

75

GOOD REASONS AND MORE TO CELEBRATE.
BAUMGARTE: 1935 TO 2010.



Company founder
August Baumgarte

1932

The global economic crisis catches up with K. & Th. Möller, a company which had made its name first in casting and later in steam boilers, water turbines, pumps and steam engines. Now it must close its factory gates, but that is the opportunity

former employee August Baumgarte has been waiting for. He braves independence and takes over the casting production facilities, followed three years later by K. & Th. Möller's boiler production operations.

1935

Everything is made official on **16 February 1935**, the day Eisenwerk Baumgarte GmbH, Brackwede is inscribed in the register of companies. In the following years Baumgarte sees a growth of the design, production and assembly of

ENTREPRENEURIAL COURAGE TURNS AN IDEA INTO A SUCCESS STORY.

Dear business partners, employees and friends, what might August Baumgarte have said if he could see Baumgarte today? To us, the company instils pride. We are proud that the founder's entrepreneurial courage paid off, and that we are all able to play a part in looking back on Baumgarte's 75-year history. Not many companies in our industry can do that. Is there a secret behind such success? It is hard to say, but at the same time it surely cannot be a coincidence. With its committed workforce and pioneering ideas, Baumgarte has always managed to convince its customers of its expertise. For example, Baumgarte is considered the pioneer of tail-end boilers in the waste disposal industry. Over recent years we have steadily built up our expertise in sys-

tems and consulting. To our customers we represent a partner who understands the broader picture and offers complete solutions, with a focus on energy efficiency and economy. In order to ensure that this remains the case in the future, we are constantly investing in the training of our workforce. Naturally, we use the very latest techniques, such as 3D design. The patents we hold are testimony to the inventiveness of our employees.

The result of these investments is shown by the confidence of our customers in placing orders to Baumgarte. For that we would like to express our gratitude. We hope we can continue to earn your trust in the future, and we will do everything to meet that – as we have done for the past 75 years.

The management of Baumgarte Boiler Systems 2010:

Frank Reinmöller, Jörg Eckardt and Jörg Klasen

Frank Reinmöller

Jörg Eckardt

Jörg Klasen



1942

apparatus and steam boilers such as fire tube boilers, Emma coke boilers, large water space boilers, water tube boilers and mechanical stokers for coal firing.

Like many other companies, Eisenwerk Baumgarte is called upon to produce armaments.



CHALLENGES HAVE ALWAYS EXCITED US – AND MADE US GROW.

1950

After the end of the War, Baumgarte is quickly able to restart its boiler production. It becomes one of the first companies in the industry to introduce electric welding for all of its boilers' pressurised parts. Baumgarte builds up its reputation

as a quality leader with modern testing equipment and methods such as X-ray, strength testing and chemical laboratory analysis. In 1950 the company becomes Germany's second licensee for the construction of *Eckrohrkesseln*, or corner

tube boilers. It also supplies the chemical industry with equipment such as condensers, heat exchangers, towers, separation columns, stirring mechanisms. Baumgarte's customers cover the oil, food and paper industries.

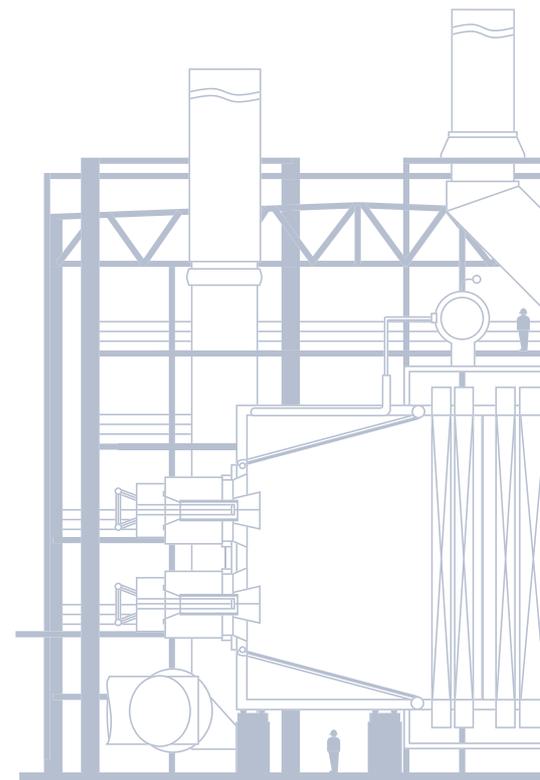


How boilermaker Baumgarte became a full system supplier.

When Baumgarte began, the technical demands on boiler systems were significantly less than they are today. The main focus was on disposing municipal waste, and, after the war, supplying heat energy as well. The boilers were fired using primary fuels such as coke and coal. However, as new manufacturing techniques emerged over the years, demand – and customers' requirements – grew with them. For example, electric welding took over from rivets, and the systems were able to stand up to higher and higher steam parameters. Baumgarte also had to look for new ways of extending the lifespan of heating surfaces. The reason for this was that, when you burn waste, the harmful substances in it pass into the exhaust gases, which leads to a risk of corrosion. People wanted lower emissions, too, which also called for new answers in terms of the environment.

So it was that Baumgarte, as the years went by, necessarily acquired more and more process expertise that went beyond just the boiler itself. In the early days it supplied boilers and machinery, then just boilers. But today, Baumgarte's customers can expect complete system solutions from a single source, comprising not just a boiler, but a combustion system, an flue gas cleaning system, water/steam cycles and turbines.

The latest example of how the company has moved from simple boilermaker to system supplier is the RdF combined heat and power station in Bernburg. The plant is designed to burn around 450,000 tonnes of waste a year and produce a total heat output of 210 megawatts. It is scheduled to begin operation in 2010. So there is even more to celebrate this year than just Baumgarte's company anniversary.



1951

The company now employs more than 400 people. Baumgarte demonstrates corporate responsibility for its workforce by implementing a systematic personnel and social policy. This begins with the schooling of apprentices and the ongoing

training of employees, even company assisted housing and the founding of a provident society that pays pensions to invalids, widows and orphans, as well as benefits during illness.



IN THE EARLY DAYS, WORKERS HAD TO BE TOUGH – TODAY THEY STILL DO.

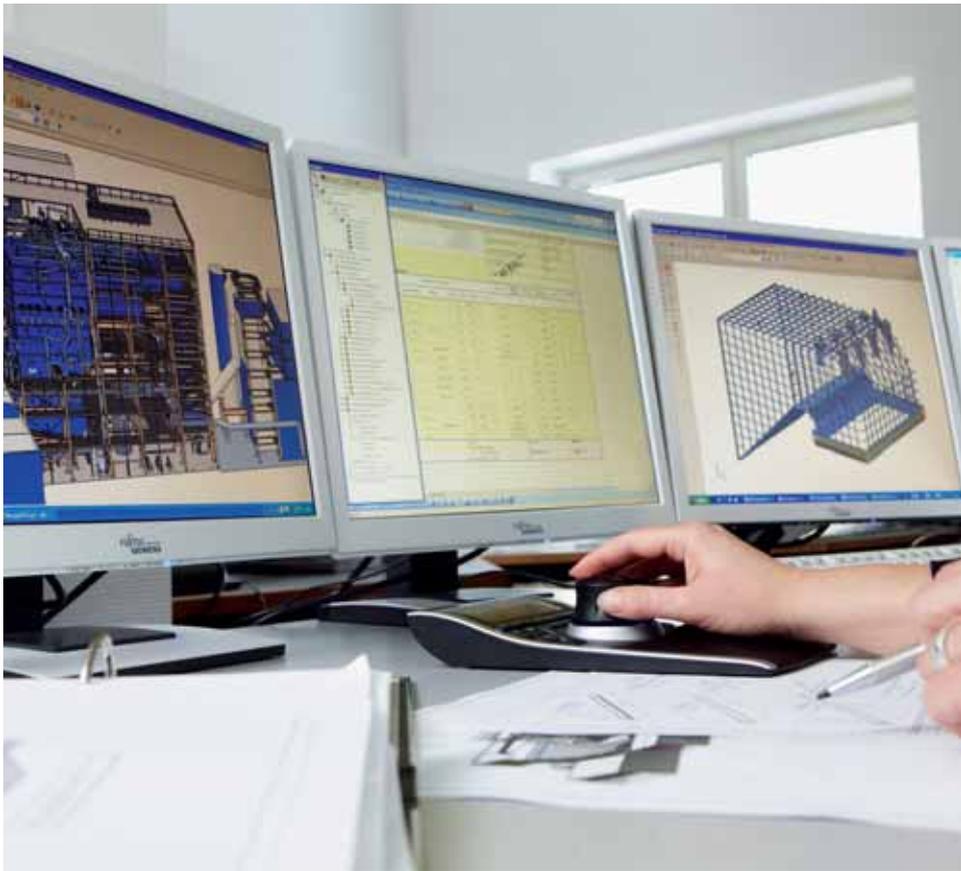
1952

Baumgarte purchases from Steinmüller the exclusive licence to build water-cooled shaking grates for the combustion of coal. These are used in plants with an output of more than three megawatts that supply heat to public buildings, for which coal

is legally mandatory. Fortunately for Baumgarte, Steinmüller has never used the patent itself.

1953

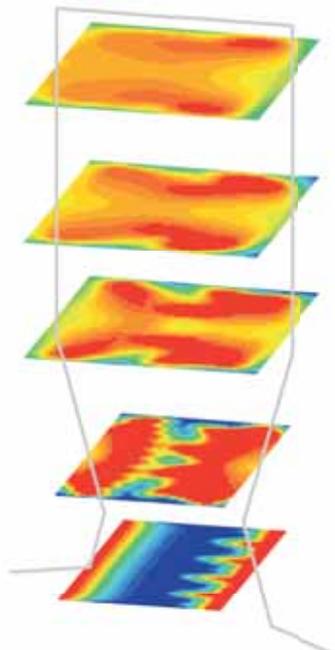
Baumgarte begins to build drumless hot water boilers in the corner tube design for all fossil fuels. This is the first time that corner tube boilers are designed standing, without scaffolding. They are used for municipal heat supplies. Baumgarte



But now most of them sit behind desks. We are one of the few suppliers of boiler equipment who can look back on a 75-year history, and that is the result not only of successful company management through the ups and downs of a highly volatile market, it is something that has been earned by all of Baumgarte's workforce. Their brief has changed drastically over the years. In the early days, building boilers required engineering skills as well as manual expertise and, frankly, a lot of muscle. It involved welding, drilling and turning. Designs were still drawn on a drawing board. With the closure of its manufacturing operations in 1997, Baumgarte's workforce was confronted with a very different challenge. Their tools are no longer hammers, welders and slide rules, but computers. These they use to create computer-assisted

designs, which are produced by selected partners under the supervision of our specialists. After all, with or without its own production facilities, Baumgarte remains a boiler manufacturer. In this respect the company benefits enormously from the decades of production experience. We are very familiar with the manufacturing processes, which we manage directly from Bielefeld, from the acquisition of materials all the way to shipment. Our experts are also responsible for assembly on site and for commissioning.

The work we do may have changed a lot over the past 75 years, but one thing has remained the same: a belief that sound work can win over good customers.



Baumgarte uses CFD studies as part of the process of designing its systems.

1962

also becomes involved in the development of gas-tight water tube boilers without brickwork, initially using "skincasing", later using a finned tube design.

Baumgarte builds its first refuse boiler for the waste incineration plant in Frankfurt am Main. The client and general contractor is Von Roll, a Swiss company. Over the subsequent years, Baumgarte becomes the leading manufacturer and supplier

of waste incineration boilers in Germany and Switzerland.

»WHAT WERE THINGS LIKE BACK THEN, MR BAUMGARTE?«



Ernst-August Baumgarte (65), grandson of the company's founder August Baumgarte, entered the company in 1975. After 29 successful years as the company's manager and shareholder, the qualified engineer left the way open for the next generation in 2004. But he was far from retiring. Ernst-August Baumgarte is still very much in business with his company Baumgarte Eisengießerei GmbH.

New generation meets old: Frank Reinmöller and Jörg Eckardt, both managing directors of Baumgarte Boiler Systems GmbH, spoke to the former owner and managing director, Ernst-August Baumgarte.

Mr Baumgarte, firstly we would like to thank you for taking the time to talk to us.

You are most welcome. To me it is only natural to follow the company's ongoing fortunes. Despite having nothing more to do with Baumgarte on paper, I am certainly glad that a company which, after all, came from humble beginnings, is now one of the few businesses to have survived the dramatic changes that have transformed the boiler-building market over the past 20 years.

Your grandfather founded the company 75 years ago. Which people were in your view particularly influential on the history of the firm?

It's really not that easy to say. I didn't join the company until 1975. My grandfather founded Baumgarte in 1935 simply because he wanted to run his own business, and he managed and ran it right up to monetary union and the founding of the Federal Republic of

End of the 1960s

Baumgarte continues to build on its expertise in the construction of boilers for waste incineration plants, and earns itself a reputation as a pioneer in the construction of tail-end boilers. Its innovations include a mechanical and pneumatic cleaning system for tail-end boilers that

utilises knocking. Baumgarte also tries out different corrosion-proof materials for waste incineration plants, and ways of protecting surfaces by means of "cladding" (deposition welding) and similar methods.

1973

A completely new factory featuring the latest production facilities is built on the company's own land for the Boilers and Apparatus division, and opened on Duisburger Strasse in Bielefeld-Brackwede in February 1973 (area: 13,000 m²).



»I entered the company in 1975 after two years of apprenticeship and travel. My father didn't think he needed an expensive apprentice at home.«

Germany – that means through World War II as well, during which Baumgarte was partially employed in the manufacture of arms. They built pressure components for submarines in the workshops. After the war they didn't dismantle a single screw, which was a very far-sighted decision since you need companies in order to rebuild a region's industry.

The second generation took the helm at the beginning of the 1950s with my father. He was still an old-school entrepreneur and it was he who fashioned the company during the economic boom known as the *Wirtschaftswunder* that followed the war. It is only fair to say that Baumgarte always had qualified, loyal workers and managers who, with their down-to-earth, East Westphalian mentality, helped to build everything back up. Success in business is never something you achieve alone.

What was your personal motive for joining the family company back then?

I entered the company in 1975 after two years of apprenticeship and travel. My father didn't think he needed an expensive apprentice at home. At that time, the industrial plant business had

changed so much that financing was becoming more and more difficult for a medium-sized company like ours. At some point I had to concede that this private boiler-building business could no longer go on independently. There was a brief break in affairs in 1979, and Lentjes became the majority owner of the boiler-building operation. As a minority shareholder in the period after that, my intention was to integrate the company into the Lentjes Group, while preserving the company's own identity along with some scope for autonomy for Baumgarte and the Bielefeld site. Looking back I think I managed to achieve that.

What in your view were the greatest technical successes of the past?

If you read the headlines at the beginning of the 1950s, then the *Eckrohrkessel*, or corner tube boiler, stands out as one of Baumgarte's successes. Back then they were looking for an alternative boiler concept for industrial use which would be somewhat different from the conventional radiant-type and bi-drum boilers – partially in order to corner their own segment of the market. The result was the *Eckrohrkessel*, which they continued to develop over the subsequent years. It was the first boiler to be

1976

Baumgarte constructs and manufactures its first waste heat recovery systems for the steel industry (converter cooling chimneys compliant with the ASME Code for the USA and Canada). The target market for almost all of the company's other products in the 1970s is West Germany.

1979

This year sees a break in the company's history. As a medium-sized private enterprise, Baumgarte is no longer in a position to finance orders for boilers and plants, which are growing ever larger in scale. It finds a suitable partner in Ferdinand Lentjes GmbH, Düsseldorf, which purchases a

majority stake in the boiler-building operation. The new firm is entered into the company register as "Eisenwerk Baumgarte, Kessel- und Apparatebau GmbH, Bielefeld". The foundry operations remain in the ownership of the Baumgarte family.



unscaffolded, and also to be welded gas-tight. It was especially suitable not only for use as a steam boiler but also as a drumless hot water boiler.

Another major factor in the development of the company was when we purchased a licence from Steinmüller to build a water-cooled shaking grate for use with coal. Water-cooled shaking grates were not nearly as susceptible to wear as conventional travelling grates. So it was a very successful product with which Baumgarte achieved a fairly unique position in the market. In the 1950s and 1960s there was a law which went back to the Allies and which stipulated that every plant with a heat output of more than three megawatts had to be fired using a fuel which could be stored – and that meant coal. Because of this, Baumgarte vibrating grates were installed in administrative buildings, hospitals, and in the countless new German army facilities.

Today, Baumgarte boilers are installed in almost half of Germany's waste incinerating plants. How would you explain that?

The construction of the waste incineration plant in Frankfurt-Nordweststadt in 1962 was, I think the nucleus and starting point for our success on the waste disposal market. The tail-end boiler was actually developed by the *Eckrohrkessel* business, but only as an idea. It was mainly Baumgarte who pushed forward its adaptation for use in waste boilers, and they did so because they saw the technical necessity of using mechanical cleaning systems to solve the problem of corrosion which occurred when steam-

cleaners were used to clean soot off convection heating surfaces. The basic principle of mechanical cleaning by knocking already existed in the steel industry's waste heat recovery systems, such as those used in pyrite burning, but it was Baumgarte who transferred that into boilers designed for waste. Our list of references over the following 40 years, from the early 1960s right up to the start of the new millennium, shows that Baumgarte was the absolute marketleader in Germany for waste disposal boilers, a position it still holds. This is backed up, incidentally, by a benchmark produced by the Association of Steam Boiler, Container and Pipeline Builders.

We were constantly trying out different corrosion-resistant materials in waste boilers, and we also built a wide range of waste heat recovery systems for the steel industry, which included cooling chimneys, dry coke cooling and sometimes upper furnace cooling systems. This gave us a knowledge base and a catalogue of references that were, and probably still are, the foundation for the company's outstandingly successful position in the waste disposal market.

The rise in environmental awareness over recent years must have helped as well?

Definitely. Firstly, environmental protection is a fundamental necessity if we are going to shape the future. On a corporate level, Baumgarte was always like that and contributed actively towards conservation by building waste and disposal boilers. But we also benefited from people's growing ecological awareness and from the rise of waste disposal.

»Baumgarte always had qualified, loyal workers and managers who, with their down-to-earth, East Westphalian mentality, helped to build everything back up.«

1979

Under its new corporate structure, Baumgarte continues to sell boilers for waste incineration plants, steam and hot water boilers (which are mainly corner tube boilers), and large water space boilers for industrial applications. Baumgarte also acts as an additional production facility for Lentjes products.

1980

Baumgarte buys the Wuppertal-based company Siller & Jamart, Technische Dienste GmbH in order to expand its expertise in the field of large water space boilers.

The 1980s see many orders for waste heat recovery systems, which have been specially developed for the steel industry, including waste heat recovery boilers utilising dry coke cooling, upper furnace cooling systems for electric steel furnaces, and converter cooling chimneys.

»As a businessman I have always taken the sustainability of my decisions into consideration whenever possible.«



In an age of globalisation and given the current financial crisis, there is much discussion about corporate social responsibility. What are your views on that?

Part of social responsibility is securing jobs. As a businessman I have always taken the sustainability of my decisions into consideration whenever possible. During the years of the Metallgesellschaft and mg engineering, I found it increasingly difficult to accept their demands for short-term, exclusive profit maximisation without pursuing long-term corporate objectives as well, simply because I was accustomed to another way of doing things. That I took from the tradition of the Baumgarte company, and I practised it until the day I left. In the end that was also the reason why I no longer enjoyed working there and no longer had the conviction to stay on.

When did the Baumgarte family withdraw from the company's boiler- and machinery-building operations?

I had a minority stake in Eisenwerk Baumgarte GmbH – something, incidentally, which mg always tried to disrupt. They simply did not want an executive employee to hold shares in the company. They always wanted to take it over completely. For the reasons I mentioned, I finally gave up my stake in 2000.

Given the distance you now have from the company, how do you think Baumgarte has managed to cope with the ups and downs of the past 75 years?

Well, if you want to succeed you simply have to do more than others. The key is really the motivation of the active, responsible people and the workforce as a whole. As a company you should be fair, predictable and capable of compromising. If you add to that luck, that favours the brave, then you get a business that can survive even the hard times. Those are all things which Baumgarte simply had.

What would you wish for Baumgarte's future?

Firstly, I hope that the company can maintain what it has achieved. We can be rightly proud, and grateful as well, that Baumgarte has been one of the few boilermaking companies to survive the big changes, particularly those of the past 20 years, and assert its place in the market. That isn't something to take for granted. For the future I hope that the company continues under the Baumgarte name, that it secures its jobs, and that it develops sustainably as a company.

Mr Baumgarte, thank you very much for talking to us.



A familiar face for many generations:

the old Baumgarte logo, which was derived from the construction principle of the large water space boiler.

1990

When Metallgesellschaft in Frankfurt am Main takes over 100% of Lentjes AG, Baumgarte's main activities shift increasingly towards making boilers for waste incineration plants, and also issues a licence to a Japanese plant manufacturer to build these types of boiler.

1997

When the Duisburger Strasse boiler production facility in Bielefeld closes down, Baumgarte begins to concentrate on engineering services. But the production expertise acquired over the past 40 years does not go to waste; to this day it is still channelled into its production monitoring work.

2004

Metallgesellschaft sells its entire industrial plant building operations. The Dutch financial investor HTP Investments B.V. takes over the Standardkessel Group, to which Standardkessel and Baumgarte both belong. The Service division is divested.



CUSTOMERS HAVE BEEN RELYING ON OUR EXPERTISE FOR YEARS, AND WE WANT THINGS TO STAY THAT WAY.

2004

The company headquarters are moved to Senner Strasse in Bielefeld-Brackwede. Even more importantly, the systems expertise which the company has gathered over the years finds expression in its new name, "Baumgarte Boiler Systems GmbH". Firing and flue gas cleaning

systems are brought into the Baumgarte product range by including subcontractors as suppliers.

2005

Baumgarte purchases a licence for the construction of "Koch" grate firing systems. From now on Baumgarte can take on orders with a wider scope of supply. The company's service subsidiary is sold off.



How we intend to use our strengths to shape the future.

Looking back over the past 75 years we can see that Baumgarte has kept a steady course in spite of the occasional storm. And we hope to keep going that way. The preconditions are there: technical expertise, motivated employees and satisfied customers with whom we intend to work even more closely.

In the past our activities have been centred mainly around Germany, whereas in the future we hope to open up new markets abroad as well. We have good cause to do so: with energy costs rising worldwide and resources becoming more scarce, the demand for efficient, proven solutions for converting waste substances into

energy is bound to rise. In the long term we see very promising sales opportunities beyond the borders of Germany.

Another thing which is just as important for the future of Baumgarte is, that we continue to develop our own products and services. This includes innovative detailed solutions, the building up and expansion of our service, and the strengthening of our consultancy operations. In Standardkessel we have found the perfect partner and companion with whom to achieve our objectives, and we will be working more closely with them as time goes on – even perhaps for another 75 years!



For many years, Baumgarte Boiler Systems has held a leading position in the field of thermal waste conversion.

2007

Back to its origins: Baumgarte once again becomes an independent, owner-run *Mittelständler*, or medium-sized business. With the support of a private Belgian partner, the management of Baumgarte Boiler Systems and Standardkessel purchase majority shares in the Group.

Baumgarte receives its first order for the supply of a turnkey plant for the conversion of refuse derived fuels (RdF) into energy.

2010

Baumgarte can look back on a varied, but in the end very successful, 75-year company history. Employing around 90 people, Baumgarte has established itself as one of Europe's most important suppliers of waste utilisation plants.



BEKANNTMACHUNG

Es ist uns gelungen, in den letzten Wochen trotz schärfster Konkurrenz zwei Wasserrohrkessel von bekannten Brauereien in Auftrag zu bekommen. Mit Rücksicht auf die augenblickliche Lage ist es sicherlich allen verständlich, wie wertvoll gerade diese Aufträge für uns sind.

Wir haben uns verpflichten müssen, genau wie die anderen Konkurrenten, für eine gewisse Summe Bier abzunehmen. Wir hoffen, dass alle Belegschaftsmitglieder dafür Verständnis haben und bitten, für die nächste Zeit den Bierbedarf hier zu decken.

Ab sofort, erstmalig am 16.12.66, findet jeweils am Dienstag und Freitag nach Feierabend die Bierausgabe statt, und zwar in der Garage an der Werkküche.

Die Bezahlung erfolgt beim Betriebsrat gegen Ausgabe von Gutscheinen. Die Gutscheine sind bei der Aushändigung des Bieres abzugeben.

Es können bezogen werden:-

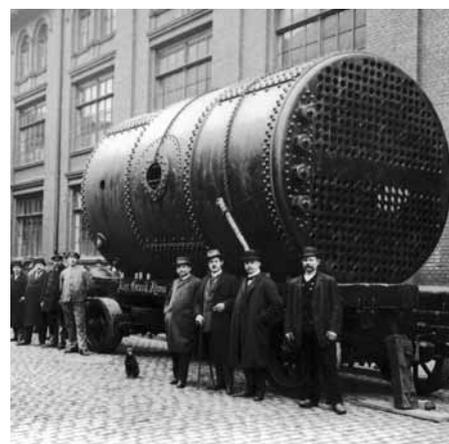
1 Kasten = 20 Flaschen Siechenbräu Export,
je V2 1
zum ermäßigten Preise von DM 10,--

oder

1 Kasten = 24 Flaschen Siechenbräu Export
oder Pils
je V3 1
zum ermäßigten Preise von DM 10,--

An Pfand ist einmalig zu zahlen:-

für den Kasten mit 20 Flaschen: DM 4,--
für den Kasten mit 24 Flaschen: DM 4,80



STANDARDKESSEL AND BAUMGARTE. EACH ONE STRONG, TOGETHER STRONGER STILL.

75 years of Baumgarte and 85 years of Standardkessel: together that makes 160 years of experience and expertise in the field of power systems and boiler engineering. Reason enough for these two long-standing companies to work together under a common roof and in one group. Baumgarte will remain Baumgarte, and Standardkessel will remain Standardkessel, each one independent, each with its own particular fields. But together they will be stronger, and able to respond even better to the needs of their customers.



160 years
ideas full of energy!





160 YEARS OF EXPERIENCE.
TAKE A LOOK.







