



HEYE INTERNATIONAL

technology, people
and complete service

Glass Machinery Plants & Accessories (GMP&A):
What can you tell me about the Heye International and its markets right now?

Jens Langer, Heye International (Heye): If we consider markets, we can say that Asia is becoming a strong market for us, along with China in particular, especially in the last few years. We are also seeing growth in Central and South America as well as Australia and Thailand, which are strong markets for us. And going back to Asia, there are some

larger projects coming up for us, as well as in Africa. But as we all know, business is not as fast moving there as in other areas, and it is not a very easy market to work with. But in Europe there are only few new big projects as companies tend to carry out restructuring and renovation.

GMP&A: Why is this? Is it because Europe is now a market that has reached 'the top' ...?

Langer: The European situation is quite different as there are glassworks and companies that

are working on improvements on their productivity, mainly replacing outdated equipment by modern machines., while there are other big companies taking over smaller ones. The concentration of plants and integration into one bigger company is still going on.

GMP&A: Does that mean that in the future we will have about four or five big companies controlling all the industry?

Langer: Perhaps more than five, as some local or regional players will keep their strong position,



Jens Langer

During Glassman in Lyon, France, we spoke to Heye International, and the company's Director of Sales and Marketing Jens Langer and Mark Ziegler gave us an overview of what is happening at the company and how Heye is continuing to develop its products and services for glassworks – with safety in mind.

apart from the 4-5 global players. From our perspective as a machine manufacturer and service provider there are opportunities and challenges. A challenge is that the suppliers can maintain the contact to the local plants and their people, if negotiations only take place in the headquarters. On the other hand, a centralised organisation helps to achieve a common technologic standard, helping to reduce costs.

GMP&A: How is choice affected? If you have a large number of

companies – let's say 50 – selling their products, with fewer big companies you are surely going to have less choice and less flexibility in price.

Langer: From our point of view it means that you have fewer customers but at the same time a decreasing number of competitors. Both will have advantages: The supplier will be able to focus more on standardisation and develop better products at better prices with high-technology and less variations. The procurement and sales process will be

shorter and more efficient for both sides. This does not mean that we will forget the technicians in the plants but we will have to re-orientate our sales process to cover both needs, the commercial and the technical one.

GMP&A: In this situation how is Heye handling the market?

Langer: We are in a good position, with a lot of good contacts with the big companies. Our aim is to try to understand the needs of these customers – or of brand owners (our customer's customers) – because we have a philosophy: if the customers of our customers are satisfied then we get the benefits at the end of the day.

The other point is that we are actually moving from a product provider to a solution provider. This is also valid in terms of digitalization, vision and strategies. Heye is not only a machinery manufacturer for the hot- and cold-ends of glassworks and the assistance that is required in these areas, but thanks to our technical assistance agreements we also provide not only a product delivery and commissioning but also production support to ensure profitability and sustainability for our customers.

SMART PLANTS AND THE INTERNET OF THINGS

We have our new concept Heye smart plant, which was an important topic at our symposium this year. In fact, we have a vision of the future plant behind our products and development. This allows following a single strategy – to make container glass production more efficient – also in terms of digitalization, plant management and transparency. This is something we also transmit to our customers not only with regards to smart plant but also green plant, which means environmental protection.

COMPANY UPDATE

When we see savings in energy and resources and not only manpower – when we see a swabbing robot – we try to decrease the resources used in terms of oil and other material that you need in container glass production.

SAFETY, SPEED AND THE REDUCTION OF THE GLASS WEIGHT

Mark Ziegler: Safety is one of the issues we are addressing right now – with special safety grids which move up and down, or with LED lights for every section, indicating if a section is safe to work in (green) or running (red).

And this is all connected to our smart plant concept, which we can sum up as follows:

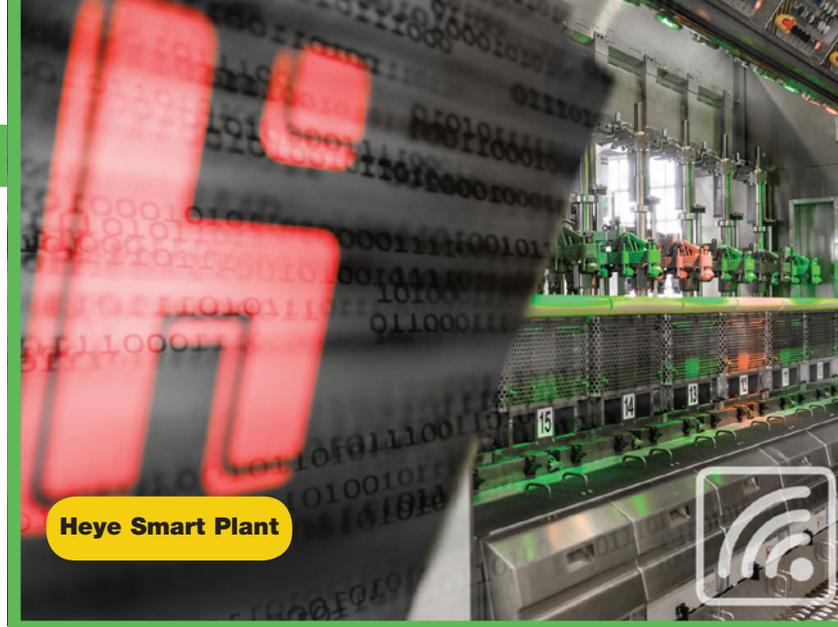
- Integrating the best technologies from Industry 4.0 and the internet of things
- Implementing in the long-run a fully automated, stable and safe production process

The ideal smart plant will be very profitable, resource-efficient and delivering high quality containers.

At Heye we have implemented different enabling technologies that support this technology and will become cheaper as the technology develops – such as such as smaller and cheaper sensors.

Our work is based on four different ‘columns’, the first being improved integration in production sites for information management and integrated engineering are also important aspects to consider with regards to the value chain. There is also the possibility of laser marking of the containers at the hot end, which means that each and every container has its number and can be traced right back to production. This is an essential value for containers in all industry sectors, but especially for high-valued spirit bottles or the pharmaceutical industry.

Another aspect is vertical inte-



gration where all the information comes together and is made available, making it easy to see where there is a problem or where a mould needs to be modified, or even just where settings needs to be changed.

At Heye, our Smart Process Controls control e.g. wall thickness, gob weight and coolings, all to avoid critical defects like unfilled or overpressed finishes.

Flexibility is another important aspect: we can now have different bottles being made on the same machine.

The IS machine, which is the biggest machine at the hot end, is a platform from where we can integrate with other suppliers.

Heye is the inventor of the NNPB process (Narrow Neck Press and Blow), and this process is now becoming very popular in Asia because all the European and Western breweries and companies are starting to work there and they obviously want to have the same level of quality. This is challenging the local glassmakers in Asia to become more familiar with this process. This in turn is creating a great opportunity for Heye not only with regards to the technology, but also for the support we give to our customers to obtain the best possible levels of production.

So weight reduction also means savings in raw materials and energy, and all contribute in protecting our environment.

DEVELOPING PRODUCTS

Developing products is easy to say, but to develop good products you need to have a solid base and in the hot end we are speaking about the IS machine of course. The borders between hot end and cold end will become less important. In a Smart Plant all data are integrated and information will be shared.

GMP&A: What about speed? Has Heye reached its speed limit or are you still working to make things even faster?

Langer: We are actually still working on speed together with our customers, which should take us to a really extraordinary level.

Of course we must also focus on flexibility as we said before because our machines and services go to different sized glassworks – from those that make a few bottles and small but different batches, right up to glassworks that have continuous production runs for incredible numbers of bottles and containers all of the same type.

However, speed also depends on the type of containers you are making, and our job is to get the maximum for each container, with the complete system – from the feeder to the Lehr – running at a certain speed that gives the best it can, eliminating and improving the weakest point in this production chain. We do this with our Process Control and Plant Pilot systems.

GMP&A: Speaking about smart factories and operators, how has the number of human operators been reduced in these past years?

Langer: The target of all plant managers is to reduce operating costs. And one of these costs is for manpower and working hours. However, to reduce these costs you need to set up a basis. Another aspect is that manpower costs differ quite a lot from one country and customer to another, depending on the history and the know-how of each customer.

We support the plant managers with our solutions to be able to reduce working hours concerning swabbing or maintenance, or by having technical issues displayed on a monitor, thus avoiding the time required to check and look manually for these problems.

On the other hand, we also know – and we have received information from a number of customers all over the world – that it is becoming more and more difficult to find experienced people to work with glass. This means that right now we cannot just reduce the number of people working in a glassworks, but we have to keep and ‘protect’ the experienced workers already there.

So our job is also to find new people who want to work in glassworks; we need to motivate them and show them that the working environment right now is completely different from in the past. This is the big challenge for plant managers – having the right machinery, protecting the (work) environment, making it safe and almost nice to work in.

Mark Ziegler: And this is what the bigger companies are doing – showing that it’s safe to work there now, there are new machines and technology to make the work easier, and this

should motivate the young people of this digital era to work there.

Heye for example, has a big touchscreen where all the people can see the production that is running and see what’s going on. This means that they can also analyse each and every step of the production process.

All these pieces of the ‘puzzle’ combine to attract people to work in a glass plant.

Glassmakers also need to inform that working in a glassworks also involves a high level of technology and expertise and the need to reach production optimization, so not only working on the factory floor but also in the office and labs, as well as management – lean management.

GMP&A: What can you tell us about new product development?

Langer: We are investing a large part of our capacity in product development regarding both the hot-end and cold-end. For the hot end, the SpeedLine is our most important step. This development is a result of many customer projects and discussions with long-term customers, also considering the possible future demands of the glass industry.

GMP&A: What could be the future demands of the glass industry and what could be the next steps?

Langer: I think that if we consider a glass machine and the high number of machines

installed there, the next step could be to clean up the working environment, continue with safety aspects of course, and data interface and management, sensors and analyses.

The new Heye machines are true future-orientated forming machines, and we are now working on the optimization of process control and on different sensor systems for the hot end, and of course the swabbing robot.

With regards to the cold end, we have the SmartLine with a very robust and reliable Starwheel inspection machine, and we are working to redesign this inspection machine and will ensure the quality standards in countries where they have inspection carried out by manual workers.

Heye does not only provide machines but also performance optimisation (TAA - technical assistance agreements) for complete glass lines and factories.

Thanks to our local presence we can work side by side with our customers, learning about their needs, and providing them with the complete services that they need to use the machinery and plants to their best advantage. ■



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