Quality control in paint shops is an extremely important task: vehicle manufacturers and consumers regard the slightest blemish in paintwork as unacceptable. And while automation technology continues to advance, machines are still no match for a well-trained pair of eyes. Against this background, a user-friendly working environment is key to effective surface inspection and high finish quality.

The innovative VarioInspect light tunnel delivers both ergonomic and efficiency improvements. Its open design conveys a pleasant sense of space, while reducing noise and echoes. In the free-standing aluminum portals, employees are provided with all key utilities such as water and compressed air via supply lines in the floor. Either stationary or mobile tool trolleys can be deployed.

Furthermore, the VarioInspect features a new type of LED lighting developed by Eisenmann in collaboration with major partners and research organizations.

The unique LED lighting is continuously adjustable from warm white to cool white, and can be tailored to the specific challenge, such as the component’s paint color and gloss level. The lighting makes highly effective surface-quality inspections possible. In addition, each strip light can be individually controlled to obtain exactly the right illumination.

The light elements are arranged vertically to ensure that defects automatically pass through vertical bands of reflected light as the component moves through the tunnel. The continuous LED strips emit light with a uniform intensity that does not cast distracting shadows. This allows inspectors to detect the slightest blemish. Furthermore, the LED lights generate very little heat, ensuring comfortable working conditions.

Last but not least, the LEDs’ low power consumption and long service life minimize operating costs.
Advantages at a glance

- Uniform illumination along the attractively designed portals.
- Open design for an ergonomic working environment.
- Water, power and compressed air supply lines are integrated into the floor.
- Modifying the color temperature between 2,700 K and 6,500 K can improve the properties of the mirror image (so called: reflex picture) shown on the surface. On white cars, this reflex picture can be seen much more clearly by using light with a lower color temperature. A range of adjustment mechanisms mean Eisenmann's LEDs can create the right degree of contrast on any painted surface.
- Vertical bands of light allow easier detection of blemishes.
- LEDs offer low power consumption and long service life, minimizing operating costs.
- Optional RGB indicator LEDs enable additional customer-specific visual signal functions, such as system halt and tracking.