

Han-Kwang's FL series machine enhances accessibility for the operator by using our Long Cutting Bridge Type design. The high speed Cutting Bridge increases the safety since it is built on super strong molded framework. This model is our workhorse and features fast, dynamic movement designed for the safety and convenience of the machine operator.

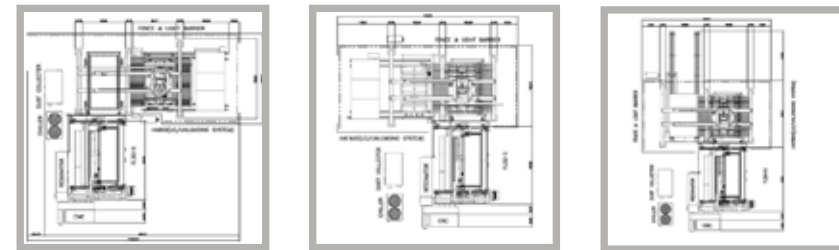
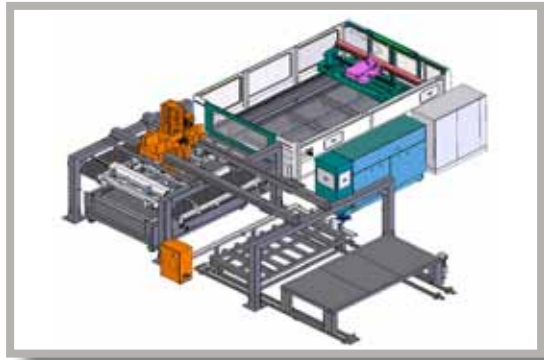
System Layout & Specifications

FL 3015

Flying Optic Series
2D Laser Cutting System

Automation Systems

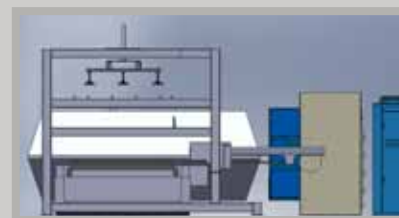
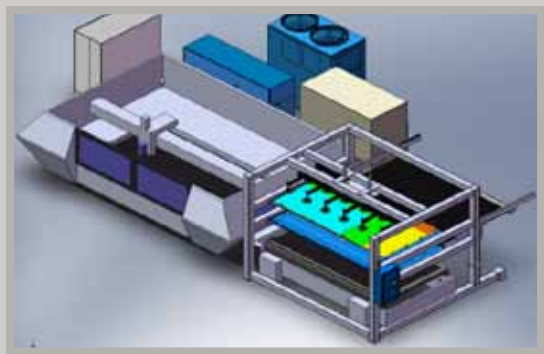
Auto Load / Unload System



Tower Automation

Items	HCS310	HCS420
Sheet Size	5' x 10'	6' x 12'
Material Thickness	Up to 0.750"	
Number of Shelves	8 (Standard)	
Max. Load Weight	4400 lbs/shelf	
Stacking Height	Max. 3.54"	
Sheet Separator	Magnetic & Vibration with Air Unit	

Compact Load / Unload System

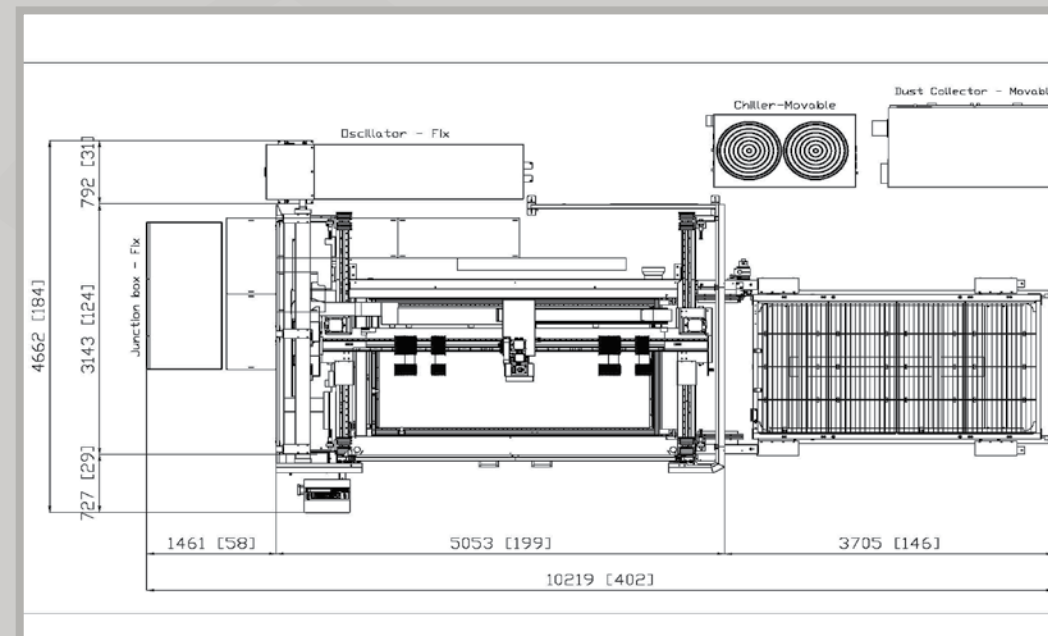


- Double-deck load/unloading compact automation system
- Space saving solutions providing increased productivity by allowing optimal material flow and unattended operation with uninterrupted processing
- HCA-310 provides full capabilities for loading, unloading, and storage of raw materials and finished parts
- 137.8" (H) x 145.7" (W) x 208.7" (D)

Laser Model	2.0KW	2.5KW	3.3KW	4.0KW	5.0KW	6.0KW	
Table size	62" X 123"						
Max. Rapid	6700 IPM						
Max. Rapid X	4720 IPM						
Max. Rapid Y	4720 IPM						
Accuracy	0.0039" over 120"						
Repeatability	0.001"						
Operating Software	Window XP Pro						
Monitor	15" Flat Touch Panel Screen						
HDD	40G						
Memory	512M						
Communication	USB, Ethernet LAN						
Power Consumption (incl. Dust Collector)	90KVA	100KVA	120KVA	135KVA	150KVA	163KVA	
230VAC Service	220A	260A	290A	330A	370A	405A	
460VAC Service	112A	125A	145A	165A	185A	200A	
Laser Gas	10 L/Hr	10 L/Hr	10 L/Hr	25 L/Hr	25 L/Hr	25 L/Hr	
Air Consumption Main Machine	ISO 8573-1 Standard						
	26CFM						
	1/2" Connection						
Cooling Water	Distilled Water (70%) : Propylene Glycol (30%)						
Cutting Head	HK 55						
Max. Cut*	Mild Steel	0.625"	0.75"	0.75"	1.00"	1.00"	1.25"
	Stainless 304	0.32"	0.375"	0.50"	0.625"	0.75"	0.75"
	Aluminum 60	0.25"	0.25"	0.375"	0.375"	0.50"	0.50"

* Max Cut thickness is typical and only for reference, not guaranteed, and varies depending upon the material quality and the cutting parameters and circumstances.

* Specifications are subject to change without notice.



Hankwang
LASER AND AUTOMATION

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LASER AND AUTOMATION



FL 3015

Faster and flexible cutting solution with high-end performance.

High-Speed S5 Cutting Head

The new high speed cutting head incorporated with the new FM sensing technology provides unsurpassed cutting speed and edge quality with a cross-jet oil spray unit, a quick-change lens cartridge, and a built-in HP quick-pierce system.



15" Flat Screen Touch-Panel

Lightweight roll around operator console with wide touch-panel screen gives enhanced convenience and easiness to operate the machine.



Versatile Cutting Edge Technologies

Wide-open structure with tube-cutting technology

- Superb cutting quality & speed
- Accessible wide-open gantry system
- U-Axis for tube-cutting up to 11.8" O.D.
- New high-speed S5 cutting head
- HP Quick-Piercing system (standard)
- Synchronized dual servo motors drive
- 7900 IPM
- Durable rack & pinion system
- 1.5G Acceleration
- Siemens 840D control & drive system
- 15" flat-panel touch screen
- Low maintenance cost



Shown with HT 800 option.

The built-in air filter / dryer system has 4 stages of air filtration which makes assurance that the air entering the machine is moisture-free with maximum purification.



Advanced Air Filter System

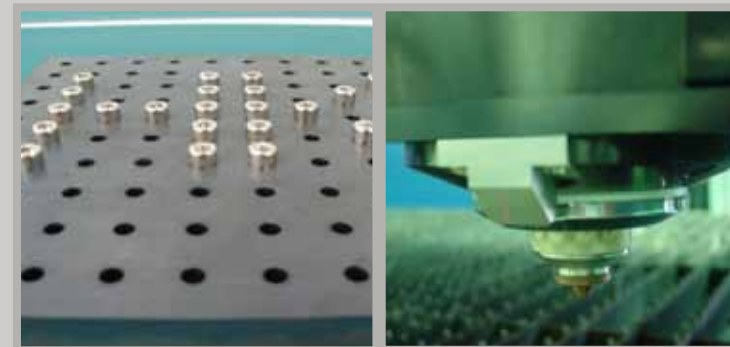
Features & Functions

- Synchronized dual servo motor gantry
- Durable rack & pinion motion system
- Adaptive optics AFC unit
- Quick change lens cartridge
- Rigid heavy-duty body frame
- Built-in air filtration & dryer system
- Automatic dual shuttle table
- Zone & ducting exhaust system
- Automatic nozzle cleaning system
- Aiming diode laser
- Cross-jet oil mist spray system
- Flat 15" touch screen panel
- Beam collimator & phase retarder unit
- Step-down transformer

Design & Structure

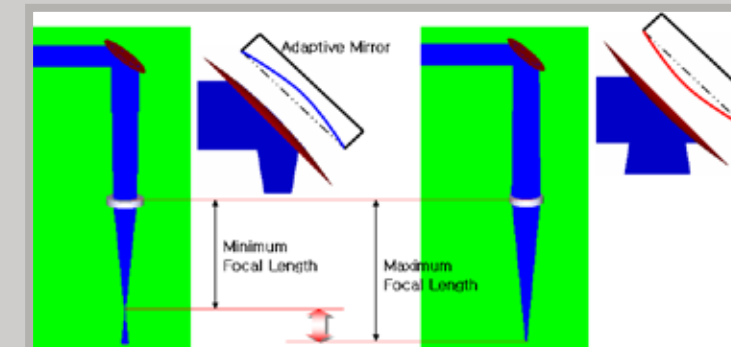
- Dynamic power/speed ramping
- Edge detection & axis re-alignment
- High-speed etching mode
- Quick Micro-tap & Micro-welding
- Pre-piercing mode
- Multi Pulse Piercing (MPP)
- Built-in maintenance scheduler
- Operation scheduling
- Restart & retrace
- Various lead-in patterns
- Various head moving modes
- Pro-Design nesting software
- Plasma Monitoring Unit (PMU) option
- Lens Crack Sensor (LCS) option

HP Quick Pierce System



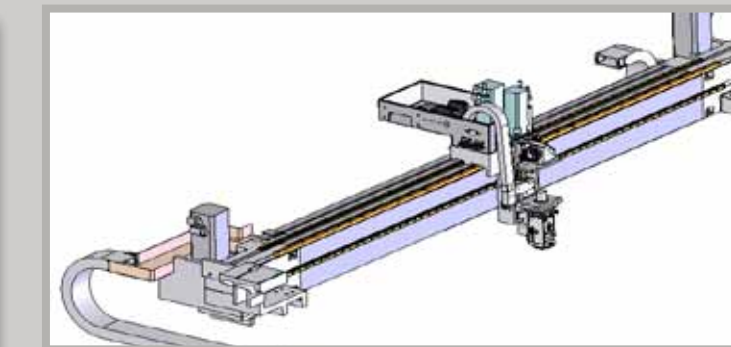
The innovated Quick Pierce System is a built-in standard feature which makes piercing for thick materials swift and effortless; which makes the hole 50-60% in diameter of the thickness that will appear as a pulse pierce, making the hole miniscule & clean.

Auto Focus Control (AFC)



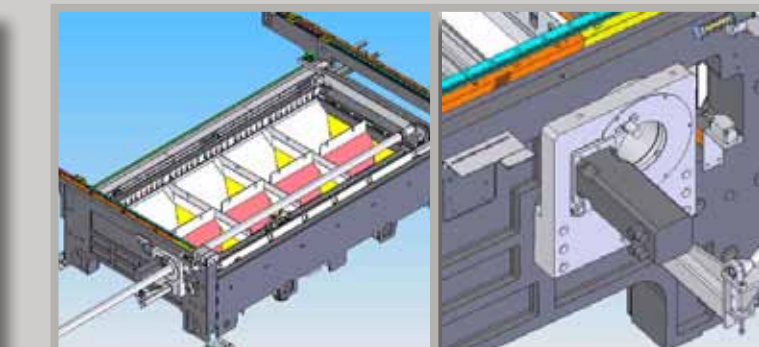
This pneumatic-control AFC adaptive optical system keeps the focused beam spot size constant and consistent wherever the cutting head is located; also providing the pre-programmed automation of focal positioning when loaded with a different material.

Dual Servo Motors Drive



Light weight gantry which is driven by SIEMENS synchronized dual servo motors enabling 1.5G of acceleration and long-term reliability of the gantry system.

U-Axis Tube Cutting System (Option)



U-axis system consists of a rotary axis, tailstock, and tube support X-bar and it is capable of cutting up to 11.8" O.D. with front manual load and up to 6" O.D. with feeding through the bore hole of the rotary chuck.