

Bausch & Lomb

StereoZoom

Microscopes



Bausch & Lomb Incorporated

Rochester 2, N.Y., U.S.A.

Bausch & Lomb Stereomicroscopes with STEREOZOOM®



Continuously Variable Magnification Optics in sealed Power Pod

Here's a completely new optical concept to speed and simplify work requiring 3D views. Just turn the magnification knob and watch the crisp stereo image zoom to the *exact* size you need. Not just a few fixed powers, but *any* power within the wide stereo ranges (3.5 \times -120 \times). The newest advance in three dimensional microscope design... exclusive with Bausch & Lomb.

The range of magnification attainable is determined by choice of:

1	a. Power Pods—Four Models Two StereoZoom continuously variable models are available.	1 \times thru 2 \times 0.7 \times thru 3 \times
	b. Two fixed models are available.	1 \times 2 \times
2	Wide Field Eyepieces Three Magnifications	10 \times 15 \times 20 \times
3	Supplementary Lenses Two Magnifications	0.5 \times 2 \times

EXCLUSIVE POWER POD DESIGN CONCEPT

- Sealed to prevent dust and foreign matter from entering optical system!
- No nosepiece!
- No objectives to change!
- No image jump!
- No image blackout!

Since TOTAL MAGNIFICATION equals POWER POD times EYEPIECES times SUPPLEMENTARY LENS, when used, the extended range of magnification possible is easily determined. The limits are 3.5 \times thru 120 \times .

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Beginning a New Tradition in Microscope Design

The optical design of these new instruments is a complete departure from the conventional methods used to achieve magnified, three-dimensional images. All optical elements are completely enclosed in a unitized Power Pod, sealed against dust and all other foreign material. Images are always crisp, and brilliant. The finest details in the object being viewed are quickly and easily resolved, assuring continuous, accurate, speedy work flow.

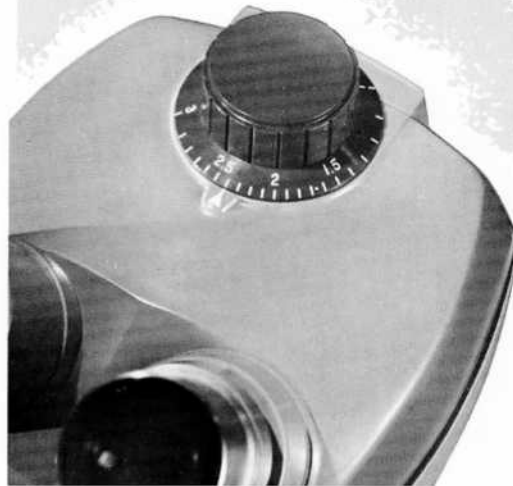
Dual mirrors erect and relay the enlarged images formed by dual magnifying lenses, eliminating prisms and the attendant possibility of prism shift. These first-surface mirrors have an enhanced aluminum coating that increases light reflection and maintains its polished brilliance.

The enclosure containing the optical elements and heretofore often referred to as a "body" or "Optical Head" is so entirely different in concept that these terms no longer apply. Hence, the name "Power Pod"—to signify a complete, self-sufficient unit that is, in essence, the microscope. All Power Pods fit all stands, and are instantly interchangeable from one type of stand to another, can be reversed and in some cases rotated. Such complete versatility keeps the user constantly prepared to meet all needs quickly without heavy investment in additional instruments.

Optics are completely enclosed within the Power Pod on a smoothly functioning, long-wearing cam arrangement in the StereoZoom continuously variable magnification models—permanently fixed in the constant magnification models. There are no objectives to misplace, scratch or break—no sliding, revolving, or rotating drum nosepieces to get out of order or to cause "image blackout" when changing from one magnification to another.

This "phantom" illustration of the 0.7× thru 3× continuously variable Power Pod, shows many optical-mechanical components within the sealed body. While every part in the system is of ample size to assure long life with no maintenance problems, the entire assembly is a marvel of compactness. Turning the StereoZoom Dial actuates shafts and gears which determine spacing of lenses to provide continuously variable magnification.

The StereoZoom Dial on both the 0.7× thru 3× and 1× thru 2× continuously Variable Power models is graduated in magnification increments.





0.5× and 2× Lens Attachments are available. A Clear Glass Shield is furnished on Fixed Power models and optional at extra cost on Variable Power models.

Flat Fields — No Loss of Depth

Because the optical arrangement consists of two complete microscope systems, edge-to-edge flatness of field is assured. There is none of the annoying curvature of field that destroys the 3-D effect and results in inaccurate work and costly rejects. True stereopsis is maintained at all magnifications. No refocusing is necessary when changing from one to another.

Working distance is a constant 4 inches except when lens attachments are used. The 2× attachment shortens working distance to 1½ inches, the 0.5× attachment extends it to 7 inches. Obviously, the 0.5× attachment can be used only with those models that permit 7 inches of working distance — models in the S, SK, K, and KT series.

In addition to long working distance and flat fields, these instruments also provide wide fields of view enabling users to manipulate tools or dissecting instruments with speed and precision. See pages 26 and 27 for a table of magnifications and field sizes.

Longer Eye-Relief Eyepieces

In keeping with the many other accuracy, time-saving and comfort features of these new instruments, the entirely new, wide-field eyepieces provide a margin of eye-relief that assures comfortable, efficient viewing. They provide wide fields with the sharpest possible focus from center to outside edge, without the “peep-hole gazing” effect of less modern instruments. They can be supplied in 10×, 15× or 20×. The 10× eyepieces with exceptionally long eye-relief are ideal for those who wear eyeglasses. Simplicity of mechanical design permits quick insertion of standard, or special

Long Eye Relief Wide Field Eyepieces come in 10×, 15× and 20× magnifications and permit comfortable viewing even when wearing glasses.



micrometer scales for precise measuring work.

To eliminate bothersome stray light, eyeguards are regularly supplied for use with these eyepieces without extra cost. For those who do not wear eyeglasses, these eyeguards serve to quickly position the eyes at the correct distance from the eyepieces.

Sharpest Possible Images

Whenever the requirements call for the very finest optical elements science can provide, Bausch & Lomb optics are specified. And in this new line of StereoZoom Microscopes, these optics assure sharpest rendition of detail in the most complex material. To insure elimination of internal reflections and flare, thus providing more light, better contrast and definition, all optical elements are anti-reflection coated with Bausch & Lomb BALCOTE.

Inclined Eyepiece Tubes for Comfort and Efficiency

All Power Pods are supplied with eyepiece tubes inclined at a convenient angle. The operator works comfortably and efficiently, fatigue-free for long periods of observation.

Synchronized Eye-Spacing Adjustment

Eyepiece tubes are easily adjusted to conform to individual eye-spacing from 50mm to 80mm. They are synchronized with a large, smoothly acting linkage completely enclosed within the Power Pod—movement of one moves the other the same degree, maintaining the same horizontal axis. Spacing remains as set until purposely changed. This adjustment will not affect focus nor will it destroy calibration during measuring applications.

Inclined Eyepieces make for relaxed, most efficient viewing. Here shown with eyeguards, regularly supplied with all wide field eyepieces at no extra cost.



Acuity Equalizer

One eyepiece can be independently focused to compensate for the difference in visual acuity between the eyes. A fine screw thread permits precise equalization of focus between the left and right eyes.

Instantly Reversible Power Pods

All Power Pods are quickly reversible in any type stand simply by opening two spring clips, lifting the Pod out, and replacing it, so that the eyepieces are facing in the opposite direction. Optics are mounted to withstand everyday use — and abuse.

A rotary arm permitting 360° rotation is available for models in the S, K and KT series and regularly supplied in the SK series. This is especially useful when examining objects too heavy or bulky to be conveniently handled.

Modern Functional Stands

The simple, rigidly-strong, and well-balanced stands of these instruments assure vibration-free support for the Power Pods. They can be used on the production line alongside machinery without resultant image flutter.

There is an immediate and complete response without sign of lag or drag when focusing B&L StereoZoom Microscopes. The focusing rack and pinion gears are chrome-plated steel, making them extremely hard and corrosion-resistant, thus adding considerably to their long-wearing qualities. The rack is extra wide, providing a greater bearing surface and thus assuring more positive focusing. Vibrations cannot cause the stereomicroscope to creep or drift out of focus.

Focusing knobs are also extra large for positive handling, ease of manipulation and critical focusing. These instruments will always



Power Pods are instantly reversible to allow for specific requirements of work to be done.



