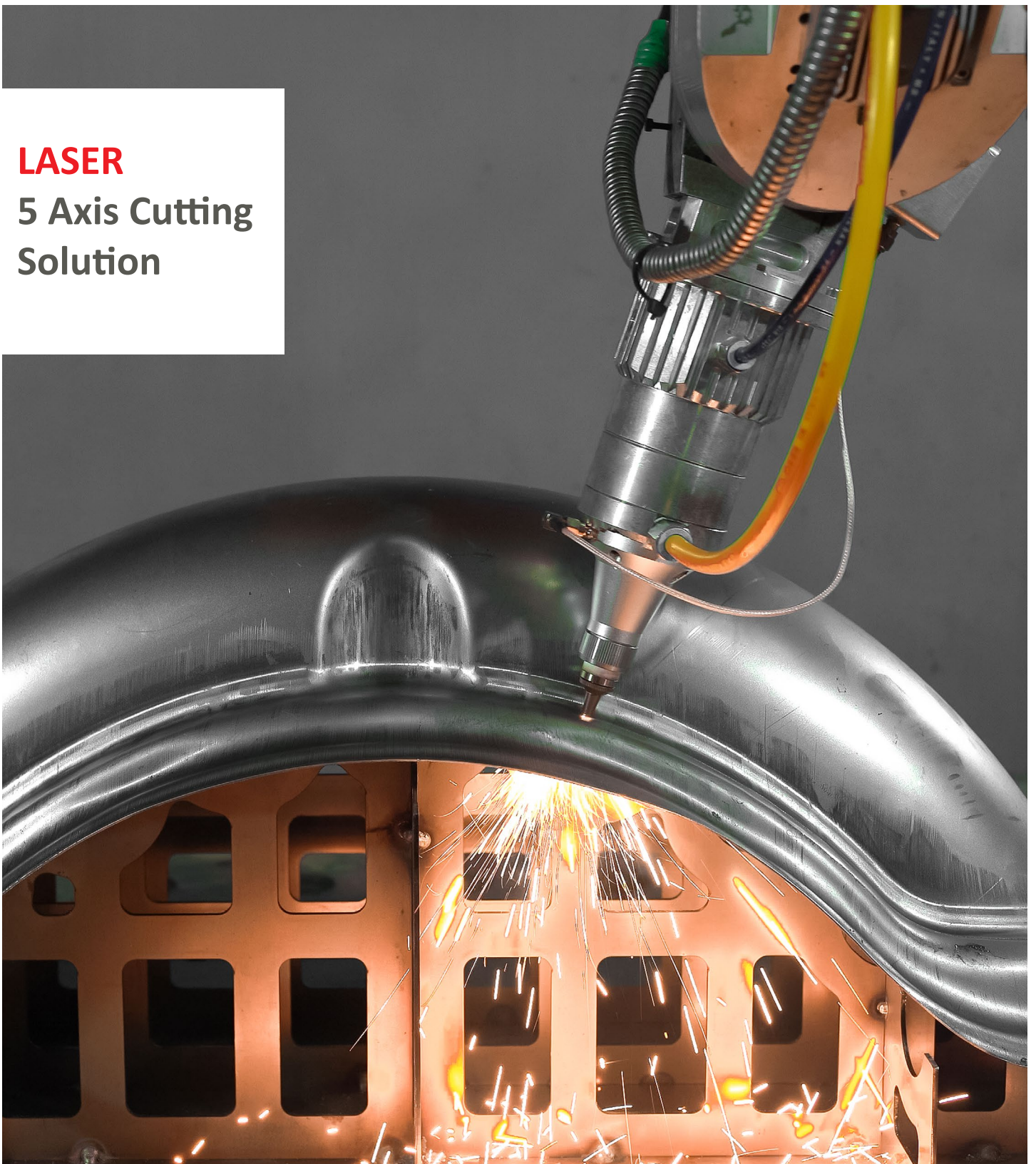


LASER

**5 Axis Cutting
Solution**



POWER OF VISION



expertise. innovation. excellence.

India's First Registered **Laser** Machine Manufacturer

5 - AXIS LASER CUTTING



Overview

The FAFL 5315, a 5-axis laser cutting marvel, finds its niche in precision cutting applications across diverse industries such as aviation, automobile, construction machinery, moulds, fitness equipment, and sheet metal processing. This cutting-edge machine, boasting a 5-axis movement capability, stands out for its prowess in laser cutting complex geometries with unparalleled flexibility. Specifically tailored for the automotive and aviation sectors, it excels in tasks like edge and hole cutting, ensuring precise cuts on metal structures within minimal time, significantly enhancing overall productivity.

Features

- **Exclusive Flexibility in Operations:**

The 5-axis design facilitates ease in cutting complex forms, navigating intricate spaces, and reaching vital assembly points.

- **Precision Tool Focal Point:**

The tool center point function ensures accurate processing by interpolating all 5 axes at a single point, achieving zero-angle accuracy and consistent cutting quality.

- **Multiple Axis Operation:**

Built with cutting-edge technology, the machine flexibly cuts intricate shapes with precision, covering complex operational spaces and reaching critical component points.

- **Robust Machinery Framework:**

Featuring a robust and stable structure with gantry-based mobility, ensuring quick dynamic reactions and stability during operation.

- **Rapid Motion & Supreme Quality:**

Exceptional hardware-software integration enables high-speed cutting with extreme precision, enhancing productivity through a clever piercing mechanism.

- **Convenient Handling of Oversized Parts:**

Process large parts and complex fixtures with ease. The extended z-axis provides versatility for reaching extreme corners and efficiently cutting delicate shapes.

- **Advanced Hardware:**

State-of-the-art CPU for unsurpassed operation speed, high-response machine motion, and optimum acceleration/deceleration for reduced cutting time.

- **Improved Laser Operation Responsiveness:**

Enhanced laser control for optimum power generation, improved performance for zero-pierce cutting, and sharp edge cutting.

- **High Performance:**

Automatically determines optimum cutting conditions as the feed rate changes, with a cutting conditions database for various material types and thicknesses.

- **Quick Program Restart Function:**

Retains machine position memory for quick restarts from the point of interruption.

- **Swivelling CNC Operation Panel with Adjustable Height:**

Enhances operator convenience for machine setup or torch inspection.

Specifications:

M/C	Description	Gantry Type			Cantilever Type	Moving Bed Type
		FAFL 3015	FAFL 4020/4025	FAFL 6020/6525		
Travel	X Axis	3000 mm	4000 mm	6000 mm	3000 mm	3000 mm
	Y Axis	1500 mm	2000/2500 mm	2000/2500 mm	1500 mm	1500 mm
	Z Axis	700/850 mm	850/1000/1200 mm	850/1000/1200 mm	700/850 mm	700/850 mm
	A Axis travel (Swing axis)	± 135°	± 135°	± 135°	± 135°	± 135°
All Axes	C Axis travel (Rotary axis)	± nx360°	± nx360°	± nx360°	± nx360°	± nx360°
	U Axis travel (Floating axis)	±12.5mm	±12.5mm	±12.5mm	±12.5mm	±12.5mm
	X/Y/Z axis positioning	±0.03mm	±0.03mm	±0.03mm	±0.03mm	±0.03mm
Accuracy	X/Y/Z axis repeat positioning	±0.02mm	±0.02mm	±0.02mm	±0.02mm	±0.02mm
	A/C axis positioning	0.015	0.015	0.015	0.015	0.015
	X/Y/Z axis positioning (Max.)	100m/min	100m/min	100m/min	100m/min	30-40m/min
Speed	A/C axis positioning (Max.)	720°/s	720°/s	720°/s	720°/s	720°/s
	X/Y/Z axis acceleration (Max.)	1G	1G	1G	1G	0.5G
	A/C axis acceleration (Max.)	5400°/s	5400°/s	5400°/s	5400°/s	5400°/s
	Phase	3	3	3	3	3
Power Supply	Rated Voltage	400-415V	400-415V	400-415V	400-415V	400-415V
	Frequency	50Hz	50Hz	50Hz	50Hz	50Hz
	Total power protection class	IP55	IP54	IP54	IP55	IP56
Weight & Size	Total Weight					
	Machine Footprint	L - 6600 mm	L - 9600 mm	L - 11600 mm	L - 6600 mm	L - 6600 mm
		W - 6800 mm	W - 6800 mm	W - 6800 mm	W - 6800 mm	W - 6800 mm
		H - 4100 mm	H - 4100 mm	H - 4100 mm	H - 4100 mm	H - 4100 mm

Samples:

