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Made in China

By Richard Porayko*

Offshore products are making inroads and savvy glass companies need to recognize them either as an opportunity or a threat, or as a hybrid of the two

Offshore-made product is an elephant in the room. The subject is still very much taboo in any industry, including the glass industry. The mere mention of the topic is enough to spark heated debates across the continent. In fact, when *Glass Canada* magazine approached both proponents and opponents of offshore glass, many companies simply did not wish to go on record.

Canadian business owners recognize the importance of "Buying North American" in order to help stop the bleeding of jobs and bankruptcies. This is, however, the exception more than the rule, as many of the major glass equipment suppliers are based around the world, particularly in Europe.

Seeking the best in quality, price and service in a global economy, owners often lean to the ABC purchasing strategy, Anything But Chinese. However, many glass companies resist for as long as they can but often find the temptation of low price, ample supply and improving quality difficult to ignore. This is especially true in a struggling economy where glass companies can take advantage of saving as much as 30 to 50 per cent.

As of press deadline, five-millimetre clear tempered in Vancouver was allegedly selling for as low as \$0.99 a square foot. With companies looking to be as competitive as possible, the big question is, if you can't beat them, do you join them?

"A few years ago, the North American glass industry was so busy, the major suppliers couldn't handle the capacity," says David Husson, president of Langley, B.C.-based DH Glass Solutions and agent for Taiwan Glass Industry Corporation. "Rumours at the time

were predicting major glass shortages; however, recently things have dropped off to the point that the North American glass companies are looking for work." Husson continues, "There seems to be some shortsightedness from some of the big North American primaries. When I first started selling heavy etched glass into the furniture market, we had five price increases in one year. And within two years, the prices were right back to where they were before the price increases and alleged shortages."

Husson implies that Chinese manufacturers will be in a strong position to fill any future gaps not fulfilled by domestic suppliers. "There have been seven or eight float tanks that have shut down in North America in the last year. When the economy turns around to where it was two years ago, how are they going to replace the glass that was being produced at the facilities that were shut down?"

"As a former glazing contractor owner, I've bought offshore glass products and that is what makes me believe in it."

He says there are situations when glass has to be ordered late, such as custom shower enclosures, and a local glass company would be used; however, offshore glass can be a big cost savings option when lead times are a little longer and you can take guaranteed sizes off of a drawing, like a hand rail project. Product turnaround can take six to eight weeks with transit, so companies that are running their operations last minute will not be able to take advantage of putting some money back in their pocket.

"Companies that say that they won't buy from an offshore manufacturer are not facing reality," says Husson. "Several major Canadian glass distributors have been supplementing their laminated product with offshore product for years. Manufacturing costs for North American glass companies are too high. My biggest peeve is the energy surcharge. That's where Asian companies have a big advantage; they

factor in the energy surcharge. They know how much it costs to heat their buildings and run their float tanks. That's all built into their overhead so they give you one price and there is no additional surcharge on it. The only time that I've seen any fluctuations on offshore glass is through shipping via the container lines. In high peak periods, they have increased container costs by \$300 to \$400."

Husson states that the complete cost is always presented up front in the quote: "We calculate the duty and the freight to get the product out of the port and delivered to the glazing contractor. Just recently, some offshore manufacturers have started LTL shipments to North America. Taiwan Glass now has the ability to ship product in a consolidated container of goods."

Husson recommends due diligence when considering purchasing offshore product, "Nearly every type of fabricated glass can be purchased offshore. Railing glass, tempered glass with holes, frit glass, laminated glass and sealed units. However, quality can still be hit or miss with Chinese glass, so you need to know who you are partnering with. There is still glass coming out of China with quality the way it shouldn't be. I've heard of entire containers of mirror that are unusable. However, there are some real quality companies, like Taiwan Glass, which has 12 glass plants in China and is the fourth largest glass company in the world."

Founded in 1988, Xinyi Glass is one of the largest glass manufacturers in China. The company has five major production facilities in Dongguan, Shenzhen, Wuhu, Tianjin and Hong Kong.

"Since February 2005, Xinyi Glass Holdings Limited has been on the Hong Kong Stock exchange, therefore we are a publicly listed company and the way we run our business is subject to scrutiny by the general public," says Daniel Lau, managing director of XYG Glass, a Richmond, B.C., division of Xinyi Glass. "We

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are quite different than most Chinese glass manufacturers. A lot of them have an association with the Chinese government in one way or another, where we do not," he says.

The company's production facilities are fully integrated, from daily production of 150 container loads of float glass to fabricating services such as heat treating, laminating, low-emission coating, and insulating glass production incorporating custom ceramic frit, heat soaking and other fabrication processes, while producing a full range of architectural, solar and automotive glass products.

"Approximately 50 per cent of Xinyi Glass products are exported to over 100 countries worldwide," says Lau. "We're expanding very, very quickly. Three years ago we had only one float line producing glass and within 24 months we had four float lines operating. Now we are producing roughly 2,900 tons of glass per day, which works out to be approximately 150 truck loads each day. Most of this is for our own internal architectural or autoglass production; however, some of it is sold as commodity product to glass fabricators throughout the world."

Xinyi Glass has 7,500 employees, a surprisingly low number to run the company's five production facilities totalling more than 10 million square feet, Lau explains. "We rely on making use of advanced production technologies."

The company claims to meet the requirements of the global market by adopting automated production technology through incorporating machinery supplied by leading equipment suppliers; for example, four Von Ardenne low-e coating lines from Germany; Glassrobots and Tamglass tempering furnaces from Finland; and Lisec cutting tables, laminating and 10 insulating glass production lines from Austria. Xinyi Glass is also authorized by DuPont and Solutia to laminate hurricane resistant glass, which is compliant with Miami-Dade County building codes. "If our customer requires it, we can build a fritted low-e, IG unit where the exterior lite is hurricane resistant glass," Lau continues, "We believe that in the long-term, this will be a very good product

for areas in the North American market that are prone to hurricanes."

The company produces high performance low-e coatings in single, double and triple silver in both double and triple insulated glass units. As Lau explains, Xinyi only sells low-e built into an IG unit because, "We can always control the quality of the final product. Quality assurance is another aspect that makes Xinyi successful. We can also provide spandrel units and custom frit or typical patterns such as lines and reverse dots. Everything is produced in China; we do it all the time. There are also custom projects where the idea is generated by the customer, which we can help develop the frit pattern for them."

As a sign of the times, Xinyi Glass has recently supplied the curtainwall for the \$178 million Richmond Olympic Oval, a highprofile project that will be heavily featured by the worldwide media during the 2010 Olympic and Paralympic Winter Games. "We also have some curtainwall projects in Seattle and that segment is growing."

Lau explains that Xinyi Glass is very receptive to providing tours of its plants in China: "A leading glass manufacturer is going to China to see our facilities later this month. We always adopt a friendly co-operative with our counterparts throughout the world. We believe that through sharing experience we are able to promote and enhance the growth of the glass industry. And as a result of that, more use of glass by various parties and then every player in the glass industry benefits. Even with direct competitors, there could very well be business opportunities in which we can collaborate. Since we have the economy of scale and our production capacity is huge, there is a great opportunity to produce high volume pieces in China to be shipped to our business partner. If there are odd size pieces located near the end of the window wall, then the fabrication can be done locally."

He says the company works with both sales agents and directly with the customer, and for major projects it sometimes communicates directly with the glazing contractor or even with the

architects and designers.

"We look after all the shipping logistics including customs clearance and then have the containers shipped directly to the customer's designated warehouse or job site. Technically, there is not much difference in buying from a local glass manufacturer because the container shipment will be delivered to the same site."

Due to the global climate changes, governments around the world are rapidly developing new policies to develop energy-saving measures and encourage renewable energy development. He says Xinyi Glass understands that this global trend is a very good business opportunity for the glass industry, adding that they are focusing strategic business development on energy efficient and energy-saving glass products such as more advanced low-e coatings and other types of coatings that will expand the capability of the current performance of even triple silver coatings.

"We believe this will be a very well received product. We also believe that there will be an increasing use of solar energy. Solar panel development is on the rise very, very rapidly. As part and parcel, we will be expanding our production in terms of low iron, patterned PV glass for solar panels. Very shortly we also will be producing solar glass transparent conductive oxide (TCO) coated glass for thin film solar panels. In order to achieve this goal, Xinyi Glass is setting up a new research and development centre in Hong Kong, which will be solely for developing technology for glass coatings. Because of this we are actively recruiting experienced engineers and technical experts from all over the world."

Five or 10 years ago, the North American glass industry didn't have any confidence in offshore glass products. Even today, in China there is a huge disparity in glass quality. Many suppliers offer excellent quality and at the same time there is the lower quality product which has its own market. Whether your company knowingly purchases Chinese glass or not, one thing is for certain, offshore

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INNOVATIONS

Modular design for fast installation

The system is ideal for glass contractors as the installation can be done in as little as two hours depending on the area. Once the perimeter members are set into the containment opening, a GlassWalk Structural Glass "SG" installation goes smoothly from spanner, to spacers, to silicone cushions, to glass units.

All three GlassWalk floor systems utilize IBP's patented aluminum grid, with a standard clear anodized finish that offers an attractive view from any angle. Custom colours are also available. Each system is shipped as a kit, with structural members pre-cut to the design specification, and the basic installation process for each is similar. GlassWalk floor systems are designed to be set in a containment opening with a support ledge capable of supporting the floor's self-weight and live loads as required by the local governing building code. Larger openings may require intermediate support.

Guidelines:

- GlassWalk 6-inch paver systems: 20 psf self-weight, 7-foot 6¼-inch maximum clear span at 100-psf live load
- GlassWalk 8-inch paver systems: 20-psf self-weight, 6-foot 3¼-inch maximum clear span at 100-psf live load
- GlassWalk SG systems: 14.3-psf typical self-weight system is designed for 125-psf live load, and clear span will vary based on design.

Glass pavers are inserted into rubber boots, then set into the grid. With structural glass units, the installer applies pre-cut extruded silicone cushions to the sides of each grid opening before setting the glass in place. Vacuum cups are recommended and the modular design helps speed up the installation.

Once the perimeter members are in place, glaziers can install the grid and glass together, one row at a time. When all glass units are installed, apply clear silicone sealant around each paver or SG unit to finish the job.

www.thamesvalleybrick.com

Fire-rated glazed floor

Broadening its family of fire-rated glazing solutions for design professionals, Technical Glass Products (TGP) has introduced Fireframes ClearFloor. The advanced glass floor system is impact-resistant and fire-rated for two hours.

Fireframes ClearFloor can be used as a durable, non-slip walking surface and is approved for loads up to 150 psf. The



TGP's Fireframes ClearFloor is impact-resistant and fire-rated for two hours.

system is available for both interior and exterior applications and is listed by Underwriters Laboratories (UL) a recognized mark across the globe for product safety certification and compliance solutions.

Fireframes ClearFloor allows glazing in spaces that previously would have required alternative opaque fire-stopping materials like concrete and corrugated steel. Architects and designers can use the system to bring daylight deep into building interiors and to create dramatic visual effects between different building levels. Potential applications include universities, department stores, hotels, restaurants, and corporate offices.

The custom-built Fireframes ClearFloor system consists of two-hour, fire-rated Pilkington Pyrostop heat barrier glass; a tempered, laminated walking surface glass; and a steel framing grid. TGP developed the modular system to enable design creativity and easy replacement of individual walking surface panels in case of impact breakage. Fireframes ClearFloor also allows for decorative colour frits and sandblasted glass. The available glass panel size is approximately 48 by 50 inches.

"Design professionals have been asking us about fire-rated glazed floors for several years," says Jeff Razwick, vice-president of business development for TGP. "This is a one-of-a-kind solution and we're looking forward to seeing the creative ways they use it."

Fireframes ClearFloor is part of the Fireframes family of products, including fire-rated curtainwall and hardwood framing. ■

www.fireglass.com

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products are making major inroads in the Canadian glass industry and savvy glass companies need to recognize their low price and improved quality as either an opportunity or a threat, or as a hybrid of the two.

It may be as simple as managing risk by supplementing current offerings with offshore product or as complicated as revamping your marketing strategy to address new markets

or segments that aren't affected by offshore products, yet. Either way, in a competitive market, an elephant in the room should never be ignored. ■

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