



RESEARCH & DEVELOPMENT: DEDOTEC GERMANY

A unique knowledge and experience of Optics, Lighting & Imaging:

Dedotec Mechanical & Optronic Systems GmbH was founded in 1976 in Germany. Initially, most of its work was aimed at expanding the usefulness of high-speed video systems. Dedotec Germany designed a synchronized flash system with special optics through fiber light guides for the scientific and machine vision control of microchip bonding (DEDOSTROBE). It also designed DEDOMAC, a special-distance macro-scope (depicting 1mm square from a considerable distance).

Dedotec Germany soon went on developing specialized wide-angle lenses for 70mm high-speed film cameras. Those lenses were declared as physically impossible by several optics professors. Yet our ingenious team designed and built these lenses in record time (DEDUNONE).

Our team was recruited to work on the German high-speed trains (ICE): we designed and manufactured modifications of the high-speed video systems, allowing the insertion of eight digital data channels into the video signal. We also developed a multi-angled periscope system including zoom elements for the analysis of the locomotive's pantograph. The University of Heidelberg hired our company to develop a single-eye stereo system and a high-speed video fluoroscope for the early recognition of cancer cells.

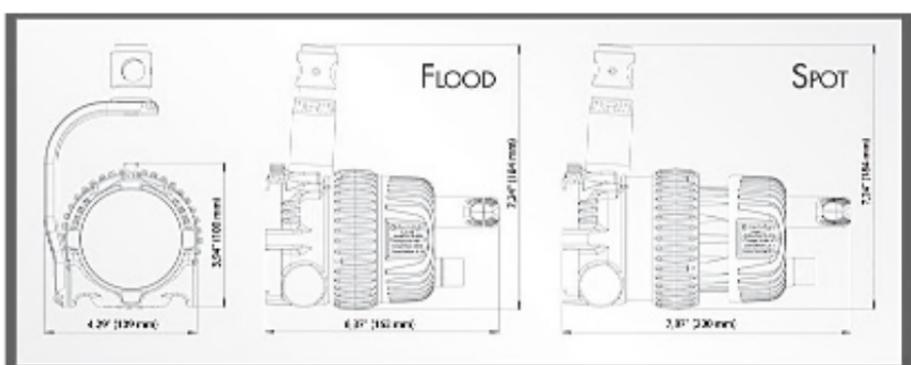
Dedotec Germany acquired throughout the years a wide range of expertise developing solutions for others.

Eventually we decided to use our R&D capabilities to engineer our own equipment: dedolight® was born.

The specific requirements of our lighting equipment did not allow us to follow any existing design concept. To answer this challenge, Dedotec Germany made many prototypes that could fill a museum.

In the end, we invented the dual-lens concept that surpasses any single-lens Fresnel system in efficiency, reach, focusing range and evenness of light distribution.

Afterwards, we added extra movements to the dedolight®: zoom and focus. These designs were awarded twice by the Oscar Committee of the Academy of Motion Picture Arts & Sciences, by an Emmy and several other awards.



Our unique optic system allows for the addition of many optical attachments and accessories to achieve always more precise lighting. They are now known under the names non-spherical wide-angle attachments and Imager/projection attachments. For the projection attachments we developed a family of high-transmission lenses. These cover an image circle much larger than an Hasselblad format.

It is a breakthrough in optical technology as lenses of this transmission quality on such large format usually cost many times more.

Our latest innovations include the design of Parallel Beam Lights and a serie of Parallel Beam Attachment to fit the focusing dedolights®.

This technology can be used very advantageously in place of cumbersome xenons and is the only light source appropriate for the current revolution in reflected light.

All in all, we registered more than 30 international patents; many apply to construction concepts and designs for our diverse lighting equipment and accessories.

Dedotec Germany Research & Development ranks amongst the best in today's professional lighting industry as well as in the fields of mechanical, optical and electronic design.

Dedotec Germany is not affiliated with Dedotec USA.

