



Visit us at  
**K 2016**  
Okt. 19-26, 2016  
Düsseldorf/Germany  
Booth 4 C56



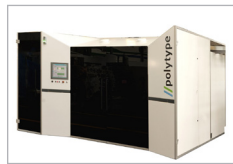
## A little piece of Switzerland in Dusseldorf



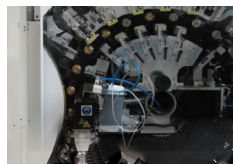
K'2016: //polytype – your High Performance Solution Provider 3



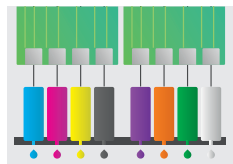
//polytype's new Rotaris RSP80 marries the legacy of screen printing with today's innovation. 4



Linearis: The solution for demanding tube designs 5



The RDA 24-165 Hybrid, the smart way to get into digital printing 6



//polytype's CALMAR system clears the way for individualized container decoration 8



//polytype worldwide

# The K2016: //polytype – your high performance solution provider

The K2016 is the leading trade fair for the plastics industry and gives //polytype a special opportunity for presenting its latest advances in tube decoration.

In today's global economy markets are more competitive than ever with a growing emphasis on innovation and product differentiation. A focus on finding unique solutions is many times challenged by the equally important mandate to keep costs as low as possible. These sometimes seemingly opposing goals force you to develop solutions based on product specific needs with targets that will allow you to maximize quality and throughput, while minimizing steps, time and overall costs. At the upcoming trade fair //polytype will highlight their extensive competency in all the tube manufacturing, decoration, and finishing processes, proving yet again why they are the high performance solution provider and overall best partner for tomorrow's challenges.

//polytype will tap into its rich history while highlighting its expertise and sharing with fairgoers a unique overview of all types of tube decoration currently available. From standard dry offset to flexographic, from hot stamping to digital, it will be clear why //polytype remains at the forefront of solution development. Even screen printing will also have a special place at this trade fair.

Another gem at this show will be a new global innovation for use on the Linearis machine. This innovation marks a huge step forward in printing quality for tube decoration. It is truly worthwhile



to stop by and find out more about this advancement.

If further solutions are needed in the production of laminated tubes, Mechatronica is just the company to contact for a highly competitive approach.

So, please stop by and see us if you attend the world's biggest trade fair for the plastics industry in Düsseldorf, Germany. The K 2016 trade fair will be held from October 19 to 26, 2016. You can find us at stand C56 in Hall 4.

Incidentally, you can enjoy special culinary treats at our stand if you visit us at 4 p.m. or later. You will receive more information in the invitation to be sent out soon ...

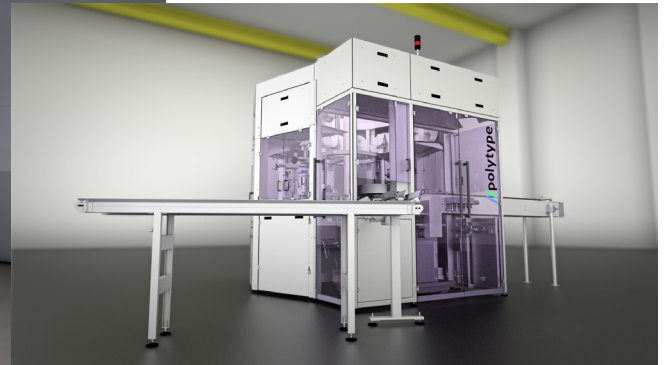


**19 – 26 October**  
Düsseldorf, Germany

The World's No. 1 Trade Fair  
for Plastics and Rubber

# //polytype's new Rotaris RSP80 marries the legacy of screen printing with today's innovation.

With the RSP80, //polytype once again shakes-up the plastic tube industry. As leader in the field of decorating equipment for plastic tubes, //polytype applies its extensive handling experience to screen-printing and the result is impressive.



Built to exceed our customers' high expectations, the RSP80 has what it takes to establish itself as the industry standard. After all, it's a //polytype!

Screen printing has been around practically as long as the printing industry for good reason, providing an appealing textured image unmatched by any other decorating process. The RSP80 marries the legacy of screen printing with innovative but proven features, and the result fits well into any production facility.

Conceived to be especially user-friendly, its accessibility and simplicity reduces maintenance and changeover tasks to a bare minimum. The well thought-out user interface will allow a fast setup for new print jobs or even faster parameter recalling of previous productions.

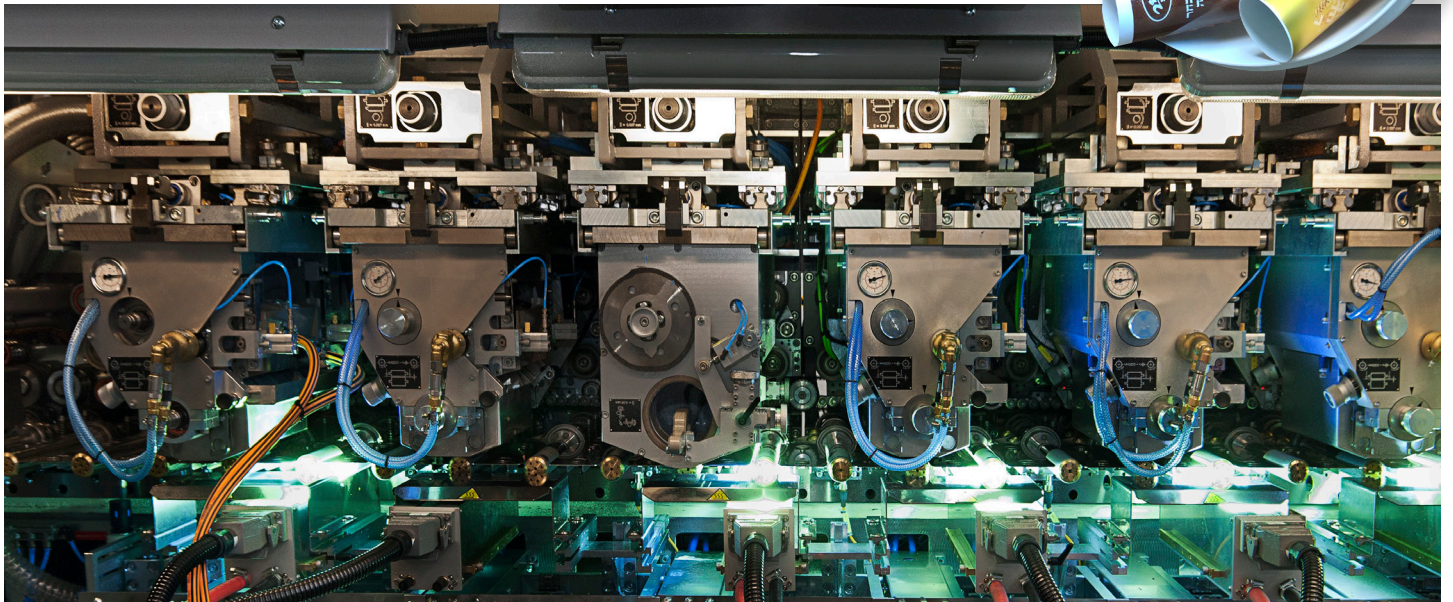
The RSP80 offers a total of seven decorating stations for screen printing, varnishing and hot-stamping. The machine allows varnishing the tube prior to, or after silk-screen decoration. As an option a hot-stamping station is also available to avoid going to another machine to finish the tube with metallic foil effects.

The machine can handle all the common types of tubes and sleeves used in cosmetic packaging up to a diameter of 60 millimeters and a length of 215 millimeters. The eyemark sensor allows the system to precisely position tubes that have been previously decorated.

The RSP80 can run as stand-alone unit or be integrated into a fully automated new or existing production line. A production speed of 80 parts per minutes and the use of conventional flat screens make of this machine a cost efficient and flexible solution for the decoration of tubes.

# Linearis: The solution for demanding tube designs

A few years ago, the individual types of tubes and decoration options were relatively clearly defined. The decoration options for laminated tubes were very good but their general look and feel were mediocre at best.



Extruded tubes, for their part, had an excellent look and feel but were limited when it came to decoration possibilities.

This situation has changed completely in recent years. The decoration possibilities on extruded tubes have made a quantum leap forward, as it were. They are now on a par with those for laminated tubes and labeled tubes. The only way this is possible is if the various types of decoration can be combined, with the Quadrochrome or Hexachrome process playing a key role.

Linearis from //polytype enables precisely this type of combination. This machine can produce designs that are

demanding and of high quality, even luxurious in appearance. In other words, it is possible to print lively photographically realistic images with special effects such as relief varnish or even completely underlain with metallic foil without elaborate effort and at very interesting costs.

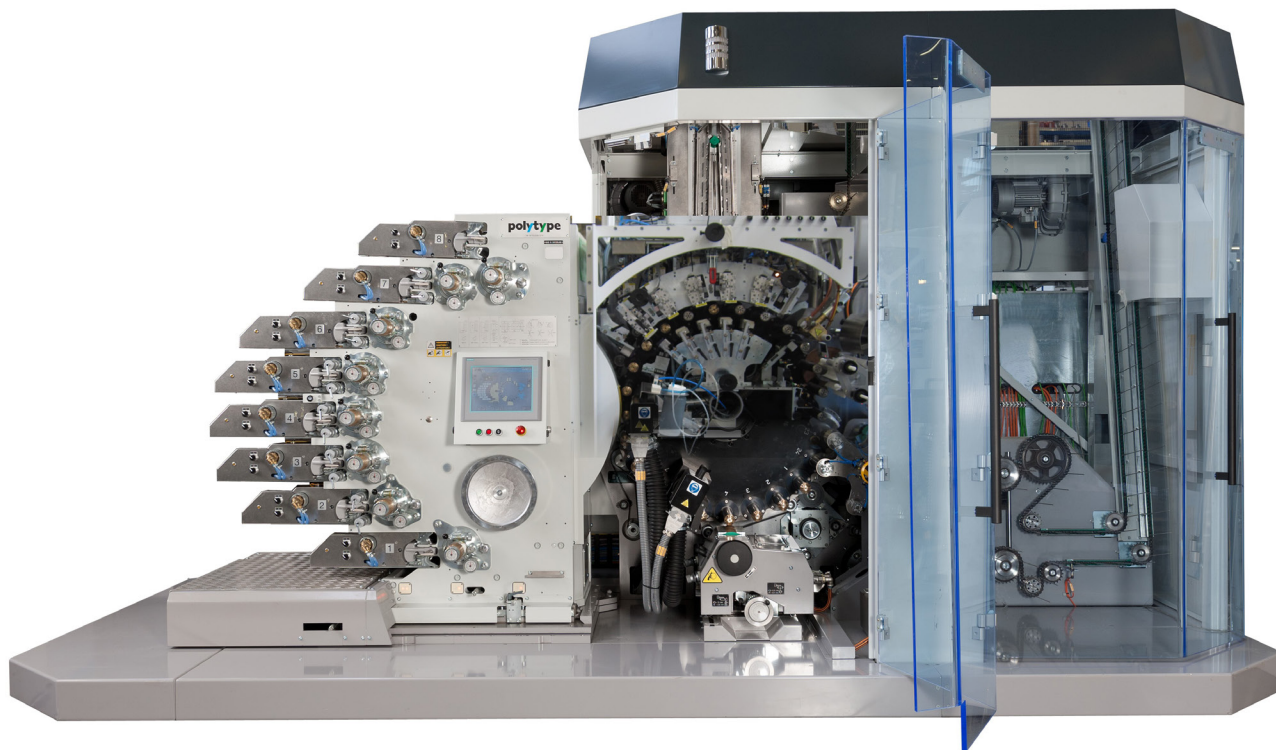
The approach taken by Linearis sets new standards for tubes as packaging materials.

With this machine the elegance and high quality look of extruded tubes can be combined with unique types of decoration. Linearis from Polytype therefore gives the right answer to a key question: How can exceptional design

and an unusual appearance be reconciled with a reasonable price for small- and medium-sized batches? The answer is simple: Linearis from Polytype. This machine decorates the extruded tubing from which packaging tubes are created in a subsequent processing steps.

# The RDA 24-165 Hybrid, the smart way to get into digital printing

It is true that digital inkjet opens new possibilities for the decoration of plastic tubes. In this article we highlight the advantages of digital, we speak to the specific features that add benefit and added value, and we also discuss some limitations of the technology. Limitations that are clearly answered by a HYBRID platform.



**1. Print Quality that is more photo realistic.** By incorporating the CMYK process with inkjet the results rival that of flexographic printing while exceeding levels attained by other processes.

**2. Very short changeover times.** Changeover times are drastically reduced where digital is employed. Initially artwork will need to be optimized for the process by incorporating normal color management steps. This can be done directly on the machine and results view-

ed immediately, saving time and process steps while insuring the results your tube buyer expect.

**3. Individual decoration of tubes.** Each tube can be uniquely customized and possess different images produced in sequence at full production speeds. Digital is the only platform where this can be accomplished economically. This capability opens entirely new possibilities for marketing, a whole new playground for personalization, sequential or ran-

dom numbering, and batch production and consumer specific personalization. Ultimately the markets will optimize the technology, finding its best fit and in many cases will create opportunities we cannot even imagine yet.

As with any printing process digital has its strengths as well as its limitations:

**1. Reproducible Pantone colors.** If exact match to spot color is a design requirement, you should be aware that the

color gamut of CMYK (or four color process) is only able to reproduce a portion of the PMS library. Adding special or spot colors to digital is possible in theory but not practical. In addition not all PMS colors are available from digital ink suppliers.

**2. Homogeneously monochromatic surface areas.** Surface pre-treatment remains a critical requirement with digital. This in part because of the viscosity of the ink being used. Results can be quite favorable but depend on several parameters. For instance the amount of ink, the processing time, the substrate and its pretreatment method. There can sometimes be a conflict between too much and too little pre-treatment. To achieve sharp lines and edges a shorter processing time is desired, however to achieve flow and complete homogeneity a longer time is required.

**3. Small fonts and sharp edges.** Extremely small fonts are heavily influenced by the resolution and the droplet size of a specific ink jet head. This challenge is more visible when incorporating extremely small fonts to be constructed out of the four colors.

The RDA24-165 Hybrid from Polytype is the perfect response to the limitations posed by digital inkjet outlined in this article. By combining inkjet printing and offset printing, this model can utilize the strengths of both processes while minimizing and eliminating the disadvantages of each.

In addition this platform affords tube producers the opportunity to offer all the advantages of digital inkjet to the market, developing entirely new businesses while maintaining conventional dry offset capacity that can be used immediately.

This approach minimizes risk and ensures a favorable return on your investment.

The photograph clearly highlights the advantages of both technologies in use on the same product. Pictures of products produced by inkjet are to photo realistic quality while large solid patches of colors and fonts are produced with dry offset.

Sound interesting? If so please contact us: [info@polytype.com](mailto:info@polytype.com)



# //polytype's CALMAR system clears the way for individualized container decoration

## Own Print controller manages the interaction

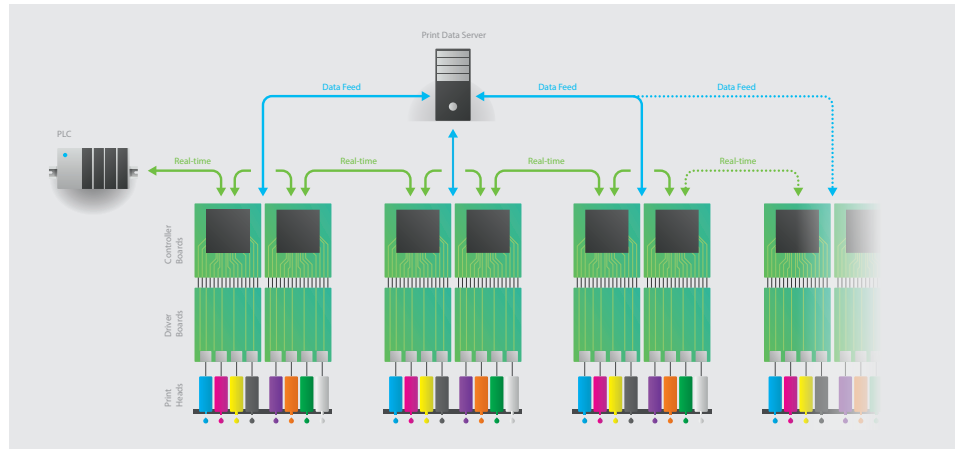
To adapt to all that needs in the wifag//polytype group, the Digital Printing department DCC (part of the Group) has developed its own CALMAR system for print head control, that contains the software and electronic components needed to create a printed image on the substrate e.g. from a pdf file.

CALMAR, of course, is an integral part of the //polytype hybrid digital printer as well for the cup digital printing machines.

The CALMAR system comprises the following main components:

- Data processing software
- Network technology
- Print head electronic system and ink supply
- PLC interfaces to integrate the ink jet technology in your existing or new machines and systems.

CALMAR is a complete ink jet printing solution. It manages the complex interaction of the software with the electronic system as well as the ink with the substrate. So the broad substrate and ink knowledge at wifag//polytype helps a lot. CALMAR has a fully modular design, which means the same technology platform can be used for different printing heads.

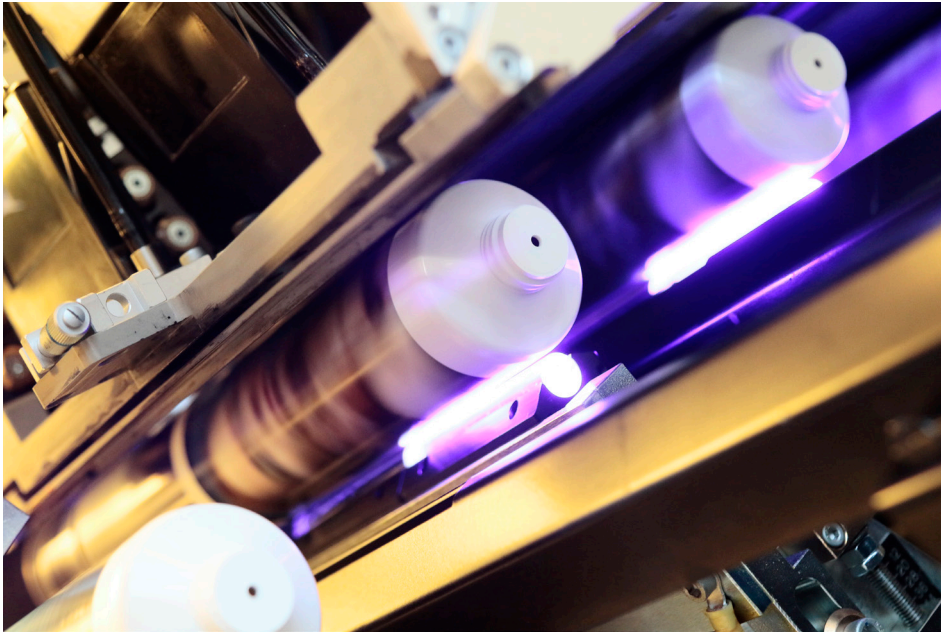


This platform is scalable, allowing it to control more than 100 printing heads with maximum possible data rates in real time.

The potential of the CALMAR technology will allow users to keep up with the print head technology in the future, too (control of higher jet frequencies, higher resolutions) and to connect with new workflow-, RIP-, color-management- and quality systems.

## Digital competence for all types of containers and surfaces

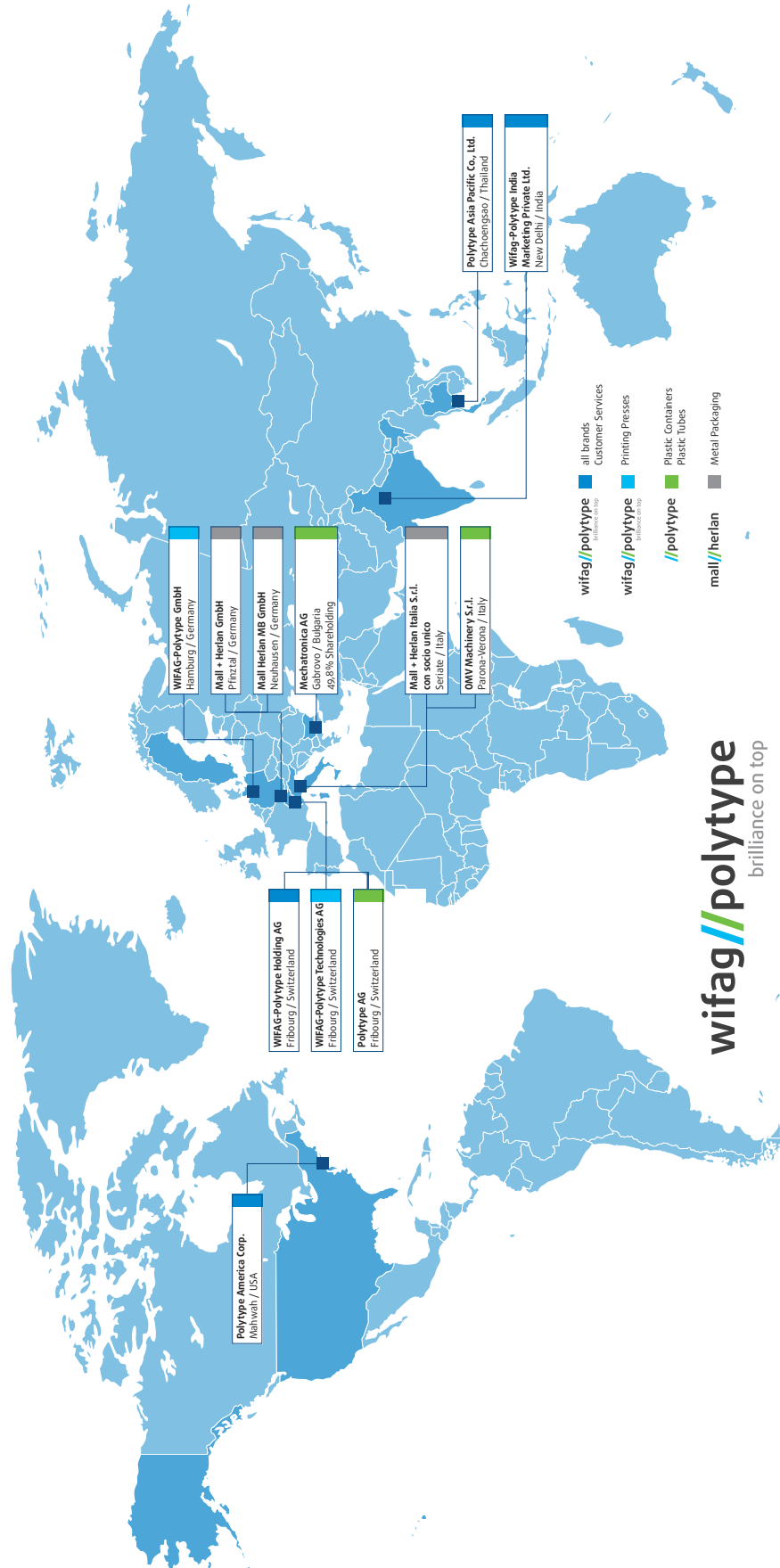
The wifag//polytype Digital Printing specialists cover their own area of expertise while also coordinating group-wide research and development efforts. The machines itself are built in the respective business areas. With this constellation they are also open to joint projects involving other machine manufacturers interested in integrating wifag//polytype digital printing technology in systems currently used or yet to be developed (OEM customers). >>



All solutions developed by wifag//polytype Group companies are dedicated to an industrial production environment. Right now the CALMAR system operates in lots of different printing surroundings: Besides the Polytype machines for plastic cup and tube printing the two swiss companies Steinemann and Schmid-Rhyner use Digital Technology supplied by wifag//polytype for their large-format digital sheet coating machine «dmax», consisting of CALMAR print head electronics and a software plus varnish supply system and automatic printhead cleaning station.

Another CALMAR system is integrated in a roll-to-roll machine in the decor industry using the latest 1200dpi Kyocera printheads, and also – besides Steinemann – there is a second OEM-partner building his first machine with the CALMAR system right now.

# //polytype worldwide



**wifag // polytype**  
brilliance on top

**Polytype AG**  
26, route de la Glâne  
CH-1701 Freiburg/Switzerland

Phone+41 26 426 11 11  
Fax +41 26 426 11 12

info@polytype.com  
www.polytype.com

**SWITZERLAND**

**WIFAG-Polytype Holding AG**  
Freiburg/Switzerland

**WIFAG-Polytype Technologies AG**  
Freiburg/Switzerland

**Polytype AG**  
Freiburg/Switzerland

**GERMANY**

**Mall + Herlan GmbH**  
Pfinztal/Germany

**Mall Herlan MB GmbH**  
Neuhausen ob Eck/Germany

**WIFAG-Polytype GmbH**  
Hamburg/Germany

**ITALY**

**Mall + Herlan Italia S.r.l.**  
Seriata (BG)/Italy

**OMV MACHINERY S.R.L**  
Parona-Verona/Italy

**ASIA**

**Wifag-Polytype India  
Marketing Private Ltd.**  
Neu-Delhi/India

**Polytype Asia Pacific Co., Ltd.**  
Chachoengsao/Thailand

**AMERICA**

**Polytype America Corp.**  
Mahwah, NJ/USA

