

# **OSRAM lamps.** Just what the doctor ordered.

Specialty light sources for medical and industrial applications.



# The right lamp whatever your application:

Whether your application ranges from microscopic investigation to display systems, OSRAM has established itself as a reliable partner with its extensive know-how as a system supplier and one of the world's largest manufacturers of light sources in the medical and industrial field.



# Designed to fit your application and exceed your expectation.



# Halogen XENOPHOT®

- Tungsten halogen low voltage with or without reflector
- Xenon gas filled lamps produce up to 10% higher luminous efficacy than standard lamps



# Focused Xenon Light XBO® R 300 W

- Xenon discharge lamp for DC operation
- Short arc
- Reflector with focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in visible spectral range
- Ozone-free
- Hot re-strikeable



# Focused UV and Blue Light (Long Life) HXP® R 120 W UV

- Mercury discharge lamp for AC operation at constant power
- Short arc
- Long-life: average 2,000 hours
- Reflector with focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in 320 ... 500 nm range



# Focused Light (Long Life) HXP® R 120 W VIS

- Mercury discharge lamp for AC operation at constant power
- Short arc
- Long-life: average 2,000 hours
- Reflector with focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in VIS (visible) spectral range



# Focused Light (Long Life) HXP® R 200 W VIS/UV

- Mercury discharge lamp for AC operation at constant power
- Short arc
- Long-life: average 2,000 hours
- Reflector with focus diameter of approx. 5 mm
- Reflector coated for maximum reflection in UV to VIS (visible) spectral range



# Intense UV-C Light for Surface Cleaning XERADEX®

- 20 W and 100 W excimer lamp system
- Patented pulse operating principle obtains four times higher efficiency compared to conventional operations
- VUV radiation at 172 nm wavelength
- Efficient ozone generation
- No cooling required



# Infrared Coated Capsule XIR

- Tungsten halogen capsule filled with Xenon gas and infrared (IR) coating for maximum energy efficiency
- IR capsule produces up to 30% higher luminous efficacy than standard lamps in the same terms of condition (wattage and lamp life)



# **Medical Fiber-Optics**

# Requirements

Illumination of human organs or tissue with white light containing a well-balanced mix of colors in its spectrum. High color rendering index. Focused light beam for easy and efficient coupling into light guides with small diameters.

#### **Solutions**

- XBO® R 100W
- XBO® R 180W
- XBO® R 300W
- HLX® 64627
- HLX® 64634
- HLX® 64653

# **Typical applications**

Endoscopic light sources Overhead light sources



# **Surgical Lighting**

#### Requirements

Instant brilliant light and light output over life with a constant color temperature and excellent color rendering. Tungsten halogen lamps can be operated easily, they are environmentally preferable (mercury free) and easy to dim. The new XIR-lamp family — Xenon lamps with IR-coating carry out up to 50% more light in the surgical lighting system.

#### **Solutions**

- 64291 XIR
- 64292 XIR
- 64668 XIR
- HLX® 64638
- HLX® 64642

- HLX® 64643
- HLX® 64647
- HLX ® 64650

# Typical applications

Surgical lighting



# **Microscopy**

# Requirements

Illumination of slide preparations through small diameter optics. Different wavelengths applicable for different fluorescent markers, therefore a wide-range spectrum from UV-A through blue and green to red color is required. Long-life for time-consuming screening tasks.

#### **Solutions**

- HBO® 50W/AC
- HBO® 100W/2
- HBO® 103W/2
- HXP® R 120W VIS
- Halogen lamps

# **Typical applications**

Fluorescent microscopy
Inspection microscopy



# Sterilization with UV Light

# Requirements

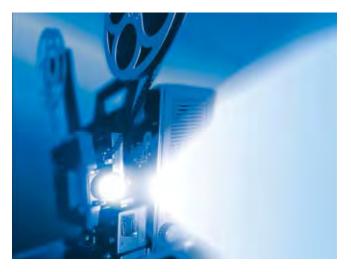
High germicidal efficiency with surface illumination. Long-life.

# **Solutions**

• XERADEX®

# **Typical applications**

 Intensive UV-C illumination for direct germicidal effects



# **Projection**

#### Requirements

Illumination of small frames for projection of films, still images or patterns. Depending on specific application, either a well-balanced continuous light spectrum with high color rendering index or peak-like spectrum. High intensity for high-speed exposures (3D scanning).

#### **Solutions**

- HXP® R 120W VIS
- HXP® R 200W VIS/UV
- XBO® R 300 W

# **Typical applications**

 Projection of patterns for optical 3D scanning

Typical applications

• Illumination of

product lines



# **Curing: Adhesive and Composites**

# Requirements

Exposure of light activated adhesives to UV-A or to blue color light. High irradiation level required for short curing times of adhesives in industrial or dental composites in dentistry. Long-life for mass production processes.

#### **Solutions**

- XBO® R 180W
- XBO® R 300W
- HBO® R 103W
- HBO® 200W
- HXP® 120W UV
- HXP® R 200W VIS/UV
- 64617

- 64617S
- 64613
- 64624

# **Typical applications**

- Curing of dental composites
- Curing of adhesives



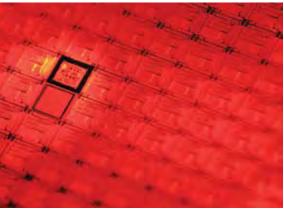
# Production and Quality Assurance Inspections

#### Requirements

Small area illumination: Focused light beam for efficient coupling into light guides or microscopy optics. High intensity for short camera exposure times. Long-life.

#### **Solutions**

- XBO® R 100W
- XBO® R 180W
- XBO® R 300W
- HXP® R 120W VIS
- HXP® R 200W VIS/UV



# **Biotechnology**

#### Requirements

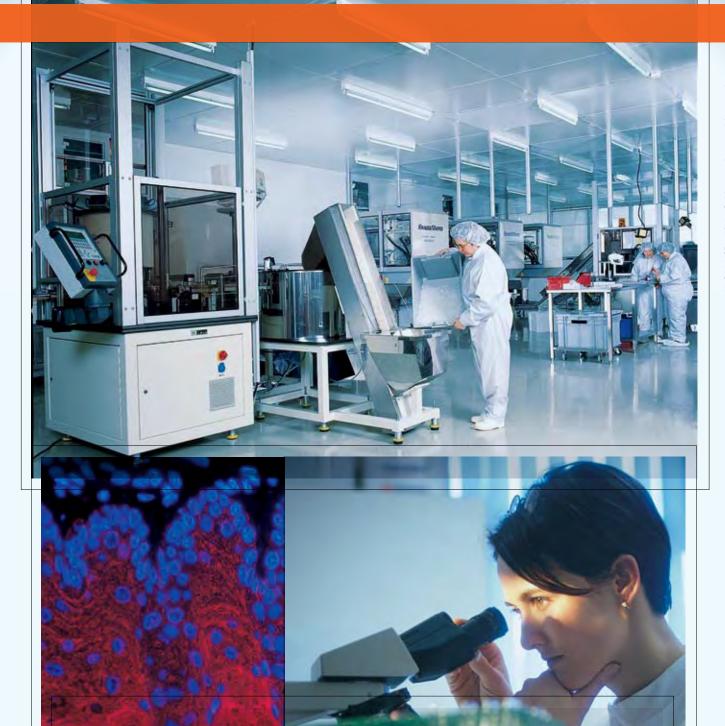
Intensive and efficiently focused near UV-A beam for triggering chemical reactions, e.g. in nucleotide chains. Additionally, visible light beam to trigger fluorescence of fluorescent markers. Long-life.

#### **Solutions**

- HXP® R 120W VIS
- HXP® R 200W VIS/UV

# Typical applications

- Synthesis of oligonucleotide microarrays
- Readout of microarrays



For further information please contact:

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