# CHINA PACKAGING MACHINERY INDUSTRY REPORT



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Ministry of Foreign Affairs and International Cooperation



#### Premise and Disclaimer

The objective of this report is to help Italian companies further understand China's packaging machinery industry with fundamental focus on key market development trends, competitive landscape, imports & exports and key customers. It is important to note that the report contains a number of replies from individual companies that, in some cases, may not be representative of the whole industry. There may be some cases where individual companies have experiences other than those situations illustrated in this report or experienced challenges to a degree or severity not reflected in this report.

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## INTRODUCTION

#### Objectives

- This research report is an update of the 2020 Edition of the China Packaging Machinery Industry Report, and was conducted with the following key objectives:
  - 1. Provide an overview of the packaging machinery industry value chain, concerning supply and demand of key equipment involved in the packaging process
  - 2. Analyze the competitive landscape, e.g. key packaging machinery suppliers in China, and key target customers such as multinational retail brand product manufacturers and retailers
  - 3. Identify key market trends, potential barriers and opportunities for Italian manufacturers interested in approaching and/or entering the Chinese market, and provide practical considerations

#### Conducting market research in China and our methodology

- Generally speaking, conducting market research in China is different and significantly more challenging than it is in developed countries because of 1) the size and diversity of the country;
   2) lack of fully reliable centralized / official information databases; 3) constant and extremely rapid change the whole Chinese economic system is far from being in equilibrium. Therefore, solid market research work must be based on multiple resources and activities.
- Our methodology leverages a combination of resources / activities such as:
  - All relevant background information (client data, existing available information, etc.)
  - Secondary research (in Chinese and English), such as several different resources, from proprietary databases to access to associations or magazines, etc.
  - Primary research, e.g. access to external business networks, interviews with experts and key insiders, possible visits to trade shows or selected companies, etc.
  - Collective China knowledge/sector expertise/market research expertise with hundreds of research projects executed in and outside China

#### Format of this report

• The report is organized in such a way as to provide various level of details in different places – executive summary, overviews, and paragraphs in the body of the report, summaries, and appendices; bullet points are used throughout the entire report to make reading easier

#### Information Sources

This report is based on information sources detailed below. Therefore, there may be some cases where individual companies had different experience from those found in this report or experience from a different perspective that is not reflected in this report.

- Key sources of information for this report include:
  - All background information
  - Various secondary sources
  - Interviews with industry insiders and experts
  - Ongoing Seymour analysis of all key facts and data collected
- In the report, sources are mentioned for charts, tables and key data; secondary sources include dozens of Chinese sources (news reports, magazines, publications, government statistics, etc.) as well as all companies' websites, press releases from various magazines, etc.
- We mention "Seymour Analysis" as a key reference; this refers to our elaboration and analysis of qualitative and quantitative data collected throughout the project
- Ongoing analysis and re-elaboration of all data collected is key to cross-check data and information and identify key trends and industry dynamics

#### Note for the report

- Exchange rate: We use the exchange rate of Euro 1 = 7.5 RMB (April 2023), where appropriate throughout this report.
- This report is a high-level overview of the packaging machinery industry in China, for easy reading with essential information for Italian packaging machinery enterprises operating in or intend to enter the China market; it focuses on:
  - Providing general statistics and information with most up-to-date information
  - Capturing the latest key trends and market dynamics; and updating the latest import & export statistics and market position of Italy

## **EXECUTIVE SUMMARY**

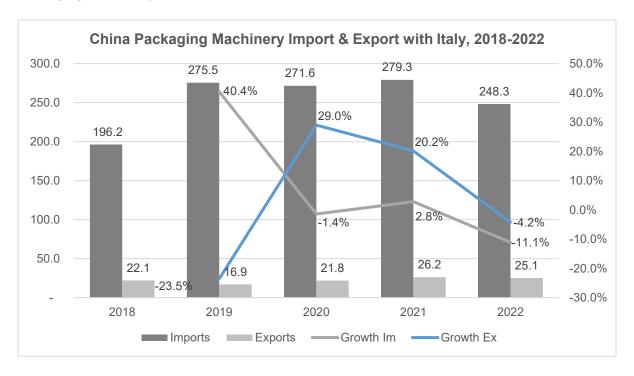
#### Industry Overview

- The total market size of China's packaging machinery reached Euro 6.2 billion (RMB 46.5 billion) in 2022 and it is expected to reach Euro 6.4 billion by the end of 2023<sup>1</sup>. Between 2018 and 2022, there were ups and downs regarding the market size that 2020 witnessed a downturn mainly due to COVID pandemic where the entire economy stagnated.
- The 14<sup>th</sup> Five Year Plan, also called Intelligent Manufacturing, aims to transform the manufacturing industry into a digital and intelligent one, supported by data, technology and equipment, so as to build a digital and smart country and form the international status of China's manufacturing.
- In such a context, investments and capitals have been placed to further propel this sector. For instance, in 2020 in Guangdong, 7 projects valued RMB 4.2 billion, have been invested to build up new factories equipped with intelligent and digital packaging machinery.
- The whole packaging machinery industry is undertaking upgrades. With the improvement of technology, domestic machinery manufacturers are taking more of the market share. More downstream customers are opting for Chinese machinery as they can meet the basic technical requirements and also satisfied the price performance ratio.
- In terms of category, filling, labeling, sealing, filler and wrapping machines are the most common product category in China, and it is forecasted to remain the top category in the next few years. Labeling and coding equipment shows a trend of automation and multi-function to meet various production needs.
- Consumer products such as F&B and medical sector account for around 65% of total packaging market demand; F&B downstream market is and will continue to pose the largest demand for packaging in China.
- In the future, generally speaking, the demand for packaging machinery mainly lies in the reform and upgrade of old machines, new machines needed to pack new products and digital and intelligent transformation.
- In the next 5 years, the low-end packaging machinery segment will gradually shrink, and the mid to high end market will become the main direction for industry upgrading. The whole packaging machinery in China is in the process of upgrading and shows the trends of globalization, automation, intelligence and greenization.
- In 2022, China's total imports of packaging machinery and machinery components exceeded Euro 1.47 billion and exports were nearly Euro 2.33 billion<sup>2</sup>. Between 2018 and 2022, packaging machinery import fluctuated, mainly due to COVID impact on the overall economy and production activities, as well as a shifting focus towards 'made in China'.

<sup>&</sup>lt;sup>1</sup> Data source: China Investment Corporation Industry Research Institute

<sup>&</sup>lt;sup>2</sup> Data source: official world trade data from Trade Data Monitor

• From 2022 onwards, packaging machinery imports are expected to keep steady, more in line with the overall global economic situations, driven by the slight demand growth in each of packaging machinery's downstream markets in China.



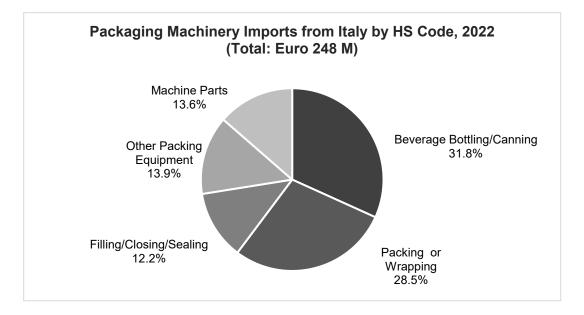
- As shown in the above chart, the value of China's total imports of packaging machinery and parts from Italy was Euro 248.3 million in 2022<sup>3</sup>, which was a 11.1% decline year-on-year. The year of 2019 has witnessed a significant growth of 40.4%, however afterwards the growth rate was not ideal.
- The value of exports to Italy was Euro 25.1 million in 2022<sup>4</sup>, a 4.2% decrease after growth in 2020 and 2021.

Rank	Country and Region	Imported Value (Euro M)			% Share vs. Total		% Change	
(2022)		2020	2021	2022	2020	2021	2022	22/21
	World	1,314	1,514	1,469	100%	100%	100%	-3%
1	Germany	382	385	471	29%	25%	32%	22%
2	Italy	272	279	248	21%	18%	17%	-11%
3	Japan	182	199	198	14%	13%	13%	-1%
4	Malaysia	79	183	109	6%	12%	7%	-41%
5	Sweden	97	95	92	7%	6%	6%	-3%
6	Switzerland	42	50	72	3%	3%	5%	43%
7	Taiwan	49	61	58	4%	4%	4%	-5%
8	United States	32	33	48	2%	2%	3%	45%
9	South Korea	58	55	45	4%	4%	3%	-18%
10	Netherlands	19	24	28	1%	2%	2%	20%

<sup>3</sup> Data source: official world trade data from Trade Data Monitor

<sup>4</sup> Data source: official world trade data from Trade Data Monitor

• As shown in the above table, Italy remained #2 in total packaging machinery imports in 2022, while Germany ranked 1<sup>st</sup> and Japan ranked 3<sup>rd 5</sup>. However, Italy ranked top in the beverage bottling/canning machinery category (HS Code: 8422.3010), followed by Sweden and Germany.



 As shown in the above chat, beverage Bottling/Canning Machinery and Packing or Wrapping Machinery were the largest import categories in 2022, accounting for 31.8% and 28.5% of imports from Italy respectively.

#### Competitive Landscape

- The China packaging machinery sector is fragmented with around 8,183<sup>6</sup> domestic enterprises in 2020.
- Most of these domestic packaging machinery manufacturing enterprises are small, medium sized private enterprises, concentrated in key economic regions such as Jiangsu province, Guangdong province, Shandong province and Zhejiang province.
- Now domestic players are investing much more in R&D. Some enterprises focus on developing light, agile and small sized machines, some focus on versatility that allows multiple packaging formats and others focus on multi-functional machines that can process different materials.
- Leading large domestic enterprises, such as Youngsun, began to move into more sophisticated, high-tech segments in recent years as their capabilities have been enhanced. Now they are actively targeting self-automated packaging and intelligent systems with advanced technology.
- However, although Chinese local players are catching up, currently the demand gap for more sophisticated, high-end packaging machinery market is still there and it is fulfilled by foreign players from countries like Germany, US, Italy and Japan.

<sup>&</sup>lt;sup>5</sup> Data source: official world trade data from Trade Data Monitor

<sup>&</sup>lt;sup>6</sup> Data source: official number from Statistics Bureau

• The industry is experiencing integration and consolidation that small sized players will be gradually eliminated and acquired by larger domestic players, therefore the industry will be more centralized.

#### **Distribution Analysis**

- As machinery is a B2B product, sales are mainly from machinery producers directly to corporate users. Machinery sales not only include the product itself, but also accompany services such as installation, adjustment, staff training and maintenance.
- For machinery producers who have an entity within China, there is usually a team of sales persons in charge of different accounts or regions, while for those who do not have an entity, sales are done mainly via distributors.
- Foreign players need to find a distributor who has rich experience, well developed customer base and good communication skills, and who also understands well and appreciates the product features and brand equities of the imported machinery.

#### **Demand Analysis**

- The largest market for packaging machinery still remains and will continue to be the F&B sector; consumption for F&B products is expected to increase quickly in the upcoming years as it is expected to be the key driving force for the economic recovery.
- Regarding the medical sector, in recent years, the demand for high-end packaging machinery is increasing. Compared to imported ones, domestically produced machines have a gap in innovation, stability, automatic control technology and processing accuracy.
- In terms of machinery for the chemical industry, in addition to basic requirements such as automation and intelligentization, there are additional requirements for dangerous chemicals such as airtightness and corrosion resistance.
- For household products and personal care products, consumers tend to prefer environment friendly, innovative and trendy packaging. Packaging is also an important aspect to catch consumers' eyes. This could encourage packaging machinery manufacturers to provide machines that could realize such packages.

#### Key Market Trends and Dynamics

- China central government's 14<sup>th</sup> Five-Year (2021-2025) Plan for Intelligent Manufacturing specifically points out that the actions need to be taken in R&D and innovation of intelligent equipment and components. Moreover, upgrading of equipment is supported and encouraged. Thus, the packaging machinery industry would benefit from the policy.
- Over the next 3 years, 70 million people will be added to middle class, and China is expected to be the largest retail market in the world, which means consumption will grow in sectors such as F&B, personal care, healthcare, etc. Consumption has been positioned as an important driver of China's economy in the next few years.

- German, Italian, Japanese, U.S. and Swedish players share the majority of domestic demand for high-end packaging machinery due to a lack of viable alternatives from the domestic players.
- However, with a shift of focus towards 'made in China' and improvement of domestic technologies, more large- to middle-sized players are catching up and improving quickly so as to produce high-end machines. Small players will be acquired or eliminated from the market.
- Machinery demand is largely driven by the downstream F&B industry, which requires packaging
  machines with a certain level of flexibility to pack different sizes of contents because this
  industry launches new products rather quickly, thus packing machines need to be able to cope
  with different product forms and sizes.
- In terms of automation, in the market there are already initiatives to integrate AI, 3D and industrial robots into the whole set of lines to further upgrade the level of automation. The 3D visual positioning system helps to identify turnover boxes and guide robots to strip, where data is collected during the process for self-learning and self-adjustment.

#### **Considerations for Italian Players**

- Italian packaging machinery are strong at well-designed outlook, excellent functionality and satisfied price-performance ratio. Another advantage is that Italian manufacturers can design and make machines based on clients' needs and can insure the whole procedure of design, production, test, installation and adjustment.
- New Italian entrants to the Chinese market could leverage those unique strengths and established reputation to approach potential Chinese customers, pointing out that Italian machinery functions excellently and has already been acknowledged by Chinese customers.
- Italian companies who own advanced in-house technology and who can provide cost efficient packaging solutions to Chinese users definitely have opportunities in the next few years; here technology is the key.
- There is increasing demand on flexible packaging machinery to meet fast changing production requirements, which means machinery can pack different forms of contents, different sizes of packages and also be suitable for different package materials.
- Some companies are still using semi-automated machinery, however they are being replaced by fully automated ones. More demands lie in advanced automated machinery with a good PLC control system, sensor and detection. This could largely help increase production efficiency and reduce labor costs.
- However, the high-end packaging machinery market has competition from German, Japanese and Swedish players. This poses challenges. Moreover, market entry for Italian (especially small and medium) enterprises may require substantial investments and time.
- For Italian machinery SMEs, the first step to explore China market could be to set a booth in key industry trade shows, e.g. Propak, World Packaging Fair, CIPPME, etc., to present the brand and machines, where there are opportunities to meet potential distributors. Other practices could be to find one distributor via online, or looking for help from China - Italy Chamber of Commerce or Italian Trade Agency.

# List of Industry Associations

Name CN	Name EN	Address	Website
中国包装联 合会	China Packaging Federation	10th Floor, Zhongfu Building, 99 Jianguo Road, Chaoyang District, Beijing	http://www.cpf.org.cn/
上海市包装 技术协会	Shanghai Packaging Technology Association	Room 3319, 47 Nanchang Road, Shanghai	http://www.shanghaipack .org.cn/
江苏省包装 技术协会	Jiangsu Province Packaging Technology Association	101 Zhongshan North Road, Nanjing	/
浙江省包装 联合会	Zhejiang Province Packaging Federation	38th Floor, West Tower, Shibao International Center, 99 Minsheng Street, Shangcheng District, Hangzhou City	/
安徽省包装 技术协会	Anhui Province Packaging Technology Association	No.0117 Shouchun Road, Hefei	/
深圳市包装 行业协会	Shenzhen Packaging Industry Association	2704 Huafeng Building, 6006 Shennan Avenue, Shenzhen	<u>www.sz-</u> packaging.com.cn/
云南省包装 行业协会	Yunnan Packaging Industry Association	5th Floor, Provincial Economic Commission Complex Building, 209 Dongfeng East Road, Kunming City	www.ynpack.org/
重庆市包装 协会	Chongqing Packaging Industry Association	22-10 Century Emperor South Tower, No.38 Jianxin North Road, Jiangbei District, Chongqing	http://www.cqbzxh.com/
广州包装印 刷行业协会	Guangzhou Packaging and Printing Association	2 <sup>nd</sup> floor, 83 Yanzigang South Road, Guangzhou	http://www.bzysxh.com/
广东省包装 技术协会	Guangzhou Packaging Technology Association	Room B401, No. 38-8 Luyuan Road, Yuexiu District, Guangzhou City	http://www.gdpta.org.cn/
中国食品和 包装机械工 业协会	China Food and Packaging Machinery Industry Association	No. 1 North Beach, Desheng Gate, Chaoyang District, Beijing	www.chinafpma.org/
广东省食品 和包装机械 行业协会	Guangdong Province Food and Packaging Machinery Industry Association	802, Building A, South Tower, Zhongzhou Center, Haizhu District, Guangzhou	www.gdfpma.com/

Logo	Trade Show Name	Location	Website
	PROPAK	Shanghai	https://www.propakchina.com/
	World Packaging (Shanghai) Fair	Shanghai	http://www.swop-online.com/
CIPPME	CIPPME Shanghai International Packaging Products and Materials EXPO	Shanghai	https://www.proexpo.cn/
	WEPACK, World Expo of Packaging Industry	Shanghai	https://www.wepack-expo.com/
(認) Sino-Pack 2023 中国际6業工业展	Sino-Pack	Guangzhou	https://www.chinasinopack.com/
	Zhejiang Printing and Packaging Industry Exhibition	Ningbo	http://www.nppte.com/

## List of Trade Shows

#### 上海代表处 SHANGHAI

上海市长乐路 989 号世纪商贸广场 1902 – 1903, 200031 Room 1902 - 1903, The Center, 989 Changle Road, Shanghai 200031 电话 Tel : (021) 6248 8600 电子邮箱 Email: shanghai@ice.it 网址 Website: www.ice.it 首席代表 Trade Commissioner: Augusto Di Giacinto

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