DigiCup



The digital printing machine for round cups

//polytype

Passion · Innovation · Decoration

Always well-rounded





//polytype is the world leader in the manufacture of systems for direct printing of plastic cups and lids. //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 times reduced to near zero
// Printing of single cup production and long production runs on same machine
// Cost-effective for small batches
// Increase of production output
// Significant reduction of startup and running waste

// Cost-effective for small batches

//New workflow

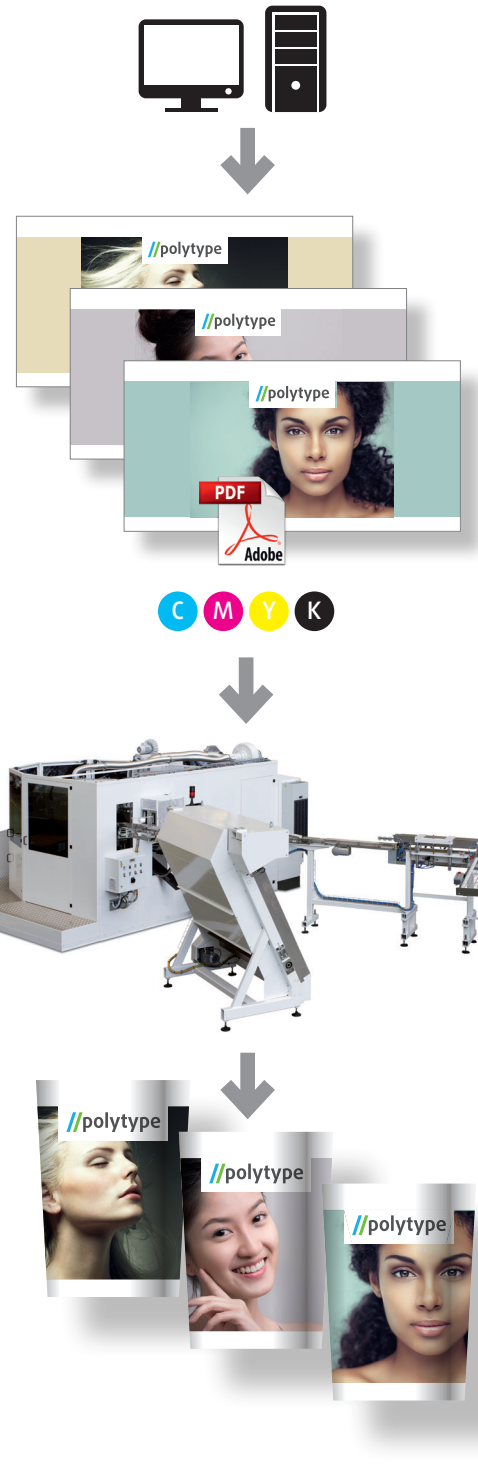
// No printing plates
// No back loop for corrections
// A fast and efficient way for decoration

// Time to market

//Print Quality

// Extremely high print quality comparable to IML / Sleeve / Label decorating
// Flexibility in selection of the print design
// Print from the lip to the bottom of the cup
// White available for clear and colored containers
// Glossy effect

// Photo realistic graphics



//Easy to use

// Reduction of process steps
// Only 5 inks to handle (CMYK and white)
// Quality not dependent on operator skill
// Consistent print quality from beginning to end

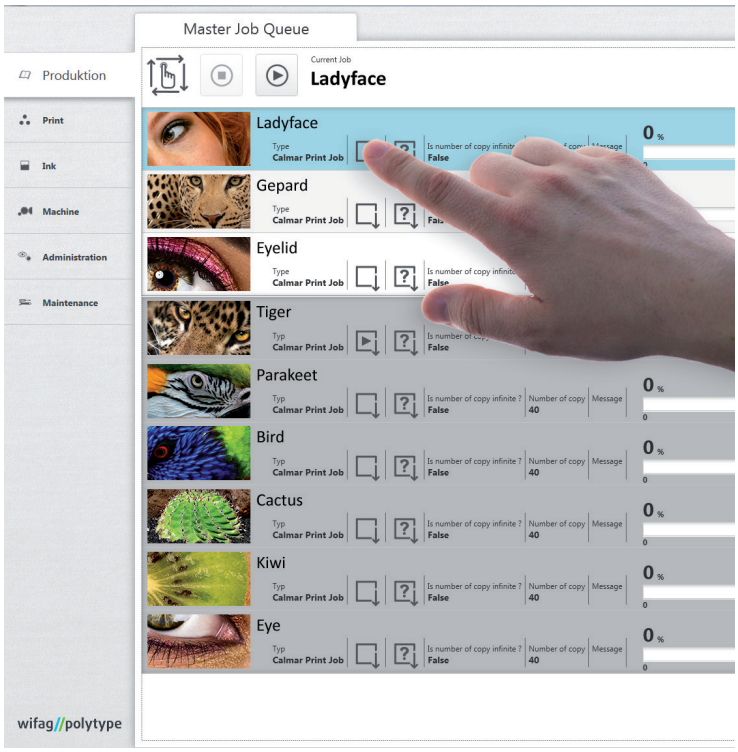
// Computer to product

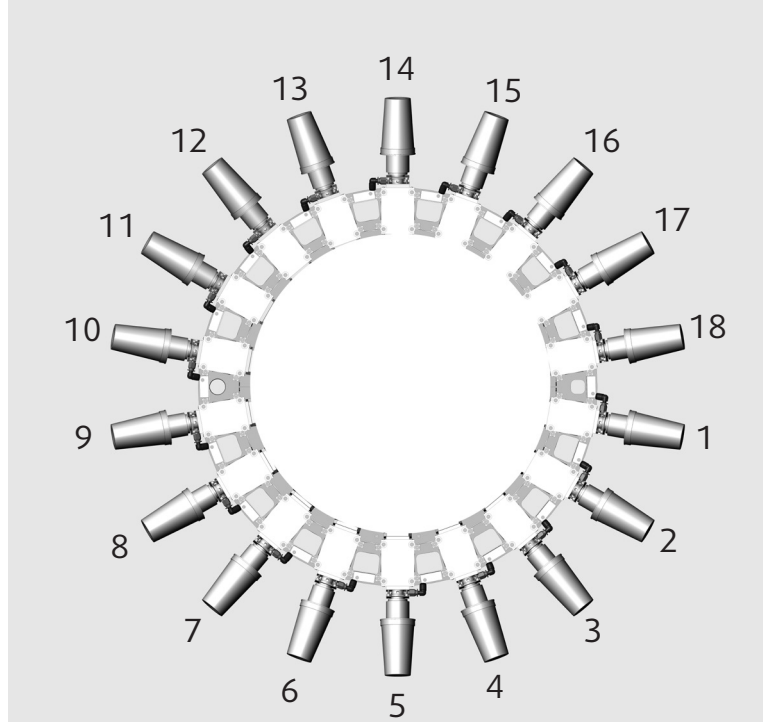
//Variable data

// Printing variable data «each cup can be different»
// Individualization and personalization for marketing opportunities

// One to one marketing

// Reliable Ink-jet printing machine
// Extensive support at first hand
// High productivity
// Extended lifetime with upgrades





//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 the following elements:
// Intuitive graphical user interface
// Data processing software
// Network technology
// Printhead driving electronics
// Ink supply

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 cup industry over producing industrial grade electronics and software to a professional after-sales service.

Station set up for the DigiCup

1	–	Cup loading / Cup presents control
2	–	Pre-treatment by corona or gas
3	–	White
4	–	Cyan
5	–	Magenta
6	–	Yellow
7	–	Black
8	–	
9	–	
10	–	
11	–	
12	–	
13	–	
15 + 16	–	Final curing
17	–	Cup take of
18	–	Reject station

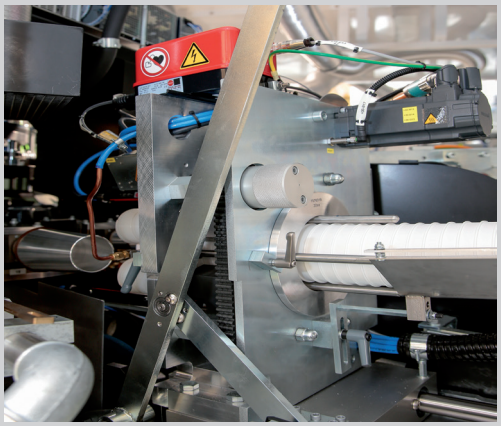
Control panels
With the two control panels, the operator does have everything at a glance. The first panel is for the manipulation of the printing machine and the second for the preparation of the printing jobs.

Feeding elevator
The wider in feed elevator with high storage capacity and electrical liniar pusher ensures controlled pressure of cups to feed screws.

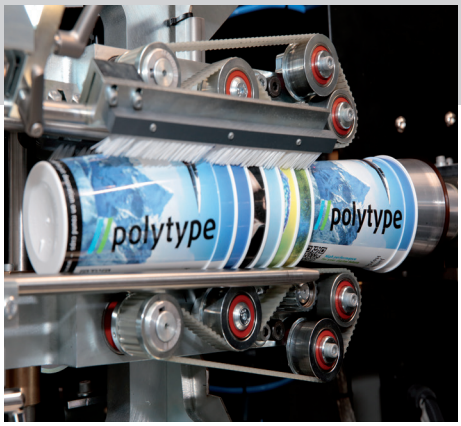
Cup loading
Cup feeding station with servo driven screws. For an easy access and a fast changeover the station can be open easily.

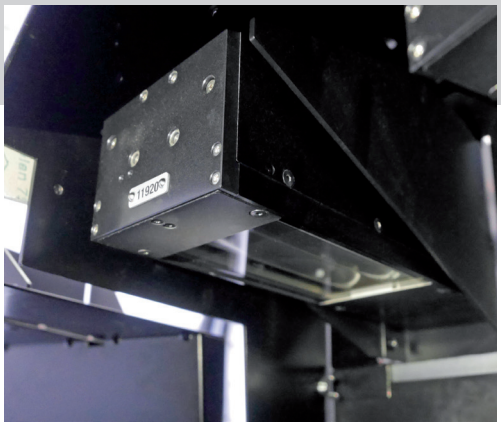












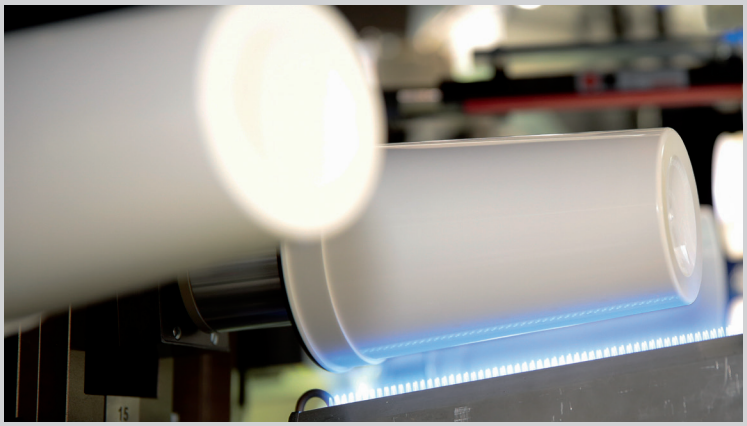
Discharge roll table
The process ends with a discharge table with a precise laser counting device.

Cup take-off system
Cup belt take-off system (Standard) or system with screws with mechanical read-outs for easy adjustment.

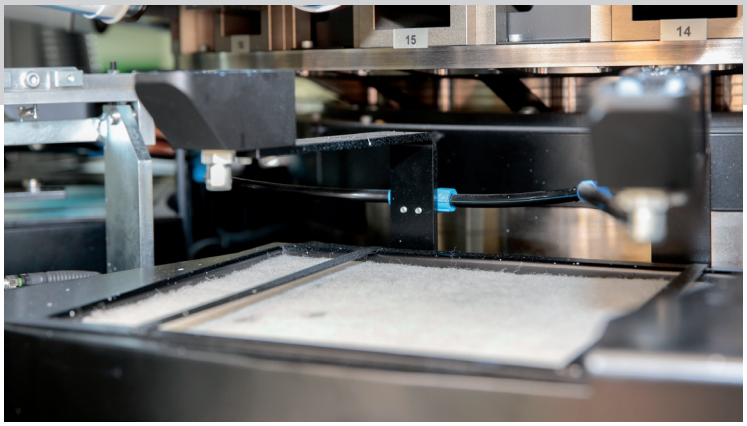
Final curing
The UV ink curing process is equipped with progressive power control. It was developed for quick lamp changes and ease of maintenance.

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

White pre-print
For transparent cups, a white base coat is indispensable. Adapted to the needs, this pre-print can be all over the cup or only there where it is needed to highlight the process colors.





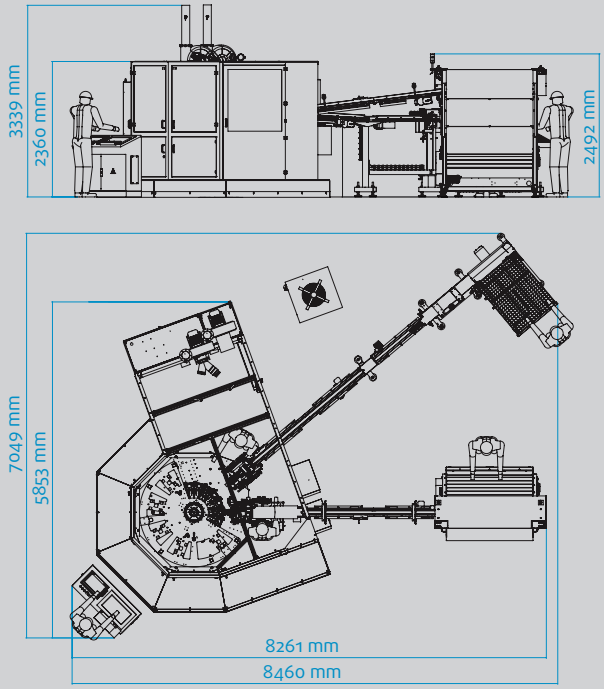


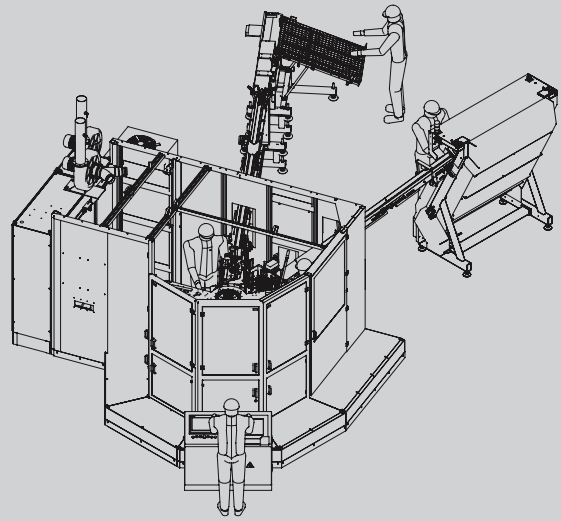


Ink mist exhaust system
The ink mist exhaust system ensures the safety of the operators during the production, as well a constant quality imaging.

4-color process printing stations
To make it fast, each of the CYMK color will be printed separately in one turn. The high precise positioning system ensures the perfect match for fantastic imaging of the cup.

// polytype the expert for digital printing machines for containers
// Over a decade of experience in digital printing
// Nearly a century of experience in printing on containers





Technical data	DigiCup
Min./max. cup height:	35-235 mm
Min./max. cup diameter:	50-130 mm (150 mm)
Min./max. taper:	2-10°
Printing height (depends on configuration) up to:	212 mm
Resolution, up to:	900 dpi
Mandrels:	18
Max. printing speed*:	200 cups/min
Weight of main machine:	~ 10000 kg

* for cup decoration with CYMK and a rim diameter of 50 mm

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