## Cardboard boxes tailor-made.

**Cardboard-box cutting machine** PAQTEQ C-200, C-250 **YOUR SOLUTION** 







## Allround protected, perfectly packaged

possible item cost.

## YOUR SOLUTION

## **MORE: HOMAG.COM**



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With the various models of our cardboard-box cutting machines, we have the matching solution for every customer - from the starter model up to the topperformance machine; from the standard application up to the highly sophisticated packaging blank. With the PAQTEQ series, you will produce just the cardboard box you require - in an optimal shape, at a high volume utilization ratio and at lowest

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## Packaging à la carte

Large ranges of products of widely varying dimensions and shipments as well as highly differentiated requirements on individual packaging frequently result in unloved prefabricated compromise solutions to still make cardboard boxes at a reasonable price. The consequence: box formats unfit for delivery, unnecessary waste of resources, storage and transport of "well packaged air". With the PAQTEQ series, packaging of varying shapes of blanks and designs can be produced from a quantity of only one piece on already! The core of the HOMAG solution consists in flexible tools cutting the cardboard automatically during the process. Its specific machine control allows to make tailor-made cardboard boxes for many kinds and sizes of products by just pushing a button. PAQTEQ machines are capable of either working in stand-alone operation or being integrated in packaging lines.

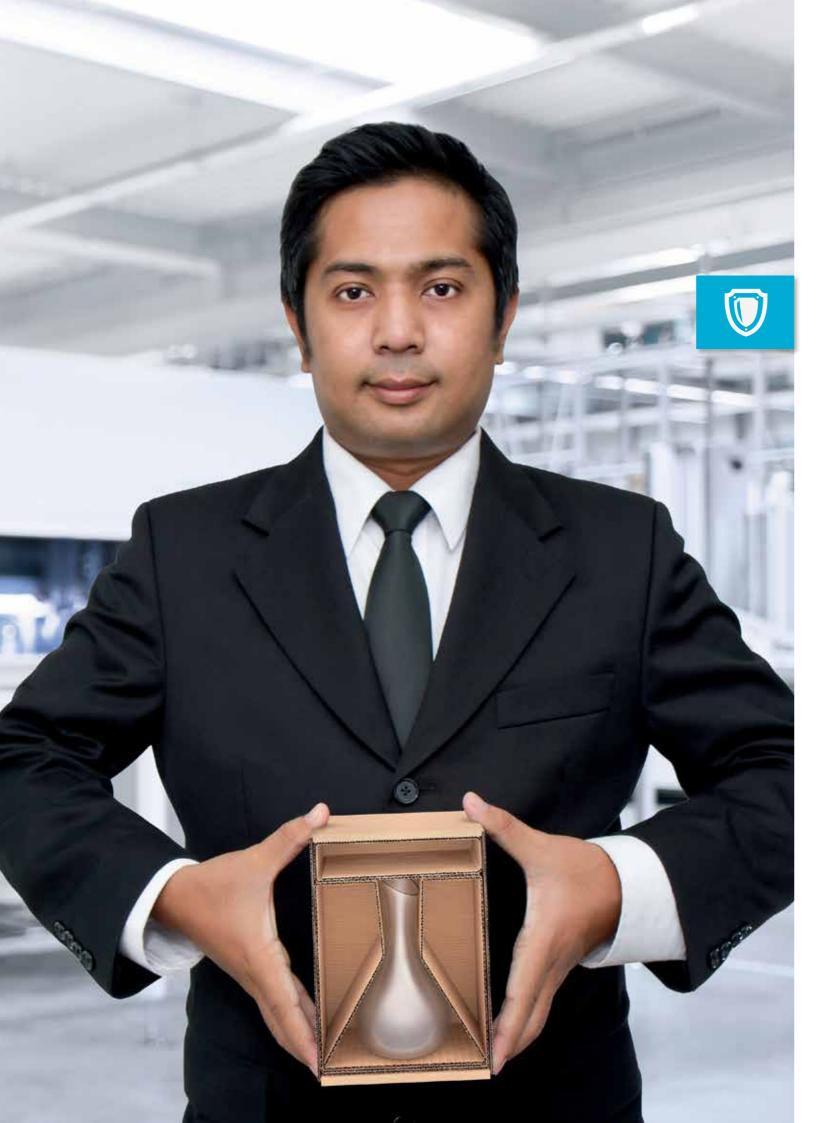


At the PAQTEQ Shop, you can find a large variety of cardboard blanks, including many FEFCO standards for immediate use with the PAQTEQ series.



## MORE: HOMAG.COM

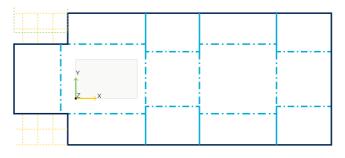




## Allround protected and perfectly packaged

Sensitive products and top-quality goods require special protection and prop-up. For being able to offer optimum properties for transport, warehousing and sales, packaging is custom-made. Designers and practicians all over the world design blanks for the PAQTEQ series, which can be retrieved by the machine directly from the Internet to be adjusted to the specific needs of the goods to be packaged by just a few

"Replace expensive composite packaging by applying PAQTEQ with its environmentally friendly corrugated cardboard packaging. This will optimize the protection of your product!"



Specific packaging design guarantees protection and safe support of the product in transit and during warehousing (Graphic: Cardboard blank, e.g., for a vase as shown on the photo on the right)

entries. Extensive development efforts for outer packaging and trays is minimized, and inserts and filler material of PVC, polystyrene, etc., for "suboptimal" standard cardboard packaging have thus become things of the past. Thanks to meticulously masterminded blanks, the protective function of packaging is assumed by the environmentally friendly and reasonably priced corrugated cardboard.

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The blanks for this example are cut and grooved completely, so that the product can be prepared for despatch easily and quickly (Graphic: Blank with grooving for the interior upholstery of the vase packaging)





## Working cost-consciously means to do away with the carpet knife and adhesive tape

So far, reductions in height could only be achieved by additionally grooving the standard cardboard box, by subsequent manual work or additional machining. By applying the PAQTEQ series, this effort will be eliminated, as any cardboard box can be pre-fabricated tailor-made to its volume. Automatize your packaging processes throughout by applying PAQTEQ, eliminating manual rework, e.g., when heights need to be reduced or leveled out by filler material. A variety in product design, increasing cost pressure on manufacturers and logisticians as well as aggravating requirements by the legislator

The solution suggests itself by product-specific packaging made of ecologically harmless material of a high degree of volume utilization







Optimized dimensions and arrangement as well as packaging and palletizing instructions

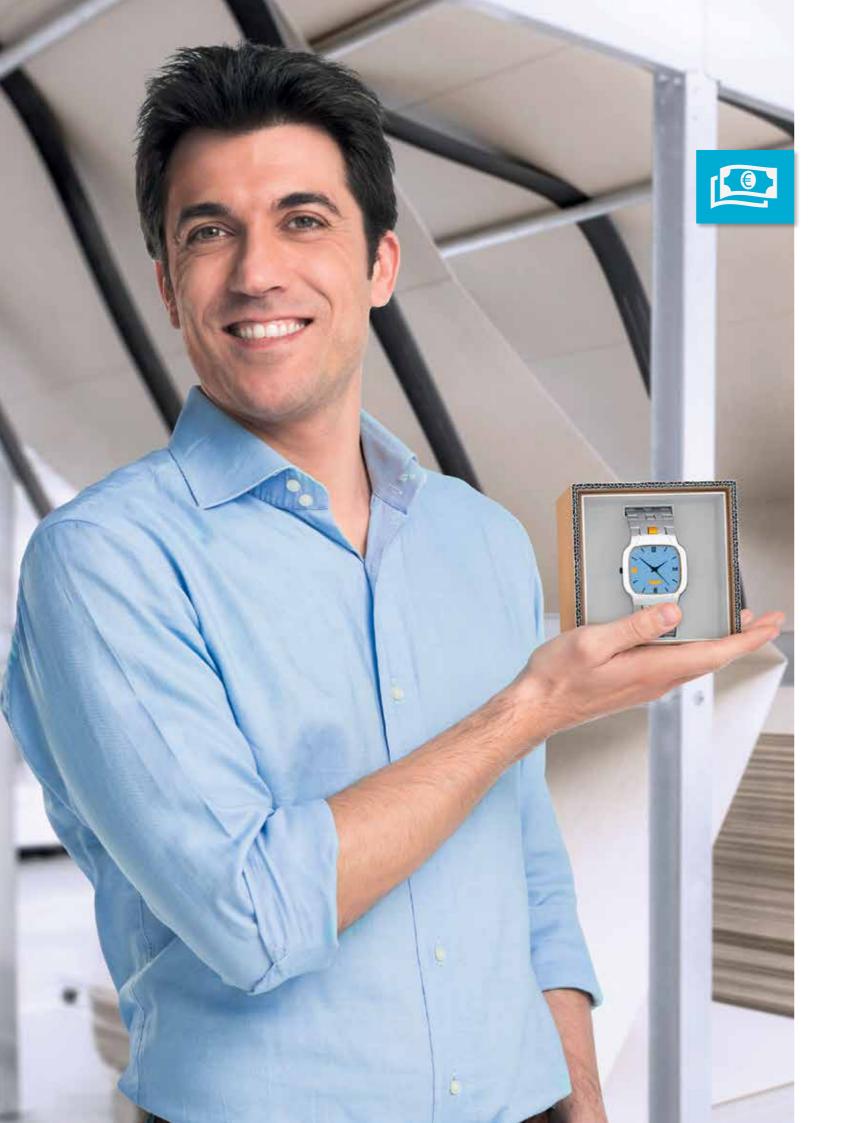
An adjustment of the entire packaging system results in an economic transport system free from damage

Source: Fraunhofer IML



## **MORE: HOMAG.COM**





## Where only yesterday packaging material was piling, profit is yielded today

For obvious reasons, warehousing is a thorn in the side of any controller, as any inventory, warehousing space and the packaging material itself are even cost drivers in many branches as are high minimum quantities when newly purchased. With the help of the PAQTEQ series, the packaging process can be simplified radically at this stage. Performance and quality are raised when compared to manual packaging. Costs are reduced in view of:

- warehousing (buildings, staff, stock deposits, fire protection, etc.)
- logistics (staff, materials handling equipment, lapse)
- procurement (number of suppliers, reduction in range of assortments, more reasonable conditions)





Cardboard material The PAQTEQ series just requires endless cardboard or single cardboard sheets.

Reduce warehousing space and save costs by applying PAQTEQ made by HOMAG

"Reduce your warehousing of prefabricated cardboard packaging and filler materials by applying PAQTEQ."

Instead of pre-fabricated cardboard boxes, you will then require piles of endless cardboard only. With the help of the PAQTEQ series, single-wall corrugated and doublewall corrugated board of thicknesses between 2.5 and 6.5 mm of simple, printed or finished surfaces can be processed..

## Product protection

(air-cushioned or foamed sheets)

#### Filler material

Varying products often leave a lot of air in standard cardboard boxes – the previous solution: loads of filler material (e.g., bubble wrap, packing beanuts).

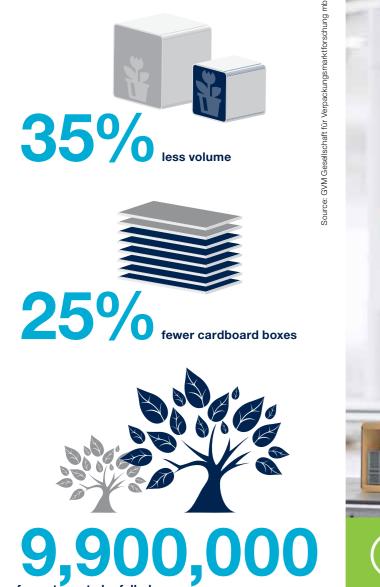
#### **Cardboard boxes**

Standard cardboard boxes can always be obtained in certain sizes only, and then minimum quantities must be purchased.

The usual warehousing situation in traditional dispatch with standard cardboard boxes and filler material

## MORE: HOMAG.COM







## Beneficial in two ways: sustainable and cost-saving

Corrugated cardboard is made from air, paper and starch. It combines effective product protection, low material consumption, low weight, high stability and superb machinability.

fewer trees to be felled per year

At the same time, it has good insulating characteristics, is odorless and tasteless and protects its packaged content reliably from microbiological infestation. Its value-for-money ratio is almost unbeatable in comparison to other materials. Properties that allow corrugated cardboard to become a widely-ranging multi-talent in packaging in the future in many branches of industry – with tailor-made cardboard boxes, e.g., as a cooling version for the dispatch of food or seedlings in the field of B2C. The PAQTEQ series developed by HOMAG Automation for the cost-effective manufacture of tailor-made cardboard packaging in any application and in small and varying amounts meets exactly these requirement.

"When using the PAQTEQ cardboard-box cutting machine, you will be opening up new horizons for the application of the packaging multi-talent of corrugated cardboard in your logistics chain."

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## Always used to full capacity

At an average share of 30 % in the total cost, logistics costs play a role that must not be underestimated, a considerable part of which is caused, both directly and indirectly, by packaging. The solution favored so far – just a few prefabricated sizes of standard packaging for all deliveries – has largely exhausted its optimization potential and has led to the fact that, in online trading, volume utilization is currently below 20 %. The trends in online trading, reduction of volumes delivered, new dispatch concepts, growing diversity in variants and shorter product life cycles principally challenge the concepts of consignment carriers in use. Pursuing the approach of consequently increasing the volume utilization rate, no way will lead around tailor-made packaging. With the help of the PAQTEQ series, you will implement this approach consistently in your packaging and logistics chain.

"Increase process reliability and effectiveness in your logistics chain by using tailor-made, environmentally friendly cardboard boxes – made on the PAQTEQ."



impact by CO2

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## The PAQTEQ C-200 – the compact one

Make use of your PAQTEQ C-200 – no matter whether equipped with a single sheet or endless cardboard feeder. The combination cardboard feeder fits both – at its best.



#### Equipment

- Combination cardboard feeder
- side-by-side
- 6 longitudinal tools / 1 transverse tool
- 3in1 cutting tools (Cutting, Grooving, Perforating)
- Cutting tools automatically setting
- Zero edge left/ right freely selectable
- Automatic manufacture of the cardboards according to the production lists
- intelliCut control
- powerTouch user interface
- Direct link to www.vksshop.com

### Additional Equipment

- Additional pair of tools
- Machine date acquisition PAQTEQ + MMR Professional
- Documentation and control texts available in more than 30 languages
- Flatrate PAQTEQ Shop
- TeleServiceNet

## The PAQTEQ C-250 - the one that is tailor-made

Design your PAQTEQ C-250 to your own specific needs and requirements. Options range from manual single sheet feeding up to twelve web widths accessed fully automatically.

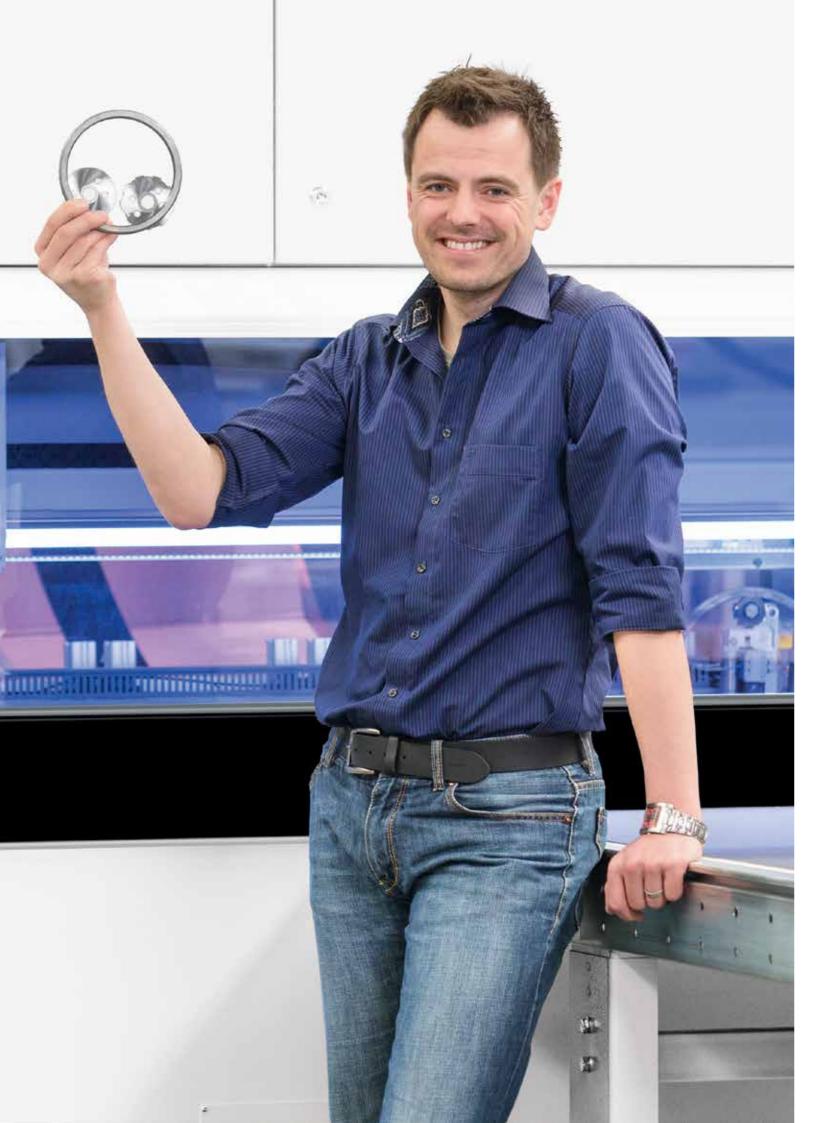


#### Equipment

- 6 longitudinal tools / 1 transverse tool
- 3in1 cutting tools (Cutting, Grooving, Perforating)
- Cutting tools automatically setting
- Zero edge left/ right freely selectable
- Automatic manufacture of the cardboards according to the production lists
- intelliCut control
- powerTouch user interface
- Direct link to www.vksshop.com

Additional Equipment in addition to the options of PAQTEQ C-200

- Automatic single sheet feeder with lift table
- Combination cardboard feeder
- Endless cardboard change system 3-fold
- Changer extension by 1 compartment
- Cardboard feeding system side-by-side
- Product administration with import function
- Barcode control
- Waste disposal
- Cardboard identification
- Customer specific import interface
- intelliCut line integration
- Customer related reporting for MMR Professional



# Proven mechanics and top-notch cutting quality

"The unique dynamism and productivity of the PAQTEQ lies in cutting with toothed blades on rubbercoated rollers. Also, the tools exchange swiftly and automatically and are capable of producing almost any blank."



**Tools running on rubber rollers** provide for lower cutting force and lower wear-and-tear, at best cutting quality and long tool life.



By means of **fully automatically movable and quickly repositioning cutting tools**, almost any blank can be produced.



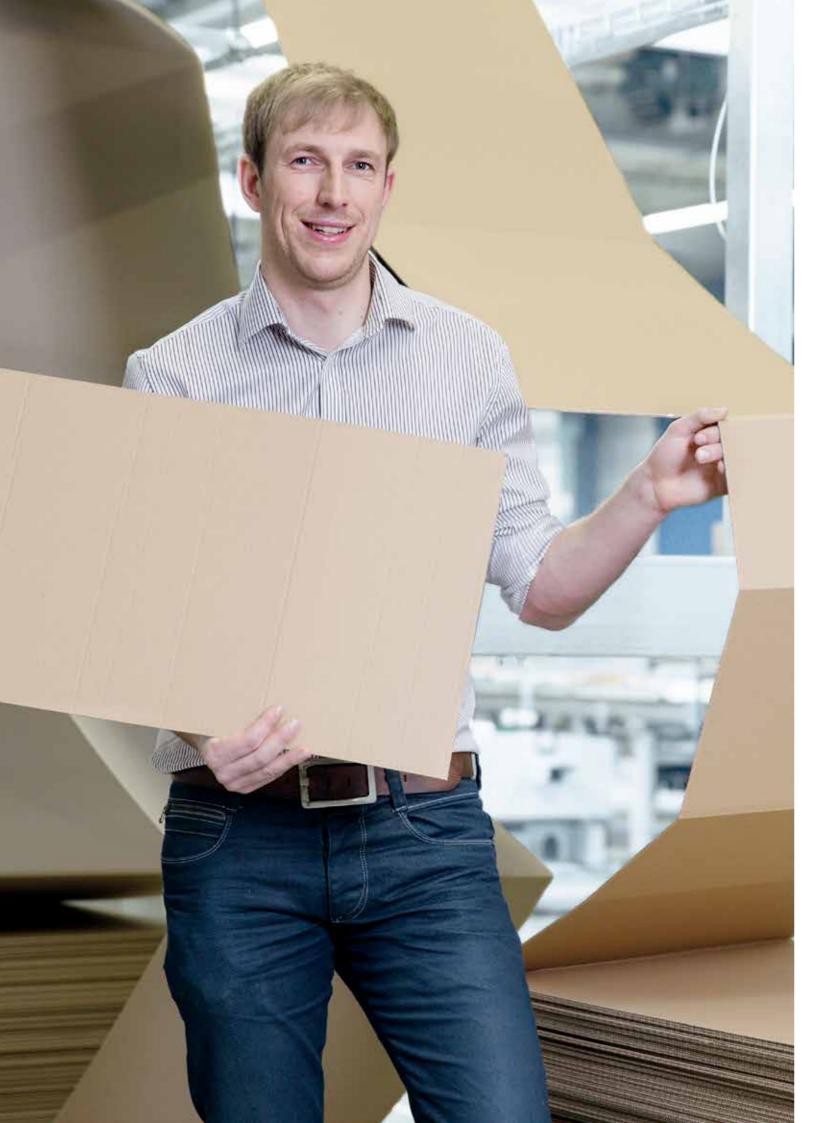
The **quickly accessible and illuminated cutting chamber** eases in-line control and maintenance.



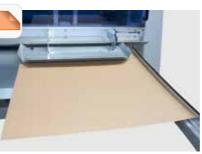
Automatic removal of cutting scraps enhances process reliability and reduces machine downtimes.







Cardboard feeding systems as flexible as never before





Manual sheet feeding

The automatic single sheet feeder with lift table allows the automatic feeding of stacked single sheets.





The combination cardboard feeder allows the automatic feeding of single sheets or using endless cardboard.

The endless cardboard change system is an automatic change system for endless web, from six compartments of various widths.

## THIS IS HOW OUR CUSTOMERS BENEFIT

The PAQTEQ series is versatile and flexible.

The PAQTEQ C-250, for example, can produce the optimal cardboard box – without much retooling – choosing fully automatically from up to twelve web widths.





In the Side by Side operating mode, the cardboard feeding compartment is expanded by one more web width, allowing single sheet access to up to twelve web widths in a sixcompartment change system.





"Our newly structured control logic has been designed for future requirements - maximum flexibility at most minimal time expense."





Multi-line machining by way of six real and six additional virtual longitudinal tools as well as a transverse tool allow for more complex cutting of blanks and packaging design.



The intelligent residual length management reduces machine downtimes and eases stack exchange.

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When production lists are used, cardboard making runs fully automatically. Interruptions by single blanks, for example, are possible without the most recent settings "being forgotten".

## intelliCut – control for the future & powerTouch - simple, uniform, ergonomic, evolutionary!

The innovative touchscreen control concept unites design and functionality to appear as a novel control generation. powerTouch controls machines of the HOMAG Group via uniform controls and software modules in one and the same way.

### Maximum overview with the Box Viewer

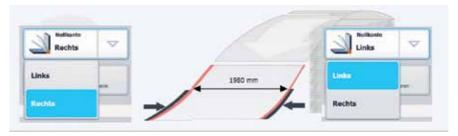
Real-time graphic cross-sectional views (a visual 2D display of the blank incl. external dimensions) and a 3D folding pattern (a visual 3D display of the cardboard box) allow for easy operation of the machine.

#### Comfort of control included

Integrated support and assistance features ease operation.

### Hands-on technology

Direct control via a sensitive touchscreen monitor to call up and display all machine functions.



Via the free zero-edge option, blanks can be made on both sides of the cardboard box cutting machine.



All machine data is visualized on the touchpad.





## Machine control of the simple kind

The intelligent machine control of the PAQTEQ monitors itself and performs, if necessary, recalibration, so that high cutting precision can be maintained. For optimizing material ordering, all cardboard blanks are automatically recorded and evaluated automatically over three months. What is displayed, for example, are web widths and the ten blanks where waste was highest.



"The periodic statistical evaluation of all blanks and their clear graphic visualization reveal potential for saving - enormously time-saving for our customers."



The integrated troubleshooting system analyses all work processes, reports necessary maintenance, the replacement of wear-and-tear parts (cutting blades), and the like, in order to guarantee consistently high quality and to avoid downtimes.

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The integrated **backup system** logs all data of the machine periodically.



Service features: After each change of tools, the new tools are automatically calibrated. After cutting 100 blanks, tools are dynamically and automatically repositioned inorder to minimize the wearand-tear of the rubber roller.



The Tool-collision monitoring prevents any collision and, therefore, tools or cardboard blanks from any damage.



The ecoPlus-Button disrupts production and takes the machine into its energysaving mode.





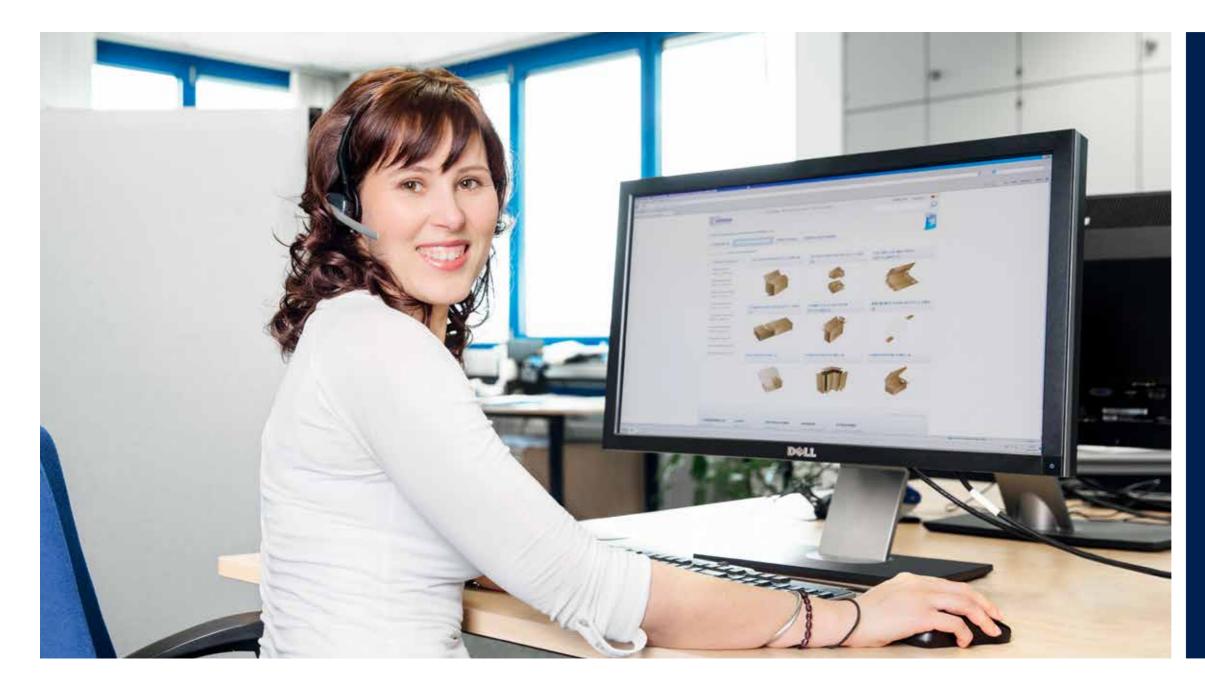
In the Quality Plus Mode small and complex designs can be optimized in quality via three different modes.



Permanent positioning monitoring of the longitudinal tools and automatic positioning correction safeguard the design-relevant process and the execution of cuts.

## **MORE: HOMAG.COM**





## PAQTEQ Shop – Packaging design at a single click

www.vksshop.com is at the disposal of users of the PAQTEQ series as a modern service tool from where, with just a few clicks, packaging designs, or individual service solutions can be ordered. All designs can be downloaded immediately and fed into the intelli**Cut** machine control. The blanking assortment is permanently being extended. "Packaging designs can be purchased from the PAQTEQ Shop – directly from the machine and for immediate use. So the optimal packaging design is always available to the PAQTEQ – quickly and without the need for complicated clarification processes."

Benefit from the continuously developing PAQTEQ series. Save time and money by ordering immediately applicable packaging designs from our online shop, for example.

 Have the right packaging design available immediately
All customers benefit sustainably from novelties and developments in packaging designs
Novelties at a glance

All users are informed by newsletter of improvements of packaging designs regarding updates of blanks to be downloaded for free

• Open 24/7

Packaging designs can be purchased 7 days a week, 24 hours.a day, for immediate use

### This is for sure

Packaging designs purchased online can be downloaded via the customer account, repeatedly and free of charge.

## **MORE: HOMAG.COM**





## HOMAG LifeCycleService

The sale of our machines comes with all-in optimum service backup and individual advice. We support you with service innovations and products which are especially tailored to your requirements.

With short response times and fast customer solutions we guarantee consistently high availability and economical production - over the entire life cycle of your machine.



#### **HOMAG** Finance - precisely the right financing

- We offer you tailored financing proposals for your machinery or plants. Our fi nan- financial advice goes hand in hand with our expertise relating to technical questions. Your personal contact person will take care of the whole process.
- The benefit for you: The ability to invest without delay in new technologies and remain financially flexible.



- The trainings perfectly suit to your requirements. Through this your machine operators can operate and maintain the HOMAG Group machines optimally.
- The trainings also include customerspecific training documents with practice-proven exercises
- Telephone support and consultancy through software support Digitalization of your sample parts via
- 3D scanning saves time and money compared to new programming
- Subsequent networking of your machinery with intelligent software solutions ranging from construction to production



#### **Remote Service**

- Hotline support via remote diagnosis regarding control, mechanics and process technology. Thus the on-site service can be reduced by 85.2 %!
- Mobile applications such as ServiceBoard reduce the costs through fast help in case of troubles by mobile live video diagnosis, online service message and the online spare parts shop eParts



#### Spare Part Service

- Identify, request and order spare parts around the clock via www.eParts.de
- Local availability of parts offered by our sales and service companies as well as sales and service partners all over the world
- Reduction of downtimes through defined spare parts and wear parts kits



#### Modernization

- Keep your machinery up-to-date and increase your productivity as well as your product quality. This is how you can meet tomorrow's requirements today!
- We support you with upgrades, modernization as well as individual consultancy and developments







# 1.200

Service employees around the world

# processed spare parts orders / day

85,2%

less on-site-services through successful remote diagnosis.

# >150.000

machines, all electronically documented in 28 different languages - in eParts.





#### **Field Service**

- Increased machine availability and product quality by certified service staff
- Regular checks through maintanance / inspection guarantee the highest quality of your products
- We offer you the highest availability of technicians in order to reduce downtimes in case of unpredictable troubles

## No plant is too small or too big to us

By betting on HOMAG, you bet on flexible solutions. Be it volume production or batch size one, be it single sheet feeding or endless cardboard feeding, be it stand-alone operation or be it integrated into a complex packaging line – the PAQTEQ cardboard-box cutting machine adjusts smoothly to the customer's needs and requirements, and it grows with its jobs: depending on requirements, it can individually be complemented by a folding machine, closing machine or palletizing robot to become a complete packaging line.

"The scope of products, their expandability and integratability make the machines of the PAQTEQ series a sought-after component of complete packaging lines."

TECHNICAL DATA	PAQTEQ C-200	PAQTEQ C-250			
Length of the cardboard (outfeed)	300 mm	300 mm			
Width of the cardboard (infeed)					
Single sheet	350 – 2,500 mm	350 – 2,500 mm			
Endless cardboard single	350 – 2,500 mm	350 – 2,500 mm			
Endless cardboard side-by-side	max. 2,350 mm	max. 2,350 mm			
Stacking height incl. 120 mm sheet	max. 2,150 mm	max. 2,150 mm			
Cutting to size tolerance					
Longitudinal direction	max. 0,5 %	max. 0.5 %			
Transverse direction	max. +/- 2.0 mm	max. +/- 2.0 mm			
Thickness of the cardboard	2.07.0 mm +/- 0.2 mm	2.07.0 mm +/- 0.2 mm			
Cardboard quality according to 55468	1-corrugation thickness up to approx. 4.0 mm	1-corrugation thickness up to approx. 4.0 mm			
	(Quality 1.101.40)	(Quality 1.101.40)			
	2-corrugation thickness up to approx. 7.0 mm	2-corrugation thickness up to approx. 7.0 mm			
	(Quality 2.102.30)	(Quality 2.102.30)			



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## YOUR SOLUTION