







# **Great finishing – fully automated!**Smart solutions for two megatrends – made by KAMA



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In our industry, digitalisation and automation have ushered in a new era – with surprising opportunities for the production and sales/distribution process. The **print sector is becoming ever more dynamic**, playing out its strengths wherever quality and special solutions are needed for the commercial printing market, in publishing, and in packaging – both in terms of feel and top quality finishing.

Driven by the needs of e-commerce, there is increased demand for attractive folded cartons and shipping cartons, and paperboard is becoming ever more popular as an eco-friendly, recyclable packaging material. This sector offers huge potential with high added value.

The booming packaging market needs to adapt to the **trend towards short runs** – with growing diversity of product types, version control for segmented target markets,
and orders for small delivery quantities with a short time-to-market. To remain profitable in this
segment requires rapid machine conversion and setup times, high levels of **automation**, low tool
costs, minimal paper waste and good connectivity solutions.

In the area of **finishing**, KAMA is driving these developments with state-of-the-art technology: Innovative solutions such as the programmable, tool-free inline stripper for ProCut 76 and the first fully automated folder-gluer FlexFold 52i cover the entire workflow efficiently. Your new business model?

For over 125 years, KAMA has been developing high-quality die cutting and finishing machines and folder-gluers for the global market. In all our new developments we are driven by a philosophy of coming up with **sustainable solutions** for the megatrends "short runs" and "finishing" in the commercial printing and packaging printing sectors. Whichever solution you end up choosing – you will receive a future-proof, durable machine "made in Germany" with many potential applications and high utilisable value.





### **Cover Finishing**

PERGRAPHICA Mysterious blue, 330 g/m<sup>2</sup>

top: cold embossing | hot foil stamping flat and with microlines middle: hot foil stamping with micro embossing and nano embossing bottom: glossy frame and nano structure with hot foil stamping

Embossing dies: H+M Hot foil: KURZ

Finishing: KAMA ProCut 76 Foil

Flagship for high-quality finishing.

### KAMA ProCut 76 and ProCut 76 Foil

Flatbed die cutting and embossing machine with inline stripping & blanking unit.

Here is the complete solution for finishing and enhancement of sophisticated commercial printing and packaging: KAMA's ProCut 76 Foil die cutting and stamping machine with ten applications is more versatile than any other and processes with short set-up times even short runs highly efficient - including stripping and blanking without tools. For high quality greeting cards, presentation folders, labels etc. and blanks for the folding carton market.





Cutting Cutting









Kiss-cutting

Hot foil stamping

Hologram

PPP cutting + creasing (Hot Cut)

Stripping + blanking (SBU)

### **Equipment and accessories**

- > Servo-driven sheet feeder
- > Motor-driven pressure control (MPC)
- > Right + left side marks with sensors
- > Electronic double sheet control
- Pneumatic locking of chase and counter plate
- > Universal chase
- Connection for remote maintenance and network integration
- > ProCut 76 Foil: Hot foil stamping system with KAMA heating frame and Foil-Saver Software
- > More options on page 6 and 7





### **Highlights and options**

- > High added value with one machine
- Very fast changeover from hot foil stamping to die cutting/creasing and back
- Highest register accuracy with KAMA AutoRegister
- NEW: AutoRegister AR³ with skew adjust Toolfree stripping & blanking with the KAMA Inline-SBU, new generation
- Servo main drive for high performance with hot foil thanks to extended contact time or 50 % more net performance
- > **NEW**: Big Bite gripper bar for strong, wavy and laminated substrates
- > Few to no nicks for high quality blanks

Sheet size:	760 x 600 mm 5,500 sheets/h		
Max. Speed:			
Paper: Carton, Micro-	100 – 800 g/m²		
corrugated:	max. 1,500 g/m <sup>2</sup> (1.8 mm)		
PPP:	max. 1,500 g/m <sup>2</sup>		
Cutting force:	165 t, with servo 180 t		

**Video** AutoRegister Video Stripping









"The foil stamping quality and the accurate register of the ProCut 76 were decisive for our purchase and have been confirmed in practice for our luxury packaging."

Jonathan Mihy, MR Cartonnage Numérique, France 6\_ **K**AMA

Flagship for high-quality finishing.

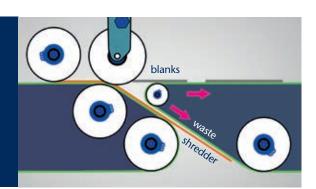
### KAMA ProCut 76: editions and innovations

Modules and options for individual equipment.

The ProCut 76 can be equipped and expanded with proven modules such as the hot foil stamping system, hologram system or the time- and cost-saving stripping and blanking system for different application profiles. Choose from the editions and novelties such as the AutoRegister AR3 or the "Big bite" gripper bar, the equipment that optimises your portfolio and makes it fit for the future.

#### **Packaging Edition**

Automatic stripping & blanking completely without tools: equipment of the ProCut 76 with the programmable inline stripping system KAMA SBU with new, split gripper bar for 30 % more output, a blowing device for small cut-outs, windows and hanger holes and the SBU-helper software. Saves monotonous stripping work and speeds up production.



#### **Honeycomb Edition**

In addition to the proven ProCut 76 Foil with the mobile KAMA heating plate for fast changeover, there is also a version with integrated inhead heating for hot foil stamping with the Honeycomb carrier system. For all fans of toggels who know the system and want to continue using it.

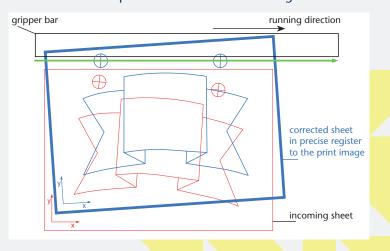
### **KAMA AutoRegister**

For the perfect register: the AutoRegister AR<sup>2</sup> positions each sheet camera-based in relation to the image and corrects in x- and y-direction to the tenth of a millimetre. For register accuracy finishing, blind embossing, creasing lines and die-cutting contour.

### **NEW:** AutoRegister AR<sup>3</sup> with skew adjust

The three-dimensional AutoRegister AR<sup>3</sup> with two cameras corrects the sheet position additionally in the skew direction (skew adjust). For maximum register accuracy even with cut sheets, twisted sheets (e.g. after collective printing).

Correction of sheet position with the new AutoRegister AR<sup>3</sup>



### **NEW:** Big Bite gripper bar

For thin & thick: the new gripper bar with wide opening guides thick materials, heat-treated, wavy and laminated sheets safely through the ProCut 76. "Big bite" opens upwards and downwards, e.g. for the finishing of 3 mm thick book covers.







- > Servo main drive for asynchronous stroke control: for up to 50 % more performance or extended dwelling time for hot foil stamping
- > Hologram and hot foil stamping systems with 3/2 programmable foil feeders
- > Hot-Cut heating frame, antistatic, PPP kit for cutting and creasing plastic
- > Further support systems on page 10





Entry-level model for efficient print finishing.

### **KAMA ComCut 76**

Die cutting and embossing machine and productive successor for cylinders.

The ComCut 76 is designed as an economical replacement for old platens and cylinders and performs all cutting and embossing applications with double to triple the productivity. Consistently high output quality, cold embossing with all the refinements - and new operators quickly learn the ropes. All in all, a modern flatbed die cutter with contemporary safety, which also pays for itself quickly in comparison to the depreciated cylinder.



### **Highlights and options**

- > Quick changeover and simple operation
- > Only few nicks with the benefit of clean cuts and faster stripping
- > Further usage of existing tools
- > Usage of flexible tools with magnetic frame
- > Compact machine with integrated electrical cabinet
- > Made in Germany

Sheet size:	760 x 600 mm			
Max. Speed:	5,500 sheets/h			
Paper:	120 – 800g/m²			
Carton, Micro-				
corrugated:	max. 1,500 g/m <sup>2</sup> (1.8 mm)			
PPP:	max. 1,500 g/m <sup>2</sup>			
Cutting force:	165 t			

### **Applications**







Perforating



Cold embossing



Braille embossing



Kiss-cutting

### **Equipment and accessories**

- > Sheet feeder with Heidelberg suction head
- > Pull marks for feeding left and right sheet edge
- > Manual pressure setting
- > Adjustable double sheet control
- > Standard and universal chase with fine adjustment
- > 4 + 1 System
- > Connection for remote maintenance and networking



ComCut 76

All-in-one solution for small sheet size.

### **KAMA ProCut 58 Foil**

Flatbed die-cutting, embossing and finishing machine for quarter format.

The world's first finishing die cutter in 580 x 400 mm format offers maximum applications and high added value on a minimal footprint. Finish even small and digitally printed runs for your customers such as wine labels, product tags for brand labels, mock-ups and small folding cartons efficiently and at the highest level with cold embossing, hot foil stamping and hologram. Also, as a security feature for vouchers, tickets and brand protection

**Applications** 

Cutting

Creasing

Cold embossing

Braille embossing

Kiss-cutting

Hot foil stamping

(Hot Cut)

PPP cutting + creasing

Hologram

Perforating





### **Highlights and options**

- > Flexible use for further processing & finishing
- > Very quick changeover thanks to the mobile KAMA heating plate
- > AutoRegister for highest register accuracy
- > Motor-driven pressure control (MPC)
- > Universal chase as standard
- > For grammages as from 80 g
- > Minimum space requirement (footprint  $< 5 \text{ m}^2$ )

Sheet size:	580 x 400 mm			
Max. Speed:	6,000 sheets/h			
Paper, Carton:	80 – 800 g/m²			
PPP:	80 – 800 g/m² (1 mm)			
Cutting force:	120 t			

### **Equipment**

- > Servo-driven sheet feeder
- > Right + left side marks with sensors
- > Double sheet control
- > Cutting force display with overload protection
- > Universal chase with fine adjustment
- > Hot foil stamping system 2/2 with KAMA heating frame and Foil-Saver software
- > Connection for remote maintenance and networking



Video Changeover



Support systems for all hot foil stamping machines - also for B1 format.



### **Highlights KAMA CPX**

- > Shortened set-up times
- > More uptime for the stamping machine
- > Simple operation
- > Less waste
- > Many possible uses

### KAMA CPX 76 and CPX 106

Fast positioning systems for clichés & more.

Significant reduction in set-up times: on the KAMA CPX positioning system clichés are mounted on the embossing plate in a single step. The smart set-up system calculates the target position, including the thermal expansion of plate and clichés, and keeps the foil stamping machine free for production. For all positioning work on hot foil and hologram stamping systems, magnetic plates, hot-cutting systems and universal locking frames as well as for embossing dies in the die-cutting tool. CPX 76 for chase format 700 x 855 mm, CPX 106 for 860 x 1,300 mm.



### **KAMA OptiFoil**

#### Foil reel cutter

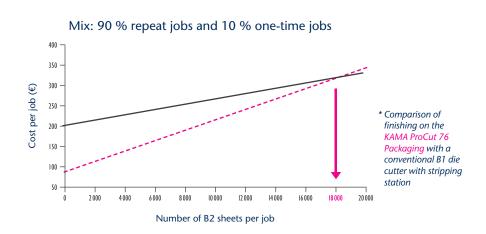
With the OptiFoil, you can cut your own rolls of foils cost-effectively and without waiting time. This makes the production flexible and the order can run through guickly. The table-top unit for 1" and 3" cores delivers neatly wound, dust-free rolls with the correct film tension.

### Finishing in B2 format

Use the advantages of the half format for finishing!

For small to medium runs, half-format finishing pays off: lower tool costs compared to a B1 die cutter (approx. 45 % less), faster make-ready, and the KAMA ProCut 76 provides stripping & blanking completely without tools. The saved costs and reduced set-up times ensure an unbeatably efficient production.

We have done the maths\*: For print runs up to 10,000 B2 sheets (30") and about 6,000 B1 sheets (40"), the KAMA system has a clear economic advantage. This run length covers the break-even range of digital printing and in practice covers many jobs for pharmaceutical products, beauty & care, for micro brands and SKU's with short runs, e.g. for food packaging.



Efficient processes, networked workflow.

### KAMA JobManager Software

Software for digital set-up and networking.

The JobManager software is the interface for the communication between the KAMA machines and the Server and plays the central role in the KAMA concept for Print 4.0. The software receives the digital job data, generates suitable setting data and sends them to the KAMA machines: e.g. for the automatic setting of the stripping system (SBU-Helper) and for hot foil stamping (Foil-Saver). In this way, makeready work is digitized, which significantly reduces the set-up time.





#### The result:

A complete workflow with digital job management right through to finishing. The JobManager also connects the KAMA FlexFold 52i folder gluer. Voilà: Here is the complete solution for the efficient production of short runs in packaging with "speed-to-market".

### **KAMA Cockpit**

Well organised for efficient work according to KAIZEN.

The Cockpit serves as a control station for the networking of the KAMA machines with the IT network. It offers an ergonomic job preparation and assembly station with organisation system and integrates the timesaving CPX positioning system (see below). Here, KAMA's JobManager software for electronic order intake and data exchange can be installed and conveniently operated.





Video Cockpit and CPX Fully automatic folder gluer with inspection system.

### KAMA FlexFold 52i

World's first automatic folder gluer for short runs.

Job changeover on a folder gluer in less than 5 minutes? That's exactly what we have developed the FlexFold 52i for. The innovative folder gluer with the highest level of automation switches fully automatically to the next job in three to five minutes. World record - and ideal for digital packaging printing. The modular FlexFold 52i is network-capable and, with installations worldwide, turns the new short runs in packaging into a profitable business. Whether it's straight-line boxes for confectionery, technical products and local brands, pillow boxes or lock bottom boxes for beauty and healthcare. NEW: Also for very small formats!.

With the fully equipped KAMA FlexFold 52i Pharma you are able to produce pharmaceutical secondary packaging GMP-compliant and unbeatably efficient.

#### **NEW: FlexFold 52i Pharma**

Complete solution for pharmaceutical boxes

For this attractive market with high safety and validation requirements, we have equipped the FlexFold 52i Pharma with qualified systems at the highest level:

- > KAMA Inline AutoBraille
- > 100 % inspection with EyeC ProofRunner Pharma
- > Gluing line and flap code inspection with hhs Xtend<sup>3</sup> plus ejection

Braille which is mandatory on pharmaceutical boxes in Europe. AutoBraille is the only system to position the Braille wheel across the entire width of the machine automatically.







**Folding** 





Inspection with ejection (i1, i2, i3)



Plasma treatment



Inline AutoBraille

### Highlights

- > Fully automatic format setting
- > Fastest job changeover
- > Repeat jobs reproducible
- > 100 % inspection in 3 levels (glued seam, flap code, print image)
- > NEW: Small size kit for smallest straight line boxes (12 x 12 x 50 mm)
- > **NEW**: AutoBraille with auto-setting across the entire width
- > Easy operation thanks to high automation
- > Network integration to the ERP/MIS

Material:	Cardboard 180 – 600 g/m², Microwave: E-wave, F-flute		
Infeed width:	520 mm		
Max. speed:	250 m/min		

#### **Equipment and options**

- > Alignment section for left and right side
- > Bottom gluing wheel (cold glue) can be positioned automatically
- > Gluing and inspection systems with ejection
- > Packaging system for folding boxes
- > Plasma treatment for UV coatings and laminated surfaces
- > Connection for remote maintenance
- > Software for job control and workflow integration



Video Changeover







"This machine fulfils its promise of fast changeovers!"

World's

fastest changeovers

Nikolaus Reichenbach, Co-Founder PackEx GmbH, All-rounder for folding, gluing, dispensing, pick & place etc.

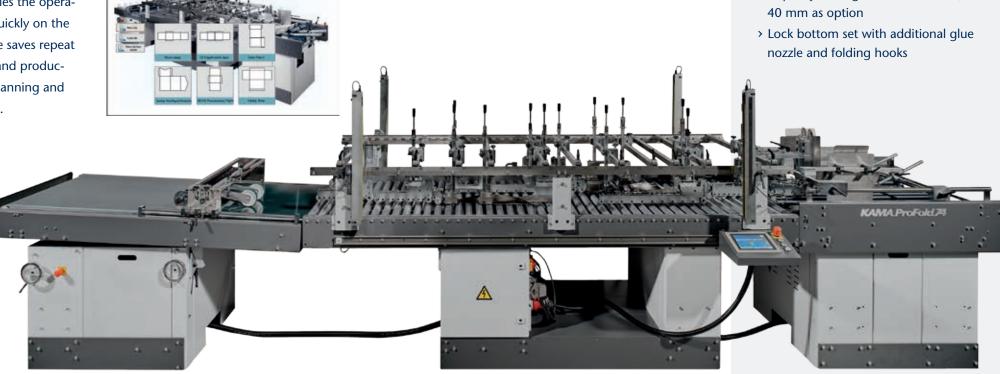
### **KAMA ProFold 74**

Folder gluer for a wide range of applications and products.

Manual work was yesterday: Today the modular KAMA ProFold 74 with software-supported setup planning folds and glues a wide variety of print products flexibly and cost-efficiently. With short changeover times and consistently high quality. Whether presentation folders, Advent calendars, folding cards with product samples, cross folders and mailing pockets or packaging jobs such as folding cartons with straight-line or lock bottom. The multi-talent also makes the production of small, individualized runs profitable and is in demand worldwide.

### **ProFold 74 JobPlanner**

The JobPlanner calculates the optimal setup plan for each product. This enables the operator to set up the machine very quickly on the tool mounting grid. The software saves repeat jobs and calculates the runtime and production costs of the job. For good planning and high adherence to delivery dates.





### Highlights

- > Modular machine concept for many applications and products
- > Very fast setup and calculation with JobPlanner software
- > Dispensing of adhesive tape, silicone tape, also with pull strips
- > Pick & place for product samples
- > Capacity folding device: 3-25 mm,









Dispensing





Capacity products

#### **Accessories (selection)**

- > Dispensing systems for adhesive tape, cards, sachets, labels, package inserts, etc.
- > Barcode reader for matching
- > Pre-folding unit
- > Creasing and perforating unit
- > **NEW**: Zigzag folding device
- > Programmable turning device 1° to 360°
- > Turning device 90
- > Upper and lower pocket folding device
- > Additional transport module, also in combination with a cross carrier table

#### Equipment

- > Suction belt feeder, pile feeder as option, Patented tool mounting grid
- > JobPlanner software
- > Hot melt system, cold glue system as option
- > Very good retrofitting options

Material:	Solid paper, cardboard, plastic, 100 – 600 g/m²
Infeed width:	740 mm
Max. speed:	150 m/min





Video Job change Made in Germany for high-end quality, a long service life ...

### Vertical integration and highest precision

Certified production for smart, reliable solutions.

KAMA builds the high-quality machines with a high vertical range of manufacture in its own factory in Dresden. In our certified production according to DIN ISO 9001, we manufacture all important components in-house on state-of-the-art CNC machining centres and purchase special parts from technology leaders. The complete assembly of the die cutting and stamping machines and folder gluers also takes place on site, as does the quality assurance in accordance with the certified QMS. In-house production makes us largely independent, and the KAMA solutions offer the high functionality and accuracy that our customers expect. We offer an extended warranty for all our products.



#### Short paths to innovation

Thanks to our high level of vertical integration, we can quickly implement constructive ideas, customer requests and improvements and continuously advance product development.



### Worldwide service and remote maintenance

Globally networked for fast service and support.

From the compact entry-level model to the highly automated high-end machine, KAMA offers solutions for different markets around the globe. Our machines are currently installed in over 80 countries. In addition to the variety of applications and fast changeover, customers appreciate the easy handling and the robust construction for a long service life.

All machines are equipped with a remote service port: for software updates, the installation of new functions and for quick remote diagnosis with direct support for the user. Communication runs via a worldwide reliable and highly available network. After market service is provided by our local distributors, in close cooperation with our service technicians at the headquarters in Dresden, Germany. Spare parts and other accessories for our machines can be ordered directly from our local distributors or the KAMA service department.

... and sustainable standards.

### Sustainability is the future

Commitment to safeguarding resources and offsetting CO<sub>2</sub> emissions.

At KAMA, we fully understand our responsibility to act responsibly to protect our climate and environment, and we are committed to facing up to the challenges this entails. This includes implementing energy and resources-saving measures across all areas of the company, in particular in manufacturing, and refining our machines so that they offer even more in terms of utilisable value, efficiency and durability. Concrete measures include for example the LED lighting concept for our production halls, which are run in triple-shift operation, a charging station for electric vehicles, and the effort we make to purchase materials locally from our own region to keep transport distances as short as possible.

#### **Climate-neutral KAMA machines**

Recently we have started to offer our customers the option of purchasing our machines climate-neutrally, where production emissions are offset and a certificate of CO<sub>2</sub> neutrality is issued. The first KAMA solution to be produced climate-neutrally was delivered to Switzerland in 2021.





On the subject of  $CO_2$  offsetting, we are working together with Climate Partner Deutschland GmbH from Munich. The company develops environmental protection and sustainability projects all around the world that are designed to reduce  $CO_2$  emissions, and as part of this it offers  $CO_2$  offset certificates. TÜV Austria monitors the implementation of these measures as a neutral body and only issues the emissions certificates when the  $CO_2$  savings have been made and documented.

As a carbon offset, KAMA has purchased certificates for the reforesting of mixed forests in Germany, which have been financed in recent years and offset emissions through sequestration of carbon dioxide in the trees. We believe that the design and construction of the machines themselves that are used in the production of environmentally friendly packaging contribute to meeting sustainability targets – even more so thanks to KAMA's concept of versatile solutions offering potential for modular growth and an exceptionally long service life.

Innovation for finishing for over 125 years.

## From the crease line for folding cartons to the digital workflow

KAMA as a reliable partner for print finishing & refinement.

**Solutions for tomorrow** have a really long tradition at KAMA. From the patent for the Remus bending process, which revolutionized the processing of cardboard boxes with the creasing line at the end of the 19th century, to the world's first automatic die-cutter in the 1930s, to modern finishing die-cutters and the first fully automatic folder gluer for digital packaging printing.

#### Flexibility is standard.

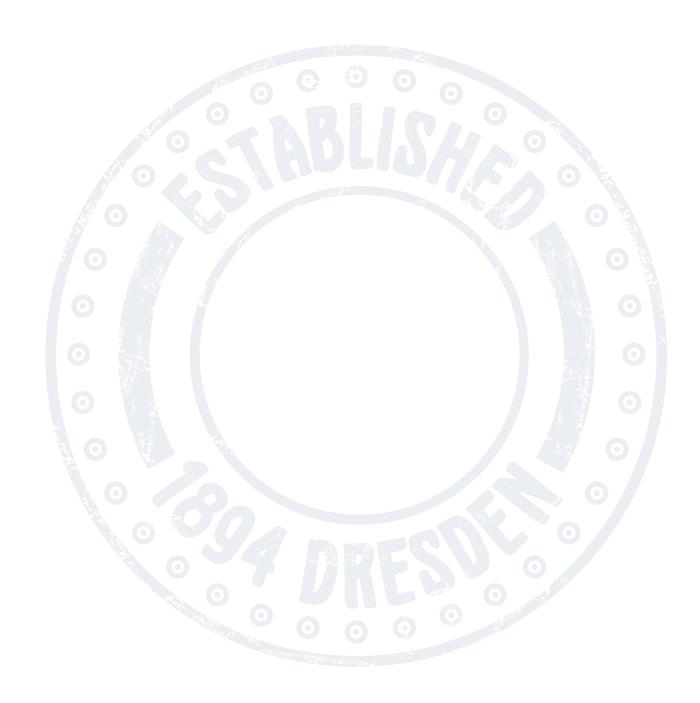
Today, the versatile and networkable KAMA solutions are integrated into the workflow of our customers. With digital set-up systems, a high level of automation and electronic job management, they make finishing flexible for short runs and short time-to-market. More than 850 installations in 80 countries at small and medium-sized printing and finishing companies as well as renowned large enterprises show: The innovative KAMA machines "made in Germany" are in demand worldwide – in commercial printing and increasingly also in packaging.

#### The digital workflow is here.

With an ear to the market and a strong R&D department, KAMA continues to drive development and is also aiming for more sustainability. Joint projects with the HTW Dresden and the Technical University Dresden guarantee a fast transfer of knowledge from research into practice. In this way, we ensure that in every KAMA machine there is a piece of the future - so that you can successfully meet the future demands of print finishing.

### **Pioneering innovations**

Carl Theodor Remus, inventor of the crease line, founds KAMA's predecessor in Dresden		Foundation of today's KAMA GmbH, the crease line remains in the Logo		All-rounder for folding & gluing ProFold 74 with patented set-up system		World premiere of the fully automatic folder gluer FlexFold 52i		
	1894	1936	1994	2000	2006	2014	2016	2020
	World's first automatic flat-bed die cutter called "Tempo"		Start of the successful KAMA ProCut line for die-cutting & finishing		Pioneering: KAMA's tool-free stripping & blanking system SBU		KAMA launches AutoBraille and the first three-dimensiond AutoRegister AR <sup>3</sup>	



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