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Dear Readers,

Success requires objectives. This is the only way to continually increase quality and service, and innovative ideas can only be translated into convincing products with clear objectives in mind. Our objectives are ambitious, but this is ex-actly what motivates us every day to constantly expand and optimise IMA’s range of products and services.

Not without good reason is the high-performance technology of IMA woodworking machines present on all world markets: besides many international projects, the largest single order IMA has so far received was successfully implemented in the form of a new production plant in Quanyou, China, at the beginning of this year. Here, high quality furniture is now being produced for the Asian region. Foliot Furniture company in the USA also relies on IMA technology – Made in Germany. In Las Vegas, a city with about 150,000 hotel rooms, the company produces furniture for hotels and dorm rooms. And there is also news from the Australian market: thanks to the cooperation with the Wood Tech Group, IMA is now also once again present on the entire continent – down under and offers sound advice and service in the area of furniture manufacturing.

You will find more information about these topics and other novelties at IMA on the following pages of the new IMagazine.

Your IMagazine editorial office

Everything in good time: “condition-based” maintenance

The new Maintenance Manager is a highly adaptive expert system

Conventional maintenance manuals assume a pre-defined period of use of the entire machine. However, they do not consider the fact that each machine component is exposed to individual stress. This is exactly where the new IMA Maintenance Manager comes into play with significant improvements. As a computer-based system it operates directly with the machine’s control system. The condition of the individual machine components is assessed by means of stroke and piece counters, position sensors, operating hour counters and measuring systems for the period of use. This data helps to adapt maintenance activities to actual requirements and to minimise the risk of downtime at the same time.

One particular innovative feature of the IMA Maintenance Manager is its high adaptivity: experiences and findings observed or measured by the operating staff are integrated into the specifications. Enhancements generated by IMA’s R & D department are also available online to all users of the Maintenance Manager. Problems detected during maintenance and control activities are documented in a clearly structured manner, so that the following shift or the repair staff is always quickly and comprehensively informed. The maintenance activities can thus be personalised depending on the complexity, quality requirements and workforce structure. The operating and maintenance staff or the IMA service called in can do their job in a problem-oriented way and much more efficiently.

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Contour trimming units provide top quality

For four years IMA contour trimming units have been a sweeping success

The contour trimming unit KFA x30 has become the standard unit in the luxury machine class. Not only has its futuristic appearance set new standards: its performance, so far unchallenged by any other manufacturer's approach, is even more impressive. The feed rates, doubled to traditional contour trimming units, are record-breaking and go hand in hand with a process reliability and repeatability so far unmatched. The KFA is a "must have" not only for machines with original equipment but also for older systems which are most frequently retrofitted with this component. Edge processing on Novimat and Combima machines has without a doubt been raised to a completely new quality level as a result.

Convincing technology

IMA has been treating unknown waters to find the perfect solution for this important operation: the result is not a standard X-Y-Z system but multi-joint kinematics with two linear drives for the combined movement of the milling tool in feed direction and vertical direction. The milling head with the milling motor rotates 360 degrees around the profile subjected to contour trimming. The tracing direction thus always points vertically towards the profile. The particularly large tracer wheel ensures minimum surface pressure and an even rolling movement. All adjustments between the four profiles in the milling tool and the single tracer wheel are made via the NC axes. The changeover to a different profile is now performed in the standard panel gap. As the milling motor is inclined towards the profile the cutting pressure is always geared to the workpiece. The milling result is excellent also with expanded profiles. The four profiles — chamfer and three radii — are positioned in a cylindrical tool of approx. 70 mm diameter.

Suitable for all performance ranges

The KFA x20 is used as a supplement to the high-performance unit KFA x30 in speed ranges up to 20 m/min. The more cost-effective unit thus covers the area of traditional, manually loaded machines. The same quality standard with contour milling operations is guaranteed, but two conventional drives instead of direct drives are responsible for the X movement.
The enhancement of IMAGIC presented at LIGNA 2011 is a modular machine type series assured of a good future. It is especially designed for efficient operation handling medium and large lot sizes. Its application areas range from local solutions with one or more flexible drilling machines for small lot sizes to interlinked machines with IMA products from the field of throughfeed, handling and transport technology for medium and large lot sizes.

IMAGIC drilling machines can be perfectly adapted to suit customised manufacturing processes. And they are compact and space-saving too. This is one good reason why an increasing number of industrial manufacturers of furniture for living areas, bedrooms, kitchens, bathrooms and offices now integrate the flexible drilling system into their in-house production processes. Over 30 units have been in use worldwide since the first machine was delivered in 2007.

With IMAGIC drilling technology IMA meets the demand for simple handling and a system offering all you need in the form of a “one-step solution”. IMAGIC drilling technology fulfills all the important tasks along the process chain from cutting of panels to size, throughfeed edge banding and handling to transport required for the subsequent assembly of the furniture.

The successful use of IMAGIC technology in the market is both an incentive and a challenge for IMA developers to continually enhance the system by introducing new features. IMAGIC drilling systems are designed for horizontal and vertical drilling of rectangular workpieces from the bottom and the top. The ideal machine configuration with alternating drilling gear units enables particularly economical drilling processes thanks to the high cycle rates. The IMAGIC is a machine offering high process reliability and high performance even in its standard version. IMA sees a great future potential for IMAGIC especially in project business. The company expects the number of machines in use to have doubled by 2014. What is also decisive in this context is the replacement of old drilling machines in existing systems by the new IMAGIC technology. This ensures considerable competitive advantages at low investment costs.

Individual features ensure competitive advantages
The system can be supplemented with numerous add-ons and thus be swiftly and easily adapted to different production conditions, whether set-up time reductions or performance enhancements. An overview is given below.
Features for more success:
- Extension to up to 7 machining supports operating from the bottom with alternating drilling gear units for the efficient production of drilling patterns
- Extension of machining options with drilling units operating from the top and horizontally saves workpiece cycles
- Motor-driven adjustment of the unit positions as an option for reducing set-up times
- Machines can be removed from the working area on floor rails for set-up. The edge banding machine can then continue to work while the drilling machine is being set up when the gap is closed with transports and components are produced without drill holes
- Design of machine, workpiece transport system and drilling units for double assignment for considerable increase in performance
- Individually adjustable special drilling gear units for very special drilling tasks

These extensive optimisation options enable the intelligent integration of drilling tasks into the corporate environment. Harmonised handling and transport components make the manufacture of components ready for assembly or packaging economical and efficient.

Reliable technology
To ensure optimum adaptation to the materials to be drilled, the drilling strokes are generated by servo drives, providing more flexibility and precision for drilling tasks. An integrated conveyor belt with extraction mechanism removes the drilling chips. Careful workpiece transport is effected on short, separately driven transport routes. This permits ideal machine utilization.

NEW – more reliability through drilling head detection via RFID
IMA uses drilling head detection based on RFID to prevent assignment errors. This also enables the recording of the periods of use of each drilling gear unit and the assignment of the spindles. RFID is an electronic system for dynamic storage and modification of data. It is inseparably connected to the drilling gear unit. Writing and reading are contactless.

NEW – the software is decisive for functionality and ease of use
Position recording of all drilling supports with feedback to the control system also provides for more safety. The data in the control system are compared to those entered during programming. ICS IMAGIC offers simple machine operation with operator guidance, workpiece programming and graphic presentation of the machining task on the screen. The workpiece-related settings can be accessed in the order and job list. It can be integrated into production line management systems.

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Well trained employees are the most valuable asset.

Start of a professional career for 20 young people

The fact that well-trained employees are an important foundation for success and competitiveness is nothing new to those responsible at IMA. Varied training options and good chances for a start into a responsible task within the company group make the traditional Lübeck-based company a popular employer in the region. With young people trained on-site the demographic change in the coming years can also be counterbalanced. “Our training concept is flexible and constantly adapted to current market demand”, explains Reinhard Spiker, responsible Human Resources Manager. In close cooperation with Bielefeld Polytechnic (Minden campus) IMA for the first time employed a trainee for the innovative (dual) BA course of studies in Industrial Engineering this year. Next year another dual course of studies will follow: ‘Bachelor of Arts in Business Administration’ with integrated training as industrial manager, which is offered in cooperation with a vocational school in Hertford. In total, IMA presently provides training in 13 jobs. “This variety is the reason why so many young people are interested in our company. As a manufacturer of highly complex technical machines and systems we depend on particularly competent technical staff”, continues Reinhard Spiker. “And the easiest way to obtain these people is to do the training ourselves.”

Accordingly, another 17 young men and 3 young women started their professional career with a sound training in commerce, administration and management on 1 September 2011. During their training, they will pass through numerous departments and can prepare themselves perfectly for their final examinations in theory and practice. For many this step is only the first step on the job ladder: IMA offers numerous upskilling programmes. Because the employees’ success is always also the company’s success. Those who seize these opportunities have many options at IMA to help contribute to the company’s success in a responsible position. IMA has for many years been closely cooperating with ZAM (Future Training in the Muehlenkreis District), and also this year two young men are training with IMA via ZAM for the profession of electronics engineer for technical equipment and installation.

Perfect timing: five production lines with a total of 11 machines have been successfully put into operation

This has so far been the largest single order IMA has ever received from the Middle Kingdom. In autumn 2010, one of the biggest Chinese furniture manufacturers, Chengdu QuanU Furniture C. Ltd., ordered five production lines with a total of eleven machining units. Four of these production units are pure high-performance lines with a feed rate of 80 metres per minute. In addition, a narrow parts line for small workpieces was installed and drilling machine technology specially developed for the Asian market used. As the largest manufacturer of home furniture in the Asian region it was particularly important for QuanU to automate further process steps and to be able to manufacture products in line with European quality standards based on the innovative IMA technology. QuanU manufactures furniture in China on a production area covering more than one million square metres in total.

“Process reliability and reproducible quality are now of similar importance in China as in Europe or the USA”, comments IMA’s CEO Rüdiger Schliekmann. The Chinese market has become an important part of IMA’s business operations. IMA has been active in China since 1998, and in 2009 an individual sales organisation was founded which has ever since shown a continual growth in employees. The key market of Asia is easy to cater to strategically from the locations of Changzhou and Singapore. The rising standard of living and economic growth in countries like China not only boost the production of furniture but also cause the requirements on quality and design to increase accordingly. Here, IMA was able to win the confidence of its Chinese partners through the intensive development of new technologies and the expansion of sales and support services.
Largest single order from China: QuanU Furniture now works with IMA high-tech technology

Successful cooperation: the management of QuanU and IMA with Rödiger Schülekmann as well as the employees are perfectly content with the performance of the new production facility.

High speed mass production with drilling machine consisting of:
- IMA GIC drilling machine
- 2 Combina-lines for production of narrow parts
- 2 Combina-lines for production of carcass components
- 1 Combina-line for production of fronts inclusive IMA Handling and Transport systems
IMA America: Foliot Furniture builds new production plant in Las Vegas

The new production plant in the centre of the well-known gambling city of Las Vegas and only a few metres away from the famous Las Vegas strip covers about 40,000 square metres and is thus the biggest furniture plant opened in the western USA in recent years. Foliot has ambitious plans: the team of currently 75 employees will very soon be expanded to 135. Foliot is specialising in the manufacturing of hotel furniture and has good business connections with the most important hotels in Las Vegas and Reno, Nevada. There is a total of over 150,000 hotel beds in these locations. But hotels in other cities along the west coast of the USA are also among the company’s customers. Another business area is the production of furniture for universities and dorm rooms and the furnishing of government buildings. These must, as experience has shown, be durable and robust. And this is why Foliot Furniture uses state-of-the-art technology ‘Made in Germany’ developed by IMA in Lübbecke.

“Among other things, Foliot Furniture uses three fully automated Novimat machines, two of which are equipped with KFA units”, says Peter Tuenker, Managing Director for IMA America. Moreover, a BIMA 400 Y and a BIMA 200 have been put into operation. For Foliot Furniture, automation, flexibility and the reliability of the machines were essential factors governing their decision to use IMA technology. The sawing technology was provided by IMA’s partner company Schelling America. The specialist for panel cutting technology contributed a Schelling saw PHS-Optiplus and an FH4 Auto. Foliot Furniture, whose corporate offices are in Quebec in Canada, operates another US production plant in Newport, Tennessee. IMA and Schelling technology has also been successfully used in these two plants for many years. The managers of Foliot Furniture’s new production plant in Las Vegas are very positive about the future: even if no new hotels open up for the time being, a market with 150,000 hotel beds in one city alone is a good potential which the company can tap in the long term.

IMA “down under” – cooperation with Wood Tech Group started

Thanks to its cooperation with the Wood Tech Group, IMA is now once again present “down under” and offers sound consultation and service in the area of furniture manufacturing. The new cooperation with the Wood Tech Group and the operational collaboration have already started. The Wood Tech Group is one of the largest independent Australian sales and service specialists which have specialised in CNC machines and systems for the Australian industry. Besides machining systems for wood, the Wood Tech Group also deals with machines for the processing of plastics, marble, granite and glass.

On the basis of a shared concept, know-how from Lübbecke, competent support from IMA’s Asia subsidiary and in-depth knowledge of the Wood Tech sales and service teams the managers of IMA see a significant market potential for the years to come. With five locations over the entire Australian continent the new IMA partner has an excellent market overview and can offer customer proximity and fast, local service for maintenance work and qualified consultation for investment projects. Wood Tech has its own showrooms and is represented all over Australia through trade fair presentations and strategic advertising campaigns. Wood Tech has been present “down under” since the beginning of the 1990s.

International Trade Fair participations

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