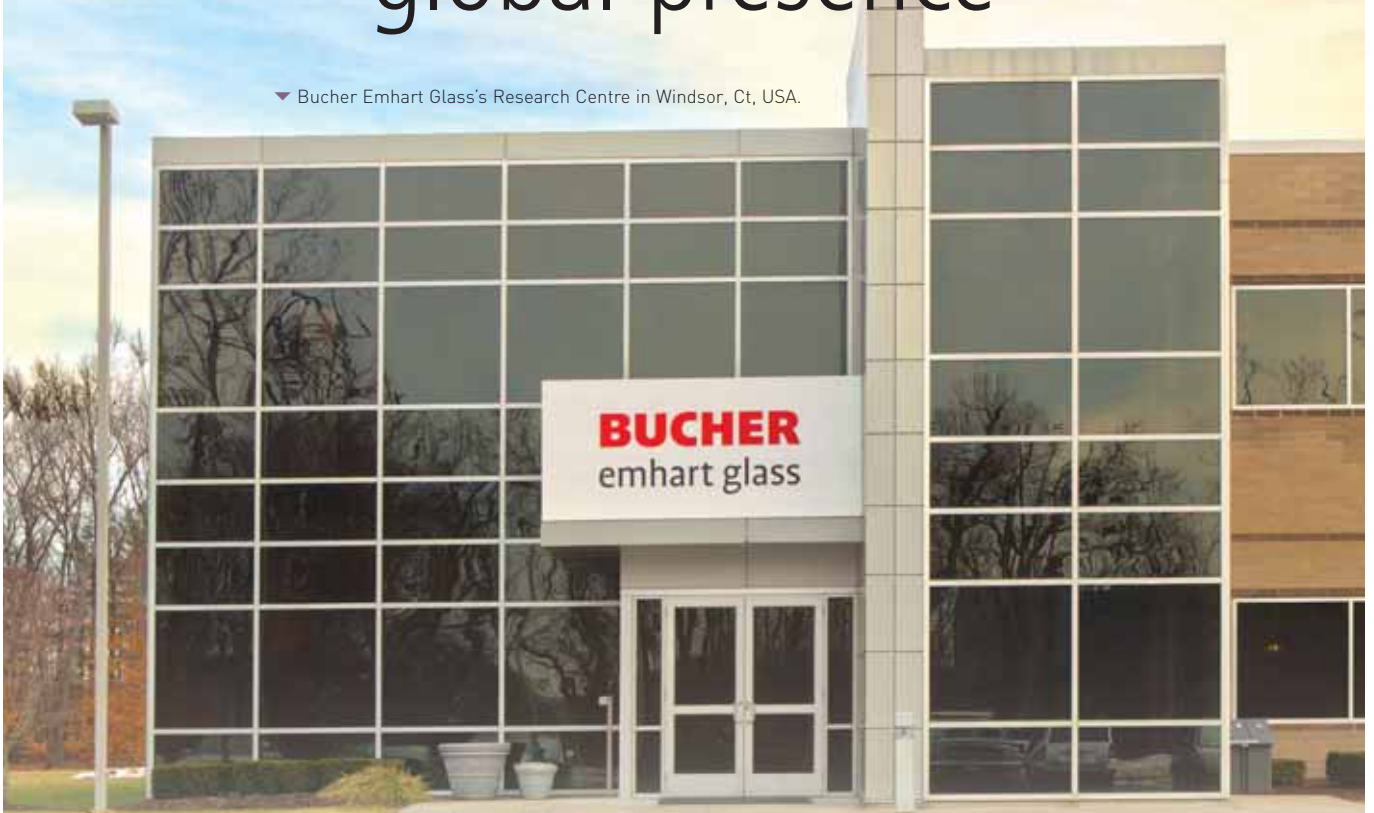


Bucher Emhart Glass has global presence

▼ Bucher Emhart Glass's Research Centre in Windsor, Ct, USA.



Emhart Glass has been at the forefront of glass-forming technology for 100 years, and is now a solution provider for glassmakers around the world.

The company was formed in 1912 by a small group of engineers and entrepreneurs. Soon, their experiments led to the technique of feeding molten glass into moulds in gobs, rather than by suction. Within a few years, they developed the IS technology, which quickly established itself as the industry standard.

Over the following decades, the firm expanded worldwide, grew through acquisition and broadened its focus to forehearth and inspection. The product portfolio has been refined and developed, and joined by technological advances such as AIS, VertiFlow, Total Inspection, NIS, FleXinspect and, most recently the BIS machine.

In 1998, Emhart Glass became part of the Bucher Group, a Swiss globally operating technology group with market positions in mechanical and vehicle engineering, and production sites worldwide.

Today, Bucher Emhart Glass is established as an international supplier of glass-container

manufacturing solutions, including equipment, controls, parts, and support.

The company is headquartered in Cham, Switzerland, and has 13 locations worldwide, plus a joint venture with Sanjin in China. Its manufacturing bases are in Sweden, Malaysia, USA, and China, and it has sales offices in Singapore, Japan, Germany and Italy, plus a Research Center in the US. Bucher Emhart Glass employs 2027 people, and its worldwide revenue in 2012 was €304m.

New name

On 30 September 2013, Emhart Glass announced its new name, Bucher Emhart Glass, along with a new logo and visual identity.

Since becoming part of Bucher Industries in 1998, Emhart Glass had been described as 'a Bucher company'. The new name makes the

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connection with the parent group much clearer. In terms of the firm's operations, everything is staying exactly the same as before.

"This change is good news for our customers, because it denotes continuity, consistency and stability," explains Martin Jetter, the company's President. "All the other Bucher divisions, except for Kuhn, have already taken this step over the last few years. That's why we felt it would be good for us too, and strengthen our position in the market. And we haven't given up the Emhart Glass name, of course – it's still there in our brand, as it has been for over 60 years."

Growth in emerging markets

Bucher Emhart Glass' market includes glass plants globally. "Our philosophy is that we have to be near all our customers, whatever culture, language or time zone they operate in," says Martin. "That's why we have branches worldwide, almost all of which employ both sales and service staff."

As might be expected, the markets delivering the most growth right now are in emerging economies, as Maria-Gabriela Saavedra, Market & Business Analyst at Bucher Emhart Glass, confirms. "Our business is developing in line with the trend in the worldwide glass container market, namely towards emerging markets, and in particular Asia," she confirms.

"Asia represents 36% of our order intake, driven by India, Thailand, South Korea, Japan and Malaysia. South America is also displaying a positive upward trend."

Powerful alliance

Bucher Emhart Glass is part of the Container Glass Alliance, along with Zippe, Horn Glass Industries and MSK. Together, the partners in the alliance collaborate to develop turnkey glass plants for customers, including not only the equipment that makes up a production line but also the services required to achieve a smooth and successful startup. (More details are at www.glass-alliance.com)

Recently, the Alliance successfully won a process equipment order from Brazil's Vidroporto. The machinery, which includes a completely new furnace at the Vidroporto plant is going into production mid 2014.

Bucher Emhart Glass' Sales Director, Pat Battersby, explains the background to the deal. "We have taken a strategic decision to go for growth, step up and compete against other major players in the rapidly growing beer business in Brazil," he says. "So they're going to build a new furnace and install three 12-section triple-gob AIS machines. It's a big step, it has to go right, and that's where the Glass Alliance can help. We're equipment and process specialists, but this deal was really about delivering a successful project and minimising the risk for a company making a big investment."

"Our philosophy is that we have to be near all our customers, whatever culture, language or time zone they operate in"



Some Alliance deals are managed by the four partners together, with the customer receiving harmonised quotes and contracts on a 'turnkey' basis. Vidroporto has opted to commission a third-party project manager: Germany's cm.projecting.ing is coordinating the overall project on an engineering level, while Vidroporto contracts with each of the four partners individually.

"Whatever the shape of the deal, it essentially works the same way," says Pat. "And it has to involve all four partners, all of whom are leading names, or it isn't a Glass Alliance project. That's the only way we can commit to startup targets and work together to achieve them. Our goal is to minimise project risk for our customer. We believe this approach is pretty much unique in the industry."

For Bucher Emhart Glass, the Alliance – and collaboration generally – represents the way forward for the glass industry. "I personally believe that in order to realise its full potential, our industry needs to give up its traditional competitive mindset," comments Martin Jetter.

"Our real competitors are not other machine suppliers, or other glass plants, but other packaging materials. Closer collaboration is a good move for our whole industry, whether that means glass plants or their technology suppliers."

Hardglass

For the last few years, Bucher Emhart Glass has been developing an innovative 'Hardglass' technology. "Basically, it allows manufacturers to strengthen glass, which means containers can be either stronger, with less chance of breaking if they are dropped, or lighter, while maintaining the original strength," explains Matthias Kümmerle, VP Technology.

"We're seeing very strong interest in the weight-reduction aspect, and we're hoping to explore opportunities in the area of returnable bottles. Traditionally, they are made fairly heavy, so they can withstand multiple filling cycles. Now, we can make a returnable container at the same weight as a normal one, reducing the use of energy and materials in production and delivering significant benefit for glass plants, fillers and the end consumer."

Since Summer 2013, Bucher Emhart Glass has been in partnership with Vetropack Holding to take Hardglass to full commercial launch, which is now imminent. "Together with Vetropack we now have a fully functioning industrial production line installed and running at Vetropack's plant at Pöchlarn, in Austria," reveals Matthias.

"It has a capacity of around 50 bottles per minute – not quite full-scale output, but enough to begin testing the market, which is a huge step

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for us. Right now, we're carrying out a full process validation, which is required because the technology is completely new. In Spring 2014, we hope to launch the first commercial production."

Glass plants may well be ambivalent about a technology that could put a big dent in their production volume, but as Matthias explains, it's a question of swimming with the tide rather than against it. "Our view is that if returnables are being used, we can't stop that trend," he says. "Instead, we have to provide the tools and technology that allow glass to succeed as a packaging material."

Agreement with O-I

In May 2013, Bucher Emhart Glass signed an agreement with O-I to supply equipment and parts to all of the O-I manufacturing and repair facilities around the world. Lorenzo Barquin, who oversees special projects, explains how the agreement has developed since then.

"Even as the agreement was being signed, we were already working on a set of transition projects," he reveals. "We officially took full 'ownership' of the supply chain process on September 1. We met all transition goals and have initiated process, manufacturing, and engineering projects targeted to develop logistics and supply chain efficiencies. Now, our focus is on leveraging our global purchasing, technical and manufacturing capabilities. Over time, we expect to deliver savings on the cost of machines, spare parts and logistics."

Lorenzo explains why, in his view, O-I selected Bucher Emhart Glass to take charge of this challenging assignment.

"We have a global presence with operations in Europe, the USA, and Asia, and that aligns very well with O-I's global manufacturing footprint," he says. "We are also fully committed to the future of glass packaging with important

investments in machine technology, manufacturing capabilities, and supply-chain and customer relationship process optimisation. These ensure our continued focus on providing equipment with high performance capabilities, high quality, prompt delivery and service, and low cost."

Research priorities

Bucher Emhart Glass has a Research Center at Windsor in the USA, including a complete glass-container production line, where new technologies can be trialled and tested before they are rolled out to customers. The company's fully servo-controlled BIS machine was trialled at the centre, allowing the technology to be tested and refined far more quickly than would have been possible at a customer's plant.

Matthias Kümmerle outlines the main priorities for research at Windsor. "Hardglass is our biggest single project," he says. "Besides that, we're looking at process control and automation, developing tools that help glassmakers run their production process within tighter limits, in order to meet quality demands. Our aim is to replace manual control loops, such as operators monitoring temperatures and adjusting production parameters, with fully automated processes.

"Another key area for us is cooling – finding new and better ways to cool glass containers after they're formed, which is a vital step of the production process. "We're looking at capacity improvement, or removing more heat in the same time, and also new configurations that deliver more targeted and controllable cooling.

"Finally, ergonomics and operator safety are

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▼ Hot end at the research centre.

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becoming more important. We're developing new human-machine interfaces that mean users can interact with our technology in a simpler way, while maintaining or even increasing the level of safety."

Post-recession reality

Since the global recession of 2007-08, Bucher Emhart Glass has seen the global playing field levelling out, with much more volatility and much shorter timeframes for investment in the glass-container industry.

"In recent years, the emerging economies of South America, China, Asia and Middle East have driven growth, but now we're seeing them struggling too," notes Martin Jetter. "China, for example, recorded several years of double-digit growth, but that's now at a much less significant level. As a result, all regions are being more prudent. Investments are held back until the last minute and business plans are often altered, even after projects have already begun. This is the new reality for us, so we need to shorten our delivery time and be much more flexible."

"We see this situation continuing for many years," he adds. "Of course, there will always be one or two countries experiencing a boom, as Mexico seems to be doing at the moment. But everything will be very short-term, very volatile, and very difficult to predict."

However, every cloud has a silver lining, and in this case it is customers' increased willingness to collaborate. "Since the financial crises and recession, we're seeing glass manufacturers put much more emphasis on partnership, rather than a traditional customer-supplier relationship," explains Martin. "They've seen that buying the cheapest option isn't necessarily the right strategy for the long term, while a closer partnership with suppliers helps to optimise total

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▼ Bucher Emhart Glass recently unveiled its first BIS machine at Nampak, South Africa.

cost of ownership over the lifetime of a machine. And we see this as a very positive trend, particularly for Bucher Emhart Glass since our service offering is very strong. Our agreement with O-I is a good example of this, and we see other glass companies moving in the same direction."

Dealing with the Asian challenge

Bucher Emhart Glass is fully aware of the challenge from manufacturers in developing nations, such as China, and has a strategy in place to deal with changes in the glass industry worldwide. "For many years, it's been clear that machine suppliers from emerging economies would become more important," says Martin Jetter. "We reacted early and decisively when we acquired a machine-building company in Malaysia in 2006, followed by the construction of a manufacturing plant at Johor Bahru. Then, we set up our joint venture with Sanjin, a Chinese supplier of glass-making machinery, supported by a majority stake. Sanjin has a market share of more than 50% in China. Today, Bucher Emhart Glass is in a position where we can leverage a truly global setup, not only to respond to trends, but to steer them too."

However, the development of the firm's Asian presence does not mean that Europe has become any less important. "Our European engineering teams, based in Sweden and Switzerland as well as in the US, are and will remain the centre of our knowledge base," affirms Martin.

"We will still have first-class technology plants and know-how in Europe. Our global setup is about optimising our manufacturing base, and making sure everybody does what they do best."

Bucher Emhart Glass, Cham, Switzerland
www.emhartglass.com

