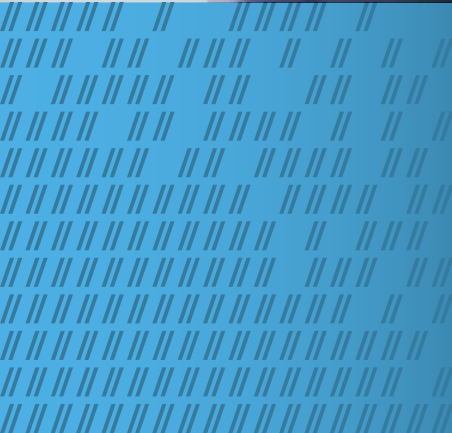
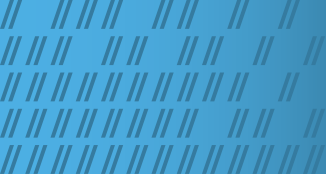


# JUST IN TIME





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






















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# Digital printing on containers: //polytype, the right choice for a wide range of requirements

For over a decade, //polytype has been involved in digital printing on containers and other packaging. The fundamental knowledge about the handling of containers in combination with digital printing technology is the decisive factor for the development of high-quality digital printing machines. Printing machines that demonstrate outstanding print quality and productivity.

DigiCup	DigiLid	DigiTube	DigiBottle	DigiCan	
					
					Speed: up to 200/min*
					Speed: up to 120/min*
					Speed: up to 100/min*
					Ø: 19 – 50 (66) mm
					Ø: 50 – 130 mm
					L/H: 325/75 mm
					Print W: up to 210 mm
					5 colour: White + CMYK
					Colour 6-8 (in progress)
					* Depends on diameter or size
Cups	Lids & Boxes	Tubes, Cartridges & Closures	Bottles, Jars & Fin.-Cans	Alu. and Steel Cans	

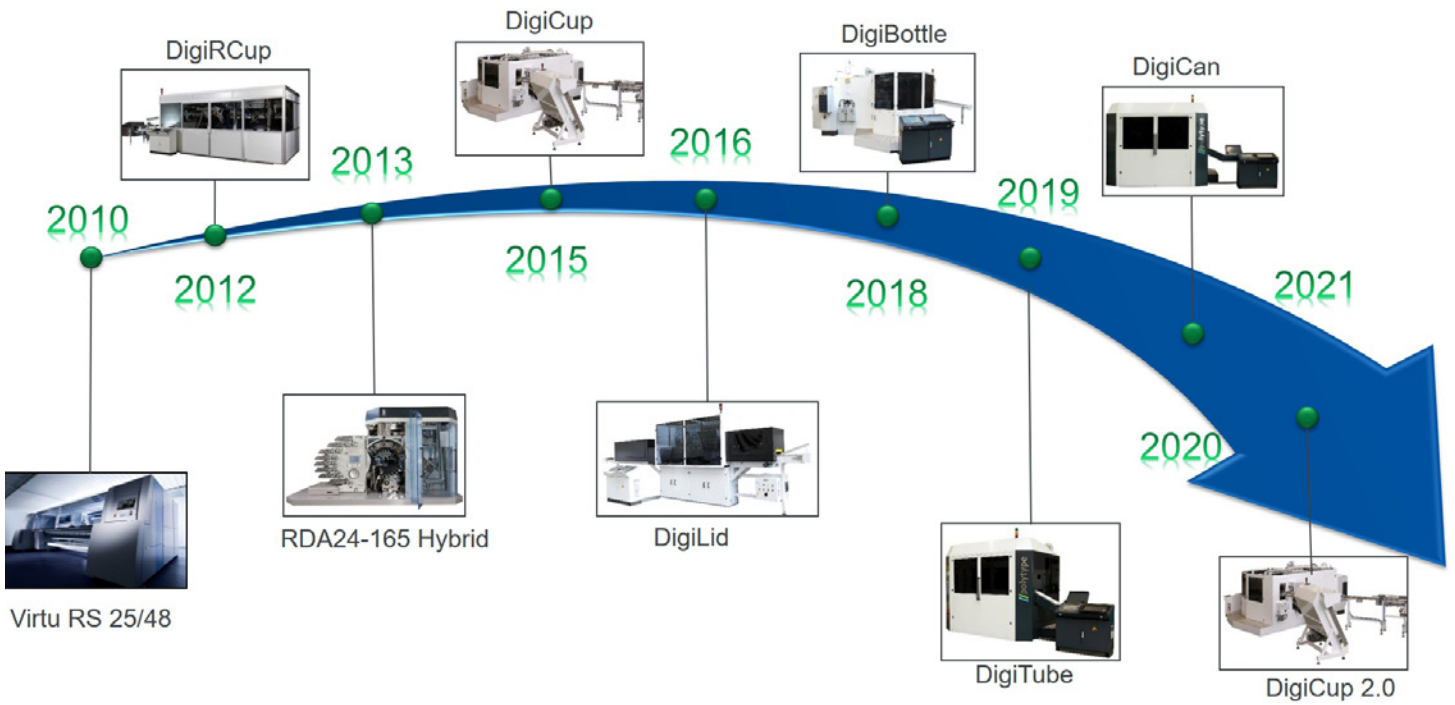
In 2009, Wifag Polytype Holding AG took over the digital printing division of Swiss company Spühl, which allowed for the integration of specialist knowledge gained from many years of experience in web printing. This step laid the foundations for the continuous further development of this technology with respect to printing packaging materials. This not only includes the implementation of this technology in the printing machine, but much more besides – from handling to knowledge of various digital print heads and their actuation,

all the way through to integrating the entire printing system in a printing machine. This refers to the ink feed, the electronic system used for controlling the print heads, and the software required.

However, this is just a small fraction of the knowledge required to successfully operate a production machine designed for industrial use. In-depth know-how of the reliable transfer of the packaging material and appropriate pre-treatment is also required, as is knowledge

of inkjet ink and its mutual interaction with the substrate (PE, PP, PET, aluminum, etc.), not to mention a familiarity with the correct drying procedure. All of this makes //polytype the market leader when it comes to the digital printing of containers.

In order to live up to this claim, //polytype is not only active in markets where the company is already well known (plastic tubes and cups, plus aluminum tubes and aerosols), but also in new markets where digital printing is >>



being discovered as a new decoration method. Specifically, this includes jars, plastic bottles for the cosmetics and sportswear industries, reusable containers for various foodstuffs, and tops for wine bottles.

Based on the solid foundations laid by the digital printing machines from //polytype, the company has had the privilege of gaining comprehensive experience in decorating packaging materials of all shapes and sizes. These experiences form a valuable basis for successfully implementing further projects in various packaging areas while using a wide range of materials.

All in all, this makes //polytype your ideal partner for future projects involving the digital printing of packaging materials.

# DigiTube is opening up new ways of printing on tubes

Yes, it is possible! There are many cases in which the //polytype DigiTube can be used instead of an expensive screen printing process. Not only is the difference between these two types of printed decoration barely noticeable, but it is also possible to achieve so much more with digital printing.



It is common knowledge that screen printing offers the unique advantage of enabling 100% coverage of colored or transparent tubes. This can be used to produce rich color effects that users can also feel with their fingers, creating a certain tactile quality. However, there are some areas where this process is limited. For one thing, it is difficult to reproduce photorealistic images as it is not possible to blend colors and, for another, this printing process requires certain concessions to be made in terms of productivity (set-up time and production speed), which, in turn, makes it relatively expensive.

The //polytype DigiTube could turn out to be the next generation of screen printing. Using a white surface and CMYK color printing on top, exactly the same effects can be achieved as with screen printing. In addition, this option is not limited to individual Pantone colors, so it is easy to produce photorealistic prints with this decorative process. Interestingly, the costs of printing with DigiTube have also proven to be lower than those of conventional screen printing for up to medium batch sizes. Taking all this into account, it is worth looking into //polytype's DigiTube more closely – not only because of the new

possibilities opened up by digital printing, but also in view of producing existing screen printing orders more economically.

# DigiBottle: reliable, efficient and perfectly suited to logistics

«Time is money». Based on this quote, it can be said that effective product handling and the productivity of the machines used in production are key to the efficiency of the entire production system.

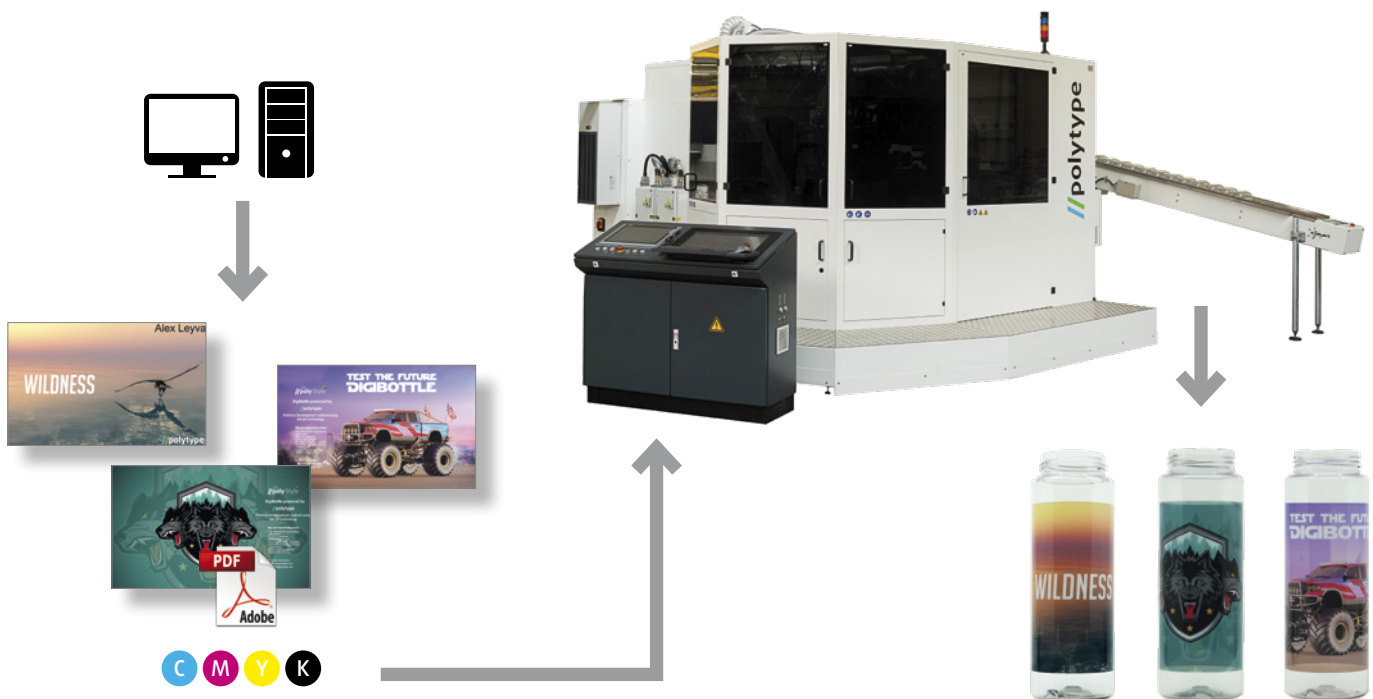
To meet the requirements of different production systems, //polytype has designed the DigiBottle digital printing machine so that containers can be fed into it either upright or laid flat. This option makes it possible to integrate the DigiBottle into new or existing overall production layouts as required, ensuring that the DigiBottle can take these two requirements into account. The main goal in this respect is to create the optimal and, crucially, uninterrupted flow of products in production. Two separate loading devices, each of which feeds into the DigiBottle digital printing

machine both quickly and reliably, were developed to overcome the challenges posed by the dual-feed system. There is consequently nothing to stop the machine from reaching a production speed of 100/min. We have, of course, created an offline version of the DigiBottle in addition to the in-line integrated version of the machine.

Another feature of the DigiBottle is its increased flexibility in terms of print quality requirements relating to the print-head-to-substrate gap. It will also be possible to use the DigiBottle with digital print heads with a resolution of 900 dpi in future.

Over the past few years, //polytype has amassed a wealth of expertise in printing on a wide variety of substrates. In addition to printing on an array of different types of plastics (PP, PE, PET, etc.), we can also print on aluminum or steel bottles/cans.

With the option to change the print design and, when necessary, print format in a matter of seconds, the phrase “Time is money” rings particularly true when it comes to the DigiBottle. Put side-by-side with a screen printing solution, it doesn’t take long to realize that the //polytype DigiBottle more than pays for itself much sooner rather than later.



# Linearis from //polytype: LageenTubes, an important player in the European tube market, push the decoration of tubes to a new level

LageenTubes is a well-known name in the tube packaging industry and an important player in the European tube packaging market. However, it has not been an easy path from the foundation of the company in Israel in 1967, when the plastic tube was an almost unknown type of packaging, to a company (Group) with over 200 employees.



Besides the main production site in Israel, LageenTubes also founded the production subsidiary LS Tubes in Bulgaria in 2017.

From the very beginning as a young organization, LageenTubes has realized the high demand for quality packaging manufacturers for the European market and, prioritized it in its strategy together with ensuring that all parts of LageenTubes' tubes are manufactured in-house. In the end, this was the right decision. Today, customers of LageenTubes are located in over 30 countries in Europe, North America and the Far

East. Besides plastic packaging tubes, LageenTubes also offers aluminum tubes, which up to now have been an important pillar for ensuring the satisfaction of its partners, who have their business in the cosmetics, toiletries, food and pharmaceuticals sectors.

Since its foundation, Polytype has been an important partner for tube decoration. The performance and reliability of the dry offset machines made by Polytype played a significant role in building LageenTubes' worldwide business as well as its reputation. About 8 years ago there was a great need to up-

grade the current solutions i.e. developing new features for decoration on the tubes.

In view of this demand, the following goals were set:

- The need for photo images with CMYK colors.
- To speed up the production process of screen printing and to increase output along with the offline screen-printing machines and hot stamping.
- To combine screen printing and flexo printing, including hot stamping for small emblems, or as an underlay for metallic-effect decoration, with the goal that this combination should have a precise registration.
- A very flexible system, where upgrades are possible in order to offer the end customer more capabilities.

Therefore, LageenTubes chose the Linearis machine made by Polytype, which had the potential capability to meet these goals. But this was not a given. An in-depth analysis of the different options was carried out at LageenTubes before this decision was made. Ultimately, the decisive factor for LageenTubes was that the Polytype system offered the required features, high quality and stability compared to other solutions available on the market.

One of the unique features of the Linearis machine is online hot stamping decoration, which opens up new perspectives of decoration. LageenTubes stated: «The full foil tube decoration that produces a >>

metallic effect with print/decoration on the tube is a special feature. This can be implemented only in the Polytype Linearis line and creates an impressive decoration that has met with positive response from our customers.»

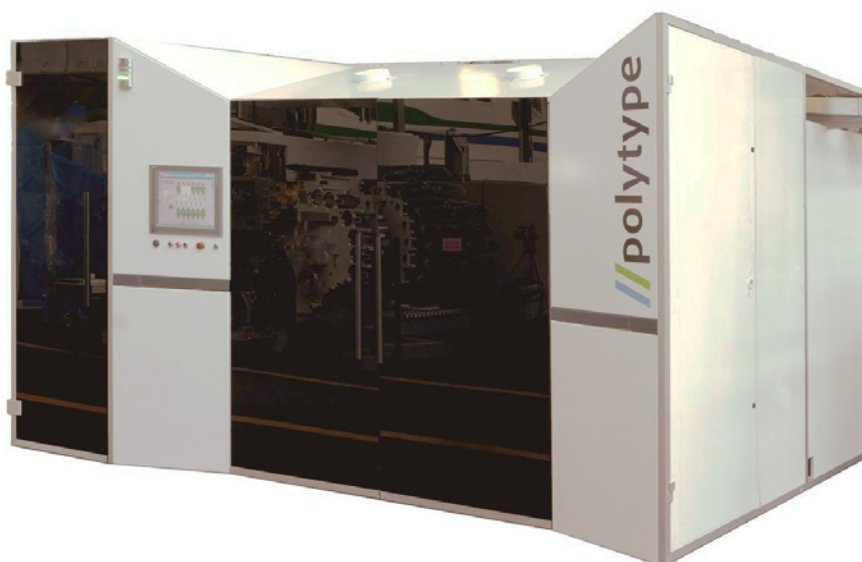
nologies. The operators working in the printing department at LageenTubes are well trained in printing technology. The training and service provided by //Polytype has helped to reduce the ramp-up time significantly.

# LAGEENTUBES

## *Design for the Best*

Now after years of tube production by the Linearis machine, LageenTubes is extremely satisfied with its decision. Although it took some time to adjust to this new technology, it was certainly worth the effort. The positive outcome is that the demand for Linearis decorations continues to grow year by year. With regard to the performance of this machine, LageenTubes commented: «Yes, we are satisfied with the performance. Certainly, most of the results we expected are being met and the machine is extremely accurate. We have gained optimum benefits from purchasing the Polytype Linearis system, in spite of the hurdles of adjusting to a new technology. The interest of our customers in decoration that requires equipment at this level is still growing. The downside is that customers still need to understand the extra cost involved in getting the wide options and the high level of the decoration of the Linearis technology. In this respect, the market needs additional education.» It is clear that this state-of-the-art machine can only perform optimally with operators who are familiar with the machine and the various printing tech-

For LageenTubes this investment was the right decision, not only in terms of printing capability, but also with regard to performance and the cooperation with Polytype: «The level of service and communication with Polytype has been extremely positive, stable and consistent over a long period. We feel that our relationship is more of a partnership than that of a vendor and a buyer. Whether it's a vacation or a challenging time like COVID-19, we always got a timely response.»





# Secure on-demand manufacturing with the //polytype Production Gateway Solution



The rapidly increasing sale of goods on online platforms is a prime example of how digitalization is relentlessly gaining ground across the world. The pandemic has forced many companies to search for new avenues for selling their products. Online services, based around web stores, have become a key part of every B2C business model. Implementing them is relatively straightforward in most models, as goods are usually stored in the warehouse, pre-made and ready to ship. Things get more compli-

cated when items are produced and, where possible, shipped «just in time» once an order has been placed. Manufacturers have to deal with the core challenges of not only providing a place for secure online purchasing, but also ensuring the digital security of the production environment if they consider connecting the latter to the web to be worthwhile. It is evident that the digital security of the production environment must be guaranteed for such an approach. //polytype has designed and

implemented a new cloud-based solution aimed specifically at maintaining the digital security of production environments.

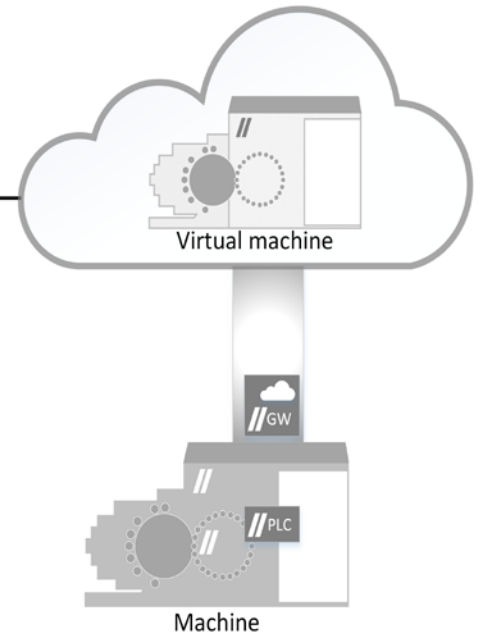
There are a number of approaches that can be used to put on-demand manufacturing into practice. However, the question here is how much human involvement these processes require. Imagine, for example, a system in which one employee skims through received orders before forwarding them to the production department, where >>



Consumer



## // Polytype Production Gateway



another employee puts said orders into production. This method of order management will reach a tipping point in B2C or B2B models in which (for example) hundreds of orders could be placed in a short period of time. It would therefore make perfect sense to employ a system in which orders could be sent directly to production, although this would make it necessary to connect the production unit to the web..

That said, connecting printing machines (such as the DigiCup or DigiBottle) to the Internet also gives rise to the issue of maintaining the security of the manufacturing environment. Is the production machine protected from unauthorized external access? The //polytype

Production Gateway Solution provides exactly this protection. This cloud-based solution acts as a filter between the online store and the machine. Only the data that is required for producing the next order is forwarded to the printing machine, thereby ensuring the highest possible level of security. Once the data has been received, customers can set the //polytype digital printing system to automatically process the orders. The orders are then summarized, grouped and automatically passed on to the order processing area of the printing machine, where they are processed on an order-by-order basis. The user can, of course, choose to interpose a checking feature before the cup or bottle is printed if so desired.

This means that the //polytype Production Gateway Solution makes implementing secure on-demand manufacturing a reality. Interested? Get in touch with us at

[info@polytype.com](mailto:info@polytype.com)

# High performance for your digital future



DigiTube



DigiCup / DigiBottle



DigiLid



Closures



Tubes



Bottles and jars



Cups

Lids and boxes

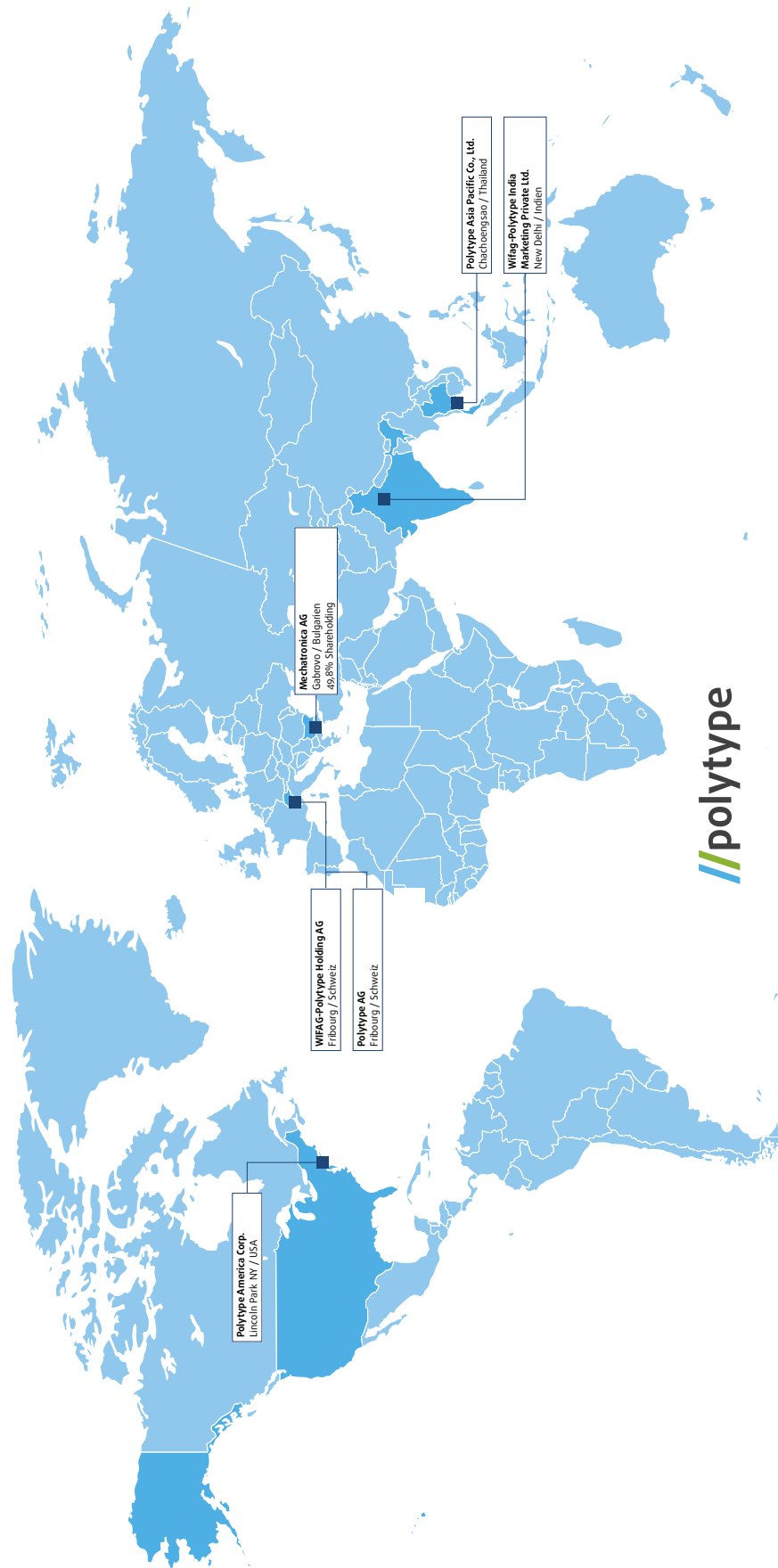
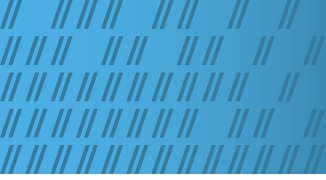
//polytype, the Swiss expert for digital printing is a decoration machine provider for different packaging solutions such as cosmetic tubes, jars, cups, lids, bottles and closures.

## The key to your success

- // 360° service from a single supplier
- // Highly reliable printing machines with high-level productivity
- // Solution for fast design changes and photorealistic decoration

//polytype – your partner for digital decoration  
For further information visit:  
[www.polytype.com](http://www.polytype.com) or [info@polytype.com](mailto:info@polytype.com)





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