LUMATEC®

PROMINENT APPLICATIONS OF THE LIQUID LIGHT GUIDE

DENTAL CURING (1976 UNTIL PRESENT)

Liquid Light Guides revolutionized light curing of dental filling materials by enabling budget priced ergonomic delivery systems for UV and blue radiation.

DERMATOLOGY (1977 UNTIL PRESENT)

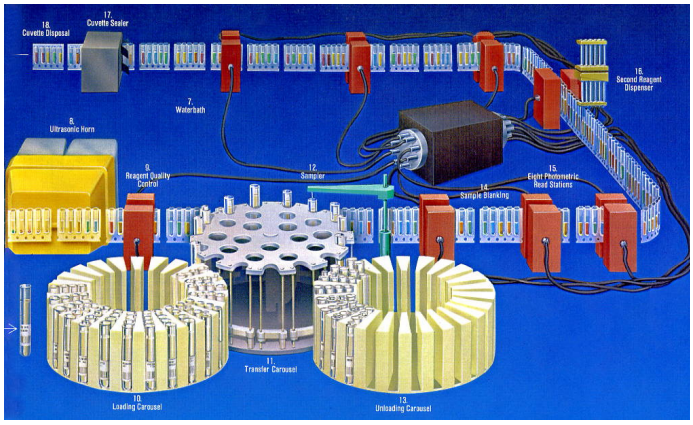
Solar simulators, therapeutic excimer lasers for treatment of psoriasis and vitiligo.

TECHNICAL ENDOSCOPY (1979 UNTIL PRESENT)

Non-destructive testing (NDT) by means of fluorescent penetrant inspection (FPI) requires intense UV radiation delivered by Liquid Light Guides. Important applications: Aircraft engines and structures, helicopter rotors, turbine blade inspection, nuclear power plants.

ADHESIVE CURING (1980 UNTIL PRESENT)

Light curing adhesives play a major role in industrial assembly, Liquid Light Guides deliver high intensity UV and blue radiation.



CLINICAL CHEMISTRY ANALYZER (1983 - 1993)

The leading edge Baxter Paramax® Analyzer employed 16 Liquid Light Guides in 8 under water photometric scanning stations. 110.000 Liquid Light Guides were installed in 10 years!

NDT EQUIPMENT FOR USAF (1987)

A custom designed portable NDT light source for the USAF required operability at arctic temperatures of -40°C (-40°F). Lumatec developed and supplied custom Liquid Light Guides.

SPACE SHUTTLE SOLID ROCKET BOOSTER INSPECTION (1988)

After the Challenger disaster Liquid Light Guides were used for UV inspection of the critical O-ring seal of the solid rocket booster.

UNDERWATER PIPELINE INSPECTION (1990)

Inspections of pipelines in the North Sea, 200m below sea level, were performed with unmodified Liquid Light Guides.

MICROPLATE READERS (1993 UNTIL PRESENT)

The homogenous end faces and reliability of the Liquid Light Guide play a major role in state of the art biotech microplate readers.

FORENSIC LIGHT SOURCES (1993 UNTIL PRESENT)

Powerful UV radiation is a key requirement of forensic light sources. Superior UV performance of the Liquid Light Guide makes it the product of choice for all manufacturers.

PHOTODYNAMIC DIAGNOSTICS (PDD) AND PHOTODYNAMIC THERAPY (PDT) (1997 UNTIL PRESENT)

Cystoscopic examination of the bladder is an established method for cancer diagnosis and therapy. The Liquid Light Guide serves as the ideal optical link between light source and endoscope due to its superior UV transmission properties.

CONTACT LENS MANUFACTURING (1997 UNTIL PRESENT)

By means of UV curing with Liquid Light Guides hundreds of millions of disposable contact lenses are manufactured every year.

HEAD-WORN SURGICAL LOUPE (2000 UNTIL 2018)

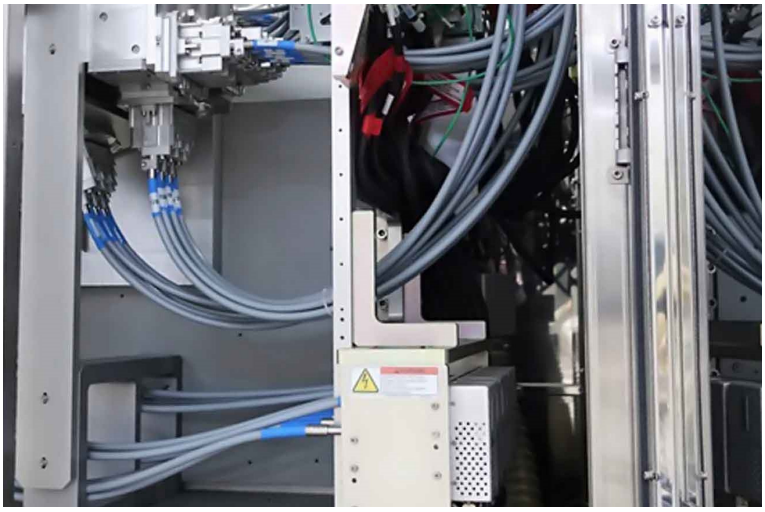
Liquid Light Guide delivers light of superior quality to head-worn loupe of world renowned manufacturer.

OPERATING MICROSCOPE ILLUMINATION (2001 UNTIL PRESENT)

The superior long range capabilities of the Liquid Light Guide allow placement of the light source remotely from the microscope.

WAFER FAB INSPECTION (2004 UNTIL 2020)

Liquid Light Guides Series 250 were a key component of Applied Materials UVision 266nm brightfield wafer inspection system. 14.500 Liquid Light Guides were installed in 15 years.



METROLOGY AND 3D DIGITALIZATION (2003 UNTIL PRESENT)

Liquid Light Guides deliver high intensity light for 3D digitalization equipment of major manufacturers.

FLUORESCENCE MICROSCOPY (2003 UNTIL PRESENT)

The Liquid Light Guide has permanently changed the technology of fluorescence microscope illumination worldwide and is installed by all leading manufacturers.

DIGITAL PROJECTORS WITH REMOTE LIGHT SOURCE TECHNOLOGY (2010 UNTIL 2019)

The ability of Liquid Light Guides to deliver up to 20W of white light from a UHP lamp over distances of up to 30m made possible the separation of the projection head from the light source. The result is a revolutionary, silent, heat free projector.

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