

# FIBERTEX Zero

**FIBER LASER CUTTING MACHINE** 









# INTRODUCING THE WORLD'S FIRST DBC FIBER LASER CUTTING MACHINE.

We've combined the industry-leading Koike design and manufacturing standard with a first-of-its-kind laser cutting technology to welcome the FIBERTEX Zero ™ into our robust cutting machine lineup. Thanks to the usage of Koike's new "K Type" cutting head, this large plate format DBC (Dual Beam Control) fiber laser boasts the highest level of contour accuracy for Continuous Wave cutting. From steel service centers, heavy equipment manufacturers, and shipyards, the FIBERTEX Zero ™ was made to excel in the most demanding applications.

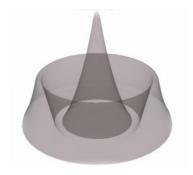
# Take Full Control With Beam Mode Variable Technology:

The optimal cutting shape and output can be selected according to on the material, steel plate surface condition, and temperature. This improves cutting quality for thin to thick plates, hard-to-cut materials, and even those with surface rust, eliminating the need for pre-burning.



#### **Fiber Laser Power Supply:**

12kW and 18kW oscillator outputs allow cutting up to 36mm (1.4") mild steel plate and stainless steel up to 50mm (1.97").



#### **Groundbreaking DBC Technology:**

Parameters of both Central and Ring Beams, can be individually controlled and set to your unique cutting specifications.



The New "K Type" Cutting Head:

Intuitive design of the K-Type head thoroughly optimizes the flow of Assist and Shield gases, maximizing molten metal discharge.



## FANUC® 31i CNC Controller:



The next generation of high performance machine control.

Enhanced functionality and superior performance extends the potential of machine capabilities into the future.

FANUC controls have a world-class reputation for performance, precision, reliability and user-friendly operation, making them popular with the most demanding managers and operators alike.

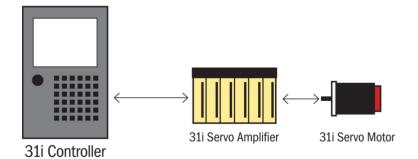
With more than 3 million controls already installed around the globe, FANUC is the world's leading CNC manufacturer.

### **MULTI-ANGLE CUTTING SURVEILLANCE:**

Equipped with a high-resolution, multi-camera surveillance setup, the FIBERTEX Zero  $^{\text{TM}}$  offers real-time monitoring of each cutting process while maintaining the safety of its operator during Class IV laser operation.

Integrated software allows for a customized viewing output to the live feed, enabling its operator to make instantaneous adjustments, ensuring optimal cutting accuracy and minimizing material wastage.

## **FANUC INTEGRATED DRIVE SYSTEM:**



Optimum output of the FIBERTEX Zero's DBC technology is ensured by FANUC's integrated drive and motor package, which provides simple maintenance, high-quality, compact design, and exceptional performance.

Compact design of Oscillator, Chiller, and Control Panel allow for components to be mounted directly to the back of the FIBERTEX Zero  $^{\text{TM}}$ , removing the issue of fiber cable length limitation.

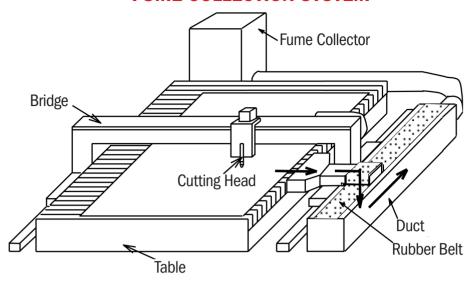
Location of peripherals also reduces operator's range of motion, streamlining the machine's operability, allowing for the addition of on-board operator's step with the FANUC operation panel.

## CENTRAL LOCATION OF ON-BOARD PERIPHERALS:





## **FUME COLLECTION SYSTEM**



#### **BELT DUCT METHOD**

Renowned for its exceptional performance with Plasma Cutting Machines, the Belt Duct System emerges as the optimal choice for a Fume Collecting System tailored to Fiber Laser Machines by extracting corrosive and abrasive fumes away from sensitive laser optics.

In contrast to its plasma predecessor, the distinct advantage of this system lies in its elimination of the requirement to fill the cutting table with water.

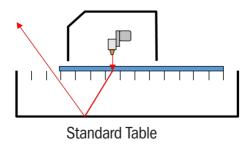
#### **FULLY INTEGRATED CLASS I SAFETY ENCLOSURE**

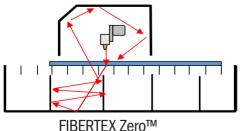
Laser cutting capabilities no longer restrained by the size of a fixed enclosure.

The FIBERTEX Zero ™ features a modular Class I safety enclosure that travels with the cutting head, allowing for safety regulation on an unlimited basis.

Hydraulic struts on enclosure doors make opening each section easy, creating a larger opening to provide full access to all internal components.







FIBERTEX Zero ™ features a specially designed cutting table with internal partitions to effectively mitigate the propagation of reflected light from all directions.



## **INK-JET MARKER**

Print clear text, numbers, barcodes, and more with the optional ink jet marker.

Equipped with many flagship features including:

- 1. Intuitive HMI (Human Machine Interface) with Interactive Video Guidance onboard for routine tasks, preventative diagnostic maintenance, and fault recovery.
- **2. Optional Self-Clean Station** in sealed reservoir, automatically cleans and drys print head in one operation, even after long periods
- **3. Accessible Maintenance Hatch** for quick fluid change and service.
- **4. Two Print Head Sizes** ranging from standard (up to 6 lines) or short (up to 2 lines).
- **5. Advanced Dot Control Algorithms** produce crisp, legible lines of print at demanding production speeds.







EFFECTIVE CUTTING AREA				
Effective Cutting Width: Effective Cutting Length*:				
*Please include (in calculations) if you will be loading multiple plates or only one at a time.				
MATERIAL TYPE				
○ Mild Steel ○ Stainless Steel ○ Aluminum				
MATERIAL THICKNESS RANGE				
Maximum Thickness for Mild Steel:				
Maximum Thickness for Stainless Steel:				
Maximum Thickness for Aluminum:				
OPTIONAL EQUIPMENT				
O Dust Collector*				
*This is a required item for operation. If you are reusing an existing unit or sourcing your own, we will need to ensure it has proper air flow for material extraction. Please provide details below:				
PLATE MARKING				
○ Ink-Jet Marker*				



 ${}^*$ Uses include: Clear text, part numbers, barcodes, weld lines, and more.



FIBERTEX Zero™		FIBERTEX-12 Zero	FIBERTEX-18 Zero
Oscillator		YLS-12000-DBC	YLS-18000-DBC
Rated Output		12kW (12,000W)	18kW (18,000W)
Structure		Gantry Type / Oscillator Mounted	
CNC Control		FANUC® Series 31i	
Video System		Integrated cameras allow the operator to have multiple views of the machine for safety and ease of use	
Effective Cutting Area	Length	Minimum: 4m (13') Maximum: Unlimited	
	Width	Minimum: 1.25m (4') Maximum: 6.5m (98') Maximum With Ink Jet Marker: 6.25m (20.5')	
Fiber Laser Type		IPG	
Chiller Cooling System		Precise temperature control for Oscillator & Optical Head	
Drive System		FANUC®	
Maximum Cutting Thickness	Mild Steel (Pulse)	3.2~32mm (.12"~1.25")	3.2~36mm (.12"~1.4")
	Mild Steel (CW)	3.2~28mm (.12"~ 1.10")	3.2~32mm (.12"~1.25")
	Stainless	1.5~40mm (16 gauge~1.5") (by Nitrogen 3.0MPa)	1.5~50mm (16 gauge~1.97") (by Nitrogen 3.0MPa)

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

#### SIMPLY BETTER BUILT - FOR OVER 100 YEARS.

OUR STRICTLY CONTROLLED MANUFACTURING AND PRODUCTION PROCESSES ENSURE WE HAVE THE HIGHEST-QUALITY MACHINES WITH THE MOST RELIABLE PERFORMANCE. WE COLLABORATE WITH OUR CUSTOMERS TO PRODUCE THE RIGHT MACHINE FOR THEIR NEEDS WITHIN A RANGE OF BUDGETS.











