Today a global name

1961 to 2011:
50 Years VEM Trademark Association

Sense experience.
Experience the vision.

Content

Left: VEM machines in the flue-gas desulphurisation plant of the Boxberg Power Station
Centre: Trademark certificate

01 The value of the VEM trademark

Words of greeting

We are this year celebrating 50 years of the VEM Trademark Association, and I am delighted to be able to pass on my congratulations.

Not only in Europe, but indeed worldwide, the VEM trademark stands as a symbol for quality, reliability, sustainability and innovation. Generations of employees have worked with enthusiasm, knowledge and diligence to enhance the character of this trademark as a sign of the confidence which customers place in our endeavours. VEM Sachsenwerk GmbH, VEM motors Thurm GmbH and VEM motors GmbH in Wernigerode, with their predecessors and subsidiaries, have survived the trials and tribulations of a long history – in Dresden since 1886, in Zwickau since 1908 and in Wernigerode since 1938.

The companies are holding their own in worldwide competition under the VEM trademark, which is registered in more than 90 countries. With a strategy focussed on outstanding quality in our core business, the VEM companies have gained an additional reputation as flexible, high-class suppliers of even the smallest series of project-specific special motors over the past ten years. The expansion to VEMoDRIVE though the addition of converters to this product range will enable us to further increase our value creation, to successfully secure jobs and to continue to strengthen the VEM trademark.

Berlin, Dresden, Wernigerode, Zwickau in August 2011

Freiherr von Rothkirch
Executive manager of the VEM Group

The value of the VEM trademark

Over the past years, products and services in general have become increasingly indistinguishable – a trend which is almost certain to continue. It is all the more important for VEM, therefore, to possess a strong trademark. That gives our products individual character in terms of performance, price and availability, and sets them apart from those of our competitors. We have already enjoyed this benefit for more than 50 years! Ever since the early 1950s, the name VEM has stood for high-quality products of German electrical engineering. It is one of the few East German industrial trademarks which still exist today.

VEM pursues a consistent umbrella branding strategy. The company group views the trademark as a collective immaterial asset and thus as an important source of stability and further development. VEM can build upon worldwide recognition of our trademark. Some 30 million electrical machines bearing the three letters VEM are currently in reliable operation all over the world. Even under the most extreme conditions, they are the driving force behind ships, railways, chemical plants and steelworks. In the field of renewable energies, generators from VEM are producing electricity in hydro-electric plants and wind farms.

But it is not this broad and innovative product range alone which constitutes the value of the VEM trademark. Where VEM Sachsenwerk today develops and manufactures high-voltage machines, generators and traction machines in Dresden, our forefathers set up one of the cradles of industrial electrical engineering in Europe 125 years ago. This engineering tradition, hundreds of patents for the further development of electrical machines, the high flexibility of today's manufacturing and a worldwide presence – those are all elements which make up the value of our trademark. The association established to protect this trademark is celebrating its 50th anniversary in 2011.

Trademarks are success factors. They contribute significantly to corporate value, raise the attractiveness of a company's products and permit faster penetration of existing and new markets. VEM is for the future set to develop into a system house for electric drive solutions – a one-stop supplier for motors, generators, frequency converters, transformers and application software. In this way, the trademark will no doubt gain further in value.

Right page: Electric locomotives with VEM traction motors in use at an open-cast mine in Siberia


03
03

Our core competencies

The electrical engineering companies united under the VEM trademark manufacture the full spectrum of high-quality drive technologies with outputs ranging from 0.06 kW to 35 MW – from sophisticated complete solutions, via special drives to individual components. A notable share of the world market has been secured with these German brand-name products from the companies VEM Sachsenwerk GmbH, VEM motors Thurm GmbH, VEM motors GmbH in Wernigerode and, since 2011, transresch Antriebssysteme Berlin GmbH.

The VEM trademark here stands for:

» modern drive systems and solutions
» innovative engineering
» solid quality
» outstanding reliability
» fast deliveries of technically demanding products
» flexibility
» customer service
» sound engineering advice
» project management
» energy efficiency and ecological power generation

A group-wide quality assurance system guarantees continuity and product reliability also for the future. It conforms to the DIN ISO 9001/EN 29001 standard and has been certified since 1993.

VEM customers enjoy all the know-how and performance benefits of a flexible company group. They can rely on solutions which not only satisfy ultimate technical demands, but are also tailored to their individual needs. The expertise on which the trademark is founded lends customers a valuable competitive edge in their own fields of business.

Drive solutions and single machines bearing the VEM logo are to be found in many branches, for example in machine and industrial plant engineering, steelworks and rolling mills, the chemicals, oil and gas sectors, transport engineering, power generation and environmental technology, the process industries and shipbuilding.

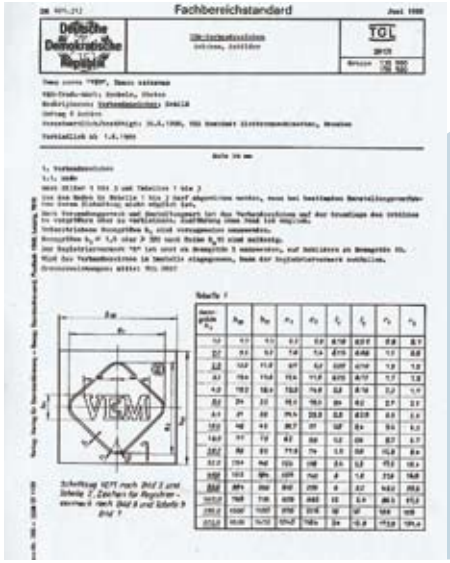
Left page: Pump system with low-voltage motors from Zwickau for a paint mist extraction system

Protecting the three-letter trademark

The VEM Trademark Association has now been responsible for protection of the trademark for half a century. It is the legal holder of the trademark, provides for its maintenance, cultivates national and international awareness and monitors compliance with the arising obligations. At the same time, the association checks that its members observe their labelling duty, follows and documents the statutory regulations in the countries in which the trademark is registered, and adapts the proprietary rights in the mark accordingly. The prerequisite for all these tasks, of course, is that the member companies continue to manufacture and successfully market competitive products.

The VEM trademark is currently registered in 90 countries. One of the most important new registrations over the past 20 years was that of a European community trademark. This step was made possible by a decision of the association general meeting in 1997, after weighing up the benefits and disadvantages with regard to the existing national trademarks in the individual European countries.

The VEM trademark was registered as a European community trademark under reference number 000792325 on 14th April 2000. It is thus legally protected in all the 19 countries which have so far signed the European trademark convention. One of the advantages is that trademark protection is extended automatically whenever further countries join the convention.


Fachbereichstandard

TGL

VEM

"Trademarks identify products and services of an enterprise. They stand for the quality of an enterprise and are part of the company's intellectual property, just like patents. A strong trademark is a valuable asset."

German Patent and Trademark Office (DPM)

The VEM trademark is a basic prerequisite for competitiveness at national and international level. It gives operators and users the assurance that VEM products stand for quality, reliability and service.


AMT FÜR ERFINDUNGS- UND PATENTWESEN
DER
DEUTSCHEN DEMOKRATISCHEN REPUBLIK

Warenzeichenurkunde

VEM

Das Warenzeichen ist mit untenstehenden Angaben im Warenzeichenregister eingetragen

Amt für Erfindungs- und Patentwesen

Berlin, den 9. März 1963


AMT FÜR ERFINDUNGS- UND PATENTWESEN
DER DEUTSCHEN DEMOKRATISCHEN REPUBLIK

Bescheinigung

VEM

Das Warenzeichen ist nach den Bestimmungen des Warenzeichengesetzes unter der Nummer

639442

mit den untenstehenden Angaben im Warenzeichenregister eingetragen.

Berlin, den 20. Oktober 1977

Warenzeichenverwaltung


Verbandszeichen

AMT FÜR ERFINDUNGS- UND PATENTWESEN
DER DEUTSCHEN DEMOKRATISCHEN REPUBLIK

Bescheinigung

VEM

Das Warenzeichen ist nach den Bestimmungen des Warenzeichengesetzes unter der Nummer

644469

mit den untenstehenden Angaben im Warenzeichenregister eingetragen.

Berlin, den 11.01.1984

Leiter
Abt. Warenkennzeichnungen

Documents reflecting registration of the trademark over three decades

02 The partners behind the logo

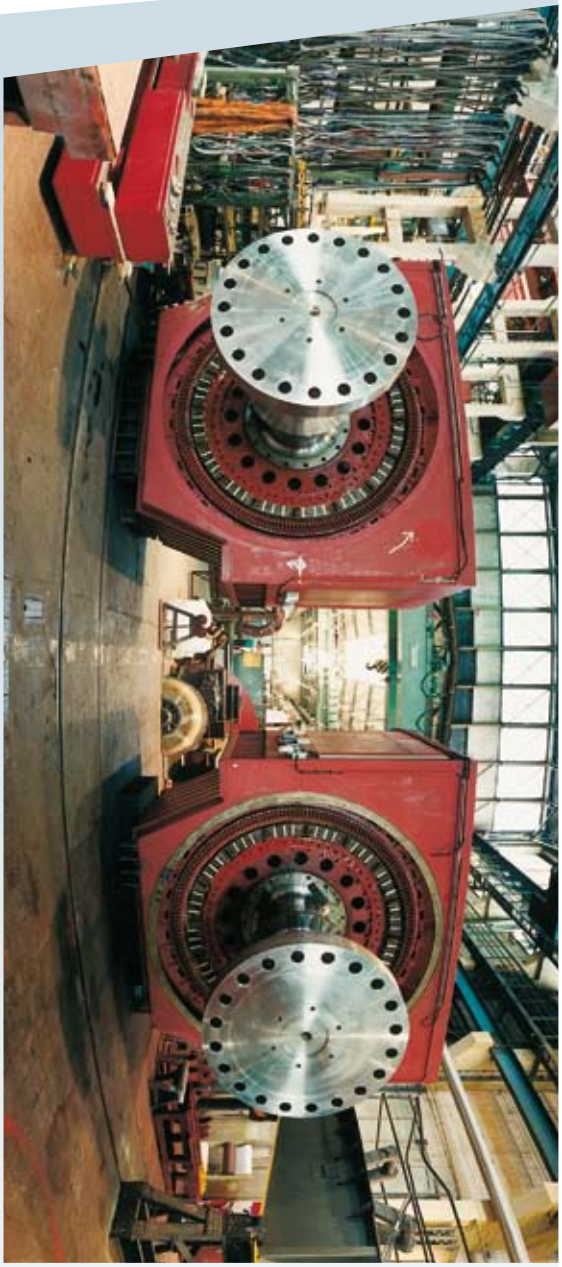
Established on all continents

When it was founded in 1961, the trademark association represented 32 East German enterprises involved in the manufacturing of electric motors. With a total of 41,000 employees, they were together responsible for a production volume of two billion marks. The three-letter trademark was registered in 22 countries. When it celebrated its 25th anniversary in 1986, the association already counted 66 members and almost 100,000 employees. The production volume had in the meantime risen to 12 billion marks, and the trademark was established in more than 100 countries around the world.

In 1988, some 12 million products bearing the VEM trademark left the factories. Over three million of those products were earmarked for export, with a third going to Western Europe. The main product groups were rotating and static electrical machines of the most varied types and sizes, alongside control and automation systems, safety systems for railways and induction heating equipment.

Today's VEM companies are continuing traditions cultivated throughout the 50-year history of the VEM Trademark Association, and can draw on the know-how of 125 years of electrical engineering. Back in 1886, after all, one of the cradles of the branch in Europe stood on the site of today's VEM Sachsenwerk in Dresden.

View into the coil shop at Sachsenwerk



Left page, top left:
Final assembly of
VEM rolling mill motors

Left page, top right:
A Sachsenwerk fitter inside the
stator of a large machine

Left page, below: Ships of the
AIDA fleet are equipped with
motors and generators from VEM

During the 1990s, in particular, the workforce and technical capacities were restructured to meet the demands of modern industry. Since the privatisation of the VEM companies by the Dr. Adolf Merckle family from Blaubeuren in 1997, € 130 million have been invested in modernisation, improvement and new technologies. Dr. Merckle was from the very beginning committed to strengthening the trademark and, through further development, to enabling all association members to participate in the success of the VEM name. The joint turnover of all the companies has since increased to 209 %, and the VEM group has built up valuable strategic alliances as a supplier to important customers in the most varied fields: Plant engineering, steelworks and rolling mills, wind power generation, conveyor systems, shipbuilding, railways and mechanical drive technologies.

Customer-oriented distribution in Germany is currently handled by a nationwide network of seven so-called “competence centres”. Under the VEM logo, they help to maintain the recognised market standing of the individual companies. The same applies to the West European sales network, which has been reinforced through the acquisition of further companies.

The VEM stand
at the Hanover Fair

The following companies are members of the VEM Trademark Association in 2011:

VEM Holding GmbH
VEM Vermögensverwaltung GmbH in Dresden
VEM Sachsenwerk GmbH in Dresden
VEM motors GmbH in Wernigerode
VEM motors Thurm GmbH in Zwickau
transresch Antriebssysteme Berlin GmbH

The following companies are trademark licensees:

VEM motors Finland OY in Finland
VEM motors UK Ltd. in Great Britain
VEM motors Austria GmbH in Österreich
VEM motors GmbH, Warsaw office, in Poland
VEM motors GmbH, Bucharest office, in Romania
VEM motors Russia in Russia
VEM motors Sweden AB in Sweden
VEM motors ASIA PTE LTD in Singapore
VEM Slovakia s. r. o. in Slovakia
VEM Tschechien s. r. o. in the Czech Republic


VEM
VEM
Nieder- und
Hochspannungsmaschinen
von 0,06 kW bis 37 MW

VEM Sachsenwerk GmbH, Dresden

The founding of a factory for electrical apparatus and machines on the eastern fringe of Dresden 125 years ago established the city as a cradle of industrial electrical engineering in Europe. By the turn of the century, the company set up by Oskar Ludwig Kummer in 1886 already employed over 2,000 people. For more than 50 years now, Sachsenwerk has been operating under the trademark VEM.

The inventive spirit and innovation strength of the workforce has brought forth – and continues to bring forth – a stream of technical highlights. These include the first-ever standard series of low-voltage motors, the precursors of what have since become the most widely used rotating electrical machines in the world. Traces of the pioneering products from Sachsenwerk are to be found all over Europe. The first hydro-electric generator in Germany can be counted a milestone of industrial history, as can famous railways or epochal power stations such as the largest pumped-storage plant in Germany at Goldisthal in Thuringia.

The relationship between Sachsenwerk and today's Dresden University of Technology has always been characterised by the fruitful cooperation of industry and science. Since 1902, representatives of the company's top-level management have been working without interruption at the Chair of Electrical Machines. Results of this scientific cooperation continue to flow into the company's engineering products.

Cutting-edge developments for the wind power branch represent future technologies for the 21st century. The world's first wind turbine generator with an output of 6.5 MW was built at VEM Sachsenwerk in Dresden. In the meantime, generators with a 7 MW rating have already left the factory. Sachsenwerk has furthermore demonstrated competence as a supplier to the transport engineering sector with a major series of over a hundred 10 MVA traction converters. These mobile frequency converters, as the heaviest rail vehicles in Europe in terms of weight per metre of length, boast the largest VEM trademark ever attached to a product. A series of more than 23,000 traction machines is similarly impressive evidence of profound branch-specific know-how.

Tradition and experience are key ingredients of the whole product range from Sachsenwerk. Highly qualified specialists are today manufacturing high-voltage machines and drive solutions for the most varied industrial applications, shipbuilding, traction vehicles and wind power generation.

Right page, top: Bird's-eye view of the Sachsenwerk factory in the Dresden suburb of Niedersedlitz

Right page, bottom: The 6 MW large machine test stand inaugurated in 2010

CHRONOLOGY

1886	Founding by Oskar Ludwig Kummer; by 1900, first deliveries of large machines for power stations, trams and equipment for street lighting
1903	Formation of the company Sachsenwerk Licht und Kraft AG; electric motors, generators, transformers, switchgear
1923 – 1928	Deliveries of hydro-electric generators for dam power stations
1936	Development and production of the world's first standard motor series
1946 – 1953	Transformation into a Soviet joint-stock company (SAG); electrical machines, isolating circuit-breakers, transformers, radios; first specialisation on medium and large machines
1953	Independent enterprise within the branch association VVB Elektromaschinen
1955 – 1958	Machine sets for pumped-storage power stations
1970 – 1990	Lead enterprise of the combine VEB Kombinat Elektromaschinenbau and one of the most important enterprises in Dresden with at times more than 4,000 employees
1990	Restructuring into VEM Sachsenwerk GmbH as a member of the VEM Antriebstechnik AG group; concentration on business with large and medium machines
1997	Privatisation and acquisition by the Dr. A. Merckle family from Blaubeuren; 450 employees
1997 – 2005	Investment of € 21.8 million in modernisation of the facilities, e.g. new winding systems, a computer-assisted machining centre with integrated measurement systems and a 3D measuring centre
1998 – 2001	Start of manufacturing of wind power generators; focus on sales activities in plant engineering, transport engineering, wind power and shipbuilding, strategic alliances and customer services
2002 – 2010	Leading manufacturer of double-feed asynchronous generators for wind turbines for the output range from 1.5 to 6.5 MW, main roll stand drives up to 12 MW and reciprocating compressor drives up to 25 MW
2011	Commissioning of a 6 MW test stand for large machines; comprehensive restructuring programme with investments totalling € 12.7 million in buildings and equipment; special drives and drive solutions for all industrial applications as core business; wind power generators up to 7 MW

CHRONOLOGY

1938	Founding of the predecessor company “Rautal-Werke”
1947	Founding of an electric motor works
1957 – 1959	Introduction of the DMK series, squirrel-cage and slipring motors from 1.6 to 10 kW
1963 – 1965	Introduction of the standard motor series KR and SR from 5.5 to 100 kW
1971 – 1975	Introduction of the standard motor series KMR and SMR from 5.5 to 110 kW (3rd generation)
1989	Production floor space of 58,000 sq.m. and 3,260 employees as basis for an annual output of 350,000 motors
1990	Restructuring into VEM Elektromotorenwerk Wernigerode GmbH as a member of the VEM Antriebstechnik AG group
1997	Privatisation and acquisition by the Dr. A. Merckle family from Blaubeuren
1998	Expansion of the output range for three-phase motors to 500 kW; delivery of the 10,000,000th motor
1998	Start of production for energy-saving motors in accordance with the CEMEP Voluntary Agreement
1999 – 2006	Acquisition of previous VEM agencies and reorganisation as sales subsidiaries in Sweden, Austria, Great Britain and Singapore; investment of € 16.5 million in modern production facilities
from 2008	Start of planning and extension of the capacities for aluminium die-casting; modernisation of the test stand to accommodate modern energy-saving motors
2010	Manufacturing and delivery of permanent-magnet synchronous motors
2011	Annual production expected to exceed 70,000 motors

VEM motors GmbH, Wernigerode

Electric motors have been produced in Wernigerode since January 1947, when the company Elektromotorenwerk Wernigerode was founded on the site of the former “Rautal-Werke”. As a manufacturer of aluminium castings for the aircraft industry, the latter had been dismantled after 1945.

From an initially modest 200 motors per year, the annual production rapidly increased to 350,000 units over the next four decades. With more than 3,000 employees, the company was the largest manufacturer in the whole region and left its indelible mark on the town.

Complex restructuring after 1990 was accompanied by redefinition of the core competencies. On 1st January 1997, almost 50 years to the day after the founding of the company, the new owner Dr. Adolf Merckle took over what had become one of the most efficient manufacturing facilities for standard and special motors in Europe.

Multi-million investments in new equipment permitted the continued implementation of technical developments and formed the basis for an ever broader product range. Top-quality VEM motors from Wernigerode are supplied to more than 50 countries all over the world. As products of ultra-modern manufacturing technologies and intensive research cooperation, they often display properties which are elsewhere only expected to characterise a future motor generation. Today’s product portfolio revolves around special motors tailored to individual customer requirements, and thereby documents a significant transformation of the company profile – away from the original philosophy of mass production, and turning instead to the development of new markets in industrial plant and process engineering as a manufacturer of special motors. A particular focus is placed on ecological compatibility and energy efficiency, and the products comply with all current national and international standards.

Fifty years under the VEM trademark, in combination with the tradition-steeped location Wernigerode, have laid the foundations for a company of world renown. In future, too, close partnerships with users, customer care far beyond the actual purchase of a product, technical expertise and absolute reliability will continue to characterise products “Made in Germany” from Wernigerode.

Left: Producing the windings for special motors in frame size 315/355 for plant engineering.

Right: After successful testing, the motors are painted to customer wishes.

Left page, top: Aerial view of VEM motors in Wernigerode

Left page, below: Machining of slipring rotors

VEM motors Thurm GmbH, Zwickau

It was their fascination with the rapid early developments in electrical engineering which moved the Stephan brothers to set up an electrical workshop in Thurm near Zwickau in 1908. The business began modestly with just five employees. A century later, however, it had evolved into one of the most efficient manufacturing centres for electric motors in the world.

The production figures illustrate the speed of this development. The 50,000th motor was sold in 1928, and the 100,000th just seven years later in 1935. The Second World War and the subsequent dismantling of the factory proved only a brief hiatus in the history of the company. Manufacturing was resumed in 1948 with an annual production of 1,200 motors. Through the incorporation of related factories and affiliation with the VEM trademark, the growth of the company accelerated. The sales of VEM motors increased in leaps and bounds: One million since the end of the war in 1959, two million in 1962, and then four million in 1964.

In the mid-1980s, the company was decisive in shaping the export profile of the whole industry. At times, a workforce of 3,700 employees was producing around 1.2 million motors each year. More than 50 % of these motors were sold to Western Europe. VEB Elektromotorenwerke Thurm – the company name at that time – became a synonym for quality, reliability and performance both at home and abroad. By the time the 25,000,000th VEM motor left the factory in 1986, the list of customers included some 6,000 industrial enterprises from all branches of domestic industry. With its nine branch factories, the company was the sole manufacturer of geared motors in the GDR.

After 1990, activities were concentrated on core competencies in the manufacturing of electric motors. The correspondingly reduced workforce today produces 350,000 VEM drives each year. And it could be felt not least on the occasion of the company centenary celebrations in 2008: Quality, reliability and performance remain the criteria which persuade customers around the world to choose drives from VEM. With its focus on special versions of drive products, VEM motors Thurm has now opened a further chapter in the company's eventful history.

Top: Mounting the fan to a brake motor

Right page, top: Aerial view of the VEM motors site in Zwickau

Right page, centre: Mounting the terminal boxes on motors in special versions

Right page, below: Machining of shaft ends on an NC machine.

CHRONOLOGY

1908	Founding of an electrical workshop by brothers Kurt and Alfred Stephan
1920	Start of production of electric and geared motors
1935	Expansion of the works; single- and three-phase motors, weaving loom drives, washing machines, drives for forge bellows and machine tools; 635 employees
1946 – 1948	Restoration of the prerequisites for the manufacturing of motors
1967 – 1970	Expansion on the site of a former coal mine; new geared motor works; independent enterprise within the combine VEB Kombinat Elektromaschinenbau, with nine branch factories,
1990 – 1996	Restructuring into VEM Elektromotorenwerke Thurm GmbH as a member of the VEM Antriebstechnik AG group; concentration of manufacturing capacities at the Zwickau-Pöhlau location with an exclusive focus on motor business; founding of VEM motors GmbH
1997	Privatisation and acquisition by the Dr. A. Merckle family from Blaubeuren
1998	Separation of VEM motors Thurm GmbH as an independent company
2000	Start of production of compact drives
2001	Introduction of special die-cast aluminium series
2004 – 2005	Extension of two production halls by a total of 3,500 m^2
2010	Introduction of permanent-magnet synchronous motors
2011	Introduction of motor series II 2G Exe II T3; preparations for series IE3-W41R

CHRONOLOGY

1945	Founding of a “rectifier bureau” in Berlin-Schöneweide; development of mercury-arc converters for electric drives
1949–1950	Integration into Elektro-Apparate-Werk EAW Berlin-Treptow; start of series production of rectifier vessels
1951	Central design office for electric drives within EAW and at the location Berlin-Ostkreuz; equipping of high-power industrial plant
1964	Registration of the trademark “transresch” (in German an acronym for transistorised control circuits) for modular data and control electronics
1968	Series production of the compact thyristor converter EGG for low-power DC drives and registration of the trademark “thyresch” (acronym for thyristorised control circuits)
1969	Founding of VEB Elektroprojekt und Anlagenbau EAB through a merger of several power engineering enterprises; delivery and production of complete electrical systems for all branches of industry, exclusively with thyristor drives and VEM motors; first integral drive in DC technology with VEM Sachsenwerk
1979	New factory building for the manufacturing of drive and control system switch cabinets
from 1984	Delivery and production of three-phase drives with standard asynchronous motors for pumps, centrifuges, textile machinery and rolling mills
1992	Transfer into state trust ownership and privatisation as Elpro AG
1995	Move to a new location in Berlin-Hohenschönhausen
1999	Founding of the independent company transresch Antriebs-systeme Berlin GmbH
2011	Acquisition of transresch Antriebssysteme Berlin GmbH by VEM Holding

transresch Antriebssysteme Berlin GmbH

In 1945, a “rectifier bureau” was set up in Berlin-Schöneweide to develop mercury-arc converters for electric drives. Just four years later, the planning for series production of glass- and steel-cased rectifier vessels and enclosures was already on the agenda. The scope of customers and applications was extended further with the manufacturing of converters for use in rolling mills and traction applications, and the quality and reliability of the company’s products were reflected in registration of the trademark “transresch” in 1964. This German acronym for “transistorised control circuits” was later to become the name of the company from 1999.

The development and series production of thyristor converters enabled the company to establish a second trademark in 1968: “thyresch”, standing for “thyristorised control circuits”. The control possibilities of such power electronics solutions permit extremely flexible setting of the operating point for electrical machines. In 1979, the company completed a move to newly built premises for the manufacturing of modern drive and control system switch cabinets. After 1990, transresch was initially a corporate division of Elpro AG. In March 1999, a management buy-out paved the way for the founding of an independent company. The company is certified to DIN EN ISO 9001:2000.

transresch has pursued consistent further development of its product portfolio in the field of converters and electric drive systems for five decades. The current range comprises transformers, frequency and power converters, and motors with outputs ranging from 10 kW to 25 MW for low and medium-voltage applications. For more complex modernisation projects in rolling and tube mills, transresch not only provides the automation and drive systems, but also takes care of power supplies and distribution. This approach is a direct response to customer demands for complete controlled drive systems as a single package. Such system solutions enable them to consolidate their engineering, simplify logistics and guarantee the functional quality of their products.

With the acquisition of transresch by the VEM holding in 2011, VEM has taken a further step on its way to becoming a global supplier of complete drive systems.

Left page: Reception area at VEM transresch Berlin

Left: The first VEM motors presented in Finland in the 1960s
Centre: VEM neon advertising on the facade of a Dresden apartment block (1970 to 1990)
Right: Belt drive at the Hasseröder Brewery

03 VEM worldwide

Where our customers are to be found

Over the past ten years alone, the order books of the VEM companies have noted customers from practically half of all the countries of the world, for example:

Argentina · Austria · Azerbaijan · Belarus · Belgium · Brazil Bulgaria · Canada · Chile · China · Croatia · Cuba · Czech Republic · Denmark · Egypt · Finland · France · Greece · Great Britain · Guinea · Hungary · Iceland · India · Indonesia · Iran Israel · Italy · Korea · Libya · Lithuania · Luxembourg · Mexico Moldavia · Netherlands · Nigeria · Norway · Pakistan · Poland Portugal · Romania · Russia · Saudi Arabia · Singapore · Spain Sweden · Switzerland · Syria · Taiwan · Turkey · Ukraine · United Arab Emirates · USA · Uzbekistan · Vietnam · Yemen

The past decade has seen more and more renowned European companies choose VEM products to complete their plants and equipment for end users all over the world. The list of such customers includes the following names, among many others:

ArcelorMittal · ABB · AEG · ALSTOM · Andritz · Bayer · BASF Burckhardt Compression · Converteam · DEMAG · F. L. Smidth GEA · General Electric · GE Windenergy · HeidelbergCement REpower · Klöckner · Lanxess · LINDE · Mannesmann · SMS Salzgitter Anlagenbau · SAM Electronics · Siemens · SULZER ThyssenKrupp · TMEIC · Uhde · VATTENFALL · VEBA · VEAG VOEST ALPINE · ZPMC.

The Athens underground:
Equipped with VEM traction motors

In Western Europe, in particular, local general agencies have been the first port of call for customers interested in VEM products for many decades. Such agencies distribute products bearing our three-letter logo both on their domestic markets and in third countries. These trading relationships still exist today, even though the partner companies have changed over the course of time in some countries.

Around 6,000,000 VEM standard motors were sold alone to the West German general agency Wittenbecher in Essen between 1965 and 1990.

The following figures give an impression of the cooperation for the period up to 2010:

Finland	since 1960	around 850,000 VEM machines
Denmark	since 1963	around 1,350,000 VEM machines
Netherlands	since 1964	around 1,700,000 VEM machines
Belgium	since 1965	around 800,000 VEM machines
Sweden	since 1967	around 1,300,000 VEM machines
France	since 1969	around 2,050,000 VEM machines
Italy	since 1969	around 900,000 VEM machines


VEM

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02


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01 World's largest compressor drive, manufactured by VEM in 1999

02 VEM drive machines for tunnel borers

03 VEM feed pump drive for a power station

04 Overhauling a hydro-power generator from Sachsenwerk

05 VEM motors from Wernigerode in marine use

06 EKO-Stahl has been using VEM machines for decades

07 VEM drives in the engine room of an ocean-going vessel

08 In 1999, Salzgitter-Anlagenbau equipped a piston compressor plant in France with a VEM synchronous motor

09 VEM roller table motors at EKO-Stahl

Right: Final assembly of a railway converter at VEM Sachsenwerk


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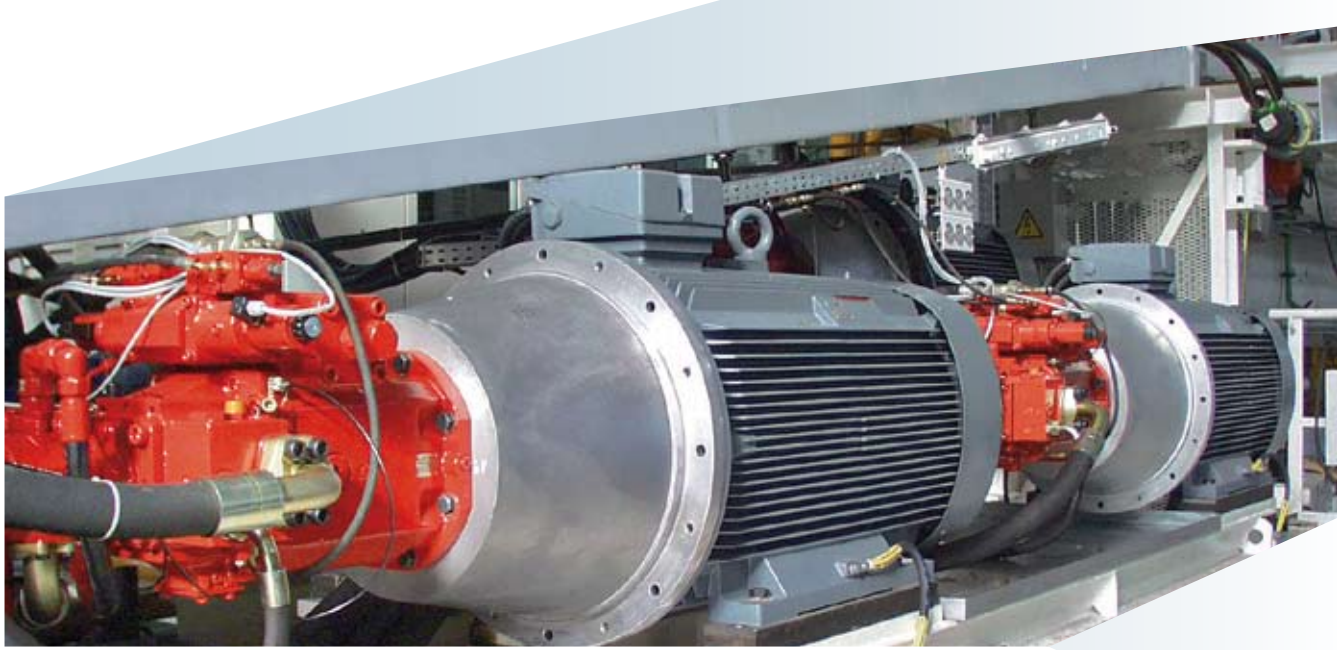
DEMAG
50 t /
VEM



References

STN ATLAS Marine Electronics – Germany
True to the company slogan, special motors and generators made by VEM Sachsenwerk GmbH are now also keeping ships moving on the seven seas. The trusting cooperation over the past three years has shown us that, with VEM Sachsenwerk, we can rely on an innovative and reliable partner, who not only meets the demanding requirements of our very specific industry, but also contributes with an awareness of responsibility to the solution of complex problems.

ESMAC-OY – Finland
The high quality of VEM motors is of great benefit for us in Finland – both for our own industry and for our deliveries to customers abroad. The first proper trade agreement on imports of VEM electric motors was signed on 20.02.1960. That was also the first official trade agreement for VEM machines with a West European partner.

Lausitzer Braunkohle Aktiengesellschaft – Germany
High-voltage three-phase asynchronous motors from Sachsenwerk in Dresden have been in use in large numbers in the opencast lignite mines of the Lusatian region for approx. 30 years. These motors have proved their quality with many years of successful operation under mining industry conditions.

Clock-O-Matic – Belgium
We are very happy with the electric motors from VEM. We are regularly amazed at the existing reputation and popularity of VEM motors, especially when we do business in Eastern Europe. For us, they are a German product which sells well together with our ringing systems from Belgium.

Myllykoski Paper – Finland
Your knowledgeable specialists contributed in a very capable manner to the installation of the supplied VEM machines. We look forward to being able to realise further projects with VEM in the future.

Left page: Wind-power generators ready for dispatch from VEM Sachsenwerk

Top: Danish partners R. Frimodt Pedersen a/s delivered the 500,000th VEM motor in 1984

R. Frimodt Pedersen a/s – Denmark

We have always been able to rely on very constructive and serious cooperation, and we are looking ahead confidently to the 50th anniversary of our partnership in 2013. Over the past decades, we have seen VEM develop from a manufacturer of standard motors to a supplier of top-class drive solutions.

VEM motors Austria (formerly Brandstetter) – Austria

VEM electric motors enjoy a fine reputation and trust in Austria. A far from insignificant contribution to this position stems from the long-standing and intensive cooperation between the VEM agency and major Austrian enterprises such as VÖEST-Alpine, Andritz, Waagner-Biro, Heid, etc., all of whom have been using proven VEM electric machines for many years and export them all over the world in their own products. VEM electric motors maintain a supreme hold in Austria alongside such strong competitors as ELIN and others.

SERMES – France

We have established a strong image on the market for VEM. Its machines lend us perfect opportunities to rapidly increase our own sales. They display very good quality and are a reliable factor for our business. It was not least for this reason that our company earned the certificate “Prestige de la France”, which is awarded to those companies which best serve the interests of France.

Italy

It is to an exceptional extent thanks to your company that in Carrara, the “world capital of marble”, 75 per cent of the machines used in the world-famous white marble quarries are driven by VEM electric machines. We value the quality of VEM electric motors very highly. They are mature products which have been very well received on our market.

VEM motors Sweden AB – Sweden
In terms of technical level, VEM asynchronous motors stand on a par with all competitor products on the Swedish market. Our users are very satisfied with the quality.

Kordestan Cement Co. – Iran
We would like to thank you for the high quality and dependability of your VEM machines, which are operating to our fullest satisfaction and have also already convinced further new customers such as Sharoud Cement Co.

UMA Engineering Ltd. – Canada
Our contract covered the delivery, installation, testing and start-up of your VEM machines. All this work was accomplished on high-quality products by highly qualified personnel. We are already looking forward to further cooperation in the future.

Preussen Elektra – Germany
The two VEM generators installed as part of the hydro-generator project Edersee/Erzhausen in 1994 have in the meantime (1996) completed over 6,000 operating hours to our fullest satisfaction.

ABB – Germany
One highlight of our cooperation was no doubt the electrical equipment for the EL ABRA copper mine in the Atacama Desert in Northern Chile. Alongside the very short schedule, it was above all the unusual ambient conditions which called for new approaches. We would like to take the official inauguration in the presence of the Chilean president as occasion to pass on the thanks expressed by the customer. The slipring motors you supplied contributed in no small way to the success of our division's first project on the South American market.

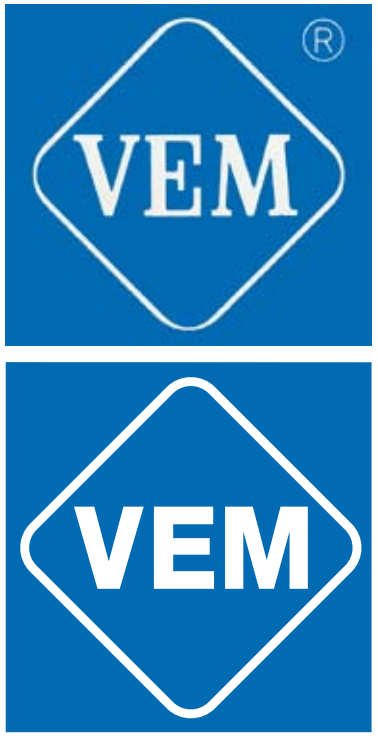
Left: Original traction motor (Sachsenwerk) for the “Grosser Hecht” tram, around 1922
Centre: Historical “Grosser Hecht” tram passing the Semper Opera House in Dresden
Right: Jubilee machine from 1913 (Sachsenwerk)

04 How the VEM trademark came about

The meaning of the three letters

It was in 1948 that 24 electrical engineering enterprises with 7,000 employees in East Germany formed an association to pool their resources. This decision was confirmed by the German Economic Commission, as the responsible body in the Soviet-occupied zone, and the association adopted the name “VEM Vereinigung Volkseigener Betriebe des Elektromaschinenbaus (VVB EM)”. At this time, VEM was still not a trademark, but rather an element in the names of the individual enterprises.

The original meaning of the abbreviation VEM can no longer be determined for sure. “E” and “M” stand for Electrical Machines – that much is certain. The “V” was most likely derived from “Vereinigung”, the German word for “association”, even though it was often taken to stand for “volkseigen”, i.e. nationally-owned, during the GDR years.



Stacking work on a
DC machine in the large
machine hall at Sachsenwerk

One for all

In 1951, most of the economically significant enterprises were granted legal independence. As they were then officially no longer members of the association, they were not entitled to continue using the VEM logo. Against this background, and in view of the already growing reputation of VEM, the idea of obtaining protection as a trademark emerged.

Registration was placed in the hands of Transformatoren- und Röntgenwerk Dresden (TuR), and the corresponding applications were submitted to the Patent Office of the GDR and to the Patent Office at the Senate of Berlin (West) in 1952. The trademark was registered for the product classes “Electrical machines and apparatus, transformers, test equipment, X-ray apparatus, electroplating, switchgear and electric rail vehicles, in particular electric locomotives.”

Already from 1954 onwards, Transformatoren- und Röntgenwerk, as the trademark holder, concluded agreements to grant rights of joint use to more and more of its fellow engineering enterprises. The product range broadened accordingly, and by the end of the 1950s, there were 30 companies using the VEM symbol in their national and international business. At the same time, the complexity and cost of trademark-related activities increased and it was felt that a more manageable solution was needed. The outcome was founding of the trademark association on 13th December 1961. Alongside its general articles, the association passed statutes obliging its members to safeguard the uniform appearance of the VEM logo.

As the number of members and trademark registrations continued to grow, it became necessary to revise the association and trademark statutes in 1970. The new text stated, for example, that the VEM Trademark Association was now “a voluntary association of enterprises under different forms of ownership.” Consequently, a number of craft production cooperatives were also represented in the association in the years which followed.

VEM Antriebstechnik at a fair in 1990

The VEM fair stand at the Hannover Industrial Fair until 2000


ZARGES

Top left: VEM standard motors

Top right: Diesel-electric unit from 1991

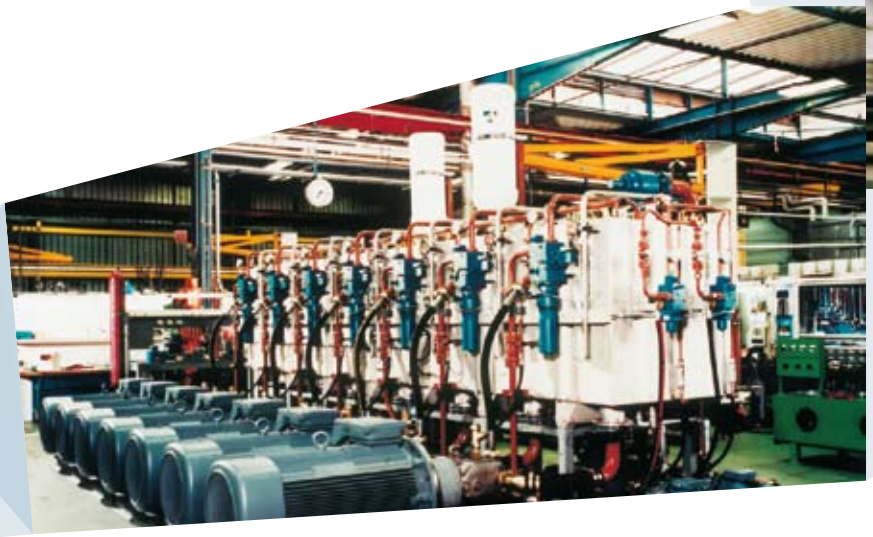
Difficult balancing act

The use of a collective trademark by enterprises which also possessed their own individual logos was a constant source of complications. The divergent export structures of the various members often meant that existing individual trademarks, for example TuR, could not be harmonised with the VEM trademark in every case and in every export country.

During the 1980s, therefore, the association began to concentrate on its most strongly represented branch, namely electrical engineering and the manufacturing of rotating electrical machines, where there were at the same time fewer conflicts with individual trademarks. The enterprises in this field handled the majority of their export business through general agencies, especially in Western Europe. These legally independent, often long-established companies purchased VEM products on the basis of long-term contracts and sold them on to regular customers in their own and third countries.

Left: VEM electric motors as drives for a hydraulic unit

Right: The slogan “VEM electric motors – a little more money for a much better motor” has been used since 1986, for example on this 30-meter pillar at the Dutch motorway interchange Oudenrijen. The junction is passed by more than 170,000 vehicles every day.



A new chapter

Of the 66 VEM member enterprises in 1989/1990, all but 15 representatives of the electrical engineering branch surrendered their trademark rights. In these turbulent times, however, it was the worldwide reputation of the VEM trademark which smoothed the transition to market economy conditions for the East German electrical engineering enterprises. On 5th April 1990, VEM-Antriebstechnik AG was founded in Berlin as the first successor to a GDR combine, following refounding of the 15 separate enterprises of the Dresden electrical engineering combine as limited companies.

On 17th October 1991, the members of the VEM Trademark Association met in Dresden to adopt new statutes on the basis of Section 21 of the German Civil Code (BGB) and Section 17 of the Trademark Law. This brought the statutes into line with the Law on the Extension of Industrial Property Rights and expressly enabled the “seamless extension of registered collective marks in favour of an association registered in accordance with the German Civil Code.”

In this way, the branch returned under new circumstances to its roots, and it was once more exclusively electrical engineering companies which incorporated the trademark into their names. On 12th July 1992, the VEM Trademark Association was re-entered in the Register of Associations at the Dresden District Court under number 1457. The future validity of the trademark was thus secured. Today, it is the only East German industrial trademark which has existed through to the present day without interruption.

A further chapter in the company history was opened in 1997, when the VEM companies were privatised by the Dr. Adolf Merckle family from Blaubeuren. With strategic foresight, the new owners successfully manoeuvred the company into calmer economic waters. From the very beginning, emphasis was placed on strengthening the VEM trademark. The next objective for the group is now to establish VEM on the market as a supplier of complete drive solutions.

Left: Chief engineer Max Corsepius from the O. L. Kummer works was at the same time lecturer at the Royal Saxon Technical College in Dresden.

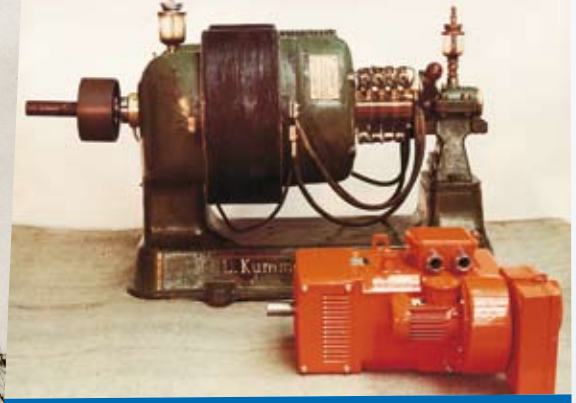
Right: Oskar Ludwig Kummer founded a factory for electrical machines in Dresden in 1886 – the precursor of today's Sachsenwerk.

Hand in hand with science

Industrial and scientific progress are two sides of the same coin. This is well illustrated by the example of Max Corsepius, who was chief engineer at O. L. Kummer, the precursor of VEM Sachsenwerk. From 1891 onwards, he served as a lecturer at the Royal Saxon Technical College in Dresden, and at the same time managed the oldest collection of electrical machines in the world. This collection still exists today, by the way. Max Corsepius was thus the first of a long and unbroken line of electrical engineers who have taught at the Dresden University of Technology and, from 1952, occupied the university's Chair of Electrical Machines.

Close cooperation with universities and colleges is also maintained by the other VEM companies. Teaching duties and practicals for students, endowed professorships and research projects for young engineers and scientists are typical expressions of this relationship. The annual Technical Conferences organised in Wernigerode since 2001 have in the meantime founded a new tradition in this same spirit, cultivating and promoting the international exchange between researchers, manufacturers and users.

It is not often that such close links exist between scientists and the protagonists of a particular supply industry trademark. That adds enormously to the innovation potential of VEM. The subjects of joint research projects are chosen with specific aspects of the VEM product range in mind.



Left: View of “Aktien-Gesellschaft Electrizitäts-werke” in Dresden in 1891
Right: A DC machine designed at Kummer in 1891 (background), together with a VEM DC motor from 1988 (foreground)

The diversity of partnerships includes, among others:

Dresden University of Technology, Prof. Dr.-Ing. habil. Germar Müller and others
Example topics: Causes and measurement of additional losses in VEM low-voltage asynchronous machines; excitation systems for brushless self-excited VEM synchronous generators; calculation model for double-fed VEM asynchronous slipring generators for wind turbines

Freiberg University of Mining and Technology, Prof. Dr.-Ing. habil. Ulrich Beckert
Example topic: Dynamic behaviour of VEM synchronous and asynchronous machines in extreme situations

Zittau/Görlitz University of Applied Sciences, Prof. Dr.-Ing. Wolfgang Golbig
Example topic: Insulation systems for VEM medium-voltage machines

Dresden University of Applied Sciences, Prof. Dr.-Ing. habil. Hartmut Biesenack, Prof. Dr.-Ing. habil. Hans Kuß, Prof. Dr.-Ing. Heinz-Dieter Eberhardt
Example topics: VEM railway converters; liquid-cooled magnetic motors for traction applications; cooling systems in larger VEM machines for wind power generation

University of Hanover, Prof. Dr.-Ing. Hans Otto Seinsch
Example topic: Licence for a program system to recalculate operating behaviour and to simulate dynamic processes in VEM synchronous machines

Südwestfalen University of Applied Sciences, Prof. Dr.-Ing. habil. Wilfried Janssen
Example topic: Licence for programs to calculate temperature rise in electrical machines using special types of cooling

University of Dortmund, Prof. Dr. techn. Kurt Oberretl
Example topic: Consultations on problems of electromagnetically excited vibration stresses

Dresden University of Technology, Institute of Electrical Engineering, Chair of Electrical Machines and Drives, Prof. Dr.-Ing. W. Hofmann, Prof. (i.R.) Dr.-Ing. Heinz-Dieter Eberhardt
Example topics: Combination windings for standard motors and investigations to intensify the cooling of transnorm motors

Darmstadt University of Technology, Institute of Electrical Energy Conversion, Prof. Dr.-Ing. habil. Andreas Binder
Example topics: Contributions to the project to raise the torque density of PM electric motors by way of tooth-wound coils and intensified cooling, and to the research group studying bearing impedance and bearing damage in case of current flows in converter-fed electrical machines

Physikalisch-Technische Bundesanstalt (PTB) Braunschweig
Example topic: Explosion-protected converter-fed drive systems

Harz University of Applied Sciences
Installation of an endowed professorship in electrical machine design, Prof. Dr.-Ing. Günter Bühler

A trademark in the mirror of time

VEM

- has existed as a trademark since 1947
- has been used increasingly as a trademark since 1954
- has been maintained and cultivated as a trademark since founding of the VEM Trademark Association in 1961

1947 First use of the VEM logo by members of the association VVB Elektromaschinenbau, comprising 24 nationally-owned enterprises in the Soviet-occupied zone

1952 Registration of the VEM trademark in the GDR by Transformatoren- und Röntgenwerk Dresden (TuR), date of application: 15.12.1952 › Ref. no.: W9690,

1953 Registration of the VEM trademark in West Germany by TuR › Ref. no.: V1863

1955 Registration of the VEM TuR trademark in the GDR › Ref. no.: V3358

1955 Registration of the VEM trademark in Pakistan › Ref. no.: 23258 1955
Registration of the VEM trademark in India › Ref. no.: 187449

1957 Registration of the VEM trademark in Uruguay by TuR › Ref. no.: 70215

1961 Founding of the VEM Trademark Association in Dresden on 13th December

Registration of the VEM trademark by the VEM Trademark Association in the following countries:

1962 GDR* › Ref. no.: W40241
1963 West Germany › Ref. no.: 819396/9
1963 International registrations via the WIPO in the countries Austria, Benelux, Czechoslovakia, Egypt, France, Hungary, Italy, Morocco, North Korea, Romania, Switzerland, Tunisia and Yugoslavia › Ref. no.: R 268 349
1963 Bulgaria* › Ref. no.: 9132/1267
1963 Poland* › Ref. no.: 63520
1963 Netherlands* › Ref. no.: 154.037
1963 USSR* › Ref. no.: 27717
1963 Cuba* › Ref. no.: 108027
1963 Indonesia › Ref. no.: 82315
1964 Norway* › Ref. no.: 83911
1964 Bolivia* › Ref. no.: 36811
1964 Burma* › Ref. no.: 863/64
1964 Benelux* › Ref. no.: 006372
1964 Cyprus* › Ref. no.: 8992
1964 France › Ref. no.: 82350
1964 Greece* › Ref. no.: 32261
1964 Iceland* › Ref. no.: 103/1964
1964 Italy* › Ref. no.: 5511/65
1964 Sweden* › Ref. no.: 93664
1964 Argentina* › Ref. no.: 01150969
1964 Columbia* › Ref. no.: 58.494
1964 Iraq* › Ref. no.: 12799
1964 Iran › Ref. no.: 34602
1964 Syria* › Ref. no.: 5805
1965 Ecuador › Ref. no.: 1981
1965 Peru* › Ref. no.: 730434
1965 Jordan* › Ref. no.: 15388
1965 Finland › Ref. no.: 48632
1965 Denmark* › Ref. no.: 0211967
1965 Lebanon* › Ref. no.: 15096
1965 Saudi Arabia* › Ref. no.: 21/53
1965 Algeria › Ref. no.: 10.741
1965 Ghana* › Ref. no.: 13,574
1965 Guinea › Ref. no.: 235
1966 Chile* › Ref. no.: 307.588
1966 Mexico › Ref. no.: 130046
1966 USA › Ref. no.: 253,069
1966 Cambodia › Ref. no.: 5605
1966 African and Malagasy Union (OAMPI), for the countries Cameroon, Central African Republic, Chad, Congo, Dahomey, Gabon, Ivory Coast, Madagascar, Mauritania, Niger, Senegal and Upper Volta › Ref. no.: 5594

1966 Mali › Ref. no.: 887
1966 Sudan* › Ref. no.: 9206
1968 Venezuela* › Ref. no.: 54.083
1968 India* › Ref. no.: 249135
1968 Yemen* › Ref. no.: 564
1968 Thailand* › Ref. no.: 548,15
1968 Zanzibar › Ref. no.: 342/68
1968 Tanzania* › Ref. no.: 11681
1969 Pakistan* › Ref. no.: 50901
1971 Japan › Ref. no.: 2274517
1973 GDR › Ref. no.: W49277 with extended product classes
1973 International registrations with extended product classes via the WIPO in the countries Algeria, Austria, Benelux, Czechoslovakia, Egypt, France, Germany, Hungary, Italy, Morocco, North Korea, Romania, Spain, Switzerland and Yugoslavia › Ref. no.: R 405 005
1975 Turkey › Ref. no.: 087592
1976 Great Britain* › Ref. no.: 1062804
1976 Kuwait* › Ref. no.: 7336
1976 Malaysia › Ref. no.: 71299
1976 Singapore › Ref. no.: 67204
1977 Australia* › Ref. no.: A 294.292
1977 Brazil* › Ref. no.: 1272/0404,334
1977 Hong Kong* › Ref. no.: 550
1977 Nigeria* › Ref. no.: 31541
1978 Japan* › Ref. no.: 733687
1978 Libya* › Ref. no.: 6763
1979 Spain* › Ref. no.: 979.346
1979 Portugal* › Ref. no.: 204091
1980 El Salvador › Ref. no.: 4888282
1979 Canada › Ref. no.: 228,389
1979 Mongolia › Ref. no.: 374
1981 Zambia › Ref. no.: 164/81
1931 Ethiopia* › Ref. no.: 3122
1981 Qatar › Ref. no.: 2363
1982 Albania* › Ref. no.: 86793
1982 Kenya* › Ref. no.: 29634
1983 GDR with background › Ref. no.: W54857 with extended product classes
1983 Belgium › Ref. no.: 12599
1984 Afghanistan › Ref. no.: 4037
1986 Ireland › Ref. no.: 116936
1985 China* › Ref. no.: 75192
1987 GDR › Ref. no.: W56321 for service classes
1987 International registrations for service classes via the WIPO in the countries Algeria, Austria, Benelux, Bulgaria, Czechoslovakia, Egypt, France, Germany, Hungary, Italy, Morocco, Mongolia, Portugal, Romania, Russia, Spain, Tunisia and Vietnam › Ref. no.: R 518 809
1989 United Arab Emirates › Ref. no.: 342

1992 Latvia › Ref. no.: 19437
1993 Lithuania › Ref. no.: 13831
1995 Russia › Ref. no.: 50214
1998 European community trademark › Ref. no.: 000792325
1999 Israel* › Ref. no.: 130,276
1999 South Africa* › Ref. no.: 99/15908
2005 South Korea* › Ref. no.: 400511264
2008 Malaysia* › Ref. no.: 8003752
2009 Kuwait* › Ref. no.: 104436

*) Countries in which several independent trademark registrations were filed.

The current spectrum actually covers fewer states. In the majority of cases, old registrations of the trademark have been replaced by a trademark with new appearance and clarified product classes.


EINTRAGUNGSURKUNDE
CERTIFICATE OF REGISTRATION
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VEM

Credits

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