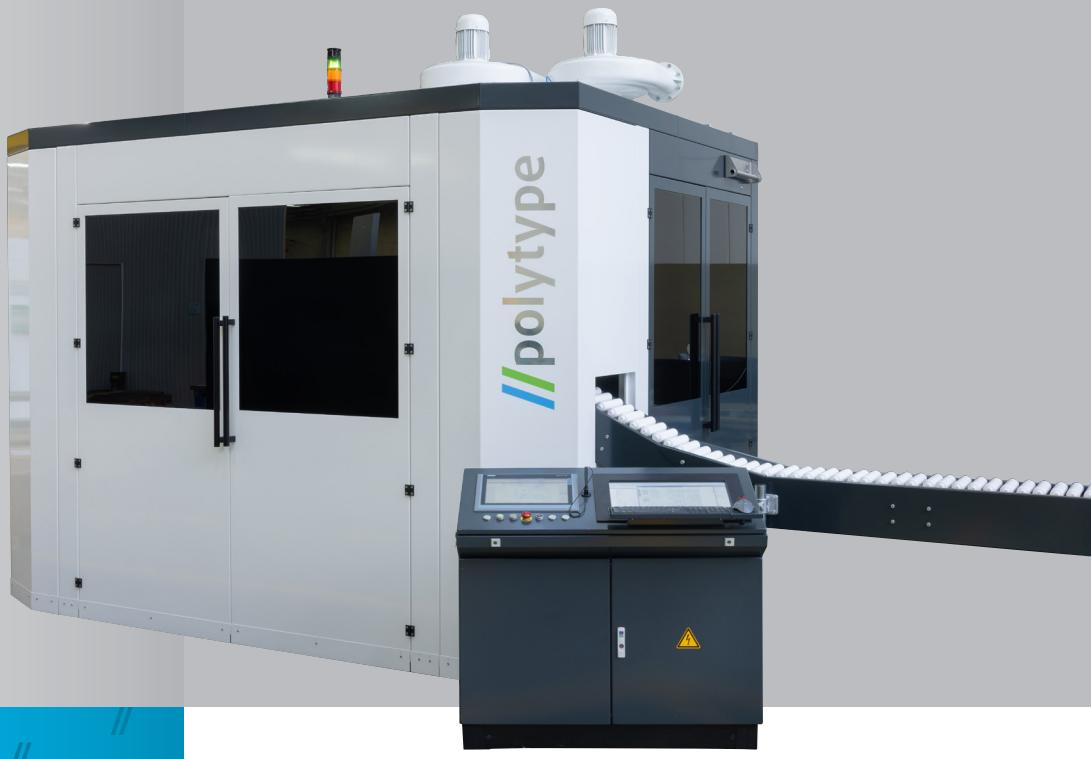
DigiTube G3



The digital printing machine for tubes, sleeves and cartridges

//polytype

Passion · Innovation · Decoration

//polytype is the world leader in the manufacture of systems for direct printing of plastic tubes. //polytype machines combine innovative technology with the highest levels of reliability complemented by the most user-friendly operation. Its international customers appreciate the modularity of the design and the expansion opportunities of the machines.

//polytype is part of the Swiss wifag//polytype Group, which operates globally and has branches in Switzerland, Germany, the USA and Thailand. This alliance gives //polytype access to a broad technology base and guarantees a global and professional partnership for your success.

The new way of decoration

//Efficiency

// Changeover time reduced to near zero
// Printing of single tube production and long production runs on the same machine
// Increased production output
// Significant reduction of startup and production waste
// No ink mixing required

// Cost-effective for small batches

//Print Quality

// High print quality comparable to IML / Sleeve / Label decorating
// Flexibility in selection of the print design
// Print without overlap > 360°
// White available for clear and colored containers
// Glossy effect

// Photo realistic graphics

//Variable data

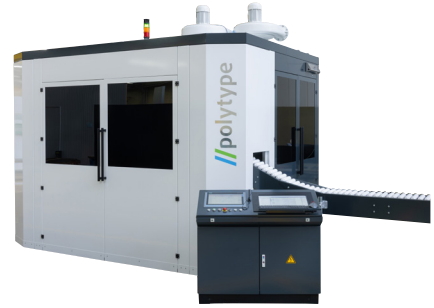
// Printing variable data «each tube can be different»
// Individualization and personalization for marketing opportunities
// High volume of variable codes easy to manage

// One to one marketing

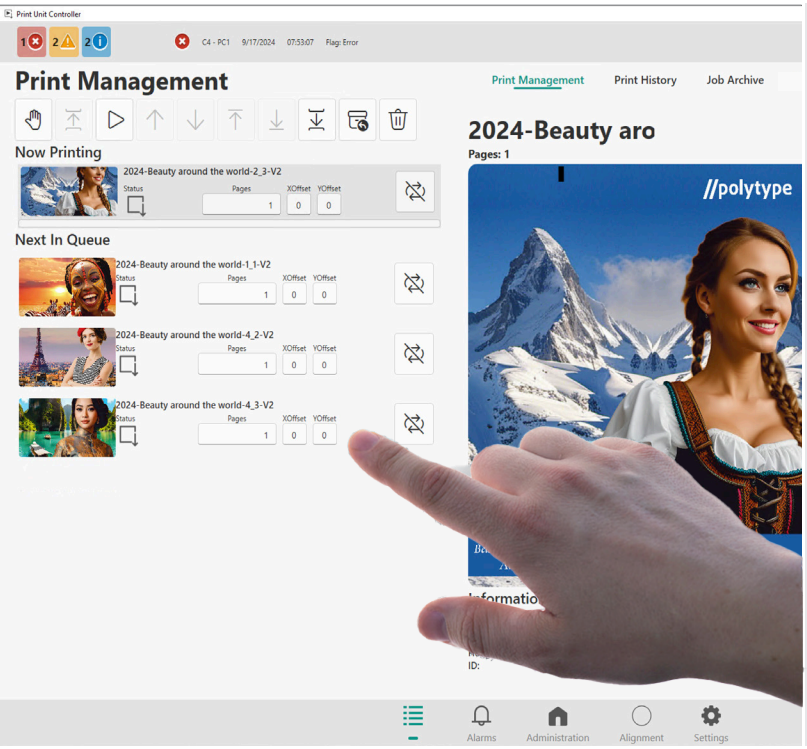
//New workflow

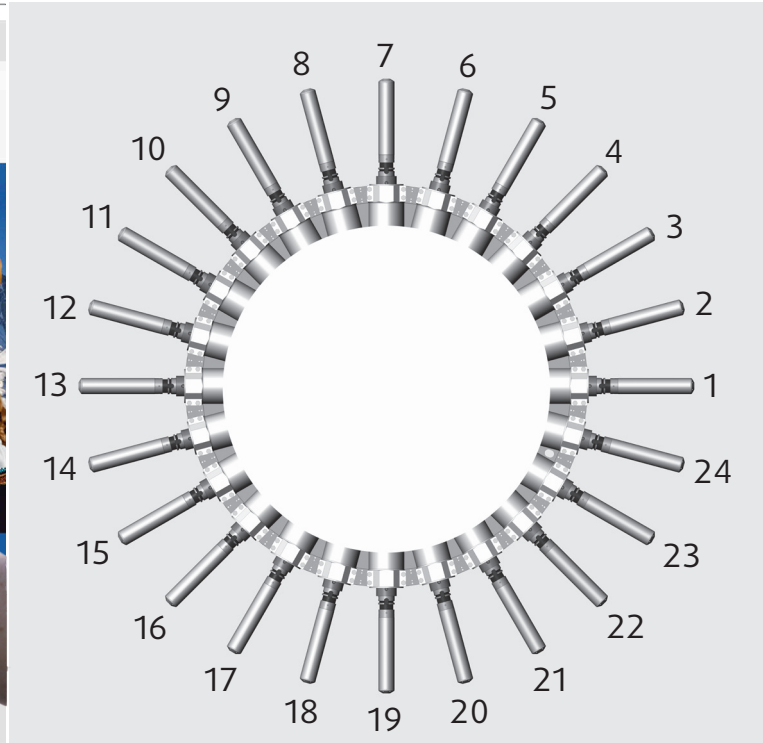
// No printing plates
// Almost no back loop for corrections
// A fast and efficient way for decoration
// Reduced production processes enable new business models with on-time delivery

// Time to market



// Highly reliable Ink-jet printing machine
// High level of productivity
// Highly market acceptation based on a stable and repeatable production
// Extend the machine's lifespan with software and electronic updates





//polytype Calmar System
To convert input data like PDF files to a printed image on the substrate //polytype developed its own ink-jet system and called it Calmar.

Calmar comprises of the following elements:
// Intuitive graphical user interface
// Image Data processing software (RIP)
// Network technology
// Printhead driving electronics
// Ink supply management

Calmar is a complete ink-jet printing technology platform. Thanks to that //polytype controls every aspect in the lifecycle of the system – from developing new features tailored to the tube industry over producing industrial grade electronics and software to a professional after-sales service.

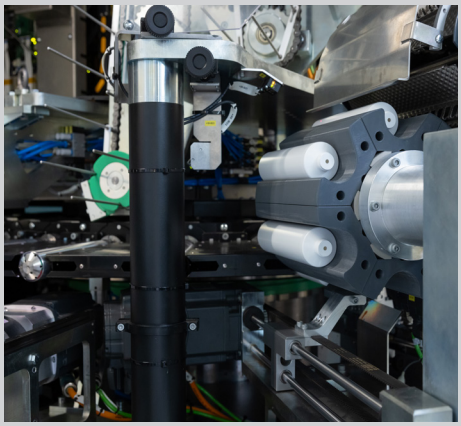
Station set up for the DigiTube

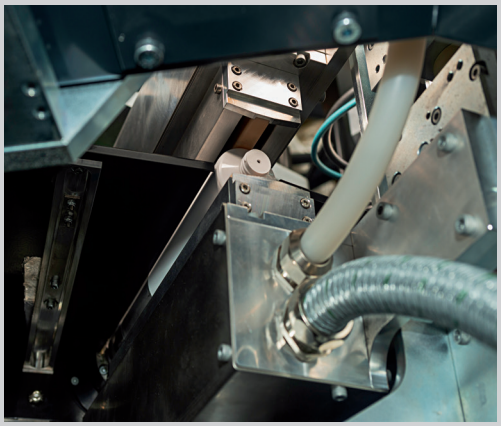
1, 2	–	Tube loading / Tube presents control
3	–	Dust removal
4	–	Pretreatment
5	–	Positioning
6	–	Product shape control
7-8	–	White
10-13	–	Cyan, Magenta, Yellow, Black
14-16	–	Orange, Violet, Green
18	–	UV Curing
20	–	Image quality control
21	–	Laquering
22, 23	–	Unloading
24	–	Unloading control
Outside	–	Lacquering curing in external curing oven

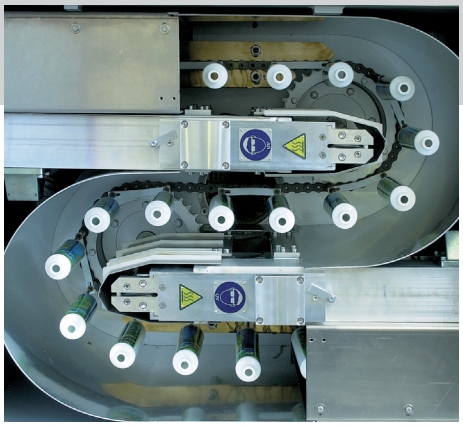
Control panel
Side by side user friendly interface that allows quick access to the machine control as well as to the image processing PC to efficiently operate and process a large number of print jobs.

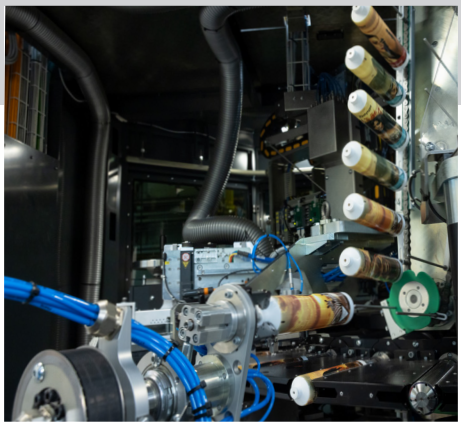
Loading
Possibility to load the tubes/sleeves:
- Manually / hand-loaded
- Semi-automatically from a storage magazine
- Fully automatically using a drum

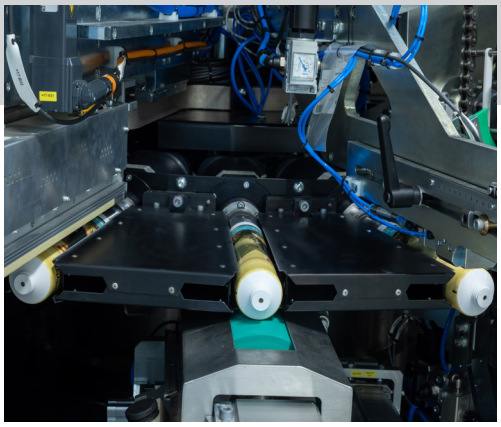
Surface pre-treatment
To ensure reliable ink adhesion, this station is used to pre-treat the surface of the tubes with gas or a corona.











Lacquer curing
A separate //polytype UV oven is used to ensure uniform lacquer curing. Its progressive power regulation is designed for premium lacquer quality.

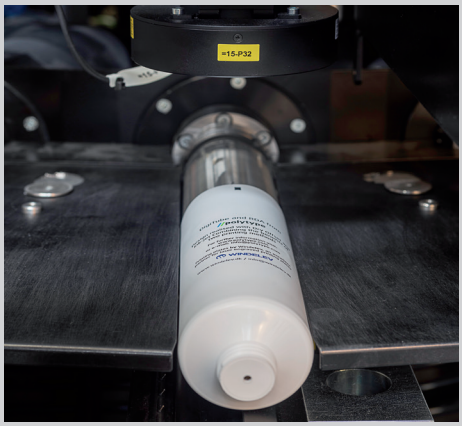
Tube unloading
//polytype DigiTube offers high process stability for transferring tubes from the mandrels to the transport chain.

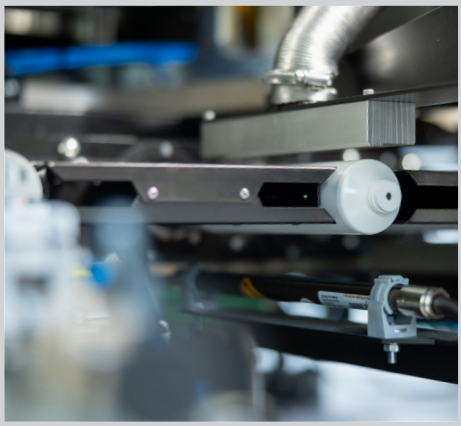
Varnishing
The anilox lacquering unit ensures a highly reliable application of every glossy or matte varnish. The unit can be pulled out, which enables excellent accessibility.
A temperature control system is also integrated.

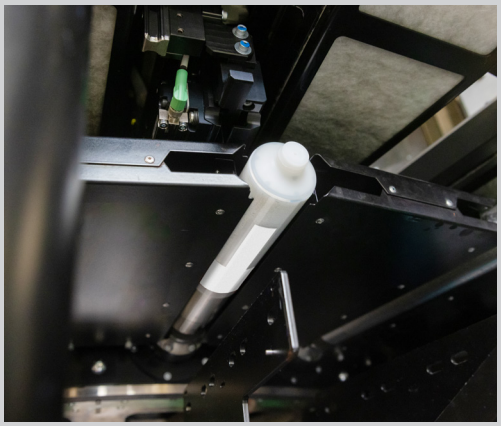
Camera Positioning to a decoration
With the use of camera positioning you may combine different types of decoration such as, hot stamping on a previously decorated tube / sleeve.

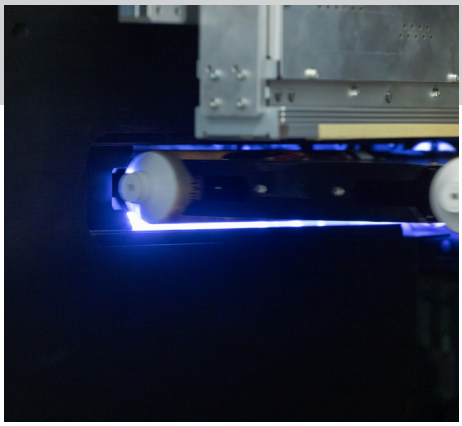
Ionisation with dust exhaust
To clean the tubes, particles are neutralized electrostatically the dirt particles are then cleaned off by the use of vacuum.

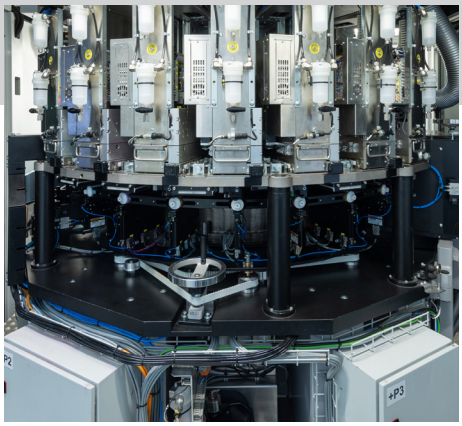
White pre-print
For transparent or coloured tubes, a white base coat is indispensable. The pre-print can be all over the tube or only where it is needed to highlight the process colours like in screen printing. To achieve an even better effect, it is even possible to work with two layers.

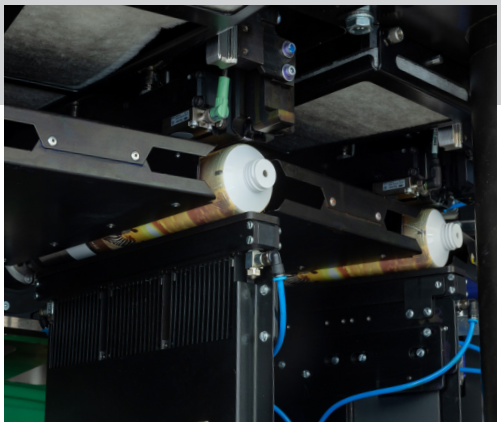










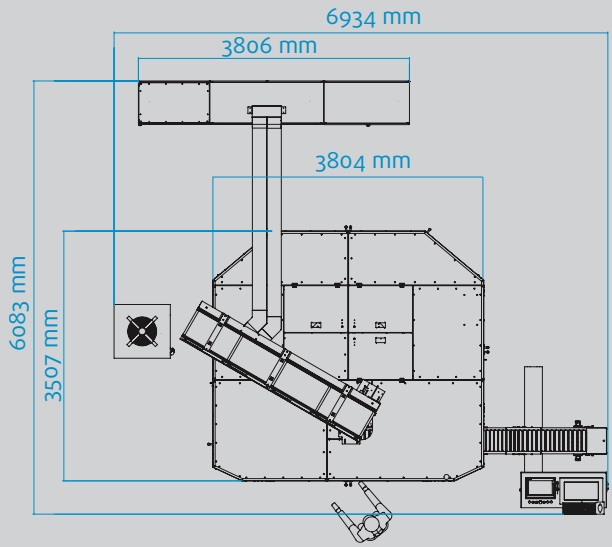


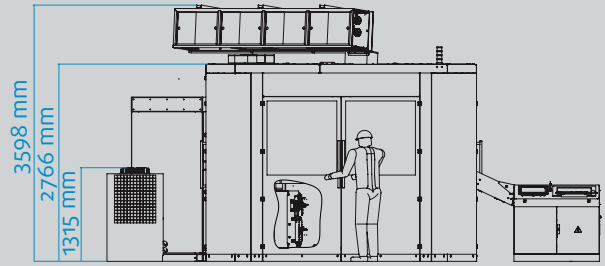
Final ink curing
The UV ink curing process is equipped with progressive power control. It was developed for quick lamp changes and ease of maintenance.

Innovative printing system
The new //polytype compact printing system contains all the necessary elements for printing: All automation, electronics, complete ink supply system, printing head alignment feature, automatic maintenance and cleaning. This design ensures good and easy accessibility.

4 colour process printing with O, V, G option
To maximize speed each colour will be printed separately. The high precise positioning system ensures the perfect match for fantastic imaging of the tube and/or the cap. Excellent printing results are achieved with the standard process colours (Cyan, Magenta, Yellow and Black). The three additional colours (Orange, Violet and Green) play an important role in significantly broadening the colour spectrum.

// polytype the expert for digital tube printing machines
// Over a decade of experience in digital printing
// First class customer service with in-house experts for every process in the machine





Technical data	DigiTube G3
Min./max. tube diameter:	19-50 mm
Min./max. tube length:	60-215 mm
Tube head incl. cap height max.:	50 mm
Print height, up to:	205 (215) mm
Visual resolution, up to:	1200 dpi
Mandrels:	24
Max. printing speed:	150 tubes/min
Weight of main machine:	~ 13000 kg

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