

Indian glass industry expansion continues

Freelance correspondent, Sunder Singh considers growth trends in India's glassmaking industry, as well as identifying the market's main domestic players.

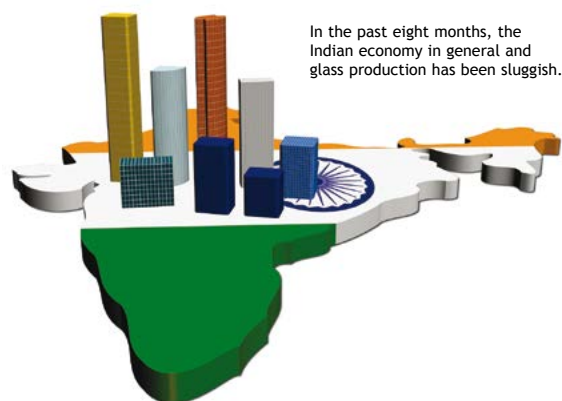
India's glassmakers could not have asked for more. Recent years have represented the best of times in the industry's history. Huge growth in flat glass consumption has been driven primarily by India's fast expanding automotive and construction sectors, while rising disposable income, urbanisation and the onset of modern retail formats have helped the glass container sector. Incidentally, despite the industry's significant growth over this period, per capita consumption for glass packaging (1.6kg) and flat glass (1.1kg) are almost at the bottom of the pyramid.

The past 18 months have been especially challenging. Profitability has been impacted by increased raw materials and fuel costs. In particular, the past eight months have not been especially good for the Indian economy in general and glass production has been sluggish. Investment projects in both main sub-sectors are on hold due to the global and domestic economic situation.

In addition to the main players in both sectors, a lot of glass is still produced by mid-size and small-scale companies. To date, three domestic organisations have set up float glass factories, although one of these subsequently sold its operations to Saint-Gobain. When considering glass containers, there are about 10 medium-sized companies, all of whom are increasing their quality and volume aspirations and are likely to emerge as bigger players in coming years.

CONTAINER SECTOR OVERVIEW

At first glance, an industry recording a turnover of US\$1.2 billion looks mammoth in size. But when viewed in the prism of its equally large population of 1.2 billion, it seems a pigmy, especially when compared to the glass industry of a country with a comparable population (China). True, glass container industry growth trends of 12% + over the past decade are impressive but per capita consumption of 1.6kg is well below even some of the world's least



developed countries.

Despite the low per capita levels, the country's glass container industry is buoyant, with downstream demand from local beverage, alcohol, food, pharmaceuticals and cosmetics industries. The industry is experiencing a surge in demand, owing largely to the growing purchasing power, urbanisation, modern retail and growing awareness about health and hygiene among consumers. The industry's success is likely to continue or possibly improve even further in the future due to rising disposable income and India's GDP rate in the short- and medium-term. The local economy, which remained largely unaffected by the global financial crisis, has been a major aid for the glass container industry, allowing manufacturers to grow even during these uncertain times.

STRICTER REGULATION REQUIRED

Glass packaging continues to face fierce competition from other forms of packaging in India where, for commercial reasons, the use of alternative materials is increasing. Among the reasons for some customers to switch are loadability, breakages and unit cost. In order to rebuff the competition, the industry needs to develop more lightweight bottles and improve the durability of its finished products.

In the past, the local glass container industry has concentrated its efforts on such objectives as traceability to restrict counterfeiting. Despite numerous attempts, this project is still at the discussion stage. Such an initiative would involve the use of permanent engravings on containers, showing the quarter and year of manufacture. This system could be helpful to protect consumers from any harmful practices employed by fillers.

In the pharmaceutical packaging

Company	Installed capacity
HNG	4235
HSIL	1550
Piramal Glass	860
Haldyn Glass	320
MBDL	240
Universal	220
Excel	220
Janta	220
Surat Glass	155
Vitrum	130
Others	600

Table 1: Main glass container producers in India.

market, the national government has made it mandatory to serialise every pack of medicines, in an effort to put a stop to the supply of spurious products. Furthermore, all pharmaceutical export shipments must include track and trace features to prevent counterfeiting of Indian products in the market.

GLASS PACKAGING PLAYERS

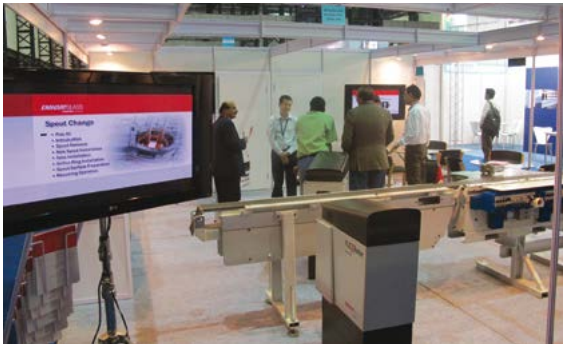
Representing an output of approximately 8500 tonnes/day, the Indian glass packaging market is dominated by three main players (see table 1). Collectively, HNG, HSIL and Piramal account for 6200 tonnes/day, with the remainder covered by eight mid-sized companies and another 17 smaller organisations. The latter group makes some 600 tonnes/day, >



Glass container industry growth trends of 12% + over the past decade are impressive but per capita consumption of 1.6kg is well below even some of the world's least developed countries.



THE ALL INDIA GLASS MANUFACTURERS' FEDERATION



A supplier to Surat Glass, Universal Glass and HGL, Emhart Glass exhibited at GLASSPEX India 2011.

primarily for niche markets.

In addition to those companies listed in table 1, other producers include Om Glass Works Pvt Ltd, Pankaj Glass Works Pvt Ltd, Farukhi Glass Industries and Durgesh Glass Works Pvt Ltd.

Ten or so small companies have capacities of approximately 200 tonnes/day each. With the exception of Surat Glass, all have been in business since before the 1990s, prior to the onset of India's trade liberalisation measures. Covering the length and breadth of the country, these firms often cater to niche demand from the pharmaceutical, beverage and food industries. Barring two, none supplies the volume beer or carbonated soft drinks sectors. These companies have been successful in meeting the demand of local industries, in a cost-effective manner. Fillers of non-returnable bottles, domestic beverage companies and small food

processors are their main consumers. In two instances (MBDL and Mohan Mekins), production units have been created to satisfy the needs of their parent organisations.

These smaller companies have not been especially hi-tech until recent times. But a greater emphasis on quality by leading producers has forced these second tier companies to invest in state-of-the-art technologies. Gradually, these glassmakers are adapting to the industry's best practices, strengthening their position in niche sectors and improving their overall competitiveness.

HNG

Hindustan National Glass & Industries Ltd is the undisputed market leader in India's glass container industry. The company has an installed capacity of 3500 tonnes/day at present and plans to expand further with additional facilities (both greenfield and brownfield) in Andhra Pradesh and Maharashtra.

Naidupeta in Andhra Pradesh is one of HNG's most discussed projects, which is set to be the largest glass hub in South East Asia. The project is being set up with an initial cost of INR seven billion and when completed, will house three container and two float plants.

This year, the company has commenced operations at its Nasik plant and will start another 650 tonnes/day line at Naidupetu by the end of 2012. By 2015, HNG is targeting an installed capacity of 5015

*Premium Conveyor Chains
To Meet The Ever
Increasing Demands Of
The Glass Industry*

PENNINE
PIE
INDUSTRIAL EQUIPMENT

Tel: +44 (0) 1484 864 733
Fax: +44 (0) 1484 865 235

Glassman Istanbul
22-23 Nov 2011 - Stand B1

Email: sales@pennine.org
Web: www.pennine.org



Zippe is a supplier to Sezal Glass and a previous exhibitor at GLASSPEX India.



An exhibitor at GLASSPEX India, Sorg designed and supplied a furnace for Universal Glass.



An exhibitor at GLASSPEX India, ISRA supplied equipment to HNG's float plant.



Seen here at GLASSPEX India, MSC & SGCC supplies technology to HGL.

tonnes/day as a result of its greenfield and brownfield expansions, as well as the rebuilding of existing furnaces.

In May 2011, HNG also acquired the 320 tonnes/day plant of Agenda Glass at Gardelegen, Germany. Agenda Glass AG is one of Europe's most modern production facilities, having commenced operations in February 2010.

VITRUM GLASS (EMPIRE INDUSTRIES)

A specialist producer of amber glass containers for the pharmaceutical industry, Vitrum Glass maintains a fully automated 1.4 million units/day capacity facility in the heart of Mumbai. Ware is made in capacities from 5ml to 500ml.

As a result of robust demand for pharmaceutical bottles, the company's turnover improved by 21% last year to INR 1095.52 million. Exports increased from INR 98.92 million to INR 189.27 million (an impressive 91%

increase). The company also installed its second 8-section triple gob IS machine in July 2011, replacing a double gob machine on line four.

SURAT GLASS

Surat Glass India Ltd is a recently created business at Surat, Gujarat. The glassworks was established by parent company, Fosbel Glass Decorators, whose core business is the printing of applied colour labels on glass bottles on behalf of leading manufacturers of soft drinks, dairy and pharmaceutical products in India. The company has installed a fully

automatic, 155 tonnes/day melting furnace and five fully automatic, semi-electronic IS machines from Emhart Glass. Printing machines and annealing lehrs were acquired from Rosario and TNF respectively.

The company has acquired an additional six acres of land adjacent to the existing plant and is considering the installation of another 100 tonnes/day furnace and three high speed IS machines to produce green glass.

HALDYN GLASS

Located at Padra, in district Vadodra of Gujarat state, HGL was incorporated in 1991 to manufacture glass packaging for the liquor, cosmetics, food and pharmaceutical industries. Following an expansion in 2009, HGL's capacity now stands at 320 tonnes/day from two furnaces. The plant makes flint and coloured glass compositions and has developed a strong business in the fast emerging local cosmetics industry.

HGL's close proximity to raw materials resources in Gujarat and Rajasthan, as well as the natural gas fields of state-controlled ONGC provide a competitive advantage and >

CREATIVITY TV

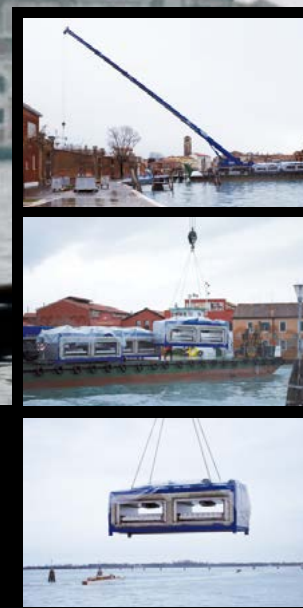
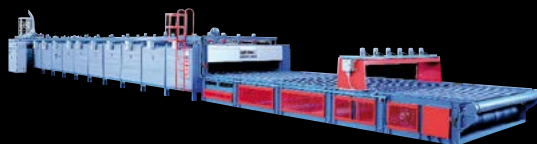


ITALIAN
detail

The right answer to all your needs!

40 years of experience serving the glass industry

- annealing lehrs
- decorating lehrs
- toughening lines
- 2/3 axis servo stackers
- cross conveyors
- hot glass scrapers
- mould pre-heating ovens



Murano, february 2010
Annealing Lehrs' Unloading for Ferro Murano company.



made in Italy



www.carmetspa.it



THE ALL INDIA GLASS MANUFACTURERS' FEDERATION

substantial freight cost savings. Equipped with the latest technology from leading suppliers such as MSC & SGCC, Dukhiram Maurya Refractories and Tempsons, the glassmaker's two melting furnaces serve 10 lines, equipped with Emhart Glass IS machines and capable of producing a diverse range of containers from 10ml to 1000ml capacity.

JANTA GLASS

With a melting capacity of 220 tonnes/day, Janta Glass has been producing glass packaging since 1965 from premises in Vadodra, Gujarat. The company supplies many of India's leading liquor manufacturers.

UNIVERSAL GLASS

A business unit of local liquor manufacturing company, Jagatjeet Industries Ltd, Universal Glass has been producing glass containers since 1976, from facilities 30km outside New Delhi. The plant houses a natural gas-fired, 220 tonnes/day furnace serving five fully automatic IS machines, manufacturing bottles and jars in capacities from 100ml to 1400ml.

The furnace was designed and built by Sorg and the forming machines were sourced from Emhart Glass and Maul Technology. The factory receives a continuous supply of natural gas from the Gas Authority of India Ltd.

An in-house CAD facility designs moulds and related equipment. Mould manufacturing and repair workshops are also featured. Strutz and Kammann decoration equipment is employed to print up to three million soft drinks bottles every month.

KISHORE GROUP

Thane, Mumbai-based Kishore Group is one of many small glass container producers serving the Indian market. Established in 1960 with knowhow from Germany's Ambeg Dr J Dichter GmbH, the company

produces approximately one million flat bottomed glass ampoules for pharmaceutical packaging every day.

UNITED SPIRITS

One of the Indian glass container industry's main customers is now planning to enter the business, having confirmed an investment of approaching INR six billion in a new factory. With head offices in Bangalore, United Spirits (USL) is India's largest liquor firm in volume terms and the country's largest beer producer. The company controls 54% of the local beer industry and is India's largest consumer of glass containers. Now, the company has announced plans to create its own glass container production plant as a means of controlling what are described as volatile costs.

"We are planning to invest INR 500-600 crore into glass (bottle) manufacturing" confirmed Ravi Nedungadi, President and CEO of UB Group. "We are talking overseas about lightweighting technology and will move ahead once this is finalised." The group's flagship USL controls around 55% of India's branded spirits industry.

Mr Nedungadi confirmed that the move was part of a strategy to gain direct control over some of the key inputs such as extra neutral alcohol (ENA) and glass packaging, the soaring prices of which could hurt profitability. "There are tremendous cost savings to be achieved straightaway" he suggested. "USL is now a juggernaut in an industry which is witnessing robust volume growth."

After molasses, glass is the key cost for the company in the production of packaged spirits brands. USL has also experimented with Tetrapack for some of its regular-priced brands in states like Andhra Pradesh and Karnataka. This initiative has been limited to 180ml packs and regular brands, however.

FLOAT SECTOR TRENDS

A late starter to float glass production, Indian industry was dependent initially on three multi-nationals glass companies for its entire output, namely Saint-Gobain, Asahi and Gujarat Guardian. Around the middle of the last decade, however, some local companies also announced their intention to start up float operations. Leading glass container producer, Hindustan National Glass and two downstream glass processors, Delhi-based Gold Plus Glass and Gujarat-based Sezal Architectural Glass commissioned lines between 2006 and 2009.

While Sezal sold its float glass business to Saint-Gobain in 2011, the other two players look set for a longer tenure. HNG has announced plans to build a second line at its existing float plant, while Gold Plus is planning a second plant. Separately, there have been announcements from other domestic companies about setting up float glass plants, although nothing concrete has come from these initial proposals.



Bottero supplies to HNG's float glass plant and exhibited at GLASSPEX India 2011.



LUBITECH ENTERPRISES

A LEADING PROVIDER OF END-TO-END SOLUTIONS FOR GLASS MANUFACTURING INDUSTRY

Services We offer

- Turnkey projects
- Furnace Design, Construction and Consulting Services
- Furnace equipments and Control Systems
- Hot and Cold repairs through supply of highly skilled manpower
- Steel Fabrication and Erection
- Design, Audit and Training in operations of Forehearths
- All types of Bonded Refractories
Silica, Mullite, Zircon Mullite, and basic bricks including Chimney Blocks
- Silica Crown Insulations
- Glass Moulds and Equipments

Ready stock of Fused Silica Bricks and LUBISOL Si-Seal kit for urgent requirements



OUR WORLDWIDE BUSINESS PARTNERS



Lubitech Enterprises
233, Mastermind IV, Royal Palms, Aarey Colony, Goregaon (E), Mumbai 400 065.
T/F: +91 22 28790325, E: lubitechservices@yahoo.co.in
Website: www.lubitechenterprises.com



A supplier to Sezal Glass, Grenzebach was present at GLASSPEX India.



Sezal Glass use technology from Fives Stein, exhibiting here at GLASSPEX India.

India's annual demand for flat glass products was 1.5 million tonnes in 2011, primarily in the form of clear, tinted, mirror, reflective and processed glass. Per capita consumption has increased significantly in India in recent years, however, from 0.58kg to 1.1kg. With just eight float plants to provide for a population of 1.2 billion people, there is still huge scope for additional facilities. Both multinationals and domestic companies are ready to fill the gap as soon as global economic conditions improve.

The growth in the glass industry is characterised by the increased use of processed and reflective glass as Indian customers have become more aware of the importance of glass in effectively addressing the concerns of safety and energy efficiency.

FIRST ACQUISITION COMPLETED

As mentioned above, Sezal Glass sold its float glass business to Saint-Gobain India for INR 6.86 billion in June 2011. Located at Jhagadia in the Bharuch district of Gujarat, this 150 acre plant has a capacity of 550 tonnes/day. Equipped with technology from Fives Stein, Grenzebach, Zippe and Bovone, this modern plant was established for an investment of INR 6 billion.

Set up just two years ago, the company had also signed an agreement with the Gujarat Government to

invest another INR 7.5 billion to build another line. However, according to a statement from Sezal Glass CEO, Amrit Gada at the time of selling his unit, as part of the overall transaction, Sezal Glass and its principal promoters have undertaken non-compete obligations with respect to the float glass business with Saint-Gobain for a period of five years. This acquisition, with access to raw materials in the vicinity, is expected to afford Saint-Gobain India greater access to the country's western market.

MARKET LEADER

Before this acquisition, Saint-Gobain Glass India had two float glass plants with a daily capacity of 1500 tonnes near Chennai. The acquisition of Sezal Glass has taken it far ahead of its closest competitor in volume terms, Asahi Glass.

In addition to its three existing float lines, the company is at an advanced stage of commissioning its INR 10 billion plant, with an annual capacity of 300,000 tonnes in the Bhiwadi district of Rajasthan state in Northern

India. An agreement was signed with the Rajasthan Government for the plant in August 2008 and the company had originally planned to commission the unit in the first quarter of 2010. However, this was delayed due to the economic slowdown. The Rajasthan plant will help Saint-Gobain to access northern markets, the largest in the country.

SECOND HNG PROJECT

India's largest glass container producer, Hindustan National Glass (HNG) joined the float bandwagon in 2006, setting up a greenfield plant at Halol, Gujarat state. This plant has a capacity of 600 tonnes/day and features manufacturing equipment sourced from Merkle and EFCO (tin bath), CNUD (lehr), ISRA (inspection), Bottero and Bystronic.

After a successful five year period, HNG is planning an investment of INR 7.5 billion to set up a second float line at the existing site. A memorandum of understanding detailing HNG's expansion plans was confirmed at the Vibrant Gujarat Summit last January. With an installed capacity of 1000 tonnes/day, this project is scheduled for completion by 2014.

GOLD PLUS

Setting up a float plant by a domestic downstream glass processor was an ambitious project when the New Delhi-based company announced its plans. Gold Plus entered production in a tax-free zone at Roorke, Uttarakhand (125km from New Delhi) in 2009. The 460 tonnes/day plant produces float, mirrored, clear reflective, frosted and lacquered glasses. Gold Plus also operates a mirror coating line, with an installed capacity of 12,000m²/day. Reportedly, construction work is progressing to build a second line at the same site. ■

PENICO MOULD GAUGE EQUIPMENT

Penico's range of Mould Gauge Equipment provides the glass container industry with gauge solutions. Proven gauge design - Application know-how and fast delivery to all parts of the glass container industry.

- IS Blankmould - Blowmould - Neckring and Bottomplate Gauges - Fitter Gauges to inspect Dovetail Profiles.
- Non Standard Gauges manufactured to customer's own requirements.
- Blankmould & Mould Reamers manufactured in either HSS or Carbide Tipped to simplify the repair of mould dovetails.
- Gauge calibration and repair service provided to UKAS International Standards.



Penico Gauges Limited

Albion Works • Keighley Road • Bingley • BD16 2RD • England
 Tel: +44 (0) 1274 511044 • Fax: +44 (0) 1274 510770
 E-mail: penicogauges@yahoo.co.uk • Web Site: www.penico.com

ABOUT THE AUTHOR:

Sunder Singh is a freelance correspondent

FURTHER INFORMATION:

email: sunder.singh@gmail.com