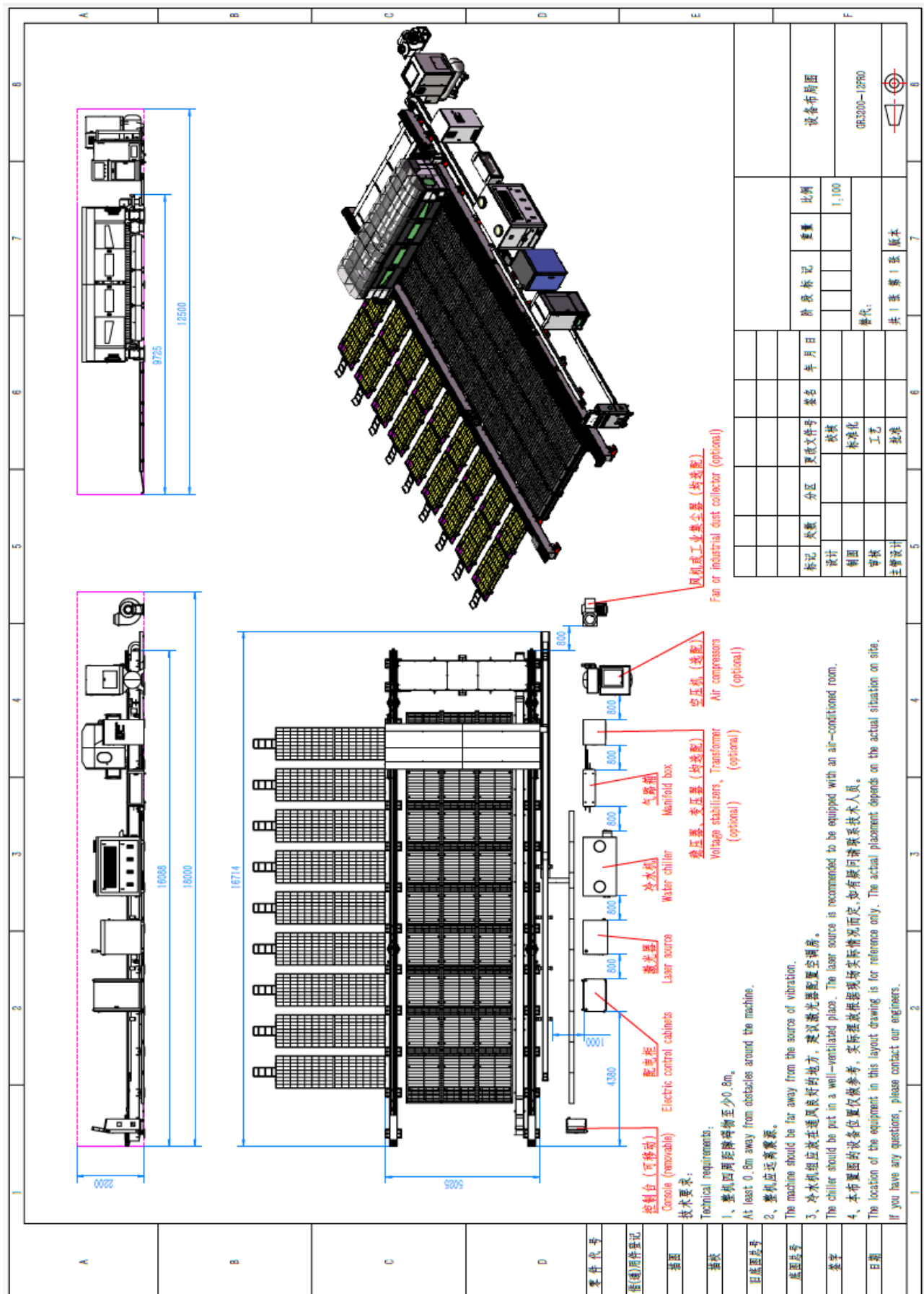


FIBER LASER CUTTING MACHINE MODEL : GR3200 12 PRO - 12000W

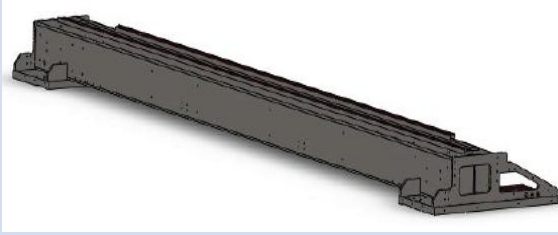


MACHINE LAYOUT



MACHINE DETAILED SHEET	
MACHINE PARTS	ADVANTAGES
BOCI BLT442 Auto focus laser head	Optimization of the optical configuration, smooth and efficient air flow design rotary knob focus adjustment, more easy and flexible, Auto focus type.
Heavy Welding bed with table and material trolley, and with refractory bricks	Computer-aided optimization design of sheet welding machine bed. The bed is heavier, after stress relief and annealing treatment, the bed is more stable and not easy to deform compared with sheet and pipe welding machine bed.
WIFI wireless control	For providing quickly service, we add WIFI function for our technician operates troubleshooting and adjust parameters remotely
China Inovance Servo Motor X axis 1.8kw Y axis 5.5kw*2 Z axis 0.75kw	It has many functions, including auto-adjusting, position/speed control and internal positioning sequences etc.
Aore square rail	Famous brand , high precision
Aore Rack	Dual-drive, precise helical rack and pinion, high precision standard DIN6. Low inertia and high rotation speed.
AORE LASER pneumatic components	High efficient gas saving
Aviation aluminum beam	The fourth-generation aviation aluminum alloy beam. Light weight and high strength. After high-strength extrusion molding. Compared with the cast aluminum beam, the density is more uniform, without pores and trachoma.
FSCUT 6000 control system	High integration, improved functions, simple operation, high stability and leading technology. With leapfrog, edge seeking, fly cutting function
Raycus Laser source	Well-known brand of laser resonator in the market, it's with advantages as: high output power, high quality laser beam, over 30% coefficient of efficiency, Compact design, solid and easy to install. High electrical efficiency and environment friendly.
Kofon REDUCER	High precision, high hardness, strong wear resistance.
Auto lubrication system	Electrical lubrication is a kind of gear pump with rational construction, great performance, complete functions.
Blade table	Sawtooth blade table, suitable for sheet metal cutting.
Air pressure real time monitoring	Automatic control of gas output.

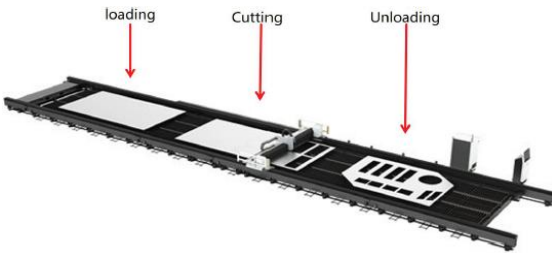
MACHINE ADVANTAGE



Profile welded beam, large cross section, high temperature resistance, high rigidity.

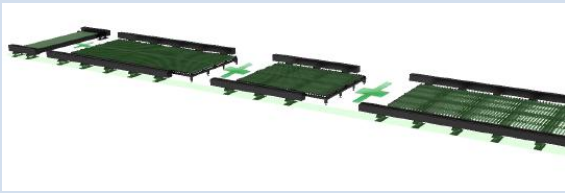
High strength and rigidity, the elastic modulus of steel is much higher than that of aluminum, and it has strong bending resistance, which is suitable for large-span or high-load equipment.

Durability : Welded steel has excellent wear resistance and low risk of deformation in long – term use.



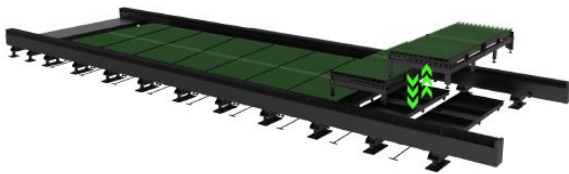
Intelligent multi-station

After cutting one area, the large-format beam moves to another cutting area, and the cut area is loaded and unloaded, realizing partition processing. Cutting and loading and unloading are carried out simultaneously, which improves production efficiency.



Modular design, Large size and Freely customization

The bed is short and not easy to deform, which can effectively ensure the installation accuracy and is easy to install. We have standard lengths, 6 12 14 22 for choose , others can also be customized.



Independent table design, easy to disassemble and Maintain

The bed and the workbench are separated to prevent the vibration and thermal deformation of the workbench on the bed ensuring the long service life of the product, and loading and unloading materials will not affect the cutting accuracy.

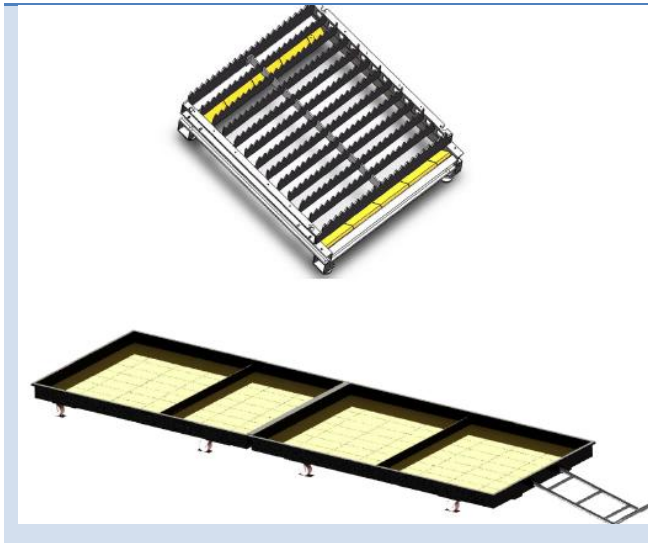


Table + trolley (with refractory bricks)

If you don't need cutting table + trolley, we can give you drawing, you can make it locally, which can save table costs, packaging size reduction and save Sea freight.

If you choose the cutting table and trolley from us, we will be equipped with refractory bricks as standard: to avoid damage caused by high temperature during cutting and extend the service life of the table and trolley.



Safety light curtain

When a person stands in the grating scanning area, the equipment will trigger an alarm and stop running to ensure that the workers loading and unloading materials will not be hit by the running equipment and cause mechanical injuries.

MACHINE PARTS



12KW Raycus Laser Source



AORE LASER Pneumatic Component



Japan NSK Bearing



Square Rail



RACK



Taiwan TBI Screw



Hanli Water Chiller



ChillerAuto Lubrication System



Independent Electric Cabinet

TECHNICAL PARAMETERS

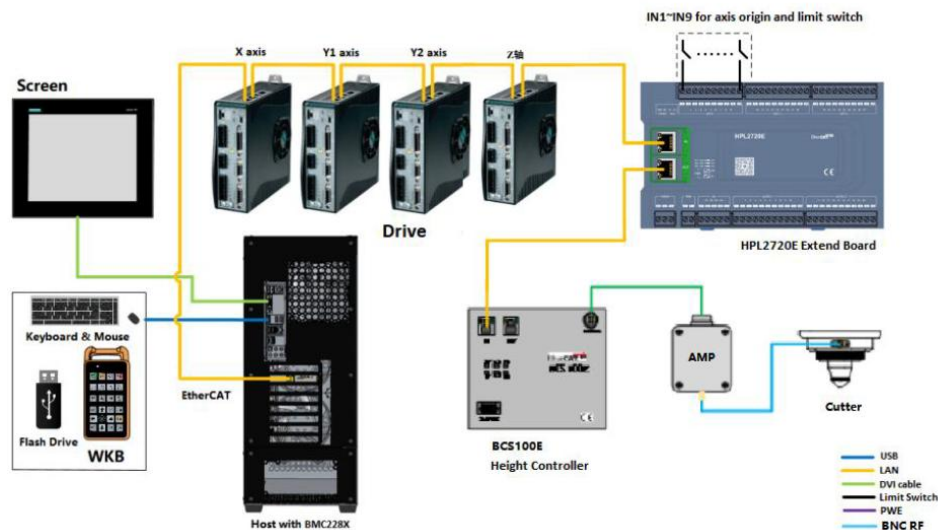
MODEL	GR3200-12 – 12000W
Cutting size	: 3250*12500mm
X/Y – axis positioning accuracy	: 0.1 mm
X/Y – axis repeat positioning accuracy	: 0.05 mm
X/Y – axis maximum moving speed	: 80m/min
X/Y - maximum acceleration	: 0.8G
Total Power	: About 72.6kw
Loading weight	: 22.5T
Dimensions	: 16800 x 5500 x 2200mm
Power Supply Voltage	: 380V/3Ph/50Hz
GR3200-12 PRO 12000W RAYCUS INCLUDES:	
1) Machine with AC for electrical device and laser source (laser source with cabinet add AC)	
2) Voltage stabilizer	
BRAND NEW	: CHINA

FSCUT6000 is CNC system for laser cutting and is very cost-effective. It is based on EtherCAT bus technology and capable of motion control, laser control, and cutting gas control. It is common used in sheet metal, kitchen ware, lamps and such industries.

SYSTEM DIAGRAM

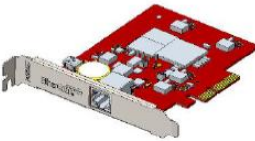
FSCUT6000 includes the EtherCAT BMC2282, Control Card, the bus IO board, and the bus height controller, among which the BMC2282 control card integrates the EtherCAT master protocol stack.

The network cable is led out from the network port of BMC2282 and connected to the BLT cutting head.



PRODUCT DETAILS

FSCUT6000 EtherCAT CNC system includes BMC2282 Control Card, BCS100E terminal board or BCS210E height controller, HPL2720E, WKB V6 and related cables, etc.

BMC2282 Control Card (1)	BCS210E Motion Control (1)	HPL2720E Terminal Board (1)
		
WKB V6 (1)	LAN-20X-PWE (1)	LAN Cables LAN-0 3X(3) LAN-1X (2) LAN-3X (1)
		

12000 CUTTING PARAMETER

MATERIAL	THICKNESS	SPEED/M/MIN	GAS	POWER W
CARBON STEEL	1mm	30 --- 35	N2/AIR	3000
CARBON STEEL	2mm	30 --- 35		6000
	3mm	20 --- 30		12000
	4mm	15 --- 20		12000
	6mm	10 --- 13		12000
	8mm	7 --- 10		12000
	10mm	6 --- 6.5		12000
	10mm	2 --- 2.4	O2	6000
	12mm	1.6 --- 2		8000
	14mm	1.6 --- 1.8		9000
	16mm	1.5 --- 1.6		12000
	20mm	1.3 --- 1.4		12000
	25mm	0.7 --- 0.9		12000
	30mm	0.4 --- 0.6		12000
	35mm	0.3 --- 0.4		12000
	40mm	1.0 --- 0.2		12000
STAINLESS STEEL	1mm	30 --- 35	N2/AIR	3000
	2mm	30 --- 35		6000
	3mm	20 --- 30		12000
	4mm	15 --- 20		12000
	6mm	10 --- 13		12000
	8mm	7 --- 10		12000
	10mm	6 --- 6.5		12000
	12mm	5 --- 5.5		12000
	16mm	2 --- 2.3		12000
	20mm	1.2 --- 1.4		12000
	25mm	0.7 --- 0.9		12000
	30mm	0.3 --- 0.5		12000
	35mm	0.2 --- 0.3		12000
	40mm	0.1 --- 0.2		12000
ALU MINI UM	1mm	30 --- 35		3000
	2mm	30 --- 35		6000

	3mm	20 --- 25	N2/AIR	12000
	4mm	13 --- 17		12000
	6mm	10 --- 12		12000
	8mm	6 --- 8		12000
	10mm	4 --- 6		12000
	12mm	2 --- 3		12000
	16mm	1.3 --- 2		12000
	20mm	0.8 --- 1.2		12000
	25mm	0.5 --- 0.7		12000
	30mm	0.3 --- 0.4		12000
	35mm	0.2 --- 0.3		12000
	40 mm	0.1 --- 0.2		12000
BRASS	1mm	20 --- 25	N2/AIR	6000
	2mm	20 --- 25		9000
	3mm	18 --- 22		12000
	4mm	12 --- 14		12000
	6mm	8 --- 10		12000
	8mm	5 --- 7		12000
	10mm	4 --- 5		12000
	12mm	1.8 --- 2		12000
	14mm	1 --- 1.2		12000
	16mm	0.4 --- 0.5		12000

Notes : Due to the differences in equipment configuration and cutting process (machine tools, water cooling, environment, cutting nozzle and gas pressure, etc) of different machine tools, this data is for reference only.

	Green thickness materials can be processed for a long time and in batches.
	Orange-thick material can be processed, but as the material temperature rises, the cutting pressure fluctuates, the plate composition fluctuates, and other fluctuate, the processing becomes unstable, and it is recommended to use a higher power laser.
	Red thickness materials can be cut off but cannot be processed in batches.

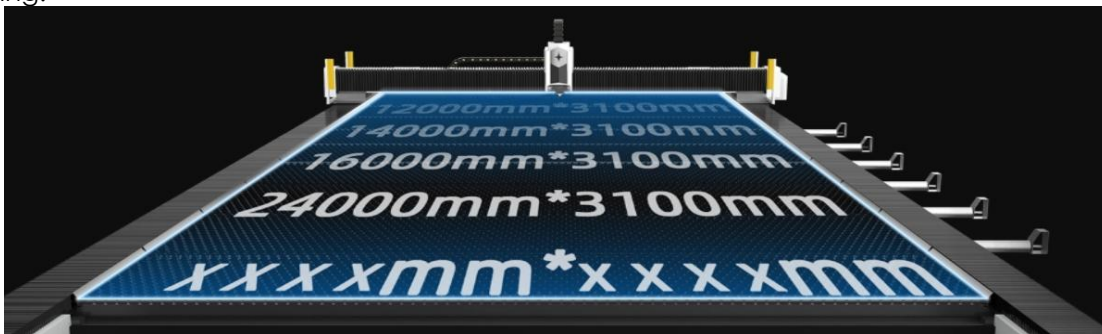
Ground-Rail Sheet Fiber Laser Cutting Machine

GR series is a large format material laser cutting machine focusing on heavy plate processing, with high performance, high cost-effective, safe and environmentally friendly, thick plate processing and other characteristics, widely used in shipbuilding, agricultural equipment, construction machinery, large offshore oil and gas equipment and other industries.



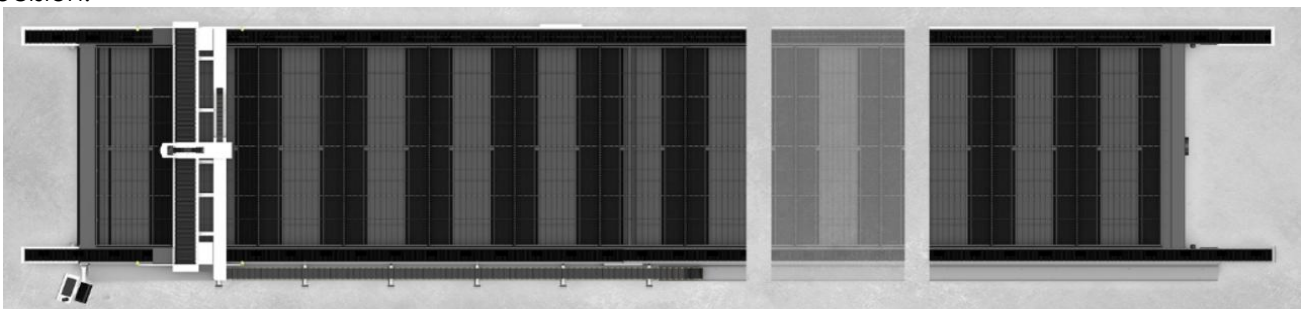
Ultra Large Format, Thick Plate Processing

The cutting width can be freely customized according to the needs, to meet the needs of full-page thick plate cutting.



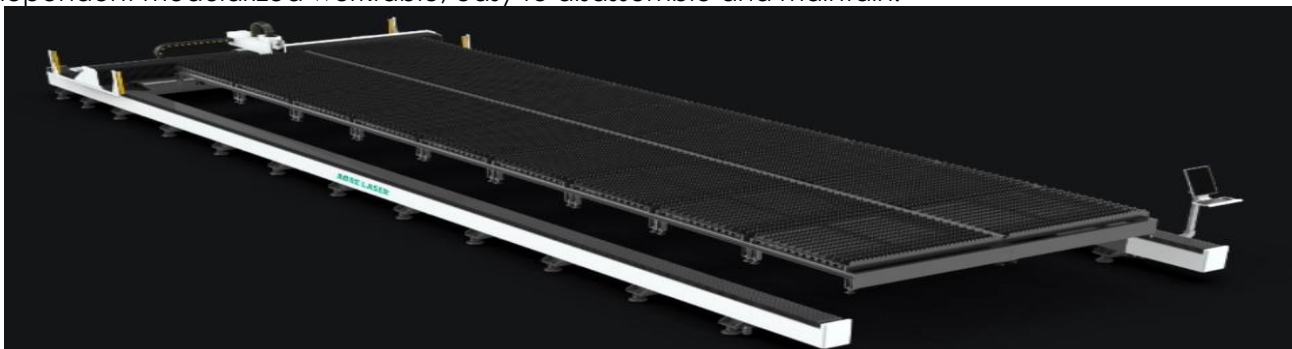
Modularized Expansion Bed

The bed adopts the split design of ground rail, which effectively suppresses vibration and improves cutting precision.

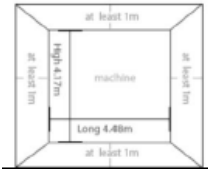


Independent Table Design

Independent modularized worktable, easy to disassemble and maintain.



PREPARATION BEFORE ORDER:

Power Supply	 Industrial Electricity 380V 50HZ	(1) Rated output voltage : 380V (2) Voltage Frequency : 50Hz (3) Three-phase voltage stability: +5% () 4) Output voltage regulation
Position to Show Machine		Put machine evenly on ground. Position follows 6 "No rules-no inflammable, no explosive, no volatile solvent, no dust, no corrosion, no fumes.
Cutting Assisted Gas	 Oxygen	When using oxygen as assisted gas, the pressure is to be up to 1MPa and purity of 99.9%; when cutting iron, an additional small carburetor has to be added with vaporization capacity 30NM3/H or vaporization flow amount 50NM3/H.
	 Nitrogen	N2 cut for stainless steel, its pressure reaches 2MPa, in other name 20KG, purity of 99.999%; A capacity for Carburetor is 50N3/H with design pressure 2.5MPa. When using with small cylinder of N2 for cutting, a high pressure nitrogen meter is a must with range from 0 to 6MPa.
		Air cut mainly used in cutting for thin sheet steel: It is better to use the screw type air compressor (stable pressure of 1.2MPa, the displacement of 100 L /min). Prepare with you a 3- grade filtration device (Q.P.S) and that equipped with air dryer (treatment capacity 2.5Nm2/min), an air storage tank (0.6 cubic meters). Recommend to select the quality filter, the higher the configuration, the least possibility of being contaminated the protective lens by oil and water. Thus, the cutting effect is better.)

EXCLUSIVE OFFER IN COLLABORATION WITH BROTHER GAS

- ❖ Initial 2 racks will be provided FOC to customer upon purchase of Laser Cutting Machine for its commissioning upon dealing with Brother Gas.
- ❖ Brother Gas will support installation and commissioning of total bulk gas solution along with pipeline, FOC upon minimum volume commitment with Brother Gas.
- ❖ Special liquid price will be provided to customer with an additional 15% discount compare to market price along with tank and pipeline investment.
- “ Tank investment and bulk installation is completely subject to minimum volume commitment from customers.**
- ❖ Complete AMC of gas supply system will be taken care by Brother Gas to customers, FOC.



Nitrogen Rack - 1x16 Cylinder (160Nm3) - 99.999%



Oxygen Rack - 1x16 Cylinder (160Nm3) - 99.5%



Gas Dura Cylinder

CRITERIA FOR GAS SUPPLY SELECTION

Supply Solutions	Purity (min.)	Pressure (Bar)	Civil Work	Min. Gas Consumption (m3/month)	Capital Investment
Loose Cylinders	4.6	200	No	<500	Low
Cylinder Rack	4.6	200	No	>500 - 1500	Low
Bulk-Dura/Mini Bulk	5	17 - 32	No	<500 - 1500	Low

NOTE: TSF PROVIDES A UNIQUE DEAL TO ITS CUSTOMERS IN CORPORATION WITH BROTHER GAS. THE PRICE COMMITMENT WILL SOLELY BE BETWEEN BROTHER GAS AND CUSTOMER.

OPTIONAL CONFIGURATION:

Save your Gas Cost, below is an Estimate of Cutting Capability by Compressor to Save Gas Cost. Contact our experts to know more about our Compressor.

OPTIONS :	DESCRIPTION	BRAND
	Air Compressor Up to 10 Bar Pressure can be used so save cost up to 35% of your thickness capacity. (Save Nitrogen/Oxygen Cost)	ATLAS COPCO
	16-Bar Screw Compressor 60-70% of the thickness capacity can be easily cut by the 16 Bar Pressure Compressor, providing you a great saving on Cost per cut. (Save Nitrogen/Oxygen Cost)	PIONEERAIR
	18-Bar Screw Compressor 75- 85% of the thickness capacity can be easily cut by the 18 Bar Pressure Compressor, providing you a great saving on Cost per cut.	PIONEERAIR
	COMPRESSED AIR SYSTEM FOR LASER 30-Bar Booster Compressor Cut 95% of the thickness capacity by the 30 Bar Pressure Booster 0.3Mpa reciprocation air compressors, directly get 30 bar compressed air Ø 300 liters vertical air storage tank integrated. No dust, No oil, No water for pure air source. Centralized automatic water drainage system, easy, convenient. (Save Nitrogen/Oxygen Cost)	PIONEERAIR

DELIVERY & INSTALLATION:

1. Delivery at your site within UAE.
2. Training & Installation by our skilled Engineers at your site.

AFTER SALES SERVICE:

1. Two years warranty (One-year spare parts & 2nd year free Service).
Except for consumable items e.g Nozzle, Lens etc.
2. Complaint will be solved within 12 working hours, by our in-house skilled Engineers

CUTTING SAMPLES :

