SRD
spindle repair and development

MULTIBRAND ELECTROSPINDLES AND HIGH FREQUENCY MOTORS REPAIR CENTER



SRD srl - Via Quarnaro, 1 - 20052 Monza (Mi) - Italy
Tel. + 39 039 836500 - Fax +39 039 3305149 - email: support@srdev.eu

Mission

Give an effective after sale assistance to the customer, minimizing the machine down time due to the electric spindle failure, warranting the repair in 4 days on every brand of motor (HSD, COLOMBO, ELTE, CMS, SCM, OMLAT, GAMFIOR, IBAG, GMN, SEV, FISCHER, INTERMAC, BAVELLONI, BREMBANA, VEM etc.).

Ensure very competitive and fix repair prices.

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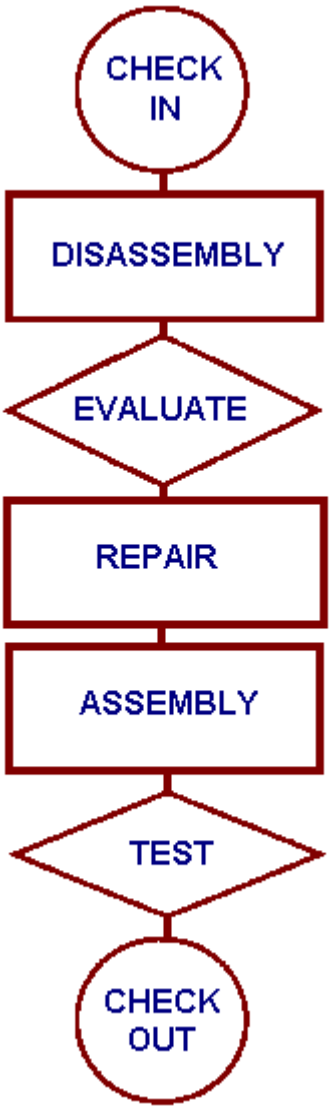
The process



Process flow

* Disassembled spindle inspection. Identify the problem by our Spindle Failure Analysis.

* Ultrasonic cleaning of all components.

* Testing of all components in our temperature and humidity controlled clean room. Define the necessary actions and restore all the damaged components or all parts out of tolerance.

* Dynamic balancing of the rotary parts before assembling.

* Testing and measuring of the remanufactured or the replaced components.

* Mechanical and electrical assembly.

* Run-in on special benches testing in air-conditioned environment. During the run-in, the electric spindle is dynamically balanced.

* Final balancing, vibration analysis, temperature testing, performance testing and final inspection.

* Electric spindle check out.

Final check-out

* Spindle shaft run-out control.

* Check of electric parameters of the motor.

* Spindle shaft run-out control with gauge at 300 mm.

* Encoder adjustment.

* Check of tool retention force.

* Sensors adjustment and drawbar stroke control.

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F.A.Q.

1. The electric spindle doesn't turn.
2. The tool-holder is not locked properly.
3. The tool-holder is not ejected properly.
4. There is no the air flow of the front pressurization.
5. One of the sensors cannot provide the correct output signal.
6. The electric spindle gets in overheating.
7. The electric spindle performances are lower than their specifications.
8. Electric spindle vibration or rough edge cut on work piece.
9. The electric spindle are noisy during rotation.
10. One of the sensors does not read properly.

1. The electric spindle doesn't turn.

Is the inverter protection present?
Check the manual or ask to the inverter manufacturer.

Are S1 sensor or SP sensor damaged or disconnected?
- Check the connectors;
- Check the continuity and the integrity of the electrical connections;
- Contact the SRD Service.

Is the rotation acting denied?
Check the manuals or contact the machine, CNC and inverter suppliers, which the electric spindle is connected to.

Are there foreign bodies between the tool shaft and the electric spindle?
Remove the macroscopic impurities and carry out the maintenance as shown on the manual.

The tool-holder taper doesn't fit to the required one?
Choose a tool-holder in according to the manual instructions.

Doesn't the clamping group open due to lack of pressure?
Check the integrity and the efficiency of the pneumatic circuit.

2. The tool-holder is not locked properly.

Is the S2 sensor (tool locked) connected, damaged?
- Check the connectors.
- Check the continuity, the integrity of the electrical connections and the reading adjustment.
- Contact the SRD Service.

Is there an alarm on CNC control?
- Check the pressure values required;
- Check the integrity and the efficiency of the pneumatic circuit and electrical valves.

3. The tool-holder is not ejected properly.

Is the air pressure value correct?
- Check the pressure values required.
- Check the integrity and the efficiency of the pneumatic circuit and electrical valves.

Is the tool ejection acting possible?
Check the manual or contact the machine supplier which the electric spindle is connected to.

4. There is no the air flow of the front pressurization.

Is the pressure enough and the pneumatic circuit efficient?
- Check the pressure values required.
- Check the integrity and the efficiency of the pneumatic circuit.
- Contact the SRD Service.

5. One of the sensors cannot provide the correct output signal.

Is the sensor disconnected or damaged?
- Check the connectors.
- Check the continuity, the integrity of the electrical connections and the reading adjustment.
- Contact the SRD Service.

6. The electric spindle gets in overheating.

Are there cooling problem?
- Check the specifications of the cooling circuit within the manual.
- Check the integrity and the efficiency of the cooling hydraulic circuit.
- If the problem persists, contact SRD Service.

Is the working too heavy?
Reduce feed and speed of the machine.

Are the inverter parameters correct?
Check on the electric spindle nameplate or use the spindle manual in which the parameters are the correct ones.

Is the input or output voltage correct?
Check on the electric spindle nameplate or within the use manual that the voltage parameters are the correct ones.

7. The electric spindle performances are lower than their specifications

Is the inverter parameters adjustment correct?
Check on the electric spindle nameplate or use the spindle manual in which the parameters are the correct ones.

Is the input or output voltage correct?
Check on the electric spindle nameplate or within the use manual that the voltage parameters are the correct ones.

Is the intensity of current on the three phase higher than normal?
The winding insulation or rotor keep on having problem. Contact SRD Service.

8. Electric spindle vibration or rough edge cut on work piece.

Is the tool-holder balanced properly?
Choose the correct tool-holder according to the use manual instructions.

Is the cutter balanced properly?
Choose the correct tool according to the use manual instructions.

Are there foreign bodies between the tool-holder taper and the spindle shaft?
Remove the macroscopic impurities and carry out the cleaning as shown on the manual.

Is the working too heavy?
Reduce feed and speed of the machine.

Are the spindle fixing screws locked properly?
Check that the fastening screws are not loose.

Are the bearings damaged?
Contact the SRD Service.

9. The electric spindle is noisy during rotation.

Are the bearings damaged?
Contact the SRD Service

10. One of the sensors does not read properly.

Is the sensor broken or damaged?
Replace this sensor.

Has the sensor lost the original position?
Adjust the sensor swinging it as long as it shows the correct signal.

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Warranty Conditions

* SRD srl guarantees the regular working and the quality of its repaired and new product for six months from the date of shipment.

* The warranty is limited to defects of manufacturing and it is not extended to the parts exposed to a normal wear and tear.

* The electrical components and lubrication equipment supplier warranty conditions prevail.

* Goods found clearly defective should be returned freight pre-paid at our Company with prior authorization. We will do all our best to return the goods in a very short time properly replaced or repaired. Transport and forwarding charges will be at your expense.

* Damages and defects resulting from a crash, a wrong electrical connection or tampering with the electric spindle. Inexperience, bad use, lack of maintenance, out of balance tooling, lack of run-in overloads, lack or inadequality of lubrication, an untimely communication reporting defects and all the other reasons which are not directly reported to us, are excluded from our warranty, negating any and all of our obligations

* In any case, repairs or changes charges should be reported. Returns must be authorized in writing in advance.

* Failure to fulfill prompt payment conditions results in the immediate termination of warranty provisions.

* During the warranty period, we will do our best to quickly eliminate the defects that you report to us in writing, by repairing and replacing the parts which show a clear need. If the reported defects are not directly related to us, the risulting changes will be at your charge.

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The plant






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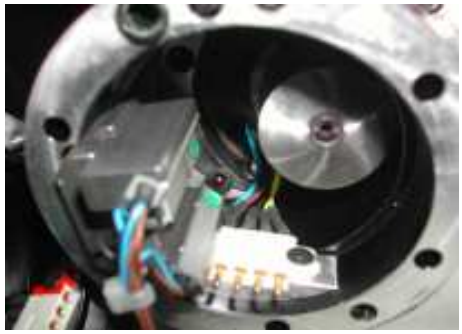
Examples of our services











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Repair form

Fill this form and send it by fax or email and attach it with the shipment or fill the form on line at http://www.srdev.eu/riparazione.htm
Ship all electrospindles to the attention of Clean Room department.

I. Company Information

Name: _____

Company: _____

Address: _____

Zip Code: _____

City: _____

County/State: _____

Telephone: _____ **Fax:** _____

E-mail: _____

VAT: _____

II. Spindle Information

Manufacturer: _____ **Model:** _____

Electrical data: _____ **Serial number** _____

Apparent defect: (i.e.: bearings, winding, tool exchange, ISO o HSK clamping group, sensors):

_____

_____

III. Requested lead time

☐ **24 hours service (Please contact first SRD service for approval)**

☐ **Standard (3-5 working days)**

Note: _____

IV. Shipping method

Return shipping method (ex works):

UPS_____ **SDA**_____ **TNT**_____ **FEDEX**_____ **Executive**_____ **Bartolini**_____**Other**_____

Ground _____ **Air** _____ **Boat**_____

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