

Krones

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1. Introduction

Krones is a world's leading¹ bottling machine manufacturer which develops and manufactures machines and complete lines for all areas of filling and packaging technology and also builds breweries.

The company differentiates its business into three segments:

- Filling and packaging technology. Krones has a particular expertise in pasteurization technology and machines which can not only fill but actually produce PET containers ready for immediate filling, and machines which can recycle used PET containers into food-grade recycled material. One of Krones key objectives in this area is to reduce the resource consumption of its machines and to support recycling solutions (for the benefit to its customers by reducing operating and production costs and the environment).

This section includes both huge, highly complex machines, but also covers machines and lines for the low output range segment (compact class) of the bottling market, focusing on scaled down versions of its machines for product filling and decoration. Some firms start their relationship with KRONES as start-ups and continue their relationship with the firm as they grow.

- Process technology. This includes building whole brewhouses and cellar systems for breweries but also machines for producing soft and dairy drinks and fruit juices.
- Intralogistics: The firm provides IT and Logistics products and services including automatic warehouses.



Source: Krones (2024) *Krones Annual Report 2023*, p.23.

¹ However, as the bottling machine market is highly fragmented, its market share is below 10%. [Research](#) estimates that in 2024 the global bottling machine market was worth US\$4.85 billion and predicts that the market could grow to US\$6.06 billion by 2029.

Krones customers are mainly breweries and soft drinks companies, wine, champagne and spirits. It is trying to expand its business into the non-beverage markets and aims to attract food producers, and the chemical, pharmaceutical and cosmetic industries.

Krones competitive advantages are seen as:

- Technical advance, high investments in research and development, and specialised knowledge, documented by the firm's more than 7,000 patents. About 2,100 of KRONES' employees work in R&D and the firm spends about 4% of its revenues on R&D. In recent years, given its customers' demands, Krones had to gain considerable expertise in IT systems management as well as in microbiology. As discussed below, the firm has also tried to acquire external expertise, though especially initially with rather varying success.
- High-precision assembly to the highest standards of quality and service around the clock from more than highly qualified employees who work in international support facilities. Internationalisation is seen as a key factor for the future success of KRONES. Spare part production facilities and service support via foreign subsidiaries also allows KRONES increasingly to bill customers in local currency, which reduces their currency risk. To avoid relying on expats, KRONES has established continuing education centres for employees in Africa, Brazil and China, to be able to tap into the local labour market. While traditionally Krones used to focus its large scale production in Germany, recently it invested in a large scale production facility in Hungary and has started to reduce employees in Germany.
- Modular system approach: Krones has gone beyond the normal confines of machine and plant engineering and developed into a "systems technology" provider. It uses a holistic approach, by synergising and optimising machine design, line expertise, process engineering, microbiology and information technology. However, KRONES have also recognised that their traditional modular approach which allows customers to upgrade or swap machinery without major disruption and which enables customers to sell obsolete machines on a second-hand market for KRONES machines is a major strength of the company. They are trying to balance both requirements, and e.g. have decided to try to reduce the complexity of some of their machines (thereby also increasing their reliability) which should help both objectives.

Krones objective of becoming a systems supplier for the beverage and food industries was driven by their customers' needs. Krones' management suggests that the firm's customers expect the highest quality and technological sophistication of machines and lines. They also expect Krones to have comprehensive knowledge of their production processes, so that Krones can deliver specific solutions for their applications.

- Life-cycle service: Krones machines and lines tend to be screwed rather than welded together. This allows lines to be moved and reassembled as well as the exchange of machines in lines, e.g. if customers change their production range or cost or environmental legislation requires them to change their packaging material. The fact that many parts are screwed rather than welded together also means that Krones machines and lines tend to have a comparatively high re-sale value as there is a lively second hand market for Krones machines which the firm actively supports.

The company currently employs about 18,500 people worldwide (about 10,600 of them in Germany). Production mainly takes place in Germany at plants in Neutraubling, Nittenau, Flensburg, Freising and Rosenheim in Germany, as well as Debrecen in Hungary. Krones' low output range lines and machines tend to be produced by Krones' subsidiaries in Italy and Austria. In addition Krones also produces some of its spare parts at service bases in the US, Brazil, South Africa,

China, Thailand and Russia. Finally, the firm runs about 40 sales offices all around the world. About 44% of their workforce works now works abroad, about 27% in emerging economies.

2. Krones acquisitions policies

While the firm is very proud of its ability to grow organically and develop its' own innovations, in recent years it has also tried to acquire external expertise with varying success:

- Since the development of in-house expertise in some aspects of IT systems management initially was not deemed sufficiently successful, the company decided to acquire a large stake and sign a cooperation agreement with Klug GmbH, a specialist in intralogistics solutions², in January 2013. However, this was not successful either, as KLUG actually became insolvent within a matter of months. So in 2014 KRONES decided to offer its own internal logistics products and services (via a subsidiary called Syskron Holding GmbH). However, the firm bought another small specialist provider, TRIACOS Consulting and Engineering GmbH in 2015 and in May 2016 KRONES took over the Italian logistics firm Systems Logistics. In March 2017 KRONES added the US firm Process and Data Automation, Inc. (PDA) to its portfolio. The firm is a leading industrial control systems integrator, and the acquisition is supposed to support KRONES digitisation strategy – effectively the firm continues to be run by its founders. Over time Krones performance in this area improved, though it is not clear which role the external acquisitions played in this.
- In December 2013 Krones also acquired another one of its suppliers, HST Maschinenbau GmbH to strengthen its process technology development to win more contracts for building plants for dairy and fruit drinks production and filling. In 2014 it added Schaefer Förderanlagen- und Maschinenbau to enhance the packaging and pallet handling solutions it can offer. In the same year Krones also bought a majority stake in TILL GmbH which develops systems for direct digital printing on containers, which it took over wholly in May 2018 and is now part of KRONES subsidiary Dekron. In 2015 Krones bought local labeller manufacturer Gernep.

In 2019 Krones engaged in acquisitions of firms in Dubai and Guatemala to support its expansion strategy in the emerging markets of Africa and South America, and in 2020 it bought an Indian company, also largely to improve its market access.

Since 2018 Krones has expanded noticeably by taking over small US companies. In each case Krones left the management of the companies intact and ensured that they continued to hold a noticeable stake in the firm. Krones also left the management largely independent, although the acquired forms were able to benefit from Krones benefits of scale (e.g. in procurement) and scope (e.g. by being able to provide servicing across the world). At the same time Krones benefited from the additional knowhow and market connections these firms brought. To some degree the expansion to the USA might have also been motivated by the threat of the introduction of higher import tariffs for machines and benefits of “local content” regulations (i.e. where tariffs are waived for products when a certain amount of the value of the end product is produced in the importing country).

- In August 2016 Krones bought an 80% stake in a US company, Trans-Market Sales and Equipment Inc., which is a production and process technology provider – although this firm will officially become part of the “Machines and lines for beverage production and process technology” segment of KRONES, the location in the USA means that its relationship with the plants in Germany and Italy is noticeably different than that of other German or European takeover

² Intralogistics refers to the management of goods flows within firms.

targets. Like KRONES, Trans-Market Sales and Equipment Inc. is a family firm, and the founding family will retain a 20% stake after the take-over. Similarly, in May 2017 took over another US firm, Javlyn, from Rochester, New York, which integrates process systems for the food, dairy and beverage industry, which will continue to be operated by the two founders and will become part of Krones' "Machines and Lines for beverage production/Process Technology" segment.

- In 2018 Krones acquired W.M. Sprinkman Corporation in Wisconsin to support its process technology in the USA. The firm had a workforce of 129 employees and specialised in food and beverage processing in the dairy and brewing sectors. The rationale for the acquisition was to allow Krones to offer a complete product portfolio in the USA and Canada, ranging from process technology, bottling and packaging equipment to intralogistics, IT solutions, plastics recycling, and the lifecycle service support - thereby supporting the entire production supply chain for customers.
- In November 2022 Krones announced the acquisition of a majority stake of 80.5% in the US firm R+D Custom Automation, also located in Wisconsin, which provides production and filling equipment for the pharmaceutical industry. Like Krones the company can provide full service solutions (though it draws on a range of suppliers to achieve this) or specialist machines. The acquisition of a relatively small firm with 60 staff and a turnover of US\$43 was nonetheless seen as an important steppingstone for Krones to get into the non-beverage, and especially the pharmaceutical and medical bottling market. The remaining shares in the company are held by the firm's current management team.

In an article about the takeover, PRNewswire (2023)³ stated:

"For more than 30 years, we've quietly focused on partnering with some of the world's biggest life sciences corporations, as well as start-up companies that want the benefits of automation," said Loren Esch, CEO. "As we recently engaged in strategic planning for our future, that focus on the life sciences industry became even clearer, so now it's time to more boldly tell our story."

The new strategy comes a year after the company was acquired by Krones, a Germany-based international leader in process, filling and packaging technology that, Esch said, "has been an incredible partner, and very supportive of our growth initiatives."

Eric Holmes, chief technical officer at R+D Automation, praised Krones' approach toward companies it acquires.

"Krones has been very careful about not changing our DNA," Holmes said. "They acquired us for who we are and for our capabilities in the life sciences world. Now they are helping us better serve our markets."

The affiliation with Krones is presenting new international opportunities. R+D Automation can now leverage Krones' presence in markets throughout the world to support installations and service in other countries. Prior to the acquisition, R+D Automation had a limited number of installations overseas. "When prospective customers learn that we are now part of Krones, there is a tremendous amount of confidence in our capabilities," Esch said. "It's really opening more opportunities."

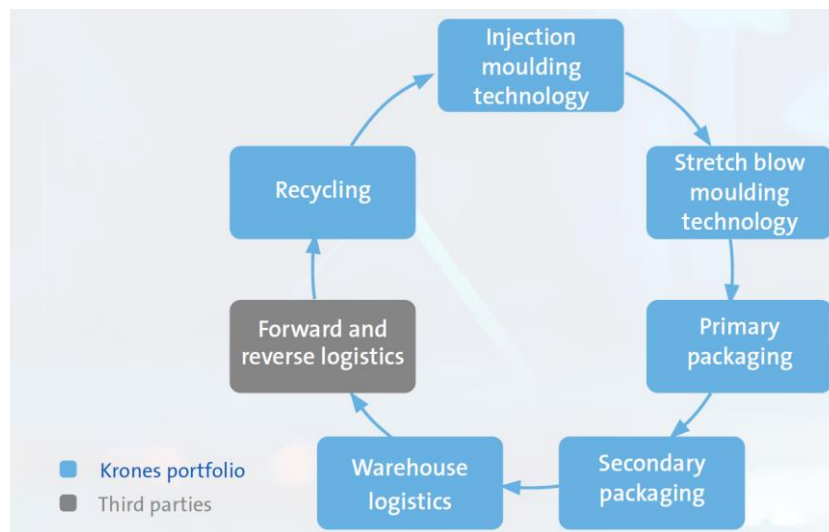
- In April 2023 Krones announced that it had bought a 90% stake in the US firm Ampco pumps. The firm (revenue ca \$50 million, 130 employees) produces sanitary pumps and similar products, such as mixing and blending equipment used not only in the beverage but also food processing, pharmaceutical and cosmetics industry. The outstanding shares are held by the firm's current management.

As also noted above in relation to the takeover of companies located in Wisconsin, Krones uses acquisitions not only as part of its internationalisation strategy but also to gain a better foothold in non-beverage related markets, such as in the pharmaceutical and medical or cosmetic bottling markets, as well as in food production and bottling.

³ PRNewswire (2023) R+D Automation Leverages Acquisition by The Krones Group to Strengthen Position as Leader in Life Sciences Automation, *PR Newswire*, 18/12/2023.

- In April 2024 Krones completed its acquisition of the Swiss firm Netstal (revenues ca €200, 560 employees), which is a major plastic blowing technology supplier which hitherto focussed mainly on the medical and pharmaceutical and other specialist markets. Netstal was a strategic partner to Krones previously, and the acquisition therefore gives greater control over an important supplier⁴. While on the one hand the acquisition allows Krones further integration of relevant technologies into its pre-existing production lines, it is hoped that in the long-term the acquisition will also support Krones entry into the non-beverage, pharmaceutical and medical markets, due to Netstal's expertise and contacts in these markets. This takeover required regulatory consent due to the size of the takeover (the firm had a turnover of 200 million euros) and its role in the market for specialist packaging. Krones stated that "Netstal will continue to have responsibility for managing its business, benefiting at the same time from the international positioning and economies of scale of the Krones Group. This and other measures will help improve Netstal's profitability and bring it to the level of the Krones Group in the medium term" (Contify Investment News, 26/04/2024). Netstal's operational independence will have been an important consideration for competition commissions, as it cooperates with a number of Krones' international competitors.

Nestal's acquisition allows Krones to offer closed-loop Pet solutions:



Source: Krones (2025) *Krones Annual Report 2024*, p.14.

3. Required Reading

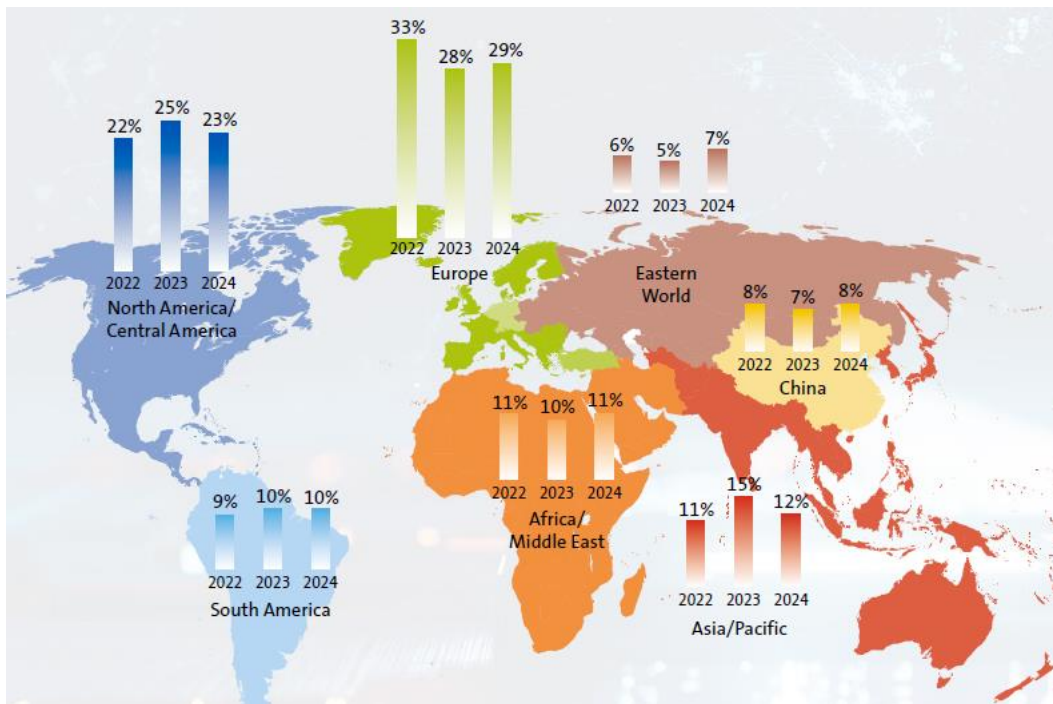
In the 2024 Annual Report Krones highlights that they expect to improve company growth and profitability based on their international customer base, their international service network, and their innovative product portfolio. To continue to improve, the firm is expecting to engage in large scale investment projects. In addition, the firm has set itself ambitious green performance targets.

In 2023 the company's performance was affected by a number of supply chain problems which affected many car and machine manufacturers, as supplies were affected by both disruptions to production and to supply channels. The company highlighted the importance of its employees' commitment, flexibility and creativity a number of times across its annual report, particularly with regards to the development and implementation of its "Solutions for tomorrow" strategy to

⁴ Netstal's previous owner, KrausMaffei, has had significant problems with regards to continued losses and a worsening of its overall financial situation. There had been rumours before, that the company might have to sell parts of the group to generate cash.

promote the firm's environmental and social objectives, and for finding ways to fulfil orders despite problems with the supply of key components.

Krones Global Revenue Split



Source: Krones (2025) *Krones Annual Report 2024*, p.13.

Although the company performed well in 2024, it acknowledges key risks due to geopolitical conflicts affecting energy and commodity prices, which are likely to affect not only the firm directly, but the global economy and hence demand for Krones' products. Another risk emanated from the US tariff policy.

As you read the firm's annual report, consider Krones' approach to its employees and think about why this might be important to the firm given e.g. challenges for recruitment, its changing business environment, and the importance of regulatory compliance with regulations to avoid discrimination and to safeguard human rights along the firms' supply chain.

In order to develop a better understand the company, please read the following sections of **Krones' 2024 Group Annual Report**:

- Krones' share price performance and ownership structure (pp. 33-37),
- Fundamental information about Krones (pp. 38-75, pp. 81-82),
- Krones' Sustainability management (pp. 83-86),
- Krones' economic environment (pp. 179-190, p. 213)
- Krones' sales and earnings situation (pp. 191-206),
- Krones' segment review (pp. 207-211),
- Krones' review of employee development (pp. 214-215),
- Krones' review of material risks (pp. 220-229),
- Krones' economic outlook and future plans (pp. 230-234),
- Krones' currency translation (p. 266).