FORZA

Lyfter

Technical Sheet

V250114P

Model LI1530

FORZA Lyfter

Semi-automatic loading arm for cutting metal sheets.

SEMI-AUTOMATIC LOADING

The FORZA Lyfter I is a servo-driven suspended arm for the semi-automatic loading of metal sheets onto the bed of a laser cutter. It offers greater safety by eliminating any risk associated with operator loading.

Ideal for continuous production that requires a higher degree of automation to provide greater speed, precision, and safety to the process.

Specific characteristics

FEATURE	DETAIL
Application	Semi-automatic loading of metal sheets (1)
Allowed plate width	800 - 1525 mm | 2.6 - 5 ft
Allowed plank length	800 - 3050 mm | 2.6 - 10 ft
Allowed plate thickness	1 - 14 mm | 3/64 - 35/64 in
Maximum weight per plate	300 kg
Arm range of motion	120°
Load cycle per plate	< 45sec
Motion repeatability	±1mm
Suggested laser machine (2)	FORZA Scanor S1530

1. *The equipment is designed only for loading metal sheets into the laser cutter, it should NOT be used to unload material after cutting.*

2. *This machine is ideal for use with the FORZA Scanor thanks to its interchangeable bed, which allows plates to be loaded while the machine is cutting simultaneously.*

Special Features

Resistant vacuum suction

The arm holds the plate firmly with 15 different adjustable suction cups for vacuum suction. Designed to work with heavy loads, resist oil, and withstand industrial working conditions.

Distance touch screen

It features a touchscreen that attaches to the main body via a magnet, allowing you to remove the screen to remotely operate the device without having to intervene during the charging process.

Automatic mode

It has an automatic operating mode, where the operator only has to start the process and the arm automatically loads the plate, significantly increasing production speed.

Self-protection

The equipment features several alarm, fault detection, and self-diagnosis systems. All of these can be monitored and corrected via the touchscreen.

Smart separation

In addition to the suction system for loading the plates, the equipment has a pneumatic system for separating the plates and loading them in a automatically

in one.

Smart energy safe

It has an intelligent start-stop system that automatically turns off unused power sources in standby mode, promoting energy savings.

General Specifications

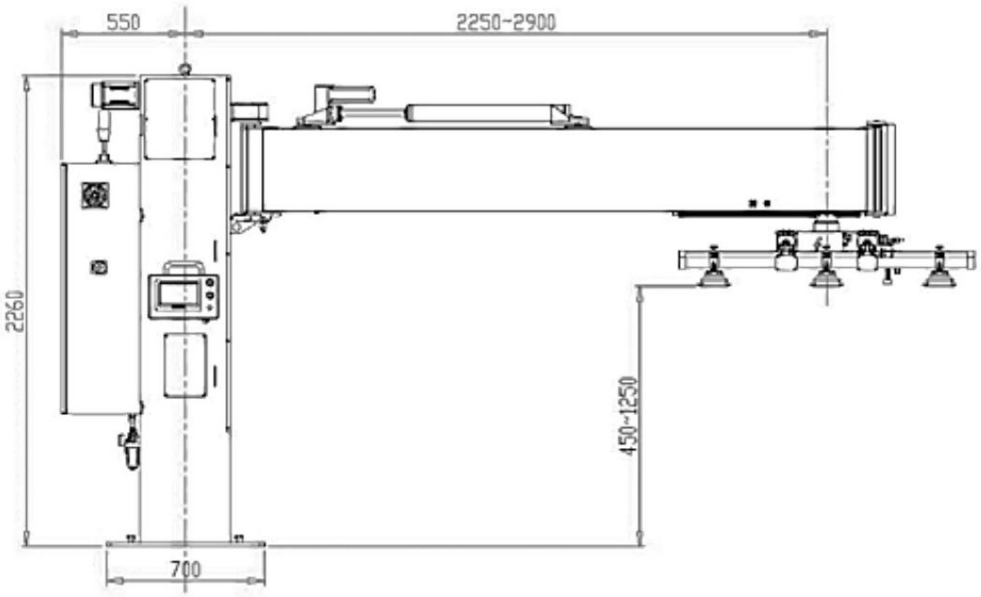
SPECIFICATION	DETAIL
Model	**FORZA Lyfter – LI1530**
Types of work	LOADING METAL PLATES
CNC system	OMRON
Control interface	Touch screen (1)
Modes of operation	Automatic / Manual / Learning (2)
Self-protection systems	Alarms / Self-diagnosis / Detection system (3)
Drive system	Servomotors
Plate grip system	Vacuum suction cups
Number of suction cups for gripping	15
Allowed plate width	800 - 1525 mm | 2.6 - 5 ft
Allowed plank length	800 - 3050 mm | 2.6 - 10 ft
Allowed plate thickness	1 - 14 mm | 3/64 - 35/64 in
Maximum weight per plate	300 kg
Range of motion from center to left 60°	
Range of motion from center to right 60°	
Total range of motion	120°
Motion repeatability	±1mm
Load cycle per plate	< 45sec
Pneumatic feed required	5 – 6 bar | 73 – 87 bar
Minimum pneumatic flow required	0.4 m 3/min | 14.2 cfm

1. *The touchscreen is attached to the main body of the device via a magnet. Therefore, it can be removed for remote control without having to interfere with the device during charging.*
2. *Learning mode allows the system to memorize relevant trajectory points and then perform the process completely automatically.*
3. *The control HMI includes debugging for errors diagnosed by the equipment, making it intuitive and easy to operate.*

Recommended iron rack size (4)	3000 x 1500 x 750mm | 3 x 1.5 x 0.7m
Maximum load that the iron rack must support	3000 kg
Maximum permissible vibration of the site (5)	0.5G
Required ground resistance	< 10 ÿ
Working voltage	Single phase 220/380V 50Hz-60Hz
Capacity required for feeding	6 kVA
Nominal working current	12A
Required wire gauge of the breaker box	2 x 14AWG +1 x 14AWG Ground
Recommended breaker for the team	15A
Power cable length (6)	10 m | 32.8 ft
General equipment measurements	4750 x 1500 x 2260mm | 4.5x1.5x2.2m
Relative humidity	< 95%
Working temperature	-10 – 45o C
Certifications	CE, RoHS

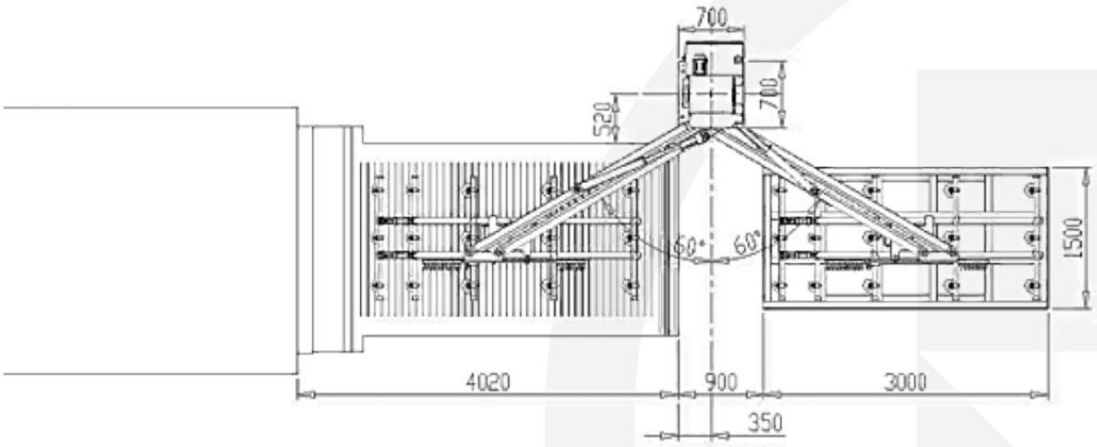
4. *The rack where the plates are stored must be manufactured or purchased externally by the client.*
5. *If the vibration of the place where the arm is installed is higher than the indicated value, the process will be affected.*
6. *The length of the power cable is measured from the breaker to the voltage stabilizer or to the transformer.*

Machine dimensions:

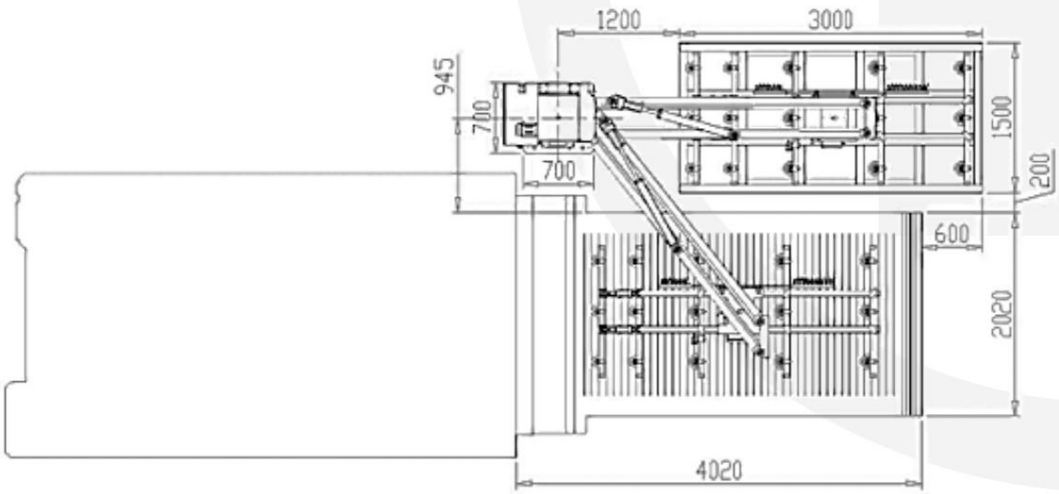


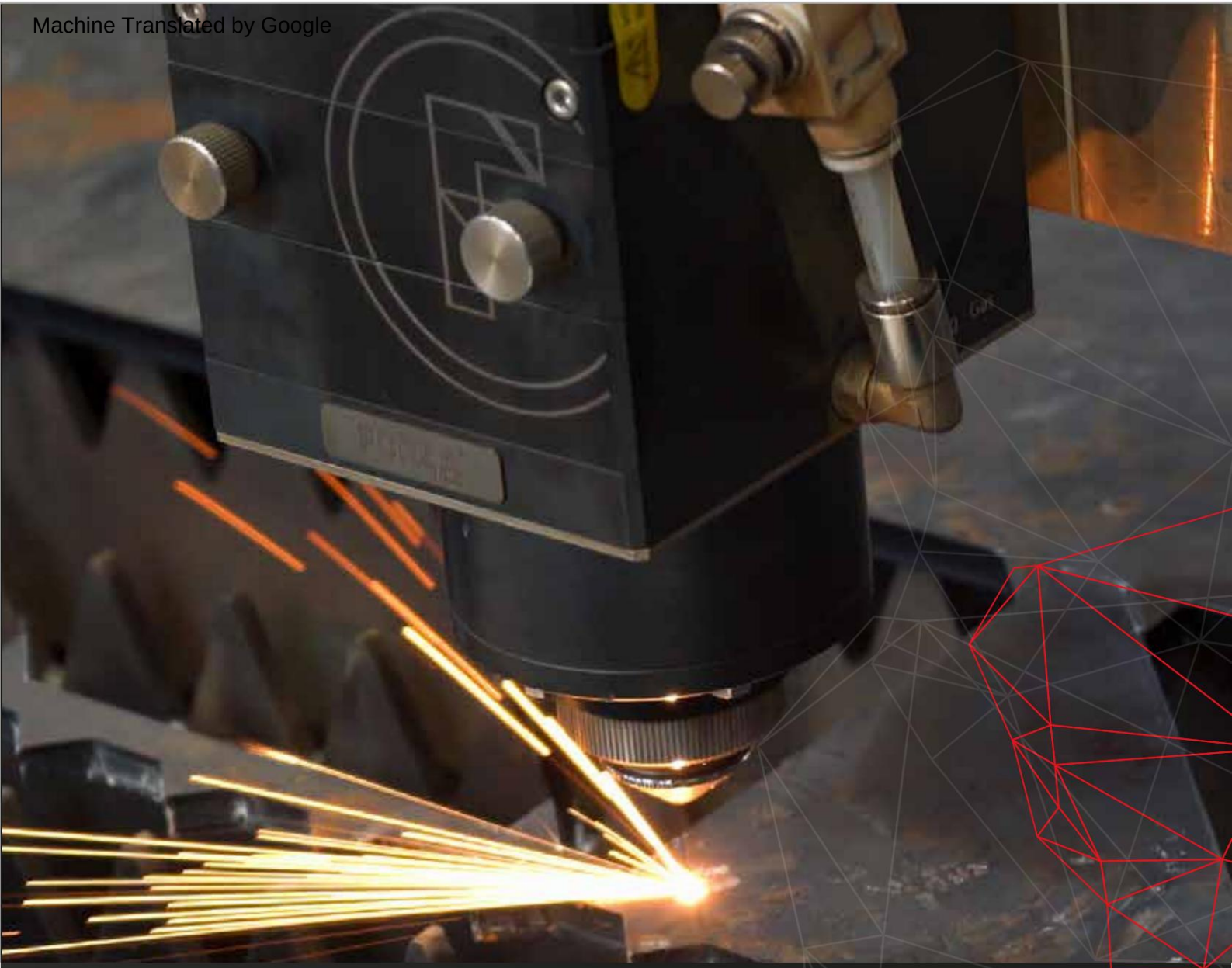
Team distribution:

- Option 1 (Plate rack behind the laser machine)



- Option 2 (Plate rack next to the laser machine)





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