

75 years of SGB Regensburg: Living tradition, shaping the future



SGB has set an important course to continue to serve the transformer market with innovative developments and to help shape the energy transition





SGB produces a growing number of oil transformers filled with synthetic ester or synthetic oil for cooling with a higher flash point which has a better environmental compatibility

When a company has been on the market for many years, it is often labelled a “traditional company”. In the case of SGB Regensburg, however, this classification seems insufficient: the member of the global SGB-SMIT Group is not at all bound by tradition; its entrepreneurial view is clearly not backward-looking, but forward-looking.

With medium-power and cast-resin transformers, SGB produces industrial products whose basic function has remained unchanged for a long time. Nevertheless, the company manages to constantly set new impulses for power generation and distribution through new technical designs, continuous improvements and application-optimised solutions.

In the last 15 years in particular, SGB has set an important course to continue to serve the transformer market with innovative developments and to help shape the energy transition, driven by the dynamics of a global group of companies and the motivation of its highly qualified employees.

Thus, 75 years after its foundation, SGB Regensburg presents itself as a company that builds on its tradition but does not remain stuck in its history.

Global format and local significance

In 2008, the SGB-SMIT Group was founded in Regensburg, which today includes locations in South Africa, the USA, the Netherlands, Romania, the Czech

Republic, China, France and India. The special feature of this globally positioned group of companies is that the locations cooperate with each other - but each of them retains its independence.

A principle that also applies to SGB Regensburg: Within the international group, the company is regarded as an experienced specialist in medium-power and cast-resin transformers. At the local level, SGB has been an innovative and highly attractive employer for decades, proving with numerous innovations and patents that medium-power and cast-resin transformers still offer opportunities to be further optimised.

For example, the jet system for more targeted flow control, a new winding tech-

nology (drop winding) for the production of cast resin transformers and the safe system for use in environmentally sensitive areas all originate from Regensburg. These and other SGB inventions have contributed to SGB Regensburg's stable market position in the renewable energy sector in recent years. The wind power sector, in particular, has been able to make great strides in terms of performance and efficiency, not least thanks to innovations from SGB.

This development was accompanied by the ongoing modernisation of manufacturing and testing facilities as well as an increase in production capacities. SGB was also the first transformer manufacturer to build its own climate chamber at the Regensburg site. This enables extensive tests to be carried out in the company itself without having to send the transformers to neutral testing institutes.

Digitalisation has also left its mark on SGB Regensburg: for the purpose of sustainably competitive transformer production, it has been based for many years on 3D design software, which is used in the planning and development departments. On the one hand, this enables the actual computer-aided design. On the other hand, virtual simulations of stress situations for the new transformer can be

Founded in 1947 in a small workshop, SGB in Regensburg became the nucleus of today's SGB-SMIT Group just over 60 years later

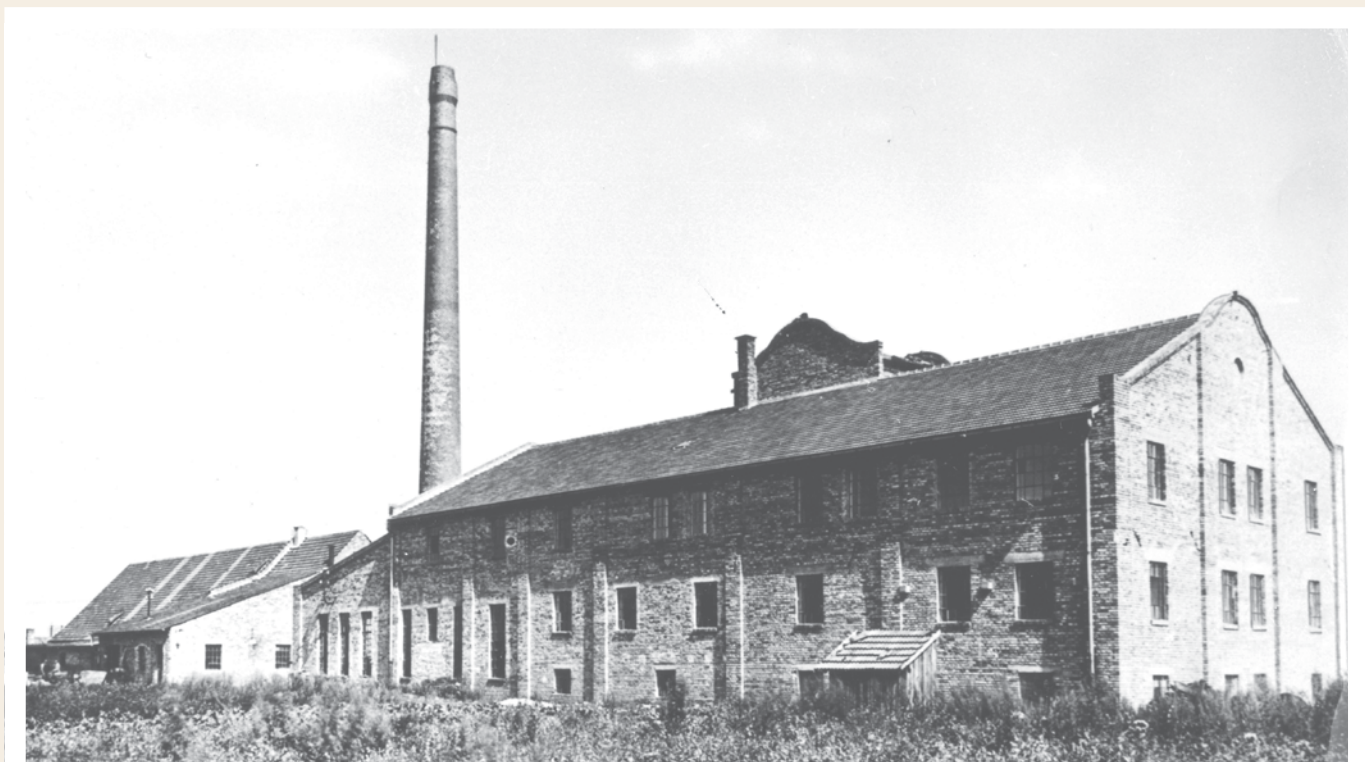
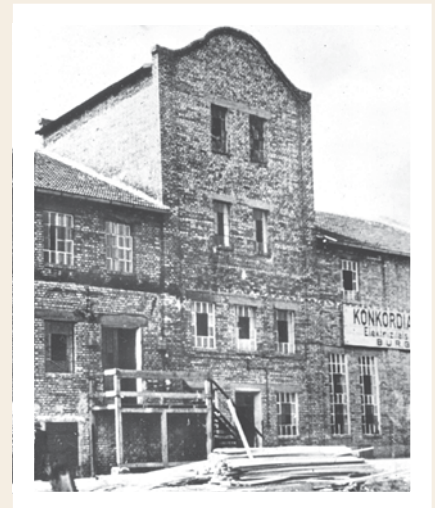
displayed - without actual material stress. This opens up completely new possibilities in the transformer design departments in terms of speed, implementation of customer requirements and functional simulations.

The impressive and measurable result of the site's development in recent years is the speed with which new production records have been set in Regensburg. For example, the 350 MVA mark for medium-power transformers was broken, the production of reactors went up to an output of 100 MVA and Regensburg production reached a total of over 300 medium-power transformers per year.

Group dynamics and individual performance

Founded in 1947 in a small workshop, SGB in Regensburg became the nucleus of today's SGB-SMIT Group just over 60 years later. Today, another 15 years later, the SGB-SMIT Group has already es-

tablished itself as one of the major players in the power generation and distribution market. The global expansion of the SGB-SMIT Group, especially in South-East Asia, the USA and India, was largely initiated by SGB Regensburg. Here, it was especially our customers in the wind power industry with their steadily increasing demand that ensured expansion.



At SGB Regensburg, a tradition marked by success is no reason to rest on the status quo - instead, it forms the momentum that ensures the company's dynamic further development.

Some examples of the commitment of SGB Regensburg in the interest of the entire group:

- SGB accompanied a turbine production at the Colorado site with the production of its own cast resin transformers.
- In India, after initially being founded as a joint venture, an independent site was established.
- From Changzhou in China, SGB participated with group support in the extensive expansion programme of offshore power generation with a total target of 30 GW. This was initially done with the support of external partners; soon an SGB-SMIT site was also established there.
- The group member Retrasib in Sibiu, Romania, was expanded in such a way that it expediently extends SGB Regensburg's portfolio. In addition, Retrasib, as an internal supplier, offers all group members the production expansion of components as well as the provision of services and capacities from the "Engineering Hub".

Ecology and competitive advantages

Another topic that has significantly shaped the recent history of SGB Regensburg is sustainability. Whether it is the reduction of the CO₂ footprint in the entire SGB-SMIT Group, resource-optimised production or energy-saving operation of the oil and cast resin transformers: Especially as an established partner in the generation and distribution of regenerative energy, SGB Regensburg bears a corresponding responsibility.

SGB fulfils the resulting obligation to sustainability extensively because industrial production must not close its eyes to its effects but must proactively ensure that its impact on the environment, climate and people remains as low as possible. With

this in mind, SGB Regensburg has taken these measures, among others, in recent years:

- SGB produces a growing number of oil transformers filled with synthetic ester or synthetic oil for cooling. Among other things, this achieves a higher flash point and better environmental compatibility. Such oil transformers can, therefore, also be erected and operated at locations with increased environmental regulations. Their capacity reaches up to 245 kV.
- The Regensburg site maintains its own combined heat and power plant (CHP) in cooperation with the regional energy supplier. It generates an output of about 1.2 megawatts of electricity and 1.2 megawatts of heat in the most efficient way possible and is dimensioned so that it will also supply neighbouring houses in the district in the future.
- For the production of transformers, SGB has been using since 2022 an electrical steel strip at the production of which about half of the CO₂ (compared to conventional methods) is saved.
- Like the entire SGB-SMIT Group, SGB Regensburg participates in the UN project "Vision 2045" - as one of "50 Sustainability & Climate Leaders".
- The environmental management of most of the SGB-SMIT Group's sites is certified according to international standards ISO 14001. The German sites, i.e., SGB Regensburg, are also certified according to ISO 50001.

In addition to environmental protection and resource planning, a company's sustainable actions also include extensive internal training. Since the beginning, SGB Regensburg has been training the "next generation" in a practical and qualified way in its own academy - on average, about 50 young people per year.

Sustainable action, environmental awareness and resource conservation are indispensable foundations for responsible

entrepreneurial activity. At SGB Regensburg, all this is developed into a tangible competitive advantage.

Tradition and a shaped future

It was already mentioned at the beginning: at SGB Regensburg, a tradition marked by success is no reason to rest on the status quo - instead, it forms the momentum that ensures the company's dynamic further development. While the location is still active today as one of the shapers of the energy turnaround, new markets are already being explored in Regensburg, and the potential customer base is being expanded.

In the years since the turn of the millennium, the SGB-SMIT Group has been able to assert itself as an experienced and innovative supplier for the wind power industry. Cast resin transformers were the preferred choice here. The innovations and patents of SGB Regensburg, in particular, made previously impossible combinations of compactness, performance, efficiency and environmental protection possible here. With the increasing development of energy generation from wind, however, cast resin transformers are reaching the limits of what is physically possible.

This situation has been countered in Regensburg since around 2018 with parallel measures: On the one hand, the production of high-performance oil transformers, which can also be used in environmentally sensitive areas, is being promoted in Regensburg. On the other hand, SGB Regensburg is opening up new markets for cast resin transformers, which are developed and built specifically for demanding applications: The iBIT® transformer, for example, is another specialised cast resin transformer from SGB's think tank. This is designed entirely for the needs of data centres. In addition, the limits of what is feasible are being further explored: in 2022, the most powerful cast resin transformer to date leaves the SGB plant in Regensburg.

The upheavals in international markets and in global economic relations since 2020 have shown: that as valuable as global cooperation is, it can also be fragile. The SGB-SMIT Group supports the idea of meaningful globalisation - but it is not seen as the only viable solution for the



future: It is at least as important to draw growth and energy from the domestic markets of the locations. SGB-SMIT's philosophy of preserving the respective strengths and special features of the individual locations despite the group idea has proven to be a real strength and a sensible long-term strategy, not only in the current situation.

Exploiting the global market potential for transformers and, in parallel, dedicating ourselves to new, also regional, markets as well as product optimisation: This two-pronged strategy will secure SGB Regensburg's market significance - far beyond its 75th anniversary.

About SGB Regensburg

SGB Regensburg was founded in 1947 as a transformer manufacturer in Regensburg, Bavaria. In 2008, this became the SGB-SMIT Group, which still has its headquarters in Regensburg. Other locations are in Saxony, Malaysia, the Netherlands, the USA, Romania, the Czech Republic, India, China, South Africa and France. The oldest location looks back on a history of

Members of the SGB-SMIT Group develop and produce distribution and power transformers from 30 kVA up to 1,200 MVA with voltages up to 765 kV

more than 100 years. Today, Regensburg is the headquarters of the SGB-SMIT Group - and SGB Regensburg is the group member that is helping to shape growth and further internationalisation.

Today, the SGB-SMIT Group is the leading medium-sized transformer manufacturer in Europe - a specialist with the highest level of customer dedication and an exclusive focus on transformers. The group stands for professionalism, experience, technological know-how and economic thinking, and with its products makes an important contribution to the sustainable future of energy generation and distribution. The members of the SGB-SMIT Group develop and produce distribution and power transformers from 30 kVA up to 1,200 MVA with voltages up to 765 kV. With 13 locations worldwide

and employing around 3,200 people, the SGB-SMIT Group is always within reach of its customers.

Growing with the requirements, developing further and always designing the optimum transformer for the customer has been the focus of SGB Regensburg's corporate philosophy for 75 years now. As part of the SGB-SMIT Group, SGB Regensburg currently employs 800 people who manufacture around 1400 cast-resin and 300 medium power transformers per year.

