

ReaLaser – CNC CO₂ Laser Cutting Machine

ProArc innovate and manufacture CO₂ Laser cutting machines with Rofin new generation diffusion slab CO₂ Laser from 600 to 6000 watts. The integrated *ReaLaser* series incorporates a design that combines the motion control, laser generator, beam delivery and cutting processing head into one compact machine. It consumes minimal floor space, configured for easy material loading and unloading.

The CO₂ laser cutting machine can cut most of materials, such as: mild steel, stainless steel, aluminum alloy, Ti alloy, ceramics, acrylic, leather, etc.

The robust gantry is designed and constructed using advanced finite element engineering to ensure it will consistently deliver an extremely high level of accuracy and well performance into the future.

The *ReaLaser* series can provide high performance solution and high precision cutting application. Economical and easy-of-use are our aspirations.



Features:

1. *ReaLaser* is a new concept design with low gravity, rigid and low vibration characteristics. It performs accurate and stable cutting results in high speed, high quality, high productivity in virtually any material and thickness.
2. The cutting-head is a new generation processing head from Lasermech USA. It has been worked out precisely, it is rugged, easy to maintain and adjust. The Cutting Head “ACF” is equipped with 5”/7.5” FL and capacitor high control.
3. The CNC controller adopts WESCAN INFINITY, a high speed, high precision and high efficiency CNC controller and is equipped with 4 axes motion that simultaneously control integrated LCD display with touch screen.
4. The design concept of the *ReaLaser* improves the floor space footprint, saves money and time.
5. All-in-one design includes down-draft fume collection table, fly-beam delivery and gas console for cutting process.
6. High stiffness cross-roller way with dual drive to ensure stable quality cutting.



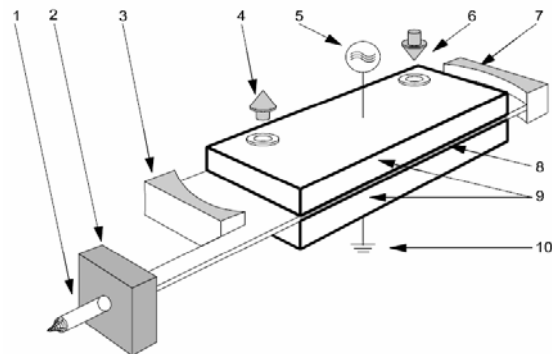
ReaLaser-xx mechanical characteristic:

- Drive system adopts AC Servo that provides high speed contouring cut.
- Modular X/Y axis beams made from heavy box with precision machining.
- Precise double cross-roller linear guide way is adopted for high speed and stable motion.
- Precision rack / pinion drive.
- High precision worm reducer with 2 arc minute backlash.
- All axes are environmentally protected by bellow seal for dustproof.
- Stress relieved process for all steel construction.



SC-x60 sealed slab CO₂ Laser

- SC-x60 Sealed slab CO₂ Laser 600 watts.
- DC-010 Diffusion slab CO₂ Laser 1000 watts.
- DC-015 Diffusion slab CO₂ Laser 1500 watts.
- DC-020 Diffusion slab CO₂ Laser 2000 watts.
- DC-025 Diffusion slab CO₂ Laser 2500 watts.
- DC-030 Diffusion slab CO₂ Laser 3000 watts.



Diffusion Slab and Sealed-slab CO₂ laser beam forming concept:



Specification:Model: *ReaLaser-xx***Dimension:**

Specification		<i>ReaLaser</i> 1224	<i>ReaLaser</i> 1530	<i>ReaLaser</i> 2040
Effective cut width (E)	mm	1,250	1,550	2,000
Effective cut length (B)	mm	2,450	3,100	4,000
Z stroke (C)	mm	200		
Overall width (D)	mm	2,150	2,450	2,750
Machine length (F)	mm	3,300	3,950	4,950
Machine height (H)	mm	1,600		
Machine weight	kg	950	1,250	1,500

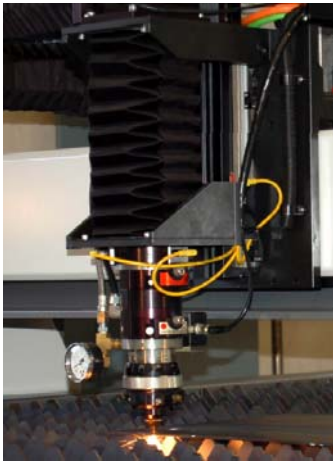
[Note]: Machine weight excludes CO₂ Laser generator and water chiller.

- Rapid traveling speed: 30,000 mm/min.
- Effective cutting speed: 12,000 mm/min.
- Linear positioning accuracy: +/- 0.1 mm
- Repeatability: +/-0.1 mm
- Drive system:
 - AC servo motor equipped with the closed loop control.
 - X and Y axis utilize rack with driven pinion.
 - X and Y axis utilize re-circulating cross-roller linear guide way.
 - Full protection package (cover and bellow-sealed) for drive system.
- Z axis:
 - Rapid traveling speed: 9,000 mm/min
 - Effective cutting speed: 6,000 mm/min.
 - Linear positioning accuracy: +/- 0.05 mm
 - Repeatability: +/-0.05 mm
 - Drive system:
 - AC servo motor equipped with planetary gear head for floating height control.
 - Z axis utilizes precision modular with ball screw driven.

System configuration:



1. Beam delivery - Fly optics with positive-air protection.
2. Beam bender adopt 3" mirror with water cool directly.
3. The Laser power capacity ranges from 600 to 6,000 watts.
4. The cutting process head is equipped with precision capacitor high control and anti-collision device.
5. Built-in cutting database.
6. Cutting gas console: Provides Oxygen / Nitrogen / Air or Argon gas inlet with pressure regulator.



AccuFocus Processing Head:

1. 5" / 7.5" quick change cartridges
2. Anti-collision device
3. Shielding gas in-line pressure gauge
4. Stand-off high adjusting
5. Wide range cutting nozzle

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