

## Scope of supply and service

Since more than 50 years the company transresch Antriebssysteme Berlin GmbH has experiences in the field of converters and inverters. The spectrum of service ranges from controlled drive systems to complete electrical systems and factory automation machinery. The customers come from all industrial sectors particularly the metallurgy, the cement industry and the general plant engineering.

Our products are adapted to the constantly-growing demands placed on the automation of production sequences and make a decisive contribution in energy saving. With in-house products and as a system partner of ABB, Ingeteam and Siemens we offer optimal customized solutions.

Our scope of supply and service contains planning, projection and project management, manufacturing and delivery, commissioning, training courses as well as after-sales service for the complete electro-technical equipment of installations. This means in particular:

- **Electrical power engineering: power distribution in MV/ LV, feed-in transformers, MCC's, converters/inverters, controlled and uncontrolled motors, encoders and switchgears, UPS's, reactive-power compensation equipments**
- **Automation: Process Control, HMI, operator panels, buss systems**

Our strength is the creation and integration of customer-related and industrial sector-specific applications in the entire complex as well as the modernization of existent structures. Especially we focus on metallurgy and cement industry. Many years of experiences as well as our flexibility in engineering and after-sales service offer the best stage therefore.

Our product range consist DC and AC drives for a wide range of applications in a variety of industries:

- Pumps
- Ventilators and compressors
- Centrifuges
- Test benches
- Presses
- Cement plants
- Steelworks and rolling mills
- Power plants
- Surface mining
- Extruders
- Packing machines
- Material handling
- Naval equipment
- Electrolytic installations

We use motors of mid-European producers manufactured according to accepted quality standards.

Our know-how for drives and converters is being completed by references in the fields of network analyses, filter circuits and reactive-power compensation equipments for the reduction of system perturbation.

The competence of the transresch Antriebssysteme Berlin GmbH is being approved by a long number of successful realized national and international projects.

## □ Products

### **Converters for AC drives (low voltage)**

- IGBT-frequency converters with voltage source DC-link, type series VSI ( VSI-S, VSI-R, VSI-RP, VSI-M), for three-phase voltage connection from 480V up to 690V, for none-reversible drive and reversing drive for infinitely speed control of three-phase AC-standard motors, vector controlled, cabinet units ready for connection, modular system, 6- and 12-pulsed, drive power: 3 kW up to 4,500 kW

- Subsynchronous converter cascade (SCC) for infinitely variable speed control of three-phase slip ring motors (adjusting range from 0.5-0.9x  $n_{nom}$ ), full digitized, drive power: 500 kW up to 10,000 kW

### **Converters for AC drives (medium voltage)**

- Frequency converters with voltage source DC-link, type series VSI-MS for voltages up to 4 (6) kV (higher line voltages via transformer), for supply of induction and synchronous motors, drive power: 500 kW up to 20,000 kW

### **Converters for DC drives**

- Cabinet units ready for connection, type series DCC, for DC-voltage connection from 400V up to 950V, for none-reversible drive and reversing drive for supply of speed-controlled DC-motors, full digitized, drive power: 10 kW up to 28,000 kW

### **□ Services**

- Advice in all questions regarding
  - automation of installations
  - drive engineering, e.g. modernization of existent equipment,
  - rational use of energy by modern drives
- Projection of PLC-systems with Simatic S7, TDC
- Programming of the application software in Step 7, CFC and other system software
- Creation of visual display systems (HMI) with WINCC
- Dimensioning of drives
- Capture of production data
- Projection and manufacturing of the equipment with in-house products and components of other manufacturers
- Commissioning of the equipment and the whole installation
- Other services:
  - network study
  - power measurement, capacity and harmonic measurements
  - acceptance tests and performance records on location and in the workshop
  - revision according to the current regulations
  - training courses on location and in the workshop
- Our experienced engineers and project managers ensure the complete project preparation and the elaboration to the point of commissioning on location.

### **□ Standards**

Our products meet current national and international demands for converters and inverters and are manufactured according to ISO9001.

