

LIFE SCIENCES & INDUSTRIAL DIVISION

Different Name, Same Commitment

The alert-minded will have noticed the subtle name tweaking from “Photonics and Life Sciences” to “Life Sciences and Industrial” division to better reflect our end-market focus. Despite the change in nomenclature, the driving force behind this division remains the same: leveraging core technologies into life sciences and high-tech industrial markets in order to maximize revenue streams.

Fluorescence Microscopy

To meet demand for instrumentation critical to life science research, we leveraged our ultraviolet/visible spot-curing expertise used in optical component manufacturing to develop a high-powered light source – the X-Cite 120 Fluorescence Illumination System – that provides unmatched performance for laboratory microscopes. Its proprietary Intelli-Lamp™ technology, generating more than 1,500 hours of lamp life, was adapted for fluorescence microscopy applications as it delivers rich spectral excitation with a more uniform field of view than conventional lighting systems. Most of the leading microscope manufacturers around the world have embraced this innovative solution, reselling it to their new and installed base of customers through their own sales networks.

Nanotechnology

Nanometer-scale precision is becoming increasingly important in life science research, but we’re hardly new to this market phenomenon. Our patented Inchworm® motors, which were initially designed for optical component manufacturing applications, are among the industry’s best with a positioning resolution of 0.1 nm – smaller than the size of an atom. Our Inchworm motors are now being used in highly advanced research and manufacturing projects such as NASA’s next-generation space telescope. In addition, we offer a unique array of piezoelectric-based positioning systems, combining stability with extremely smooth and predictable instrument motion, for a variety of lab applications including patch-clamp experimentation, electrophysiology and micromanipulation. We have also developed a PiezoDrill®, which is used for more esoteric procedures such as intracytoplasmic sperm injection and nuclear transfer.

Light-Based Curing

Over the years, we have become the authority in light-based, adhesive spot-curing as well as process control for the assembly of components for medical devices, optoelectronics and microelectronics. Our ultraviolet/visible spot-curing products deliver precise doses of the appropriate spectral light onto photosensitive adhesives to significantly reduce bonding time and increase repeatability. In fiscal 2005, our migration to a single platform culminated with the release of the OmniCure™ Series 2000, a high-end automated system that can easily be controlled externally from a personal computer.



X-Cite™ 120 | Fluorescence Illumination System



LSS-8000 | Inchworm® Microdrive System



PiezoDrill® | Inertial Impact Drill



OmniCure™ Series 2000 | Ultraviolet/Visible Spot-Curing System