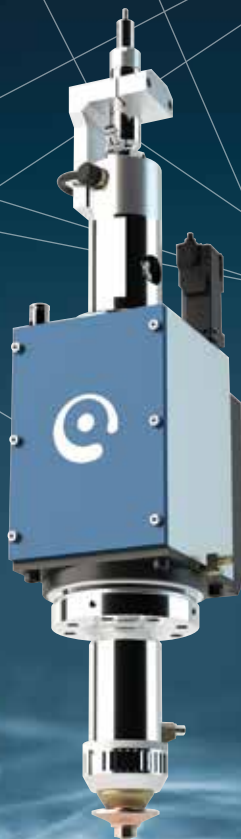


THE HEART OF THE MACHINE,
THE CYLASER HEAD



EVO III

AT THE HEAD OF THE EVOLUTION

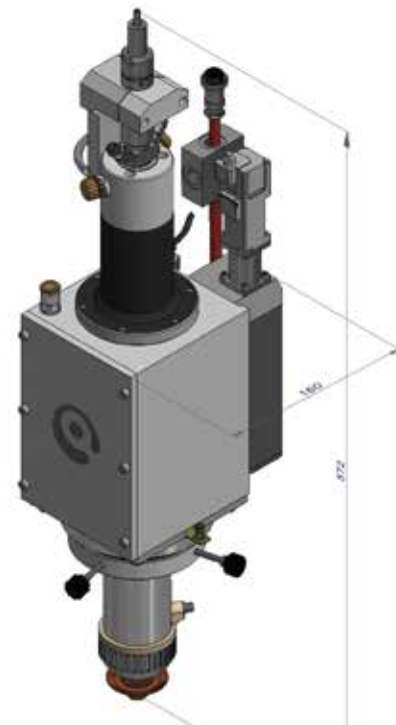
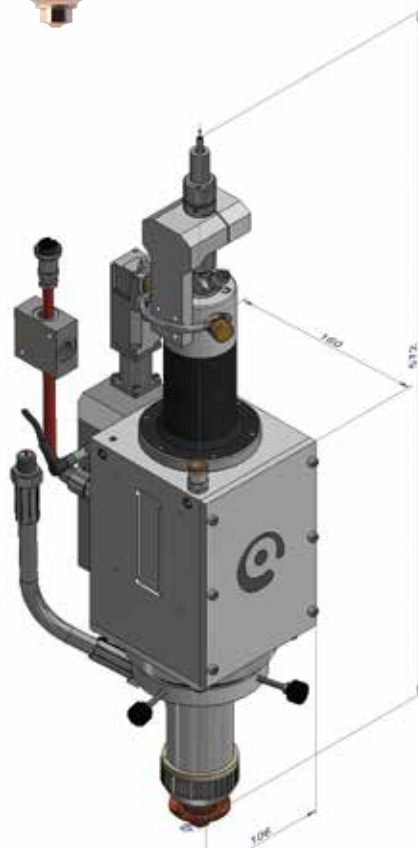


CYLASER



CYLASER EVO III, the light of tomorrow

- Optics configuration designed as per customer specifications.
- Maximum reliability guaranteed by the protective glass, including during maintenance.
- Magnetic anti-collision system to reduce machine downtime to a minimum.
- Integrated process monitor to continuously keep track of production.
- CYSP Servo-piercing for fast and clean piercing of very thick plates.
- Automatic nozzle cleaning and height control calibration.
- Designed to use compressed air for cutting as an alternative to technical gases.
- Flycut function for high-speed grids cutting.
- Vortex function for better quality and reduced gas consumption when cutting stainless steel.
- Marking and incision management and film-protected material cutting.



BENCHMARK	CYLASER EVO III	ANALISYS
Laser Light Cable Receiver QBH	QBH connector interface on Collimator	QBH is IPG standard on stand-alone laser
Laser Light Cable Receiver HP	Not featured	Interface not diffused
Laser Light Cable Receiver LLK-Auto	LLK-D connector interface on Collimator	Interface used in robots and automotive industry
Cover Slide (Connector)	Protective screen on Collimator	Our design protects both Collimation lens and optic fiber quartz
Collimation Module Manual	Not featured	We abandoned manual focus adjustment in 2009
Collimation Module Auto Focus	AFR Auto Focus Regulation	Standard configuration of Cy-Laser cutting heads
Collimation Module Auto Focus and beam diameter	Not featured	We determined that the advantages of modifying the diameter of the beam did not compensate for the disadvantages caused by the movements of additional optics. HIGHYAG adjustable collimation uses 3 dedicated lenses, which increases the cost of consumables and decreases MTBF
90° Beam Bending Module	Not featured	Has no process advantages
Process Monitoring Module 0° compact	Not featured	Has no process advantages
FJB Distance measuring module	CHC capacitive height control	Standard configuration of Cy-laser cutting heads
Base Module with focusing system and X,Y adjustment	Magnetic Break-away Torch	Our original laser torch design offers obvious advantages in terms of service. Our magnetic break-away concept allows for collision absorption and rapid recovery
KSGM protective glass monitoring	HRC High Back Reflection Control	The primary difference is that our system is designed to monitor the general conditions of the production process, not just one optic. This means we can also obtain feedback on the status of lenses. Our current aim is to refine this system to achieve a broader range of information regarding the cutting process
Cutting nozzle with adapter	Bystronic nozzle or adapter	We feature standard bystronic nozzle vtvbut we can use other brands if advantageous
Not featured	ABS air crossjet	Thanks to our experience with thick material processing, we developed this compressed air crossjet which blows melted material away during the piercing process
Not featured	CySP Cy-laser Servo Piercing	Our answer to productivity and reliability demands for on thick material piercing. This option allows easily drills up to 20mm, reducing piercing and cutting time with remarkable savings in spare parts and optics
Not featured	VORTEX	Smoothing Process for cleaning the cut side of stainless steel ranging from 8mm up to 25mm (reduces gas consumption if using nitrogen)
Not featured	VEGA	Smoothing Process for cleaning the cut side of stainless steel up to 8mm



CLASS 1
LASER PRODUCT

CYLASER SYSTEMS ARE COMPLYING WITH
FDA'S CLASS IV LASER RADIATION SAFETY DIRECTIVE

EVO III THE REVOLUTION

Technical data

Focusing system (focal length)	120 mm, 150 mm, 200 mm, 250 mm
Max. laser power	12 KW
Max. beam parameter acceptance (half angle)	99% power content within 125 mrad
Wavelength	$\lambda=1025 - 1080$ nm (e.g. for fiber and disc lasers) $\lambda=940 - 1000$ nm (diode lasers)
Transmission	> 97% @ $\lambda=1064$ nm
Fiber optic cable core diameter	10 - 1000 μm (typical)
Fiber optic cable connector	QBH, HIGHYAG LLK-Auto (LLK-D)
Special Cutting Process	
Smoothing side up to 8mm	VEGA
Smoothing side from 8mm up to 25mm	VORTEX
Cutting Nozzle	
Nozzle types	Compatible with most common nozzle types
Focal Point to Nozzle Positioning Range	
motorized z-axis and diameter adjustment	10 mm in head direction - 30 mm in work piece direction
Cutting Head Controller CHC	
Calibration range	0.1 - 20 mm
Output signal	0 - 10 V for distance
Response time	< 1 msec
Dimensions	
5 inch version	522x106x160
7 inch version	572x106x160
Weight	6,5 kg
Requirements	
Electrical	DC 24 V, 8 A (with motorized z-axis and diameter adjustmentwv)
Pneumatics	0.2 MPa
Pressure cutting gas	Up to 2.5 Mpa
Gas	Inert and active
Cooling	Flow rate 2 l/min, temperature 15 - 35 °C
PLC / field bus system	EtherCAT, hardwired

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