

Pharmaceuticals drive JAPAN's rising demand for container glass

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Against the backdrop of a country enjoying its longest sustained period of growth in over a decade, the pharma industry in Japan is the world's third largest - driven by an aging population and broad access to healthcare. However, with over 100 domestic pharma companies, its pharmaceutical market is very fragmented.

THE DEMOGRAPHY OF DEMAND

According to the Annual Pharmaceutical Production Statistics of the Ministry of Health,

With JAPAN numbered among the largest pharmaceutical markets in Asian countries, Glass Machinery Plants & Accessories presents an overview here of the country's container glass market, which accounts for a large share of its pharmaceutical packaging industry.





Labour and Welfare (MHLW), the Japanese market for prescription and non-prescription pharmaceuticals was at USD 107 billion in 2020 - which, in yen terms, is down 0.7 percent from 2019.

With a population of more than 125 million -which makes it the tenth most populous country in the world- demographics too are shaping the Japanese pharma industry. Life expectancy is now at 85 years, and the population

has declined and aged over the last few decades due to low birth and migration rates.

Indeed it's mostly due to the aging population that pharmacy dispensing costs currently account for JPY 7.6 trillion in steadily increasing national healthcare costs. Here, pharmaceutical market reform is listed among the various government attempts to reduce consumer health care costs. It has seen reforms instituted over the past several years which involve new approaches to controlling drug prices and encouraging the development and use of generic and biosimilar drugs. In the realm of hematology treatment, where pharmaceuticals can be very expensive, this should be a positive development for patients - even if some lament that price-control efforts could stifle the innovation for which Japan is so well-known.

Among the biggest changes for pharmaceutical packaging in Japan was the 2014 revision of its keystone pharmaceutical legislation for pharmaceutical

and medical devices, renamed the PMD Act. Japanese authorities now claim that certain drug approvals in the country are faster today than in both Europe and USA - a marked change from the days when Japan was seen as a difficult market for foreign companies. In 2014, the government also introduced punitive pricing measures targeting long-listed drugs that continue to maintain market share despite the availability of generics. Under what's known as the "Z2" rule, pricing for long-listed products is reduced by up to 2 percent every two years, in addition to cuts made under the R-Zone rule in cases where generic replacement rates for that brand fail to reach 60 percent following five years of the first generic listing.

THE PHARMACEUTICAL PACKAGING CONTAINER GLASS INDUSTRY

Seven container glass producers account for the bulk of current Japanese pharmaceutical glass output - four of which are domestic while the remaining three are foreign.



COUNTRY STUDY

NIHON YAMAMURA

Nihon Yamamura Glass is one of the largest container glass producers in Japan. With three strategically-located production plants in Tokyo, Saitama and Harima, the company is a leading supplier of glass containers to the country's food, beverages and pharmaceutical industries. Nihon Yamamura's major focus is on container glass for the beverage industry, though the company is also among the country's leading pharmaceutical glass producers.

NIPRO PHARMA PACKAGING

Established in 1954, Nipro Pharma Packaging is part of Nipro Corporation Japan. As a leading global healthcare company with over 33,000 employees worldwide, it serves the Pharmaceutical, Medical Device, and Pharma Packaging Industries respectively.

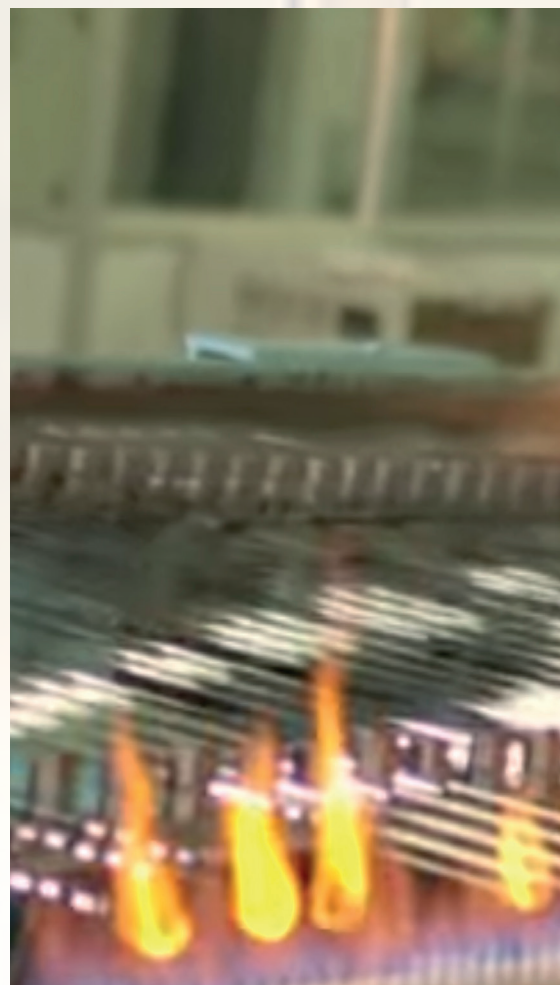
The company operates a production plant at Biwako within the Shiga prefecture which was established in 2014 and produces prefilled syringes as well as glass vials for Japanese pharmaceutical companies.


Nipro's pharmaceutical glass products are made of the borosilicate glass (hard glass) that's based on the Japanese Pharmacopoeia. Its limited amount of alkaline elution (with a PH level that's near-neutral) helps the chemical change of the contents, which is hard to attain. It has both superior heat and impact resistance. In addition, it gives high transparency and outer diameter uniformity as well as thickness - thereby ensuring a constantly-fillable volume.

Vials are available with a capacity ranging from 0.5mL to 240mL and can be produced in

small-scale production lots. The portfolio covers various vial types, i.e. standard, screw, straight and flare, etc. Ampoules, trusted for their excellent hermeticity, can be produced in a capacity ranging from 1 ml to 100 ml.

Nipro distributes glass tubes made by NEG (Nippon Electric Glass Co. Ltd). It enjoys a good reputation thanks to its reliable manufacturing technology accu-





mulated over many years as well as its state-of-the-art manufacturing equipment and complete quality control.

In May 2021, Nipro Pharma Packaging acquired Croatian company Piramida - a manufacturer of glass packaging for the pharmaceutical industry.

Established in 1950 and operating out of Sesvete near the Croatian capital Zagreb, Piramida produced more than half a billion ampoules and bottles for the pharmaceutical industry in 2020. The company is ranked among the top five largest ampoule manufacturers for the pharmaceutical industry in the European market.

With an outstanding market position in the Central European Territory, alongside an impeccable reputation coupled with sound and strong customer relationships, Piramida is a very

important asset to Nipro's future and ambitious growth plans. Pharmaceutical glass packaging plays a crucial role in today's challenging world, especially in the wake of the COVID-19 pandemic and the increased production of vaccines.

"We want to continue to build excellent customer relationships and become the preferred strategic partner to many pharmaceutical companies," said Stephan Arnold, CEO of Nipro PharmaPackaging International.

JAPAN GLASS INDUSTRY CO. LTD

Japan Glass Industry Co. Ltd has been offering exceptionally safe medical containers - contributing to people's health and happiness ever since its founding in 1920. In order to maintain the highest quality as a compa-

ny engaged in the medical field, DMF was filed with the FDA in 1991 and a ISO 9002 certificate of approval was obtained in 1996 -the first in Japan- for ampoule and vial manufacturers.

Abbott Diagnostics Medical Co. Ltd, Astellas Pharma Inc., Bristol-Myers Squibb Co. Ltd., Daiichi Sankyo Co. Ltd, KYOWA CritiCare Co. Ltd, Kaken Pharmaceutical Co. Ltd, Kyokuto Pharmaceutical Industrial Co. Ltd, Mochida Pharmaceutical Co. Ltd, Nihon Pharmaceutical Co. Ltd. Nipro Corporation, Sato Pharmaceutical Co. Ltd and Toa Pharmaceutical Co. Ltd are just some of the pharmaceutical glass containers consumers of Japan Glass Industry Company.

SHIATONI GLASS COMPANY LTD

Established in 1930 at Nakatsu in Osaka to supply pharmaceutical glass to Japan's pharmaceutical companies, Shiatoni Glass is one of the leading pharmaceutical glass producers in Japan.

NAGAI GLASS COMPANY

Osaka based Nagai Glass Company has been active in pharmaceutical glass production since 1952. According to Nagai Glass' Keisuke Muratsu, "We have built the foundation of today through the establishment and development of mass production of one-point-cut ampoules and vials since the company was set up in 1951. With rapid subsequent innovation of technology, we've developed a lot of our own original forming machine and testing equipment and built up our sales performance by providing high-quality products. In recent years we've been working on the globalization of procurement of raw material, together with borosilicate glass from the world's major manufacturers. This fulfilled a system which meets a wide variety of customer needs."



COUNTRY STUDY

DAIWA SPECIAL GLASS COMPANY

Niitaka Factory, which is adjacent to the company's head office, is one of the company's two production facilities. Since its operation, it has consistently produced ampoules and tube bottles for injections and its technological accumulation for more than half a century is still continuing. In addition, the company meets cleaning bottle and surface treatment needs, such as silicone coating and sulfur treatment. In 2009, the company obtained permission for the pharmaceutical manufacturing industry and the medical device manufacturing industry (packaging, labeling and storage), and in order to be contracted by a pharmaceutical company it refurbished the Niitaka factory.

Since 2008, the production line for tube bottles has been relocated to Ichishima and is

now company's main factory that produces most of the products. In February 2008, the company started operations and started production of tube bottles. Under a manufacturing environment that incorporates the idea of GMP, Daiwa Special Glass has built a production line that pursues thorough automation and efficiency while stably producing high-quality tube bottles.

STEVANATO GROUP

In 2018, Stevanato Group -through its specialist in glass primary packaging for the pharmaceutical industry Ompi- opened a commercial office in Nagoya, Japan. Ompi provides a wide range of glass primary packaging solutions ranging from bulk to EZ-fill® sterile solutions to analytical consultancy aimed at guaranteeing the integrity of parenteral medi-

cines. Here, expansion in Asia strengthens the unique market positioning that Ompi already enjoys within the sterile glass primary packaging market after the launch of its RTU product portfolio in 2007.

"Ompi's presence in Japan will be essential in responding to the highly-demanding requirements of the Japanese pharmaceutical industry that have always challenged glass primary packaging manufacturers to provide innovative and high-quality containers," says Andrea Zambon, President of Ompi Japan. "Ompi wants to be closer to its clients and to become the preferred partner for pharmaceutical companies - not only for generic drugs, which the Japanese government is looking to increase, but also for biologic drugs that are likely to experience some fast growth over the coming years." ■

