

## **Fields of Activity**

**of**

**AEG Industrial Engineering GmbH**

22Jan10

In 1887 AEG was established by Emil Rathenau in Berlin. In the following decades the company had a significant growth into an international group. In the past AEG had up to 170.000 employees, a good portion of which in Berlin.

AEG Industrial Engineering is a company for electrical plants of the industry, the energy industry and transportation. We are located at the traditional location of AEG headquarters and industrial facilities, the Hohenzollerndamm area in Berlin. We are in close contact with current and former AEG factories.

The main focus of our activities is drive and automation systems, switchgear, transformers, generators / turbines and diesel- as well as gasmotor-generator sets. We also deal with general industrial electronics and high- and low voltage compensation systems.

Together with our representatives and our local subsidiaries, we serve our national and international clients. We supply spares and new equipment. We consult, design and supply for new equipment and revamp existing plants. Many of our engineers are familiar with industrial plants, ship technique and power plants supplied by AEG in the past. We revamp old plants or supply alternative solutions.

We supply spares, devices and systems, provide the start-up of the equipment and take care until production starts. If customers need consulting services for economizing energy in large drives for pumps and fans, we can help. Our after sales service, inspections, training and repairs of AEG components like Kanis turbines, transformers, switchgear, Thyro-systems or other devices help customers to run and stabilize their production plants.

Together with our partners we supply aluminium-, copper-, poly-silicon production plants, complete compact steelworks including the electric arc furnaces EAF and LF and their controls. Where required, we can also provide rod rolling mills or plants for the production of construction steel or small sized profiles. The electrical engineering planned and provided round turn block heat and power plant, emergency diesel generator as soon statical and dynamic UPS.

## **Our fields of activity:**

### **Power Generation**

- Generators for gas or diesel motors or turbines up to 200MVA for decentralized or emergency power generation, turnkey in containers or prefab buildings.
- Static excitation equipment for synchronous motors and generators
- We quote for low cost alternators for high-speed gas turbines with a built on planetary epicyclical gearing in IM B3 mechanical design with 5.000 rpm to 15 000 rpm and 4 to 50 MVA. The maximum generator voltage without transformer is 15 kV.
- We care for repair, maintenance and overhauling for gas turbines built by AEG Kanis and other manufacturers. Assembly works, commissioning and performance-enhancing measures are also part of our business activities. Test runs can be performed at the factory of AEG Kanis.
- Converters and inverters for regulation and excitation of motors or alternators, turbines and pumps of hydro power plants
- Static uninterruptible power supplies (UPS) up to 1000 kVA with battery charging management and also rotating CPS (Conditioned Power Supply) units up to 2000kVA.
- Converter to generate other frequencies than 50Hz, i.e. 60Hz or 16 2/3Hz.
- Programmable controls for electric generators with AEG TRANSINAUT

## Energy technique

- Low voltage devices and plants
- High and medium voltage switchgear and voltage transformation substations
- Compensation equipment for industries and power authorities especially for electric installations with increased reactive power, higher harmonic currents or flicker. This applies e.g. to large drives, electric arc furnaces in the steel industry or in electrolysis plants.
- TCR converters for dynamic control of reactive power in high voltage power grids and new digital controls for existing TCR units.
- Substations with higher reactive power loads and critical harmonics can be controlled grid conform with our active filters.
- Line analysis und measurements in medium voltage supply lines of equipment as above as well as feasibility studies. This can be performed independently from other electrical equipment suppliers.
- Power distribution transformers and specific furnace transformers or reactors as well as rectifiers and transformers for steel works or electrolysis.

## Industrial components & Electronic

- Capacitors, Reactors, Switches, Contactors, Controller, Active Filter
- Resistors, high voltage contactors and other components for traction and crane equipment
- Static exciter systems for synchronous alternators / generators in power plants
- Start up converters for steam and gas turbine units and large hydro aggregates.
- High voltage inverters / converters for energy control in hydro power plants or for launching turbines
- Thyrobox Systems
- High current equipment POWERSEMI for power supplies for copper or aluminum electrolysis and DC arc furnaces
- Thyristor converter AEG Thyro for control of heating units.
- Coils for electro-magnetic steel stirrers with converters for the steel industry

## Drive Technology

- Synchronous and asynchronous motors, slip ring and DC motors for medium and high power output
- Three phase motors with low losses and and high efficiency according to EFF 1 as well as explosion protected motors according ATEX or with low inertia for flying shears used in steel works
- Starter units to limit the start up current of large motors
- Converters like MINISEMI or MAXISEMI for DC motors
- Inverters for three phase motors with low and high voltage e.g. MONOVERTER, MAXIVERTER, SEMIVERTER or BL inverter for 1000V up to 40kV
- Renovation, revamping and modernizing of DC and AC drives and rectifiers
- Drive systems with special technology e.g. for the steel industry
- Motors and converters for high dynamic drives .
- Drives for pumps, ventilators, processing lines, belt conveying systems and centrifuges.
- System solutions for electrically controlled compressors also in explosive atmospheres and flameproof operational conditions.
- Motors and converters for drives with high speed

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## Automation

- Memory programmable PLC automation units as the well-proven A020-A500 and the new @120-@250
- Dynamic drive controls with AEG Logidyn D and A800
- Control and monitoring devices with the AEG TRANSINAUT for power generation systems
- Devices for process control, communication systems and telecontrol engineering (SCADA) with telecontrol substations Micro, @40, @50 and @60
- Support for existing older installations like MODICON, GEAMATICS and GEATRANS

## Transport

Train applications:

- Resistors, heating devices, switches, mono and multi polar DC contactors, high voltage AC/DC contactors,
- battery charging devices for trains and other components for rolling stock and fixed installations.
- Diesel units for energy supply in dining cars and in rolling stock
- Rail power supply 16 2/3 Hz or 50z or DC for light rail traffic or heavy rail



Ship applications:

- Main drives, shaft generators, diesel generator sets and other components for ships

To look at our home page: [www.AEG-IE.com](http://www.AEG-IE.com)



**We take care of your Power Quality**