

## **4. Maintenance**

### **4.1 Machine's Electric Function**

- 1) Circuit Breakers are used as machine's overload and circuit short protect.
- 2) Soft limit and mechanic limit has been set on the machine.

### **4.2 Everyday Maintenance**

As we required in Permeable, only electrician is allowed to do repair and maintain job for this machine.

And the machine should meet with requirements below:

- 1) Check electronic oil pump to see that if lubrication oil is needed.
- 2) Check Oily water separator to see if the oil is enough or not.(If the oil falls below the indication, more oil is needed) 7TI
- 3) Check that if spindle huff is normal or not.
- 4) Clean the spindle with soft cloth, and lubricate it with 68# oil.
- 5) Clean every parts of ATC clearly.
- 6) Clean every blade tool.
- 7) Clean all the blocks and limit switch on the machine.
- 8) Drain hydrosphere in the oily water separator.
- 9) Keep the working area clean.
- 10) Clean every dust-anti window every day.
- 11) Check circuit breaker, contactor, relay, servo drive module etc. check if electric wire is loosened or not.
- 12) Grounded system must be closely and constantly.
- 13) Make sure that fan and spindle heat exchanger works well, or else it will cause damage to electric components.

### **4.3 Every week Maintenance**

- 1) Clean the filter net of oil water separator and heat exchanger.
- 2) Clean the tool cover of Auto Tool Changer.
- 3) Check and clean limit switch
- 4) Check if all warning labels are clear or not.

### **4.4 Check Every Three Months**

- 1) Clean or refresh the lubrication oil and oil-suck filter net.
- 2) Check parameters of every axis.

### **4.5 Check Every Six Months**

- 1) Clean or refresh the lubrication oil and oil-suck filter net.
- 2) Check parameters and origin of every axis.

- 3) Check that if every scrape is wearable or not.
- 4) Check if every servo motor and spindle runs in normal, if so contact manufacturer immediately.
- 5) Check lubrication and
- 6) Check and adjust the leveling of the machine.

**4.6 Check Every year**

- 1) Check the verticality of every axis, and adjust it.
- 2) Check if lubrication oil pipe is good or not.

Warning:

1. Only professional operators are allowed to repair the Auto Tool Changer.
2. Others should be far away from working area.