Automated Production Line Solution

SWING VII PRO+ PLA COMPACT

Penta Laser SWING VII PRO + PLA COMPACT Laser Cutting Machine features an automatic loading and unloading production line that is composed of the SWING VII PRO high-performance laser cutting machine and the PLA COMPACT fully automated plate loading and unloading unit. It enables fully automated production, from automatic plate loading and precise cutting to finished product unloading. The system design balances the demands for efficiency, safety, and intelligence, making it ideal for batch processing of metal plates such as carbon steel.

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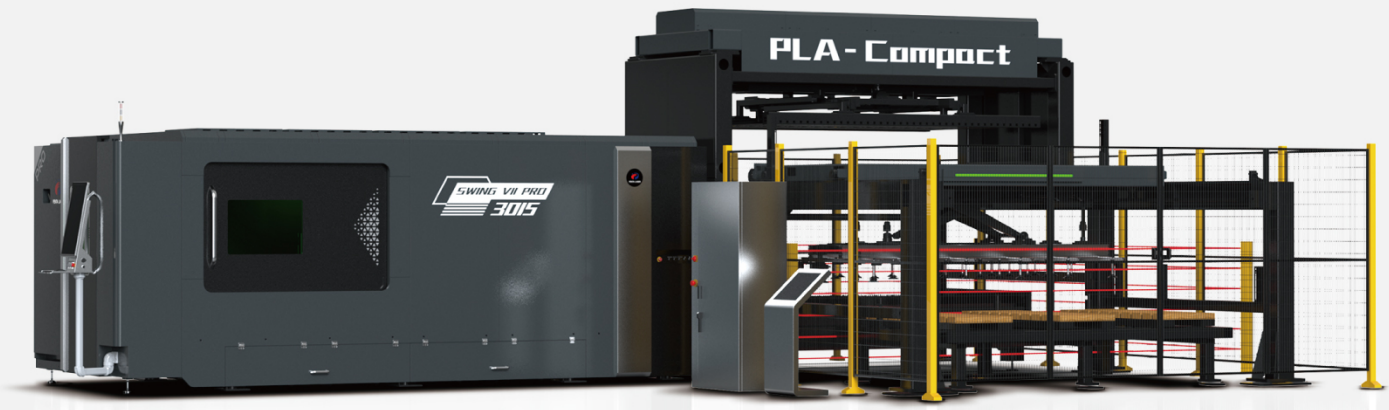


Characteristics

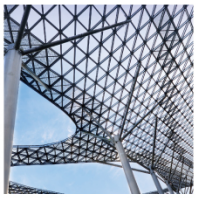
- Compact design(height ≤ 3.6m) with quick-mount supports; installation within2-3 days.
- Loading robot features sheet separation detection, in-motion detachment detection, and sheet drop detection.
- Unloading robot equipped with unloading collision detection.
- Finished table includes material stopper; full-perimeter safety guard ensures operational safety.
- Self-developed central control system automatically coordinates cutter and automation, auto-schedules production based on work orders to boost planning and execution efficiency.

Technical Parameters

Model	PLA-Compact (3015)
Plate Thickness Range(mm)	0.8 ~ 20
Raw Material	Carbon Steel
Applicable Maximum Size(mm)	3048 × 1024
Applicable Minimum Sheet Size(mm)	800 × 800
Maximum Weight for Manipulator Loading and Unloading(kg)	800
Load Capacity of Raw Material Cart(t)	3
Load Capacity of Finished Product Cart(t)	3
Maximum Loading Height of Raw Material Layer(mm)	250 (including wooden pallet)
Horizontal Travel Speed(m/min)	40
Vertical Lifting Speed(m/min)	15

Applications


Construction Machinery


Steel Structures


Rail Transit


Sheet Metal Processing


Shipbuilding