

x-light

THE FLEXIBLE AND MODULAR HEADLAMP SETTING SYSTEM

Experience

Operator dependent headlamp aiming systems with image processing provide highly precise and reproducible test and setting results. These setting systems are part of today's standard testing and setting technology in vehicle production.

Dürr develops and sells headlamp aiming systems with the name "x-light" which are tailored to the high requirements of the end-of-line area in vehicle manufacturing plants. Within the last 20 years more than 590 manual, semi-automatic as well as fully automatic headlamp aiming systems have been successfully installed worldwide in almost all OEMs.

Due to the increasing use of driver assistance systems in vehicles, the image processing with headlamp aiming systems becomes more and more important. The setting of driver assistance systems based on infrared distance sensors and the setting of radar systems with auxiliary mirror systems can also be performed with x-light.

Flexibility

Due to the modular design and the high flexibility the setting systems make sure that future requirements can be met without problems.

The powerful automation reduces the production costs and provides highly precise and reproducible test and setting results at an ergonomic workplace.

After calibration with a point-type laser fixed on the master gauge of the wheel alignment stand, rear axle correction angles, detected by the wheel aligner, can be taken into account of the headlamp adjustment measuring values of the x-light. According to the type of options included on the wheel alignment stand, some correction values of the vehicle height can also be taken into account for calculating the measuring values.



» new x-light gantry system



» x-light in production

Technical data x-light

Measuring accuracy

< 0.1 % (3.43')

Boundary condition: light emerging point at the headlamp is positioned in front of the lens centre

x-light

Camera system, ground glass screen, Fresnel lens

- » GigE camera system with automated exposure control
- » Storing of headlamp setting sequences for "Off-line" analysis
- » Optionally: monochrome camera system for nearinfrared (NIR) applications
- » Camera with progressive-scan method
- » Projection surface in the light collecting box for optimized analysis with nanoparticle coating

- » Fresnel light collecting box lens, special design for headlamp aiming systems



Setting tools

The new setting tool generation *Smart Ergo Drive* sets new standards with regard to ergonomics and weight.

The semi-automatic setting tools, which are available as an option, were developed by Dürr according to torque and engine speed characteristics, particularly for the headlamp and sensor adjustment.

In addition to a rubber-coated gripping area for perfect handling as well as an LED lighting for illumination of the bolting point, the tool is equipped with a rotary encoder which, on request, enables highly precise adjustments via rotation angle setting.

Unique feature on the market: by means of integrated sensors it can be checked whether forces are exerted on the alignment bolt during the setting process.

Thus, a process-safe alignment quality is guaranteed.

After the tools have been applied, the headlamps are automatically set to nominal value by means of a decentralized control unit.



Technical data Smart Ergo Drive (rod model)	
Lighting	LED
Push-down sensor	process-safe storing of adjustment values
Positionsrückmeldung	digital encoder
Weight	590 g, without bits
Length	270 mm, without bits
Housing	glassfibre reinforced plastic housing with rubber-coated handling area

* The photos or figures of the assembly and testing systems in the flyer are not showing the complete installation. The requirements of the machinery directive (2006/42/EG) will only be met by other supplementary scope of supply or - on delivery of uncompleted machines - those requirements must be fulfilled by the manufacturer of the (complete) machine. Flyer x-light, Version I

