

BEO D70 with Multifocus option

The innovation for media-tight welding seams

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Multifocus

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**Tailor-made
keyhole geometry**

03

**Stable and robust
welding process**

04

Media-tight welding



01

Multifocus

The Multifocus option for the BEO D70 uses special optical elements to divide the laser beam into several partial beams. These create a tailor-made, stable keyhole and doing so, prevent its collapse during the welding process.

02

Tailor-made keyhole geometry

When welding with the Multifocus option, the keyhole is larger than that of previous technologies. This is also ensured not just by the single spots, but also the additional ring beams created through beam shaping with BrightLine Weld. The stable and permanently opened keyhole minimizes the formation of process pores and allows the controlled outflow of metal vapor.

03

Stable and robust welding process

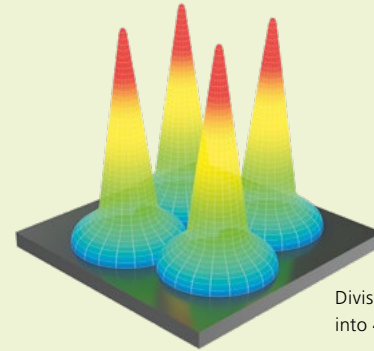
The Multifocus arrangement ensures a stable and robust welding process. You benefit from less process porosity and spatter. The Multifocus option also allows the direction-independent and highly productive process control at welding speeds of 5 to 12 m/min.

04

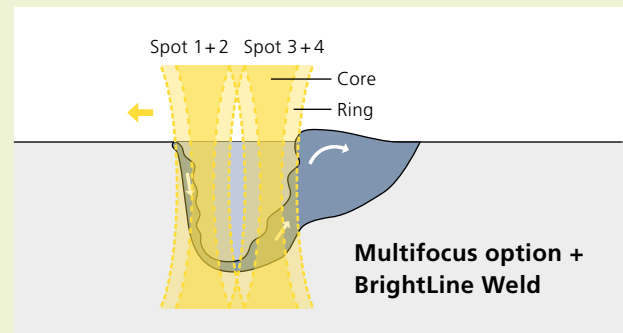
Media-tight welding

The advantage of the innovative Multifocus arrangement is the production of media-tight welds. They form the basis for impermeable joints, which are essential for electronic housings and heat exchangers made of aluminum. Its combination with BrightLine Weld increases process efficiency, improves welding quality and enables larger and highly constant welding depths. Aluminum alloys with thicknesses of 0.8 mm to 2.5 mm can thus be welded media-tight.

Use the Multifocus option in combination with TruDisk and BrightLine Weld!



Division of laser beam into 4 partial beams



Welding with BrightLine Weld

A convincing result – reduced spatter

- Thanks to an additional ring beam for each laser beam point, the keyhole opening is enlarged.
- The metal vapor can escape more easily, and the melt rises less on the capillary back wall.
- The melt accelerating towards the surface is diverted towards the weld pool by the ring-shaped beam.
- This results in low-spatter welding.

Multifocus option

with **BrightLine Weld**

Large, stable keyhole

Robust welding process

Result: **Media-tight welding seams**

Laser TruDisk 3000–12001	BrightLine Weld	Laser light cable	BEO D70 optics + Multifocus option
Wavelength 1030 nm Laser power (max.) 3–12 kW	100/400	Diameter 100/400 µm	0° or 90° fc = 200 mm ff = 200 mm

Subject to alteration. Only specifications in our offer and order confirmation are binding.

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