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**A top player in terms of windows and facades.**  
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Editorial

## Coalitions

Dear business friends and customers,

As a proven part of politics, coalitions are often formed to satisfy the will of the electorate. This is often seen as a green light, so that political power can be maintained. However, voters often feel that they are not taken seriously - this can be a fatal mistake for politicians. Whatever the outcome, political stalemate or regression can result. We at Hoffmann take the responses of our customers very seriously! That's why from the start we develop a close relationship to enhance cooperation with them and realize their ideas and wishes. Our machines are unique and fulfill their intended purpose perfectly. Experience tells us that daily tasks and problems can be solved when new ideas are meticulously implemented into machine design. Success is assured when customers and manufacturers cooperate with each other and their expectations can be realized. The brand new routing machine MU-3 is a downright prime example of this. When working with the previous model (our basic routing machine MU-2) our customers have often offered new ideas and tips for improvements. After all, this model has been in service successfully for over a quarter of a century.

Many suggestions were made and many have now been implemented in the new MU-3. This new model was introduced to the market at the LIGNA 2017 exhibition. It is a beautiful example of this important "coalition with customers". This new machine is both ergonomic and user-friendly and the pinnacle of design. It is offered in four variants.

Read more of this under the heading "Take off with new wings".



Thomas Hoffmann    Martin Hoffmann  
Managing Directors of Hoffmann GmbH Maschinenbau

Title story



## Take off with new Wings

The double-dovetail-key, discovered centuries ago by the Egyptians, was rejuvenated by Hoffmann for 21st century industrial applications and remains unchanged. But due to increasing demands from cabinet makers, joiners and woodworking manufacturers the routing machine MU-2 has moved up a generation.

**We were at the launch of the "New Generation Hoffmann MU-3"**

From jointing frames and mullions, door-sets and architraves, vision panels and bolection mouldings right up to post and beam construction : The Hoffmann Key has extended its application steadily over the past 25 years. To satisfy the various requirements of broad spectrum of the woodworking industry, the third generation of the proven routing machine is available in four variants (see pictures). Work-piece extension supports (bespoke length) are available for all MU-3 variants to ensure



**Better Equipped:**  
The base casting of the new MU-3 has a curved front with side attachments for the support tables for easy routing of long or heavy work-pieces.

**BM-Editor Marc Hildebrand at the work station.**  
**Conclusion:**  
The components were routed precisely and with a high quality finish. The mechanical action of the machine was smooth and accurate.



**Options of visual scale or digital positioning and laser line:** The routing position or depth can be determined and adjusted by a visual scale or digital display. Using the laser, the operator can determine the position from a pencil line.



**Brand new classic: Relaunch of the MU-2 router for Hoffmann Keys**

faster and accurate positioning of long or heavy work-pieces. The ergonomic design provides a comfortable work-station for the operator, with additional equipment for easy production.

- > The digital 2-axis display (MU-3 D). These position the routing height and centre fence. This allows repeated accuracy of the keyway positions and allows many operators to use the same machine. Repetitive production can be made with consistent accuracy.
- > A sensitive vernier, is now used for fine horizontal adjustment of the router bit and hence to the tension of the finished joint. Tool changing is faster, reliable and accurate.
- > The range of fences and accessories (which are still compatible with the MU-2) covers almost all possible applications and can therefore make huge time savings.

**Versatile, with a proven track record**

The routing process for the Hoffmann Dovetail Key connection remains unchanged. Adjust the centre fence plate and position the work-piece. The operator draws the hand lever down to clamp the work-piece. Further pressure on the handle starts the motor and raises the router to the pre-set depth. The handle is returned, the motor stops and the work-piece released.

Finished. This process can also be pneumatically operated. A foot-pedal starts and stops the process (MU3P) and can increase production. The top of the range machine with all features is the MU 3-PD for work-piece heights up to 140mm or increased height up to 170mm with router depth adjustment up to 95mm. The price of the base variant MU-3 at its launch in June 2017 is kept below the magical 2000 euro figure. It is a little more than its predecessor MU-2. BM editor Marc Hildebrand



**For each application a fence stop:** "In practice 95% of applications are accommodated with the appropriate fence system". This has been the experience of managing directors Martin and Thomas Hoffmann.

**Adjustment after tool change made easy:**  
The fine setting of the router with the aid of the vernier adjuster means that the tension of the Hoffmann key will be standard on all joints.



One particular example is the Cornice Profile support fences. Further practical variations can be found on the BM online photo gallery.

Impulse

## Successful People

What exactly will your next project be? How would you like to optimize your workflow ? Are you thinking about purchasing a new machine or maybe even building a new workshop? I find it interesting that such projects are often about harmonizing technology and human factors.

But one does not work without the other. Depending on the project this can of course impact itself in different ways. So even if you are enthusiastic about technology, remember too the inherent skills of your employees. Disregarding their role runs the risk of the total collapse of your investment. Including the workforce in preliminary considerations is as important and appropriate as in the implementation of the machine itself into service. Not only does this offer you the unique opportunity to introduce new ideas but also to motivate your workforce. Rather, it will perhaps inspire the most important building blocks of success: By recognizing the



Christian Nardemann  
BM-Chefredakteur  
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relationship between the employees and the company in which they spend much of their time. When they experience appreciation and feel valued, they will work well and creatively.

Another element of success is the working relationship between employees ... a strong personal network... Whether with cabinetmakers, their colleagues or professionals.

Engineering

# A Top-Player in terms of Windows and facades

If there would be a kind of Champions League title for window and facade manufacturers, then the firm Sehlmann Fensterbau GmbH would certainly be a hot candidate. The third generation family business based in Hamburg offers a diverse and wide range of top quality wooden windows, wood / metal composite structures and doors in all sizes. Playing in the premier league is based on complete machining of the window and door parts with fully automatic equipment. Using one fully automatic CNC machining center with specifically designed machine techniques as well as unique features plays a dominant role. A combined special double miter saw with routing facilities for glazing-bead-frame construction completes the automated process.

**Automatic complete processing**  
Managing director Jan Sehlmann describing today's role of the window Company "We are characterized as been active everywhere, where there is something beautiful to be made, something safer, quieter, warmer or in a listed building". From the energy saving window to the passive house or standards on burglar-resistant elements up to RC 3 as well as soundproof windows up to 49 dB and wheelchair accessibility. Practically anything is possible. Whether chic profiled historic windows or motor-driven, bullet-resistant lift /



sliding doors. The wood / metal variants, account for about 50% share of sales and are in 18 different systems which we offer. The sashes and the glazing beads are also in various choices. The fully automatic, complete machining of window and door parts are made with a CNC-controlled machining center. In addition to this we have a Hoffmann Double Miter Saw with routing facility. The MX-2 Hoffmann Machine is used for the mitred corner joints and is a specialist in glazing bead frame construction. This too is a generally flexible machine. With this machine combination the glazing bead profiles can even be manufactured as single items or in bar lengths but with coded defined cross-section. Using an electronic measuring device the



glazing bead dimensions are transferred by signal to the saw. The profiles are then cut in pairs (upright / transverse) with mitred ends to an accuracy of 5/100 mm. The keyway slots are then immediately routed for the secure jointing of the corner with Hoffmann Keys. All machine processes are made simultaneously on each end of the profiles. The glazing bead cassette frame is then fixed in the sash with special clips and then handed over for final finishing. Compared to the previous method of production this gives an absolutely tolerance-free, clean corner joint. In addition, the subsequent glazing times are noticeably reduced. In the same way in-fill frames and other applications can be cleanly and accurately made.

**The Sehlmann Fensterbau GmbH**  
The Sehlmann Fensterbau GmbH company is a classic window manufacturer who is mainly active in the metropolitan area of Hamburg. They also embark upon larger project nationwide. As a company they plan, manufacture and install both individual windows as well a



The glazing beads arrive in bar length and are coded according to cross-section. They are cut to length with mitres on the MX-2 to an accuracy of 5/100mm and each end processed for jointing with Hoffmann keys for a secure corner joint.

elements for larger projects. Their clients include architects, building cooperatives, property developers, construction companies, the public and private customers. As manufacturers they offer a wide range of products in wood and wood / metal windows and doors in depths 68, 80 und 92 mm. About 20 percent of the business goes into building industry via trading partners and distributed into the region. The company provides these partners with the elements and active support during installation.



...immediately afterwards the coating can be applied

News

# Rational Efficient

Intelligent manufacturing concepts are undoubtedly the dominant theme of our time. "Lean Processing" include the whole process of administration and tracking. Therefore our NC-controlled multi-axis machines which are individually configured according to customers' specifications become part of this consideration.

All machine variants for sawing, drilling and routing eg. the multi-axis machining center MX-5 NC, the automatic routing and drilling machine PP-2-NC, as well as the machining center FlexControl, can be integrated in the company's own network for control and / or via router, modem and barcode reader (QR). In-



Barcodeleser (QR) zur automatischen Positionierung der Werkstücke sowie der Bearbeitungsaggregate



The axis controlled Double miter saw / router Plant has far-reaching efficiency as well highest flexibility

cluding fault finding and service.

The latest example of a "Lean processing" is the advanced functions on our combination double miter saw / router MS-35 SF. This machine variant is dedicated to the simultaneous production of two mitred corners at precise 45° with tear-free cut edges for accurate structural connections in corners of frames and inserts.

The axis controlled system is designed for maximum efficiency and total flexibility. That means: individually designed and constructed in-feed magazines which are adapted to the procedures automatic positioning

which adjusts to the the workpieces, automatic sawing and routing processes as well as process monitoring and stacking when the process is complete.

This means, minimal demands on the machine operation, no stress for the operator and the security of a faultless production system without rejects or further working (TQM management).

Increasingly we are requested to process diverse wood materials - more and more often we receive thermoplastic, thermoset and elastomer materials - for example, in mirror frames - as well as increasingly popular wood polymers (WPC). The WPC composites are of-



The machining centre Flexcontrol can be controlled over the company network

ten used as an alternative to tropical woods and domestic solid wood including exterior use.

Our NC and CNC controlled machines are designed for processing these materials and are configured according to their specific characteristics and also according to customers' specifications.

Colleague

# A woodworker at heart

Growing up in a family of woodworkers, Markus J. Hueber remembers his grandfather drawing and cutting little 3" tall animal figures for him on a bandsaw; he considers this his introduction to woodworking. After finishing school he followed in his father's footsteps, learning the trade of glazier and window-maker through a three-year apprenticeship in the family business and after a few years of working in different glazing companies, he capped off his vocational training by passing the Masters Exam in Karlsruhe, Germany. After moving to the US, he worked for different US companies producing European style tilt-turn windows and he joined Hoffmann as General Manager in 1995. Back then, the company consisted of a secretary and him working out of small office/warehouse in central Long Island. Not long after taking the helm, the company grew, adding distributors and customers and participating in trade shows across the US and Canada. This helped make the Hoffmann Dovetail Joining System a well-known, trusted and widely accepted method of joining wood in a wide range of applications, in daily use in woodworking shops nationwide. Customers range from smaller woodworking shops to large architectural millwork operations all the way to furniture factories. The most intriguing, however, are the interesting niche operations: cigar humidors and display boxes, custom picture framers all the way to coffered ceiling inserts and even full-sized caskets are some of the diverse applications that benefit



from joinery with Hoffmann Dovetail Keys. In 2005, the company relocated from Long Island to western North Carolina, more than doubling the operation by adding personnel, warehouse and office space along with a showroom and workshop. No venture can be thought of as a success without acknowledging the team members who helped make this possible: Gary Kaufmann has been Markus' right-hand man and close friend for over fifteen years. He is his untiring Sales Manager who always has a funny story or quick idea to help a customer out of a bind. Kim Johnston, the Office Manager, has been with the company for 13 years. Her dedication to the success is second to none and she keeps "the boys" in line. Ben Nesbitt, the shipping and receiving clerk, is closing in on five years and he knows exactly where every box of Keys and every spare part is located. He makes sure shipments go out on time, every time. Lauren Buzze is the most recent addition to the team, she joined the company only one month ago as Social Media Strategist and has already proving her worth in getting the Facebook, Instagram, LinkedIn and YouTube presence up to par.

Customers

# Wood meets machine

**"Highest quality in professional woodworking" - that's the principle for Osmo Holz and Color GmbH & Co. KG. They are one of the leading manufacturer and supplier of modern wood finished products for individual design of living and garden areas.**

Outdoor products are a speciality - in addition to façade systems, terraces, screens and fences, posts and accessories - We use exclusively selected woods following a strict quality criteria. The same properties and characteristics also apply in the garden wood products themselves, in particular in the production of screens.

When the machining centre, previously used in this area, was taken out of service, its replacement became the responsibility of technical manager Thorsten Foth. He requested a "flexible machine which was quick, easily set up even on small batches".

He was looking for a specific solution.

The result: an NC-controlled Double Miter Saw MX from Hoffmann GmbH Maschinenbau.



Typical Osmo product: Screen elements for the garden



By calling up the article number, length and angle are automatically set

Products

# New & Brilliant

Since the introduction of sealed double glazing units, the aesthetic appearance of multi paned wooden windows has been compromised. One option was to install numerous individual sealed units into a traditionally constructed multi paned Georgian-style window. The alternative was to fabricate a window with a full size double glazed unit, then construct a grid to represent the numerous small panes in the Georgian-style and plant this grid on the glass with a dedicated type of adhesive tape. This alternative method is still cost effective compared with installing individual sealed units, as all joints can be made with counter profiled ends.



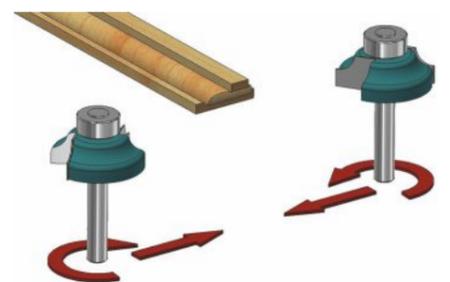
The Hoffmann CB-M is a dedicated machine for this process. It is a bench-top model for routing the ends of the profiled glazing bars. Using opposing direction router motors it produces a counter profile cut without breakout on either side of the profile.



The machine is supplied without tooling, as each customer will have his own particular profiles. Fitted with variable speed motors it enables the optimum working speed to be selected for each wood species and therefore the quality of cut.



Opposing routers - left / right to customers specification



Schematic view Function: bar / cutter left and right / with 2 routing motors

**A better solution: The new Hoffmann counter profiling machine CB-M optimum performance for every glazing bar profile.**

The specification of this machine fitted exactly the requirements and ideas of Osmo for mitring and trimming galzing beads made of solid wood.

The special challenge: both Saw units must work simultaneously for the left and right. They must cut parallel and exactly to the given fixed length at the push of a button on the operators control panel automatically. The machine must also mitre cut from -45 ° to + 45 ° and 90 ° butt joints. Likewise the frequently occurring combination mitre cut - / + on one side and 90° butt joint on the opposite end. This requires absolute precision and repeatable accuracy. Even smaller dimensions can be achieved and reliably cut to length with the standard short-cut device.

As a result production changes are quick and set-up times limited to the profile material changes.

All machines cycles and processes of the double mitre chop saws are controlled via a 10.4" touch screen panel. All the relevant parameters are entered, stored and retrieved from this panel. The input or the memory recall for each numbered article includes the cut length measurement and the angles settings for each end of the profile.

The 999 memory slots have sufficient capacities for future or additional developments thanks to the high quality precision and longevity of the machine. This guarantees optimum reliability and repeatable accuracy in the long run.

Thus, the new double miter saw corresponds completely with the requirements and concepts

of the customer because it is quickly set up and altered and is easily adapted to suit the work required.

The production of cassettes for screens has become so more flexible and noticeably more efficient.



Screen system Rondo finished in white opaque



Cutting and coping vision panels from solid wood...



Both saw units for the left and right cuts, parallel and exactly to the specified length dimension are automatically adjusted at the push of a button on the control panel.

Exhibitions

# National and international

Fairs and exhibitions - national and international - have always been important mainstay for Hoffmann GmbH Maschinenbau. Here we experience personal contact with our customers and partners all over the world. It gives us the opportunity to present our products "close up" and our customers to "touch and try". We are constantly attending several national and international events.

**Ligna**

Hannover/Deutschland  
22.-26.05.2017



**The absolute top of the tree in world fairs. > The must have for the industry!**

Customers, (prospective and existing), dealers and the specialist trade - in short, the entire cross section of the woodwork industry - met again in 2017 in Hannover. Lots of enquiries and positive feed-back as well as several contracts. The end result of this 5-day event - great. We are looking forward to 2019!

**AWF 2017 Woodworking Equipment and Technology**

Las Vegas / USA /  
17.-20.07.2017



**What a place!**

A woodworking fair that you wouldn't initially expect to find in Las Vegas. It has an ambi-

ence that you must experience. Not that's the only reason why the AWFS was attended by so many good-humored visitors. Even the "business" was good. In short, we at Hoffmann are very satisfied.

**Build+Decor 2017**

Beijing / China / 10.-13.03.2017

We attended the 4 day Beijing show with our partner Xuang Ling Zhu and his team. We displayed and demonstrated the latest Hoffmann special machines as well as the proven Hoffmann saw, routing, drilling machines. China is now one of our most important trading partners and the Hoffmann jointing system is establishing itself in the woodwork industry there.

**WOOD EXPO 2017**



Shanghai / China / 11.-14.09.2017

The Fair Build + Decor show in Shanghai is the natural follow on to the Beijing show. The focus on this exhibition was the door, window and furniture industry. The entire range of woodworking machines was there to see - Hoffmann machines were right in the middle!



**WOOD 2017**



Jyväskylä / Finland / 05.-08.09.2017

In the land of 187,000 lakes and vast forests, this is the home of woodworking, so to speak. With our partner AWUTEK we presented our current innovation, the bench-top routing machine MU 3 with its wide range of accessories. The Trade fair orders and many good and new contacts contributed to the success of this event.

**Expobois 2017**



Paris / Frankreich / 06.-10.11.2017

**Ein optimaler Messeplatz – Paris!**

A perfect exhibition centre - Paris! The Batimat, the fair for the woodworking and wood skills, was an ideal platform for us to present our new and innovative solutions to the industry. In addition an excellent opportunity to meet with our customers to talk about "the world of wood".

**FramaArt Bologna**

Bologna / Italien  
01.-03.03.2107



The trade fair for picture frame manufacturing in Italy was par excellence. With our partner Luigi Ferrari we presented and demonstrated to the visitors our double miter saw and routing machine "MS 35 SF" as well as our new MU 3. When it comes down to precision and accuracy, the Hoffmann Key is the perfect solution for frame making in Italy.

**Preview 2018 - Holz-Handwerk**



Nürnberg / Deutschland 22.-24..03.2018

**Nürnberg is not only known for Lebkuchen and Grilled Sausages – But in particular for the exhibition - „Holz-Handwerk“!**

Many, if not 100% of the trade visitors say of this show "good location, competent exhibitors and a good hall layout". This makes this exhibition the "highlight event of 2018" for manufacturers and customers alike. We will be glad to welcome you too to Nürnberg! You'll find us in Hall 9 on our regular stand next to the Cafeteria. You may be curious with what we have on display.

Dovetail Keys

# W-0 – The latest key size SMALL in size but HUGE in application

The world of woodworking is demanding finer and more delicate profiles. The finer details are the highlights of modern times and design!

The profiles are finer and more discreet, especially in the field of furniture and interior design. But that means, the machining processes for these work-pieces will be much more difficult - or a corner joint almost impossible...until the new Hoffmann Key arrived.



**Hoffmann have responded!**

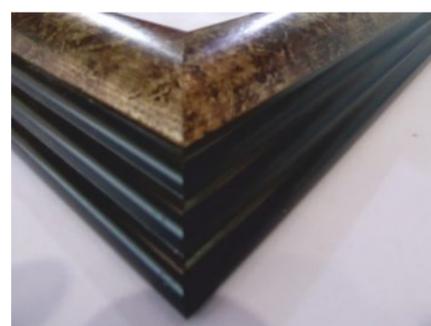
The new Hoffmann Key W-0, is appr. 1/3 smaller than our already legendary and proven key size W-1. It now opens a completely new field of application throughout the woodworking industry. With a cross sectional size of just 3.3mm x 4.4mm it will draw together even the

smallest of frame profiles with startling strength. Using multiple keys, extremely narrow and very high profiles can be joined.

**The new W-0 Hoffmann keys will be available in January 2018 in lengths of 10, 22 und 35mm.**

Hoffmann Keys - synonymous for secure connections – "We're found in the best joints" are now available in 5 standard sizes in terms of cross section.

Within each cross sectional size, different lengths are available. Thus, for each application, the best possible secure strength is established, to correspond with the expected tension or pressure loads on a joint and hence is totally reliable!



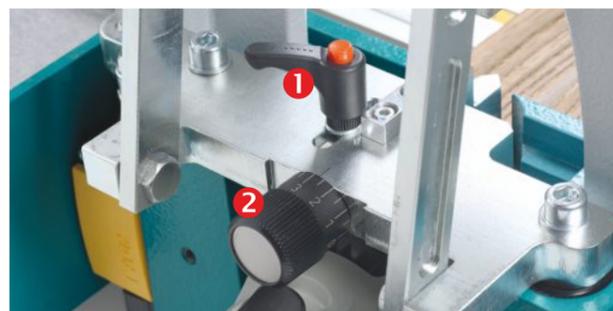
Picture of a "filigree" frame corner with key

Tips + Tricks

## NEW NEW NEW

**Details of the motor / router fine adjustment on the new bench-top routing machine MU 3.**

When changing a router bit, it is exchanged in the chuck collet. Make this according to operators instruction manual. The motor is - as usual - inserted into the carriage, and the cutter tip is set against the setting tool (butt stop). The motor carriage is now tightened (not too hard!) using the allen key.



**Important:**

**Do not overtighten this allen screw**

After a trial routing, the motor can finely adjusted axially in very small steps:

- > Gently loosen the lever-lock (1) on the top of the motor carriage.
- > The motor/router unit can be finely adjusted in or out in 1/10ths of a millimeter by turning the knurled wheel (2).
- > Turning the wheel left, moves the dovetail router away from the operator (= reduces the tensional strength of the key). By turning the wheel to the right this increases the depth of the router (increases the tensional strength of the Key).

- > Thus, even the smallest amounts can be applied to the adjustment of the router and hence the joint strength.
- > When satisfied with the setting, the lever lock must be tightened again..

- 1. Lever lock handle
- 2. Knurled wheel

## Imprint

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