Metaphase Technologies Inc.

LED APPLIED TECHNOLOGIES
CUSTOM DESIGN
EXCEPTIONAL PRODUCT PERFORMANCE
OVER 4,000 EXISTING PRODUCTS
SPECIALTY LIGHT APPLICATION

PRODUCTS OPERATE WITH:
BUILT-IN DRIVER
BUILT-IN STROBE
UNIVERSAL CONTROLLER

IN-HOUSE EXPERTISE IN:
OPTICAL    •    MACHINE VISION    •    ELECTRICAL
MANUFACTURING    •    MECHANICAL    •    DESIGN
**MISSION**

At Metaphase Technologies, Inc our mission is to continue to provide the most comprehensive selection of high quality lighting solutions at an affordable cost.

**WHAT WE DO**

Metaphase Technologies, Inc is an ever-expanding LED lighting technology company providing over 4,000 products used in thousands of installations around the world.

For over 18 years Metaphase has been focused on developing products that harness “The Quality of Light™”, by engineering and manufacturing innovative LED illumination fixtures for the Machine Vision, Military, and Speciality Markets. Today our MetaLight™ and MetaBright™ LED lighting solutions are enhancing the capability of imaging systems around the world. Our innovative lighting fixtures are key components in inspections systems that help manufacturers to improve upon their existing high quality standards. Our versatile designs are continuously being upgraded to utilize the latest in LED, thermal management, optical and electronic technologies available.

Metaphase is located just outside of Philadelphia, PA, with technical sales offices throughout the world. Metaphase continues to respond to the typical and unique vision inspection requirements of our domestic and international markets. All Metaphase lighting systems are designed and manufactured in the United States.

**WE PROVIDE**

- The most extensive product line
- The best performance LED lighting
- The most cost effective lighting
- Service to many fortune 500 companies
- Products designed and built exclusively in the USA
- Custom design
- Free testing
MetaBright™ Line Lights are primarily used in line scan applications and provide an extremely intense, narrow strip of light. *Metaphase* line lights are the most uniform, intense and cost effective line lights available. Options include: various lengths (up to 120”), housing profiles, cooling, lensing, beam widths, and working distances. Specialty versions include the “Wrinkle Line Light” used to enhance wrinkles in a web.

MetaLight™ line lights are for applications that require a narrow strip of light at lower intensities than the MetaBright™ line lights. Thousands of these lights are currently being used in applications across the globe.

Low profile version of *Metaphase’s* diffused tube lights with an aperture designed for line scan applications. Ideal for inspecting highly specular reflective materials with line scan cameras. Currently available in lengths up to 80”.

A specialty version of the line light that provides an exceptionally long working distance and a highly collimated line of light.

Used in line scan applications where the line of light needs to be on the same axis as the line scan camera. This light uses beam-splitter technology to provide an extremely bright, uniform, on-axis line of light.
ExoLight™ series of LED illuminators are direct replacements of typical high frequency fluorescent tube lights historically used in machine vision applications. These lights use patented technology providing illumination 3X brighter than a fluorescent lamp. These low cost lights have a built-in constant current source driver so no special power supply is required to operate. Lengths are available in 8”, 14”, 23”, and 48”. Additional sizes are available upon request.

These low cost, intense, high-pressure washdown capable spotlights are 6X brighter than halogen lamp spotlights. These lights are available with different emitting angles to meet various coverage area and working distance requirements.

Low cost backlights utilizing our “lumiform” technology allow a single row of LEDs to project a highly uniform illumination across the complete active area. Twice as bright as cold cathode fluorescent backlights.

Metaphase offers a large selection of stainless steel LED illuminators for harsh, high-power washdown environments. Different shapes, lighting profiles and color spectrums are available.

Front and flood lights come in a wide array of sizes, shapes, color spectrum, and mode of operation (DC and strobe). Custom versions are available.
The Metaphaser™, an LED light engine, is typically used as a light supply for fiber optic lights. It is brighter than standard Halogen supplies and comparable to high brightness Metal Halide light sources. Lower power versions for microscope applications are available.

Metaphase offers the most densely LED populated backlights that provide high intensity and high uniformity illumination. Standard, shallow, linear and thin profiles available.

Ring Lights include a large array of sizes, LED angles (for near and off-axis illumination) and a number of concentric rings per light. Mounting brackets are available for the more popular machine vision cameras.

LED lights with built-in strobe capability allow for Power Boost Operation (high intensity). No external strobe controller is required. Simply provide supply voltage for the light and trigger-in signal.

These LED lighting modules use special lensing and optics to project highly focused, structured light patterns typically found with laser points. Patterns include a series of parallel lines, dots matrix, cross-hairs, etc.
The RoboLight is designed for harsh, wet environments. It is available in lengths of 6” to 24” and ideal for Robotic workcells as well as washdown applications. Options include stainless steel housings as well as various beam angles.

These special illuminators provide intense, evenly diffused illumination. Ideal for highly reflective, specular objects. Current dome lights range in size from 3” to 40” OD. Tubular shaped dome lights, often used in web applications such as tablet blister pack inspection, are available in lengths of 12” to 36”. Flat domes, which are low profile versions of the dome lights, are available in various sizes as well.

These lights provide a high intensity and uniform illumination on the same axis as the camera and object being viewed. These lights use a special beam splitter technology and are available in sizes 1”x1” to 8”x8”.

Designed to replace high-power xenon lights. Far field or near field, DC or Strobe operation. Perfect for license plate reading and surveillance.

Hundreds of custom lights have been designed and manufactured by our experienced and talented staff. Call us with your lighting needs.
Metaphase offers many of its lights with built-in driver and dimming control. This feature allows for stable and optimal LED illumination without the need for a separate controller.

This space-saving feature provides “power boosted” (high current) strobe control of the LED illuminator that is actually built right into the LED light fixture itself. This built-in feature eliminates power loss from the cable to an external strobe controller.

Utilizing the most innovative techniques, the Universal LED Controller (ULC), controls the timing and intensity of multiple LED lights in a safe, precise and stable manner. The ULC controls the LED lighting in both strobe mode with Power boosting (max current resulting in max intensity) and DC mode. The unit is programmed & controlled via the built-in LCD menu driven software or the included software used with the controller’s built-in Ethernet & USB port.

Metaphase offers in-line versions of both dimming and strobe control for space constraint applications. Using these in-line options, circuits are enclosed outside the light unit which allows for a more compact LED light.

The in-line dimming option offers a potentiometer intensity control. Simply requires supply voltage for the light.

No external strobe controller is required, only voltage and trigger signal for the light to strobe required.
RAILROAD INSPECTION

GLASS BOTTLE INSPECTION

FASTENER INSPECTION

LABEL INSPECTION