

User manual of 4.5KW ATC Spindle

Open air when loose the tool

Keep Closed before loose the tool,
Keep it always open after loose the tool
(to provide air pressure for the cylinder retraction)

Product Description

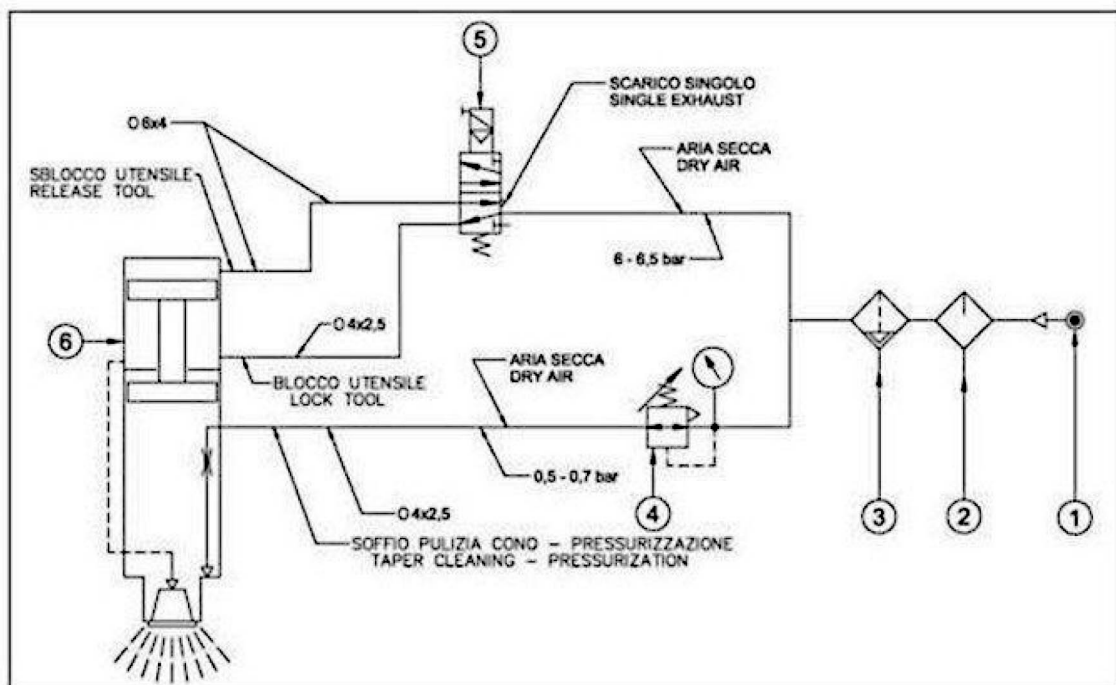
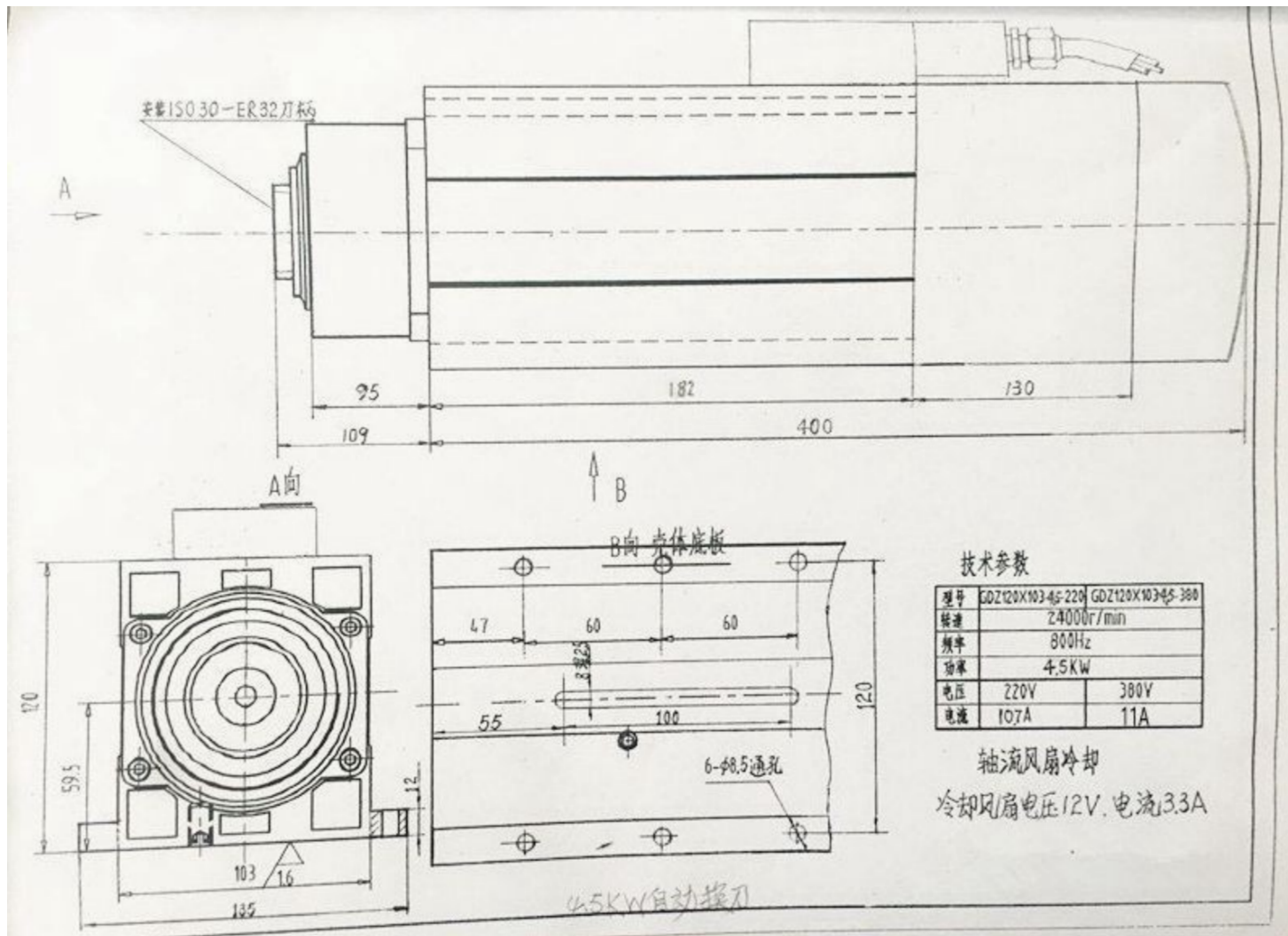
4.5kw air-cooled automatic tool change spindle is a high-end woodworking company designed to develop

high-power electric spindle bearings imported from Germany, high-precision bearings, high precision, long life.

The electric spindle fan cooling with Road gas seal structure, automatic tool changer with ISO30 shank, feast

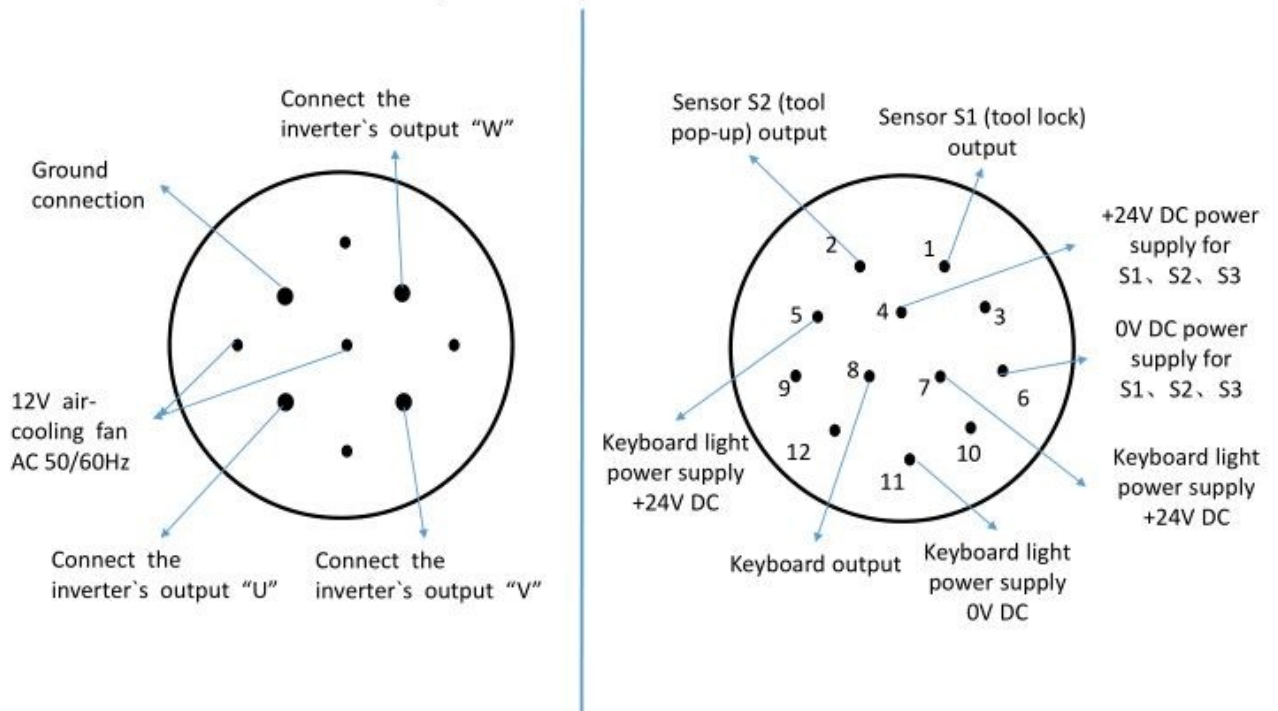
automatic tool change and improve the efficiency of the automated processing.

Product Name	4.5KW air-cooled ATC spindle
Power	4.5KW
Voltage	380V(220V also in stock)
Torque	3.6 Nm (Torque peaked at 12000 rpm)
Speed	12000~24000rpm/min
Frequency	800Hz
Current	8A
Collet	ISO30
Pole number	4
Cooling Type	air cooling
Barometric pressure	6 bar
Fixed way	Two side,screw fixed
Number of phases	3
Bearing	2*7008 2*7006
Warranty	1 year
Packing list	1pcs spindle



1	Compressed air provided
2	5 micron filter
3	0.1 micron filter
4	Pressure regulation switch
5	Compressed air provided, 5, electromagnetic valve
6	CNC spindle motor

4.5kw/7.5KW spindle`s connection mode



The usages of the product and warnings

Matters need attention when you install this spindle

1. When installed, please carefully, pay attention to personal safety and to avoid injuries occurred during the installed process;
2. Do not use any tools tapping spindle;
3. Do not use sandpaper and grinding wheel to wipe or grind in axis core and taper hole;
4. Use special removal tool to remov the lock nut and the tool;
5. Untrained personnel can not disassemble and operate electric spindle;

Attention to maintenance and maintenance

1. Electric spindle storage temperature is $20\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$, humidity $\leq 85\%$, to allow time to store up to three months;
2. Electric spindle most suitable ambient temperature is $20\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$, bearing life can achieve the desired optimum value;

3. The power cord must take waterproof measure, electric spindle housing must be grounded;
4. Electro-spindle must not exceed nameplate parameters;.
5. Not allowed to use any mechanical way to forced braking in the shaft;
6. after using the spindle every day,you should wipe spindle taper,then smear with rust oil;
7. Workplace must be clean, there should be strict dust control measures to prevent foreign matter enter the spindle.

Product common malfunctions&method of exclusion

Fault phenomenon	Reason	Method of exclusion
Electric spindle is not running after boot	1、 No inverter power output or set incorrectly	Check that VFD supply three-phase output voltage and setting method
	2、 Spindle plug is not inserted	Check the electrical spindle plug and connection.
	3、 Bad plug connector	
	4、 Bad stator line package	Replace line package
Shutdown after a few seconds of the boot	1、 Start time is too short	Increase the acceleration time
	2、 Electric spindle high temperature cause line package insulation damaged	Replace line package
	3、 Electric spindle lose phase to run,then cause overcurrent protection	Check the electric spindle connection

	blackout	
Electric spindle smoking or the housing hot after a few second of the boot	1、 Inverter output voltage, frequency are not match the use of electric spindle voltage and frequency	Check the VFD and the spindle voltage, frequency
	2、 The VFD is not set correctly	Reset the VFD
Locking nut loose when it is started	Wrong direction of rotation	Change the direction of rotation
Spindle have big noise and vibration	1、 Bearing wear seriously	Replace the bearing
	2、 Precision of parts damaged,it's effect dynamic balance	Calibration of dynamic balance
	3、 Big beat of Spindle	Replace the spindle
Locking nut loose when it is stoped	Stop time is too short	Increase the deceleration time