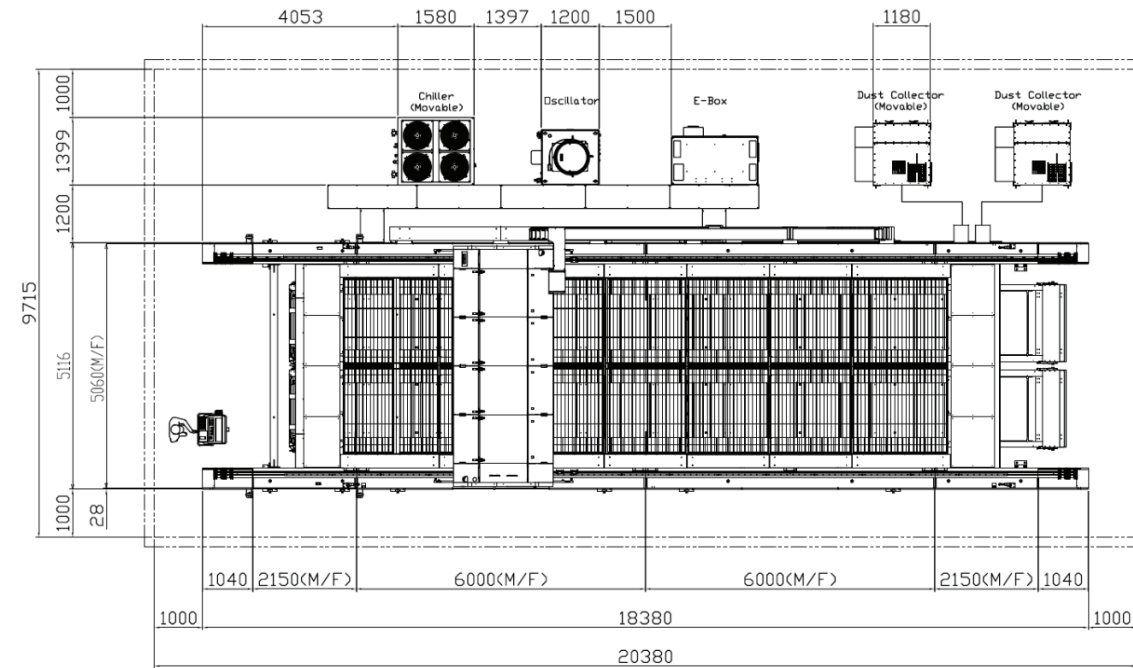


# Specifications

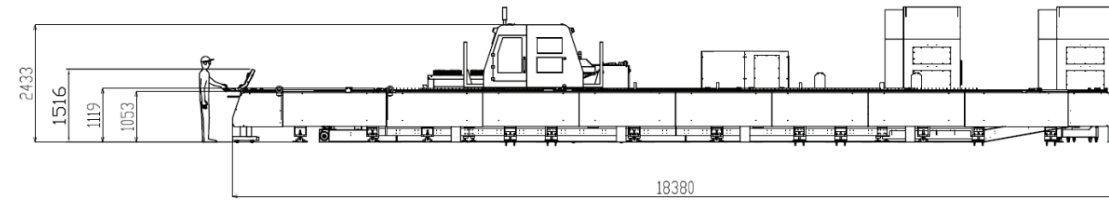


HK America Inc. is the North American subsidiary of HK CO. Our 27,000 sq-ft technical and demo center is located in Chicago, Illinois, where the latest HK products are displayed for demonstration. The service parts inventory room stores plenty of parts to support all of North America, providing same day shipping. We have additional service centers located in four major U.S. cities, and two local service offices in Mexico and Brazil. With over 15 sales networks and over 500 laser machines installed at customer sites throughout the United States, Canada and Mexico and a well-established quick-response service system, HK America is providing quality service and product support to customers for unparalleled satisfaction.



# FO 12035-X

Large Format Gantry  
Laser Bevel-cutting System



Category	unit	Specifications	Remark
Model name		FO12035-X	
Laser power		30KW, 40KW	
Cutting area	ft	40ft (12m) x 11.4ft (3.5m)	60 ft as option
Positioning accuracy	inch	+/-0.0039 inch	
Max feed rate	ipm	2,400 ipm	
Drive type		Rack & Pinion for X/Y axis, Ball screw for Z axis	
Bevel shaft Rotation	deg	+/-45 deg	
Cutting gas		Oxygen, HP Nitrogen	3 <sup>rd</sup> gas available as option
Machine dimension	ft	60.3ft (L) x 25.3ft (W) x 9.2ft (H)	Incl chiller and accessories
Cutting head		+/-45deg Bevel cutting head with auto-gap sensing unit	
Dust collector		2 units	



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## FO12035-X Large-format Gantry Laser Cutting System

The newly designed FO series features high-speed advanced gantry system equipped with the state-of-the-art 3D Bevel laser cutting head, dual sync servo drive and high precision rack & pinion linear motion system.

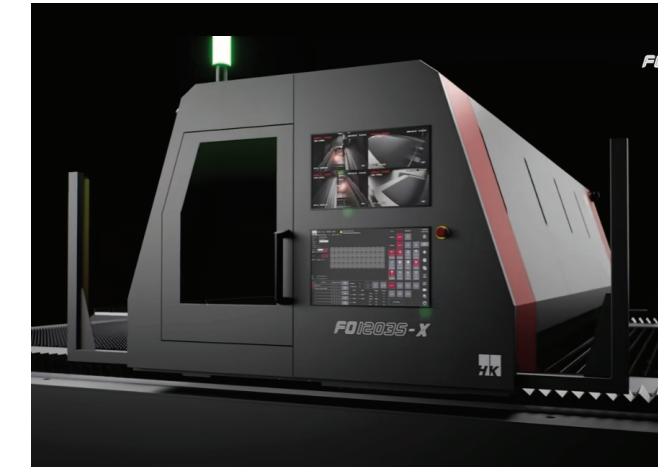
Optimized for large and heavy duty industries such as ship building, construction and steel service centers, It is capable of processing over 2 inch steel and alloys, powered by 30kw or 40kw fiber laser source.

Fiber Laser Output power - 30kW & 40kW



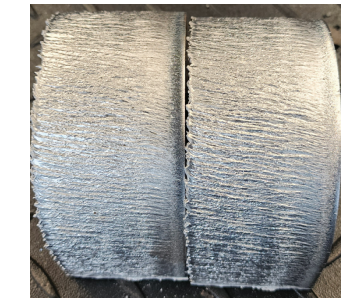
### Innovative machine design

- Table cutting size: 11.5ft (3.5m) width x 40ft (12m) length
- Ultra heavy-duty machine frame with 40" tall high table from the floor
- Modular table structure – scalable by every 20 ft up to 80ft long
- Non-contact capacitive gap-off sensing cutting head
- Fully covered Gantry system w/ synchronized dual servo motor drive
- PC-based NC control system with 27" touch flat HMI screen
- Rack & pinion linear guide system
- Air-conditioned electrical cabinet
- Stairs at front and side for easy service & maintenance
- Heat-resistant insulator blocks on the side pan under the table
- Modular table & slats structure for easy change
- Multi zoned & ducted system with dampers in the ducts control



### Conveyor & Scraper System

- Twin steel conveyors with bar scrapers is able to remove all the chips and scraps very effectively to the outside trays
- Conveyor and scraper is designed for easy exchange by module
- Scalable to match for the table size (min 20ft to max 60ft)
- Removable Table Frame - Easier access for service and inspection.



Aluminum 2.0"

### Great cutting capability

- 45 deg bevel cutting for 2" thick mild steel by 40kw fiber laser
- Straight clean cutting for 2" Aluminum or 2.1" Stainless by 40kw fiber laser
- PC-based NC control with the built-in cutting DB and intuitive HMI screens



Mild steel 2.0"

### Gantry Bridge

- Fully covered gantry structure with easily accessible service door
- Laser-welded steel honeycomb structure
- Highly optimized rigidity & Stiffness based on F.E.M dynamic simulation
- Optimized design for X-axis guide rail and motion drive system
- Safety Light Barrier – Positioned in front and back of the gantry
- Monitoring & Control - Real time monitoring and integrated HMI touch-panel On the side

### Bevel Cutting Head

A bevel cutting head on a fiber laser machine is a specialized laser head designed to cut materials at angled edges up to +/- 45deg, rather than just straight, vertical cuts. A bevel cutting head adds versatility and precision to fiber laser machines by enabling angled, complex cuts that standard heads cannot achieve.

