

NESS Wärmetechnik

Convincing with competence

NESS Wärmetechnik has been developing outstanding solutions for process heat systems for well over fifty-six year. Continually evolving its products and services in close collaboration with its customers to meet the latter's unique requirement, the company is a well-known name throughout Germany and across the five continents with clients as far afield as California, Australia, China, and New Zealand. Heat Exchanger World recently caught up with Managing Director, Dipl.-Ing. (FH) Dietmar Ness to talk about the story behind the success of the company, and its plans for the future.



➤ NESS Wärmetechnik GmbH in Remshalden near Stuttgart, Germany.

By John Butterfield

A brief history

NESS Wärmetechnik is a family-owned business, located in Remshalden outside Stuttgart, Germany. It was founded in 1964 by Eduard Ness who is the father of the two brothers who run it today – Dipl.-Ing. (FH) Dietmar Ness and Dr. Andreas Ness. Taking up the story, Mr. Dietmar Ness relates: “My father is an engineer by profession and was one of the first people in Europe to introduce and work on the process of thermal oil technology. As such he was a pioneer in promoting heat transfer technology for industrial heat processes. First and foremost, he is a designer and a technical engineer but also a salesman. His dream was always to have his own manufacturing works producing own products and this continues to be a strong motivational force behind my brother’s and my own work today.” Back in 1964, the office that Eduard Ness founded was to provide engineering solutions for heat transfer. Later on he was to turn this into a company producing heat transfer equipment, as well as engineering solutions as the company grew. In 1967 the company gained its first patent

for heating systems – namely for the heating of aggregates for the processing of concrete and by 1974 it was so successful that it had to relocate to bigger premises to achieve an enlargement of office space. Thirteen years on and NESS Wärmetechnik again needed to expand, relocating to today’s offices and production buildings in Remshalden. This move was followed five years later, in 1992, by the construction of two new production halls on the same site in order to further expand the company’s manufacturing capacity.

More recently, in 2013, the company was handed over to today’s second generation owner brothers. Anno 2020 sees the company still family-owned. It has grown into a well-known, complete provider of thermal engineering equipment for a multitude of applications. Employing around one hundred staff in design, development, sales, and manufacturing, thirty of whom are highly-qualified engineers whose tasks cover a scalar of technologies and implementation solutions. Annual turnover is approximately 20 million euros.

GmbH:

and inspiring with ideas



» Eduard Ness founded NESS in 1964 and was an engineer by profession.

Teamwork, flexibility, and smart working

“One of the factors that make us successful is undoubtedly our teamwork,” says Mr. Ness. “It is one of our core competencies and we work a lot on team building. Positive cooperation is important to us as we have a young, enthusiastic, and very motivated team. People like to come and work for us. We offer good further education and training in the workshops, and provide interesting career opportunities.”

“Both my brother and I love our jobs and are passionate about the company. We enjoy nothing more than being in the thick of things and this enthusiasm surely acts as a catalyst to others. To further improve teamwork, we constantly strive to ensure that knowledge, experience, and opinions are exchanged as this helps our teams not only to grow in capabilities but also to achieve goals together,” continues Mr. Ness.

Talking of growing, the brothers are also proud of the fact that the company works worldwide – having clients as far a field as Australia, China, New Zealand, and California as well as being just as comfortable serving clients at home in Germany. It is in a relative niche market so they have to search for potential clients. However, the company’s ability

to do this stems much from its competitiveness. As an organization they have learned to have a lean production, have established smart ways of doing business, and have very flexible employees who are willing to work outside the normal 9-to-5 routine. This flexibility is definitely needed when talking to clients in time zones often a half-day away from that in Germany, so company employees often work either very early in the morning or late into the evening to always be available for clients.

“Our office organization is quite modern, and our employees have had the possibility to work from home for some time. This proved to be fortunate when Covid-19 kicked in since working from home was not a new or unsettling thing for them, unlike in many companies. We already



« Dipl.-Ing. (FH) Dietmar Ness (left) and Dr. Andreas Ness (right).



♣ *NESS Wärmetechnik employs more than 90 people in development, planning, sales and manufacturing.*

had all our communication, logistic, and administrative processes in place. In this respect it was just a continuation of business as usual."

NESSessities

"Our teams work on both national and international development projects and the experience that they gain from them, and from working with end-user operators, is constantly put back into the development of new products and services offering our clients a better efficiency, increased safety, and/or more cost-effectiveness. This gleaned knowledge and experience, for example, has led to the development of NESSessities. Mr. Ness explains: "Safety,

availability, durability, and efficiency are the key demands of every thermal oil system. As such, we have created some essential principles that provide our clients with planning security and help to reduce risks."

The NESSessities product line acts as a follow-up to the challenges that their clients face. They offer easy solutions that have often been developed in cooperation with their clients. All NESSessities products are simple to integrate into existing systems, modular builds, and are also easy to retrofit. Instances of NESSessities products are: the NESS sampler cooler ensuring that a representative and exact sample can be taken through closed, cooled sampling technology; the NESS fine filter station, which provides thermal oil filtration for better system performance; the NESS nitrogen blanket system giving protection against oxidation and reducing fire hazards; or the NESS safe-flange to protect flanges against uncontrolled splashing. A full listing of these very useful and cost effective solutions can be found at: <https://www.ness.de/en/nessessities/>

Saving the customer money

"Many of our customers have plants where they store up to hundreds of thousands of liters of mineral and synthetic oils. This is a huge investment on their part. It is our task therefore to help them ensure that this oil is kept in as good and safe condition as possible. Moreover, we aid them to lengthen its lifetime by removing solid particles and water from it."

"In our daily work our engineers find themselves carrying out tasks for plants with a much greater production than our own. We might not only build equipment parts for these plants, like heaters, but also might add on components like pumps and valves, as well as giving a general process guarantee for what we are designing/building. We have achieved these results on a worldwide basis because we have managed to establish a smart and lean production facility with low overheads. Despite changing times we have ensured that we have remained very competitive in our pricing," relates Mr. Ness.



♣ *The light-ends removal systems is one of the most successful NESSessities of all times.*

Customer care and service team

Over the last ten years Ness Wärmetechnik has become increasingly involved in customer support and this has been aided by the fact that its engineers have a technical background, which enables them to understand customers' challenges. We take this gained knowledge and reinvest it in the development of new products. This type of knowledge reinvestment is shown in the high number of utility models and patents that the company has been granted in recent decades. Staff works with clients to design, develop and optimize new solutions to meet their plant's requirements. Moreover, as experts in process heat, the company has ensured that its products are not only thermodynamically optimized, but are also highly efficient, have longevity, are safe, and are excellent heat transfer systems.

"One of our key products is the thermal oil heater.

Thermal oil plants are used in almost all manufacturing industries largely because thermal oil has many compelling properties. The operation of such plants is possible up to temperatures of about 350°C without hardly any pressure and is extremely efficient. We are experts in this field," says Mr. Ness.

Over the years NESS Wärmetechnik has built up an efficient service team that guarantees a smooth worldwide logistic transportation of products and spare parts, as well as the professional assembly and commissioning of equipment. In addition, the company also offers maintenance and repair service with regard to equipment. It generally looks upon service as forming the basis for a safe and efficient investment. "We value partnership and long-term cooperation," says Mr. Ness "which is why we look after our clients throughout the lifecycle of their facility and help them with any challenges they might face."

When it comes to supplying spare parts, sustainability is certainly high on NESS Wärmetechnik's priority list. Their spare parts warehouse can be accessed worldwide at short notice via their 24-hour hotline manned by experienced service staff. In this way first aid can also be offered in case of customer error. Company staff is able to help out customers in the short-term, and ensure any production losses are minimized since all important customers' spare parts plants are kept in the warehouse at hand. Even if a part is not available, it can usually be procured at short notice through appropriate agreements with their suppliers.

Other services that are provided are: installation and commissioning, mandatory security checks, preventive system maintenance, and modernization and expansion. NESS has representatives around the world but the actual servicing is carried out from engineers who travel to the location from Remshalden. The staff is again flexible, often staying up to a half year on location to ensure that the work being carried out is completed on time but also to the highest quality standards.

Certifications

Another significant factor is that NESS Wärmetechnik is able to deliver according to all recognized international standards and requirements, such as ASME, which gives customers confidence in their abilities and competence. The company even has the appropriate statements and



« A thermal oil plant of a customer in Grayling, Michigan

certificates available for products being delivered to Russia, White Russia, and Kazakhstan.

Project highlights

In recent years NESS Wärmetechnik has gained the skills to enable it to handle comparatively large projects – up to 6 million euros – into which they often integrate some very complex project management systems. These provide not only the data to track all stages of a project, but also to run several complicated projects in parallel. Certainly two of the recent project highlights have been in California, and in China where permitted emissions from gas-ignited heaters are some of the lowest in the world – perhaps a third those in Europe – so developing a system to meet these needs is challenging to say the least. The results that NESS Wärmetechnik has achieved have not only met stringent government legislation in both regions with regard to emissions but have also helped to protect the environment, apart from being highly efficient and cost-effective.

The future

"As an organization we intend to remain lean exploiting our competitiveness through our well-structured processes, smart logistics, expertise, and flexibility rather than expanding in physical numbers of staff. We will also continue to improve the efficiency within our production processes. At the same time we want to ensure that all our data is digitalized and we will realize a paper-free working environment within the next two years. We are also working hard to ensure that all digitalized systems are interconnected so that our staff has all its project information at its fingertips when working on our production or when dealing with our customers. In this way we will be able to have even closer contact with our customers and service them even better. It is part of our cycle of providing inspiring state-of-the-art solutions for our customers and having the ability to put them in place with great competence," concludes Mr. Ness.