LED. THE LIGHT SOURCE OF THE FUTURE.
Modern high-performance LEDs are by far superior to conventional lamps, such as halogen lamps, when it comes to light efficiency and service life.

**5 times more light per watt.**
A 20 watt halogen lamp provides 11 lumen per watt. LEDs put out 50 lumens per watt, which makes their light intensity about 5 times more powerful. This means that LEDs generate a lot of light with less power. For this reason, the use of LED technology is also an active contribution to lower energy consumption, electricity costs and CO₂ emissions.

**50,000 hours without maintenance**
The service life is another advantage. LEDs operate completely fail-safe for at least 50,000 hours. This means: 6 years of non-stop lighting without replacing lamps and without maintenance costs. The service life of an LED is crucially influenced by an intelligent thermal management system to ensure effective dissipation of the heat, for example over the luminaire housing.

**Infinite design possibilities**
Due to the small dimensions, LEDs open up new design possibilities to lighting designers. For example, luminaire bodies featuring minimal installation sizes are increasingly important in the area of mechanical and plant engineering.

Additional advantages of the LED technology: Nearly unlimited switchability, immediate 100% output, impact resistance, IR and UV-free light, and no heat development in the irradiation direction.
Around the world, Waldmann is considered an innovation and technology leader when it comes to proper workplace lighting – the Engineer of Light. Waldmann lighting solutions are the result of the perfect balance of sound know-how and forward-thinking light technology.

For years, Waldmann has very successfully relied on the LED technology, developing innovative products for industrial use, and together with its customers created customized lighting solutions for special-purpose applications and illumination requirements.

Waldmann solutions are state of the art. As the user, you can always be certain to be part of the latest developments in LED technology. This also includes innovative combinations of LEDs with conventional light, such as the Waldmann FLAT TEC HYBRID.
**CUSTOM- MADE INTEGRATION**

Light made to measure is the standard at Waldmann. LED luminaires from Waldmann are available in a wide variety of designs and different fastening types.

**WEAR-RESISTANT HOUSINGS.**

Waldmann LED luminaires are intended for use under extreme conditions. Features such as the anodized aluminum housing, safety glass and NBR seals offer protection from mechanical and chemical stresses and prevent dust and moisture from penetrating.

**CERTIFIED, STANDARD-COMPLIANT, AND RELIABLE.**

Waldmann LED products are CE-conforming, ISO-certified, and functionally reliable. Properly combined, not only do they meet, but also exceed DIN EN 12464 with regards to the lighting of indoor workplaces.

**INTELLIGENT THERMAL MANAGEMENT.**

Special circuit boards developed by Waldmann absorb the heat of the LEDs and dissipate it over the housing. As a result, the LED service life is maximized.

**SPECIAL LENSES.**

The lenses developed by Waldmann and the innovative reflector technologies ensure maximum efficiency and optimal light control.
Sustainable lighting is aimed above all at quality—quite comprehensively. Sustainable luminaires are economically efficient, environmentally friendly, and resource-efficient. The lighting quality increases safety and promotes health in production operations.

With the ‘efficient light’ product certification, Waldmann supports all companies searching specifically for solutions to lower their power consumption – without foregoing lighting quality.

The ‘efficient light’ certificate highlights energy-optimized Waldmann products that offer very high lighting quality. The certification is based on defined criteria:

- Operating device
- Type of lamp
- Power in standby
- Illumination efficiency

Waldmann products that are awarded the ‘efficient light’ certificate are the energy efficiency benchmark in the international competition – developed, tested, and critically reviewed by the Engineer of Light.
FLAT TEC HYBRID.
SPOT AND FLOOD LIGHTING
INNOVATIVELY COMBINED.

The FLAT TEC HYBRID from Waldmann is the innovative lighting solution for machining centers with very limited space for adapting luminaires in the machine compartment. In addition it is a visible statement for environmentally minded companies.

- Flood light (fluorescent lamp) and spot light (LED) combined in one housing
- Symmetrical (fluorescent lamp) and asymmetrical radiation (LED)
- Customized lighting solutions
- IP 69K protection class
In mechanical engineering, competitive ability equals the sum of innovative components and functions. LUMATRIS now makes the latest LED technology available to medium- and large-volume machines. It economically transforms the direct lighting characteristic of LEDs to provide glare-free diffuse lighting.

- Light Forming Technology for optimum light control and 30% more efficiency
- Extremely resource-friendly operation thanks to eco mode
- Flush-mounting and surface mount options
- IP68-1m & IPX9K system of protection
- For ambient temperatures of up to 45 °C
MACH LED.
A HIGHLIGHT OF ADAPTABILITY.

The MACH LED offers variability in new dimensions. This particular set of luminaires can be individually adapted to illumination requirements. The design stands out with its sleek and clear lines.

- Available in different lengths and beam angles
- Flexible lighting direction settings
- Suitable fastening options for any machine
- Moisture and dust-proof in accordance with IP 67
- For ambient temperatures of up to 40°C
- Connection to 24V AC or DC
ONE LED was created following the motto “maximum light, minimal housing”. It is therefore suited for all machines with space constraints and high temperatures.

- For ambient temperatures of up to 50°C
- Simple connection using Quickon connector
- Stable diecast housing with safety glass
- Also available in design with individual setting options
MACH LED PRO.
AMAZING VARIABILITY.

With the MACH LED PRO flood light, Waldmann is again demonstrating its ingenuity as an ‘Engineer of Light’. The result: A machine luminaire with minimal height and maximum luminous power.

- Extremely flat – available as integrated or mounted version
- Variable length
- Different beam angles possible
- No burning of coolants and lubricants, never any blocked view
- Equipped with intelligent circuit board to compensate for voltage fluctuations
The SLIM LED is the lighting solution for machines and equipment with space constraints and limited installation space. The sleek profile of the luminaire is not one millimeter higher and wider than necessary. The luminous power, however, is tremendous.

- Minimal installation dimensions
- Available in lengths (A) ranging from 196 mm to 1176 mm
- Moisture and dust-proof in accordance with IP 67
- Light direction can be flexibly (+/- 45°) varied (variant)
HEAD LED.
FOCUS ON THE BASICS.

The HEAD LED merges the requirements for powerful lighting and the smallest possible design. Measuring only 49.50 mm in diameter and 23 mm in height, the HEAD LED has room everywhere in the machine compartment – preferably as a spot light in the vicinity of the machining area.

- Minimal size – maximum luminous power
- Optics technology specially developed by Waldmann
- Safety glass and hard-coated housing
- No burning of coolants and lubricants
The FLAT LED is the lighting technology answer to ever more complex machine compartments, tighter spaces, and less installation space available for lighting. The extremely thin optics enables a minimal height.

- Integrated and mounted version
- Fast installation, thanks to integrated LED operating device
- Flicker-free light, resulting in maximum safety during set-up
- Wear-resistant, heat and corrosion proof, as well as moisture-proof in accordance with IP 69K
SPOT LED.
HIGHLY FOCUSED LIGHT.

It features an extremely compact housing, three LEDs, and numerous variants. The SPOT LED 003 combines proven product quality with innovative technology for even greater product benefit and economic efficiency. Available either as mounted or integrated version, as flexible arm, rod or articulated head version, with optional magnetic holder.

- Spot or flood light
- No heat development in irradiation direction
- Unsusceptible to vibrations
- PLUG + LIGHT: Direct connection to/24 V AC/DC
- No stroboscopic effect
ABL. EXTREMELY TOUGH.

The ABL LED can be easily integrated in machines and equipment. Due to the large variety of variants featuring ball joints, flexible arms and magnetic holders, it can be adapted to virtually any work situation.

- Lighting solution for extreme conditions
- Unsusceptible to vibration, temperature/chemical resistant and moisture-proof in accordance with IP 67.
- Available as spot and flood light
- Integrated ball joint for individual settings
RING LED. FLAWLESS EFFICIENCY.

RING LED is the lighting solution for the precise examination of parts in numerous fields of application – from mechanical engineering all the way to research and development. The six LEDs provide critical added value compared to conventional fluorescent lamps: 4 times more light per watt and therefore considerably lower energy consumption.

- High-tech optics focuses the light on the examination surface
- Distortion-free and scratch-resistant Eschenbach lens produces magnification by a factor of 2.3
- Durable flexible arm
- Soft touch sensor for switching the luminaire on and off
- Many individual connecting options at the workplace
TEVISIO.
MAKES THE DIFFERENCE VISIBLE.

Whether in laboratories or in the electronics, metal-working or watch-making industries, TEVISIO is essential wherever your eyes are put to the test. In manufacturing, assembly, quality assurance or general examination, it applies ergonomic perfection to support highly demanding visual tasks. With the latest LED’s, innovative arm technology and a visual field designed for optimum performance, the TEVISIO magnifier luminaire combines high efficiency with ergonomic design in the workplace.

- 40% energy savings
- Great 6,000 lux using only 14 watts
- Maintenance-free LED technology
- Big lens with 160mm and 3,5 diopter magnification
- 1A color reproduction
- 3-D shadow effects with the flick of a switch
- Continuous dimming
- Ergonomic comfort
- Maximum adjustability of head, arms and joints
WALDMANN SOLUTIONS IN PRACTICE.

• MAG Hüller Hille, Mosbach, DE
• WFL, Linz, AT
• B.Braun, Melsungen, DE
• Theben, Haigerloch, DE
• ThyssenKrupp AG, Essen, DE
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