

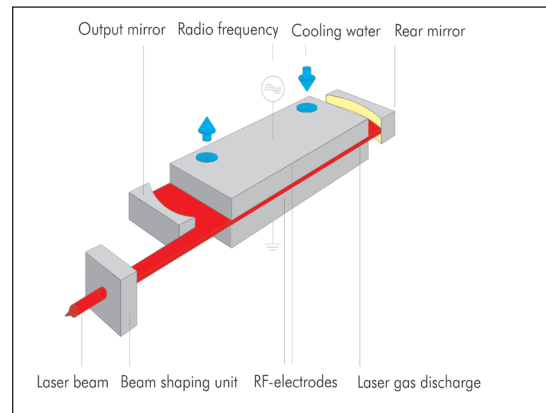
ROFIN SEALED-OFF LASERS

Sealed-Off CO₂-Laser
Versatile. reliable. powerful.

ROFIN SEALED-OFF LASERS

THE PRINCIPLE

The secret for this technology is in the two water-cooled electrodes (slabs). High frequency between these electrodes leads to stimulation of the laser gas. The optical resonator is formed by the front and rear mirrors and the two electrodes. The heat generated in the gas is dissipated by the water-cooled electrodes (diffusion cooling). The laser is completely sealed-off so there is no need for gas circulation or permanent renewal. Thus, optics integrated into the resonator that are contaminated by flowing gas (especially the outcoupling windows) are a thing of the past. All those factors keep service requirements at a minimum. Due to their light-weight design, all lasers can be mounted on robot arms easily.



PRODUCT DETAILS, APPLICATIONS & MATERIALS

	OEM Series	SR Series
	The OEM lasers were especially engineered for the integration into industrial processing systems. They include the RF power supply which enables the lasers to produce short optical pulses with high peak power.	The SR Series comes with an improved integrated RF power supply. The lasers of this series are hermetically sealed and therefore protected against dust and spray water (IP67).
Beam Excitation:	RF	RF
Power Range:	350 - 650 W	125 - 250 W
RF Power Supply:	Integrated	Integrated
Wavelengths:	OEM 35 iX (350 W): 10.25 µm; 9.3 µm OEM 45 iX (450 W): 10.25 µm; 9.3 µm OEM 65 iX (650 W): 10.6 µm	SR 10i (125 W): 10.6 µm; 10.25 µm; 9.3 µm SR 15i (175 W): 10.6 µm; 9.3 µm SR 25i (250 W): 10.6 µm; 9.3 µm
Beam Characteristics:	K > 0.8	K > 0.8
Pulse Frequency (PP):	OEM 35 iX (350 W): 0 - 100 kHz OEM 45 iX (450 W): 0 - 100 kHz OEM 65 iX (650 W): 0 - 130 kHz	SR 10i (125 W): 0 - 130 kHz SR 15i (175 W): 0 - 130 kHz SR 25i (250 W): 0 - 130 kHz
Mounting on robot arms:	✓	✓

Applications: Cutting, Drilling, Engraving, Marking, Scribing, Perforating, Welding, Kiss Cutting

Materials: Rubber, Plastics, Acrylic, Glass, Textiles, Wood, Ceramics, Thin Sheet Metal

For all lasers a DC power supply is available as an option.

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