


Better Quality Better Service



 Please read this manual carefully before using the product
Please keep this manual properly for your future reference

F5Z

Operation Manual



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Preface

Sincerely thank you for being a user of JINY products! F5Z series 5-axis dental milling machine, the machine is a high-quality equipment created by our company for the processing of dental dentures. 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 F5Z 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, Dry cutting with zirconia, PMMA, WAX..... 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.

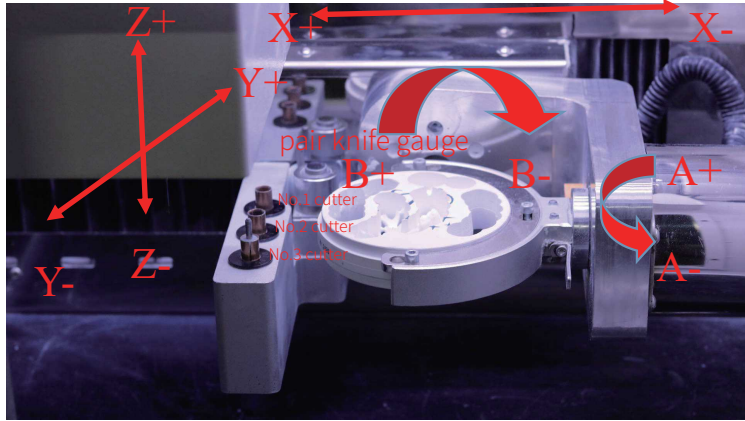
SHANGHAI JINY CAD/CAM CO.,LTD

It's a 5-axis machining center with ultimately compact structure including high rigidity, imported precision grinding grade screw and guide rail, and high precision retention.

Can process all kinds of zirconia, temporary teeth, PMMA, PEEK, wax, And soft metals (hardness as zirconia) and other materials, can cut long bridges (up to 14) zirconium teeth, inlays, onlays, temporary restorations, waxes, etc. Optimum solutions for all kinds of dental restorations and dental materials.



Internal Structure

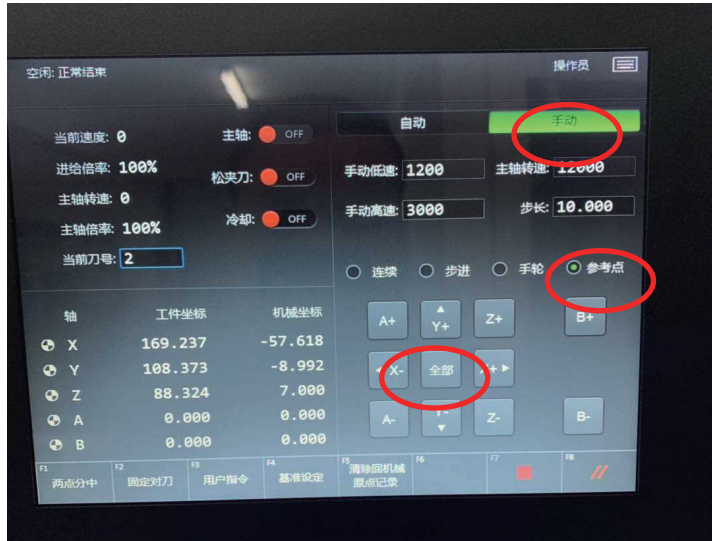


Operation Precaution

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. After starting up the machine, reset all five axes to zero according to the panel prompts.

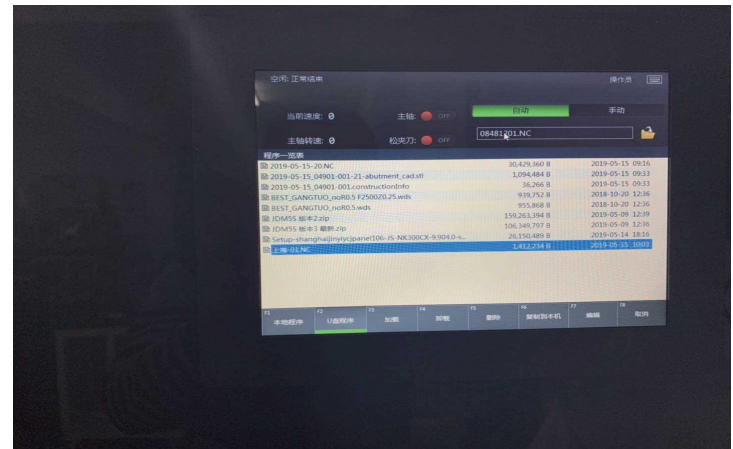
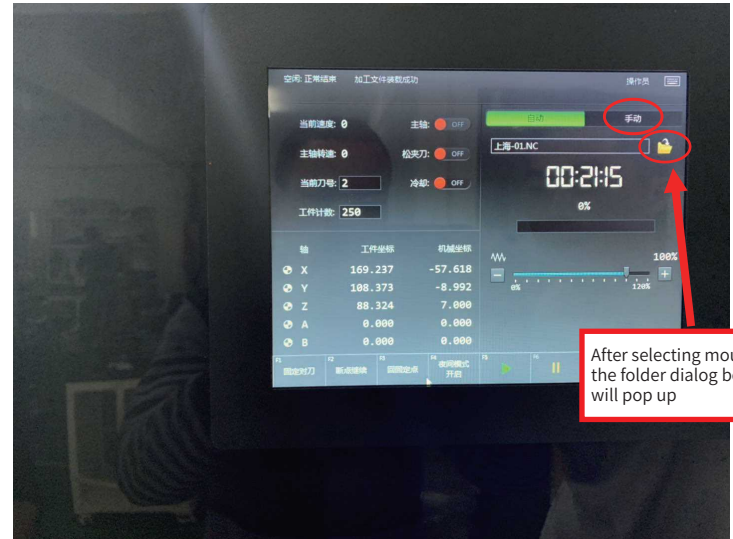


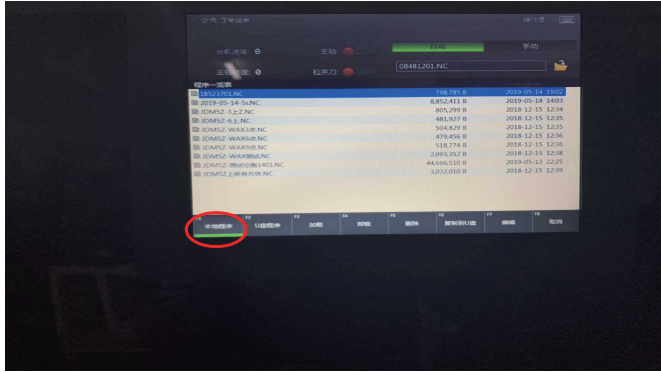
Note: You must return to the reference point before processing, otherwise you will bear the consequences

2. Clamp the Zirconia disk on the fixture and tighten the screws to ensure that the Zirconia disk is not clamped loose

3. Click "Automatic", click "Open Folder", a dialog box will pop up, and the corresponding processing files in the USB flash disk will be "copied" to the local computer, and then open the file in the local file.

Operation Instruction





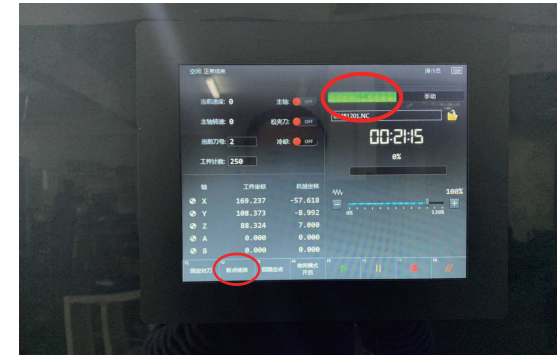
4. After confirming that the program is correct, press the "Start" button to start automatic denture processing.



5. After the program is completed, press the "Manual" mode again, open the safety door, and then remove the workpiece to start the next molding step of denture processing.

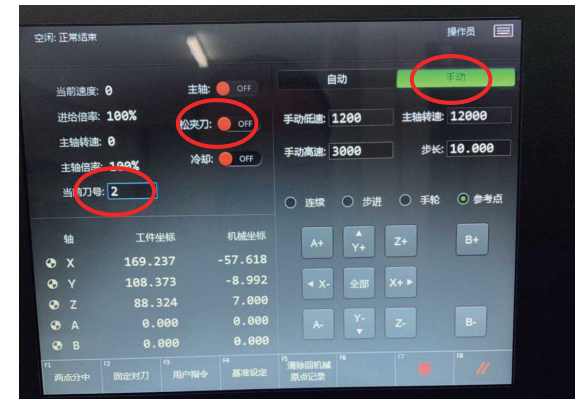
1. Breakpoint continuation function

The system can automatically detect program breakpoints, click "YES", and the program can process according to the last stop position.



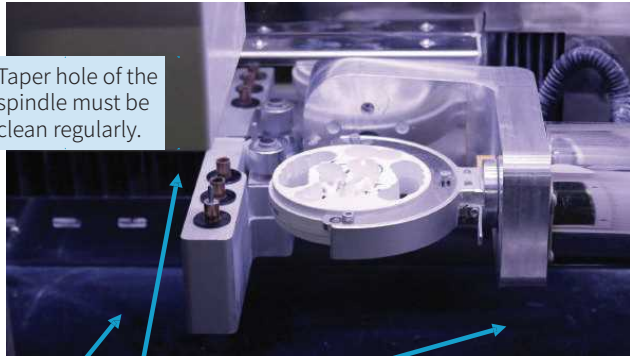
2. Manual tool change

Enter the "Manual" state. Confirm the current spindle tool number, then replace the corresponding tool, enter the diagnosis, select "unclamp tool", the spindle will loosen the tool, replace the corresponding tool, and then click back to replace the tool.



Precaution

1. It must be cleaned immediately every day, especially under the Y-axis dust cover. Large amounts of dust are banned for the machine.
2. The spindle must be cleaned regularly to ensure that no dust enters the spindle taper hole to avoid affecting matters of the tool change.



Taper hole of the spindle must be clean regularly.

Two sides of water outlet must be cleaned up immediately every day, and ensure no large amount of dust accumulation.

Common Fault and Troubleshooting

Fault	Cause analysis	Solutions
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.
Frequency converter alarm:34 Spindle temperature is too high.	Abnormal cooling 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 status of the air cooling system every week. the air pressure is above 0.6 mpa. the air source must be dry, and the air dryer needs to be connected;
- 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.

4-3 Precautions:

1. The power socket must be grounded, otherwise the grounding protection of the equipment will be ineffective, which may cause personal electric shock.
2. The discharge pipe of the vacuum cleaner must be connected to the outside, or it will seriously pollute the indoor environment, damage human health, and reduce the service life of the equipment.
3. When connecting the air cooling system, air supply system and dust suction system, they must be correctly connected, and must not be misaligned, otherwise important components will be seriously damaged; In case of abnormal air cooling, please stop using and contact us.
4. 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 must be sufficient to prevent abnormal alarm.
5. 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.
6. 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.
7. 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 shell or even the device to fall to make a major accident.
8. If there are abnormal sounds or actions during use, please record the abnormal information and contact us.
9. Always check the status of the cutting needle to ensure that the tool tip has enough air cooling.
10. This equipment is forbidden to be operated by multiple people at the same time to avoid unnecessary injuries.

