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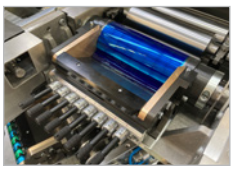

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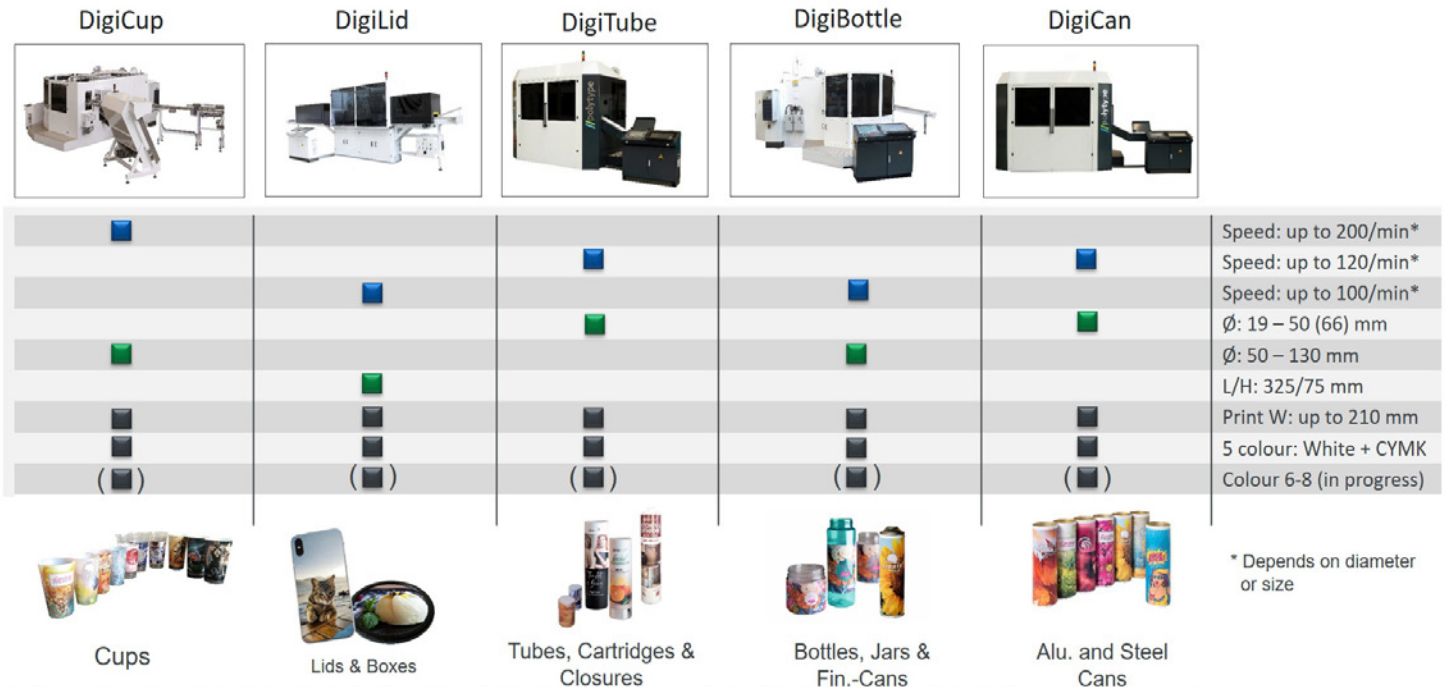
Digital printing on containers: //polytype, the right choice for a wide range of requirements

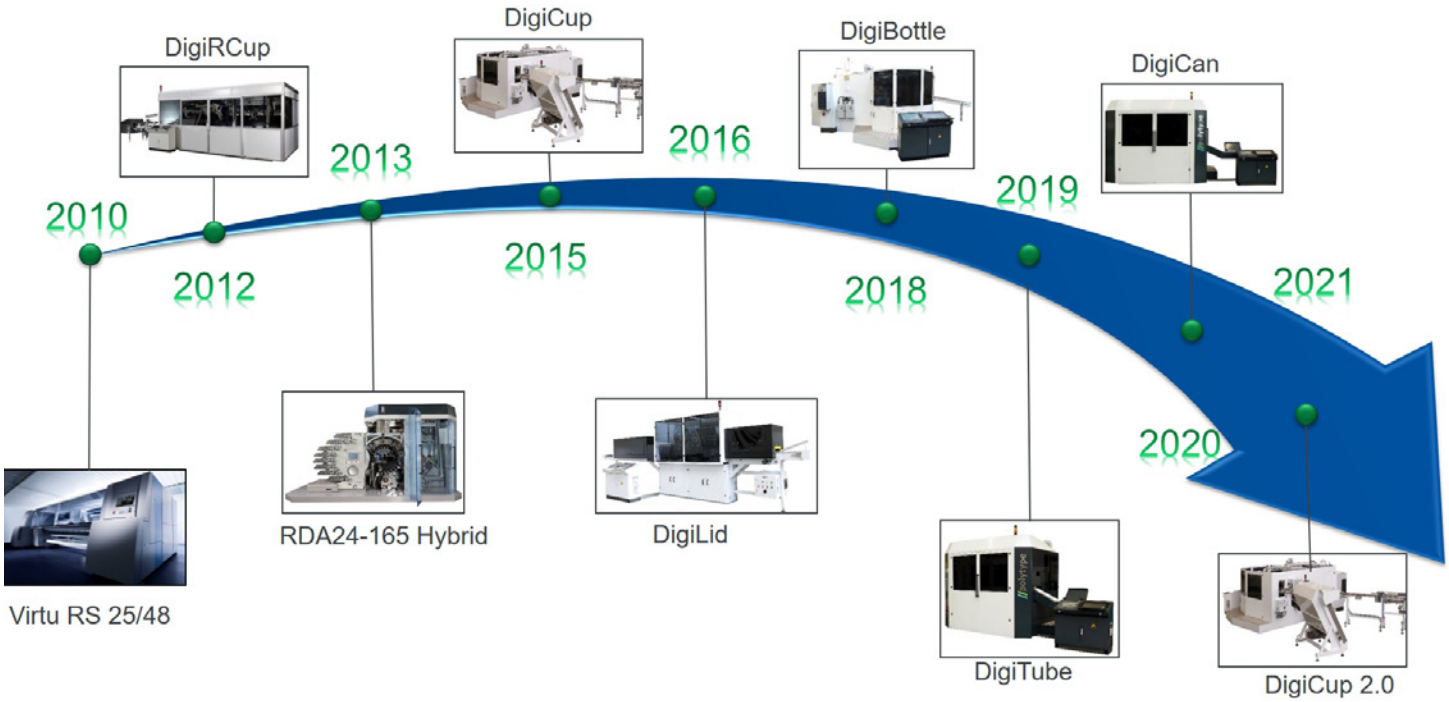
For over a decade, //polytype has been involved in digital printing on containers and other packaging. The fundamental knowledge about the handling of containers in combination with digital printing technology is the decisive factor for the development of high-quality digital printing machines. Printing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



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.

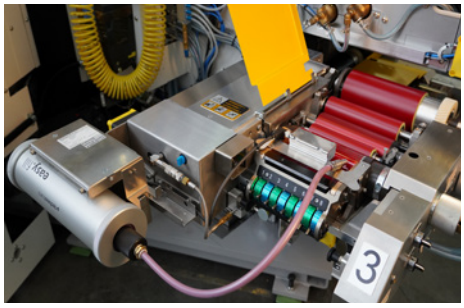
All in all, this makes //polytype your ideal partner for future projects involving the digital printing of packaging materials.

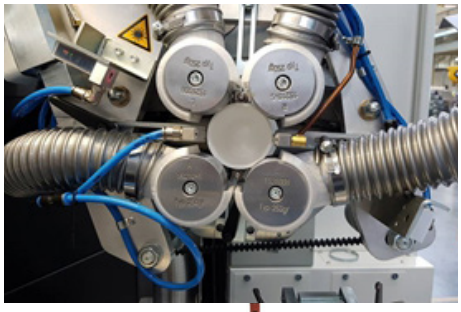
Innovations-Update auf der BDM 681/682 und BDM 482

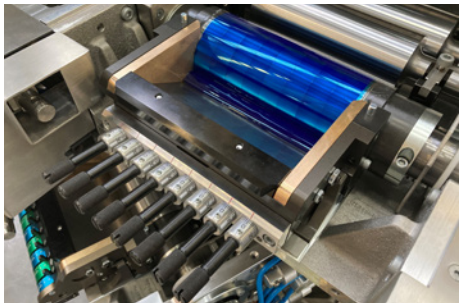
The BDM 681/682's automatic ink feed has been improved and is now even easier to operate. The automatic ink feed can be hugely useful, particularly for large-scale jobs that always require the same color. This option is available on new machines and can also be retrofitted on existing ones subject to a prior assessment.

Dust extraction for the cup feed system on the BDM682. The build-up of dust within printing machines is often a serious problem that affects print quality, particularly when using dusty materials. To help alleviate this issue, a dust extraction system has been designed for the area where dust most readily occurs: the cup feed system. An efficient vacuum system sucks up the plastic particles created as a result of the forces acting on the worm when it comes into contact with the rim of the cup, after which the particles are filtered out via a filter box.

Simple setting dial for ink duct adjusting screws: This option is designed to make adjusting the BDM482's ink knife quick and easy for repeat jobs. This makes it possible to adjust the ink knife relatively quickly so that the color profile almost exactly matches the profiles that were set during a previous, identical job.







DigiBottle: reliable, efficient and perfectly suited to logistics

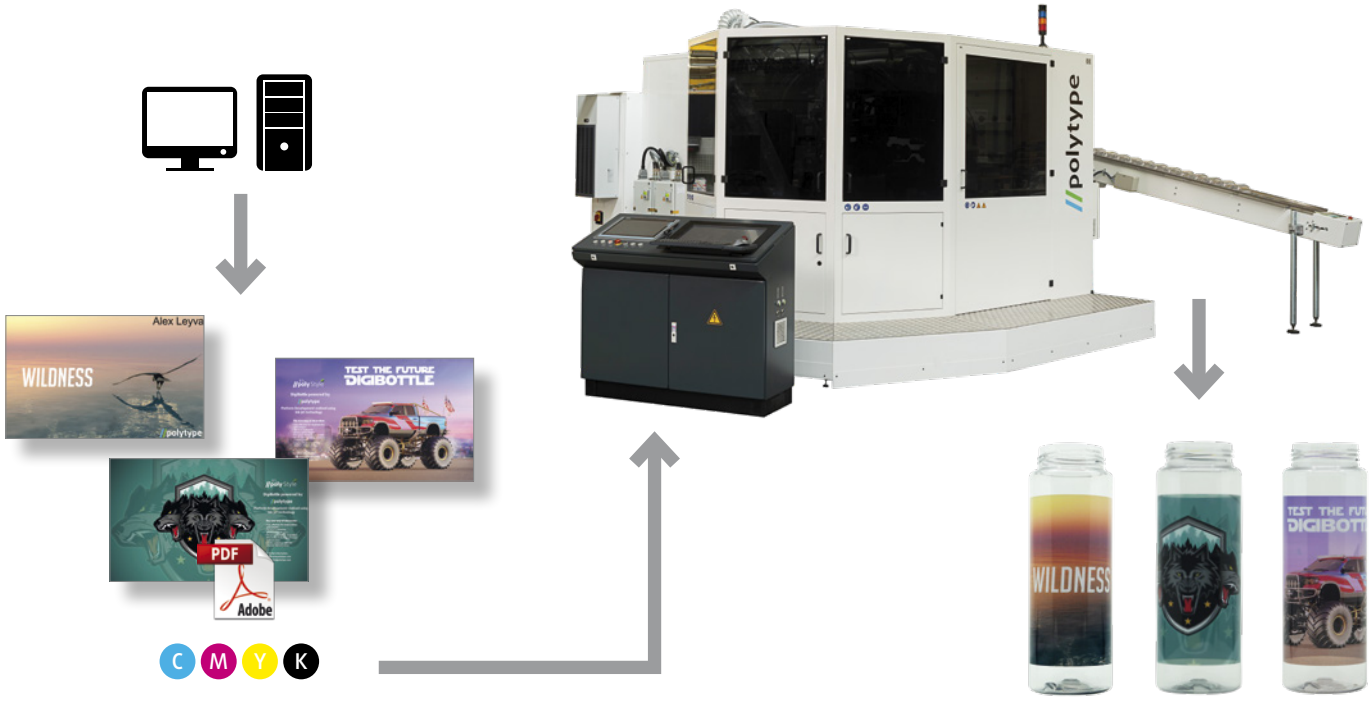
«Time is money». Based on this quote, it can be said that effective product handling and the productivity of the machines used in production are key to the efficiency of the entire production system.

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.



For UPAX-UNITY LLC the BDM 682 offers «Swiss quality proven by time!»

UPAX-UNITY LLC was founded in 2001 in the city of Perm, 1500 km from Moscow. In that particular year GDP growth was 5.1%.

Upax has been working hard for its success. Today, this privately-owned company has over 450 employees. The product portfolio ranges from different volumes of PP drinking cups, food containers and dairy packaging to the most technologically innovative 100% rPET rigid food containers and cups.
Most of the products are distributed within Russia and post-USSR countries.
One of the most significant steps in the history of Upax was to approach a dairy packaging market. The first cup decorating machinery was purchased from one other supplier. The rapid growth in demand required Upax to act fast in order to get its «place in the sun» in the Russian dairy packaging market. By pure chance, one of the Upax owners saw a //polytype printing machine in production during a business trip to Germany. Needless to say, he was impressed with the consistent quality and the simplicity of operation. BDM 682 was the first purchased machine from //polytype in 2015.
At the beginning of 2020, Upax felt the lack of decorating capacities. The aim was to satisfy customers› high requirements regarding printing quality, while competing with DESTO and thermos-shrinkable sleeve technology, which was widely used in decorating dairy cups at that time. //polytype was ready to offer a new machine, but some serious competition took place. Upax played open-handedly and met all the requirements such as production speed, sustained quality of printing, reliability and easy operation. At the end of the day, it was clear that BDM 682 from //polytype was the ideal choice. Very soon, Upax purchased another machine from //polytype.
One of the key points that Upax mentions when speaking of its success is that //polytype machinery offers constant and sustainable quality of printing that enables the supply of top quality throughout long-term contracts.
As engineers from Upax say: «//polytype is from Switzerland, no need to say more!»

Swiss quality proven by time!

DigiCup: Wobz (Dalvin) reinvents container customization in the B2C and B2B segments

Speed and efficiency are key to customized container decoration. To guarantee both of these, the French company Wobz, which is based in Lyon, has created an intelligent company system combined with Internet platforms specializing in B2C and B2B. Since the organization was founded in 2013, its mission has been to become the first port of call for customized container decoration. Over time, the company has managed to build up a vast product portfolio. From glasses, cups and bottles to beakers, cardboard packaging and flasks, the focus has clearly been on high-end everyday items.

Wobz's three websites (Cupkiller.com / Wobz.fr / Dalvin.eu) guarantee widespread access to its product range. Meanwhile, Wobz Tech serves as a hub for the "Web to print CustomDesk". This particular line of business deals with the interface between the customer and container production. More specifically, this means the 3D configurator, a specialist web-to-print e-commerce framework and an ERP (Enterprise Resource Planning) solution, which offer the following possibilities:

- processing of orders from various different websites
- customer relations and customer service management
- allocation and management of production units and machines
- linking up production availability with e-commerce business
- logistics management
- real-time access to statistics and process indicators

Wobz Industry is the part of the company that makes sure orders are processed. In other words, this is where beakers that have been ordered are decorated using the DigiCup before being packaged and shipped, for example. Forty employees work hard day after day to maintain a very high level of customer satisfaction.

Wobz sees huge potential in the luxury market. One of the company's goals is to help luxury brands customize their products. This would gives consumers looking to buy a cosmetic product as a gift the option to choose between different container designs and customize them further by adding a name, for example. The idea is to offer comprehensive support for brands with a high-performance 3D configuration tool on their website, sales logistics, customer service in the brand's name, a decorating and shipping service and management of logistics processes and customer service.

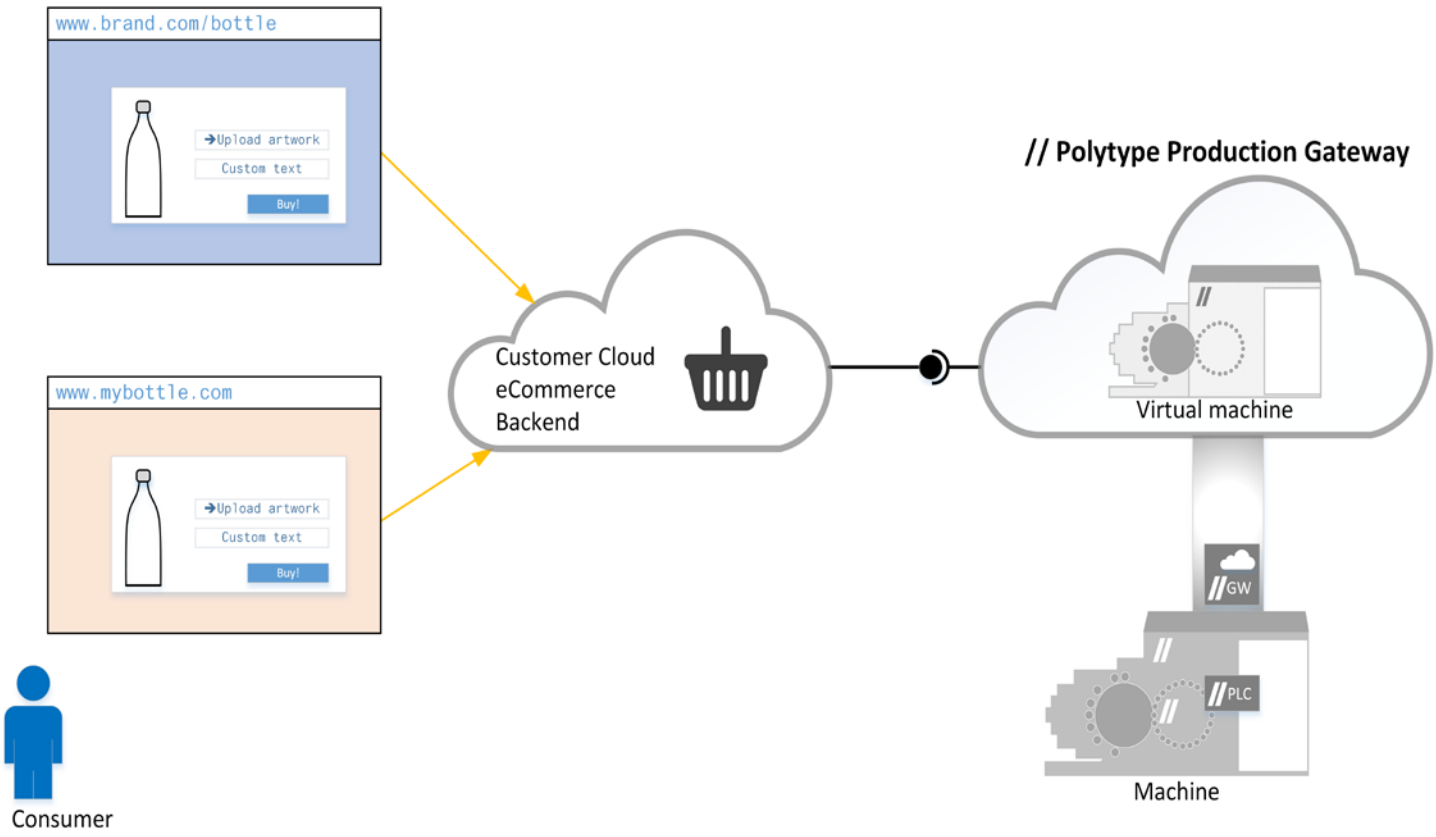
Two years ago, it became clear that production capacity needed to be increased in Wobz's traditional market – the customized beaker. Right from the start, it was obvious that only a digital printing machine specifically designed for such containers would be suitable for this project. Following a long evaluation process, a solution put forward by the company //polytype emerged as the right choice to suit Wobz's requirements. The determining factor was the possibility of combining >>

production capacity and printing quality, although the option to control the DigiCup directly from the CustomDesk was also key.
During the implementation phase, it became clear that //polytype was in every respect the ideal partner for realizing such an innovative scheme as the integration of a digital printing machine into a project with a carefully thought-out workflow from start to finish. We would like to take this opportunity to highlight the motivation and responsiveness of the //polytype team, which were instrumental in making this project a success.
Now, after a whole year of production, we can confirm that the //polytype DigiCup has been absolutely the right choice. The machine fully meets the objectives set in terms of performance and printing quality.
For Wobz, one thing is certain: product customization presents huge growth potential. So there's nothing for it but to take advantage of this!

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 complicated 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 >>



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

wifag//polytype

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 or info@polytype.com

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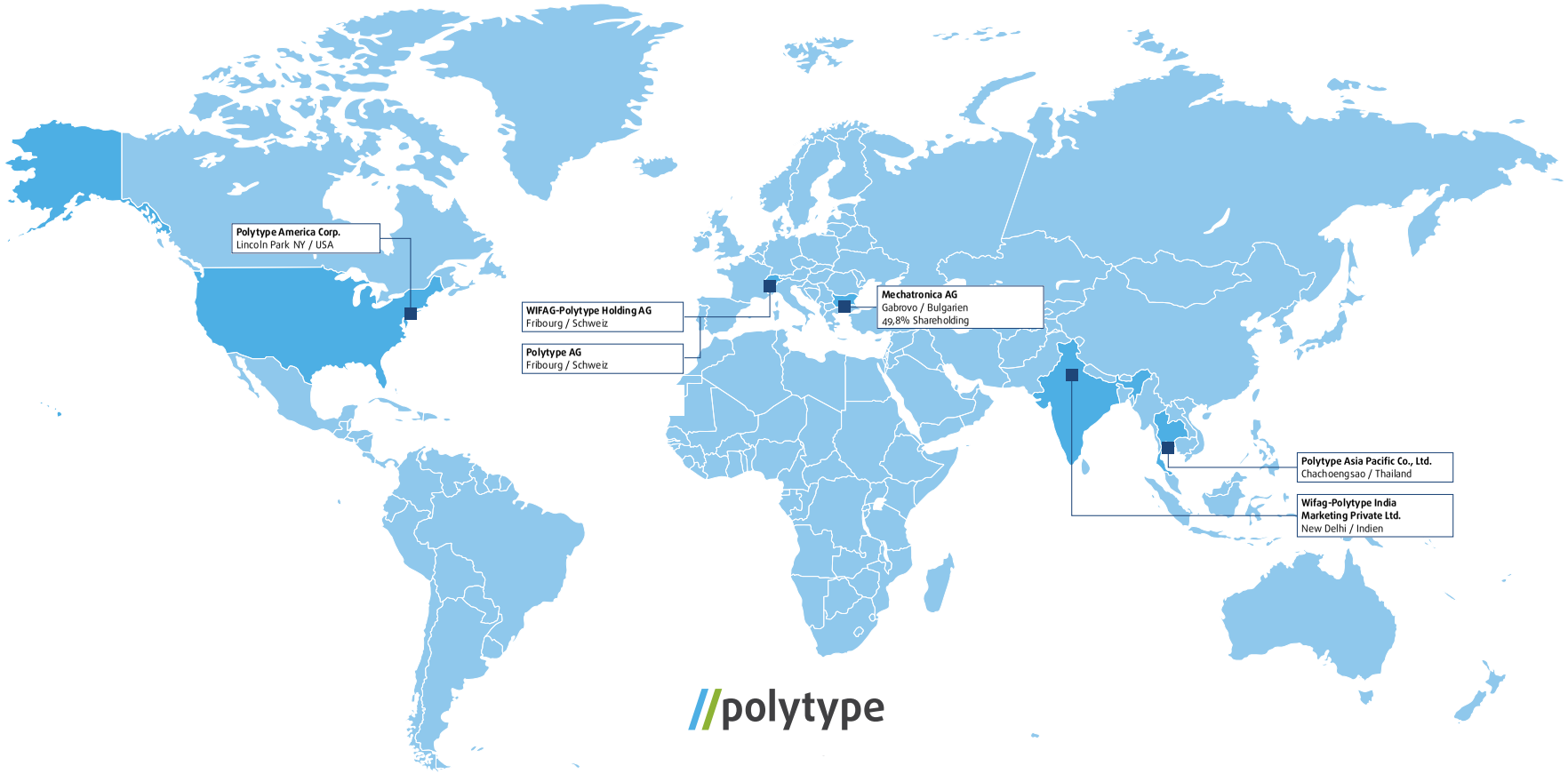
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