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NEWSLETTER

AUGUST 2015

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SCREEN

M P S

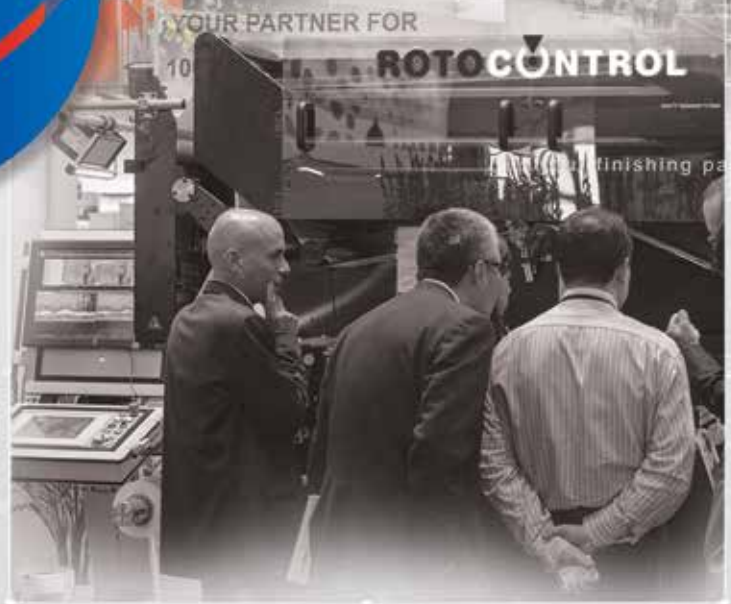
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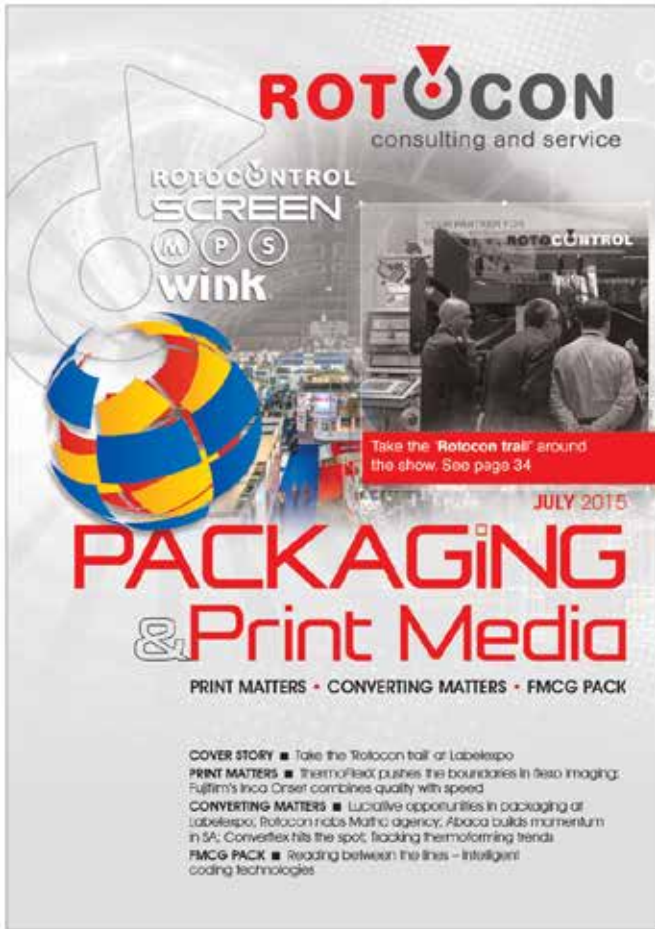


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This month's cover story

EXPECTED to be the largest-ever edition in its 35-year history, covering an unprecedented eight halls at Brussels Expo, Labelexpo Europe is set to spotlight lucrative opportunities in packaging production.

Among the many exhibitors are several of Rotocon's principals ...including MPS, RotoControl, Wink, Screen, AVT, Matho and Pantec. And attending the show to field questions from South African labelling and packaging converters are Rotocon's Michael, Patrick and Pascal Aengenvoort.

More detailed information about the exciting products on show on these stands and many others can be found within the pages of this month's comprehensive Labelexpo preview, starting on page 31.

Take the 'Rotocon trail' around the show.




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Lucrative opportunities in packaging

As Labelexpo Europe draws closer (opening on September 29), it's increasingly clear that packaging printing and converting will be a core topic. Here's GILL LOUBSER's pick of the many exciting advances that visitors can expect to see.

EXPECTED to be the largest-ever edition in its 35-year history, covering an unprecedented eight halls at Brussels Expo, Labelexpo Europe is set to spotlight lucrative opportunities in packaging production.

As Lisa Milburn, MD of the Labelexpo Global Series, remarks: 'Package printing is now central to the label printing community. With 53% of our exhibitors showing products for flexible packaging and 32% featuring products for folding cartons, Labelexpo Europe offers the most extensive showcase of package printing solutions. Nowhere else will print industry professionals find such a comprehensive range of suppliers and technologies to help gear up their businesses, improve profitability and add value for their customers.'

Underlining her comment – as news from exhibitors rolls in daily – it's clear that packaging is squarely in suppliers' sights, and that this is going to be an exciting event, with an escalating blurring of the lines between different printing technologies and web widths, with words such as 'hybrid' and 'integration' cropping up more and more frequently.

MPS goes hybrid

As just one example, MPS (stand 11C20) is unveiling a new flexo press with an integrated high-quality inkjet printer. With its combination of conventional and digital printing, this hybrid press provides converters with fresh potential.

Alongside this new hybrid machine, MPS is exhibiting two other presses – the next-generation EF 'Neo' flexo press and the EB label press.

The EF Neo features completely new servo drive technology, new press software, revamped web tension control systems, and a larger operator control panel and touchscreen.

Ideal for both short and long runs, the EB is a state-of-the-art narrow-web label press on which top-quality labels can be produced in an operator-friendly and cost-effective way.

To learn more about MPS technology on show, as well as details of other Rotocon principals at Labelexpo, turn to page 34 and follow the 'Rotocon trail' around the show.

The next-generation MPS flexo press, EF Neo, features completely new servo drive technology, new press software and revamped web tension control systems.





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EB The Label Solution Press



NEW

EF The Multi-Substrate Press



EXL Offset Combination Press



At MPS, we put the needs of our clients first.

Our focus is on you,
your operators and your results.

We are driven,
driven to improve your results.

We design our presses to enhance
the talents of your operators.

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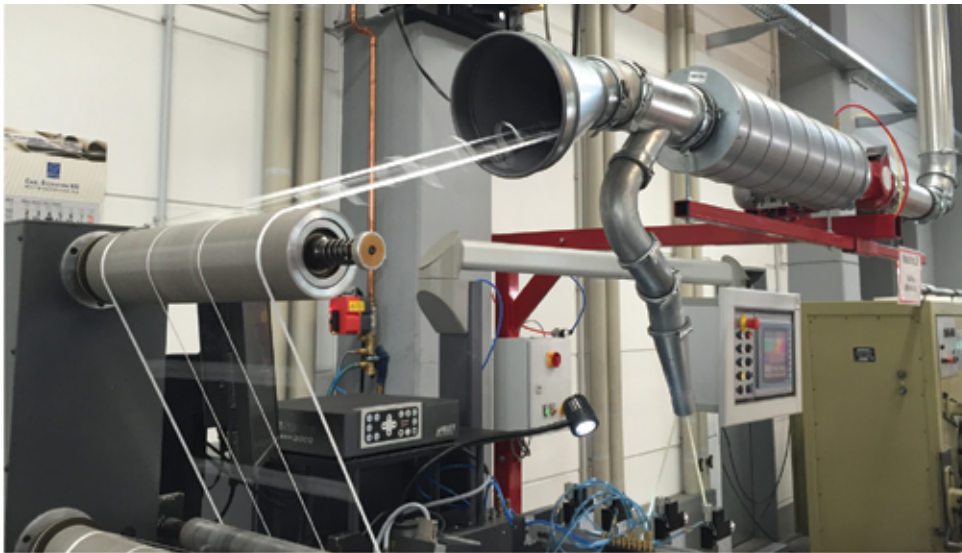
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Rotocon's newest agency, Matho, is showing its line of cutting units and waste management systems. Being demonstrated is a typical cutting and extracting module in combination with the new generation of balers.

Take the 'Rotocon trail' around the show

At Labelexpo Europe, where several of their principals are among exhibitors, Rotocon's Michael, Patrick and Pascal Aengenvoort will be on hand to answer questions from South Africa's labelling and packaging converters. In fact, it's something of a family reunion, since Marco Aengenvoort (MD of RotoControl in Germany) is also attending.

Here's a good way to take the 'Rotocon trail' around the eight halls, to see leading-edge technology from these trail-blazing companies.

Starting in hall 4, Pantec GS Systems (stand 4C62) is the first port of call, where hot foil and hologram equipment, and hot stamping-embossing cylinders, are the main attraction.

Then moving across to hall 6, stop at Wink (stand 6C32) to inspect the full portfolio of premium die-cutting solutions and services. Among highlights is the launch of an optimised version of GapControl, further improved in terms of handling and pressure control. Here visitors can enjoy live demos with MDO material on a thin PET liner to show the GapControl advantages under real conditions. The system is convincing with its particularly stable construction that even allows cutting-through metal-to-metal.

Wink's SuperCut flexible dies are well-known for extreme precision and durability; and Wink is showcasing new versions, mainly based on specific adjustments of blade geometry in combination with the right coating, eg for die-cutting difficult materials. Wink's ultra-hard MCR coating significantly increases tools' durability, especially when die-cutting very abrasive (thermal) materials in long runs, while Wink's optimised non-stick coatings offer maximum protection against glue and ink residues.

Moving into hall 7, RotoControl (stand 7D42) is presenting its leading-edge finishing machines for label inspection, slitting, rewinding, die-cutting, overprinting, digital and booklet printed labels for converters in the narrow-web industry.

Being launched is the next generation DT-series for processing and finishing digitally-created labels. Features include flatbed screen printing, inline finishing with digital presses, and increased speed to 67m/min in semi-rotary mode – said to be the industry's fastest.

The DT-series is equipped with an automatic knife positioning system and integrated with RotoControl's

FastChange fully-automatic four-spindle turret. A modular, versatile finishing machine, the DT also provides optional finishing modules designed to complement digital printing operations. Standard with a fully integrated flexo printing station and a semi-rotary die-cutting unit including high-accuracy register control, the DT-series is suitable for varnishing, die-cutting in register, slitting and rewinding of printed or blank labels.

There's a treat in store in hall 9, where Screen Europe (stand 9B30) is unveiling its latest Truepress Jet L350UV inkjet label press (pictured below) featuring important innovations that combine to deliver superb quality, productivity and flexibility. Since the innovative Truepress Jet L350UV was launched just two years ago, the press has evolved significantly and in Brussels visitors can see the latest model featuring new 'vivid colour' extended gamut, JDF-enabled job control software and inline/offline finishing – all for the first time.

The high-productivity Truepress Jet L350UV uses Screen's high-definition CMYK+white UV inks and delivers photo-realistic quality at 50m/min on web widths up to 350mm.



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of booklet labels



FC Series:
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turret rewriter



RSP Series:
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of pharmaceutical labels



DT Series:
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Partnerships, collaboration

Collaboration between industry-leading partners is another feature of Labelexpo Europe.

One example is MPS's technological cooperation with GEW for the hybrid UV/LED drying system on the EF Neo press; with Koehler & Beck for the fully-automated Quick Change die unit; and with AVT for the PrescoNW system for the automated process of pressure settings on the print stations.

MPS is also joining forces with Henkel/Novamelt, Appvion, Evonik, Maan Engineering, Ricoh, Ravenwood Packaging and Bostik in the Linerless Trail at Labelexpo Europe, which offers show visitors an efficient way to get in contact with linerless-related technologies. Presented by a physical green marked route on the map alongside the stands of the participants, the Linerless Trail has been established to introduce visitors of Labelexpo with linerless technology; from basic materials through processing and everything in between, in a convenient and efficient way.

MPS is also an official sponsor of Label Academy, which will host two master classes during the show: 'Conventional Label Printing Processes' and 'Digital Label and Package Printing'.

In addition, the award winning REVO team – consisting of Nuova Gidue, Flint Group, Apex International, AVT, DuPont, Esko, UPM Raflatac and packaging converter Adare Group – are bringing new technology to Labelexpo, demonstrating how low-migration UV flexo inks can be used to convert flexible packaging. Currently, most food-grade flexible packaging is printed with either solvent- or water-based flexo inks or with solvent gravure. UV has been considered problematic because the photo-initiators can migrate if not fully cured. The REVO team claims to have developed a technology to guarantee that every metre of film within a roll has been fully cured, and that brand colours are consistently matched by a seven-colour process ink set.

Educational features

Labelexpo Europe also plays host to an array of educational feature areas.

The PackPrint Workshop gives practical insight into how printers can diversify and grow their businesses – with demonstrations by Xeikon using its 3500 for digital folding carton production and Nilpeter showing its FA* flexo press for flexible packaging.

The Smart Packaging Lab focuses on opportunities in intelligent and active packaging, while the inaugural Packaging Design Studio gives visitors a chance to network with some of the industry's leading creative designers.

With the return of the Print Your Future feature, HP Indigo and partners present their package printing solutions. Here visitors can see a wide range of applications, including flexible packaging, shrink sleeves and labels alongside new advanced colour management tools and inks. Both the HP Indigo 20000 and WS6800 Digital Presses will be on display.

Also in hall 9 there's plenty to learn about print inspection, print process control and quality assurance. Take time to visit AVT (stand 9C05) that includes everything from the height of digital process control technology to premier offline proofing systems.

Among new offline proofing systems is SolidProof that provides 100% assurance for wide-web, narrow-web and sheetfed applications, ensuring that no critical errors have been overlooked in the print production process.

The show also sees the première of AVT's Helios S Turbo, a cutting-edge inspection system designed to help production lines reach maximum throughput.

In addition, this is the first major trade show since AVT announced its strategic alliance with Erhardt + Leimer (E+L) (see PPM June 2015), and the joint portfolio, born of AVT's and E+L's combined experience and technological skills is being demonstrated for the first time at both companies' partners' stands throughout the exhibition.

At the end of the trail in hall 11 (stand 11C20), visitors can look forward to MPS's unveiling of a new flexo press with an integrated high-quality inkjet printer. With its combination of conventional and digital printing, this hybrid press provides converters with fresh potential.

Results of new collaborations with industry-leading partners are also being presented. For a fuller preview of MPS technology on show, turn to page 31.

Rotocon's newest agency, Matho (see full story on page 40) can also be found in this hall (stand 11A23) showing its line of cutting units and waste management systems.

Being demonstrated is a typical cutting and extracting module EM-160 in combination with the new generation of balers. The newly-engineered solution from Matho's Cuttopress family is a very compact baler system for self-adhesive matrix waste of one or two production machines.

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ROTARY CUTTING DIE ASSESSMENT



Standard Operating Procedure

The rotary cutting die is a highly sensitive and precision engineered piece of equipment. In order for this tool to operate efficiently and produce high quality die cutting results, it is essential that it is correctly maintained and kept in pristine working condition. In order to promote the efficiency and extend the longevity of the rotary cutting die. It is very important that it is regularly assessed to detect any wear & tear defects that may negatively impact on the final die cutting results and to ensure that the die is timeously repaired / reconditioned and thus ensure that the die is 100% press ready at all times. This assessment must be carried out after each use of the die.

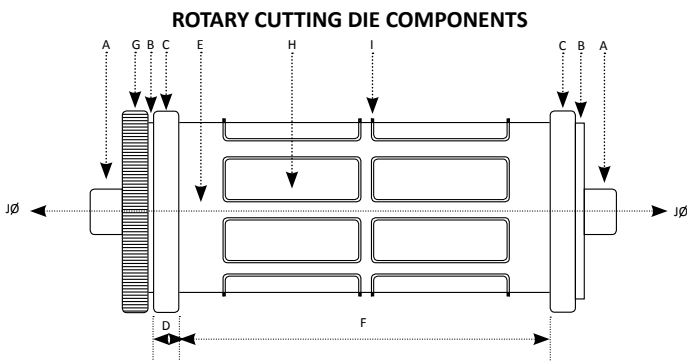
Equipment Needed

This equipment should be kept & maintained by the Tooling Controller and can be used for all in-house assessments of rotary dies, support rollers and print cylinders.

- Micrometres (0.01 mm grad.) - Magifying glass (5 X magnification)
- Digital verniers (0.01 mm grad.) - Set of hex Allen keys (metric)
- A 50cm Steel ruler (1mm grad.) - Rotary Die testing station
- Printers cleaning solvent - D.W.F. aerosol lubricating oil.

The Assessment

Before doing an assessment, place the die in a bench top stand and use a soft cloth & some printers solvent to clean all the components of the tool thoroughly (including the gear). Now you are ready to proceed with the assessment of the rotary tool.



Visually check the full circumference of the gear (G) to see that none of its teeth are unevenly worn, chipped or damaged. Using the digital vernier, measure the outside diameter of the gear and compare this with the specified diameter for the number of teeth on your Die Gear Chart. These two measurements should either match or the actual should be no less than 2/100ths below or above the specified O.D. for that gear size. Now check both journals (A) for wear caused by the die blocks. The journals may be bent due to excessive die pressure. Place the die between centres (J) and use a "machine clock" to check for any run-out which is an indication that the Journals are bent. NOTE: the run-out must be no greater than 2/100 th's of a mm. Next is the Bearer (C) of the die. BE ALERT & ACCURATE. Visual check the full circumference of each bearer, looking for gear marks (feint, evenly spaced horizontal lines with the same pattern as the die gear), flat spots, flaking and uneven wear and tear. Using the Micrometre, accurately measure the O.D. of each bearer. Check this measurement against the "Specified Pitch" diameter for the specific gear size of the die. NOTE: Both bearers must be exactly the same size and the actual bearer size must be no more than 2.5/10th's below P.D. for 1/8 C.P. gears and 1.5/10ths for D.P. Gears. Using a magnifying glass, carry out a careful visual inspection of the cutting edge (I) of each cavity (H) of the die, checking for nicks, flat spots and any indication that the cutting edge is blunt or damaged. Using a black khoki pen, make a circle around the "suspect area" of the cutting edge. This will assist you to easily pick out the defective areas during the grinding and reconditioning process. Now compare the defects on the die with customers die pull sample and the "recon" instructions.

At this point you should place the cutting die in the "test station" and do a die pull / test strip using the specified test material. Now place the test strip on a flat bench top and slowly strip the waste Matrix off at a 45 degree stripping angle.

Now you can remove labels off the liner / backing to match the repeat of the die and do a Malachite test to check the depth and quality of the die cut.

The assessment is now completed and based on your findings and you are now in a position to make a decision about what future action, if any, needs to be taken with this cutting die.

What does your assessment reveal about the cutting die?

Problem

1. Gear teeth are chipped or broken / stripped.

Possible Cause / Solution

1. Die gear is "bottoming" in anvil gear and breaking during the forced engaging / disengaging action of the gears. gear is undersized.

Solution: Make a new gear to match the O.D. of the die bearer.

Recommended: Check the anvil gear & ensure that the damage hasn't transferred.

2. Journals are bent. Die is running out.

2. This is generally due to excessive die pressure being applied causing the Die Blocks to be worn & pushing the die forward.

Solution: Place between centres. Grind & follow full re-conditioning process.

3. Squashed and damaged die bearer.

3. This is usually due to excessive die pressure when the die is blunt & is an attempt to force the die to cut deeper. **Solution:** Place between centres. Grind & even out the bearers & follow the full reconditioning process.

4. Bearers are unevenly worn.

4. This is a normal wear & tear process. **Solution:** Do a full assessment & follow full re-conditioning process.

5. Cutting edge is Blunt.

5. Generally caused when the cutting die bounces in the die station due to insufficient pressure being applied to lock the die into the station.

Solution: Do a full assessment & follow full re-conditioning process.

6. Micro nicks on top of cutting edge.

6. This is a symptom of "Faulty" gears on one or more of the rollers in the die station (die, anvil or support roller).

Solution: Do a full assessment of these rollers, their gears & the bearings / bushes in these mounting blocks.

7. Gear Marks on the die bearers.

7. Check that gear Marks have not transferred to the other rollers. repair or replace or re-condition faulty components.

Readings from the Test piece / die pull

8. Fluffy paper edges on the sides of the label.

8. The die is cutting too light & the cutting edge is going blunt.

9. Adhesive strings on the edge of the die cut label.

9. The cutting edge is not sharp enough for the die to cut through the adhesive.

10. Labels lifting & tearing matrix.

10. Die is blunt / wrong undercut.

11. Cutting too deep into the backing paper.

11. Wrong under cut for the specified liner or the die bearers are worn.

12. Cutting intermittently into the silicon layer.

12. The cutting edge is unevenly worn / sharpened.

13. Cutting through the backing.

13. Cutting edge is Blunt? Bearers are worn? Check undercut.



Pascal Aengenvoort (Rotocon) and Matthias Thor (Matho) cement the deal between their two companies.

Another key agency for **Rotocon**

Rotocon has added another string to its bow by taking on South African representation of Matho, reports GILL LOUBSER.

BASED near Stuttgart in southern Germany, Matho boasts a fine reputation for the production of cutting units and waste management systems. The company's latest move into an ever-growing global market is the appointment of Rotocon as its South African representative; and Matho's sales manager, Matthias Thor, recently visited Cape Town to cement the deal.

This adds yet another dimension to Rotocon's impressive and growing list of overseas principals that now includes MPS, Screen, RotoControl, AVT, Wink and Matho.

And, as Rotocon's Pascal Aengenvoort points out, Matho's products are entirely complementary when it comes to meeting the needs of Rotocon's particular customer base in South Africa.

'As with our other agencies, we'll provide full

technical support from our offices around the country,' Pascal remarks.

Matho has customers around the world for its cutting units and extraction systems, particularly in the labelling, folding carton, and flexible packaging sectors. These machines cut and transport production waste into a plant's waste disposal system and thanks to their modular structure can be designed to suit a converter's specific requirements.

'This flexibility is a major factor,' Pascal explains. 'Matho's ability to supply and install a bespoke system, and to offer subsequent upgrades, ideally suits changing production requirements.'

Among many examples of the Matho technology in action around the world is a sophisticated waste extraction system fitted inline on multiple label printing presses. In addition to the matrix and edge trim,



LABELLING & NARROW WEB



▶ A typical application for a Matho waste management system linking several machines.

◀ Matho's Cuttopress system can be integrated with existing equipment. It features an air return facility with filter, and handles most waste, including difficult substrates.

the system extracts the confetti to provide a cleaner environment and allow smoother press operation.

Known as the Cuttopress CP-6000, this particular system can be integrated with existing equipment. It has an air return facility with filter, and handles most waste, including difficult substrates.

Featuring a single central pipe for extraction, which offers great efficiency and minimises power consumption, the system ties up fewer staff in waste collection.

The end result is that presses run smoothly and continuously, while the waste itself can be recycled and converted into energy.

SCREEN

Truepress Jet
L350UV



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Care instructions for rotary tools

Flexible dies

- ▶ Never bend a flexible die.
- ▶ Always store dies with blades uppermost.
- ▶ Always clean the reverse side of the die thoroughly with **Rotocon Iso pro** before mounting it onto the magnetic cylinder.
- ▶ Flexible dies should only be removed from the cylinder by a wink-lifter.
- ▶ Remove all paint- and glue residues after usage and oil both sides of the die with anticorrosive **Rotocon Protec** lightly.
- ▶ Flexible dies should be enwrapped separately in oil paper.
- ▶ Store the dies in suspended file pockets or in the original cardboard tubes in which the dies have been supplied.
- ▶ Keep the certificate of quality and the provided cutting sample!

In the printing machine

- ▶ Check for exact positioning of pressure-bridge on the bearers of the cylinder.
- ▶ Ensure that bearings and shafts are running free from backlash.
- ▶ Pay attention to adequate pressure between magnetic, rotary and anvil cylinder.
- ▶ Increase cutting pressure very slowly.
- ▶ Clean and oil the bearers and pressure rollers regularly with felt-strips.
- ▶ We advise the usage of pressure cells.

Rotary cylinders

- ▶ Clean the cylinders thoroughly with **Rotocon Iso pro** before usage.
- ▶ Cylinders should be lifted into and out of the machine carefully.
- ▶ Never put a magnetic cylinder down on the magnetic area.
- ▶ Never put a rotary cylinder on the cutting lines.
- ▶ Oil the cylinder with **Rotocon Protec** before storing.
- ▶ Remove paint- and glue residues with **Rotocon Iso pro** regularly.
- ▶ Control cylinder on damages which could be caused by excessive pressure of bearers.

Checks

- ▶ Measure the gap regularly.
- ▶ Consider gap changing when ordering new cutting tools.
- ▶ If the gap is one-sided or the gap tolerance is too large check or change magnetic and anvil cylinder.
- ▶ Check bearers, bearings and pressure rollers regularly.
- ▶ Check gears regularly.

Rotocon Iso pro and Protec

Both special cleaner "Rotocon Iso pro" and anticorrosive "Rotocon Protec" are available at Rotocon.

We advise cleaning and conservation exclusively with these matters to assure clean state of your cutting tools.



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Articles in this newsletter were first published in **PACKAGING & Print Media**, July 2015
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- ▶ Booklet Finishing

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High Speed Digital Label Production

- ▶ Truepress Jet L 350 UV
- ▶ 50m per minute ensures maximum productivity
- ▶ CMYK + White
- ▶ If spot colours are specified in the Pantone or PIC colour tables, they are directly converted from LAS values in the table to CMYK

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