



Indian glass industry set for 'brisk action'

Although India's flat and container glass sectors have not been the subject of major capacity expansion or the entry of new players in recent times, both are gearing up for brisk action. With the GLASSPEX India exhibition returning to Mumbai on 13-15 March 2015, Sunder Singh evaluates the leading players in both sectors.

Four months is not a long time for the revival of a country's industry but in its first few months in office, the national government in New Delhi has made remarkable progress with respect to India's moribund economy and struggling industries. Economic indicators, which were falling quarter after quarter over the last three years, have started to improve.

Signaling a turnaround for the economy and adding to the current festive cheer, the first quarter (April-June) GDP growth came in at a higher than expected 5.7%. This latest growth performance is the highest for the last nine quarters. The Q1 GDP growth has been buoyed by a sharp turnaround in manufacturing, coupled with a strong showing by the local mining and construction sectors. Industries that were running at very low capacity utilisation rates are redrawing their plans against the prospect of healthy anticipated demand.

GLASS CONTAINER TRENDS

Dominated by Hindustan National Glass, Piramal Glass and AGI Glasspac, the Indian glass container industry involves a dozen mid-scale producers besides these three. HNG is in the process of stabilising

its capacity following massive additions at its existing Nasik unit and commissioning of the greenfield project at Naidupet, Andhra Pradesh. Of the other players, Piramal and Janta Glass have added capacity and modernised their production facilities. Two small glass container units belonging to liquor manufacturers Mohan Meakins and Khoday Glass faced closure due to their operations becoming uncompetitive.

The Indian glass container industry has been facing the consequences of a double-edged sword; on one side, lower growth in end user segment and oversupply in the glass market and on the other hand, rising prices for raw materials and fuel. Major end user liquor and beer growth had contracted from double to single digit in the last two years. Following the change in government office in New Delhi and resulting economic rebound, however, producers are gearing up for brisk business in coming year.

The country's production and supply of container glass increased steadily in line with demand until 2012 (10600 tonnes/day), with capacity additions by all key players pre-2012 years, combined with sluggish demand, leading to >



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low capacity utilisation. With steady demand growth anticipated in the coming years and no major extra capacity additions expected, existing capacity utilisation is expected to remain at healthy levels.

Company	Location	Capacity (tonnes/day)
HNG	Pan-India	4800
AGI Glasspac	Andhra Pradesh	1600
Piramal Glass	Gujarat	860
Haldyn Glass	Gujarat	320
Mohan Meakin	Uttar Pradesh	240
Sunrise Glass	Gujarat	220
Janta Glass	Gujarat	220
Universal Glass	Uttar Pradesh	215
Hyaline Glass	Madhya Pradesh	150
Vitrum Glass	Mumbai	130
Pragati Glass Industry	Gujarat	130
Enki Glass Industry	Gujarat	120
Small-scale Firozabad-based units	Uttar Pradesh	900
Cumulative capacity of all remaining small producers	Pan-India	700
TOTAL		10605

Major players, factory locations and capacities of Indian glass container producers.



Bucher Emhart Glass is a supplier to Universal and an exhibitor at GLASSPEX India.



Taking part here at GLASSPEX India, Bottero supplies equipment to Piramal Glass.



THE ALL INDIA GLASS MANUFACTURERS' FEDERATION

The liquor segment accounts for 57% of total glass container demand in India. This sector is poised to grow at double-digit levels due to lifestyle changes and a rise in disposable income, providing domestic glass producers a reason to remain positive. The second largest customer market, beer is at the start of its growth trajectory, as Indian and MNC entrants like SAB Miller, Carlsberg, Molson Coor, Kobra and Budweiser scale up their operations. Total beer sales in the country were recorded at 2248 million litres in 2013 and are expected to increase to 3961 million litres by 2018. Besides liquor and beer, the food, pharmaceuticals and cosmetics sectors are also registering healthy growth and increased usage for glass packaging.

HNG AND AGI GLASSPAC

HNG and AGI Glasspac, the two leading producers in the country, have not added fresh capacity in the last two years.

Both companies are in the process of stabilising their huge capacity additions of the past three years.

PIRAMAL GLASS

Cosmetics/perfumery and pharmaceutical glass major, Piramal Glass has consolidated its position as the country's third largest producer via continuous expansion and the realignment of production facilities over the last five years. Formerly known as Gujarat Glass Ltd, Piramal has two production facilities in the state of Gujarat at Kosamba and Jambusar, both of which are strategically located near three major seaports.

The Kosamba facility has a capacity of 340 tonnes/day and manufactures USP Types I, II and III amber and flint bottles and vials for the pharmaceuticals industry. It also makes containers for nail polish, perfumes, skin care, foundation, aroma oils, miniatures etc (from 5ml to 150ml). This facility also has the capacity to produce coloured glass for the perfumery business.

A second plant at Jambusar has been operational since 1998 and is one of the largest installed facilities for amber glass. Spread across a sprawling 67 acre site, this plant has an installed capacity of 545 tonnes/day, consisting of Type III amber and flint glass bottles for both pharmaceutical and cosmetics/perfumery sectors.

Both facilities are equipped with clean rooms, where temperature, relative humidity, air flow and microbe and particle count are strictly monitored to manufacture no-wash category bottles. The plants feature the latest machines and equipment, sourced from leading international suppliers. The melting furnaces were designed by HORN Glass Industries, the batch house by ZIPPE Industrieanlagen and IS machines by Bottero. At the cold end, VisiGlass on-line, camera-based inspection machines can be found.

The company is investing more and more capital and is striving to become a dominant global player in the cosmetics and perfumery business. The pharmaceutical market, which previously accounted for 40% of total sales, has reduced in importance to 30% of sales, while cosmetics and perfumery has climbed to about 52% from 42% in recent years.

In 2012, Piramal completed additional capacity of 160 tonnes/day at its Jambusar plant for the mass cosmetics and perfumery market. Following this capacity addition, the glassmaker's capacity for the sector has reached 545 tonnes/day, making it the second largest producer in this category globally, catering for the packaging needs of such leading international customers as Yves Rocher, YSL, Coty, Unilever, Revlon, L'Oreal, P&G, Elizabeth Arden and Estee Lauder.

Piramal has also carried out a brownfield expansion at its



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Kosamaba facility and transferred 75 tonnes of capacity for pharmaceuticals to the cosmetics business, taking the company's overall installed capacity to 860 tonnes/day.

SUNRISE GLASS INDUSTRIES

Set up for an initial outlay of INR 700 million, Sunrise Glass is a new player in India's glass container industry. With its 220 tonnes/day facility at Surat, Gujarat, the company claims many advantages over other producers due to its proximity to Mumbai and raw materials.

The company's plant, which came on stream in 2011, is considered the country's first large-scale glass container facility to be based primarily on local technology. The 220 tonnes/day furnace was designed by Delhi-based A K Sinha & Associates, while six high speed 8-section IS machines were supplied and installed by Mumbai-based Shamvik Glasstech and Gujarat-based Shreno Ltd. Lehrers were supplied and installed by Mumbai's TNF Engineering and Umda Engineering and refractories for the project were sourced from Saint-Gobain's SEPR (SEFPRO).

GERRESHEIMER AG

Germany's Gerresheimer AG entered the Indian glass container market by acquiring a 70% stake in Gujarat-based Neutral Glass & Allied Industries in mid-2012. Established in 1986, this business has a production facility at Kosamba, Gujarat and has the capacity to produce about one billion glass bottles and vials for the pharmaceutical industry in amber and flint.

ENKI GLASS INDUSTRY

Another small-scale glass container producer that was conceptualised during the boom years to serve niche markets, Enki Glass Industry pvt Ltd is based at Kondh near Ankleshwar, in the state of Gujarat.

With an installed capacity of 120 tonnes/day and assisted by four automatic IS machines, the company produces glass containers for pharmaceutical and cosmetics use. Three machines are 6-section double gob and can

produce ware in the range of 85ml to 250ml. The other IS machine is a 6-section single gob design, capable of producing bottles in the range of 300ml to 1000ml.

HYALINE GLASS WORKS

Established in 2009 as a joint venture between two families (one having a glass production background and other having a liquor manufacturing unit), Hyaline Glass Works pvt Ltd (HGWPL) commenced production in 2013 to produce the glass container requirements of liquor, food and pharmaceutical customers in the central part of the country. >



HNG is a leading glassmaker in India and exhibits at GLASSPEX India.

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India's central region (Madhya Pradesh, as well as parts of Maharashtra and Uttar Pradesh) was previously served by a single HNG plant. The Hyaline plant at Dewas will ease supply constraints to leading liquor producers in the region. Spread over eight acres of land, Hyaline's manufacturing facility has an installed capacity of 150 tonnes/day.

PRAGATI GLASS

Pragati Glass is one among a growing crop of small-scale glass container producers in the country. With a manufacturing capacity of 130 tonnes/day from Kosamba and two furnaces pulling 60 and 70 tonnes/day, the company supplies a series of niche markets.

BACKWARDS INTEGRATION

As the largest consumer of glass containers, the Indian liquor industry spends a huge amount on its packaging. Regular price hikes by suppliers, major transportation costs from glass production sites and long lead times have forced some leading liquor producers to establish dedicated glass sites near their liquor

units. This includes Universal Glass, Khoday Glass and Mohan Meakins.

The largest of these plants, however, (announced by United Spirits) is still at the planning stage. Despite numerous announcements from the company, there has been no progress with a proposed 6000 tonnes/day factory.

UNIVERSAL GLASS

A subsidiary of liquor and beer producer, Jagatjit Industries (based at Sahibabad near Delhi), Universal Glass was set up to meet the captive glass demand of its parent company. Over the years, the glassworks has scaled up its capacity and started supplying other customers as well.

The plant has one natural gas-fired furnace of 215 tonnes capacity, serving five fully automatic IS forming machines manufacturing bottles and jars in capacities from 100ml to 1400ml.

The furnace was designed by SORG, while the forming machines were sourced from Bucher Emhart Glass and Maul Technology. Also operated at the site is three colour Strutz and Kammann ACL decorating equipment.

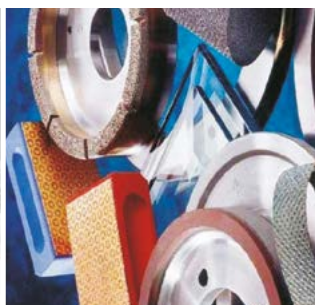


Sefpro has exhibited at GLASSPEX India and is a supplier to Sunrise.



An exhibitor at GLASSPEX India, HORN is a key supplier to Piramal Glass.

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MOHAN MEAKIN

The Mohan Meakin Brewery & Distillery's glass container plant was set up along the same lines as that of Universal Glass, ie to meet the captive demand of the group's liquor business. Located at Sahibabad (UP), the plant has an installed capacity of 240 tonnes/day. More than 80% of total production is destined for the liquor industry, while the remainder goes for food packaging.

Last November, however, the company decided to close its furnace. When questioned, a spokesman commented: "Our glass melting furnace was renovated in 2006. Consumption of natural gas and electricity per tonne of glass produced is increasing year after year due to reducing furnace efficiencies, so we have decided to close it for some time." The company did not reveal whether the decision has been taken to close the plant permanently or undertake a modernisation programme in the near future.

Traditionally, Lubisol, Heat Applications India and Dukhram Maurya Refractories have been among the glassworks' leading technology suppliers.>



GLASSPEX INDIA 2015

Organised by Messe Düsseldorf, GLASSPEX India returns to Mumbai on 13-15 March 2015. Two years ago, some 180 exhibitors from 22 countries presented the latest products and innovations in the areas of glass production, processing and applications to 3347 trade visitors.

Exhibitors included such established names as Adelio Lattuada, AGR, AIGMF, Arkema, BDF, Bottero, Bucher Emhart Glass, Bystronic glass, Car-Met, Ceracon, CGE Continental Glass Engineering, CNUD-EFCO, DSF Refractories, Dukhram Maurya, Eirich, Electroglass, EME, Emmeti, Eurotherm, Ferlam, FIC, Fickert+Winterling, Fives, Flammatec, Fond Metalli, Forehearth Services, Forma Glas, Forza G Italia, Fosbel, futronic, Gedvelop, GIMAV, Glamaco, Glass Service (Czech Republic), Glass Service (Italy), Glass Worldwide, Graphoidal, Grenzebach, Heat Applications, HEGLA, Heye International, Hindusthan National Glass & Industries, HORN, IBG, Indotherm, IRIS Inspection machines, Italcarrrelli, JSJ, KRS, Lahti, Lattimer, Lizomontagens, Lubitech, Mappi International, Mascot, MSC & SGCC (Tiamo), Monforts, MSK, NARCO, OCMI, OGIS, Olivotto, OMSO, Optima, Parkinson-Spencer Refractories, P-D Refractories, Pennekamp, Pennine, Pneumofore, PPG, Putsch, Quantum, Rafbrix, Ramsey, RHI, Rondot, Rosario C2C, Saint-Gobain SEFPRO, Schiatti Angelo, SGS, Shamvik, Sheppee International, Siemens, SORG, Strutz, SVA, SynergX, Techno5, Tecoglas, Henry F Teichmann, Total Lubricants, Triulzi Cesare, Vetriglass, VDMA, VMA, Waltec, Walzentechnik, Z&J, Zecchetti and ZIPPE.

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UNITED SPIRITS

India's largest spirits company, United Spirits Ltd (USL), a subsidiary of UK-based Diageo plc, has also been planning to set up a major glass container glass project in the country for more than three years. As a consequence of internal problems, however, no progress has been realised until now.

United Spirits Ltd and its former sister company United Breweries (India's largest brewer) represent the largest glass packaging buyer in the country. The decision to set up a glass plant was an effort to move away from buying glass from a single source. The maker of McDowell and Bagpiper whisky brands sold approximately 124 million nine litre cases of spirits in the last financial year and accounts for as much as 40% of total industry volume, which is estimated at 305 million cases.

The company had announced plans to set up the glass plant in 2012 at Vijayawada, Andhra Pradesh and acquired the necessary land. With an installed capacity of 200,000 tonnes per annum from two furnaces, it was to have become operational in September 2014.

GAS WOES

A recent decision by the Government-owned gas distribution entity, Gas Authority of India Ltd (GAIL) to curtail gas supplies in the south of Gujarat is likely to have a major impact on many glass producers. On the basis of government guidelines released last August, GAIL decided to cut supplies by 58% to some 20 glass producers from mid-September.

The decision forces companies to use furnace oil, which is at least four times more expensive. Companies affected include Pragati Glass, Piramal Glass, Haldyn Glass, Schott Glass and Gujarat Borosil. Ashok Jain, Director of Gujarat Borosil commented: "We will fight against (the decision). It yields nothing and will stop production."

FLAT GLASS TRENDS

Served by seven float plants for the last four years, the Indian float

glass industry has not witnessed any fresh capacity additions in recent times, despite capacity addition announcements from three major producers. Saint-Gobain maintains market leadership with three plants in the country. However, its widely touted Bhiwadi plant (Saint-Gobain had announced plans to set up a state-of-the-art glass complex in 2008 in the state of Rajasthan) is still to become a reality.

Similar announcements from HNG Float Glass and Gold Plus Float Glass to set up additional float plants in the vicinity of their existing installations have not progressed.

TRAKYA CAM ENTERS INDIA

Turkey's Trakya Cam entered the Indian float glass industry by acquiring a stake in Hindustan National Glass's float glass venture. According to HNG management, this agreement was reached to bring strong technological knowhow for value-added float and automotive grade glasses, both of which have considerable local growth potential.

In the automotive sector, the involvement of Trakya Cam opens up significant opportunities in OEM markets on account of the company's global reputation and ties. Trakya Cam's technical, financial and manpower strengths, coupled with HNG's strength in India's glass industry are sure to result in much better and deeper inroads in the market going forward.

CHEAP IMPORTS

The Indian float glass industry remains concerned that cheap imports from western Asia are disturbing the dynamics of the country's local industry. Represented by Gold Plus Glass Industry Ltd, HNG Float Glass Ltd and Saint-Gobain Glass India Ltd, these producers have sought anti-dumping duties on imports from Pakistan, Saudi Arabia and the United Arab Emirates and have complained to the Indian Directorate-General of Anti-Dumping and Allied Duties.

According to these producers, a



Strutz exhibited at the last GLASSPEX India and is a supplier to Universal.

number of float lines were built in west Asia during a boom period, thanks to the availability of cheap finance and the low cost of gas. It is suggested that these factories are now selling glass in India, shipped mainly through Mumbai, at prices lower than their cost of production. Reportedly, the price of gas for these float glassmakers is about \$0.75/million BTU, compared to approximately \$16.5 for Indian manufacturers. For every dollar difference in gas pricing, the impact on the price of glass is \$7-8/ton. It is estimated that the normal CIF (cost, insurance and freight) cost for landed glass should be \$260-270/tonne, whereas glass from west Asia is available for \$120-130/tonne in Mumbai.

Another problem raised is that producers in Pakistan can export float glass to India without duty, while Indian companies do not enjoy the same benefit when they want to sell in Pakistan. Pakistan has a float glass plant close to the Indian (Wagah) border and glass is transported to India by road with minimal transportation costs.

AIGMF

Readers looking for more detailed information about Indian glass manufacturers should visit the website of the All India Glass Manufacturers' Federation (www.aigmf.com). Members of the AIGMF manufacture the complete range of glass items, including glass containers and pressed ware, flat glass including float, sheet, figured and wired, glassfibre, vacuum flasks and refills, glass lamps and shells, glass table and kitchenware (including opal and crystal), scientific and laboratory glassware, glass wool and beads, as well as industrial glasses.

The AIGMF is a partner of GLASSPEX India exhibition and stages concurrent international conferences. *Glass Worldwide* is exclusive preferred international journal of the AIGMF in association with *Kanch*. ■



Seen here at GLASSPEX, SORG is a supplier to Universal.

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Company	Production in respective financial year (tonnes)			Company's share of domestic sales 2012-13
	2012-13	2011-12	2010-11	
Saint-Gobain	510,495	493,186	379,097	39%
Asahi India	253,657	214,522	214,114	19%
Gujarat Guardian	208,649	206,705	131,044	16%
HNG	194,492	193,290	171,817	15 %
Gold Plus	158,158	144,240	139,446	12 %
TOTAL	1,355,452	1,251,943	1,035,517	98%

Indian float glass production in the last three financial years.