.

**Light Source**

High intensity LED lamp for powerful 6,000 Kelvin daylight illumination: Choice of transmission, incident and darkfield mode of light. Illuminator rotatable around the gemstone for variation of light incidence.

**DIM**

Control for electronic dimming of light source.

**Stoneholder  
& Mounting**

MAGNETIC CLICK stoneholder system with magnetic socket. Possibility of mounting for right- as well as for lefthand use.

**Immersion  
Cells and  
Liquids**

Two immersion cells of 45 x 45 x 45 mm ( 1.8" x 1.8" x 1.8" ) size with magnetic device for secure hold on stage.  
Immersion liquids of nD 1.57 and nD 1.66 each 100 ml

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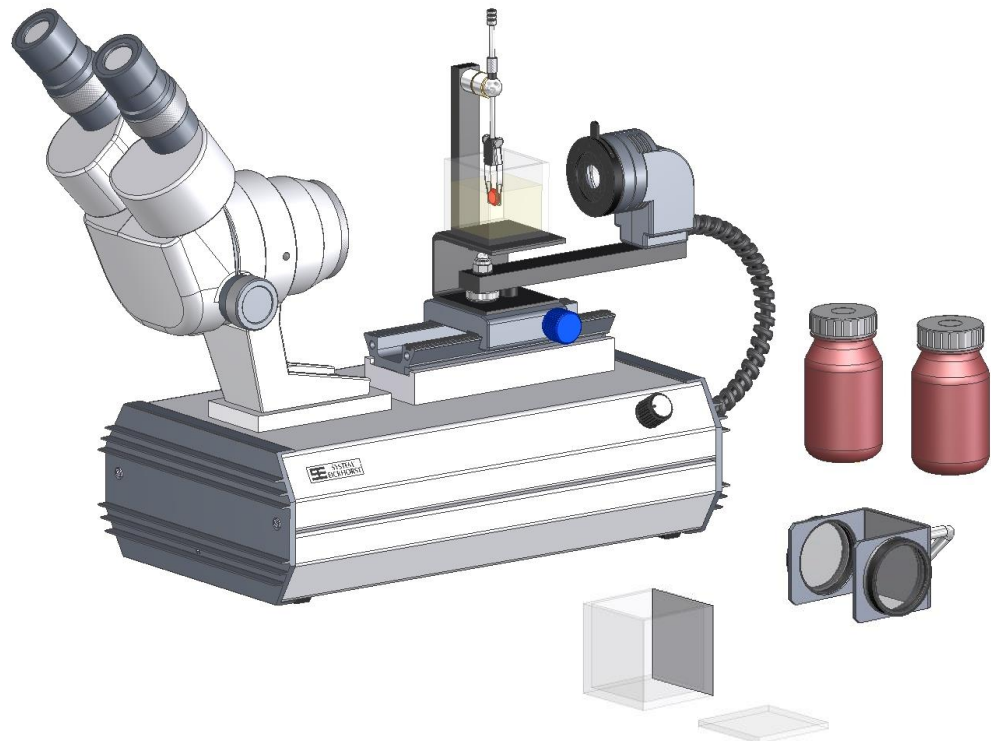
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## Polarisation

U-type polarization unit around the cell, both filters rotatable.  
Magnetic hold at cell holder.

SYNTEST horizontal Microscope Base with Polarizer Unit, second Immersion Cell and Liquids. Stage shown for left hand use of stoneholder, but mountable for right hand use as well.



## Microscope Base Design

Solid steel of rugged consistency. Resistant grey epoxy coating of distinguished elegance.

## Dimensions

Base / case                    330 x 185 x 95 mm (13" x 7 3/8" x 3 3/4")  
Vertical max. height    300 mm (11 7/8")

## Weight

Base without optical system approx. 5,000 g (11.03 lbs)

## Power

220 – 240V / 50 – 60Hz  
100 – 120V / 50 – 60Hz by optional voltage converter.  
Power cord 3-wire grounded, 1,800 mm (6'), adaptors for CH, IT and GB sockets  
Degree/class of protection: IP 20/I  
Electromagnetic compatibility following the EU norms.

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## SYNTEST F StereoZOOM Features Table for Starter Optical System

Features	Starter Optical System
Objective ZOOM Range <sup>1)</sup>	1x - 4x
Eyepieces	10x / 15x / 20x
Total Magnifications <sup>1)</sup> with:	
Eyepieces 10x	10x - 40x
Eyepieces 15x	15x - 60x
Eyepieces 20x	20x - 80x.
Field at 10x magnification with 10x Eyepieces (mm) <sup>2)</sup>	23
Field at 10x magnification with 16x Eyepieces (mm) <sup>2)</sup>	25
Eyepiece Distances (mm)	55-75
Eyepiece Diopter Adjustment	both
Working Distance (mm)	80
Optional front lenses	0.75x / 1.5x

- 1) The field at 10x total magnification is the diameter in mm of the microscope picture viewed by the observer. It's a quality feature of the eyepieces and the objectives. Typical range is 20 – 25 mm at 10x depending on the manufacturer of the optical systems.
- 2) Figures shown are without any front lenses!