

iMagazin

Future-proof
and
profitable:
IMA technology

CONTENTS

Editorial	2
23rd REHAU "Kantensymposium" at IMA	2
Batch size 1 production in Brazil	3
BIMA Gx30 with gluing technology	4
Worktop production for Topstar/Italy	5
Perfect finishing with AEK	6
Powerful and compact Performance.CUT	7
1st IMA Italia Service Day	8
IMA Asia wins new orders in Malaysia	8



EDITORIAL



Dear readers,

The market challenges, and the answering technological developments, are constantly changing. For both artisanal and industrial furniture manufacturers, this means that, when making their investment decisions, they must choose technologies that are not only reliable but also innovative, and that can provide the greatest possible potential for flexibility. Over the years, IMA has shown over and over again that it is a reliable partner precisely in this field of flexible machine design. As a result of the move towards tailor-made production methods, machines are becoming increasingly automated and consequently more flexible even in artisan manufacturing. "No visible joint" production, using laser or hot-air technology, will also become a major topic at industry meetings in the near future.

In this issue of the iMagazin, we give a full report on the wide variety of current IMA machine solutions and, of course, on new developments. We wish all our readers an enjoyable and informative read. If this iMagazin finds you at the Holz-Handwerk 2014 exhibition in Nuremberg or Xylexpo 2014 in

Milan, we would also be delighted to welcome you to our stand to continue this conversation, and hopefully start a collaboration that will keep you on the winning track with cost-effective and future-proof machine solutions.

*Yours faithfully,
Rüdiger Schliekmann*



Rüdiger Schliekmann
Managing Partner,
IMA Klessmann GmbH
Holzbearbeitungs-
systeme



**23rd REHAU "Kantensymposium"
brings 300 participants to IMA**

Increased expectations in furniture production

Product & market

With a full 300 participants, interest in the 23rd REHAU "Kantensymposium" (REHAU's annual symposium on edging materials), held mid-February on IMA's premises, was once again high, and, in fact, attendance was again 50% higher than at the previous edition of the event in Lübbecke. The participants from the kitchen, home and office furniture industry were able to see the practical application of REHAU's edging material in various machine solutions from the IMA product range. Live demonstrations at eight workstations gave participants the opportunity to familiarise themselves with the different technologies and to expand their knowledge through conversation with specialists on site. The tour of the workstations began with a NOVIMAT,

where the perfect glass finish for plate and edge was demonstrated using the UNO and DUO scrapers. With a NOVIMAT Concept, participants saw a perfect, all-round polish with no 'framing effect'. At the other workstations, they were shown how a seamless finish is produced with all-round counter-top edging using the BIMA 400 E, and what results can be achieved by polishing the radii of free-form parts. Information about retrofitting laser, duo-scraper and polishing units, sawing edging materials, and many other topics, as well as presentations on machine tool technology for edge processing, and the increased expectations in furniture production, completed the extremely informative programme of the 23rd REHAU Kantensymposium.

Flexibility guarantees success



**Batch-size 1
production line for
B- and C-parts in Brasil**

International markets, sophisticated customer demand and the continuous optimization of manufacturing processes have changed the Brazilian furniture market. Successful companies use the most innovative technology, process optimized and to the highest degree flexible to compete. An actual example of how that can be accomplished is the fully automated, recently designed and installed B- and C-part processing system at a Brazilian customer of IMA. This system produces between 3,000 and 4,000 high end panels in true batch size 1 operation. To accomplish this feat highly automated and precise technology is required.

The production process of full-size sheets starts with an IMA Cutting Center high speed nested base router connected to a fully NC-controlled automatic storage retrieval system. The storage retrieval system is designed to hold full-size sheets as well as partial sheets for reprocessing. This processing of C-parts is accomplished by a second IMA nested base machine system called BIMA Cut, which is also directly connected to the storage retrieval system. Each sheet – whether it is a full size sheet or a partial sheet – is inventoried

automatically and stored randomly in the storage retrieval system. Specialized software controls the inventory of panels and connects to the customer's ERP system providing materials to the nested base machines for processing as required.

A fully automated and process-controlled buffer system holds the cut to size parts after the nesting process and prior to edgebanding. This buffer system also holds partial sheets that the system can automatically return into the storage retrieval system for later use.

The next processing step is the automated sizing and edgebanding line that is automatically tied to the buffer system behind the nested base routers. Four single sided combination edgebanders with specialized infeed systems process the cut to size panels length- and crosswise in true batch size 1 fashion. The machines size and square the panels as well as edgeband and finish them fully automatically. The changeover between different edge designs or groove patterns happens "on the fly" in a gap of about two feet in length. The IMA KFA single motor high speed corner rounding unit is an important unit that allows

corner rounding speeds of up to 30 m/min. (approx. 96 fpm) with a gap of about two feet between panels.

A porcupine buffer system after the edgebanding line provides opportunity for commissioning of individual parts into customer orders prior to drilling/hardware insertion as well as assembly and packaging of the product.

The complete processing steps are controlled by the software company and long term IMA partner 3Tec. Their software called "FLS" controls and optimizes all processes in the machine system from raw board inventory to finished panel distribution to subsequent processing. The identification of individual panels in the line is accomplished by barcode and the data necessary for controlling the system is being provided by the customer's ERP system that 3Tec's FLS software connects to.

The film
of the projekt
on YouTube:





An entry-level machine for industrial and artisanal use, the BIMA Gx30 has developed into a truly universal machine.

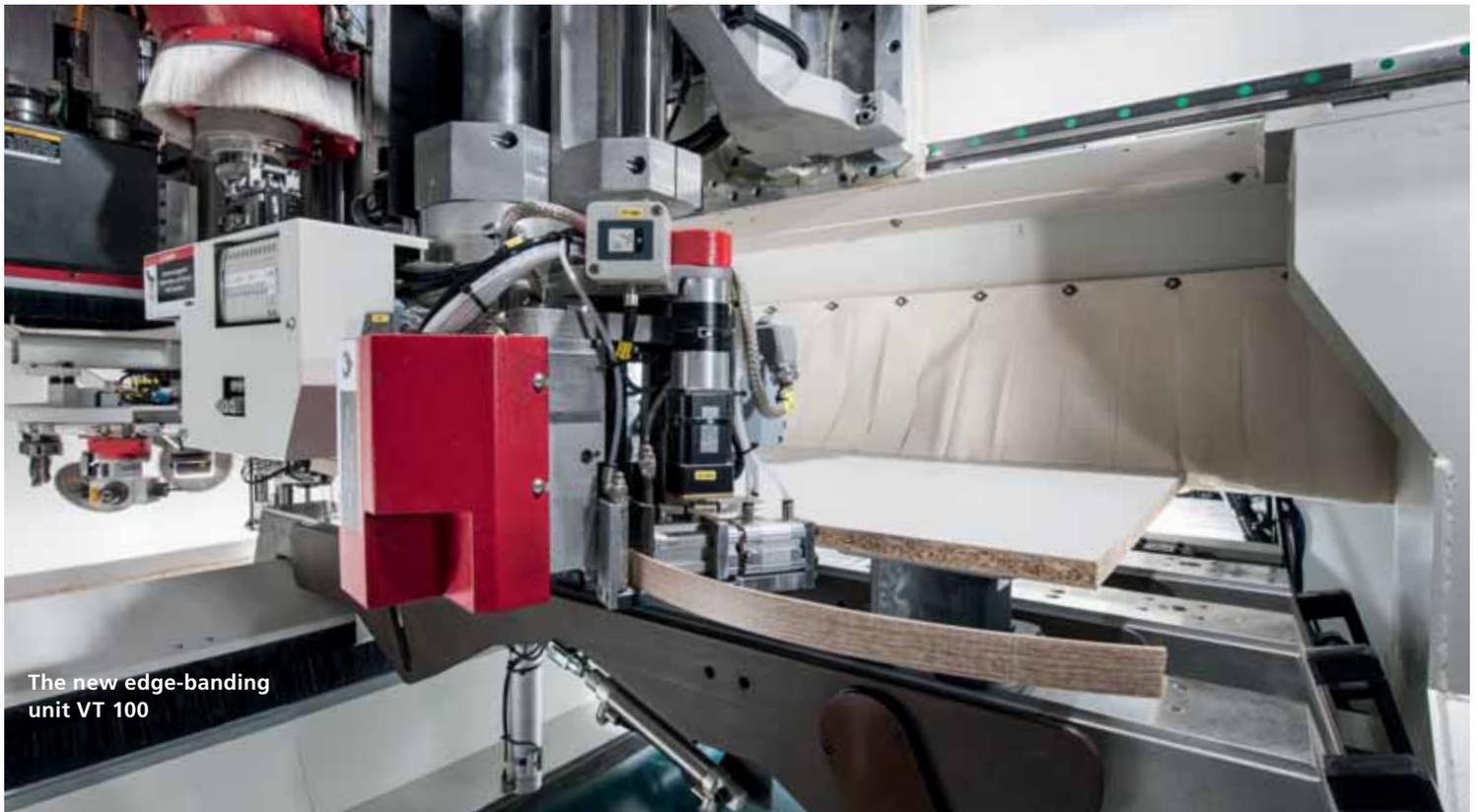
BIMA Gx30 now with proven IMA gluing technology

Dynamism and precision are among the features of the Gx30, a moving gantry machine. In addition to heavy-duty milling, sawing and boring, the machine now produces perfect edge banding, offering furniture manufacturers a comprehensive range of machining options. In a further development of this machine type, it is now also possible to use the edge sanding units VT 50 or VT 100. To save space, the unit is fitted onto the left side of the portal. All the necessary tooling and adapter units can be stored in the 18-slot tool changer. The moving, all-round enclosure has large panoramic windows that give the machine operator a perfect view of the machining area while providing full protection. A forward-opening access door makes the machining units quickly and easily accessible. This ensures high productivity and short

set-up times. The machine base is a concrete and steel construction that ensures the necessary rigidity and vibration damping, even with heavy-duty machining and high acceleration ramps. The technical concept behind this machine places the focus on the highest possible level of productivity and production quality in both industrial and artisanal use. Short machining processes and low unit prices are the welcome result. Thanks to these unique selling points, the BIMA Gx30 E has quickly become an undisputed best seller.

The VT 100 edge-banding unit processes both veneers and plastics. Edge heights can vary between 14 and 64 mm, while the panel thickness can be a maximum of 60 mm. An automatic edge thickness adjustment from 0.4 to 3 mm increases the

machine's flexibility and productivity. But it is not only the edge thickness adjustment that contributes to this: the machine has many other features: A patented fold-open function reduces the cleaning time by up to 75 per cent. The integrated cleaning nozzle for cleaning workpiece edges already starts working during the banding process, saving even more time. The edging material is also cleaned on the decorative and adhesive side during machining, increasing the quality of the edging.



The new edge-banding unit VT 100

**A completely new production solution
for the production of worktops**

The 'Topstar' plant for the production of worktops

Topstar S.p.A. is an Italian company based in Pesaro, a leading manufacturer of worktops and plastic laminated and ennobled components for the furniture industry. Topstar has a strong presence on the Italian market but it is also very well known on the European market, to which a large part of the turnover is own. Besides the production of semi-finished bars, worktops and doors, Topstar has been manufacturing for over 10 years also finished products with high customization (each one according to the requests of the end user). The technical and management problems of an extremely complex production, have pushed the company to revolutionize the production process of the "finished worktops". This development project started two years ago, it involved since the beginning all the technical structure of Topstar and the technicians of IMA, that was recognized as a technologically state of the art and with well-known reliability company. The result is a fully automated production line for worktops, able to process on order up to a LS1 production and able to perform also the most difficult processing. A vertical storage for the rest management and a sorting device at the end of the plant help to solve the problems of the handling and management of materials with very high variability.

The solution in details

The worktops reach the plant on stacks and an automatic feeder fitted with several pick-up stations loads them into the plant. The worktops sawing occurs by means of a Schelling saw that performs both the cross-wise cut, for the lengthwise reduction, and the lengthwise cut, for the reduction in depth. Over a certain size the remnants are

handled by an automatic storage for rests that is connected to the plant and that reintegrates the remnants, when necessary. By means of a gantry, the worktops move into the edgebanding plant, consisting of a single sided size and edgebander type COMBIMA for LS1 fitted with an automatic panel feedback system. The worktop can perform from one up to four passes inside the edgebanding isle, depending on the processing that must be carried out. Then the worktops can move, depending on the required processing to the four parallel lines with IMA CNC machining centres. One of the four lines is also fitted with an edgebanding unit.

The complete system is controlled by IMA, thanks to the technology and to the proven experience of 3TEC, and is able to process approx. 1,000 finished worktops per shift. The new IMA plant has a high capacity and it is able to ensure a high panel finishing quality; it is also fully automated – and therefore Topstar requires a reduced management staff.

Topstar has certainly found in IMA a reliable and experienced partner for the development of such an ambitious project but also Ima has found in Topstar a customer open to new technologies and with an efficient internal organization and skilled staff.



Perfect finishing with AEK and edge thickness measurement

Technology for the perfect finish: The AEK unit with integrated profile scraper, jointly developed by the IMA innovation partners, produces a highly polished finish and ensures every workpiece leaving the production process has a consistently high quality. AEK stands for "Automatisch einstellbares Kombinationsaggregat" (automatically adjustable combination unit). A crucial prerequisite for

perfectly machined furniture parts is the angularity and dimensional accuracy of the original materials. Even the smallest deviations in the thickness of the edging material will affect the final appearance of the workpiece. Only by using an automatically adjustable combi adapter unit with edge thickness measurement can you ensure high-quality, process-reliable machining, with no need for any manual intervention. Milling into the protective surface or unsightly edge overhangs are avoided thanks to the unit's automatic corrections. The unit can be optionally fitted with the new scraper to create highly polished edge. After lasing, the profile scraper's special cutting geometry produces a polishing-ready surface that can then be cleaned and polished to produce the perfect finish. Once the radius has been milled, the surface is worked with a waxed polishing disc. Its oscillating movements ensure that the entire width of the disc is utilised. The workpiece is then cleaned in the same unit, and the result is the desired high polish on the edge, which now matches the rest of the material.

The edge thickness measurement integrated into the gluing unit is an optional feature. It measures the exact edge thickness before milling, and uses the results to produce an optimum milling contour. The data for this is automatically transmitted to the AEK unit, where it is processed to steer any necessary corrections. The data can also be saved for each specific workpiece, to ensure maximum repeat workpiece accuracy and quality, even with changing requirements. This technology makes unsightly edge overhangs a thing of the past – furniture parts could hardly have a more highly polished finish.

Impressive finish.

AEK



The new processing unit
AEK is available for:
– BIMA Gx50/60
– BIMA Px80

Powerful and compact



*Performance.*CUT for optimum cutting

The Performance.CUT, a smaller version of the BIMA Cutting Center, impressed the 300 or so visitors to REHAU's convention this year at IMA in Lübbecke as an ideal cutting machine with a small footprint. With it, semi-finished workpieces can be cut in any given order, in both industrial and artisanal applications. Remnants are reduced to a minimum. The result is the precision preparation of workpieces for further machining in throughfeed. IMA Performance.CUT has established itself as the ideal machine for routinely cutting 800 to 1400 pieces per shift. A parallel-edge cutter cuts each raw panel out of

a standard board quickly and efficiently. The automatic tool change magazine ensures changes are high speed.

In contrast to the nesting technique, with the Performance.CUT the original board is moved along the y-axis, while the cutter operates in the x- and z-directions. This confines the cutting area to a straight line. And, with this machine, the issue of chip and dust extraction has also been developed with the needs of the process in mind. The enclosed work area, coupled with simultaneous top and bottom extraction, signifi-

cantly reduces energy consumption. The machine's optimal usage of the boards makes it particularly economic with resources. The original board is guided using a number of claws that hold it along its back and down one side. The final cut that frees the semi-finished workpiece is always made with the piece stationary and firmly held in place. The individual pieces can be sorted, rotated and realigned using a handling unit. The Performance.CUT can be customised very precisely to the user's operational environment, automation level and output requirements.



"1st Service Day" at IMA Italia – an event with potential for the future

"Service through the ages" – around 50 customers and interested people discussed this main topic and informed themselves at the first "IMA Italia Service Day" in Bologna which took place in the middle of November 2013. Specifically the four key topics "availability", "quality", "speed" and "prices" for field support services aroused great interest among visitors. With the service specialists Wilfried Bordasch and Oliver Westerkamp from the maintenance, technology and production fields, two competent contact persons were available to the guests. Oliver Westerkamp explained the galloping change and developments of IMA field support services. "It is of particular importance to us to make IMA customers all over the world familiar with our field support services and moreover to use their

feedback for future developments", said Oliver Westerkamp. "In this process, it does not matter whether this is in the Lübbecke service centre, here at the Italian "Service Day" or in other countries where IMA is present. "Our goal is to provide our services all over the globe whenever they are needed." After the structure of the IMA Italia service organisation was presented, the participants had the possibility to experience the workflow of order processing and fast availability of spare parts in a live demo and to convince themselves of the frictionless procurement processes.

In a further practice-oriented presentation, the participants of the first "IMA Italia Service Day" learned about the IMA Service Platform 2.0 with all its advantages and its numerous applications. Service tickets were

created live on the internet, and the various functions of the Service Platform were explained. Another topic discussed on that day was the IMAWOP control system used in the field of machining centres.

The participants were soon aware that – apart from broad factual information provided – this workshop was a particularly good occasion to exchange views and experiences and to cultivate their contacts. "The positive response of the customers and the great interest in further discussion on the "Service" topic have led us to the decision to organize this event from now on probably every two years for all interested people and customers of IMA Italia", was the resumé of Wilfried Bordasch at the end of the day.

IMA
inter-
national



IMA Asia wins new orders for the asian furniture market

Use of the most advanced technology will provide competitive advantages for Yeh Brothers

"In a quality comparison, we clearly scored with our high-performance technology and the advantages it brings to customers", Burkhard Sydow, Managing Director of the company IMA Asia, expresses his satisfaction about the recent order from Yeh Brothers Malaysia. The Malaysian furniture manufacturer that produces office furniture, kitchen furniture and also school furniture for the Japanese and South-East Asian market ordered an edge processing line for flexible production from IMA, which will start operating in April 2014 in the newly erected production plant in the Malaysian town of Nusajaya. The products of the Malaysian

company hold a market share of almost 60 percent in Japan and make it one of the leading suppliers. On a production area of about 80,000 m² and a terrain of nearly 200,000 m², the company employs approx. 600 people who work in the furniture production as well as in the electrical components field. Yeh Brothers Malaysia currently achieves a turnover of approximately 120 million US dollars and, in accordance with its expansive policy, the company targets to raise its turnover to 200 million in the very near future. The new technology from IMA, which replaces previous equipment, shall help in this process. With the innovative IMA Laser Edging process including a high-gloss polishing station, Yeh Brothers is the only supplier on the Japanese and South-

East Asian market who has such an innovative technology. The high process security and reproducible quality of the panel processing installations from the East-Westphalian machine manufacturer IMA was an essential decision-making criterion for Yeh Brothers. "Today in Asia, the use of laser technology in the furniture production is immediately associated with the name IMA. Hence it is no wonder that the responsible persons at Yeh Brothers opted to buy IMA", Burkhard Sydow explains. Also Rüdiger Schliekmann, Managing Director of IMA in Lübbecke, is pleased with the positive development on the Asian market: "It is not only our technology and its advantages that convince the furniture manufacturers in Asia but also an extensive network of service centres and our strong on-site presence. This builds up trust in a business relationship over many years", the head of the company points out.

International Trade Fair participations

Current Trade Fairs at: www.ima.de/en/company/fairs/

IMA
LEADING TECHNOLOGIES



www.ima.de
Phone +49 5741 331-0



IMPRINT
iMagazin – the IMA magazine for customers

Editor:
IMA Klessmann GmbH
Holzbearbeitungssysteme,
Industriestr. 3, 32312 Lübbecke,
Germany
Responsible for the content:
Caroline Groneweg, Marketing,
Phone +49 5741 331-285
Fax +49 5741 331-420
caroline.groneweg@ima.de

Editorial Office:
bpö – Büro für Presse- und Öffentlichkeitsarbeit
Kommunikationsmanagement
Prof. Dr. Detlev Dirkers
Osnabrück, Germany
Phone +49 541 75099261
ddirkers@bpoe.de

Design:
Design: Buero Katja Nortmann, Petershagen
info@nortmann-web.de