Please read this manual carefully before using the product and keep it for easy reference in the coming future.

JDM4Z

Operation Manual

JDM4

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Preface

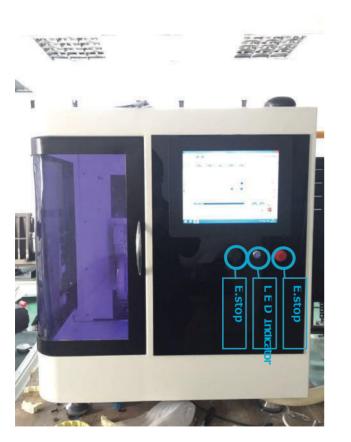
Sincerely thank you for being a user of JINY products! JDM5T series five-axis dental milling machine, completely built by our company, is of extra high-quality for dental denture processing. In order for better use of the equipment, we hope that you could read the operation manual carefully provided with the equipment before starting to operate the equipment. This manual aims to be used for operator on installation, debugging, processing and routine maintenance, and related matters of mis-operation which may cause equipment damage and personal injury.

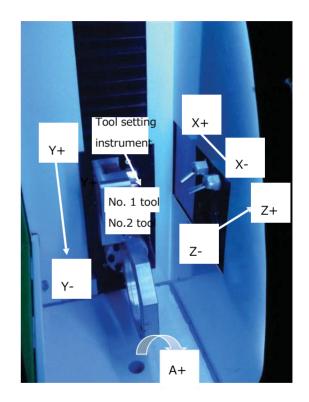
The JDM5T series with highly integrated design and assembly is developed with high-quality components, materials, latest motion control technology. The maintenance-free design of simple and intelligent operation and multi-sensor monitoring provides wet processing, compatibility with titanium and titanium columns and double water-proof nature.

As the precision processing equipment, engraving and milling machines must be operated by professional operators to ensure the safety of operators and mechanical equipment. If you have any questions, please contact us in time, and that will be an honor for our professional staff to serve. It's a four-axis machining center with ultimately compact structure including high rigidity, imported precision grinding grade screw and guide rail, and high precision retention.

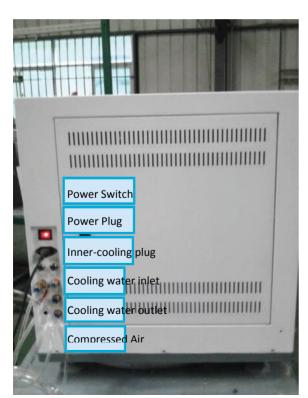
With the ability of processing various metal and non-metal single crowns, long bridges (up to 14), all zirconium teeth, inlays, onlays, temporary restorations, wax shapes, etc., it could always provide the best solutions for various dental restorations and dental materials.





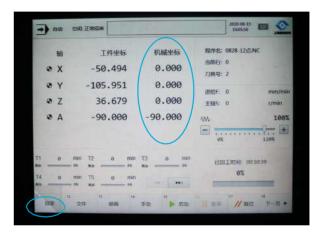


- 1. Before processing, make sure that there is enough compressed gas connected, otherwise the system will trigger an alarm and stop running.
- 2. Before powering on, ensure rear ground wire to be grounded for the reduction of static electricity.
- 3. Before powering on, check that pipes for the spindle cooling, work piece cooling, compressed air, etc. are all connected.



Operation Instruction

1. The operator should click "return to zero" with the mouse to reset all four axes when the machine is switched on and prompts "please return to reference point". Based on this operation, X, Y, Z, A machine coordinates are all 0.



Note: Before processing, the operation must return all the coordinates to zero. Otherwise all the consequences caused are undertaken by the operator itself.

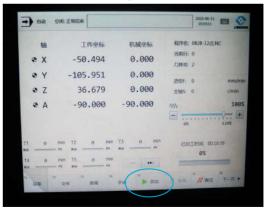
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- 2. Choose manual mode and click "A-" to turn the clamp to the level;
- 3. Clamp the zirconium oxide on the fixture and promise the connection by tightening the screws;
- 4. After having the program copied into USB, load the corresponding files to hard disk.

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5. If the program is correct, press the "Start" button to start automatic denture processing.

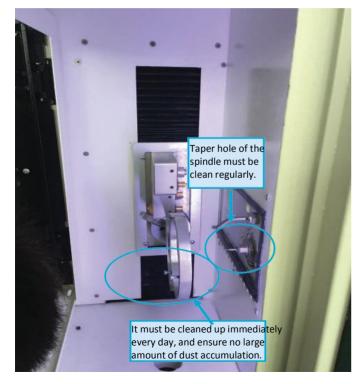


6. After the program is completed, open the safety door and unload the work piece, and proceed to the next forming step of processing.

Common Fault and Troubleshooting

1. It must be cleaned immediately every day, especially under the Y-axis dust cover. Large amounts of dust are banned for machine.

2. The spindle must be cleaned regularly to ensure that no dust enters the spindle taper hole in case of affecting matters of the tool change.



Fault	Analysis	Measures
The light in the workplace failed when the machine is powered on.	The internal power switch of the device has tripped.	Disconnect the power cord, open the back cover, and close the internal power switch.
The program can't run with the prompts of locked machine, please contact the agent.	Encryption expiration	Please contact us.
The low system air pressure warning caused processing interruption.	The system air pressure is insufficient or the pipeline leaks.	Check the source and gas supply pipelines.
Inverter alarm: -1	Communication line failure	Open the side cover and re-plug the network cable interface at the bottom of the inverter.
Inverter alarm: 34 Spindle temperature is too high.	Abnormal cooing water pump; Too low water tank level; Blocked cooling circuit;	Check the water pump, water tank level and cooling circuit.

4-1 Maintenance instructions:

- 1. The dust in the processing cavity of the equipment should be cleaned once a day to ensure that there is no accumulation of dust on the groove of the spindle sleeve and the tool setting surface of the instrument.
- 2. Clean the equipment processing room before changing materials.
- 3. Clean the dust in the vacuum cleaner once a week to ensure its suction power. (If the dust in the vacuum cleaner is not cleaned in time, it is very easy to block the filter, reduce the negative pressure and the suction, and eventually part of the dust will enter the equipment cavity, causing damage to the internal electronic components, abnormal alarms, and reducing its service lifetime, etc.).
- 4. Check the water level of the cooling water tank and the water output of the pump every week. When the water level is low, it should be supplemented or replaced in time. Pure water with an appropriate amount of anti-rust liquid has to be promised.
- 5. As the built-in computer of the device is dedicated for special plants, please do not modify the system related settings, install or uninstall software; to ensure the normal operation of the system, please check and kill computer viruses regularly.

- 6. In order to ensure the stable operation of the equipment, please use a dedicated U disk. Do not share the U disk used for life and study with it in case of virus and unnecessary trouble.
- 7. It is recommended to clean the inside of the equipment every 2 months with a dry and clean towel after the equipment is powered off. Wipe the sensor gently with clean facial tissue to prevent abnormal dust accumulation and alarm.

4-2 Special statement:

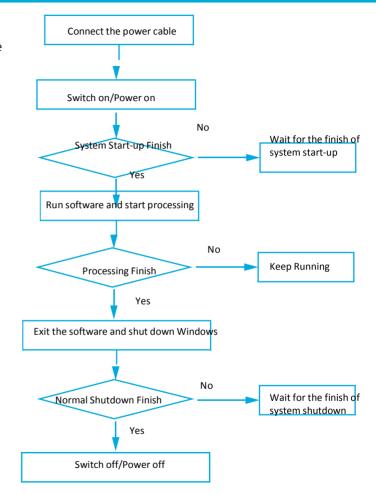
- 1. If the one other than the above materials is used in our equipment, please have the evaluation according to the above equipment parameters. The user shall bear full responsibility for the unexpected situation caused by the customer's processing of other materials;
- 2. Without the consent and permission of the company, it is strictly forbidden for customers to disassemble the external and internal parts and electrical accessories of the equipment and the company will not be responsible for the damage caused by it;
- 3. As the equipment is assembled with precision electronic components, it requires a higher standard of the cleanliness of the air source. A triple air filter will be installed when the equipment is shipped and installed. In order to increase the stability and life of the equipment, please ensure the cleanliness of the air source and install the air filter as required.

Maintenance and Precautions

Appendix 1:Operational Flowchart

4-3 Precautions:

- . The power socket must be grounded, otherwise the grounding protection of the equipment will be ineffective, which may cause personal electric shock.
- 2. The exhaust pipe of the vacuum cleaner must be connected to the outdoor, otherwise it will seriously pollute the indoor environment, harm human health, and reduce the service life of the equipment.
- 3. When connecting the cooling water system, the air supply system and the dust collection system, they must be connected correctly and cannot be misplaced, otherwise the important parts will be seriously damaged; if there is water leakage, please stop using it and contact us.
- 4. The cooling water must be added with anti-rust liquid (one tank with half cover) and the water output should be checked in time according to regulations. If the water output is significantly reduced, please contact us.
- 5. The air source of the system must be clean, which has to pass through an air filter, otherwise it will affect the surface quality of processed products and reduce the service life of equipment components. Additionally, the air pressure must be sufficient to prevent abnormal alarm
- 6. Please always pay attention to the position of each axis during manual operation. There should be no collision between tools and spindle, otherwise the important parts will be seriously damaged. If there is an emergency, please press the emergency stop button quickly.



- 7. For operation of the equipment, please strictly follow the Operational Flowchart in Appendix I, and operate in accordance with the normal computer power-on/off mode to avoid loss of system files, causing failure to boot and reducing system response speed.
- 8. Technically, the equipment is not allowed to move after installation. If you have special needs, please contact us first; and during the moving process, only force can be applied to the bottom plate, not any part of the shell, otherwise it will cause the deformation of the shall or even the device to fall to make a major accident.
- 9. If there are abnormal sounds or actions during use, please record the abnormal information and contact us.
- 10. Check the level of the cutting fluid tank frequently to ensure that the tool tip has enough water to cool.
- 11. This equipment is forbidden to be operated by multiple people at the same time to avoid unnecessary injuries.