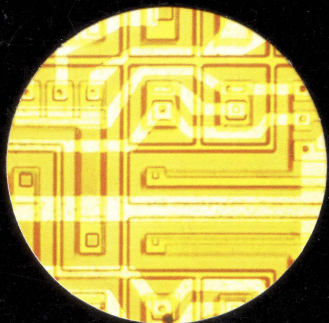


Olympus Stereoscopic Microscopes



OLYMPUS

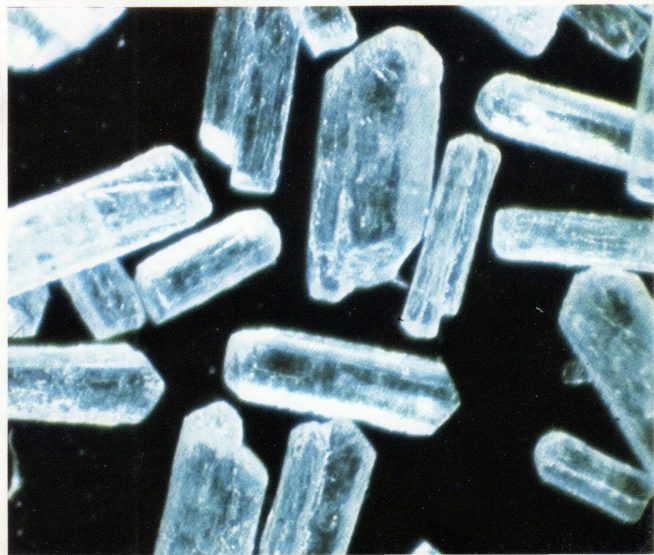
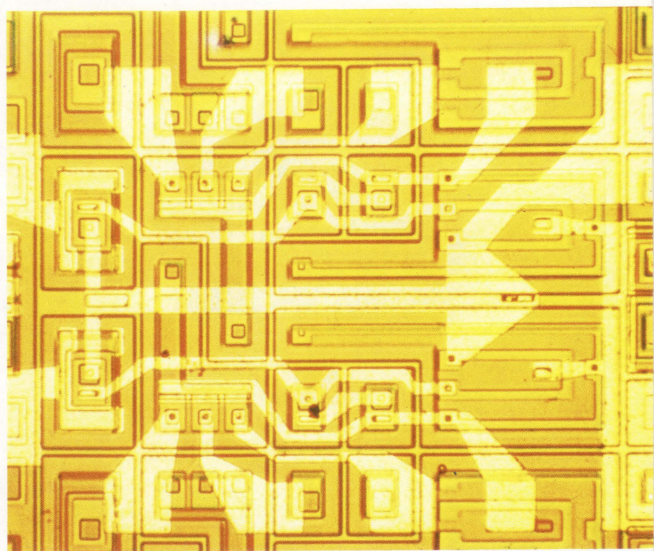
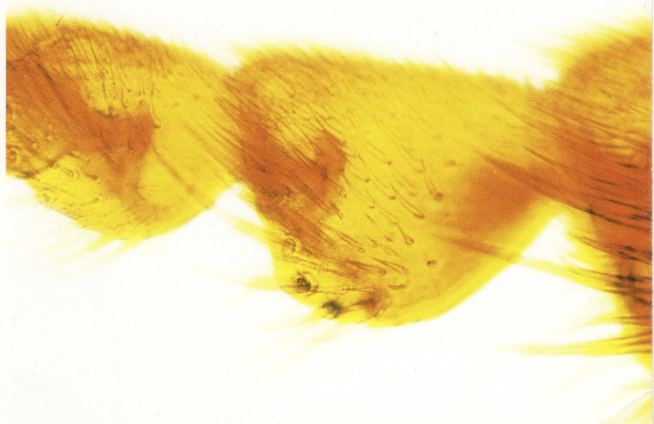
*Olympus is a name well known for
its integrated production of cameras,
optical measuring apparatus,
medical instruments,
fiberscopes and microscopes for all applications.*



*Typical of the superior quality and
accurate performance of Olympus products are
the stereoscopic microscopes described in this booklet.
These instruments have been in successful use for
the most demanding industrial applications and
the most critical scientific work.*

*They are part of a much broader range of
Olympus microscopes which includes biological microscopes,
metallurgical microscopes and
other specialized models like our polarizing microscopes.*

*Without exception,
they have made Olympus a name that can be trusted to
fill any requirement of the microscopist in
the important field of stereo microscopy.*





The name Olympus has been synonymous with precision optics for over fifty years. With much of the company's in-depth knowledge in this area going into the development of fine quality stereoscopic microscopes, it is not surprising that Olympus should be a recognized name as well as a major innovator in this field.

The Olympus range of stereoscopic microscopes serves virtually the entire spectrum of research and industrial applications, e.g.:

zoology (dissection),

botany (classification),

precision machinery industries (assembly and quality control of watches, etc.),

food and chemical industry (inspection and study),

electronics (assembly and inspection of ICs, transistors, etc.).

For surgical use,

the stereoscopic effect is of great value,

giving sharp,

informative three dimensional images of specimens.

All our stereoscopic microscopes are supplied with objectives and eyepieces made by Olympus and the 12° converging light path

principle employed achieves

highly effective stereoscopic results.

Photo Tube

*Takes photomicrographic accessories
PM-10, PM-6, etc.*

Eyepieces

*Wide field G10X, G15X and G20X eyepieces are
used exclusively with our stereo microscopes.*

Prism Box

*Houses high quality prisms for
accurate deflection of the light path.*

Observation Tube

*With diopter and
interpupillary adjustments.*

Objectives

*The optical performance of
the Olympus objectives is
precisely matched to the eyepieces.
Their high resolving power yields an image of
exceptional brilliance and clarity.*

Focusing Knobs

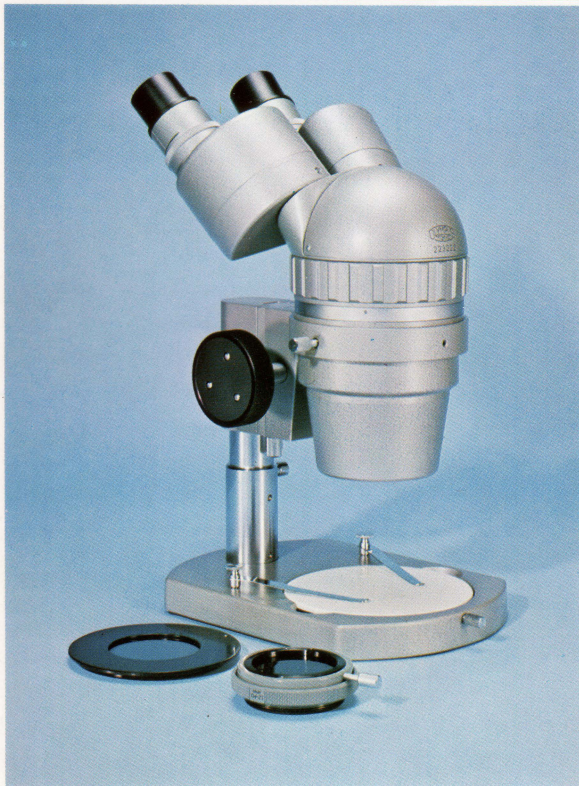
*Located on both sides
for convenience.*

Pillar

*Holds the main body of
the microscope,
with quick mount fixtures.*

Zoom-Stereo Microscope

Model **SZ-III**

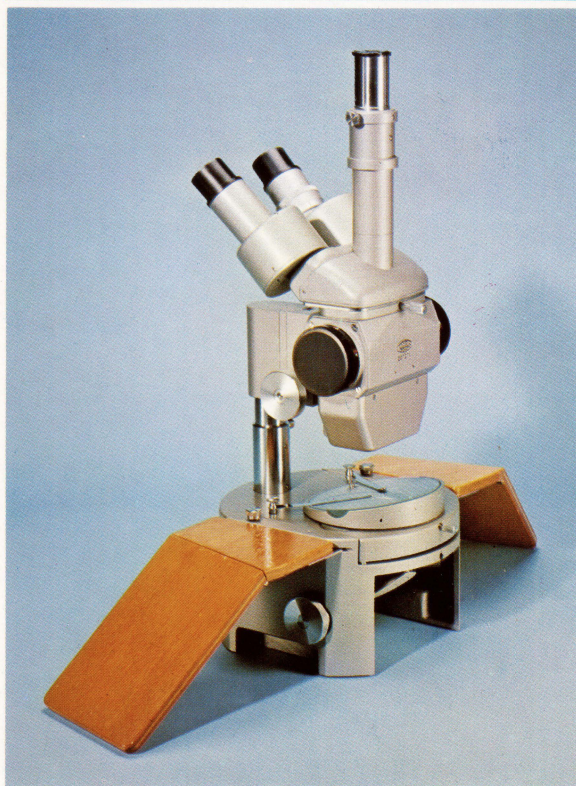


This Olympus instrument is part of the new generation of efficient, versatile stereo microscopes. It can help make everyday use in industry more pleasant and critical observation in research more realistic. The main feature of the SZ-III is a zoom assembly which allows variable magnification from 7X to 40X without losing focus. A polarizer is available to facilitate polarizing observation if required.

The stereo effect is obtained by a 12° convergent light path angle from the 45° inclined binocular tube, and this instrument can obtain a magnification of up to 160X with the G20X eyepieces and the optional 2X auxiliary objective. Other conversion objectives, 0.5X, 0.75X, 1X or 1.5X are available on request. Working distance is up to 159mm with the 0.5X objective, standard working distance is 88mm with a 1X objective. A full set of accessories is available to extend the use of this moderately priced microscope into many fields of application.

Trinocular Stereo Microscope

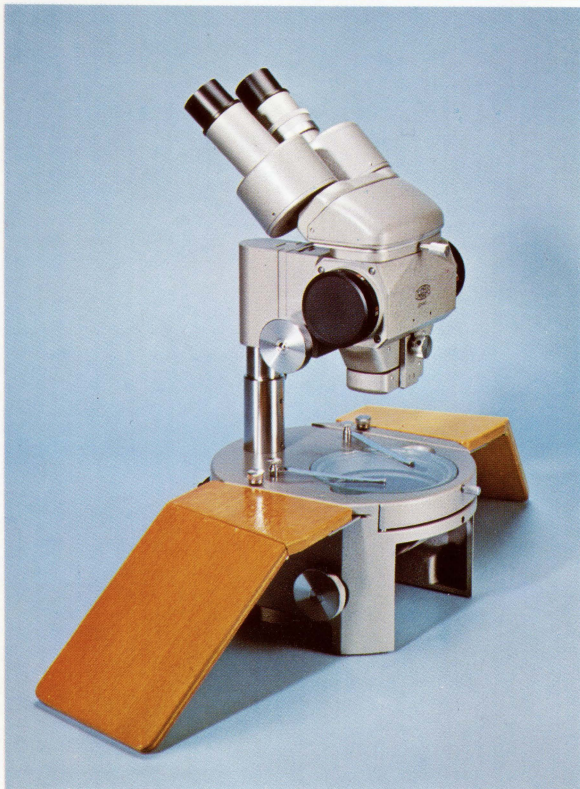
Model **X-Tr**



This is a new all-purpose microscope combining an array of useful features. The trinocular tube permits simultaneous photomicrography and stereoscopic observation. Working distance is 86 mm with the 1X objective and total magnifications run from 6.3X to 80X. A special turret built into the microscope contains a five step magnification changeover system, allowing magnifications to be changed with the turn of a knob. The 45° tube inclination provides comfortable viewing. For bright, revealing observation of transparent objects, the X-Tr also includes a trans-illuminator base.

Stereo Microscope

Model **X**



The Model X incorporates all the features of the X-Tr except the trinocular tube. It achieves a versatile stereoscopic effect through a binocular tube with light paths converging at 12°. Interpupillary adjustment of the eyepieces and diopter adjustment permit the user to find the most comfortable setting.

Like the Model X-Tr, it has a standard magnification of 80X and can obtain a maximum of 160X with the 2X objectives. It can be used at a working distance of up to 86 mm with the 1X objectives, 45 mm with the 2X.

With these flexible instruments are available a broad range of accessories to make them suitable for many research and industrial applications.

Stereo Microscope

Model **VB**



The VB is a stereo microscope for general use with a binocular tube inclined 45° or 60°.

The microscope is equipped with either 1X, 2X or 4X objectives and the maximum magnification of 80X can be achieved by using the 4X objective with a G20X eyepiece.

The optics have excellent resolving power and a crisp three-dimensional image can be obtained throughout the full range of magnifications and viewing positions. The standard maximum working distance is 90 mm, but this can be increased to 155 mm by using the optional conversion lens 0.5X. The working distances of other conversion lenses are 100 mm with the 0.75X, 42 mm with the 1.5X, and 28 mm with the 2X lens.

Stereo Microscope

Model **VT-II**



This Olympus stereo microscope is popular for its price tag and its ability to give excellent definition with a minimum of adjustment.

For a compact stereo microscope, the VT-II is unusually versatile. The objectives are built into the turret for easy change of magnification, and the left eyepiece tube has independent diopter adjustment. As the Olympus objectives are parfocalized, refocusing and adjustments are kept to a minimum. Both 1X and 2X objectives provide the same working distance of 74 mm at total magnifications of 20X and 40X respectively.

Other useful features of the VT-II are a convenient carrying handle incorporated in the stand, and a binocular tube that detaches for use on a universal arm. Everything about this instrument is designed for handy use in the laboratory or on the production line.

Darkfield Stereo Microscope

Model **JM**



The JM stereo microscope is a very specialized instrument. It is intended mainly for critical examination of crystals, minerals and gemstones, and in this field is unmatched for accurate and rapid analysis.

By combining the best of two Olympus systems—zoom stereo-microscopy and very flexible illumination facilities—the JM is the ideal instrument for determining the quality of precious stones.

It employs dark and bright field illumination devices and an inclined illuminator, all of which are built into the standard JM base. With the G20X eyepieces, the total magnification is 80X; the working distance can be as large as 88 mm.

Darkfield Stereo Microscope

Model **JM-Tr**



The JM-Tr is an extension of the JM with photomicrographic facilities for both observation and simultaneous photography of crystals, minerals and gemstone structures. It incorporates the same advanced trinocular tube as the X-Tr with a magnification turret. The combination of incident and transmitted illumination enables the observer to quickly locate surface and hidden defects and to obtain definitive profiles by brightly illuminating the specimen against a dark background. The unique substage darkfield illuminator is available on both JM and JM-Tr models. Photomicrography with these versatile illumination facilities provides unusually precise documentation of your specimens.

Operation Microscope

Model **MTX**

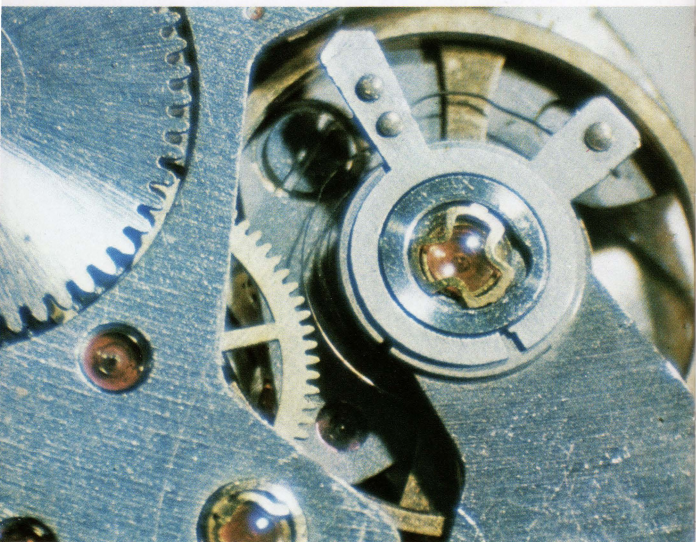


This instrument is built around the demands of internal surgery and microsurgery—ear, nose and throat surgery—but also finds increasing application wherever in-depth medical and industrial observation is required together with photomicrographic facilities.

It is an all-in-one system combining a base with a built-in foot-controlled transformer, counterbalancing column, Koehler illumination system with green and blue contrast filters, and a highly effective Olympus stereo microscope. The microscope accommodates interchangeable objectives (f-125, f-200, f-500) and allows working distances of 123 mm, 200 mm and 470 mm respectively. Total magnification can go from 1.3X to 63.9X. Photographic accessories include everything from a 35 mm camera to a spare flash bulb. Provisions are also made to equip the MTX system with such accessories as a side viewer, inclined binocular tube, etc.



*With all the microscopes shown,
the standard model is the basis for
a surprisingly large system of accessories.
The performance of each instrument can be improved,
made more convenient,
or extended to exactly suit your application.*



Accessories



Eyepieces
Universal Arm Stands
Epi Illuminator
Universal Illuminator
Fluorescent Illuminator
Coaxial Illuminator
Trans-Illuminator Stand
Aperture Iris Diaphragm

Eyepieces

All eyepieces contain high resolution Olympus lenses computed for full chromatic and distortion correction.

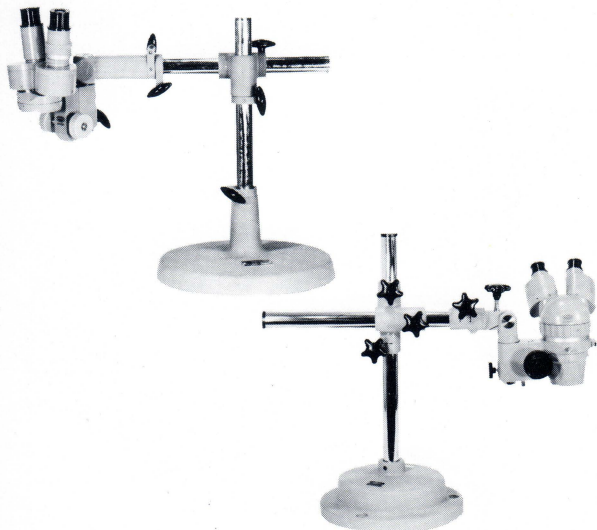


Eyepiece	Initial Magnification	Field Number
Greenough	G10 X	22
	G15 X	13
	G20 X	12.2

Universal Arm Stands

Models **VS-IV & VS-V**

These stands have quick and positive clamping systems. They make it possible to observe large objects with ease. The Model VS-V has a larger base.



16

Epi Illuminator

Model **LSG-II**

The LSG-II provides clearly defined stereoscopic images of opaque specimens. It employs a 6V, 2A lamp and is fully adjustable to all working positions.



Universal Illuminator

Model **LSD**

The LSD is for incident illumination. A condenser rack and pinion travels 18 mm for converging, diverging and parallel adjustments of the light beam. It utilizes the Koehler illumination principle.



17

Fluorescent Illuminator

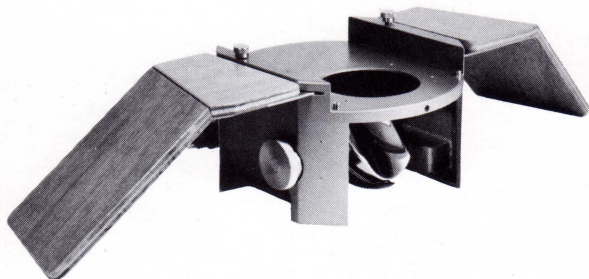
Model **VL-FL**

This special illumination accessory features a U-shaped fluorescent lamp (6 watts) that fits around the body of the microscope. It furnishes shadowless, glare-free illumination of the specimen.



Trans-Illuminator Stand

This stand provides illumination from below the specimen for clearer observation of profiles or transparent material. It has a built-in mirror and handrests for convenient operation.

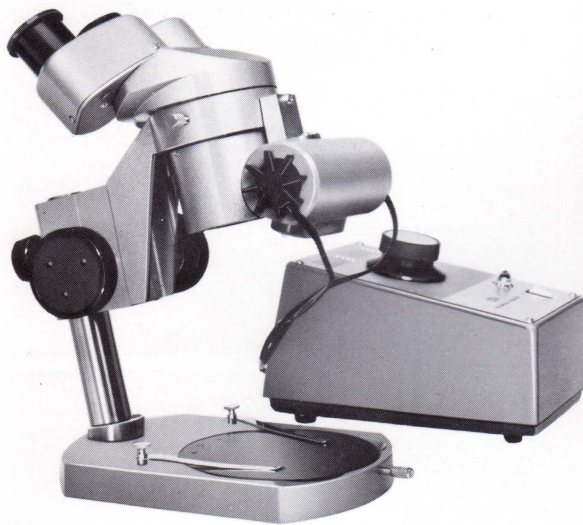


18

Coaxial Illuminator

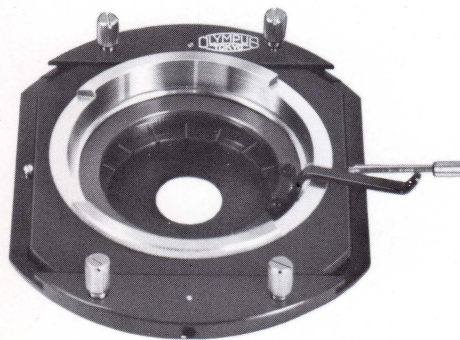
Model **VL-T**

This illuminator is used as a light source on the SZ-III and VB microscopes. It gives bright illumination similar to vertical illumination over a wide working area. The precise angle of incident illuminating rays makes color evaluation of workpieces on a production line easy and accurate.



Aperture Iris Diaphragm

This diaphragm fits over the opening of the trans-illuminator base and controls the amount of transmitted light. Aperture adjustments are from 2 mm to 40 mm diameter.



19

Photomicrographic System Camera

Model **PM-10**

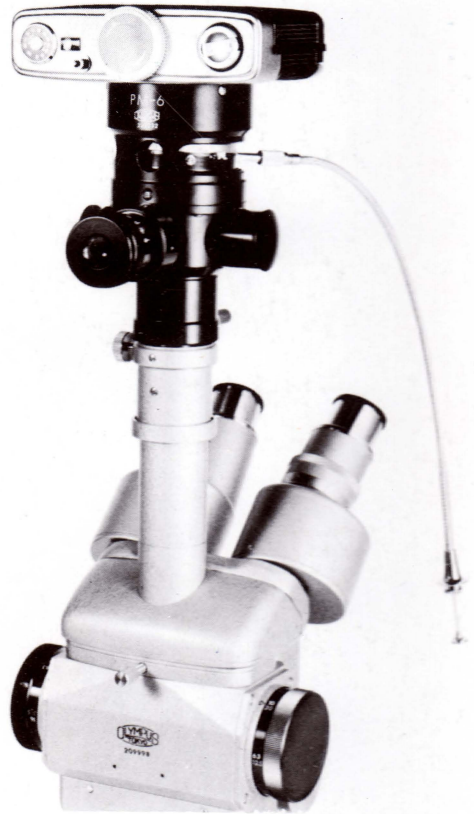
PM-10 is a complete system that can be adapted, according to the choice of equipment, to the level of work. Choice of manual (PM-10-M) or automatic basic units (PM-10-A): 35 mm film, $3\frac{1}{4}'' \times 4\frac{1}{4}''$ Polaroid®, 4" x 5" film, may be used. Selection of focusing telescopes and magnifiers is available.



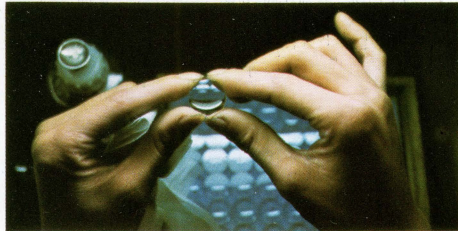
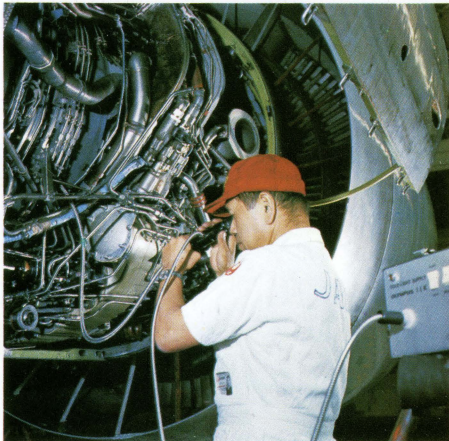
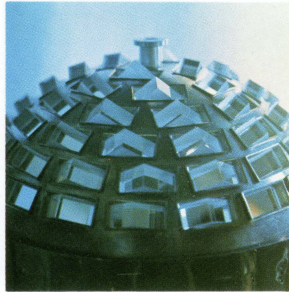
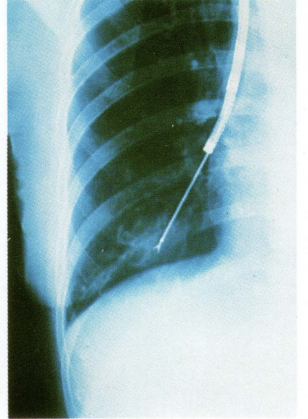
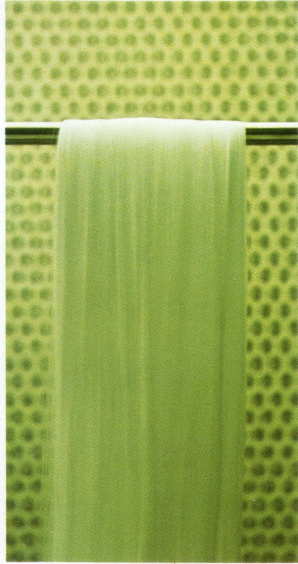
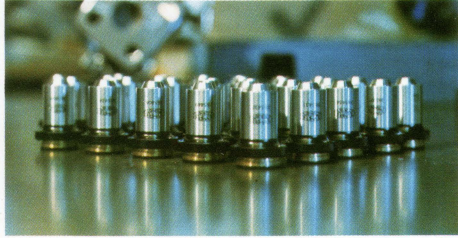
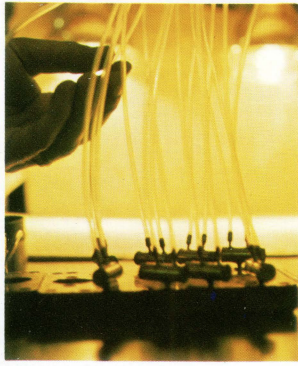
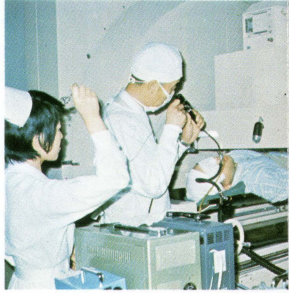
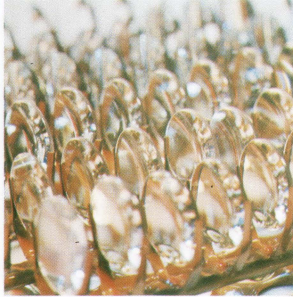
35mm Photomicrographic Camera

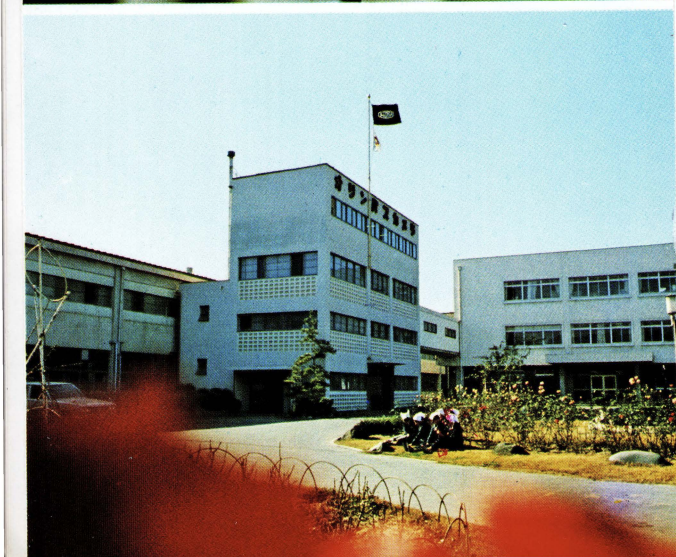
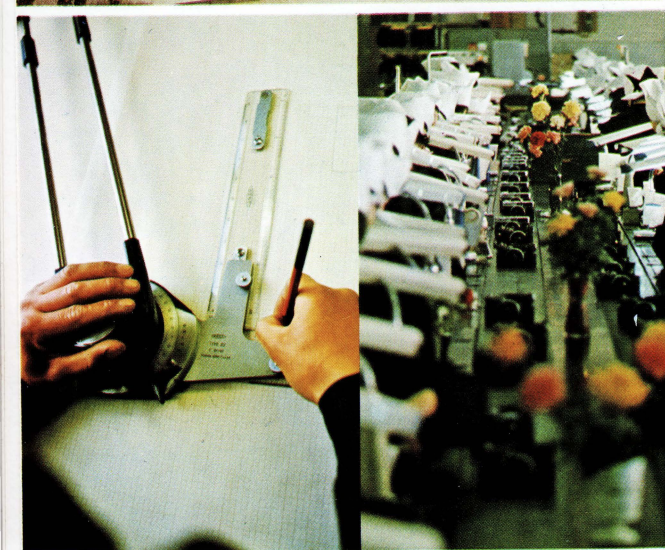
Model **PM-6**

Produces sharp and clear pictures on 35mm film. Simultaneous photography and viewing. Shock-proof shutter. Shutter speeds B and 1 sec. to 1/250 sec., X-synchronization. 24 x 36mm picture size.



® "Polaroid" is a registered trade mark of the Polaroid Corporation of Cambridge, Massachusetts, U.S.A.





The products Olympus presents to the world have become an indispensable contribution to many scientific disciplines as well as a popular part of everyday life: Cameras in which the amateur and the professional can find truly satisfying photography. Microscopes and measuring instruments that are contributing to the advancement of industry and science. Tape recorders and facsimile units which are helping to set the pace of the rapid growth of communications. Electronics are now playing a big role in developments at Olympus and have been applied to many revolutionary products. The automatic chemical analyzer, developed by Olympus, is one of these. It automatically analyzes and records sugar, urea, protein, nitrogen, cholesterol, bilirubin, albumin and thymal turbidity contents of specimens simultaneously and is finding wide application in the medical field. Another break-through is the fiberscope which can visualize an internal view of endoscopic objects and even take photographs. The past year has been studded with similar developments in all fields related to the transmission and utilization of light, and the brains at Olympus are now also penetrating the great potential of laser technology. For the student analyzing his first specimen; for the businessman counting on faster production of micro-parts; for the scientist with his eye on the future... in fact, for everybody wishing to look into the world beyond man's vision, Olympus has something to offer.



OLYMPUS OPTICAL CO., LTD.

43-2 Hatagaya 2-chome, Shibuya-ku, Tokyo, Japan

OLYMPUS OPTICAL CO. (EUROPA) GmbH.

2 Hamburg 1, Steindamm 105, Germany

OLYMPUS CORPORATION OF AMERICA

2 Nevada Drive, New Hyde Park, N.Y. 11040, U.S.A.

