



target goal concept discovery
future **vision** trend
innovation technology ideas
perspective imagination experience
peak mission

HiVISION



Passion and Performance - in Glass

Glass is the most healthy and environmentally friendly packaging solution in the world for foodstuffs and beverages. It is our mission to make it the most successful.

By converting many years of knowledge and experience as a market leader, our vision is to be the leading supplier of expert services, solutions and high performance equipment to the global container glass industry.

Although proud of our past, our focus is your future. Your necessity is the mother of our invention.

For over 200 years, we have embraced a philosophy of change and evolution, while being careful never to lose sight of the traditional values that form the foundation of any successful business.

From concept to completion, our passion to provide complete customer satisfaction is equalled only by the superlative performance of our people and technology, and above all is our profound understanding of glass.



creation fire
past evolution hot end
future change forming
innovation handling sand
development glass history design
story

HiSTORY



- 1799 Foundation of the original glass factory by J.C. Storm
- 1843 Change of name and ownership to Heye
- 1966 Foundation of Heye International as engineering group of Heye Glass
- 1968 Invention of the NMPB process for the production of lightweight glass
- 1974 First NMPB know-how transfer from Europe to America
- 1987 Heye America is founded in Marion, Indiana, USA
- 1995 Commissioning of the first IS-20 machine in Gernersheim plant

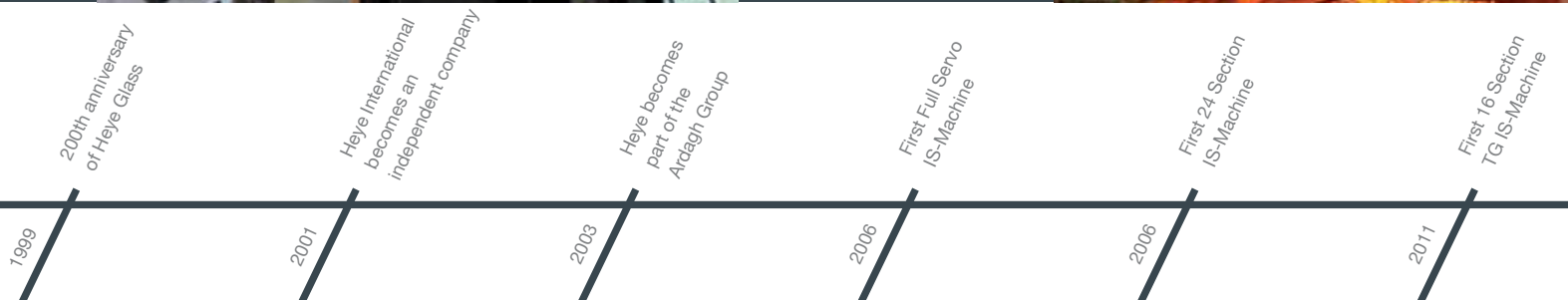
Heye International - in a Nutshell

Based in Obernkirchen, Germany, Heye International GmbH is one of the foremost suppliers of glass technology, high performance solutions and know-how to the container glass industry worldwide and, since 2003, has been part of the multi-national Ardagh Group.

Over the years, our team of expert engineers and technicians has built an enviable reputation for quality and innovation and we pride ourselves on an extensive knowledge of the day-to-day issues of glass manufacturing. We are always involved in a variety of projects concerning both new and existing glass factories and have honed our skills with the successful completion of numerous projects throughout five continents.

One of our particular specialities is the design, engineering and construction of complete greenfield container glass manufacturing plants. Our expertise and experience in the field of technology transfer is recognised globally.

We fulfil the needs of the modern glass industry by continually developing new processes and their associated technologies, equipment and production systems – such as the NNPB process invented by Heye in the late 1960s and a full range of equipment for the automation of Cold End quality control. We are leaders in the provision of solutions and equipment for the conventional manufacture of container glass and our bespoke Technical Assistance Agreements provide our customers with access to the full range of our knowledge and experience.



creation process hot end
shape sand forming
heat sand forming
innovation perform handling fire
technology moulds material glass
design

HiPERFORM



Performance in Forming

Heye International is synonymous with quality and innovation in Hot End technology.

We appreciate that every stage of the glass forming process demands meticulous attention to detail and that even minor variations in manufacturing techniques and their application can have a huge impact on overall production performance.

Our engineers and researchers never tire in their efforts to push the boundaries of container glass technology. At the same time, however, reliability is of paramount importance, so we use only the highest quality materials and maintain the most rigorous quality control standards.

The combination of this approach, together with the versatility and flexibility of our modular IS-Machines and their corresponding Hot End equipment, ensures ever-increasing productivity and unvaryingly high quality throughout all phases of the manufacturing process.

As a result, we remain at the forefront of industry development while we strive to deliver the most efficient and complete solutions to our customers.





Efficiency is Easy

Whenever we want to talk about the Hot End at Heye International, we say **HiPERFORM**. Within this programme, we are dedicated to providing not only complete solutions covering every aspect of the forming procedure, but also to developing individual processes that are capable of being integrated into existing plant facilities.

Efficiency in the Hot End depends on a seamless interaction of the many different stages and technologies involved – the better they work together, the higher the final production performance and quality.

We use only the highest quality materials, combined with the most rigorous standards of manufacture, to create a complete range of IS-Machine modules which are specifically designed to maximise the efficiency and output of your factory.

What is more, we are unique in enjoying access to our own production facilities, allowing our team of expert technicians and researchers to test and perfect every development under true working conditions before we recommend it to you.

We also recognise the need to keep your plant up to date with the latest innovations and technological advances, so all our hardware is designed to be readily upgradeable or effortlessly replaceable.

Everything is designed to make things easier for you throughout each phase of the Hot End process.

Efficiency really is easy, with Heye International and **HiPERFORM!**



commitment action purpose
partners
guarantee **trust** respect
alliance help understanding friendship
cooperation truth assurance

HiTRUST

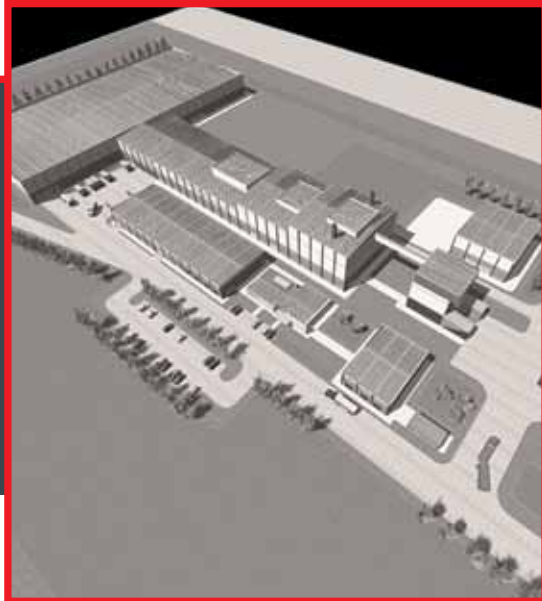


Help is at Hand

We at Heye International are only too aware that specialist knowledge and expertise is often necessary to help implement new technology or processes and to improve production efficiency. However, it is becoming harder and harder to find and retain highly skilled employees, not to mention prohibitively expensive. This is where we come in.

For over 200 years, we have been accumulating vast experience and a unique expertise in every aspect of container glass production, which is reflected in the hardware that we manufacture. Perhaps even more important, though, is the understanding we have of how these technological and mechanical innovations work in the real world, gained from actually being able to utilise them in our own production facilities. This gives us a 360-degree view of the world of container glass production which is completely unique in the global market.

As a result, we are able to join with you as partners in a spirit of friendship, mutual respect and cooperation to provide you with expert services for anything from plant audit to production support, from project management for the construction of a new plant to technical assistance in improving existing output efficiency. We can even train your staff, either in our own dedicated training centre or on-site, in the environment in which they actually work.



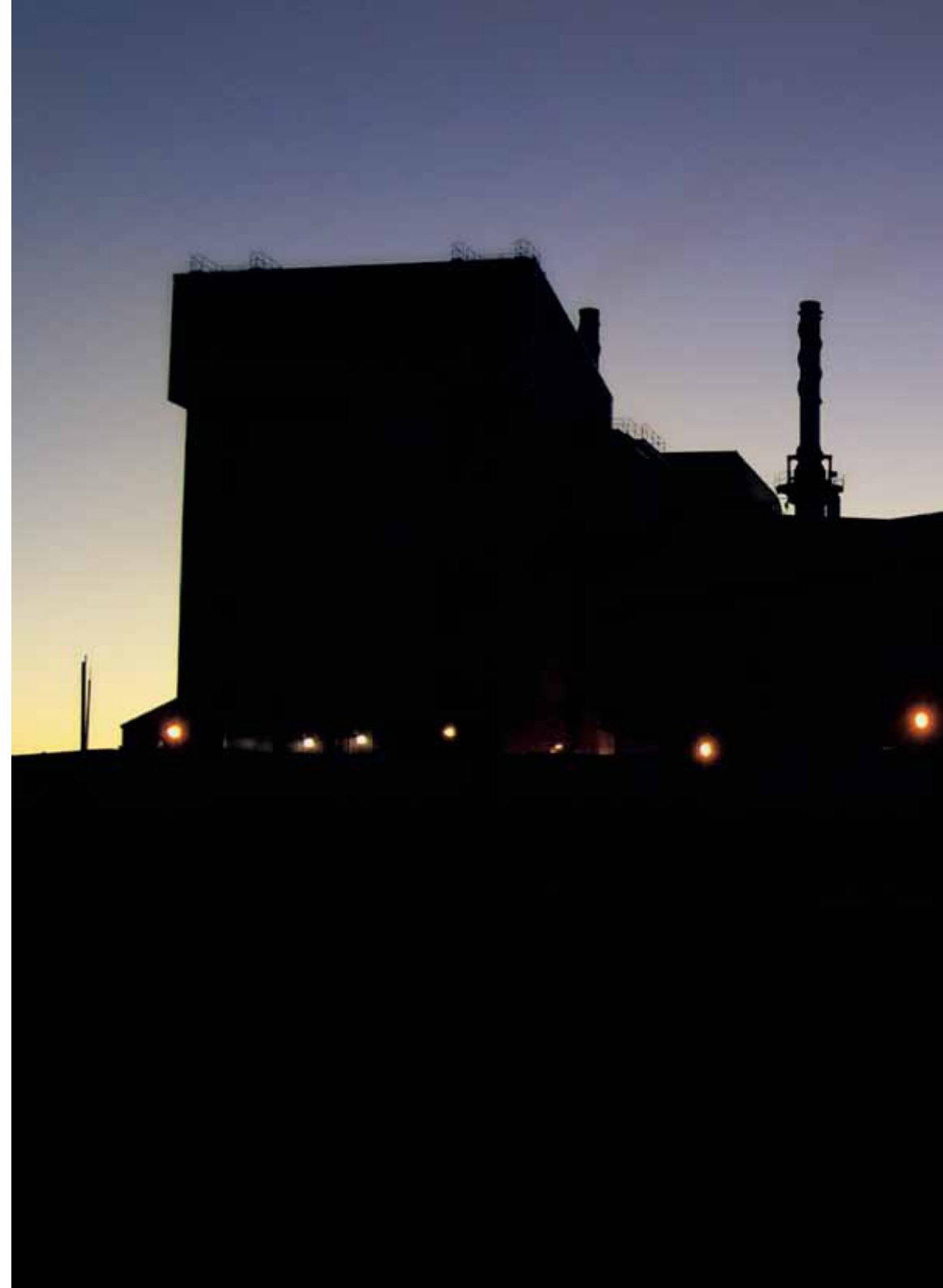
Nothing is Impossible

Heye International has experience of every conceivable type of container glass project, gained from alliances with our colleagues all over the world. We call this knowledge **HiTRUST** and through this initiative, in close partnership with you, we can manage any and every aspect of your turnkey or semi-turnkey project.

We know that the needs of every client are different and individual. However, despite the unlimited possibilities for the scope of your demands – which might be a complete turnkey greenfield installation, modernisation of existing facilities or simply state-of-the-art equipment – one thing is certain: our guarantee of your satisfaction!

Our vast resources are available for your success, combining specialist consultancy, expert project management and unrivalled service to adapt engineering concepts in a flexible way to fit your available resources and skill profiles.

The basis of everything we do is your specific requirements, assuring you of peace of mind and providing you with a solution that you can trust.





Cooperation is Key

Your partnership with us is a more than just a contract – it is a joining of purpose.

Our bespoke Technical Assistance Agreements encompass every stage of your project – whether a single machine or a whole production facility – our goal being to work in complete understanding with you from the earliest strategic concepts to the final commissioning stage. This unique paper-to-production expertise covers everything from the planning stages, through construction phases and even the transfer of know-how and staff training.

Even if your plant is already up and running, a TAA with Heye International gives you direct access to our technical, maintenance and service experts for assistance in optimising output efficiency and product quality, whilst at the same time reducing energy consumption and overall costs.

Renowned for the profound cooperation it engenders with you, **HiTRUST** and Heye International will help you to make better decisions and sharpen your competitive edge.

team knowledge
support education guidance
know-how success help ideas
perspective mission experience
learn

HiEDUCATION



Knowledge is Power

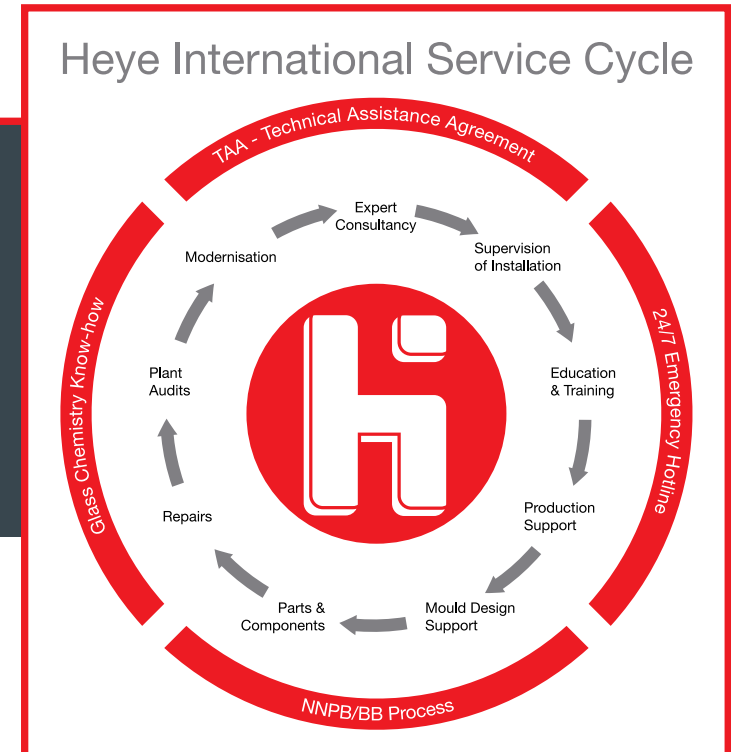
At Heye International, we know that the greatest asset a business has is its people.

We place a huge emphasis on the knowledge and experience of our own team of expert researchers and technicians. Beyond that, however, we recognise the necessity of having a properly qualified workforce to run your glass plant.

Nobody is better able to instruct and support your staff in the efficient use and maintenance of your production lines than the people who designed, manufactured and tested the technology. So, we train our people to train your people!

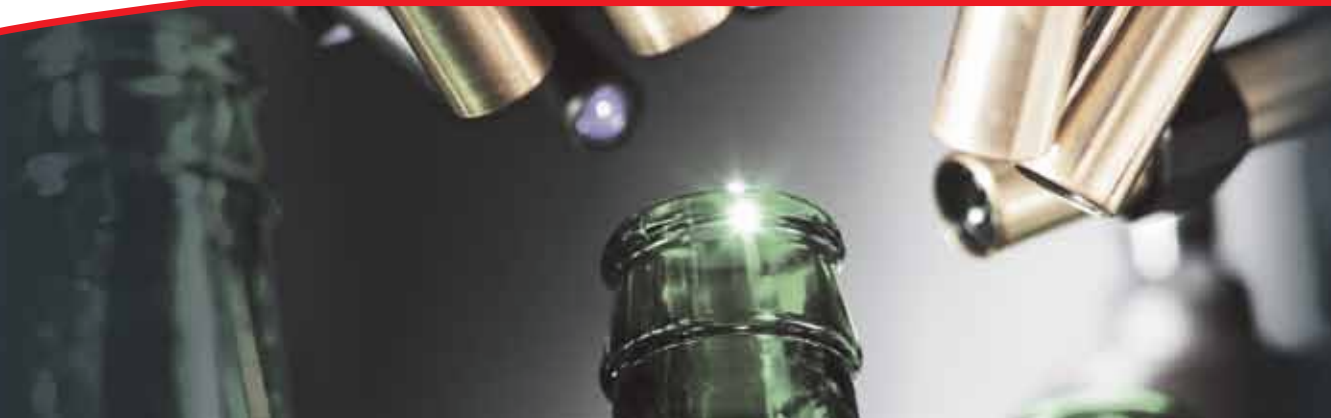
We send our own experts to the factories that we build; not only to check that our rigorous quality standards are adhered to, but also to provide your personnel with all the know-how and help they need to get the most out of your new facilities.

Education for Glass People, by Glass People!



perfection quality trust reliability
flawless control shield protection
laboratory security check
preservation inspection health innovation
safety care

HiSHIELD



Expertise in Quality

During our many years of integral involvement in the container glass industry, we at Heye International have watched producers of all types of consumer goods place more and more emphasis on manufacturing quality as they strive to establish the excellence and consistency of their brands in the global market. With consumable goods in particular, it is not only the product itself that has to meet the highest safety and purity standards. Secure, reliable and healthy packaging solutions are an absolute necessity.

Accordingly, our expert developers and technicians have risen to the challenge of developing a complete set of Cold End equipment to guarantee that glass containers manufactured for the consumables market are perfectly flawless and, therefore, completely safe. Ongoing innovation in laboratory, vision and inspection solutions – to name but a few – together with our usual high manufacturing standards ensures that we continue to develop industry-leading solutions.





Progress to Perfection

Cold End solutions at Heye International mean **HiSHIELD**, our complete range of processes and hardware to provide you with our expertise in your quality control.

These days, this is arguably the most important part of the entire container glass manufacturing process, as the quality and consistency of the product that you sell to your customer is what makes or breaks your reputation as a reliable and trustworthy supply partner. For this reason, we have invested a huge amount of time and resources in perfecting solutions that will maximise your output quality while minimising your input effort.

The Heye Information System (HIS), for example, monitors Cold End processes in real time. It collects and evaluates comprehensive data, clearly displaying results and system messages, and conducts random quality assurance sampling.

Meanwhile, the modular **HiSHIELD** SmartLine inspection and sorting machine – itself capable of being integrated into the HIS – has been specifically developed for the container glass industry. Also compatible with many systems from other manufacturers, it can be configured to test and verify the integrity of almost any quality of the product.

With solutions and processes like these available to you, we feel confident in saying that **HiSHIELD** and Heye International will help you progress to perfection!



safety trust reliability
perfection
benefits **life** resources
nature economy
recyclable efficiency
energy pure health

HiLIFE



Pure, Healthy and Economical - with Style!

Glass is the only packaging material that is 100% recyclable. Moreover, it can be recycled over and over again, therefore wasting significantly fewer natural resources and energy than other packaging solutions.

Glass is not only clean but pure. It is completely inert, making it the only packaging material which does not require any plastic lining between the content and the packaging. This means that a foodstuff or beverage contained in glass will always taste exactly the way it is supposed to taste, and never of anything else. Furthermore, since glass is completely non-toxic and does not interfere in any way with the product it contains, it is also the most healthy packaging solution in use today.

Glass can be formed into almost any shape imaginable. More than 5000 years of history have produced many wonderful examples of glass craftsmanship and art, proving that glass is arguably the most versatile and flexible material currently available.

With Heye International's continuing innovations, constantly-developing technologies and top quality equipment, glass can be manufactured more efficiently and economically today than ever before – yet another step towards making our vision a reality!





 heye
international



A Philosophy for the Future

Heye International is proud to have a long and distinguished history in the container glass industry. However, we believe that a successful business is not one which looks backwards, but one with its eyes on the future, constantly adapting to the changing needs of its customers. Our philosophy is both simple and profound. Three small words that mean everything to us: excellence; teamwork; trust.

We strive for excellence in everything that we do. Never losing sight of our overriding responsibility to the environment, we constantly push the boundaries of innovation in our continual efforts to improve both ourselves and our products.

We recognise that maintaining excellence is impossible without teamwork. Both internally and with our partners, our desire for complete and open communication nurtures an environment in which working together closely is a pleasure and collective responsibility the natural mindset.

We know that teamwork is ineffective without trust. Our professional and personal integrity means everything to us and the transparency of all our activities produces intense mutual respect between colleagues and clients alike.

This is who we are. This is Heye International.




teamwork



trust



excellence



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