

.NEW

BEO D70

The modular optics for a wide range of applications

01

Powerful

02

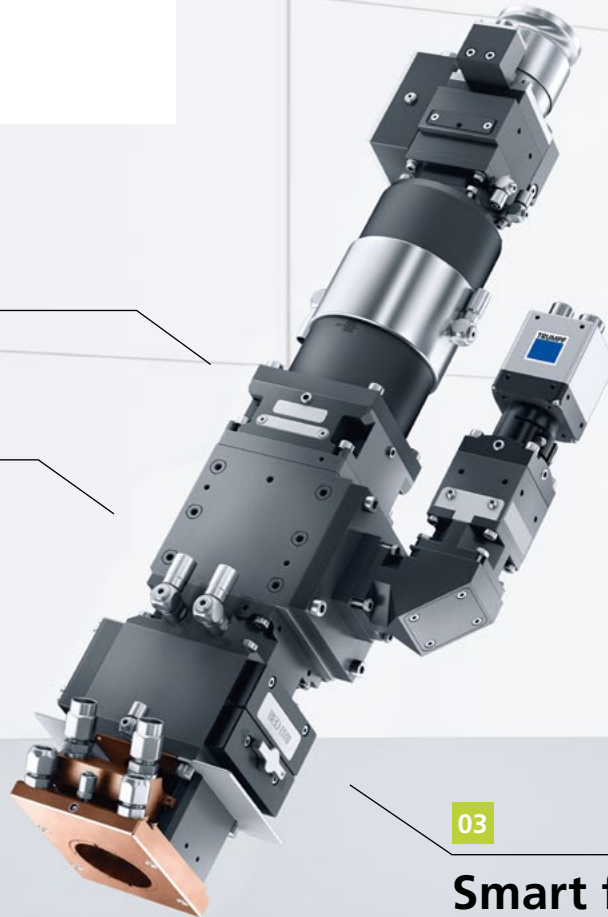
Robust design

03

Smart functions

04

Modular design



01



Powerful

Maximum laser power of up to 24 kW

The robust design, the optimized cooling concept and the ideal design of all optical components of the second-generation BEO D70 enable laser powers of up to 24 kW. The processing optics can be used with lasers from the TruDisk, TruFiber and TruPulse product families, and thus offer a wide range of applications. Especially at high laser powers, the temperature monitoring of the deflector and the compatibility of the robust High Power LLK-X contribute to a safe process.

Robust design

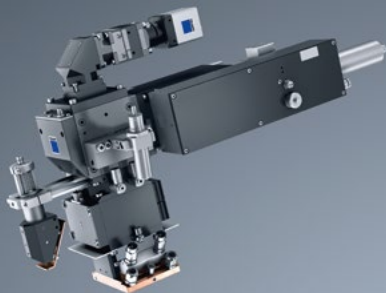
High resistance to contamination and back-reflections

The optimized crossjet functionality and the new design of the cartridge module ensure the highest protection for the lens. The BEO D70 has a double protective glass cartridge with two protective glasses, which provides optimum protection for the objective lens. The process protective glass keeps process emissions such as vapors and spatter away from sensitive parts. The second protective glass protects the lens when changing the process protective glass. The optimized and significantly more robust plug receptacle makes handling the BEO D70 easier. The collimator protective glass prevents contamination on the collimator lens when plugging the laser light cable (LLK).

02



03



Smart functions

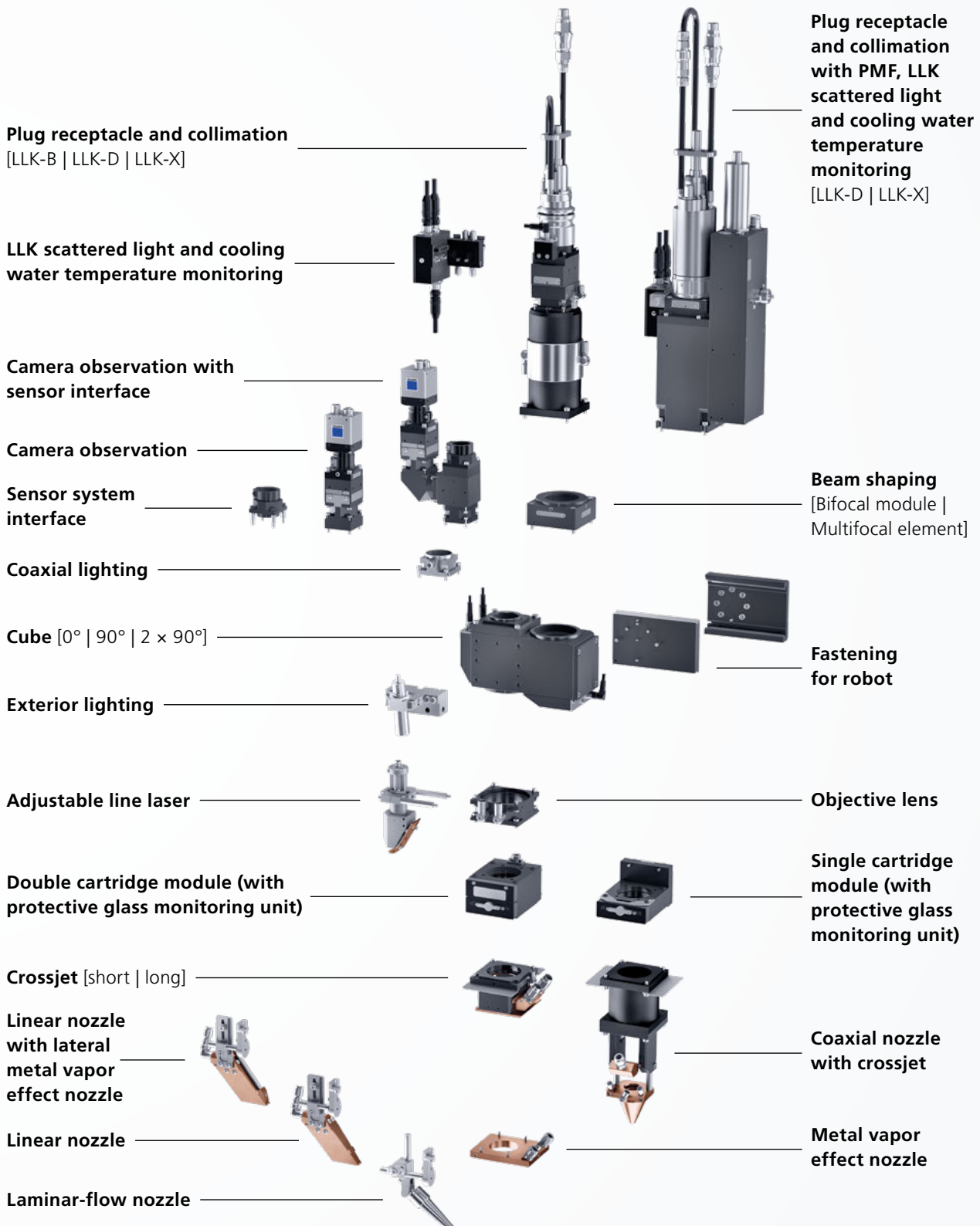
For even greater safety and high process stability

Monitoring the degree of contamination makes it possible to replace the process protective glass as required. This prevents process deviations caused by contaminated protective glasses. Tailored to every process and every application, you can define limit values for warning and error messages with the TruControl software. The interface module of the BEO D70 Smart enables monitoring of the cooling water return temperature and the scattered light values of the LLK. An increased cooling water temperature may indicate contamination of the optics. Programmed limit values generate error messages in a timely manner, which contributes to the optics' optimum protection. Programmable motor-driven focusing (PMF) enables easy and fast switching between applications with different focus positions or with different focus diameters on the workpiece. The motorized positioning of the collimator lens for defocusing can be specified via TruControl or an external fieldbus signal.

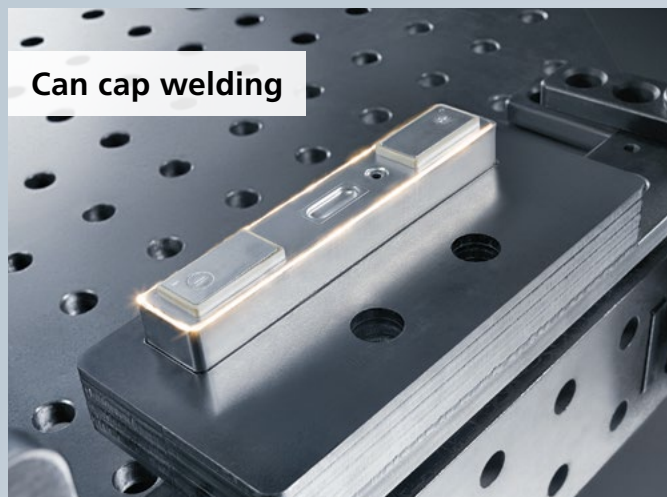
Modular design

Easily adaptable to your needs

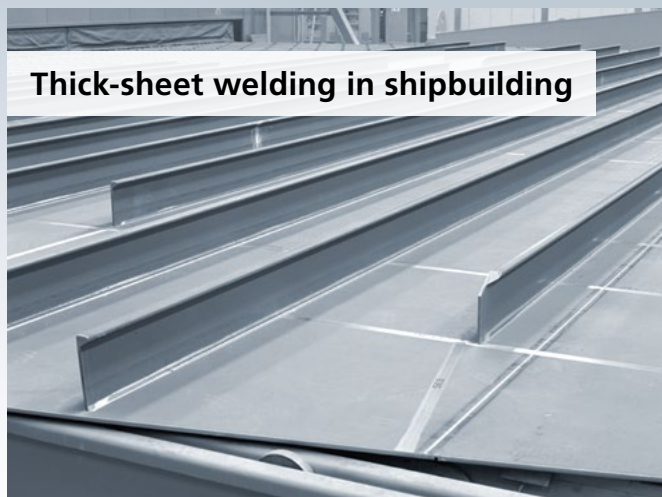
The modular system as a 0° version, 90° deflection or double deflection ($2 \times 90^\circ$) with additional selectable functions offers the right structural design and functionality for different spatial and application-specific conditions. A wide range of crossjets as well as coaxial, Metal vapor effect- and shielding gas nozzles are also available. The BEO D70 can be flexibly combined with TRUMPF sensors such as VisionLine for image processing and CalibrationLine for power measurement.



Applications



Can cap welding



Thick-sheet welding in shipbuilding



Battery housing



High-speed laser metal deposition – coated brake disc

Technical data			
		BEO D70 Basic	BEO D70 Smart
Maximum performance	kW	16 (cw)	24 (cw)
Available lasers		TruDisk, TruFiber Multi-Mode, TruPulse	
Standard collimation	mm	150 175 200	
Available focal lengths	mm	200 300 400 600	
Laser light cable types		LLK-B, LLK-D	LLK-B, LLK-D, LLK-X
Available sensor systems		VisionLine Cam/Basic/Detect/Project, CalibrationLine Power	
Available options		0°, 90° and 2 × 90°, crossjet, MVE nozzle, shielding gas supply, camera and sensor interface, coaxial lighting, external lighting, adjustable line laser, beam-shaping elements such as bifocal module and multifocal element	Additional functions for Smart: Protective glass contamination monitoring, LLK scattered light and cooling water temperature monitoring, programmable motor-driven focusing
Dimensions (W × H × D)	mm	172 × 510 × 78 (example configuration with camera observation and crossjet)	
Weight	kg	approx. 8 (example configuration with camera observation and crossjet)	

Subject to modifications. The information in our offer, our customer documentation and order confirmation is definitive.

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