



SAFE GUARD YOUR ENERGY



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FRAKO Kondensatoren- und Anlagenbau GmbH

Leading-edge quality for reliable power supply networks

FRAKO's mission is to provide solutions that are designed and optimized to meet the needs of our customers. Our accumulated experience and our expertise in development and manufacture are applied to achieve this. The operational reliability of our products is as well known internationally as our track record in developing new solutions.



Every sphere, every activity and every operation of our company is hallmarked by quality. This bears fruit in FRAKO's renowned product quality as well as the quality of our advisory and field services. We value reliability, punctuality and transparency with the same commitment we have for durability and performance. This is why FRAKO today leads the entire world in its areas of business:

- High quality capacitors
- Individually specified power factor correction systems
- Efficient power quality solutions
- Intelligent Energy Management Systems
- Dependable customer service before and after sales

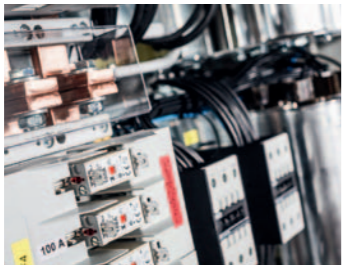
Our customers and business partners know that FRAKO means quality, and that quality means safety and reliability. Because of this we can shoulder the responsibility for the correct functioning, profitability and environmental compatibility of our products and can guarantee their safety to life, limb and property. We are in a position to fulfil the most demanding requirements and develop innovative solutions to suit individual needs.

Our excellently trained and motivated employees have the technical competence and in-depth expertise to design and implement new installations successfully. We ourselves also take particular care to ensure that energy is used sparingly and efficiently in the manufacture and operation of our products. Our own energy consumption and the emissions generated are continually monitored with our in-house Energy Management System to ensure that we achieve the highest levels of energy efficiency and environmental compatibility.

For the future we are committed to an ongoing and intensive effort to maintain our leading position and to justify the trust placed in us by our customers in the fields of power quality, energy cost minimization and energy efficiency.

At FRAKO we look forward to developing, manufacturing and supplying innovative and productive systems for our customers and business partners in the future.

Peter Herbst
Dr. Matthias Sehmsdorf



MADE IN GER MANY



Quality means safety and reliability

Exact and ever more demanding quality specifications in all areas are the criteria for our products and services.

A particularly important role in meeting this challenge is our individual advisory and project planning. The basis for our successful cooperation with our customers is given by our certified quality and environmental management systems and our own research and development departments. On top of this we always adhere to our guiding principles that make us a straightforward and agreeable partner to work with. You can always take us at our word; for us that is as much a matter of course as being able to deliver, delivering on time and reacting promptly to handle any complaints.

As a supplier of complete systems, we pay attention to the quality and good working order of every individual component. In this way we achieve the high profitability and increased service life of our installations and systems. We fulfil the most exacting requirements in all areas: when advising customers, honouring commitments and turning individual needs into concrete products and special services.



The flagships of FRAKO quality are our capacitors — well known in the market and representing 'Made in Germany' at its very best. The materials for their manufacture are tested painstakingly for their durability, corrosion resistance and mechanical strength. Every subsequent manufacturing step features a special quality gate. The following are examples of the tests we carry out:

- Routine tests (IEC/EN 60831 and to even stricter FRAKO in-house specifications)
- Type tests (IEC/EN 60831)
- FRAKO acceptance tests
- Tests before, during and after manufacture

Certified management systems:

- Quality management system to ISO 9001
- Environmental management system to ISO 14001
- Energy management system to ISO 50001

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Relocation of the company site to Teningen, where wound paper capacitors for the German telephone company and radio industry are

manufactured, followed later by electrolytic capacitors and OEM power supply systems.



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Manufacture of capacitors for fluorescent lamps and Power Capacitors begins.

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FRAKO produces new, ready-to-install, automatically controlled Power Factor Correction Systems.



INTERNATIONAL



Safety and reliability are first priority worldwide



FRAKO is an internationally active company with the special strengths typical of an uncomplicated medium-sized enterprise: maximum quality, flexible manufacturing schedules, team spirit and a highly skilled workforce are what make us stand out.

Some FRAKO facts and figures:

- Headquarters at Teningen, Germany
- Total site area 7237 m²
- Production and warehouse 5437 m²
- Sales, administration, research & development 1800 m²
- Since 2005 FRAKO has been a subsidiary of the industrial holding company AdCapital AG



With over 120 employees and sales representatives in many countries, we work with great commitment to our customers. Developing practicable, safe and reliable products that are fit for the future is just as important to us as the dependable delivery of our systems to the specified installation site. At the present time, FRAKO solutions all over the world are safeguarding the daily flow of energy. As FRAKO is also in demand as an OEM manufacturer, our products are also sold in many countries under the brand names of our partners—further evidence of our outstanding quality.

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FRAKO develops and manufactures electronic Reactive Power Control Relays. These devices replace the mechanical control relays previously employed. For the first time both key components

of a power factor correction system — control relays and Power Capacitors — are supplied from a single source.

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Launch of a new capacitor technology: the FRAKO LKI Power Capacitor constructed with metallized polypropylene film. This low-loss capacitor is

PCB-free, has a mechanical fuse for protection against excessive internal pressure, and offers excellent reliability and a long service life.

POWER CAPACITORS



Safety and reliability through innovation



FRAKO Power Capacitors are the first choice worldwide.

Our Power Capacitors are supplied marked with Holospots® as a protection against counterfeiting. These enable our customers to distinguish between genuine FRAKO Capacitors and bogus products quickly and reliably.

The technical advantages offered by our Power Capacitors are very easy to demonstrate: the combination of self-healing, segmented metallized capacitor film and a mechanical overpressure disconnection system has enabled FRAKO to make another significant improvement to the operating safety and reliability of these products. Capacitors manufactured in this way are marketed globally in four series. As FRAKO Power Capacitors are so renowned for their high quality, they have become a target for counterfeiters. Such counterfeit products not only cause the user financial losses, they usually also result in a high safety risk when installed.

Advantages of genuine FRAKO Power Capacitors:

- Special segmented capacitor film
- Mechanical fuse with verified disconnect action
- Special environmentally friendly granular filling in casing
- Maintained under vacuum for several days to ensure a long service life



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FRAKO presents its first Energy Management System.



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FRAKO patents the first connectors for Power Capacitors using clamping springs instead of screws.

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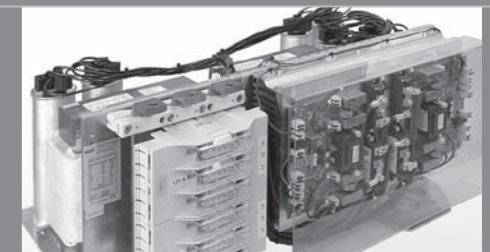
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First applications with active filters for electronic compensation of harmonics.

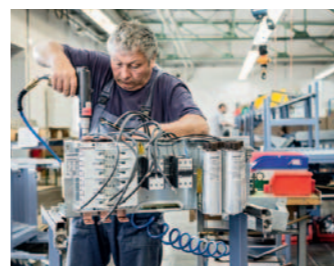
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Dynamic Power Factor Correction Systems with thyristor switches successfully introduced for major industrial applications.



POWER QUALITY POWER FACTOR CORRECTION



Safety and reliability for productivity



Poor power quality in the supply network can result in upsets or even failure in technical equipment and installations. FRAKO Power Quality products offer the right solution to maintain the quality of the power supply at a high level.

FRAKO Power Capacitors constitute the basis of FRAKO's Power Factor Correction and filter systems. These are individually designed for the user, as are our Active Harmonic Filters. Mounted in a steel cabinet, they are installed at those locations where electrical energy is to be saved, voltage fluctuations avoided and harmonics eliminated, or simply where reactive power must be compensated.

Inadequate power quality is often responsible for disruptions in the power supply. Our solutions are customized to suit the specific network conditions concerned. They reduce the loading of the power supply network and improve its power quality, thus reducing transmission losses, reducing the costs of reactive demand and avoiding unscheduled shutdowns. FRAKO Power Quality Systems give businesses the full power they expect from the supply network.

FRAKO Power Quality products:

- Modular Power Factor Correction Systems
- Passive Harmonic Filters
- Active Harmonic Filters
- Dynamic Power Factor Correction Systems
- Network analyzers, data storage instruments, visualization software

The benefits of FRAKO Power Quality Systems:

- Undistorted supply voltage waveform and stable power quality
- Cost savings by avoiding network failures and production stoppages
- Reduced CO₂ emissions
- Smaller electricity bills

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FRAKO launches the LKT, a „dry“ type of high performance capacitor, onto the market. This new

product replaces the liquid-impregnated LKI capacitor. The company is certified to ISO 14001.

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Baugatz/Hoppe becomes part of FRAKO. Together with the AGLK operation, acquired from Moeller Engineering, this increases FRAKO's

market lead in power quality, with the goals of optimizing power consumption and further improving supply network quality.

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The FRAKO C Module is launched: the universal solution for virtually all control cabinet systems. This compact unit replaces many different module types.



ENERGY MANAGEMENT SYSTEMS



Safety and reliability create efficiency



FRAKO Energy Management Systems help your company to cut costs and achieve energy efficiency.

Our intelligent solutions analyse and document utilities consumption, monitor the supply network and minimize peak loads. The FRAKO Energy Management System supplies the optimum basis for all decisions to be made in optimizing energy consumption. With a FRAKO Energy Management System in place, the flow of utilities in the company is made transparent, their costs can be clearly allocated and accurately charged for, and approaches to saving energy become much easier to identify.

FRAKO Energy Management:

- Centralized data acquisition, alarm management
- Peak load optimization
- Cost allocation / cost centre metering and cost accounting
- System components for consumption metering
- Visualization and analysis software

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From a closed system to an open one: EMIS®, the new Central Unit with an Ethernet port for data acquisition, enables instruments from other manufacturers also to be integrated, e.g. via Modbus.



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FRAKO sets course for further expansion, inaugurating a new production shop for capacitor manufacture.

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FRAKO Power Capacitors are now available in 3 series: Basic, Standard and Premium.



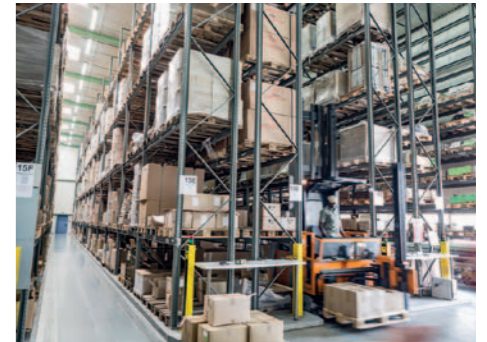
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The production shop for equipment and systems is completely renovated and equipped with new manufacturing facilities.

CUSTOMER SERVICES



Safety and reliability are intelligent



FRAKO's range of services offers a comprehensive program for achieving high energy efficiency and availability.

Particular importance is attached to the individual advisory and training services offered to our customers, special inspection and maintenance contracts and customized project execution. Every solution that we propose to our customers is based on detailed network measurement readings and an in-depth analysis of the status quo and individual requirements. We manage new projects and customized installations with the appropriate concepts from the planning stage right through to system commissioning. To ensure a maximum degree of safety and reliability in operation, we offer our customers a comprehensive system check to guard against failures and damage.

FRAKO services:

- Network analyses and evaluations
- Project planning
- Commissioning
- Service, repair and maintenance work
- Maintenance contracts
- Training sessions
- Service hotline

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FRAKO Power Capacitors with segmented film make their debut on the market. This innovation

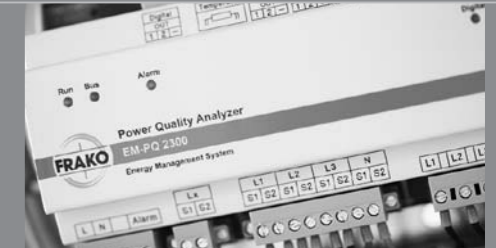
greatly improves their operational reliability with a triple safety system.

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FRAKO is one of the first companies in Germany to have its own internal energy management

system certified to EN 16001.



REFERENCES



Partners need safety and reliability



Many companies all over the world rely on FRAKO products and services for their projects and installations. We would like to thank them here for placing their trust in us, and promise to continue to deliver safe and reliable quality for a secure future.



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FRAKO's internal energy management system is certified to the international standard ISO 50001. FRAKO LKT Capacitors achieve UL certification —

an important step in gaining access to the North American market.



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FRAKO celebrates its 85-year jubilee. FRAKO LKT Capacitors are now also certified by the Canadian

Standards Association (CSA), making it easier to gain a foothold on the Canadian market.



EMPLOYEES



Competence creates safety and reliability



A flexible manufacturing facility, outstanding team spirit, a highly motivated workforce with an above-average skills base: this is where our strength lies.

Our success in business and our market leadership are thanks first and foremost to our employees. Their collective experience, the way they identify with the company and their personal motivation have enabled our products and services to achieve the levels of quality that make us so unique.

For this to be sustained in the future, we provide our employees with ongoing training and updated information. With this continued professional development in our company we ensure that the skills base continues to develop. In this way we can be successful in tackling new challenges, so that in tomorrow's world we will continue to offer the best possible solutions and services.

