



DP LASER



Handheld Laser Welding Machine Series



Time-Saving



Modular Control



Easy Operation

Experienced Manufacturer, Quality Assurance

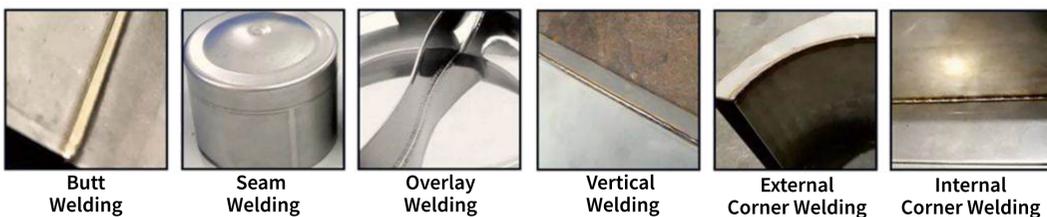
Handheld Laser Welding Machine

Working Principle

The light from the laser is transmitted through the optical fiber to the handheld laser welding gun, where it emits the laser. The laser transforms into heat, which is then transferred to the surface of the workpiece, causing it to melt or the welding wire to melt. This, aided by an inert gas for cooling, results in the formation of a welded joint, firmly bonding the two objects together.

Characteristics Advantages

- ◆ Simple and easy to learn, no welding certificate required, no need for professional welders
- ◆ No need for a face shield, no arc radiation
- ◆ Smooth and aesthetically pleasing welds, minimal or no need for grinding
- ◆ By controlling laser energy, welds remain non-deformed or have minimal deformation
- ◆ Low operating cost, low consumption of electricity, gas, and consumables like lenses
- ◆ Fiber optic cable extends up to 10 meters, extendable to 15 meters as require
- ◆ Multiple welding processes available, fillet welding, groove welding, circular welding, and more



- ◆ The welding speed for metals such as stainless steel, mild steel, and galvanized sheet
- ◆ For aluminum alloy welding with aluminum wire, the welding speed is 1.2 - 2 meters per minute

Comparison of Argon Arc Welding and Laser Welding

Method Project	Argon Arc Welding	Laser Welding
Heat	High heat	Low heat
Deformation	Prone to deformation	Minimal or no deformation
Weld Bead	Large weld bead	Smaller weld bead, adjustable spots
Aesthetics	Requires processing, high grinding costs	No need for post-processing or low processing costs
Penetration	Susceptible to perforation	Not prone to perforation, controllable
Shielding Gas	Requires Argon gas	Requires Argon/Nitrogen gas
Precision	Average	High precision
Efficiency	Average	2-5 times faster
Safety	Intense ultraviolet radiation	Safe irradiation, almost no harm
Skill Requirements	Skilled welders	No technical requirements

Cost Comparison

Argon Arc Welding

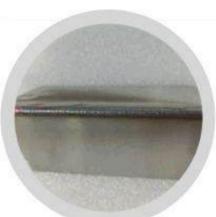


VS



Laser Welding

Types	Argon Arc Welding	Laser Welding
Number of Employees	5	1
Salaries	1,097.36 USD	548.68 USD
Number of Grinding Employees	1	0 - 1
Salaries	960.19 USD	548.68 USD
Total Annual Wages	77,364.16 USD	987.63 USD



● Non-professionals can get started within 2 hours

● Low heat input, minimal deformation



● Efficiency is 2 to 10 times higher, no need for welding certification

● Smooth weld seam

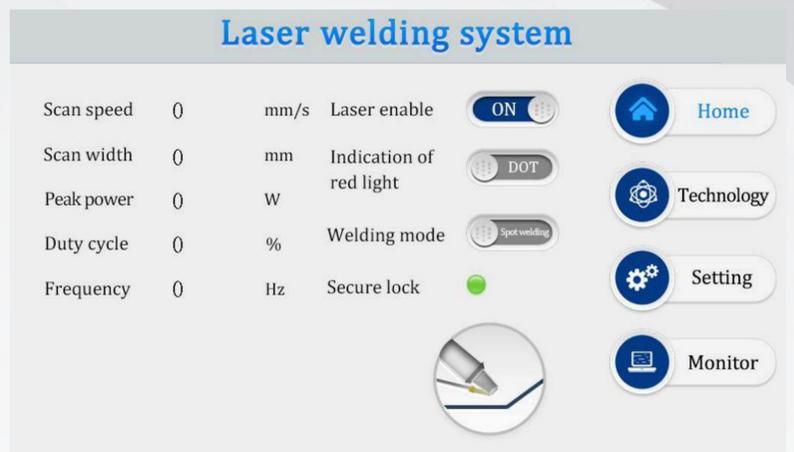


● No need for post-welding grinding of the surface

● Modular control ensures safety



Laser welding system



Structure of the Machine



Machine Parameters

Model	DP-1500SC	DP-2000SC	DP-3000SC
Laser Power (W)	1500	2000	3000
Operating mode	Continuous/Modulated	Continuous/Modulated	Continuous/Modulated
Central Emission Wavelength (nm)	1070-1090	1070-1090	1070-1090
Pulse Frequency (Hz)	50-5000	50-5000	50-5000
Cooling Method	Water Cooling	Water Cooling	Water Cooling
Output Fiber Length (m)	10 (Vulnerable 8)	10 (Vulnerable 8)	10 (Vulnerable 8)
Output Power Stability	<3%	<3%	<3%
Power Requirements	AC 200-240V (Single Phase)	AC 200-240V (Single Phase)	380v
Beam Quality	1.1	1.1	1.1
Focus Beam Diameter (mm)	0.3-1.5 (Adjustable)	0.3-1.5 (Adjustable)	0.3-1.5 (Adjustable)
Weight (kg)	Net weight 150 (with wooden frame), 195 including wire feeder	Net weight 180 (with wooden frame), 240 including wire feeder	Net weight 200 (with wooden frame), 310 including wire feeder
Dimensions (cm)	1000/1500w Machine Dimensions: L 95 * W 75 * H 80 Wire Feeder: L 60 * W 30 * H 40	Machine Dimensions: L 95 * W 75 * H 103 Wire Feeder: L 60 * W 30 * H 40	Machine Dimensions: L 126 W 75 H 126 Wire Feeder: L 60* W 30 H 80

Welding Parameters

Plate	Thickness	Laser power	Duty Cycle	Frequency	Galvanometer width	Scanner speed	Welding speed	Melt Depth	Focus position
Stainless Steel 304	0.5mm	20%	100%	2000HZ	1.5mm	100HZ	17mm/s	0.5mm	0
	0.8mm	25%	100%	2000HZ	1.5mm	100HZ	17mm/s	0.8mm	0
	1.0mm	30%	100%	2000HZ	1.8mm	100HZ	17mm/s	1.0mm	0
	1.5mm	40%	100%	2000HZ	1.8mm	100HZ	17mm/s	1.0mm	0
	2.0mm	50%	100%	2000HZ	2.0mm	100HZ	17mm/s	1.5mm	0
	2.5mm	60%	100%	2000HZ	2.5mm	80HZ	17mm/s	2.0mm	-1
	3.0mm	70%	100%	2000HZ	2.5mm	80HZ	17mm/s	2.5mm	-2
	4.0mm	85%	100%	2000HZ	3.0mm	60HZ	17mm/s	3.0mm	-2
	5.0mm	90%	100%	2000HZ	3.0mm	50HZ	12mm/s	4.0mm	-3
	6.0mm	100%	100%	2000HZ	2.5mm	40HZ	10mm/s	5.0mm	-3
Aluminum Alloy 6 Series	0.5mm	30%	100%	2000HZ	1.2mm	100HZ	17mm/s	0.5mm	0
	0.8mm	40%	100%	2000HZ	1.5mm	100HZ	17mm/s	0.8mm	0
	1.0mm	50%	100%	2000HZ	1.5mm	100HZ	17mm/s	1.0mm	0
	2.0mm	60%	100%	2000HZ	1.5mm	100HZ	17mm/s	1.0mm	0
	3.0mm	75%	100%	2000HZ	2.0mm	80HZ	17mm/s	2.0mm	0
	4.0mm	85%	100%	2000HZ	2.8mm	70HZ	17mm/s	3.0mm	-1
	5.0mm	95%	100%	2000HZ	3.0mm	60HZ	15mm/s	4.0mm	-1
	6.0mm	100%	100%	2000HZ	3.0mm	40HZ	12mm/s	5.0mm	-2
Carbon steel Q235	0.5mm	30%	100%	2000HZ	1.2mm	100HZ	17mm/s	0.5mm	+0
	0.8mm	40%	100%	2000HZ	1.5mm	100HZ	17mm/s	0.8mm	+0
	1.0mm	50%	100%	2000HZ	1.8mm	100HZ	17mm/s	1.0mm	+0
	2.0mm	65%	100%	2000HZ	1.8mm	100HZ	17mm/s	1.0mm	+0
	3.0mm	75%	100%	2000HZ	2.0mm	80HZ	17mm/s	2.0mm	+1
	4.0mm	85%	100%	2000HZ	2.5mm	70HZ	17mm/s	3.0mm	+1
	5.0mm	95%	100%	2000HZ	3.0mm	50HZ	15mm/s	4.0mm	+2
	6.0mm	100%	100%	2000HZ	2.5mm	30HZ	12mm/s	5.0mm	+3
Galvanized sheet	0.5mm	13%	100%	2000HZ	1.2mm	100HZ	17mm/s	0.5mm	0
	0.8mm	30%	100%	2000HZ	1.5mm	100HZ	17mm/s	0.8mm	0
	1.0mm	50%	100%	2000HZ	1.5mm	100HZ	17mm/s	1.0mm	0
	2.0mm	65%	100%	2000HZ	1.5mm	100HZ	17mm/s	1.0mm	0
	3.0mm	76%	100%	2000HZ	2.0mm	80HZ	17mm/s	2.0mm	0
	4.0mm	85%	100%	2000HZ	2.8mm	70HZ	17mm/s	3.0mm	-1
	5.0mm	95%	100%	2000HZ	3.0mm	60HZ	15mm/s	4.0mm	-1
6.0mm	100%	100%	2000HZ	3.0mm	40HZ	12mm/s	5.0mm	-2	

Industrial Applications



Metal Processing



Electronics



Construction Industry



New Energy Industry

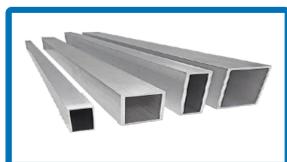


Automotive Manufacturing

Welding Materials



Stainless Steel



Aluminum Alloy



Carbon Steel



Aluminum Sheet



Sheet Metal

Welding method



Internal fillet welding



Outside fillet welding



splice welding



Round pipe welding



Square tube welding

Handheld air-cooled laser welding machine

700W



Product Features

- The machine features a simple and user-friendly design, allowing for easy operation.
- Simple operation; non-professionals can be operational after just 2 hours of training.
- Equipped with electrical components from renowned brands.
- Welding speed is 2 to 5 times faster than traditional welding.
- Equipment boasts a long service life of up to 100,000 hours.
- Triple safety protection ensures modular control and secure maintenance.

Machine Parameters

Serial Number	Features	Description	Remarks
1	Wavelength (nm)	1080	
2	Laser Power (W)	700	
3	Fiber Length (m)	10	
4	Head Weight (kg)	0.7	
5	Cooling Method	Air Cooling	
6	Operating Environment	-20°C~45°C, Humidity< 70%	
7	Power Requirements	220V	
8	Maximum output power(W)	750	
9	Overall Dimensions (mm)	520*232*410	
10	Total Weight (kg) ±20	25	
11	Safety Level	Class IV	
12	Total Power Protection Level	IP54	

Handheld air-cooled laser welding machine

1000W



Product Features

- The machine features a simple and user-friendly design, allowing for easy operation.
- Simple operation; non-professionals can be operational after just 2 hours of training.
- Equipped with electrical components from renowned brands.
- Welding speed is 2 to 5 times faster than traditional welding.
- Equipment boasts a long service life of up to 100,000 hours.
- Triple safety protection ensures modular control and secure maintenance.

Machine Parameters

Serial Number	Features	Description	Remarks
1	Wavelength (nm)	1060-1080	
2	Laser Power (W)	1000	
3	Fiber Length (m)	10	Exposed: 8m
4	Head Weight (kg)	0.7	
5	Cooling Method	Air Cooling	
6	Operating Environment	Temperature: 10-35°C, Relative Humidity: 30%≤RH≤85%	
7	Power Requirements	220V±5%, 50Hz	
8	Total Power	7	
9	Overall Dimensions (mm)	540*353*532	
10	Total Weight (kg) ±20	35	Air Cooling All-in-One Machine
11	Safety Level	Class IV	
12	Total Power Protection Level	IP54	

Handheld air-cooled laser welding machine

1500W



Product Features

- The machine features a simple and user-friendly design, allowing for easy operation.
- Simple operation; non-professionals can be operational after just 2 hours of training.
- Equipped with electrical components from renowned brands.
- Welding speed is 2 to 5 times faster than traditional welding.
- Equipment boasts a long service life of up to 100,000 hours.
- Triple safety protection ensures modular control and secure maintenance.

Machine Parameters

Serial Number	Features	Description	Remarks
1	Wavelength (nm)	1060-1080	
2	Laser Power (W)	1500	
3	Fiber Length (m)	10	Exposed: 8m
4	Head Weight (kg)	0.7	
5	Cooling Method	Air Cooling	
6	Operating Environment	Temperature: 10-35°C, Relative Humidity: 30%≤RH≤85%	
7	Power Requirements	220V±5%, 50Hz	
8	Total Power	5	
9	Overall Dimensions (mm)	790*376*623	
10	Total Weight (kg) ±20	67	Air Cooling All-in-One Machine
11	Safety Level	Class IV	
12	Total Power Protection Level	IP54	

Equipment Configuration

Components/ Power	H80	H100	H120
Cabinet	Dapeng Customization (Red/White)		
Laser Source	MAX photonics MSFC-1500X /Raycus1500W/Bwt 1500W	MAX photonics MSFC-2000X /Raycus2000W/Bwt 2000W	MAX photonics MSFC-3000X /Raycus3000W/Bwt 3000W
Handheld Laser Head	SUP		
Laser Control System	Qi Lin \ SUP \ WSX		
Wire Feeder (Standard)	Dapeng Customization (Red/White)	Dapeng Customization (Red/White)	Dapeng Customization(Red)
Chiller	Han Li SCH-1500 /QUANG-1500	Han Li SCH-2000 /QUANG-2000	Han Li-3000 /QUANG-3000

Note: (1) The welding head + control system + wire feeder are included in the standard configuration.

(2) The standard configuration includes 6 copper nozzles, 5 protective lenses, a pair of safety goggles, 1 data cable, and a 3-meter gas hose.

Accessories List

Number	Name	Specifications	Quantity (PCS)	Price (Consumables)	Recommended Usage	Remarks
1	Nozzle	Right Angle, Inside Angle, Outside Angle	6	40 yuan per piece	3 pieces	Each type, 3 pieces
2	Lens	D18nm*2nm/ D20nm*2nm	5	30 yuan per piece	1 piece	SUP is D18, Others are D20
3	Wire Feeder Wheel	Model1:(0.8 \ 1.0) Model2:(1.2 \ 1.6)	4	/	/	2 pieces for each model
4	Safety Goggles	/	1	/	/	/
5	Data Cable	3m	1	/	/	/
6	Hexagonal Wrench	/	1	/	/	Opening of the cabinet side rear door
7	Storage Box	/	1	/	/	Contains lenses and nozzles
8	Gas Hose	Diameter10*6.5	1	/	/	3m
9	Fiber Optic Protective Sleeve	/	1	/	/	Protecting the laser fiber head

Image



Nozzle



Lens



Wire Feeder Wheel



Safety Goggles



Data Cable



Hexagonal Wrench



Storage Box



Gas Hose



Optic Protective Sleeve

Core Component – Laser



Image

Accessories List

- High-precision automatic mounter
- Component and COS automatic wire bonding equipment
- Automated component brightness testing system
- FAC, automatic coupling system for reflective mirrors
- Component and COS automatic wire bonding equipment
- High-reliability equipment with independent intellectual property rights

Product Technology

- Strict control of cladding and core alignment for both active and passive optical fibers to prevent optical leakage
- Optimize the coupling efficiency between pump lasers and beam combiners, and control the internal temperature of the beam combiners
- High power durability of QBH end faces and meticulous design and production
- Multi-stage residual pump light filtering technology to prevent fiber and fiber bench heating
- Effective thermal dissipation of active optical fibers and temperature control of the overall structure
- Strict control of the output beam spot to ensure consistent product performance

Parameters

Model	BFL-CW1500	BFL-CW2000	BFL-CW3000
Laser Power (W)	1500	2000	3000
Fiber Core Diameter	14、20、25、50um	14、20、25、34、50um	20、25、34、50um
Output Connector	QBH	QBH	QBH
Modulation Frequency	0-50KHZ	0-50KHZ	0-50KHZ
Voltage(V)	220±20V, AC,PE,50/60HZ	220±20V, AC,PE,50/60HZ	380±20V, AC,PE,50/60HZ
Setting Temperature	25°C (Laser Module) 30°C (QBH)	25°C (Laser Module) 30°C (QBH)	25°C (Laser Module) 30°C (QBH)
Dimensions (mm)	80*402*346	80*402*346	80*482*521

Handheld laser welding machine (four in one)



Core component - multifunctional automatic wire feeder

Product Name	SUP-AMF-A
Rated input	220±5%50/60hz
Maximum power and current	60W/2.5A
Rated wire feed speed	15~600cm/min
Applicable welding wire	0.8/1.0/1.2/1.6mm(standard)
	2.0/2.5mm(custom made)
Applicable wire spool	Shaft diameter:MIN50mm
	outer diameter:MAX300mm
	width:MAX105mm
	weight: 20kg
Product Size	13.2kg
Product Name	560mm*250mm*350mm

Product Name	SUP-AMF-D
Rated input	220±5%50/60hz
Maximum power and current	150W/6.5A
Rated wire feed speed	15~600cm/min
Applicable welding wire	0.8/1.0/1.2/1.6mm(Single wire feeding)
	1.6/2.0/2.5mm(double wire feed)
Applicable wire spool	Shaft diameter:MIN50mm
	outer diameter:MAX300mm
	width:MAX105mm
	weight: 20kg
Product Size	30kg
Product Name	575mm*250mm*670mm

DP-AMF-A

Multifunctional automatic wire feeder

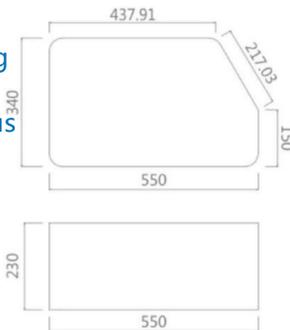
Features

Touch display, four-wheel dual-drive wire feeding mechanism, wire feeding speed continuously adjustable from 15-600cm/min, supporting continuous wire feeding mode and pulse mode

Support wire diameter

0.8/1.0/1.2/1.6mm
2.0/2.5mm can be customized

Size



DP-AMF-D

Multifunctional double wire automatic wire feeder

Features

Touch display, wire feeding speed is continuously adjustable from 15-600cm/min, supports continuous wire feeding mode, pulse mode, single wire mode, double wire mode, supports double wire synchronous adjustment

Support wire diameter

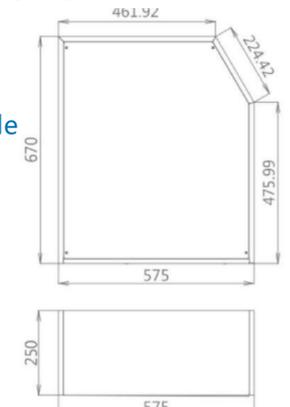
0.8/1.0/1.2/1.6/2.0mm

Dual wire

support wire diameter

1.6/2.0mm
2.5mm can be customized

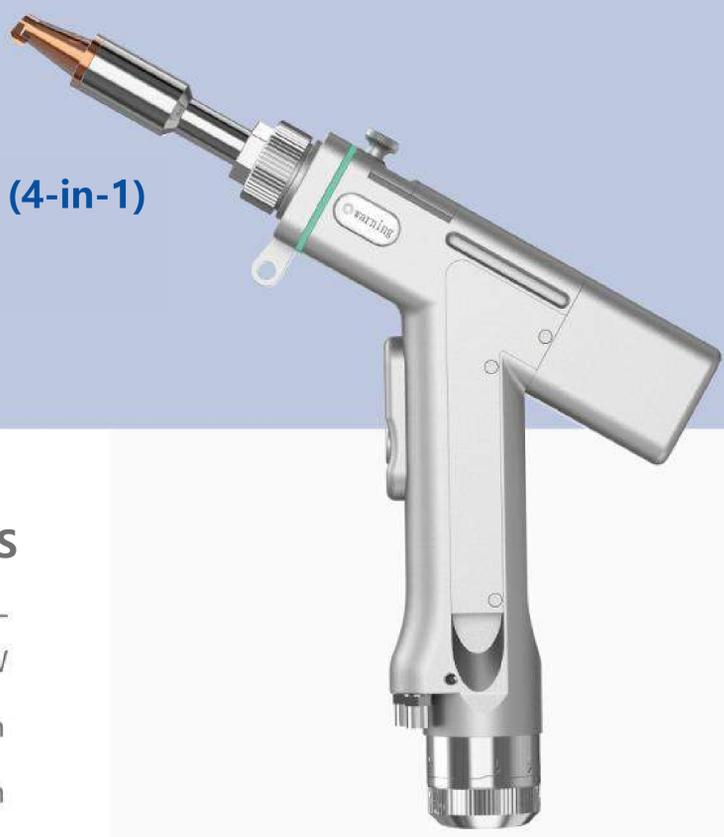
Size



SUP23T

Handheld laser welding head (4-in-1)

Power level 300W

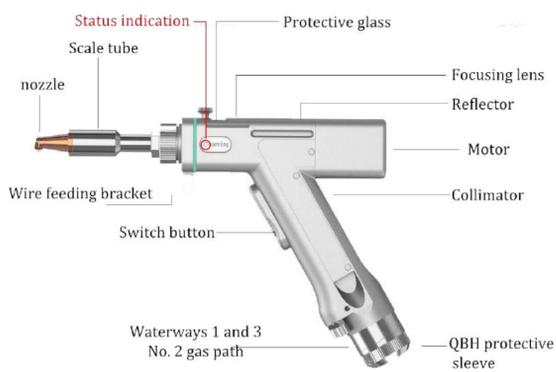


PRODUCT PARAMETERS

Scope Of Application	≤3000W
Collimation Focal Length	D16 F60mm
Focus Focal Length	D20 F150mm
Maximum Air Pressure	15Bar
Vertical Focus Range	±10mm
Spot Adjustment Range	Line0-8mm
Applicable Wavelength	1070nm
Weight	0.7kg



PRODUCT SIZE



Safe - Foolproof

Independently Developed Safety Detection System With Built-In Real-Time Temperature Monitoring



Save Time - Efficient And Convenient

The Focusing Mirror And Protective Mirror Are Drawer-Like, And The Collimating Mirror Is Integrated With The QBH And Is Removable For Easy On-Site Replacement



Lightweight - Lightweight And Less Burdensome

Compared With The Previous Generation, The Weight Is Further Reduced, The Operation Is More Flexible, The Hand Is Easier To Use, And The Grip Is More Comfortable



Quality-Beautiful Welding

Stable Performance, Further Optimized Optical Structure, High Welding Strength, Small Deformation, High Penetration



Performance - Multiple Functions

Supports Handheld Continuous Welding, Spot Welding, Cleaning, Weld Bead Cleaning, Cutting, "Hand" And "Self" Integration, Password Authorization, Real-Time Monitoring Of All Interfaces, Convenient On-Site Maintenance, And Remote Support

SUP21T

Handheld laser welding head (4-in-1)

Power level 300W



PRODUCT PARAMETERS

Scope Of Application	≤3000W
Collimation Focal Length	D16 F60mm
Focus Focal Length	D20 F150mm
Maximum Air Pressure	15Bar
Vertical Focus Range	±10mm
Spot Adjustment Range	Line0-8mm
Applicable Wavelength	1070nm
Weight	0.7kg



PRODUCT SIZE



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Quality-Beautiful Welding

Increased Motor Maintenance Window To Facilitate Central Adjustment



Quality-Beautiful Welding

Stable Performance, Further Optimized Optical Structure, High Welding Strength, Small Deformation, High Penetration



Performance - Multiple Functions

Supports Handheld Continuous Welding, Spot Welding, Cleaning, Weld Bead Cleaning, Cutting, "Hand" And "Self" Integration, Password Authorization, Real-Time Monitoring Of All Interfaces, Convenient On-Site Maintenance, And Remote Support

Core Component – Built-in Cabinet Laser Welding Water Cooler



Product Features

- Optional use of environmentally friendly refrigerants
- Laser chiller's intelligent temperature controller features two temperature control modes, suitable for different usage scenarios
- Optional heater and water purification configurations
- Temperature control accuracy up to $\pm 0.5^{\circ}\text{C}$
- Dual-temperature dual-control mode, catering to different cooling needs of fiber laser and laser head
- Durable and easy to operate

Wooden Crate Shipping Packaging Dimensions

Type	Mini Cabinet (1500W)	H80 Cabinet (1000W/1500W)	H100 Cabinet (2000W)	H120 Cabinet (3000W)
Net Weight (Cabinet)	93kg	150kg	180kg	200kg
Dimensions (Cabinet)	L 70cm * W 47cm * H 68cm	L 95cm * W 75cm * H 80cm	L 95cm * W 75cm * H 103cm	L 126cm * W 75cm * H 126cm
Gross Weight(Including Wire Feeder and Wooden Crate)	150kg	195kg	240kg	310kg
Dimensions (Including Wire Feeder and Wooden Crate)	L 100cm * W 100cm * H 100cm	L 115cm * W 105cm * H 106cm	L 135cm * W 85cm * H 120cm	L 130cm * W 100cm * H 137cm

Note: The H120 (3000W) cabinet comes with dual wire feeders as standard, and the weight of a single wire feeder is 15kg



MINI

H80

H100

H120