

LEADS

CLOSURES



-  TAMPON PRINTING MACHINES
-  LASER SYSTEMS
-  AUTOMATIONS
-  ACCESSORIES
-  SERVICE
- 

TAMPON PRINTING MACHINES

LASER SYSTEMS

ORIGINAL



Tampon Printing Machines
ALFALAS® Laser Systems
Automations
DMD® Industrial Ink-Jet Systems

SUBSIDIARIES



TAMPOPRINT S.a.r.l.
Subsidiary in France since 1989
www.tampoprint.fr



TAMPOPRINT International Corp.
Subsidiary in the USA since 1994
www.tampoprint.com



TAMPOPRINT IBERIA S.A.U.
Subsidiary in Spain since 2000
www.tampoprint.es



ALFA TOOLS
Spezialmaschinenfabrik GmbH
Affiliated company in Germany
since 1980

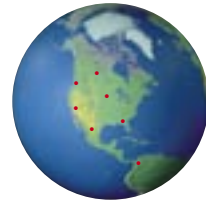
HEADQUARTERS IN GERMANY



TAMPOPRINT special machine construction
since 1978

2006

50-year anniversary of the company founder and
inventor of the industrial tampon printing machine, Wilfried Philipp



HEADQUARTERS



WORLDWIDE

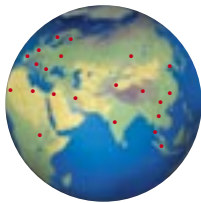
We are a medium-sized, globally renowned high-tech company from the Stuttgart area that has for almost 50 years provided a range of decorative and marking technologies that offer unparalleled opportunities.

Since the discovery of the industrial tampon printing process by the company's owner, Wilfried Philipp, in 1968, possibilities in terms of 'tampon printing' have been subject to constant development. A number of factors have contributed to this end, including new materials and in particular ALFALAS Laser System Technology, which has now been an independent product range for over 10 years.

Today, our comprehensive range of tampon printing machines and laser marking systems includes a wide range of standardised automations for decorating and marking all sorts of closures, as well as a variety of standard models.

The best trained employees, state-of-the-art production facilities and effective organisational structures are just the beginning of what we have to offer.

The certification guidelines have been fulfilled in accordance with DIN ISO 9001.



TAMPOPRINT Group
Global dealer network
(see www.tampoprint.de)

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DEAR CUSTOMERS AND PROSPECTIVE CLIENTS,

For over 40 years, Tampoprint has been supplying standard machines and highly complex automations for the printing and laser marking of industrially produced goods. The quality of our products and our expertise in the development of special customer-specific systems has made us the global market leader in this area. The printing and marking of all kinds of closures has now been an important business area for Tampoprint AG for over 25 years.

Our customer base includes all the well-known closure manufacturers. As a result of the quality and constant development of our systems, we have customers all around the globe. Our global service in combination with our subsidiary companies and appointed dealers ensures that our customers around the world always receive the necessary high-standard service from Tampoprint.

For us, constant development is a given. Almost every year, we bring new products to the market that allow us to better fulfil the specific requirements of our customers in terms of printing and inscribing closures of all kinds. The integration of the complete process chain and collective development with important suppliers as well as our customers, closure manufacturers, ensure that our entire range is always

tailored to the demands of the industry. Examples of this are the constant adjustment of printing accessories to suit changing market requirements as well as our software for promotions that is being developed together with end customers and closure manufacturers.

The constantly growing demands are also apparent when you consider that many years ago, our machines only printed on the upper side. Nowadays, the market requires us to perform printing and laser marking using the top, side and inside.

Since we focus on ensuring the highest quality in the production of our products, it goes without saying that we set down the same criteria for our suppliers.

Besides the quality of our products, we would also like to draw your attention to some of the benefits of the tampon printing process.

Tampon printing is an 'indirect rotogravure'. This creates a variety of benefits for the printing of closures.

Closures that are not ideally shaped or rounded on the top, but are slightly concave or convex, or have an injection point, or have a rough surface can be printed on using the tampon printing process because, due to its design, the tampon roller can follow the contour of the closure.

166 PATENTS TAMPOPRINT WORLDWIDE

1968



1971

World innovation! First patented tampon printing machine



1981

World's first rotary tampon printing machine



1983

World's first 'hermetic' system



The high coverage properties of the tampon printing process are particularly beneficial for printing dark closures with light ink shades.

With 'wet-on-wet' printing on dark closures, it is also possible to first print a white subfont, which ensures greater coverage and colour accuracy of subsequent ink shades.

Tampon printing and the options we offer in cliché production allow you to print extremely fine lines and characters.

As well as solvent-based inks, you also have the option of using UV inks developed by Tampoprint. These inks are specially designed to produce the highest quality image printing and photo-quality prints and also offer you the opportunity to immediately continue processing closures since the ink is immediately dry. The UV ink also enables you to print metal closures.

As well as tampon printing, we also offer you a variety of options in the field of laser marking.

The principal use is the inside marking of closures, generally for promotions. For this purpose, we offer systems for standard plastic closures and crowns. These can be operated as individual machines or in combination with a printing machine.

However, the machine design also allows direct positioning in the process chain with regard to the production of closures.

For laser systems, the portfolio has also expanded considerably since it was first introduced due to the constant development and adjustment of the market.

We now also offer systems for marking metal ring-pulls for cans directly in the production line, for example. This type of installation of laser system components is also available for a 'compression moulding' production system for plastic closures.

The TAMPOPRINT team is delighted that you are interested in our products and is always available to provide you with any further information. For further information, please see our website www.closuredecorating.com.

TAMPOPRINT AG brands:



HISTORY OF YOUR SUPPLIERS

- <1981 "TS 150" for printing closures
- 1981 First 4-row "Continua"
- 1991 First 2-row "Continua"
- 1997 First "Rotoprint"
- 1999 First "Promo laser" for plastic closures
- 2000 First "Closure Print"
- 2000 First "Top Spin"
- 2003 First "MOF" laser for plastic closures
- 2003 First laser for ring-pulls – system components
- 2004 Launch of newly developed UV ink
- 2004 Launch of ceramic cliché
- 2004 First "MOF" laser for crown seals
- 2005 First multi-colour "Top Spin"



CONTINUA





The 2-row Continua offers an output of up to 120,000 units/hour, depending on the print image, when printing closures with a 28 mm diameter. For closures with a 38 mm diameter, the machine has an output of approximately 90,000 units/hour. In order to meet customer requirements, the systems can be designed to use up to 6 colours.

The systems are not only designed for mass production; with just 2 rows they are also flexible and precise enough to print 4-colour photos, for example.

The use of exchangeable mandrels enables quick process changeover between different closure types. The sorting elevator

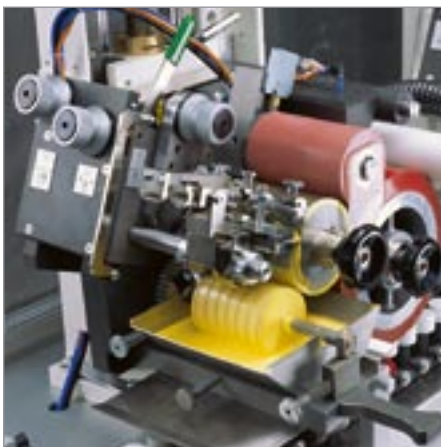
can be readjusted accordingly. It should also be noted that safely feeding parts through using the sorting elevator is not dependent on the closure colour.

Pre-treatment of the closures occurs using a fully-automatic gas pre-treatment process, which meets the highest demands. If the adhesion is insufficient, an optional special plasma pre-treatment process can be integrated.

The end drying of the closures is carried out using gas. This ensures that the solvent evaporates quickly and assists ink adhesion. The entire underside of the machine is finally drying the closure using cold air.



OPTIONS & FUNCTIONS



'RTI 2000' printing unit - in detail

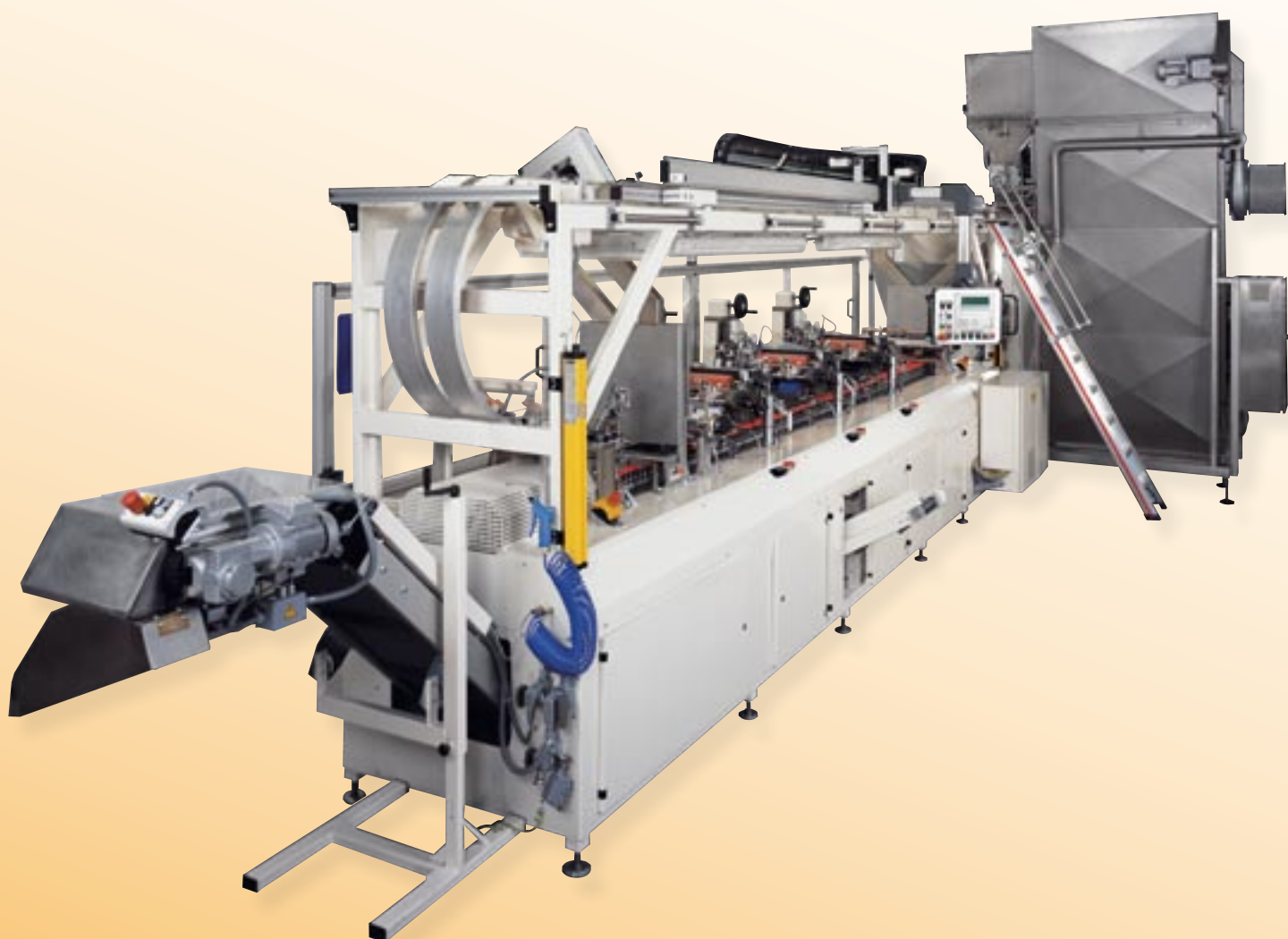


Gas pre-treatment - in detail



Highly-accurate register setting without the need for tools

CONTINUA



The 4-row 'Continua' has an output of approximately 240,000 units/hour for closures with a 28 mm diameter, or approximately 180,000 units/hour for closures with a 38 mm diameter.

The system is specially designed for mass production of standard print images and meets the highest quality demands. The well proven 'RTI 2000' is also available for this. It guarantees quick set-up of the systems without the need for tools.

A tampon roller cleaning system guarantees consistent print quality.

Closures are also fed with a high level of efficiency using the sorting elevator, which handles the parts very gently. This process takes place without the use of compressed air, which results in significantly reduced production costs.



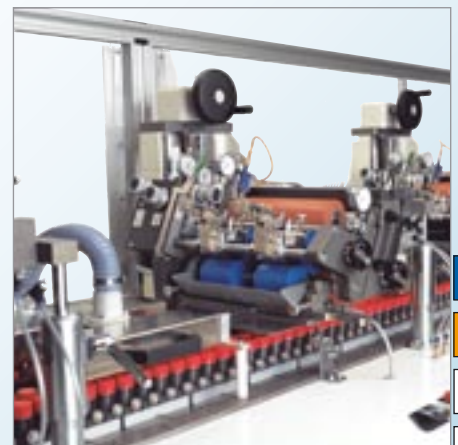
OPTIONS & FUNCTIONS



4-row tampon cleaning system



Sorting elevator



Cold-air intermediate drying 'RTI 2000'

CLOSURE PRINT



The 'Closure Print' model is specially designed for customers with a low output requirement. The system has an output of approximately 20,000 to 45,000 units/hour, depending on the print image, for closures with a 28 mm diameter. For closures with a 38 mm diameter, the machine has an output of approximately 15,000 to 30,000 units/hour depending on the print image.

Despite the low output compared with the 'Rotoprint' and 'Continua' models, all of the necessary components meet the highest standards.

The extremely compact design is possible due to the reduced output. The 'Closure Print' model can print up to three colours.

The space-saving 'V-RTI 2000' printing unit is operated without the use of any tools. This drastically reduces set-up times.

Like other models, with 'Closure Print' the sorting elevator guarantees that the parts are fed gently.

The system is fitted with exchangeable mandrels. This guarantees a quick and economical changeover on the system when printing several closure types.

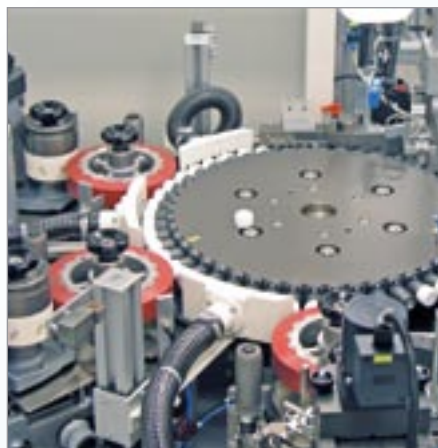
As with the 'Rotoprint' model, printed closures are ejected in correct position. This prevents any damage to the print image during end drying and allows simple integration of the optional print image controls available using a camera.



OPTIONS & FUNCTIONS



Ceramic cliché cylinders and tampon rollers

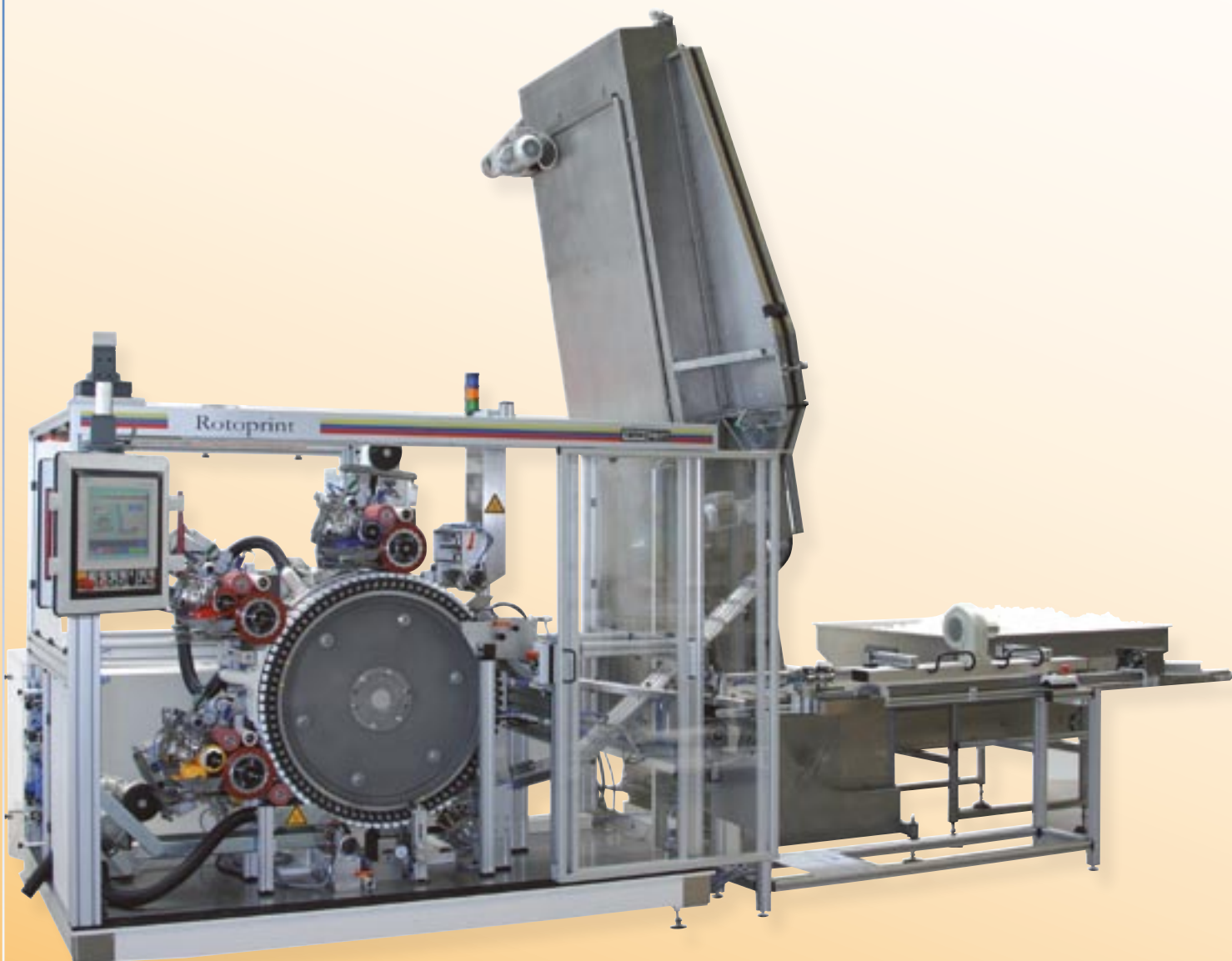


Interior view



Feed rails, gas pre-treatment

ROTOPRINT



The remit for the construction of the 'Rotoprint' model was a compact design while still achieving a high output.

The concept allows an output of up to 100,000 or 150,000 units/hour for closures with a 28 mm diameter, depending on the settings.

For closures with a 38 mm diameter, the machine achieves an output of approximately 75,000 or 110,000 units/hour.

The 'Rotoprint' can be set up for print images with 1–3 colours.

With all variants, parts are fed using the well proven sorting elevator, eliminating the need for unnecessary machine stops due to closures being the wrong way round. The storage reservoir of the sorting elevator can be filled on request using the Octabin tilting stations.

The system is fitted with exchangeable mandrels. This guarantees a quick and economical process changeover on the system when printing several cap types.

The 'RTI 2000' printing unit is operated without the use of any tools and requires no external ink supply systems. This dramatically reduces set-up times and ensures trouble-free operation. Gas is used in the process of end drying. This guarantees that the ink dries quickly and assists ink adhesion.

The products are discharged in correct position on a cold-air drying conveyor.

Optionally, the print image can be monitored during the drying process using a camera or packed into cartons at the end of the drying conveyor using a diverter.



OPTIONS & FUNCTIONS



RTI 2000 and gas drying



3-colour 'Rotoprint'



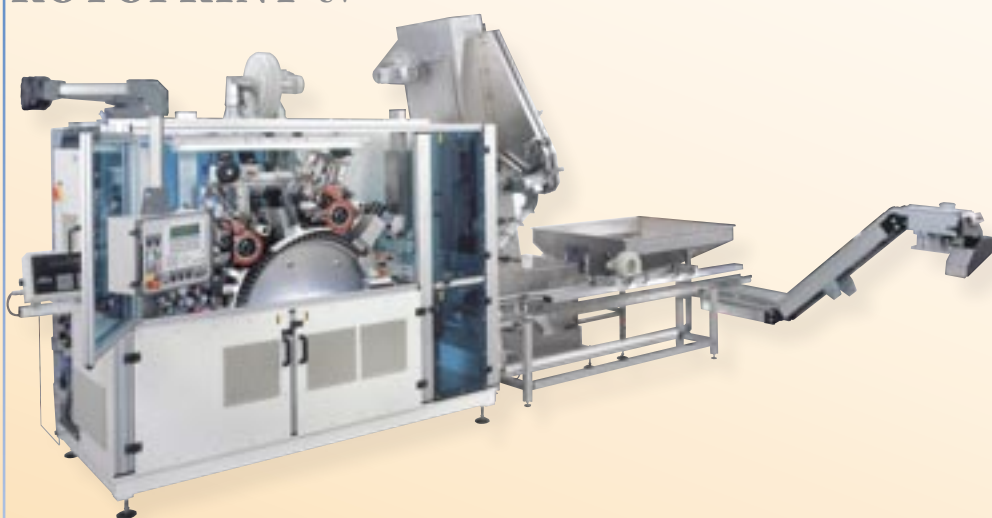
Cold-air drying conveyor



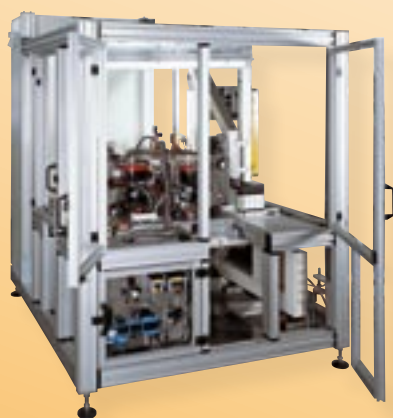
CONTINUA UV



ROTOPRINT UV



CLOSURE PRINT UV



TOP SPIN UV



All printing machines can also be fitted with a UV drier on request. This enables the use of UV inks.

It should be pointed out that the specially developed ink range 'UV-RDF' has a very low solvent content compared with other UV inks.

Using UV ink eliminates the need for a secondary drying stage for the closures. This has the advantage of faster processing, or packaging and dispatch of the closures.

The use of UV inks achieves good quality print under normal production conditions. A very positive point is that UV inks sometimes have better adhesive qualities.

The consistency of ink shades during an extended period of printing allows photo-realistic prints.

The printing machines can be fitted with UV driers and air driers on request. These hybrid systems enable the use of UV and solvent-based inks.



OPTIONS & FUNCTIONS



'Continua' UV drier



'Rotoprint' for solvent **and** UV ink

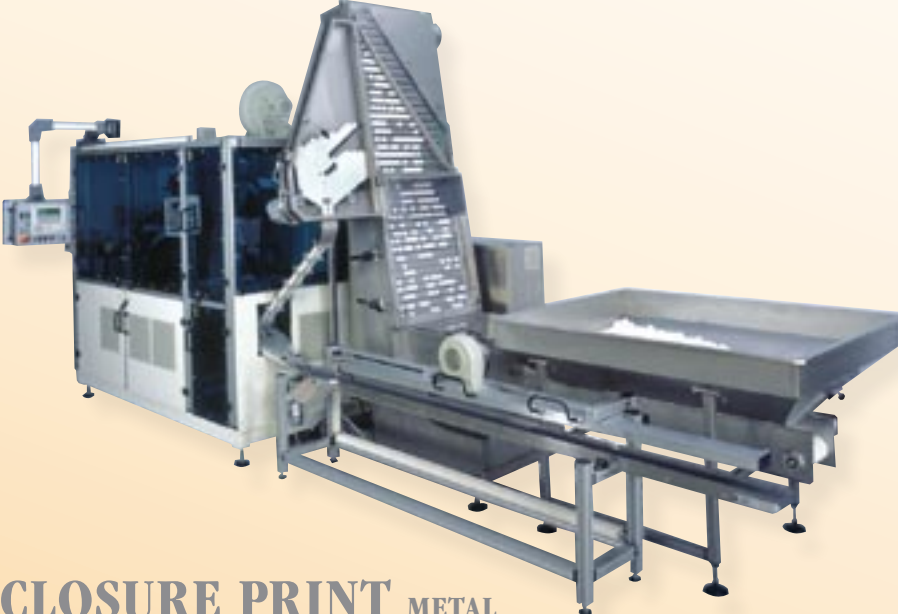


UV protective cover

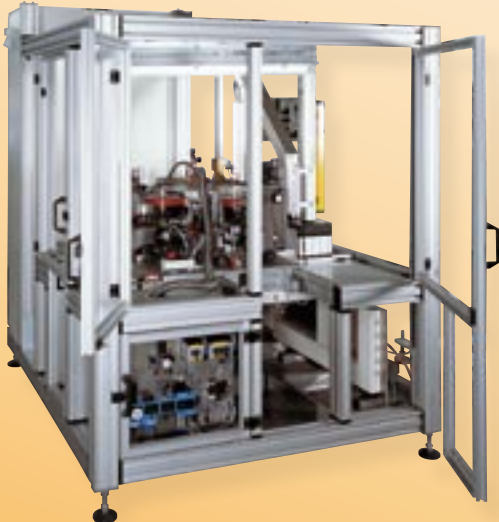
CONTINUA METAL



ROTOPRINT METAL



CLOSURE PRINT METAL



The 'Continua', 'Rotoprint' and 'Closure Print' models can be specially designed to print metal closures. Standard systems used for printing plastic closures are fitted with a special workpiece carrier.

For printing metal closures, our customers are guaranteed the same high technical standard as for the systems for printing plastic closures, which have been successfully used for many years.

Printing metal closures or varnished surfaces of metal closures was previously not possible due to the time required for the solvent-based inks used to cure or dry. The use of UV inks now

makes this possible. In addition to mass production, this enables smaller sized batches to be printed directly using printed sheet metal boards.

The output data for printing plastic closures given on the previous pages also usually applies to printing metal closures.

A specially developed workpiece carrier system with clamping mechanism ensures that the closures are printed without being damaged in any way. The workpiece carriers are designed to fit the inside diameter of the closures exactly. Since this is a standard concept with modified workpiece carriers, we are able to print a variety of metal closures after prior technical clarification and the selection of a suitable feed system.



OPTIONS & FUNCTIONS



Metal closure + mandrel



Press-in station



Feed systems

TOP SPIN



The 'Top Spin' model is specially designed for printing on the circumference of closures. For closures of up to 30 mm in diameter, the entire circumference of the closure is printed at an output of 20,000 units/hour. For closures with a larger diameter, the unit is only partially printed. The output data for this must be specially calculated.

For multi-colour printing, the 'Top Spin-MC' is used. With this model, the colours on the side of the closure are aligned with one another.

An appropriate feed system is selected depending on the closure.

Closures made of PP or PE are pre-treated using gas to achieve

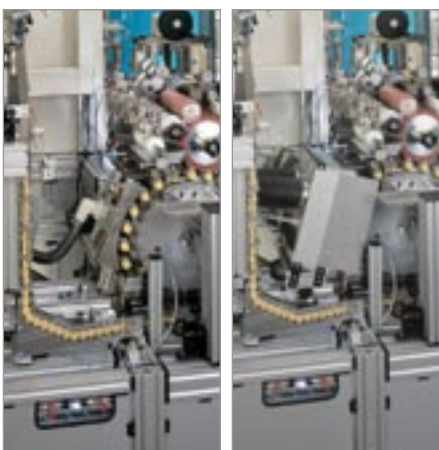
ink adhesion.

The 'Top Spin' can be set to print using UV inks on request. An additional integrated air drier is used to ensure that solvent-based inks can continue to be used. A distinct benefit of these combi-systems is the fact that the best possible ink technology can be used according to the application. For example, in the case of insufficient ink coverage of UV ink when printing light ink shades on dark closure surfaces, it is possible to revert back to solvent-based ink. This distinct benefit of the tampon printing process enables considerably higher print image quality to be achieved with the 'Top Spin' model than other printing processes. It is also possible to print extremely fine lettering.

The flexibility of the tampon roller enables printing on closures with a slightly bevelled outside edge.



OPTIONS & FUNCTIONS



Solvent-based **and** UV inks can be used



'Top Spin' 1 colour



'RTI 2000'



PROMO MOF IN-LINE



PROMO MOF WITH SORTING ELEVATOR



Fully-automatic system for 'UTC' laser marking of beverage closures. The system is characterised by its compactness and the option of integration into existing production lines. The closures are fed fully automatically and in the correct position depending on the feed system selected. Depending on the layout of the feed system, closures with a diameter of up to 50 mm can be marked on the inside, but also on the outer surface (top).

They are transported by means of a vacuum band where they undergo 'On The Fly' marking. This significantly speeds up the whole process, since no processing time is wasted handling the products. The result is an extremely high marking speed of up

to 1500 parts per minute. This depends on the material being marked as well as the text or logo.

A piece of software specially developed for the application called 'TP_mix' allows the user to deal with all common variants of marking of 'UTC closures'. These range from simple logos to the marking of codes (unique message). The user can generate all these variants with great ease and, more importantly, with the level of security (passwords, logging etc.) required for this type of production.



OPTIONS & FUNCTIONS



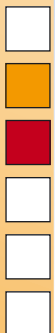
Detailed view - operation area



Detailed view - marking area



PROMO MOF CROWNS WITH SACMI FEED SYSTEM



It is not just plastic closures that are inscribed for promotions, but metal crowns too.

The answer to this problem is the further development of the already tried and tested 'ALFALAS-PROMO MOF' system for the inscription of crowns.

The 'PROMO MOF' presented here is identical to the aforementioned 'PROMO MOF' for plastic closures except for a few details (feeding, separation etc.).

At the request of the customer, this system can be delivered complete with feed system or without for the purposes of integration. The tried and tested software solution 'TP_mix' is also used for this.



OPTIONS & FUNCTIONS



Detailed view - Marking area



Detailed view



TOUCHSCREEN PANEL

A Siemens touchscreen display allows the operating guidance to be simplified using diagrams and images. It also has the option of displaying other languages, e.g. Mandarin.



Z-BAND

A Z-band with adjustable angle and height, in combination with a diverter, allows the printed closures to feed into cartons. During this process, two cartons are filled alternately.



PLASMA PRE-TREATMENT

Instead of the gas pre-treatment process that is used as standard, a plasma pre-treatment system can be installed to allow better pre-treatment of the surface of the closure and lead to improved ink adhesion.

OCTABIN FILLING

After end drying, the printed closures can be fed into a special Octabin filling system. The machine's control automatically ensures that the printing machine alternates between two Octabins being filled. The exact design of this option is set out in coordination with the customer.



OCTABIN EMPTYING

The storage reservoir of the sorting elevator can be filled on request directly from the Octabins. One or two Octabins are placed on the base plate and then lifted and tilted by machine.

The exact design of this option is set out in coordination with the customer.



CAMERA/PRINT IMAGE CONTROL

The '2-row Continua', 'Rotoprint' and 'Closure Print' printing machines can be prepared for the installation of a camera (image: SACMI – Italian). As with the printing units, for the '2-row Continua', this is installed directly in the system. With the 'Rotoprint' and 'Closure Print' models, this is installed on the cold-air dry band, which can be replaced retroactively on request.

The necessary ejection system can also be installed subsequently.



CARTON CONVEYOR BELT

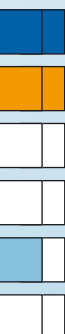
For filling the cartons, a conveyor belt can be optionally installed to feed through and remove the cartons. The length and shape of the conveyor belt can be set to suit the situation. The exact layout is set out in coordination with the customer.

A vibrating plate can be installed in or after the filling station on request.



SORTING ELEVATOR

The closures are only aligned by means of gravity. The feed system handles the parts very gently, requires no compressed air, causes no contamination through airborne dust, generates no material abrasion, requires no process changeover when switching the closure colour and does not damage the tamper band.



CLICHÉ CYLINDER LASER

The cliché cylinder laser is a system for manufacturing ceramic clichés. This is ideal for customers that have a high demand for clichés or require on-site cliché production.



SERVICE CENTER

The Service Center with worktop and floor unit brings order to the workplace and puts in place the right working conditions for the operators. For preparing printing inks or cleaning machine parts, for example. The work area is made of easy-to-clean stainless steel and offers a waste chute and a revolving device for cleaning tissues. The top of the Service Center can be connected to a suction system.



SUCTION AND FILTER UNIT

For suction during the laser inscription of closures. Made of varnished sheet steel and fitted with a high-performance, no-maintenance suction unit. The filter is simple to replace and the filter inserts can be removed with no risk of contamination.



SPRAY WASHING DEVICE

The spray washing device is the ideal piece of equipment for cleaning the application accessories. Cleaning the equipment properly helps ensure it has a long service life. Cleaning takes place in a closed compartment, using pressurised water from a rotating spray rod and a special cleaning agent. The cleaning agent is cleaned using a removable sieve.



TAMPON ROLLERS

TAMPOPRINT offers a complete range of accessories for all its printing machines. The necessary materials are constantly developed and adapted to suit market requirements. High quality in the area of accessories is a given. To be able to meet market requirements, the range we offer is extensive.

We are happy to advise you.

TAMPOPRINT guarantees the delivery of spare parts beyond the period dictated by law.

With new customers, an initial spare parts pack is assembled in coordination with the customer.



COLOUR RANGE



Basic colours

Standard colours



CLICHÉ CYLINDERS



Ceramic sleeve on aluminium core



Complete steel cylinder



Complete ceramic cylinder



ORIGINAL



Germany

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