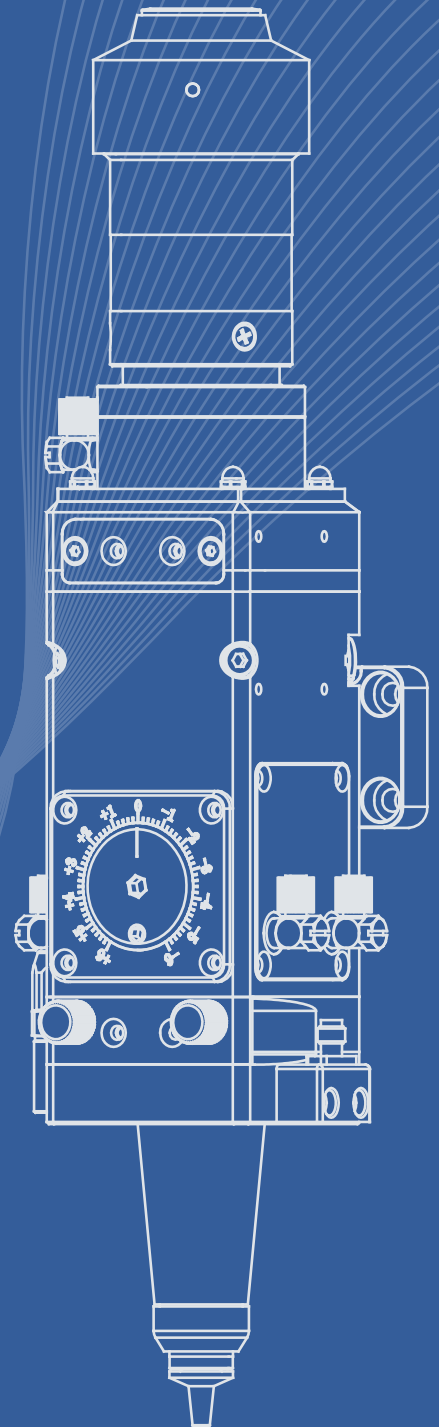


PRODUCT INSTRUCTION MANUAL



SW20A 3D cutting head user manual



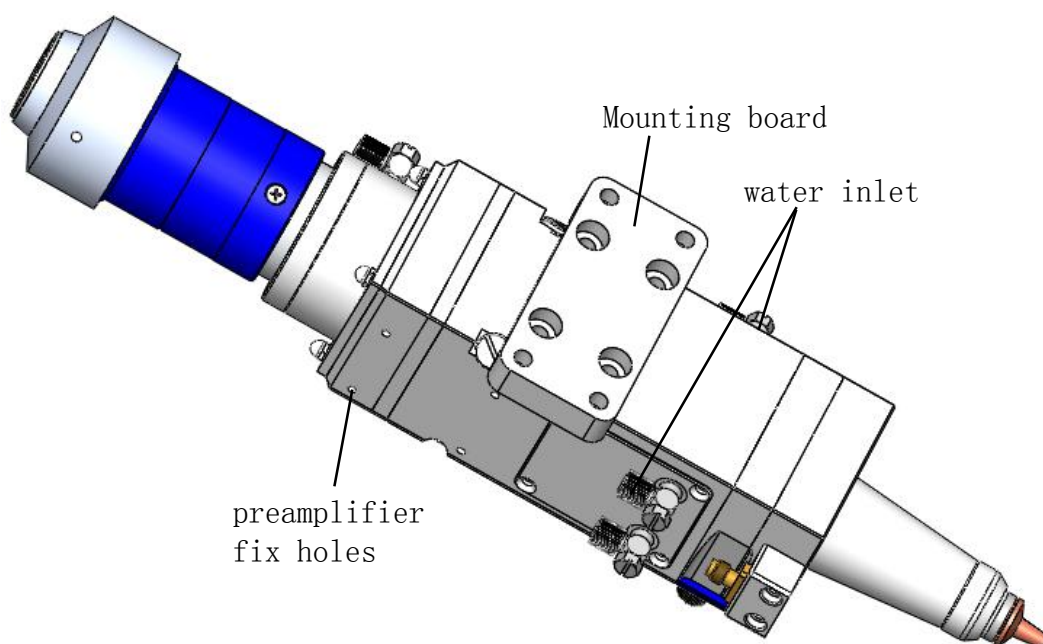
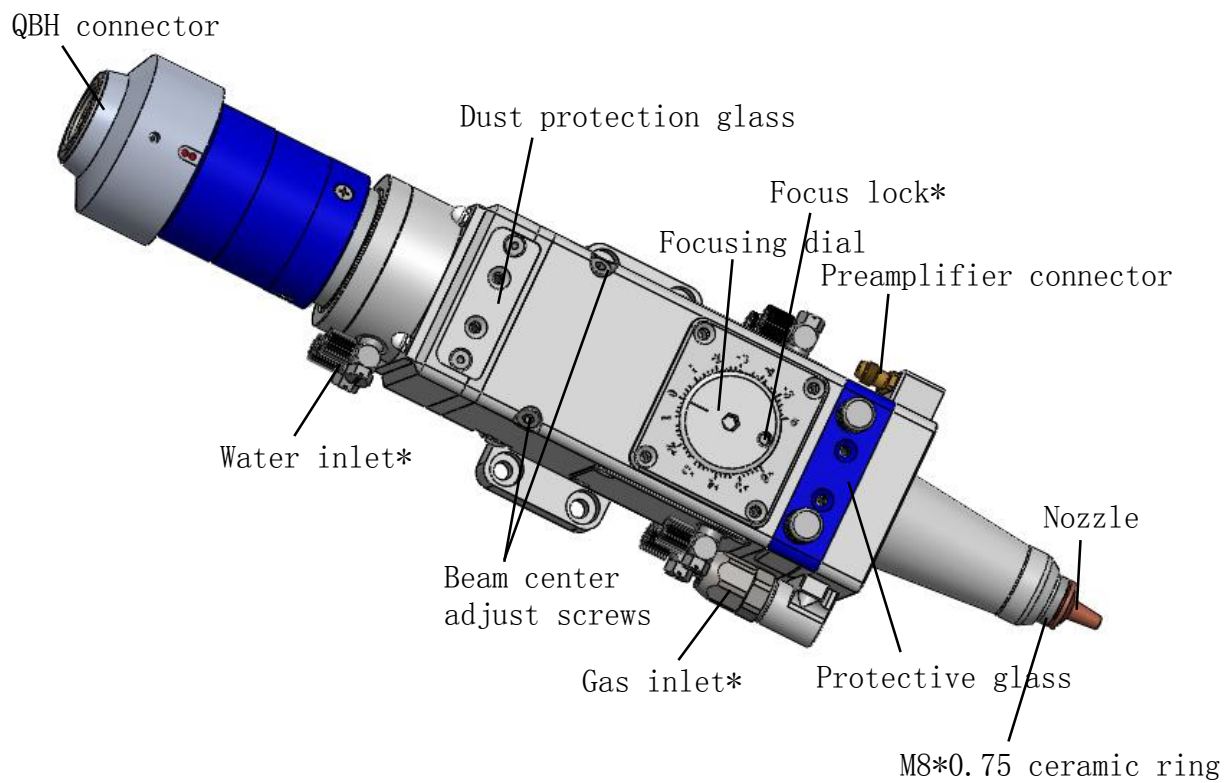


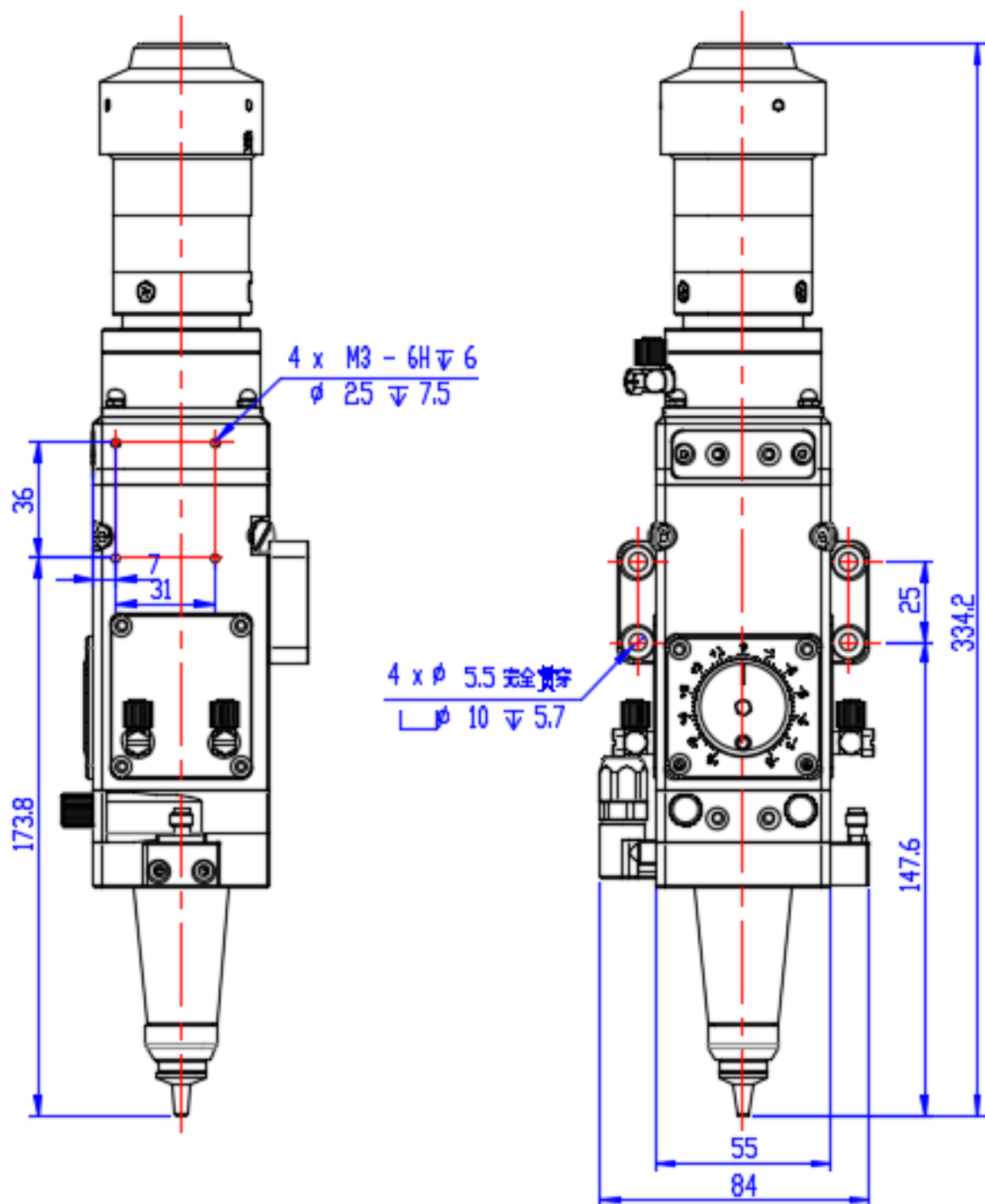
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1. Product Description

1.1. Product structure





Note:

1. When using, the water volume must be sufficient and the water pressure is above 0.4MPa;
2. For the air pipe interface, please keep the bending radius of the connected pipeline not less than 30mm;
3. The focus lock is not locked by default when it leaves the factory, please be sure to lock it after adjusting the focus, otherwise it may cause the focus to change.

1.2. Technical parameter

Fiber connector: QBH

Max working power: 1500W

Laser wavelength range : 1070 ± 20

Collimation length: 75mm/100mm

Focus length: 125mm/150mm

Protective gas: Nitrogen



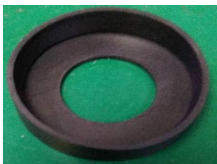
Weight: 2.4kg

Focus range: ± 6 mm




Focus method: Manual

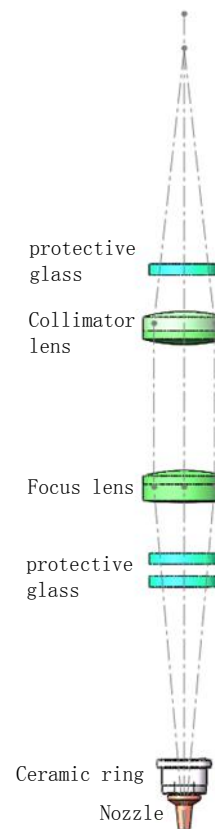
2. Installation

2.1. Packing list*

No	Item	Model	Qty	Photo
1	Cutting head	SW20A	1	
2	Nozzle	SW-PLUS-D-12	1	
3	Rubber band	XP2442	1	

2.2. Consumables

No	Item	Model	Photo
1	Protective glass	D25.4*4	
2	Ceramic ring	WTC-04 (M8*0.75)	
3	Nozzle	SW-PLUS-D-12	



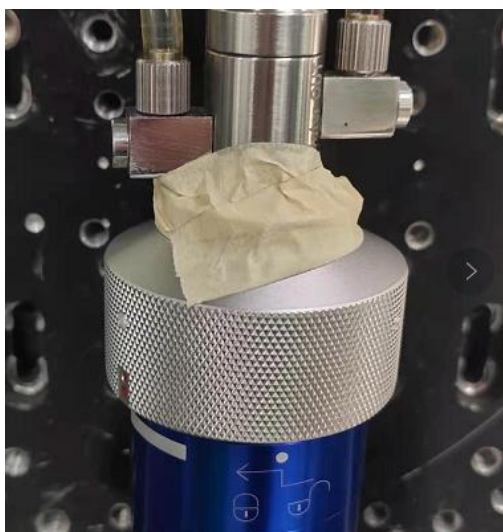
Note: Please refer to the actual packing list, this table is for reference only.

3. Maintenance

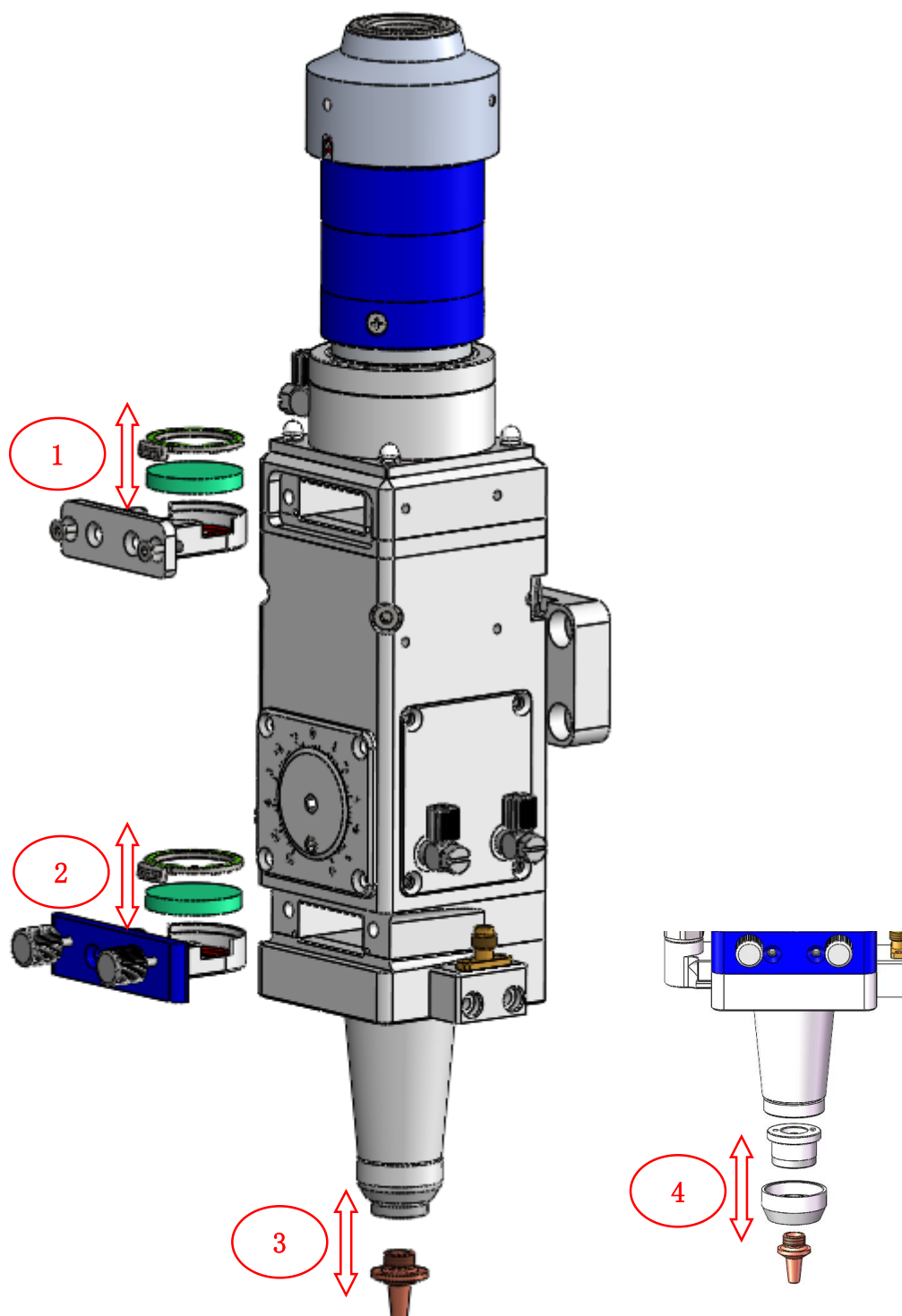
3.1. Maintenance for QBH

1, The connection between the QBH and the optical fiber connector is covered with masking tape to prevent dust from entering, which will increase the difficulty of maintenance.

2, The cooling water pipe of the optical fiber connector should be connected well and no water leaks. If water accidentally enters the QBH, please stop using it immediately and contact our company for processing.



3.2. Change consumable parts



1. Replace the upper dust protection lens: Use a 2.5mm Allen key to loosen the countersunk screws on both sides, and pull out the protective lens cavity seat. Seal the opening of the laser head with a non-adhesive film in time, take out the gland and the waste lens, replace the wiped new protective lens in a dust-free environment, put it in the gland, and replace the protective lens cavity seat.

2. Drawer protective lens replacement: loosen the locking studs on both sides by hand, pull out the protective lens drawer, seal the opening of the laser head with a non-adhesive film in time, remove the gland and the used lens, replace and wipe the new protection in a dust-free environment Put the lens into the gland and put back the protective lens drawer ;

3. Nozzle replacement: twist out the nozzle counterclockwise by hand, replace the new nozzle clockwise and tighten it;

4. Ceramic ring replacement: unscrew the nozzle and locking ring counterclockwise by hand, take out the waste ceramic ring, replace the new ceramic ring, pay attention to identify the pin direction and reinstall, lock the locking ring and nozzle in turn in the clockwise direction.

Note: Before the above replacement operation, you must confirm that the laser has been cut off or shut down ! ! !

3.3. Basic troubleshooting

Fault	Problems	Solution
Alarm capacitor abnormal	The capacitance value is inconsistent with the system storage capacitance value	Recalibration
	The ceramic ring is loose/not in place	Reinstall the ceramic ring
	Ceramic ring is damaged	Replace with a new ceramic ring
Cooling water leaking	Water cooling connector is loose	Re-tighten the water-cooled joint nut
	The end of the water-cooled hose is uneven and not inserted to the end	Cut the hose flat and reinsert it to the end
Laser is not out	Beam falls on the inner wall of the laser head	Adjust the center of the beam
	Nozzle is blocked	Replace the nozzle
The focal length changes during cutting	Focus lock is not locked	Lock the focus lock after resetting the focus
Focusing dial can't be turned/can't be adjusted	Focus lock is not released	Unscrew the focus lock
	Damaged or dirty mechanical parts	After-sales maintenance/rework
No focus is found in the focus range	Incorrect lens configuration	Replace lenses with the right configuration
	Laser discrepancies or improper use of washers	Readjust the gasket position
	Damaged focusing lens	Replace with a new focusing lens
Poor cutting effect	Poor focus/cutting process parameters	Re-adjust focus and process parameters
	The lens is dirty or damaged	Replace dirty and damaged lenses



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