Since its founding in 1899, Wollensak has been known as a company which keeps abreast of the times. Indeed, in our business we not only must keep abreast of the times, we must keep ahead.

In little more than half a century Wollensak has progressed from the manufacture of shutters and single achromatic lenses, through two world wars, to the manufacture of such "space age" items as the Fastax high-speed motion picture camera (up to 18,000 pictures per second) and the complete opto-mechanical head assembly for the IBM Optical Reader ("reading" up to 400 documents per minute).

Such a capacity for rapid growth in many different directions implies flexibility and balance—and these two qualities are bywords at Wollensak. They provide us with the ability to move rapidly in a great variety of individual spheres—a necessity since we are concerned with the manufacture of a multitude of specialized customer-ordered products in the optical, opto-mechanical and mechanical fields.

Coupled with balance and flexibility, we offer experience and a creative imagination, enabling us to transform your needs into products which fulfill them.
Wollensak - people and facilities

The craftsmanship which is a necessary ingredient in the manufacture of all our products is provided by employee ability and experience, plus the availability of precision equipment. Three fully equipped plants — Optical Molding, Optical Grinding and Polishing, and Mechanical — provide us (and you) with complete control of product from inception to completion. Complete laboratory facilities are also maintained for comprehensive performance testing under virtually every condition of environmental exposure, including temperature, humidity, salt spray, vibration and physical shock.

Wollensak's three plants offer extensive facilities. If these facilities are to fulfill their peak production potential, we must have imaginative, skilled men and women to use this great potential — interested people who are devoted to their work — devoted to the challenging task of turning out the kind of precise, dependable products that meet your requirements.

We have this type of person at Wollensak ... in fact, we have more than 700 of them, approximately 40 of whom are engaged in Research Mechanical Design, Development Engineering and Test Engineering. These are the people whose talents we offer to you, our customer — people who know their business in the individual and combined optical, opto-mechanical and mechanical fields.
A fine example of Wollensak's capability as applied to a specific customer need is the manufacture of the complete opto-mechanical head assembly for the IBM Optical Reader. The "Reader" is a precision system which accepts reflected light from the document to be recorded, analyzing and recognizing each character of the document, then passing this information along until the complete document is subsequently recorded and filed in the form of cards, magnetic tape or printed reports. The "Reader" can process up to 400 documents a minute, filing them in perfectly organized fashion—permanently and accurately. It has obvious applications in nearly every industry imaginable.

Another representative, though vastly different example of Wollensak capability is the lens elements, enabling the operator of a grinding machine to see on a translucent screen an enlarged view of what he is actually grinding, no matter how intricate the work. This affords him continuous operation, with no interruptions for inspection.

The savings in time, money and man-hours are obvious. The same grinding job that was once a painstakingly slow "start and stop" operation can now be performed simply, easily, visually—from start to finish.

The Oscilloscope Camera, designed and manufactured by Wollensak, is specifically intended for the sequence analysis of a host of different mechanical functions.

With its oscilloscopic visual tracing system, the Oscilloscope Camera gives an accurate, easy-to-evaluate reading of everything from the opening and closing characteristics of a shutter to the exact length of contact between two precision moving parts. The Oscilloscope Camera is widely used in numerous industries as an oscilloscopic-photographic analytical tool.

As diversified as these examples are, all three are results of Wollensak skills, facilities, painstaking research and engineering/manufacturing imagination...in a word, Wollensak flexibility.
Fastax high-speed cameras allow the taking of motion pictures at frame rates of from 150 to 18,000 per second, so that phenomena moving too fast for the eye to see can be recorded permanently for leisurely study and analysis. By taking pictures at a rate many times faster than the normal projection speed, an ultra slow-motion film results, which, when shown on the screen, reveals events previously lost in the blur of speed.

A Fastax is, in effect, a time microscope, designed to "stop" motion, literally magnifying time. Fastax high-speed motion picture cameras are used extensively both on the production floor and in the laboratory. In essence, more than cameras, they are engineering analysis tools. Simple to operate, they have a multitude of applications, for both the small and the large manufacturer.

The Fastax group includes both straight motion picture and oscillographic cameras, and combined motion picture-oscillographic models.

The Fastair high-speed camera operates under the same basic principle as does the Fastax, with one very important difference—it is specifically designed for the documentation of rapid motion, acceleration and deceleration while riding with the test vehicle itself.

Compact and light-weight (it's the smallest, lightest high-speed motion picture camera ever developed), the Fastair takes up to 600 pictures per second. Providing strength, ruggedness and maximum rigidity, the Fastair is designed to withstand severe vibration and the extremely high "G" or Gravity Load Factor which occurs during rapid acceleration and deceleration.

On the ground or in the air, wherever a high-speed camera must be "on-the-spot", this is where Fastair is used for an accurate, graphic demonstration of what actually happens.
Wollensak Mirrotels are catadioptric, super-long focal length lens systems, developed specifically to satisfy the exacting requirements which long-distance radar boresight and surveillance devices depend upon.

Because the light path is reflected, or "folded" three times within the system, the length and weight of a Mirrotel are less than one-third those of an equivalent refractive telephoto objective, providing the all-important maintenance of resolution and physical stability.

Also, the lens and mirror elements of Mirrotel systems are housed within unique Invar temperature-compensated mountings, assuring flawless line-of-sight accuracy despite environmental changes in temperature, shock or vibration.

These are reasons why the Wollensak Mirrotel is called upon so often by government and industry to meet the varied and demanding needs of radar boresight and surveillance systems.

Whatever your requirements in the optical, opto-mechanical or mechanical fields, we invite you to make use of our advanced facilities and experienced craftsmanship. Our personnel are waiting to serve you—to help you transform your needs into products which fulfill them.