ZWCNC

Fiber Laser Cutting Machine Site Acceptance Checklist

A utilities, safety, motion, optics, gas, cutting, and handover record for sheet and sheet-tube fiber laser systems.

1. Equipment and project identification

Customer / project	_____	**Machine model**	_____
Serial number	_____	**Laser source / power**	_____
Cutting head	_____	**Control software / version**	_____
Inspection location	_____	**Inspection date**	_____

Evidence boundary: This checklist is a blank inspection and recording aid. It is not a certificate, commissioning report, or proof that a machine passed. Acceptance limits must come from the signed contract, approved drawings, serial-number-specific manual, applicable standards, and local safety rules.

2. Safety and documentation prerequisites

Status	Required check	Evidence / reference
[ ] PASS [ ] HOLD	Approved layout, foundation, utility plan, machine manual, source manual, cutting-head manual, electrical drawing, gas specification, and safety plan are available.	_____
[ ] PASS [ ] HOLD	A controlled Class 4 laser area, guarding, interlocks, extraction, fire controls, PPE, and authorised personnel are in place.	_____
[ ] PASS [ ] HOLD	Power, protective earth, chiller, water quality, gas type, gas pressure, compressed air, extraction, temperature, and humidity match the installed configuration.	_____
[ ] PASS [ ] HOLD	Optical interfaces are inspected only by trained personnel using approved clean-room procedures; protective windows and nozzles are documented.	_____
[ ] PASS [ ] HOLD	Test material grade, thickness, surface condition, gas purity, nozzle, focus strategy, and quality criteria are agreed before cutting.	_____

3. Inspection record

Mark PASS only when the observation and referenced acceptance criterion agree. Use HOLD for missing evidence, unsafe conditions, or unresolved deviations.

Status	Documentation and utilities	Observation / instrument / result
[ ] PASS [ ] HOLD [ ] N/A	Machine, source, cutting head, chiller, extraction, gas train, controller, and software identifiers match the approved order.	_____ _____
[ ] PASS [ ] HOLD [ ] N/A	Incoming power, protective earth, chiller flow and temperature, water quality, gas delivery, extraction, and air quality are measured and recorded.	_____ _____
[ ] PASS [ ] HOLD [ ] N/A	Safety zone, guarding, door interlocks, warning labels, fire controls, emergency stops, and restart behaviour match the approved plan.	_____ _____

Status	Motion, calibration, and optical path	Observation / instrument / result
[ ] PASS [ ] HOLD [ ] N/A	Axis reference, travel, limits, lubrication, rack and guide condition, exchange table, shuttle or tube axes, and collision zones are checked at controlled speed.	_____ _____
[ ] PASS [ ] HOLD [ ] N/A	Height control, capacitance calibration, nozzle centring, focus calibration, gas switching, piercing workflow, and cutting-head condition are recorded.	_____ _____
[ ] PASS [ ] HOLD [ ] N/A	Source status, chiller alarms, head temperature, control I/O, extraction, pressure monitoring, and alarm recovery are demonstrated without bypassing protection.	_____ _____

Status	Controlled cutting evidence	Observation / instrument / result
[ ] PASS [ ] HOLD [ ] N/A	A representative drawing is imported, cleaned, nested, simulated, and dry-run before laser enable.	_____ _____
[ ] PASS [ ] HOLD [ ] N/A	Coupon cuts use agreed material and parameters; piercing, kerf, dross, edge condition, heat effect, dimensional result, and repeatability method are recorded.	_____ _____
[ ] PASS [ ] HOLD [ ] N/A	Approved parameter files, backups, maintenance points, consumables, operator training, and open deviations are handed over.	_____ _____

4. Controlled test and evidence log

Test	Acceptance criterion / contract reference	Measured result	Status
Protective earth and utility measurement	_____	_____	[ ] PASS [ ] HOLD
Emergency-stop and enclosure interlock test	_____	_____	[ ] PASS [ ] HOLD
Axis reference and travel check	_____	_____	[ ] PASS [ ] HOLD
Exchange-table / tube-axis functional test	_____	_____	[ ] PASS [ ] HOLD
Height sensing and nozzle-centre check	_____	_____	[ ] PASS [ ] HOLD
Representative coupon cut	_____	_____	[ ] PASS [ ] HOLD
Dimensional and edge-quality inspection	_____	_____	[ ] PASS [ ] HOLD
Alarm, backup, and controlled restart demonstration	_____	_____	[ ] PASS [ ] HOLD

5. Punch list and close-out

No.	Deviation / evidence	Owner	Target date	Closed by / date
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____

Supplier representative	Name / signature: _____ Date: _____
Customer representative	Name / signature: _____ Date: _____
Final disposition	[ ] Accepted [ ] Conditionally accepted [ ] Held for corrective action

Reference documents to attach

Signed contract and technical agreement; Utility measurements; Source/head/chiller records; Material certificate; Cut parameter record; Cut sample and inspection report; Photo/video evidence; Training and punch list