

TECHNICAL MACHINERY PORTFOLIO

Steel Structures | Heavy Fabrication | CNC Cutting & Metal Forming

Company Identification & Contact Information

Company Name	Carbon Steel Engineering Industries
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Manufacturing Units	Unit 1: Polaris Al Zamil Bosla 2 - Unit H11, 6th October Industrial City, Giza, Egypt Unit 2: CPC Industrial Park - Unit A6, 6th October Industrial City, Giza, Egypt
Contact Numbers	EG: +20 11 4466 2886 +20 11 4466 2885 DE: +49 157 5815 3926

Polaris Al Zamil Bosla 2 - Unit H11
CPC Industrial Park – Unit A6
Egypt-Giza 6th October Industrial City

Machine 01 – Bodor A6M Fiber Laser Cutting Machine (6 kW)

The Bodor A6M 6 kW Fiber Laser Cutting Machine is designed for high-precision sheet metal cutting. It provides high cutting speed, excellent accuracy and intelligent automation for industrial production.



Manufacturer	Bodor
Model	A6M
Laser Power	6 kW
Working Area	6100 × 2000 mm
Max. Acceleration	1.5 G
Z-axis Travel	100 mm
Positioning Accuracy	±0.05 mm/m
Repeat Position Accuracy	±0.03 mm
Supported File Formats	DXF, DWG, NC, TXT, NCEX, BNCX

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Cutting Capacity (Maximum)

Carbon Steel	25 mm
Stainless Steel	25 mm
Aluminum	20 mm
Brass	12 mm
Copper	8 mm

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Machine 2 – Bodor K3C-65 Tube Fiber Laser Cutting Machine (3 kW)

The Bodor K3C-65 3 kW Tube Fiber Laser Cutting Machine is designed for high-precision tube processing. It offers high cutting speed, outstanding accuracy and intelligent automation for efficient and reliable industrial production.



Manufacturer	Bodor
Model	K3C-65
Laser Power	3 kW
Machine Type	Tube Fiber Laser Cutting Machine
Max. Tube Length	6500 mm
Round Tube Range	Ø25–Ø356 mm
Square Tube Range	25×25–356×356 mm
Rectangular Tube	25–356 mm
Max. Tube Weight	500 kg
Positioning Accuracy	±0.05 mm/m
Supported File Formats	DXF, DWG, IGS, IGES, STEP, STP, G-Code

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Cutting Capacity (Maximum)

Carbon Steel	16 mm
Stainless Steel	10 mm
Aluminum	8 mm
Brass	6 mm
Copper	5 mm

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Machine 3 – Skybend 220T/3100mm



Manufacturer	Skybend
Pressure Capacity	220 Ton
Bending Length	3200 mm
Distance Between Housings	2600 mm
Throat Depth	410 mm

Machine 04 – Bodor Eco 8 Self-Cooling Handheld Laser Welding Machine (3 kW)

The Bodor Eco 8 Self-Cooling Handheld Laser Welding Machine is designed for high-quality and efficient metal welding. Featuring a 3 kW fiber laser and an advanced self-cooling system, it provides deep penetration, high welding speed, excellent weld quality, and intelligent 4-in-1 functionality including welding, cutting, weld seam cleaning, and rust removal.



Manufacturer	Bodor
Laser Power	3000 W (3 kW)
Machine Type	Self-Cooling Handheld Laser Welding Machine
Functions	4-in-1: Welding, Cutting, Weld Cleaning, Rust Removal
Maximum Welding Thickness (Carbon Steel)	8 mm
Maximum Welding Thickness (Stainless Steel)	8 mm

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Machine 05 – CHD MZ-1000 Automatic Submerged Arc Welding Machine:

The CHD MZ-1000 Automatic Submerged Arc Welding Machine (SAW) is a heavy-duty automatic welding system designed for high-productivity welding of thick steel plates and large steel structures. Equipped with advanced IGBT inverter technology, it provides a stable welding arc, excellent penetration, high deposition rates, and superior weld quality. The machine is ideal for long, continuous welds in industrial manufacturing.



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Applications

- Structural Steel Fabrication
- Pressure Vessels
- Storage Tanks
- Pipe Manufacturing
- Heavy Steel Structures
- Bridges
- Shipbuilding
- Steel Beams and Columns
- Wind Tower Fabrication

Welding Capacity

Specification	Value
Welding Process	Automatic Submerged Arc Welding (SAW)
Output Current Range	150–1000 A
Output Voltage Range	20–50 V
Duty Cycle	100%
Recommended Plate Thickness	5–60 mm (single or multi-pass depending on joint design)
Welding Speed	High-speed automatic welding
Penetration	Deep penetration with excellent fusion

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Machine 06 – Lincoln Electric POWERPLUS II 500 CO₂ / MAG Welding Machine

The Lincoln Electric POWERPLUS II 500 is a heavy-duty industrial CO₂/MAG (MIG/MAG) welding machine designed for high-productivity steel fabrication. It delivers a stable welding arc, excellent penetration, and reliable performance for continuous production. It is ideal for structural steel, tanks, frames, heavy equipment, and general metal fabrication.



Quantity: 6 Machines

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Manufacturer	Lincoln Electric
Model	POWERPLUS II 500
Quantity	6 Machines
Welding Process	CO ₂ / MAG (MIG/MAG)
Output Current	60–500 A
Open Circuit Voltage	66 V
Duty Cycle	500 A @ 60% / 390 A @ 100%
Protection Class	IP23
Recommended Steel Thickness	1–20 mm
Maximum Steel Thickness (Multi-pass)	40 mm and above
Applications	Structural Steel, Tanks, Frames, Heavy Fabrication

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CAD / CAM Engineering & Design

Our in-house CAD/CAM engineering office provides flexible and professional solutions for the design and development of industrial products and components.

Our software environment enables precise and efficient product development with minimal setup and lead times. From the initial project phase, our customers benefit from accurate 3D and 2D visualization, allowing designs, dimensions, assemblies and manufacturing requirements to be clearly defined before production begins.

We work with a wide range of professional CAD/CAM software, including SolidWorks, AutoCAD and other industry-standard engineering solutions. Our capabilities cover 3D modeling, 2D technical drawings, sheet-metal design, assemblies, manufacturing drawings, CNC programming and production preparation.

By integrating engineering and manufacturing, we ensure a smooth transition from concept and design to CNC production and final fabrication. This enables us to develop customized solutions that are optimized for both technical requirements and efficient manufacturing.

