Be sure to read the manual before using the system

- This manual is the T 20S user manual of industrial laser welding wire feeder
- Read the manual carefully first to ensure the correct electrical connection

# **T20S**

## T20S pulse wire user manual



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# Certification statement

## The CE Certification Statement

This product has passed the European Union CE (Communate Europpene) safety, certification, has passed the corresponding conformity assessment procedures and the manufacturer's declaration of conformity, in accordance with the relevant EU directives.

## **ROHS**, the certification statement

This product has been approved by the European Union legislation on restricting the use of certain Hazardous ingredients in electronic and Electrical Equipment (Restriction of Hazardous Substances) safety certification, in accordance with the relevant environmental regulations of the European Union.

## FCC Certification statement

This product has passed the Federal Communications Commission (Federal Communications Commission) security certification and complies with the relevant safety regulations of American electronic products.



When using the system, please ensure that the operation is correct and safe. Some signs or text will be used to remind you of dangerous matters and some important information.

### danger:



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Represents a serious danger. In the process of use, if the operation is improper or the use method is wrong, it may lead to serious injury or even death, please users and related personnel do not operate easily, until to ensure that the operation method and the correct way of use.

#### warn:



Indicates that a danger exists. In the process of use, if the operation is improper or the use method is wrong, which may cause injury to the personnel, please do not operate easily, until you ensure that the operation method is correct and the use method is correct.

## prudent:



Represents a product potential risk. During use, if the use method is wrong or improper operation, the product or some parts may be damaged. Please users and related personnel do not operate easily until the operation method is correct and the use method is correct.

### important:

Represents an important information to note during the product. Please do not ignore this information, which provides effective operational help.



This label indicates laser radiation, which will generally be affixed to the product output of laser. Please, be careful of laser and safety when using such equipment.



## Receiving goods, unpacking and inspection

The product uses shock-proof soft packaging. If the package has any external damage marks, please check the damage to the equipment and notify the carrier and the carrier of the damage in written documents.

## important:



After receiving the product, please check whether the outer package is in good condition, and whether the products and parts are intact after unpacking. If any damage is found, please contact the Qilin Laser immediately.

Remove all the goods from the packaging and keep the packaging materials and wiring spare parts. When dismantling the package and removing the goods,

Please be careful of the goods for safety. After removing the goods, please check if the parts are complete and intact. If any missing parts or parts are damaged, please contact Qilin Laser immediately. If any obvious damage to the equipment, do not install or debug the equipment.

The delivery list of T2OS industrial laser welding wire delivery machine is shown in the following table: (As the product will be updated and upgraded, the shipping list may also be adjusted with it)

	component	quantity	explain
1	T2OS wire feeder	1	
2	4 m 350 wire hose (over 0.8-1.0mm wire)	1	
3	4 m 500 wire hose (over 1.2-1.6mm wire)	1	
4	6-m power cable (with 6-star aviation plug)	1	
5	Delivery wheel 0.8 / 1.0 (installed)	2	
6	Chassis handle + M8 screw (lock handle screw)	1	
7	Silk nozzle + copper nozzle + U wire wheel (1.0-1.2)	2	
8	Silk nozzle + copper nozzle + V wire wheel (1.2-1.6)	2	

## List of the T20 packaging



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# **An Overview of Chapter 1**

## The main contents of this section are:

Introduction to the T20S

pulse wire feeder

**Product size chart** 

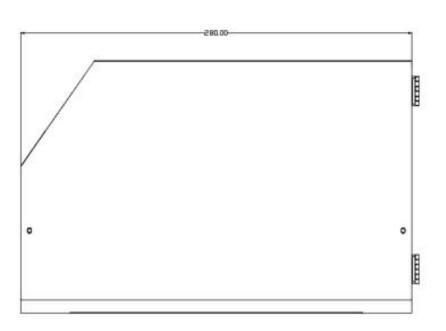
## 1.1 T20 pulse, wire feeder brief introduction

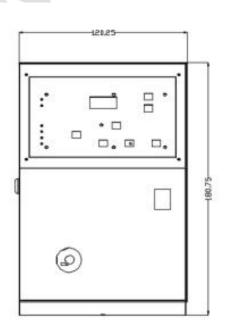
T20 wire delivery machine is a wire delivery machine specially used for fiber laser and pulse wire welding combination developed by Qilin laser. Welding effect Uniately, no tow, no lag, with handheld welding control system for welding, greatly improve the effect of welding process.

## 1.2 Product dimension drawing

Wmachine size:

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# Chapter 2. System installation and use

The main contents of this section are:

- Silk delivery machine wiring
- Schematic diagram of the T20S installation
- Human-machine interface function
- Send wire structure description



## 2.1 Wire feeder wiring



External control box connection port



Connecting port of wire feeder control box

pin	signal	definition	explain
1	24V	Power supply output end of wire feeder	Wfeeder 24V + power interface
2	GND	GND	GND
3	TX	Silk feeder and board card communication port	The wire transmitter communicates with the control system on TX signals
4	RX	Silk feeder and board card communication port	The wire feeder communicates the RX signals with the control system
5	SS_1	Wfeeder trigger signal 1	When short circuit SS_1 and SS_2
6	SS_2	Wfeeder trigger signal 2	When short circuit SS_1 and SS_2

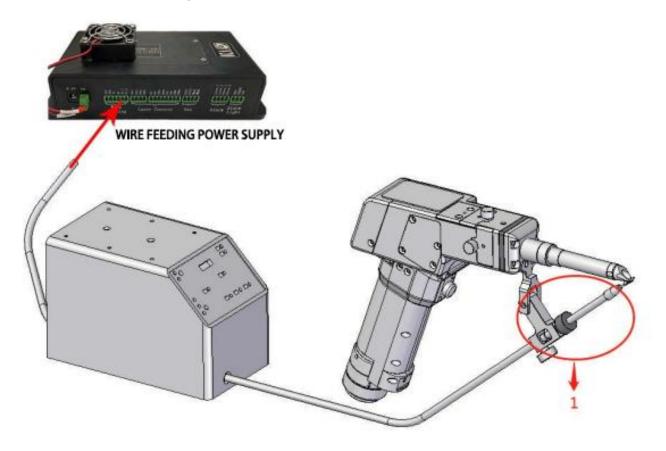


## important:

Do not connect any instructions in the control box to other lines.



## 2.2 Installation diagram of T 20 S

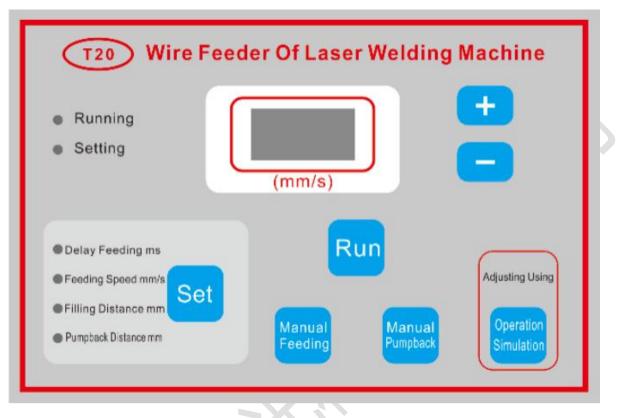


Note: "1" in the above picture is used to show the installation effect. This wire delivery fixture is not in the list of accessories, it is the standard welding torch head. If you only purchase this wire delivery machine, "1" in the above picture.



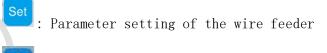


## 2.3 Human-machine interface function



## Function Settings:

- ① Silk delay: turn on the laser, and then start the wire
- ② Wire feeder speed: the running speed of the wire feeder
- ③ Silk filling distance: the filament compensation distance after the puldrawing stops
- ④ Return distance: after the wire stops, the wire draws back distance
- ⑤ Pulse distance: the welding distance of the pulse in the pulse mode
- ⑥ Pulse interval: the interval of the pulse time in the pulse mode



- : Wfeeder conditioning +
- : Silk delivery machine adjustment



## Wfeeder operation:

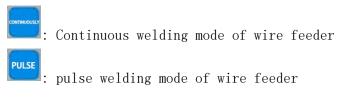


Manual quick delivery

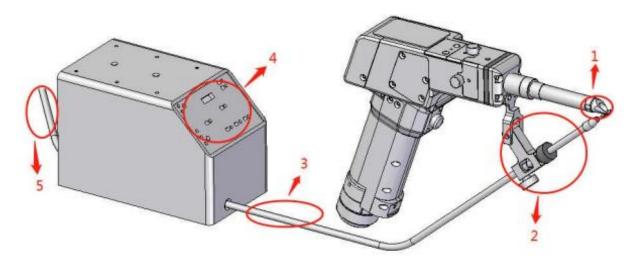
manual quick withdrawal

: Simulate the set parameter run

## Mode Settings:



2.4 Description of the wire delivery structure



- 1: wire copper nozzle: special wire delivery machine can send 0.8-1.6 wire
- 2: Silk delivery fixture: use with wire delivery machine
- 3: Silk delivery hose: use with wire delivery machine
- 4: Control panel of wire feeder: parameter parameters of wire feeder to realize pulse or continuous wire feeder
- 5: Power line of wire feeding machine: link the power signal line of wire feeding machine

## **Quality assurance description:**

The warranty period of this product is 12 months, starting from the delivery date. If there is any fault of the product during the warranty period,

Can be sent back to our company, free maintenance, free of labor costs. Appearance parts (cavity) and consumables (copper nozzle,

Stainless steel pipe, such as easy wastage products) is not in the warranty range.

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If you have any comments or suggestions on the product and instructions during use, please call for consultation.

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Thank you for using Guangdong qilin laser, application technology Co., LTD. Products!