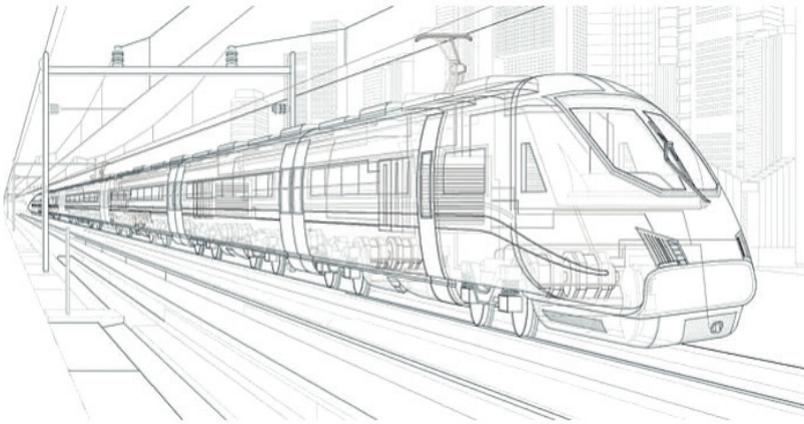


# Service for traction motors



## **Birr Machines**

offers a broad portfolio of products and services to support the long-term safe operation of all types of DC and AC traction motors.

## **Traction**

### **Spare Parts**

Birr Machines supplies spare parts for all motors manufactured by Birr Machines. Extensive technical documentation means we are also able to produce complete units, such as rotors and stators.

## **Motors**

### **Refurbishments**

The rotor and the stator are washed together with the coils in our washing bay using a special cleaning agent. Drying takes place in a vacuum oven in order to ensure that the coils and insulation are entirely dried.

The rotors, stators and coils are then re-impregnated and cured with resin or enamel varnish in the immersion or spray process. If necessary, a new coat of paint is applied to the motor.

### **Upgrades**

When a rail company revises the way it operates, this often means that traction motors also need to be modified. Birr Machines can upgrade traction motors to accommodate voltage, power or speed changes, or provide a new insulation system to withstand higher loads.

### **Repairs**

Birr Machines undertakes all kinds of repairs on traction motors including challenging repairs on the rotor and stator windings. The condition of the coil insulation is analyzed by means of dielectric measurements.

Wear parts such as bearings and carbon brushes are replaced and the rotors are dynamically balanced.

During refurbishment of DC motors the commutator is additionally reworked: the commutator surfaces are turned and the lamella insulation is chamfered and undercut.

Our workshops have the specialized know-how and equipment required for this work.

### **Quality control and testing**

Every traction motor is put through a standard test procedure before leaving the workshop. This includes no-load, insulation and voltage tests.