

Furniture and Manufacturing Technologies

IULY - AUGUST | 2016 | Vol. 26 • No. 2

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SPECIAL FOCUS

COATING & FINISHING: UV HOT-MELTS, POLYMER LAMINATES, ETC.

FEATURE

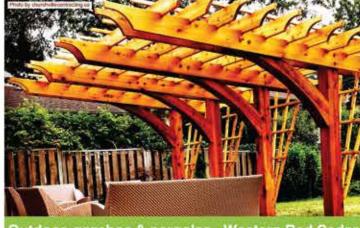
A REVOLUTIONARY CUT (CENTRE) ABOVE CNC ROUTERS

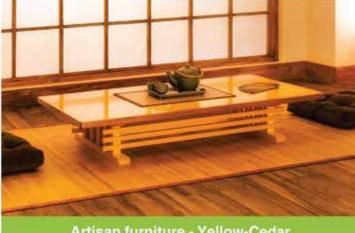
LEITZ INDIA IS READY FOR 'INDUSTRY 4.0' P 22



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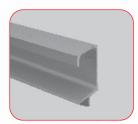
Lightings



Sliding Systems



Aluminium Cabinets



Aluminium Profiles



Drawer Systems



Waste Bins

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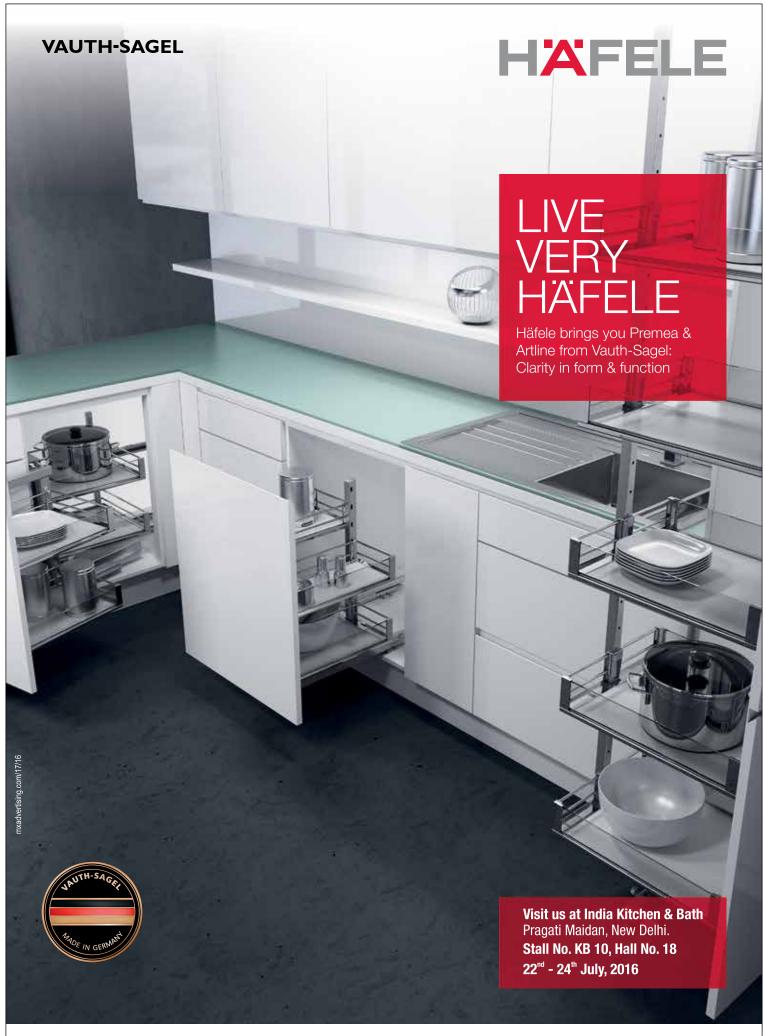




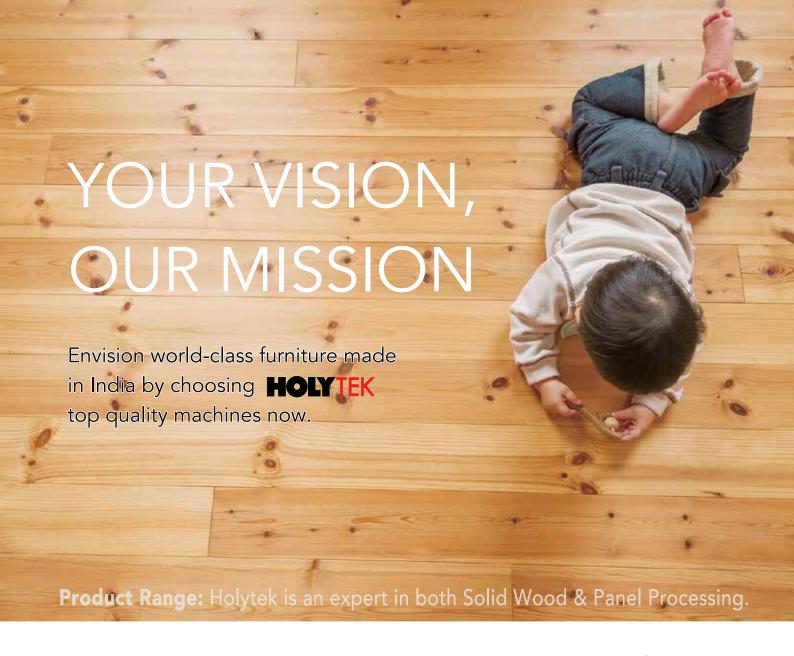


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WOODNEWS JULY - AUGUST 2016



Quality doors opening up in India







Intelligent machines to revolutionise manufacturing





Would transparent wood replace glass?



COVER STORY

Leitz India is ready for Industry 4.0



SPECIAL FOCUS **Coatings & Finishing:**

Henkel's recipe for glossy, strong furniture

Pankaj Chandak, M.D. of Prestige Interio, demystifies polymer laminates

Italy's EVI has coatings for all applications



REVIEW

Canadian Wood casts spell on Goa architects

Xylexpo 2016: 'Show up' with the big boys in Italy

Italians have an eye on India market

CNC machines steal the show at WMF 2016



PREVIEW

Complementary products line up for DelhiWood 2017



Focus on design at Shanghai furniture fair



LEADER SPEAK **Govind Assudani**

Soon India can be point of reference in Asia



INTERVIEW

For Yow Cherng, client satisfaction is top priority



EDUCATION

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ENVIRONMENT

Evertree branching out into health-friendly options



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NOTES & **NEWS**

Altem, AHEC, AkzoNobel, Brexit, Cefla and more



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EUTR aims to block illegal timber trade





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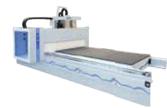












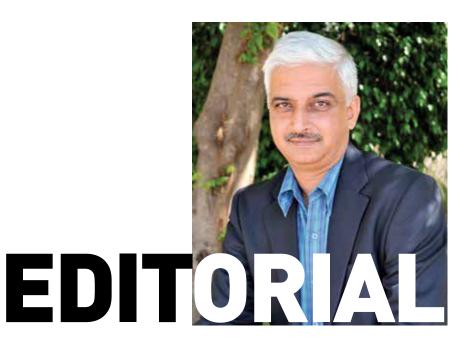
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E-commerce (err)evolution

Dear Readers,

Like I was hoping, it has happened sooner than later: the shift from pure online furniture buys to a combination of online baiting, real-life experience and finally the decision to select and spend. E-commerce portals dealing in furniture – be they dedicated to it or feature furniture among thousands of other products – are realising that big-ticket spending cannot happen exclusively in the virtual realm, and that touch-and-feel needs to be incorporated in the selling process. Pepperfry, for example, recently launched its 8th studio in the country in Hyderabad, and plans to add another 10 during the current fiscal. Apart from Paytm, Snapdeal and Flipkart, this offline-to-online (and vice versa) strategy has also found favour with CapriCoast, FabFurnish and Zopper.

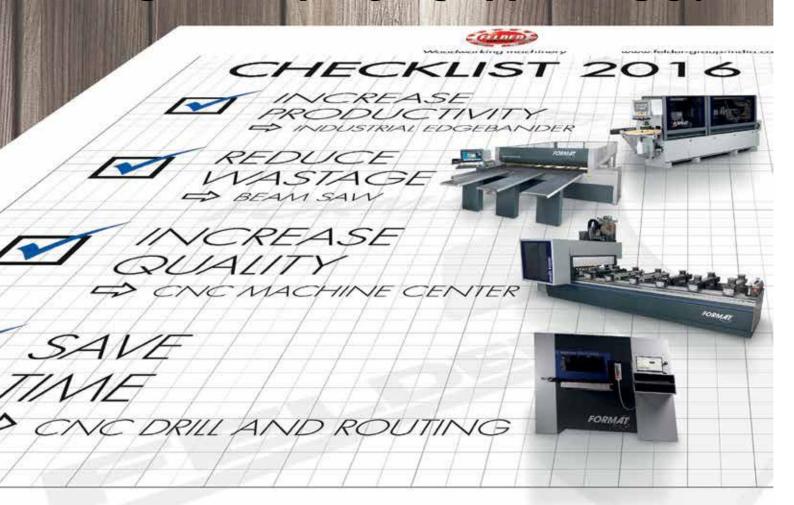
Bangalore-based Urban Ladder is experimenting with a similar concept, dubbed Urban Interiors. What is good is that, in the adoption of the online-offline marketing mix, all players stand to profit: the buyer knows for sure what s/he is spending on; the owners of "experience studios" or retail stores earn from rentals; the online platforms are able to convert calls into commerce; and furniture manufacturers see their speciality products meet the relevant market. What is more, the experience centres are free to market complementary products such as furnishings, accessories, fittings and bed-and-bath necessities.

Indian consumers these days are highly discerning and exacting when it comes to the decor and design of their domestic and corporate spaces. Enter Virtual Reality! The online players have also realised that furniture alone won't sell. Veterans in the business and start-ups alike are now offering free consultation for interior design and furnishing, a "360-degree" solution to consumer aspirations and market's demands. A new entrant, Houssup aspires to be an end-to-end interior decor solutions platform, providing a comprehensive design demonstration to help customers visualise their homes, employing high-tech virtual reality gadgets that render high-quality graphics of the design selected by the customer. As tools of relevance, mobile apps are not far behind – capable of creating virtual rooms with choices of wall colours, floor materials, doors, etc. – to help users make their choice.

In its latest analysis of global construction markets, US-based professional services consultancy Procorre has identified five construction 'hot-spots' that will drive demand for specialist contractors over the next few years. The company, which manages the life cycle of construction projects across the world, has found that emerging markets such as India, Mexico, Qatar and Egypt are now hotbeds of investment, project launches and better infrastructure. The Indian construction market is predicted to be in excess of US\$ 600 billion by the year 2020. It is expected to be the world's third-largest construction market by the year 2030, fuelled largely by plans to build 170 million new homes over the next decade. These developments offer vast scope for the furniture manufacturing sector to invest, upgrade, mechanise, scale up, standardise and reap the rewards!



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Fevicol Hotmelt AMT Transparent (unfilled) & Fevicol Hotmelt AMT Clear (filled) are ethylene vinyl acetate (EVA) based thermoplastic adhesives recommended for throughfeed edge banders. They can be used with PVC, PP,ABS,veneer,polyester or melamine resin edge bands. Fevicol Hotmelt 382 (filled) Fevicol Hotmelt MNL Clear(filled) & Fevicol Hotmelt MNL Transparent (unfilled) are specially designed for manual edge banding machines. It can be used to apply PVC, HPL,ABS or solid wood onto MDF or particle board.



Fevicol SWR Range

Specially designed for the handicraft industry, this Polyvinyl Acetate based white adhesive meets the DIN EN 204 Stress Group D3 Standard. It is suitable for all types of wood working applications and provides very high water resistance and excellent bonding in lamination with all grades of wood, even in high humidity areas. Fevicol SWR Plus is specially designed for application in cold weather conditions. SWR EQ has even better cold weather performance and can achieve D4 standard by adding 5% isocyanate. SWR LV has very low viscosity. All are non-flammable and non-toxic with REACH Compliance, Low VOC (Volatile Organic Compound) Certification and Free Formaldehyde Certification.

Fevicol Probond

This water/synthetic resin based emulsion adhesive is suitable for lamination of primer coated PVC sheet to MDF. It is also used for manual edge banding of primer coated PVC Strip to MDF, particleboard, ply etc. without using

ply etc without using any edgebanding machine, making it highly economical. It has excellent bonding compared to solvent based adhesives, as well as high heat resistance, easy applicability and low VOC



Fevicol SH

The classic PVC white glue for wood to wood bonding features unsurpassed bonding strength, good resistance to water and heat, higher coverage and good value for money. It is not only a leading brand in India, but also the most successful brand in the world in this segment, being exported to over 50 countries.



Fevicol SP Range

This range of sprayable, synthetic rubber based solvent borne contact adhesives can permanently bond painted steel, plywood, chipboard, PU foam, muslin, foam rubber, felt, fabric, leather or many other materials. SP-4 is the basic version. SP-5 is specially designed for the automotive industry and is also used to make writing boards using honeycomb cardboard and white laminates. SP-6 also has high heat resistance.

Membrane Press Range

Fevicol Membrane PU is a solvent based polyurethane contact adhesive used to bond PVC foil to MDF, plywood or other materials. It is ideal for door manufacturing, with low activation temperature, fast



drying time and good bond strength.

Fevicol Membrane Press Star 2K is a twocomponent water based synthetic adhesive used to bond PVC film laminate to wood based panels in the modular furniture, modular kitchen and doors industries. It has excellent heat resistance, low activation temperature and high green tack. It is non toxic and non flammable.

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Press Adhesive LC is a
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applications in PVC
moulded doors. The
unique formulation
ensures high green
tack resulting in strong



bonds on difficult substrates. The product does not release any harmful emission and is safe for users with no adverse effect on the environment.

The product can be easily applied using an air compressed spray gun. Its distinctive features ensure effective deposition on the substrate resulting in higher coverage. Since the adhesive is water based the spray gun can be cleaned with tap water. When used with 5% Membrane Press Hardener the heat & water resistance properties improve vastly. This product bonds PVC to most of the wood substrates like MDF, particle board etc. The mixture with hardener has a pot life of 3 to 4 hours. Higher coverage of 6 to 7 doors compared to 4 or 5 doors in solvent based systems. No volatile losses in this water based system.



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Quality door options now opening up in India



By Nitin Vaze

Manufacturing of doors and door-sets was hitherto the exclusive prerogative of units having forest licenses and saw mills with seasoning chambers and wood processing equipment.

In addition, the primitive practice prevalent in India – of providing timber infill flush doors – has been a great drain on scarce forest and plantation resources for such insignificant utility. However, the protection due to nongrant or restricted grant of new licenses allowed the industry to flourish as almost no new entrant could penetrate the closely held business.

It is estimated that total demand required to infill door requirements in the country is 12 lakh trees every year. Everyone knows that India does have captive plantations for dedicated use of the industry to support this infill. However, instead of correcting timber usage, people decry rising temperatures each summer, shorter winters and scanty rains.

Sleek Boards has opened a new business opportunity for furniture manufacturers to foray into the door industry with 100% engineered material, eliminating need for any forest department approval. Doors are now considered as furniture and not construction material as in past.

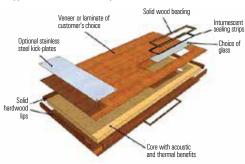
Currently, several builders who are providing built-in kitchens and wardrobes as project amenities are happy to source matching doors from furniture manufacturers, who have already begun to make quality performance doors.

Sleek Boards is equipped to supply all three engineered components to make doors: engineered LVL for stiles and rails, tubular boards for infill, and moisture-resistant HDF (plain, melamine-faced, painted and veneered skins).

Edging can be done using PVC or timber lipping in the factory. Today, one can decide on the choice of glue that uses cold or hot pressing. Additionally, KD timber and moisture-resistant MDF for making door frames are also available, giving a one-stop solution for complete door set manufacture.

Doors as well as frames can now be made in combination with various engineered material options to fit every budget. The choice of a complete range of internal doors is now available: fire rated doors for 30 minutes, 45 minutes and 60 minutes, sound-proof (acoustic) doors from 23dB to 46dB, as well as combination doors for dual fire-cumacoustic performance.

Typical Fire Door and Components



Doors and door sets made of 100% sustainable engineered materials with PEFC certification – which provides a strong yet lighter door that is impactand fire-resistant and cuts down noise and formaldehyde emission – are now readily available to the industry.

- The writer has been in forefront of the panel product business in the Indian and international markets for several decades and is a well-known figure in the industry. He can be contacted on sleekboards@ amail.com.



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Here is a 'cut' above

the rest

A revolutionary approach to manufacturing that can be run by just about anyone? It's intuitive: tells you what to do, shows you what to do, and connects you to a real person if you want. Is this the future of manufacturing?

A "cut centre" is a machine that looks a little like a CNC router, but works totally differently. Instead of generating CNC programs that tell the machine how to move, it already knows how to move!

It actually knows how to make products, tens of thousands of products. Simply tell it what you want, how you want it made and it makes it. It's pretty simple – figure out what you want to make and then make it.

But first answer a few questions: "What do you want to do?" Make something. "What do you want to make?" Cabinets, closets, furniture, doors, drawers, moldings, shapes... Just select one and it all works through an intuitive touch screen.



It takes you by the hand and guides you, step by step, communicating with a "clicker" on a magnetic necklace.

"How do you want it made?" The details, such as frame or frameless, attached or detached toe, one or two-sided material. Now you see images of all the products you asked for, made the way you want: touch one and there's a 3-D image.

Move it, rotate it, explode it and make sure it's what you want. Adjust the size and add it to your job. You are ready to cut. Running this machine is like nothing you've seen before. It takes you by the hand and guides you, step by step.

You communicate using a "clicker" you wear on a magnetic necklace. No reason to go to the screen every time you want to do something. If you don't understand even the simplest instruction, it plays a video showing exactly what to do.

It takes a different approach, a better, easier approach to traditional practices. For example, if parts need to be machined on both sides, the machine starts by doing the back operations first, on the full sheet. Then it flips the sheet over and completes the front operations.

It also manages your tools, tracks tool life, measures your tools, manages your

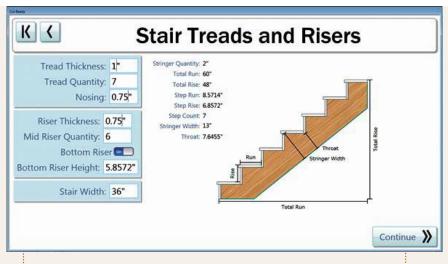
waste board, turns vacuum on and off, even the pump, and generally does all the complicated things automatically, so that you don't have to.

Varied applications

It makes a lot of things, and there's more coming. Let's start with cabinets. It can already make over 10,000 different cabinet configurations, not counting different sizes. If you consider the door and drawer front combinations, it can make over 20 million different products, right now, today.

It makes kitchen cabinets about any way you want. It also makes closet cabinets, bath cabinets and utility cabinets and there are some really nice features you won't find on other cabinets like assembly marks (which show you which parts fit together) and alignment holes that make installing drawers a snap.

It also makes furniture, starting with some really nice shelves and shelf systems and some great entertainment centres. Some of these are pretty sophisticated, so the machine will print instructions so that you can assemble it.



Using Thermwood's eCabinet software and protocol, you can develop your own custom products.

The machine also makes doors, drawers and moldings. You can make some cabinets and then tell it to make the drawers and doors and drawer fronts. and applied ends for those cabinets and it does - and you never have to worry about a single dimension.

Just tell it how you want the drawers made (side mount, undermount, blind dado or dovetail construction, thick or thin bottom), and it makes them, and they fit perfectly. It is the same with doors.

Select from hundreds of MDF door designs, tell it if you want partial overlay, full overlay or inset, and it makes them and they fit. Or, you can cut slab doors so that the grain flows smoothly across the cabinet face.

And then there are moldings: the CutReady cut centre makes straight moldings, curved moldings, even carved moldings. You can even adjust the size of these moldings and just make them using the standard machine and the standard tools. What is truly amazing is that this is all so easy.

Handling ease

And if you need to make things not in the system, Thermwood can add them for you. The company will custom develop definitions for your specific products, in the size range you want from the material you want and install them in your machine.

If it can be made on a CNC router, it can be made on a CutReady cut centre with

no computer, no software and no extra programming.

If you can read you can probably run it. When Thermwood first started this development, its stated goal was to create a machine that the average person could walk up to and run with no prior knowledge, no training and no manual.

Typical manuals for cabinet design software and a properly documented CNC router run well over 1,000 pages. Most people with CNC routers master a few products and a few techniques and are satisfied.

With the CutReady cut centre, everybody can do everything easily: the limitations are gone and the possibilities are incredible.

Cutting costs

In addition to being the easiest to use, if you run custom cabinets and consider your total cost, you will find that the CutReady cut centre is less expensive than any CNC router. It is competitively priced against about any good quality ordinary CNC router.

Even if you add every option offered, it can be leased for less per month than the cost of a typical CNC programmer. Of course, you will need a CNC programmer with any CNC router. This means, even if they give you a CNC router and design software for free, it will still cost you more than Thermwood's CutReady cut centre.

Programming robs you of valuable time you could spend on more important things like working with the customer and selling and managing your business. It is possible for you to be in full production with a CutReady cut centre in half a day.

A CNC router, on the other hand, often takes six months to program and get into full production. There is a serious cost associated with that half a year.

Thermwood plans to continuously expand the items its CutReady cut centres can make, guided primarily by the wishes of users, who will get all that new stuff free: software updates and live virtual service. That's how new generation technology works.

Although the CutReady cut centre is an all new type of machine that can be operated without programming, it can also be operated as a CNC router (through CNC Access), should you ever need to. It executes CNC programs generated by about any software. In fact, it has software and operating features that make it a lot more flexible than any other CNC router.

Using Thermwood's eCabinet systems design software and following the CutReady protocol, you can develop your own custom products, install them in the machine and run them the same way. This does require some training and software skill but offers almost unlimited capability and huge flexibility.

And finally, there is the CutReady cut centre mobile app which allows you to select and define products and create jobs using a mobile device or PC, just like you would do at the machine. These jobs are stored in the cloud where they can be accessed by your CutReady, processed and cut.

Thermwood Corporation is the oldest and most technically advanced manufacturer of high technology CNC Routers, allied software, technology, equipment and service intended primarily for the manufacturing sector. (www.cutready.com)

- Thermwood Corp. is represented in India by Nashik-based Mr. Kishor Dabhade (kdabhade@thermwood.com).

Would transparent wood replace glass?



A block of wood before (left) and after treatment to become transparent.



Wood has always been associated with warmth and strength, and is viewed as a material that can be used to make wonderful furniture. It is also synonymous with various shades of brown.

But scientists have now changed all that. Using a two-step process, in a mind-blowing development, researchers at the University of Maryland, College Park, stripped away the plank's tan and brown colour and made it clear and transparent!

The see-through wood, which the scientists say is stronger and a better insulator than glass, and more biodegradable than plastic, could one day be used in windows, tables and other building material.

Dr. Liangbing Hu, a materials scientist at the university, and an author of a paper that appeared last week in the journal *Advanced Materials*, said that they were very surprised by how transparent it could go and felt that this could really open applications that can potentially

replace glass and some optical material.

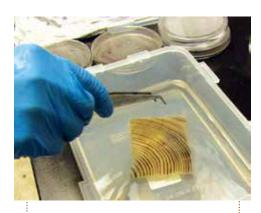
To turn the wood transparent, Hu and his team first boiled it in a bath of water, sodium hydroxide and other chemicals for about two hours. This removed a molecule called lignin, which gives the wood its colour, but left behind its colourless cell structures.

The next step was to pour epoxy over the block, which made it four to six times stronger. It is a two-step process to make wood you can see through. The research team observed that the appealing quality of transparent wood is the series of natural channels that run throughout it, remnants from when it was a living tree.

"The structures, which once pumped water and ions, now direct light along their canals. Glass and plastic typically do not have passageways like these," they noted and explain: "In traditional material the light gets scattered. If you have this waveguide effect with wood, more light comes into your house."

The process is not without its limitations. Size is the big issue. So far the largest blocks they have turned clear measured 5'X5', with thicknesses ranging from paper-thin to 1 cm. The scientists are currently working on scaling the process to make larger blocks.

Meanwhile in Sweden, scientists have also removed lignin from wood with the aim of using it in solar cells.



It is a two-step process to make wood you can see through.





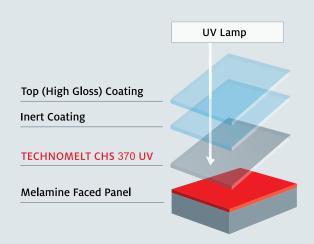
The Foundation for a Glossy Appearance

Henkel has especially developed TECHNOMELT CHS 370 UV for converting Melamine Faced Panels to ones with high gloss elements. This UV curable hotmelt is applied directly onto the panel, which gives it an outstanding surface quality.

Together with the Cefla Finishing Group, one of the world leaders producing lacquering machines, we have developed an innovative concept to achieve this goal: FUSION COATING. This technology represents the fusion of two innovative processes: UV hotmelt coating by Henkel and INERT COATING by Sorbini.

The advantage of this product is that all coating steps use UV curing; thus, there is no waiting time between the individual steps. This saves time, space, and of course, above all, costs.

To discover the best solution for glossy looking furniture and door handles, contact us.











Soon India can be point of reference in Asia



This is in continuation of a series of opinion articles from thought and practice leaders from the woodworking industry within the country and abroad. For the earlier articles, look up previous issues of *WoodNews*.

India is the fourth-largest economy in the world, it is the largest democracy, and has the second-largest GDP (gross domestic product) among emerging economies, based on purchasing power parity. It is also one of the 10 fastest growing economies in the world.

The Union government's "Make in India" campaign is meant as an incentive for investment, above all, in manufacturing. India wants to improve conditions in order to attract major engagement in the industry.

There are plans to expand the rather dilapidated infrastructure of the country, to reduce non-transparent bureaucracy and to accelerate the approval processes.

Furthermore, the new budget draft includes cuts in the taxes on corporate profits. Though persisting high inflation continues to be an issue, it remains to be seen whether the measures will boost machinery investment in the short term.

Furniture market

The furniture demand has decreased in all large furniture markets (i.e. in the markets that sell more than US\$ 10 billion of furniture at retail prices), with the exception of China and India.

Substantial growth is expected in China and India.

Other major markets (the US, Canada, Australia and France) will grow moderately. In all other large markets demand is expected to be either stagnant or decreasing.

Furniture consumption in world is US\$ 104 billion and following is the share of some of the markets:

- China 7%
- India 6%
- United States 2%
- France 2%
- Canada 2%
- Australia 2%

The Indian market for furniture is worth approximately Euro 1,700 million, and roughly 85% of this comes from the non-organised sector.

The future on the furniture sector in India seems positive. Talking about production several agreements have been signed between local producers looking for technology and European companies trying to reach a potential opportunity in costs.

From the commercial point of view India

GOVIND ASSUDANI

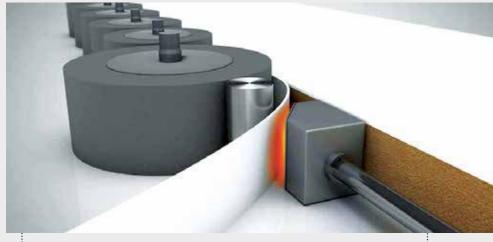
shows good prospects of selling furniture in the following years. First of all because its size, and secondly because Indian tastes have started to be more refined: Indian consumers are increasingly looking for more Western furniture styles.

The Indian market will be an important point of reference in Asia in the future. The continuous improvement in the living conditions of the local population, the refinement of tastes, greater interest in consumer goods, and increasing connect with non-Indian lifestyles are some of the factors that should induce Western companies to regard the as-yet-unexpressed potential of the Indian market with optimism.

Indian consumers are dispersed. They are serviced by an efficient, but highly fragmented, trade system consisting of over 4 million retail and wholesale outlets, spread over many urban and rural population centres. The ability to physically deliver one's goods to the consumers, therefore, remains a source of significant competitive advantage.

Latest technology

The compact design of the new 5-axes head allows technology to be mounted on extension arm series, making it possible to combine 5-axes woodworking applications for the very first time.



Long used for cutting applications, laser technology is making headway in the edge

This technology offers high performance, flexible 3-D processing through direct access to the tool changer and wideranging application possibilities such as exchanging in saws for shift cuts, trimming tools for engraving work or to process curved parts.

Then there is the unique edge banding technology without glue with laser technology. Capable for use in a high-production environment, LaserTec features a directed laser beam, which melts the wafer-thin functional layer onto the panel edge using an oscillating action.

The LaserTec can process all standard edge types including PVC, ABS, PP, PMMA, wood veneer and melamine. Long used for cutting applications, laser technology is making headway in the edge banding market.

As this technology does not entail the use of glue inside the machine, it cuts out the time required for glue heating, resulting in improved plant output and energy savings. The new technology leaves practically no visible glue joint.

A composite material is comprised of a wood-based substrate with acrylic glass coating. The surface finish ensures outstanding resistance to abrasion and chemicals. The material also displays outstanding aesthetic properties.

The coated panel is recommended, above all, for more demanding applications. The scratch-resistant surface ensures maximum durability. A 2-mm-thick layer of acrylic glass is applied to a coated wood-based panel in a patented process in order to obtain the incomparable glass look.

The advantage over glass is that it can subsequently be processed further. To prevent scratching, the surface is covered with a protective film.

- The columnist is Managing Director of Homag India. The views expressed by him here are personal and do not necessarily represent those of his company.

The compact design of the new 5-axes head makes it possible to combine 5-axes woodworking applications for the very first time.





Dr. Cornelia Brucklacher (third from left) and Dr. Deiter Brucklacher (extreme right) during one of their business engagements in Bangalore in mid-July.

Leitz India is ready for Industry 4.0

Dr. Deiter Brucklacher, former CEO of Leitz GmbH and ex-President of the VDMA, and **Dr. Cornelia Brucklacher**, Chair of the Leitz Advisory Board, were in Bangalore recently on business. *WoodNews* caught up with them for a chat. Excerpts.



Leitz GmbH, with its headquarters in Oberkochen (Germany) is a leading technology manufacturer of machinedriven precision tools and processdesigned tool systems for the professional processing of solid wood, wood-derived panels and plastic materials.

Boehlerit GmbH in Kapfenberg (Austria) and Bilz GmbH in Ostfildern (Germany) form the Leitz corporate group. While Boehlerit is a specialist in the development and production of innovative tungsten carbide and diamond cutting materials, Bilz operates in the field of tool clamping technology and is a leading manufacturer of thermic clamping system for high-speed machining in metal, wood and plastics.

The Leitz corporate group has several production facilities in Europe, America and Asia, as wells as sales and service companies all over the world. The 4,000-odd employees of the Leitz Group generate an annual turnover of more than Euro 460 million.

What is the secret behind Leitz's success worldwide?

Deiter: Leitz sees itself as the quarantor of our customers' satisfaction, in terms of operations, process reliability and value for money. In addition to our comprehensive product programmes, we offer consultation services based on our company's decades of experience with tools useful to its customers.

Leitz is concerned with project and process engineering for economically efficient plant operations. We keep the employees of our customers up-to-date with training programmes on the latest advances in production engineering and our comprehensive tool-processmanagement system.

Does that apply across the entire spectrum of products from Leitz?

Deiter: Yes, it includes the entire range of our machine-driven precision tooling for machining of solid wood, engineered wood products and plastics. Our clientele ranges from large industrial enterprises to craftsman's workshops, from panel processing to furniture manufacturing to door and window production.

What distinguishes Leitz from its competition?

Deiter: A quality tool can only do its job only if it is serviced regularly and maintained in the appropriate manner. Leitz has expertise worldwide to recondition our tooling products over their entire life cycles. We also ensure our tools are repaired or reconditioned in the shortest possible time, so that our customers do not suffer from down time (when machine is not running) in their businesses.

How did you decide to set up a subsidiary in India?

Deiter: India is a fast growing market and has tremendous potential. We were lucky in having a trusted friend, (the late) Ramu Ramakrishnan. He had in-depth knowledge of the woodworking industry in India; he made professional and friendly connections very easily; he understood the political system and economic compulsions thoroughly; and he had a missionary zeal to modernise the furniture manufacturing here. I will sadly miss his company.

How has the India market grown in the time since Leitz India was set up?

Cornelia: India is fast maturing as an industrial hub, as compared to the workshop level of manufacturing that predominated in the earlier decades of our business here. And yes, there are indications that there will be a speeding up of the growth of wood-based manufacturing in the country.



Leitz India, which the late Ramu Ramakrishnan helped establish in India, and later expand into Sri Lanka, organised an evening get-together of his friends, industry colleagues and well-wishers, to pay respects to the 'Father of modern woodworking in India'. Dr. Deiter Brucklacher spoke fondly of his late friend's business acumen, missionary zeal and zest for life.

What does Leitz make of the next industrial revolution, dubbed 'Industry 4.0'?

Deiter: I think of it more as 'evolution', rather than 'revolution', and Leitz has always been prepared. We have always translated current industrial trends into forward thinking tool technologies. Sometimes, we are one step ahead!

As early as in 1906, Leitz was a pioneer in the adaptation of its tooling programme to the mechanisation of wood processing. In 1971, our tooling systems were profile- and diameter-constant, for consistency in high precision and quality over their entire life cycles. In 1993, we introduced tools with electronic chips and the Leitz Tool Management System.

That was the beginning of our preparation for 'Industry 4.0'. Leitz is ready; it is now campaigning for early implementation of 'Industry 4.0' norms and practices.

What really does 'Industry 4.0' mean to tooling systems?

Deiter: In 'Industry 4.0', tools exchange data via the Internet with their networks

of, say, the machine and the tool service. The communication process within the network runs automatically, without active user intervention. Networked tools contain tiny data chips with individual tool ciphers that lead into a Cloud.

There, master data and application data, limits and corrective steps, tool life and service cycles, etc. are stored and continuously updated. Such networked tools enable faster commissioning and greater process security and reliability.

This results in a significant increase in productivity and efficiency in production.

What is the research project, eApss4Production, all about?

Deiter: The aim of the eApss4Production project is developing software apps that bundle different information from production processes and through any terminal or forum. The apps bundle production information and make them available, in real time, anywhere across the world and on any terminal or communications device.

They make the most complex production processes transparent for the users, and warn against critical operational issues. They can detect and communicate critical operation problems in real time, collate and analyse operating data, help in realising product life cycle and maximising production potential. It is a quantum leap for process optimisation.

Leitz completes 140 years this year. How are you celebrating it?

Cornelia: It is true that every anniversary is important and a cause for cheer. We express our thanks to our colleagues and customers, and promise to live up to the market's expectations. But this anniversary is a reminder of another challenge: how to stay relevant to industry, be a solutions provider and maintain our position as market leader in the coming decade!

An integral data chip gives the tool its individuality: it communicates with a local Cloud which contains standardised data. The tool can exchange data with the operator, machine or tool service.







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UV hot-melts: recipe for glossy, strong furniture



Fusion coating proves less costly than the lamination of high-gloss films on wood-based panels.

By S. Sunil Kumar

The demand for high-gloss surfaces in furniture, particularly for facades, has been growing steadily for some time and is now a global trend. High gloss is a continuing trend; be it furniture for living rooms, kitchens or bathrooms, the

interior finish of ships or various musical instruments.

Ultra-violet light is used in the finishing, varnishing and laminating of furniture and woodwork. UV coatings are often used in furniture production because they offer certain advantages, such as

improved hardness and durability, as well as increased solvent resistance.

It also provides improved gloss, better scratch-, abrasion- and chemical resistance, hardness, elasticity and adhesion or bond strength.

Henkel's innovative UV hot-melts belong

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to the group of radiation-curable adhesives. They are solid, monocomponent and are processed at temperatures of about 100°C. They contain acrylates and photo initiators, which are activated by UV light to form polymers.

Technomelt UV hot-melts fully cure in fractions of a second and can be processed immediately. Being VOC- and solvent-free, the UV curing adhesives are the way forward.

It is important to note that the traditional technologies (foil lamination and traditional coating) for generating high-gloss effects include the application of a high-gloss film laminate to woodbased panels.

However, this process is cost-intensive and the use of paints and varnishes on melamine faced panels is a difficult task. This is mainly because the primers used offer poor adhesion on melamine and are not as flexible as a UV-curing hot-melt.

Fusion coating

Therefore, to make things easy, Henkel and Cefla Finishing Group, developed a new and innovative surface coating concept called 'Fusion coating'. This is a technology that represents the union of two innovative processes: UV hot-melt coating by Henkel and inert coating by Sorbini (Cefla's excellence centre for flat panels and flooring coating). This coating ensures the decorative treatment of melamine-faced panels as well.

In 'Fusion coating,' Henkel's UV-curing hot-melt, Technomelt CHS 370 UV, is applied directly to the melamine-faced panels, where it acts as a primer for one or several further coats of lacquer that create the desired high-gloss effect. As a result of its good adhesion on melamine and compatibility with UV lacquers this hot-melt enables the creation of high-gloss finishes.

Additionally, this proves less costly than the lamination of high-gloss films on wood-based panels. Sorbini's 'Inert

coating 3D technology' creates a 3-D effect for surface and edge preparation for all panel types. Henkel has been witnessing increasing interest from furniture manufacturers and front finishers for this new Fusion coating method.

Advantages of Technomelt CHS 370 UV:

- · Excellent adhesion to melamine
- Fast curing; VOC-free
- · Compact machine design
- Simple process; less space needed
- No sanding of base panel needed
- No chipping when cutting coated panels
- Good aging properties; more sustainable
- Immediate processing; cost saving
- · Mono-component primer

Light chemistry

UV curing is a photo-chemical process that uses high-intensity ultra-violet light and instantly cures inks, coatings or adhesives. During the UV curing process, liquid monomers and oligomers are mixed with a small quantity of photo initiators, and then exposed to UV energy.

In seconds, the products - inks, coatings or adhesives - instantly harden. Offering many advantages over traditional drying methods, UV curing increases production speed, reduces reject rates, improves scratch and solvent resistance, and facilitates superior bonding.

UV curing ensures higher productivity in less time, with a reduction in waste, energy use and pollutant emissions. Additionally, because curing hardly takes a few seconds, detection of any curing problem happens immediately, thereby reducing scrap.

Also, in this type of curing there is no solvent to evaporate, no environmental pollutants, no loss of coating thickness, and no loss of volume. This results in



S Sunil Kumar is Henkel's Business Director (Industrial Adhesives). South Asia.

higher productivity in less time, with a reduction in waste, energy use and pollutant emissions.

Faster production speed makes facilities and resources available for higher production capacity through better plant and equipment utilization. UV curing significantly reduces the cure time, thus reducing the floor space requirements. A setup for a conventional coating line extends up to 120 metres, whereas the floor space for UV curing only takes about 35-40 metres.

UV curing is widely adopted in many industries: automotive, telecommunications, electronics, graphic arts, converting and metal, glass and plastic decorating. It is a multibillion-dollar worldwide industry that constitutes about 4% of industrial coatings market. It is also growing at more than 10% per year.

UV curing has displaced conventional water- and solvent-based thermal drying processes as well. The advantage of this product is that all coating steps use UV curing, so there is no waiting time between individual steps. This saves time, space, and most importantly, cost.

What are polymer laminates?



With advances in polymer science and awareness about eco-friendly products, polymer laminates flooded the Indian market.

By Pankaj Chandak

In the context of interior furnishing, a laminate is a decorative layer used to cover the raw surface of a core like plywood, MDF, particle board or any other core material. High pressure laminate (HPL), commonly known as 'sunmica' is the most conventional and economical form of laminate that is used to decorate the surface of plywood, MDF, or particle board.

A single HPL sheet is made of multiple

layers of paper glued together and bonded under high pressure and temperature. Some of the other commonly used laminate materials are veneer, glass and paper.

With advances in polymer science and technology and increased awareness about eco-friendly products, polymer laminates have been gradually finding their way as a material of choice for decorating furniture.

Polymer laminates have flooded the

Indian laminate market in the last 4 years. Unlike other laminate material, the growth trajectory of polymer laminates has been parabolic. However, because of this sudden and unexpected acceptance, enough time has not been spent in educating the end user about different material available under the polymer umbrella.

That is why, for a customer, all polymer laminates are "PVC laminates". It's like calling all metals as steel – which we know is not always the case.

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As different polymer materials have vastly different properties, and thus are suitable for certain applications, it is therefore imperative for us to understand the different types of polymers being used for decorative purposes.

Polymer materials

A variety of polymer resins can be used to make laminates. Some of the commonly used polymers resins to make laminates for interior applications are:

PVC (polyvinyl chloride) is one of the cheapest polymers used to make decorative surfaces. PVC laminates are available in thickness ranging from 0.05 mm to 2 mm.

PVC has good formability and, therefore, thin PVC foils can be used for membrane applications also. Raw PVC laminates can be printed and painted, and thus different designs, decors and textures are possible on PVC laminates.

However, PVC is not a suitable material for high-gloss surfaces; PVC laminates are not generally UV-stabilised, and therefore they tend to turn yellow after a period of time. Further, as most of the designs are printed, colour variation is a common issue experienced in PVC laminates. It has a poor scratch resistance.

PP (poly propylene) is a thermo-plastic polymer which has recently found it's space in the furniture industry for lamination. Some of the prominent foil manufacturers in Europe have started producing PP films instead of PVC because PP is environment-friendly compared to PVC.

However, extruding PP films requires technological sophistication and are more expensive than PVC films.

PET (polyethylene terephthalate) is an excellent material used to manufacture glossy laminates; it also has better scratch resistance compared to PVC. But PET is expensive compared to PVC.

Therefore, a lot of manufacturers produce a PET-PVC hybrid laminate by bonding an extremely thin PET film onto a base PVC laminate, to provide the required mirror gloss finish and reduce the cost of the laminate. PET laminates are generally available in 0.2-0.5 mm thickness and so tend to have some amount of orange peel.

HIPS (high impact polystyerne) is styrene based thermo-plastic which offers excellent impact resistance. HIPS sheets can be extruded in different colours and textures. Because of its low cost. HIPS sheets are generally used as "balancing" laminate for acrylic boards.

ABS (acrylonitrile butadiene styrene) is an engineered thermo-plastic polymer that has very high impact resistance and toughness. ABS offers very high dimensional stability and the material is naturally 'glossy'. ABS has excellent forming qualities. Base ABS sheets laminated with decorative PVC/PET are widely used as door skins.

PMMA (polymethyl methacrylate)

generally known as 'acrylic' or 'plexiglass' is the most common laminate material used to provide high-gloss laminates. Acrylic sheets can be painted, and back-painted acrylic can be an economical substitute for back painted glass.

Acrylic has very low scratch resistance, but it can be buffed and minor scratches can be easily removed. Acrylic is brittle and requires special care while handling and transportation.

ABS-PMMA is a co-extruded engineered thermo-plastic. A single ABS-PMMA sheet is made by extruding ABS and PMMA simultaneously from a multiextruder machine. ABS-PMMA offers the high gloss properties of acrylic coupled with the flexibility, and strong impact resistance properties of ABS. ABS-PMMA sheets are generally available in solids and metallic colors.



Some of the other commonly used laminate materials are veneer, glass and paper.

COATINGS & FINISHING



A hot-melt PUR glue is the ideal solution to laminate polymer sheets on wooden surfaces.

Decors and designs are not possible in ABS-PMMA laminates. ABS-PMMA has the highest gloss properties among all polymer laminates. These laminates are UV-stabilised, and maintain their original colour for quite a substantial period of use.

It is also possible to maintain high degree of colour integrity between batches. In other words, there is practically no colour variation in sheets produced in different batches.

Films & sheets

Polymer laminates can be broadly classified into two categories: polymer films are 'thin' laminates ranging in thickness from 0.05-0.5 mm. Because they are extremely thin, these films are readily available in roll forms.

PVC, PP, PETG are commonly used to make polymer films. These films can only be pasted using a membrane or flat lamination machine and it is not possible to laminate these films by hand.

As these are extremely thin surfaces, the finished panel tends to have some amount of orange peel and any imperfections on the panel surface gets telegraphed on the foil, thus affecting the overall quality of the panel. However,

because of their thickness, they are cheap as compared to polymer sheets.

Polymer sheets are 'thicker', ranging from 0.6-2 mm or more. Although polymer sheets up to 1 mm can be easily rolled, they are generally available in 'sheet' form.

The standard size of polymer sheet is 8'x4'. PVC, HIPS, ABS, Acrylic, ABS-PMMA are generally used to make polymer foils or sheets. Polymer laminates offer several advantages compared to the conventional laminates:

- Mirror gloss (having gloss as high as 95% or more) is only possible using polymer laminates
- It is possible to make scratch-proof (extremely high scratch-resistance) polymer laminates
- They can be lighter in weight than the conventional laminates
- Provide colour consistency throughout the life of the laminate and between batches
- Polymer laminates can be UV treated, and can be exposed to sunlight without the fear of yellowing
- Materials like acrylic can be easily

buffed and hence, the durability and quality of the furniture increases manifold

- Polymer laminates are very easy and economical to maintain
- Various textures and finishes (super-high gloss, matt, and super matt) are easily available in polymer laminates
- Polymer laminates can be thermo/ vacuum formed, and post formed
- Polymer laminates can be recycled and are environment-friendly
- Polymer laminates does not emit any volatile organic contents (VOC)

Polymer laminates like ABS, PMMA, ABS-PMMA, HIPS, PETG require polyurethane (PUR) hot-melt adhesive for best bonding performance. Conventional adhesives used to bond paper- or wood-based laminates on plywood, MDF, etc. are not suitable to bond polymer laminates and it may result in the laminate peeling off from the core.

A hot-melt PUR glue is the ideal solution to laminate polymer sheets on wooden surfaces. However, applying hot-melt PUR requires a flat lamination machine and the supporting infrastructure to provide impeccable quality.

- The writer is Managing Director of Mumbai-based Prestige Interio Concepts & Polymer Laminates, a company that has mastered the art and science of using polymer laminates on a host of core materials. (www.prestigeinterio.in)



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UV coatings for all applications



There are wide range of products under wood coatings such as UV-curable coatings for wood, which have earned a considerable share of wood coatings business due to its high quality, instant curing and extremely high solid contents.

Italy's EVI Vernici embraces a complete range of UV coatings for all types of applications. The advantages of this innovation are instant cure without volatile emissions, excellent chemical and mechanical resistance, 90% solids by volume, which reduces the coating consumption, full-colour spectrum and high production speeds due to instant cure properties.

EVI Vernici has paid great attention to the appearance of lacquered furniture, providing scratch and mark-resistance, combined with excellent tactile feeling. The waterborne range ideally suits the legislative requirements in terms of solvent emissions, granting at the same time excellent performance.

UV products consist of four kinds UV products with different characteristics and specifications:

- UV polyester is formulated by polyester resin dissolved in styrene. It has a good price, good quality in terms of adhesion, sandability, gloss and clarity. UV polyester has an average reactivity; therefore it has slow drying time compared to other types of UV paint.
- UV poly-acrylic is formulated by unsaturated polyester blinded with pure acrylic resin and dissolved in TPGDA and TMPTA. It has a good quality in terms of adhesion, sandability, gloss, clarity and has

better performance than polyester. It offers higher reactivity than polyester; therefore drying time is much higher.

- UV Acrylic is formulated by epoxy acrylate resin and dissolved by TMPTA and TPGDA. It is the higher grade between all of the UV products, since it has the highest reactivity and the highest curing speed. It provides good quality in terms of adhesion, elasticity, sandability, gloss, clarity and is applicable with 100% solid content.
- UV dual-cure acrylic is formulated by a combination of UV acrylic curable base with a conventional cross-link curing. It comes with a photo-initiator and has an extended pot life as result of adding isocyanate hardener. It derives good quality in terms of adhesion, finish and very good manual sandability for non-flush surfaces.



Exterior Coatings

Robustness and endurance have always been the main concern of exterior wood coatings, and with EVI 'Waterborne for Exteriors' range, the life of coated wood has substantially increased. It is designed for protection against fungi and mold.

This product maintains its elasticity for a long period of time, allowing the coated film to follow the wood movement without cracking. EVI wood preservative 'Waterborne' is an eco-friendly product with negligible VOC emissions, and it is a non-flammable product that can be thinned with water.

Is it suitable for all inside and outside timbers used in wood houses, match boards, under roof coatings, windows and doors, frames, shutters and fences.

EVI has been awarded with the prestigious CATAS Quality Award (coating system for exterior) following the EN 927-2. This certification attests to the fact that EVI has performed superbly in the test carried out to determine performance

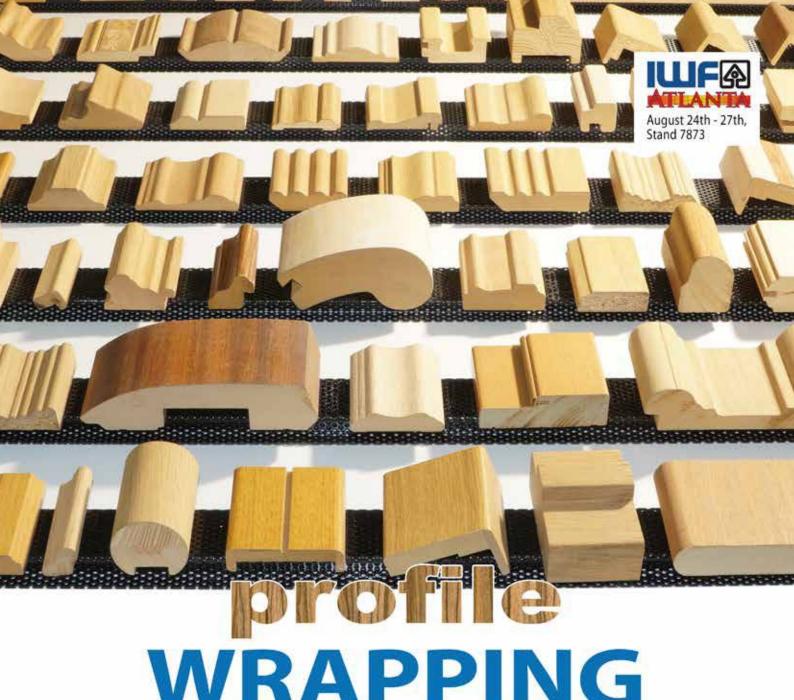
This followed strict European Regulations to certify the coating system quality in terms of its exterior durability and wood protection, as well as quality control during the manufacturing process.

Development will never end, as EVI also has glass paints in an acrylic top finish endowed with very good adherence, hardness and anti-scratch properties. It comes in water-based and solvent-based range.

EVI Vernici emerged as the outcome of a joint venture between two well-known Italian companies in wood coatings originally located in Bologna, Italy, since 1950. Combining the resources it had and benefiting from the original Italian know-how, EVI Vernici's presence spread to the United Arab Emirates in the year 2000.

RAR Holdings Group of companies represents EVI Vernici in West Asia. Mr. Rabih Reaidy (CEO), Mr. Wissam El Kassis (COO) and Ms. Eliane Germanos (Technical Head) of RAR Holdings have enlarged the operation, production plants and other facilities supported by high technology, quality control, research and development laboratories.

Mr. Ketan Shah, Technical Director of Indocem India Pvt. Ltd., is EVI Vernici's associate in India. (www.indocem.com)



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Ensuring client satisfaction is top priority



Mr. Lin Chin-Chih, General Manager of Taiwanese machinery manufacturer, Yow Cherng, on remaining cost-effective amid stiff competition

Yow Cherng proves its competence when it comes to performance and cost. What are the principles of the company that sustain it in this highly competitive environment?

Over the years, Yow Cherng has spent a great deal of time understanding customer requirements and advice. What emerges from this accumulated experience is a wealth of knowledge and skills, allowing the company to continuously improve its machines with innovative technologies.

Manufacturing reliable equipment is one thing, but ensuring it remains proficient for clients is another. That is why Yow Cherng emphasises the importance of dedicated local services for end users in order to keep machines at their appropriate performance level.

Most international buyers are conscious of the fact that Taiwan woodworking machinery offers great levels of quality and reliability. However, they remain wary about many things. How do you encourage them to cross the bridge?

Building close, lasting relationships with clients is the key to success, since a company's reputation is built on their satisfaction. This proximity also increases mutual understanding and builds stronger bonds of trust, lowering

all kinds of barriers. Thus, when it comes to operations overseas, Yow Cherng relies on a long-standing network of agents, which have all been professionally trained on machines.

In India, Woodtech has been the company's sole representative for decades, ensuring unique customer experience with superior service and support for machine installation and fast parts delivery.

With the recent global market turbulence, it seems difficult to predict the future consequences on woodworking machinery demands. What would be your thoughts on the risk?

The global slowdown is affecting most woodworking machinery manufacturers, especially the ones relying on the Chinese market. However, by striving to offer excellent performance machines with unmatched reliability, it creates value-added solutions for customers. With this approach in mind, it allows us to retain a solid customer base even in difficult circumstances.

Besides, companies must see opportunities, watch progress and observe markets. It therefore appears interesting to develop exchanges in fast growing niche markets. As one of the biggest markets in the forthcoming years, India offers great potential for fostering new technologies. In addition, the expansion of Indian woodworking machinery industry is driven by steady demand for home furniture and decoration, following the needs of its fast-growing population.

New trends indicate increasing demand for more integrated and automated systems with ICT applications. What is the company developing for its customers?

In the woodworking industry, the need for innovation, cost control and evershorter production cycles are the major issues. At Yow Cherng, we insist on making machine operation and setting easier and faster by using advanced interfaces, leading to better overall productivity and flexibility.

Thus, when a wide range of standardised products is requested, clients can quickly make setting adjustments and produce various items in small lots. This significantly improves the chances of reaching high-end export market requirements, while dramatically changing customers' profit margins, especially in India.





Special Application Locks



Combination Lock -Wood (Vertical)



Combination Lock-Steel Cabinet with Handle (Vertical)



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SecuRite Cupboard Lock



Sliding Wardrobe Lock







Swing Door Lock



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Canadian Wood casts spell on Goa architects

Forestry Innovation Consulting India (FII India), the market development agency funded by the Ministry of British Columbia (BC) to promote Canadian solid wood lumber in India, hosted an interactive seminar in May in Panaji, Goa.

The speakers of the evening were Mr. Peter Bradfield, Technical Advisor to FII India, and Mr. Pinkish Shah and Ms. Shilpa Gore Shah of S+PS architects of Mumbai. The event was highly informative and interactive, with more than 30 eminent architects and interior designers from Goa in attendance.

With growing pressure to reduce the carbon footprint of the built environment, building designers are increasingly being called upon to balance functionality and cost objectives with reduced environmental impact.

The seminar by Peter showcased how

wood from sustainable sources such as Canada helps to achieve that balance and outperforms concrete and steel in terms of embodied energy, green house gas emissions and air and water pollution.

Canada is the world leader in sustainable forest management; and the wood species of Western Hemlock, Douglas-fir, Yellow-Cedar, Western Red Cedar and Spruce-Pine-Fir are certified by either PEFC or FSC.

Peter shared an engaging and detailed presentation on usage of Canadian wood in building and designing with wood, innovation in interiors, emerging trends and new-age wood technology; showcasing projects and products produced by Indian manufacturers. This opened the audience's mind to new wood species which are perfectly suited to Indian conditions.



The Q&A round threw up questions regarding timber milling practices adopted by Canada, kiln-drying and heat treatment of the lumber, technical information on each species' physical and working properties, leading to a high quality finished product.

Mr. Sunil Sardessi of Sunil M Sardessai and Associates, thanked FII India for the talk. "The product which was being promoted (Canadian Wood) has a huge demand as far our works are concerned, We assure you of our patronage," he said.

The audience was also excited to engage with guest architects Pinkish and Shilpa Shah, who spoke about their ideology in designing and a few key projects such as a school in Navi Mumbai, the Sandwich House and Collage House, among others.

From bold facades to private spaces within a home, the duo took the audience through a visual journey of their work.

Their use of modular, multi-purpose pieces, which can be customised, was very well brought out through their work in a commercial space in Andheri (Mumbai) and a housing complex project in Lonavala.

Mr. Kushagra Keshav, Co-Founder and Principal Architect at Studio Storyboard exclaimed, "It was a really interesting and informative presentation by Pinkish and Shilpa. I truly believe we should have more of these events here in Goa. It would help widen the perspective and it won't just be limited to architecture, but to the field of design as a whole."

(View the entire talk on www.canadianwood.in)



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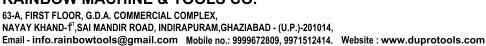






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'Show up' with the big boys in Italy

The 25th edition of Xylexpo, held at the Fiera Milano Rho Fairgrounds in Milan from May 24-28, 2016, confirmed the exhibition as one of the premier events for the wood technology and wood-based materials industry in Italy.

The biennial exhibition closed with impressive figures of 17,145 visitors, of which 5,068 were international visitors. Equally impressive was the fact that over

12,437 industry professionals came from all over Italy, as much as 16.3% more than in 2014.

Europe was by far the main region of origin, with a 70.8% share of visitors, followed by Asia (including Russia and Turkey) with 19.2%, the Americas (6%), Africa (3%) and the Oceania (1%).

Xylexpo 2016 covered an area of 29,189 square metres and hosted 441

exhibitors, of which 122 were foreign exhibitors from 29 countries.

For the first time in Italy, Eumabois (the confederation of woodworking machinery manufacturers across Europe) decided to organise a collective area for the exhibitions supported by it.

The initiative was very helpful for the organisers as they could distribute their promotion brochures inside the area. The meeting area hosted several meetings and visitors could find all information and materials they required at one stand.

Once again, the Eumabois area has proved to be an effective marketing tool for the European association. Similar initiatives will be undertaken at Ligna 2017, and possibly in other locations also in the future.

Barberan connects

Barberan, a major participant who designs and manufactures high-end precisions machines for the wood sector, launched two new video display tools for its production lines at the event. The interactive video display system has been developed to allow the operator to interact with the interface of the machine by means of mobile devices.

This enables the user to change the production parameters from a distance immediately without the help of the general control screen. The second system showcased was the informative video display for the use of production managers, line managers, and other personnel.

This tool allows them access to information regarding the production status of the machine, working status and current, daily or weekly production, from any mobile device anywhere in the world by using a corporative VPN connection.

Barberan offers maximum flexibility and reliability in high quality machinery by means of new tools that increase and improve the production process and offers the user a rapid response capability to growing market demands, and optimisation of resources.



Poker impresses

The 35-year-old ISO 9001:2008 and BS OHSAS 18001:2007 certified Italian company, Greda, showcased its latest technological achievement the highly innovative 'Poker V' series machines for chair, table and furniture parts.

For Greda, a manufacturer of "tailormade" centres, really "special" machines, it means that they have to change the project each time, deliver "unique pieces" or very limited editions. The real innovation here is that starting from a powerful and effective model they have developed a set of "standard variations" to solve any problem within a specific application spectrum.

To develop the new Poker, all elements - construction, base, electronics, and pneumatics - were revisited to turn this working centre into an "open solution". The "basic" version has a working length of 2,500 mm to perform alternating machining or to process very long parts.

The base can also incorporate different work piece, clamping and loading/ unloading systems, up to solutions for unattended operation. It includes two power spindles to bore, tenon, mortise and route; and a milling unit.

The standard cutter and power spindles execute all the required operations (slots, tenons, holes), but any vertical machining can be carried out by simply installing an additional unit.

Greda's line-up also featured other flagship products, including the fiveaxes centres 'Diva' and 'Sprinter', and the versatile 'Mitika'.

Nardello Sistemi SRL

The Italian company Nardello Sistemi SRL specialized in machines and solutions for narrow piece production used in drawers, strips, shelves for kitchens, living rooms, bathrooms production etc. It has developed an innovative machine, which automatically cuts pieces till a minimum width of 40





This machine is a Splitter, which is available in 3 versions: SPECIAL (with air floatation table for simple chipboard and mdf panels), ELEGANCE (with rollers galvanized or covered with pvc for delicate, high gloss panels), PERFECT (Splitter can be aligned to a machine, for instance at the exit of a double side edge banding machine). It can also be put in line with edge banding machines and drilling machines.

The company that is known for innovation and product development has allowed the integration of several production stages. With the experience gained over the years in systems and processes it offers customized manufacturing solutions.

SCM Group

SCM Group displayed a wide-ranging and innovative line of technological solutions for the woodworking industry in its stand, extending over a 2,600 sq. metre area.

Its Stefani "J-Shape" edgebanding solution, won the top prize at the Xia-Xylexpo Innovation Awards in the panel machining category, thanks to its "excellent ability to provide answers to market needs for edgebanding of ergonomic profiles in reduced operation spaces, using polyurethane adhesives with small radii of curvature and thick edges. Stefani's J-Shape softforming machines, with their unique gluing solutions for PUR and EVA, offer a wide and yet ever-enlarging range of profiles for the manufacturing of handle-less cabinet doors. J-Shape is the manufacturing solution dominating furniture design.

At Xylepxo, the Group presented its "easy & responsive" production solutions for Industry 4.0 scenarios: integrated solutions and modular cell systems that offer intelligent innovations combining sustainable investment with an ability to reconfigure production flows in order to

meet consumers' requests for a wider product variety and greater customisation. Specifically, the Group introduced integrated cell systems, easy to programme and reconfigure and with advanced storage systems that take up little space and consume less material, less energy and less investments; automated cells with rapid set-up times and ever more user-friendly interfaces, even for unskilled personnel.

Among the most popular new products there were the edgebanding unit installed on the Morbidelli Planet P800 machining centre, which allows optimising without compromising the profiling process and the application of edges of the widest variety using the same programme, and the Accord 50 FX, a 5-axis machining centre, with a fixed worktable and mobile portal, capable of milling and drilling workpieces up to 500 mm tall.

Siko GmbH

To supplement its range of devices to measure lengths, angles, rotational speed and inclines, SIKO GmbH has released an all-new set of distance sensors covering a wealth of applications. Both the LA170 and LA060 sensors measure distances visually and are primarily used in automation processes.

Sensors capable of measuring distance are needed throughout industry and the mechanical engineering sector. Whether the industry is packaging, paper, woodworking or textiles. Wherever automation processes exist there is also the need to measure clearances and distances, accurate to the nearest millimeter.

The optical LA170 and LA060 distance sensors employ sophisticated optical measurement technology that uses the optical triangulation method. This is primarily used to measure distances of up to 200 mm. Based on a linear and position-sensitive detector, optical sensors measure the distances to the object, regardless of the reflected quantity of light.

Compact and easy to integrate, the new



Awarding the winning prize at the XIA-XYLEXPO INNOVATION AWARDS to SCM Group's Stefani "J-shape" edgebanding solution.

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XYI FXPO 2016



optical LA170 and LA060 distance sensors that are part of the LinearLine series, come in an impressively compact package. Thanks to their slimline dimensions, they can be incorporated into even narrow machine frames without a problem.

With one touch of the button, the measurement range can be flexibly configured to the relevant application and, where applicable, even inverted. A switching window can also be adjusted as desired via an additional switching output. This helps ensure optimal ease of commissioning, guaranteed not least by the clearly visible LED.

The SIKO product portfolio includes a total of 6 product lines that cover high-quality measuring technology (measuring devices and sensors for length measurement, angle measurement, speed measurement and rotational speed measurement) as well as positioning systems for industry and mechanical engineering.

Giardina Group

Giardina Finishing and Mauri Machine showcased the best of their technology at the exhibition. The stand, spread over a 400 square meter display area, displays most of the group's technological portfolio.

Three solutions on display are all flagship products for panel coating. The



first is the "Dualtech 601" a high-end spraying machine that offers high productivity. The next is a complete working line to show the brand's expertise in high-gloss roller coating, consisting of a laser roller coater "G02/05 Glossy". Its features include a vacuum system, distension section, and the vacuum UV oven "Gst 1401/2 Glossy". Also on display is a UV oven with LED lamps- a solution that responds to increasing energy-saving demands by reducing power consumption for the drying process, while extending lamp life.

To coat disassembled profiles and windows, Giardina offers the staining machine "Mini flow-line" and the spraying machine "GS4 Syntech" with a paint recycling belt featuring the proven recycling and cleaning system "Wet on Wet", introduced almost twenty years ago on the entire Dualtech range. These two machines are particularly suitable for coat disassembled windows- an increasingly requested process, most of all for staining and basecoat application.

For door coating, Mauri Machine is presenting the latest generation of "RBP" robot. This is a solution designed for just-in-time operations, offering high efficiency and flexibility and equipped with a brand new, fully-automated loading and unloading system.

The company is extending its profile coating and finishing portfolio with a new concept of spraying machine, specifically designed to respond to several markets looking for affordable investments that offers high quality of equipment.



The top prize in the 'Innovation Category went to the Homag Group for its development of laserTec, for the production of ontical zero ioints in the company's core business segment of edae banding.





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When it comes to treatment and finishing of wood, no challenge is impossible for Sayerlack: with this high level of innovative coatings, dreams of protection, durability and beauty of wooden structures become reality.





Sayerlack is the flagship brand distributed by JAT. Initiated in 1954, Sayerlack, based in Italy has consistently provided the most innovative and highest quality wood finishers to the industry. Commitment to research and development of new technologies has led to the brand being recognized as the largest producer of wood coatings in the world.

Sayerlack is the pioneer in water based coatings and now offers a wider range of products including polyurethane and nitro cellular lacquers with scratch, heat and chemical resistance properties. Sayerlack is represented in 91 countries as the global leader of the segment and we at JAT are the second largest volume maker for Sayerlack.

JAT has its own presence in India with its corporate office and experience center based in Bangalore.



Italians have an eye on India market



There are many Italian companies that are aware of the vast untapped potential of the Indian furniture manufacturing industry. *WoodNews* presents two among them who are actively looking for agents and distributors in this country.

Nardello Sistemi SRL is an Italian company specialising in machines and solutions for narrow pieces production (drawers, strips, shelves for kitchens, living rooms, bathrooms). It has developed an innovative machine that allows to cut automatically pieces till a minimum width of 40 mm.

This machine is a splitter, which is available in three version: Special (with air floatation table for simple chipboard and MDF panels), Elegance (with rollers galvanized or covered with PVC for delicate, high gloss panels), and Perfect (splitter to be put in line, at the exit of a double-side edge banding machine).

The capacity of these splitters is medium high (up to 6,000 pcs of 600 mm length in one shift)

Personalized solutions can be studied upon request of the customer, as the company is very flexible and pays attention to the needs of the customer. Some videos are available with some examples of realised lines on YouTube channel, where you can search for "nardellosistemi".

The company is looking for dealers interested in importing their machines, to allow final customers to be aware of this new vision of working, and to improve their production capacity. For further information email sales@nardello.com, with WoodNews in the subject line.

Pizzi is a worldwide leading Italian manufacturer specialising in systems and machinery for cold glue applications. It is able to design, engineer and manufacture any gluing solutions for applying cold glue and adhesives. It already has a wide standard product range, but can supply custom solutions both for manual and fully automated systems and machines.

In its 40 years of operations, Pizzi offers know-how and an extraordinary production flexibility for the following lines of gluing technologies:

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Besides, Pizzi also manufactures pressurised (pneumatic) glue feeders made of stainless steel for PVA glues, PUR adhesives; feeders for the application of contact adhesives, and for spraying of glue and paint.

Its automatic gluing machines are ideal for the joinery and furniture industry, as well as for window and doors and for solid wood processing.

Its precise and efficient systems, together with a wide programme of gluing solutions, support customers worldwide to manufacture their products more economically, reducing energy consumption and time, and therefore having a positive impact on the environment. For details, email sales@pizziofficine.com, with WoodNews in the subject line.





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CNC machines steal the show



The 16th international exhibition on Woodworking Machinery and Furniture Manufacturing Equipment and the International Exhibition on Woodworking Machinery Supplies and Accessories concluded successfully on June 4, 2016, at China International Exhibition Center (CIEC) in Beijing.

The exhibition, also known as the Beijing Woodwork Fair 2016, has once again shown that it is a platform that successfully caters to the needs of the woodworking industry. The fair, covering an area of more than 55,000 square metres, featured more than 430 exhibitors.

International exhibitors from 16 countries and regions, including Austria, China, Egypt, Germany, Hong Kong, Italy, Japan, Luxembourg, Malaysia, New Zealand, Poland, Singapore, Spain, Sweden, Taiwan and Uruguay, showcased their latest woodworking machineries and technologies.

The 4-day exhibition attracted 22,838 international buyers from 60 countries and regions.

Beijing Woodwork Fair, which is highly recognised by industry players, attracted 42 visiting delegations composed of trade association members from different countries and regions and added tremendous value and perspective to this global event.

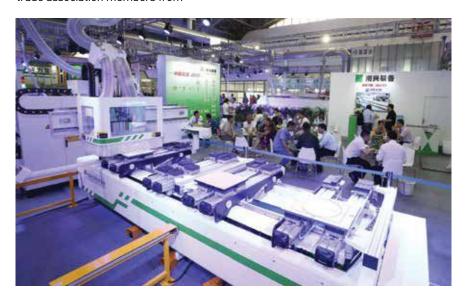
Eleven overseas delegations from Malaysia, Vietnam, India, Thailand, Russia, Turkey, Algeria and West Asia visited the exhibition.

The event received positive and encouraging feedback from both exhibitors and visitors. The exhibitors were generally satisfied with the visitor quality and exposure they received and agreed that the participation far exceeded their expectations. Around 85% of exhibitors have successfully enhanced their brand image during the show while over 80% of exhibitors found new customers.

The most anticipated and viewed products among visitors were furniture manufacturing machinery, automation and CNC machinery.

Seven high-end symposia were held concurrently to understand latest industry developments and trends. Visitors showed their enthusiasm by turning up in large numbers at these events.

The "DIY wood workshop" not only displayed the latest DIY woodworking equipment and hand tools, but also provided live training sessions to woodworking enthusiasts. The next Beijing Woodwork Fair will be back in June, 2018.





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Complementary products line up for March show

DelhiWood 2017 all set to be sold out again, with 80% of exhibition space booked in a month's time!

DelhiWood has become the premier destination for woodworking professionals visiting biennially from across the globe. It has become Asia's only dedicated business-to-business meeting place for the entire woodworking ecosystem.

The 5th edition of DelhiWood will take place from 1-4 March, 2017, at the India Expo Centre and Mart, Greater Noida.

Leveraging the success of its previous editions, over 450 leading global brands from 30 countries are expected to participate, growing by 20% compared with the previous edition. The show floor is also marking a 25% increase, which will span over 25,000 square metres and a projected 20,000 attendees from across Asian countries.

DelhiWood will continue to provide a perfect platform for woodworking solution providers and machinery, materials and components manufacturers to showcase their products, unveil innovative technologies





DFI HIWOOD 2017



and production scenarios to key furniture / kitchen manufacturers, architects, interior designers and builders.

Focus on Packaging

PDA Trade Fairs has unveiled a new focus for the 2017 show, with the inclusion of packaging machines and materials for furniture manufacturers and the woodworking industry and machines, materials and supplies for the sofa, upholstery and mattress manufacturing segments.

"The objective of unveiling these new product groups for DelhiWood is to offer greater value to visitors, who are either in such businesses or those who are looking for new business avenues.

"These complementary product groups will open up new business opportunities for both the visiting and exhibiting community," said Mr. SivaKumar, General Manager, PDA Trade Fairs.

As DelhiWood attracts a high percentage of architects, builders, interior designers and furniture manufacturers, the non-machinery segment has a huge potential in the product segments like fittings, structural parts, functional components, lighting systems, lights, electrical fittings for furniture production and interior designing and semi-finished products, glass partitions, etc. for cabinetry and modular furniture manufacturing.

Country pavilions

For the 2017 show, the entire exhibition of 25,000 square metres will be in one hall and will be demarcated in machinery and non-machinery segments. "Following DelhiWood 2015, we wanted to improve the visitor footprint throughout the show and hence have now made these changes," SivaKumar said.

Every aisle and corner will present a rich and varied panorama of country pavilions, enabling exhibitors to achieve even greater visibility in favour of their distinctive national images. Country pavilions participating in 2017 are from Canada, China, France, Germany, Italy, Malaysia, Turkey, Taiwan and the US.

The event is a "must exhibit" and "must visit" for all those wanting to associate with the most promising and fastest growing economies of the world: India.









CIFF 2016

Focus on design at Shanghai furniture fair



The 'Boot camp for brands' is again focusing on Oriental design.

The second edition of the China International Furniture Fair (CIFF) opens at the National Exhibition and Convention Centre in Shanghai, from 7 to 10 September, 2016.

Over 4,00,000 square metres of exhibition space will be occupied by 2,000 manufacturers of home furnishing, office furniture, garden furniture, furnishing textiles, furnishing accessories, machinery and raw material for making furniture.

More than 1,00,000 international professional operators working in the sector are expected to attend.

Every year CIFF works to ensure that exhibitors and visitors experience the best commercial platform in the sector, and also to provide a unique opportunity for companies and the main players to meet and discuss issues. This is why, in the woodworking industry it is also referred to as the "Boot camp for brands".

The event will cover the exhibition themes of the upstream and downstream industries of furniture such

as home furniture, office show, home decor and home textiles, outdoor and leisure and machinery and raw materials. The modern home furniture show will have a five-hall exhibition, including the western and eastern halls, to provide exhibitors and buyers with broader showcasing space and brand development opportunity.

One of the main events of the fair will be the East Design Show that will display a selection of furniture made by some of the most influential and respected

The exhibition combines academic laboratories and workshops which will be attended by famous furniture companies.

eastern brands, which stands out with its good design and high quality.

Aware that Chinese design has attracted attention in recent times, for the second year running CIFF has taken on itself to promote eastern creativity by commissioning Mr. Zhu Xiaojie, well known designer and principal of the Wenzhou Furniture College; Mr. Hou Zhengguang, founder of Shanghai Each Corporation and MoreLess Design; and Mr. Song Jianming, Vice-Director of the Chinese Academy of Fine Arts, to organise the events.

The aim of the organisers is to support famous designers, while simultaneously giving prominence to young talent as they hope it will be the driver to growth for the furniture sector. The exhibition combines academic laboratories, such as the Company Workshop, which will be attended by famous furniture companies; the Academic Workshop dedicated to design schools; the Independent Workshop for laboratories that focus on product design; and the Media Workshop, which will be visited by writers and journalists who specialise in the sector.

The programme schedules a large number of forums that will be attended by influential designers, young talent, represented by award-winning Chinese companies, design schools, buyers and the media, in order to discuss the growth of eastern design.





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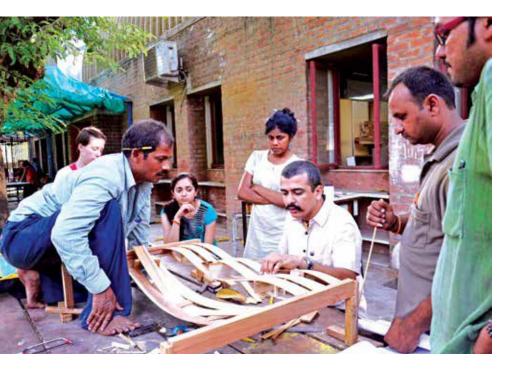
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CEPT has designs on the furniture market



To meet the growing demand for professional courses targeting designing, making and marketing of furniture, the Ahmedabad-based Centre for Environmental Planning and Technology (CEPT) University launched a two-year post-graduate programme in furniture design in 2015

CEPT was initially established and run by Ahmedabad Education Society and in 1994, a separate trust and a society were formed and it is registered as a society and public charitable trust.

Since its inception, CEPT has operated as an autonomous academic institution free to develop its academic programmes and award its own diplomas at the end of programmes of study. It is recognized by the state of Gujarat and the All India Council of Technical Education (AICTE).

CEPT became a university in April, 2005, is recognised by the University Grants Commission, and is considered a Scientific and Industrial Research Organization (SIRO) by the Department of Scientific and Industrial Research.

The new post-graduate degree in Furniture Design is a full-time, skill-based professional programme which will prepare students as designers and innovators for the rapidly developing Indian furniture industry.

The Furniture Design programme is a pragmatic response to the growing needs of the furniture industry and the retail market today. The exponential rate of growth across all metros is leading to a huge demand for quality affordable furniture in all sectors.

Incubation centre

Currently, a large percentage of furniture supplied to the market comes from abroad and could as easily be designed and made in India. In the spirit of the new 'Make in India' initiative promoted by the government, this programme will prepare students to be a part of the emerging reality of India as a global, high-tech, high-skill industrial hub.

CEPT is spearheaded by Dr. Krishna Shastri, Professor and Dean of the Faculty of Design. Noted Irish designer, Mr. Arthur Daff, is the area chair for the course, while other faculties include experts from the furniture industry and academicians.

Describing the programme Shastri says, "The main feature of the course is it is backed by scientific parameters such as ergonomics, structural behaviour, load transfer, materiel science, among others." Going forward the department will look to become an incubation centre for entrepreneurs planning to venture into the industry.

Other institutes that offer specialised courses in furniture design include the National Institute of Design (NID) in Ahmedabad, the Maharashtra Institute of Technology in Pune, and Srishti School of Art, Design and Technology in Bangalore.

Focus on science

However, CEPT has created its niche by focusing more on scientific aspects of furniture than merely the design aspect. "It provides students a broader vision to

understand the surrounding environment where the furniture is to be placed," Shastri points out.

More than 3,00,000 are employed in the furniture industry, which is pegged to be worth over \$8 billion. However, it contributes merely 0.5% to India's GDP as against 20% in China. India is among the largest importers of furniture.

"Our own entrepreneurs are unable to capture that potential

of domestic market. Therefore, this course will help them make high standard furniture," she says.

Some of the objectives and goals of CEPT are to:

- Foster innovation
- Enhance skill development
- Protect intellectual property
- · Build best-in-class manufacturing infrastructure

Addressing this reality, the programme will equip students with the tools to be able to add value to all aspects of the furniture industry. "Adding value" is the key objective for the designer, whereby the detailed understanding of materials and manufacturing processes enable better products to be made.

In addition, the needs of the consumer, either private individuals, corporate or institutional customers, will be understood so that the most appropriate design solutions may be arrived at.

The programme will address contemporary issues in design such as mass production, customisation, future technologies, environmental concerns and sustainability. It course spans four semesters that are each structured around a specific design theme, starting from small-scale, simple domestic elements and leading to an understanding of complex specialised needs of institutions.

Students will spend their fourth

semester as interns working on a live project with a company to acquire first-hand industry experience before they graduate. Students may have the opportunity to be engaged by design studios overseas to undertake their internships.

Relevant design

The main feature

of the course is it is

backed by scientific

parameters such as

behaviour, load

transfer, material

ergonomics, structural

science, among others

They will be taught by highly-trained academic staff who are also practising

> professionals in the field. They will have access to a first class workshop facility which will be integrated into the learning process; where ideas can be tested and full scale models made.

All the resources of **CEPT University** campus will be available to the students of the

programme and they will be encouraged to engage with different design disciplines.

The course encourages students to investigate the current trends in materials, technology and consumer behaviour in order to develop innovative, efficient and culturally relevant furniture for the Indian market.

The course adopts the following teaching methodology:

Hands-on learning



- · Group dynamics: participation, discussion, brain-storming
- Thesis/anti-thesis: independent thinking, research, exploration
- · Learning from industry specialists
- High faculty-to-student ratio leading to increased attention
- · Visiting faculty from industry and practising professionals
- Multi-disciplinary interaction through projects, electives
- Studio visits/ visits to industry & manufacturing units

The minimum qualifications and eligibility criteria for the course are either a Bachelor's degree in Architecture recognized by the Council of Architecture, a Bachelor's degree in Industrial Design (four years or more), a Diploma and/or Degree in Interior Design or Interior Architecture or Design of minimum four years duration, or a Bachelor's degree in Mechanical or Civil Engineering (minimum 4 years programme).

CEPT offers student financial aid and has comprehensive schemes for scholarships. However, no financial aid or scholarship is automatic and is subject to norms and criteria laid down by the University. It also has a research assistantship offered to meritorious students in lieu of work done on campus for research activities.

The CEPT Trust Scholarship offers assistance on the basis of means to students from modest financial background and also a bank loan interest subsidy by which it will reimburse up to half of the interest component. An income-linked tuition fee waiver scheme of up to 50% of the annual fees is offered to students whose household income is below Rs. 6.5 lakh per annum.

Keeping in mind the future requirements of large players who will be entering the huge Indian market, including the impending arrival of Swedish furniture major Ikea, the setting up of this institution could not have happened at a more appropriate time.



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Training for livelihood takes first steps



The National labour market information system, made live in May 2016, will act as a portal for matching the demand and supply of skilled workers in the furniture industry.

The Furniture & Fittings Skill
Council is working towards
creating career paths whereby
the workforce in the furniture
manufacturing sector will be able
to upgrade their qualifications,
writes **Mr. Shrikanth Sasi**

FFSC's job is cut out: covering the entire workforce in the furniture and fittings sector: from raw and unskilled workers to specialised and experienced job roles. It has, however, focussed the scope of operations from the bottom of the pyramid – on the development of skills for unskilled workers/ workers with some onsite experience.

Keeping these objectives in mind, FFSC has focussed on the development of relevant trade curriculum and other quality standards that encompass the process of certification and accreditation, while having a monitored and efficient implementation mechanism.

The Governing Council of the FFSC comprises industry



Hettich India plans to open a state-of-the-art woodworking institute in the NCR measuring over 10,000 square feet with modern equipment and machinery to train people in woodworking.

members, representatives from small and medium enterprises, academia and nominated members from NSDC and the Union Ministry of Skill development and Entrepreneurship.

The Council brings together relevant and interested stakeholders for managing the task of skill development in order to meet the current and future skill needs of the industry. Each Council meeting is held in different regions to bring together special invitees and involve them in the planning process.

The fourth and fifth meetings were held at Hettich India (Mumbai) and Homag India (Bangalore) respectively.

Occupational standards

The industry members provide their support to FFSC in developing the National Occupational Standards (NOS). The process of developing the standards are split into various phases:

• Research, analysis and assessment

A skill gap study is conducted for the sector on the basis of demand and supply. The study involves studying the market, profile of the sector, current trends and spread of industry across the geographical locations, anticipated manpower requirements, employment patterns and the projected growth.

FFSC is conducting workshops with the active participation of industry members to understand the current supply and demand of manpower, the spread of the workforce, age profile of workforce

across levels.

The existing sources of skilled manpower are studied along with the seasonal fluctuations and changes anticipated in the employment patterns in the coming years.

· Occupational mapping

Occupational mapping provides a clear understanding of the job profile and helps in identifying what activities are common across jobs and between levels of the same job. FFSC conducts discussions with representatives from small, medium and small scale industries to validate the occupational map.

FFSC identifies 20% job roles that comprise 80% of total workforce in each sub-sector. Progression is routed beyond the existing map by including higher NSQF levels and mapping the average demand against the new job roles to be developed.

Task-forces are formed that consist of industry representatives from each sub-sector and job roles are divided among them. The information collected on the job roles are shared with the task force members and it is mapped on the NSQF scale.

· Functional analysis

Functional analysis is very critical in defining the occupational standards as it helps in identifying functions performed by an occupation and related outcomes. It defines the occupational competence,

i.e. technical knowledge/skills, work process knowledge, skills for work relationships, and work environment knowledge.

Data collection is done through one-onone meetings and focussed group discussions with employer representatives and sector experts. The information collected would include information on the role, grade, educational qualifications, key tasks, knowledge, skills and tools required to achieve the required outcome. Validation workshops are conducted to obtain the final list of occupations for further research and development of NOS.

· Industry validation

This phase involves creation of NOS for the identified job roles as per NSDC quidelines. Occupational standards categorically details the main function of a job, the sub functions and the competencies related to the generic and domain specific aspects of the occupation in that vertical.

NOS also includes the knowledge and understanding of facts, principles and methods, which ensure that the person who measures up to the standard, can be effective in other organisations. related job roles and be better placed to align with the industry.

FFSC has signed MoU's with Monster. com and Indiacom.com to provide the database of certified trainees and get support from online portals for region-wise placement of candidates.



Industry validation workshops are conducted, amendments are made based on inputs received and submitted to the Qualification Registration Committee (QRC) for promulgation as the NOS.

Industry in training

FFSC has utilised the existing training facilities of industry members and validated their centres to impart training under the PMKVY 2.0 scheme. Such centres are able to offer on-the-job training to the trainees and exposure to modern machinery.

FFSC also connects the industry partners to their corresponding state skill missions to impart training and employment with the mobilisation support provided by the State Skill Mission.

In collaboration with FFSC, Hettich India will be opening a state-of-the-art woodworking institute in the National Capital Region (Delhi, Gurgaon, Noida) as a part of Hettich's corporate social responsibility initiative. The infrastructure will contain premises measuring over 10,000 square feet with modern equipment and machinery to train people proficient in woodworking.

German woodworking experts will be involved in imparting training and benchmarking the course to international standards. The centre. which will open in July, will host the 'training of the trainer' (ToT) sessions for all the training centres in the northern region.

FFSC identifies the professionals who could be trained as Master Trainers in identified designate centres. Training is imparted to the Master Trainer in a two-step process: first certification on domain skills and then on how to conduct the training (platform skills).

Master Trainers are subjected to recognition of prior learning, which consists of two days of orientation, to inform them about the NOS of the particular trade. On the third day assessment is done for the trainers and they should secure 90% and above in the

Online skills portal goes live

The Union Ministry of Skill Development and Entrepreneurship launched its online platform for imparting skills on July 16, with an aim to reach millions of skill seekers in the country. The web portal (www. indiaskillsonline.com) is a part of the government's Skill India campaign that aims to provide vocational training to 1 crore workers in the next four years.

It will provide free online courses to aspirants registered for skill training schemes that can also be downloaded as mobile applications. Apart from domain-specific, qualification pack courses, the website will also offer courses on soft skills, languages, digital literacy, orientation to regional cultures, as well as modules on entrepreneurship, many of which are hurdles faced by skilled workers when they try to get jobs.

"IndiaSkills is a platform that ensures ease of skill training for all so that one can focus on application of skills to overcome the environmental and circumstantial issues at their workplace," Mr. Rajiv Pratap Rudy, Minister of State for Skill Development and Entrepreneurship, was quoted as saying in New Delhi by the Hindu Businessline.

domain skill (on the job roles) on which they intend to impart training.

In the event of multiple trades, multiple RPL certifications (multiple QPs) on domains skills are obtained by the Master Trainer - however the platform skills training is common.

Those Master Trainers who qualify in RPL domain certification are given training on platform skills, which is training for six days, involving the orientation on the quality of the training delivery and soft skills of the trainers.

These Master Trainers attend short term training sessions with industry partners to further upgrade their domain knowledge and attain additional exposure on specific products. Master Trainers are trained region wise so that

they can conduct ToT sessions in the designated region.

Regional associations

Regional associations play a vital role in providing the demand aggregation or the database for requirement of skilled manpower. So far, FFSC has received support from regional associations like ABID in Kolkata, the AFMT in Mumbai, six furniture clusters (Thirrusur. Malabar, Kollam, Zamorians), IFMT and FUMMA in Kerala, and Bamboo Manufacturers' Association in the North-East.

FFSC plans to conduct seminars for associations in each region and actively participate in the exhibitions and training programs organised by the associations.

Government schemes

In July 2016, FFSC will complete one year of its establishment. In this time FFSC has started skilling the youths through the Pradhan Mantri Kaushal Vikas Yojna (PMKVY). FFSC has assessed and certified around 20,025 trainees in the last year.

These candidates have been skilled through the affiliated training partners of FFSC. During the skilling process there has been several leanings and many new concepts will be adopted in the coming years.

The Union Ministry of Skill Development and Entrepreneurship will launch PMKVY (2016- 2020), a modified and improved version of PMKVY (2015-16) in the near future. The scheme will enable youth to take up skill training and become employable.

This scheme envisages providing skill training and certification to approximately 10 million youth in four years from the date of implementation. The training will be imparted in accordance to the curriculum and content of the respective Qualification Packs and National Skill Qualification Framework (NSQF) of sector skill councils.

The industry bodies of FFSC can also be a part of the Skill India Mission by

EDUCATION

becoming a training partner of FFSC. They can skill youth through PMKVY (2016-2020).

If an industry becomes the training partner, then training can be imparted as per industry needs and requirements. The same skilled trainees can also be absorbed by these particular industries. Companies can save the cost of the skill training of the candidates through such government funded schemes.

Similarly, there are State Skill Development Missions and several schemes of different ministries where industry can also become training partners. One such scheme is the National Backward Classes Finance & Development Corporation (NBCFDC). FFSC has signed an MoU with NBCFDC to promote skill development training among the backward classes and has also started skilling such youth in Loni (Uttar Pradesh) and Fatehabad (Haryana).

Labour market

The International Labour Organisation defines labour market information system (LMIS) as any information concerning the size and composition of the labour market or any part of the labour market, the way it or any part of it functions, its problems, the opportunities that may be available to it, and the employment- related intentions or aspirations of those who are part of it.

With the support of National Skill Development Agency (NSDA) the beta version of the National LMIS has been made live in May 2016. As one of its mandates, FFSC will also develop the LMIS, which will act as a portal for matching the demand and supply of skilled workers in the furniture industry.

The LMIS will provide vital information on skilling initiatives in the furniture domain across the country. It can provide information on any particular job role in a given location and also details of who are the trained persons available, what is the availability of the skilled work force against the demand (geography wise and sector wise) and who are the entrepreneurs in the sector who can be tapped for ancillary services.

Information on training done for the employees as part of upgrading of skills within the organization will also be available. It will give information on the labour market to all its stakeholders and serve as a platform for monitoring the performance of existing skill development programmes of FFSC running in every Indian state.

LMIS will, in future, become one of the important and useful tools of our skill ecosystem. The role of industry in the Skill India Mission is very crucial. Starting from training till providing livelihood to the skilled candidates the involvement of industry is critical in every step of research, analysis, development of occupational standards and content.

- The writer is Manager (Task Forces) with FFSC. You may write to him at shrikanth.sasi@ffsc.in.

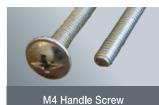






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Evertree branching out into health-friendly options



Consumers are increasingly concerned about the impact of volatile organic compounds (VOCs), such as formaldehyde, used in many household products, including resins, glues, paints and building materials, on health and environment.

Evertree offers plant-based alternatives to traditional VOC-emitting chemicals found in these products. The first application will target the wood composite panel industry and will help to reduce or even remove the presence of, and exposure to, formaldehyde.

Derived from rapeseed meal, Evertree's products and technologies are in the vanguard of a new generation of wood composite panels, which are more competitive, as well as health- and environment-friendly.

The SPI (Industrial Projects Company) investment fund, financed by the French 'Investments for the Future Programme and managed by BpiFrance, has tied up with the Avril Group and the Israeli start-up Biopolymer Technologies (BPT) in the Evertree joint venture.

The operational ramp-up of this innovative venture should enable production start in 2017 with the launch of an industrial pilot plant in France, and the opening of a dedicated production facility in 2018. The production capacity should reach 50,000 tonnes per year by 2020, and create 110 direct jobs.

Through this joint venture, the three partners intend to foster the development of new commercial uses for vegetable proteins to address new manufacturing requirements and

growing consumer expectations, especially in terms of VOCs reduction or even removal.

Indeed, VOCs exposure may affect health (irritations, reduced respiratory capacity, olfactory pollution; some VOCs are also considered to be carcinogens) and the environment (an early factor in ozone formation, green house gases, and the formation of secondary particles).

In this context, Evertree will market a promising industrial application that involves manufacturing a resin additive from rapeseed meal, much sought after in the wood composite panel industry.

This additive targets industrial clients in the sector, who will be able to use less resin for an equivalent performance, substitute the current resins with less toxic ones and optimise their distribution, therefore achieving significant productivity gains.

The technology developed by Evertree provides users with ecological, health, economic and technological benefits. The additive performs either identically or better than those from the most frequently used petrochemical sources, without presenting any health risks for production staff or customers.

The European Commission approved the joint control in Evertree by the Avril Group, SPI fund and BPT in May 2016. Evertree now has €24 million to develop and market its first industrial application. The three partners have agreed to contribute a total of €72 million to Evertree over four years, including € 28.6 million by SPI investment fund. Avril will subsequently be the leading shareholder of this company.



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Certified wood best for marine applications



A study on the consequences of material used for pile planking in marine civil engineering projects came to the conclusion that it could be serious if end users do not effectively assess the environmental impact of materials being used for pile planning.

The new life cycle assessment (LCA) analysis was commissioned by the Royal Netherlands Timber Trade Association (NTTA), Centrum Hout and FSC Netherlands, and carried out by EY Climate Change and Sustainability Services.

The study focused on certified tropical timber species, but included exploratory assessment of the environmental impact of different materials in the same application. It was found that, over a 30-year life cycle, use of certified wood sheet piles had lowest environmental impact.

Depending on type of timber selected, recycled plastic impacts were up to four times higher, while a steel sheet pile wall came out the worst, causing as much as 140 times the environmental damage as certified wood sheet piling alternatives.

It pointed out that the detrimental impacts of steel and plastic start at manufacturing. Both require considerable energy and also release pollutants while certified timber, on the other hand, has no such issues.

"The LCA results confirm those of a 2013 study on cycle bridge construction, where certified wood also came out more favourably," said Mr. Eric de Munck of NTTA. "It's not surprising since, in well-managed forestry, there's hardly any environmental damage while, at the same time growing trees absorb CO2, helping reduce green house effects."

FSC Netherlands Director, Ms Liesbeth Gort, remarked that she was not surprised that certified timber performed best in the study, but was amazed by the gulf in performance in comparison to steel and plastic, and hoped that local authorities, water boards and other users would realise its importance.



The pile planking LCA study was made possible by the European Sustainable Tropical Timber Coalition.

Funding project

Meanwhile, interest in the European Sustainable Tropical Timber Coalition's (STTC) funding programme is growing among industry federations, timber companies and local authorities across Europe. The STTC announced earlier this year that it had over €1 million to allocate for the establishment of sustainable timber procurement policy, code of conduct and project action plans that matched its goals and criteria.

Initially the lion's share of the funding will go to trade bodies and timber

businesses in Denmark, Germany, Italy, Spain and France. But there is also money available for action plans elsewhere.

Under the funding initiative, companies and local authorities are eligible for match funding up to €15,000, or 30% of the cost, to implement procurement strategies and other STTC-aligned activities. Federations can receive up to €30,000 to introduce sustainable procurement policies and codes of conduct.

The STTC's aim, through supporting wider establishment of sustainable procurement policies, programmes and initiatives and through communication, awareness raising and a drive to build its partner and membership base, is to increase EU certified tropical timber sales 50% above 2013 levels by the year 2020.

This, in turn, it maintains, will provide added incentive for the spread of sustainable forest management in tropical supplier countries.



Legality enforcement stronger through sharing



Presenters from supplier countries provide an expert resource

EUTR Competent Authority enforcement agencies and counterparts worldwide gather regularly to share expertise and intelligence under the TREE initiative.

Mike Jeffree reports.

Uniform EU-wide enforcement is clearly a key factor in the EU Timber Regulation (EUTR) achieving its goal of blocking illegal timber from the market.

What's equally clear is that such uniformity was absent when the EUTR was introduced in 2013. And it's been a work in progress since, with some EU states moving faster and applying more resources to implementation than others.

This prompted concerns that uneven enforcement might compromise the wider EUTR framework, and create an uneven compliance playing field for timber businesses across the EU. Fears were raised too that suppliers might be less inclined to meet European customers' due diligence demands if they thought the EUTR wasn't evenly applied.

But after an understandably challenging start, given the scale of the task and member states' varying economic and political conditions – there are now encouraging signs that common EUTR implementation standards can be achieved across the EU.

A combination of assistance, advice and warnings of punitive action from the European Commission (EC) has increasingly brought EU states in line on EUTR enactment legislation and violation penalty regimes. In fact, the EC's last review showed just four countries lagging behind. Of these, only Hungary has since not taken necessary steps, and may face sanctions as a result. The EC also promises to step up enforcement scrutiny and support.

Equally positively, not only for implementation now, but also for the EUTR's evolution and increasing effectiveness longer term, there's also the Timber Regulation Enforcement Exchange, or TREE.

The ultimate goal of timber market legality regulation is forest maintenance

EUTR by numbers

- 27 member states have designated Competent Authorities
- 25 have legislation on penalties for EUTR violations
- 24 have started company checks
- 7 EUTR enforcement cases are underway
- 12 EUTR monitoring organisations are in place to help
- 15% of global wood imports were subject to legality checks from January 2016, against 0% in 2008, and 32 countries have such legislation in place, with more developing it.

Backed with UK Department for International Development funds, but autonomous, TREE is a forum for EUTR Competent Authorities (CAs) from across the EU to exchange knowledge and experience.

The aim is to strengthen their capabilities through sharing and cooperation, notably in identifying high-risk timber sources and trade routes and to help develop an enforcement regime whole greater than the sum of its parts.

Critically, TREE also engaged enforcement bodies for the US Lacey Act, anti-illegal timber legislation, one of



lade Saunders

the world's primary legislative examples of wildlife preservation and forest conservation, from the start. And it now involves their Canadian counterparts and Australian Illegal Logging Prohibition Regulation (AILPR) agencies, further broadening its expertise and intelligence base. Moreover it is increasingly encouraging participation from other countries that have or are considering similar regulations such as Japan, South Korea, Taiwan and Indonesia.

TREE was originally the brainchild forest and ecosystems finance and markets research institute Forest Trends (FT) and international think tank Chatham House.

The initial TREE meeting in 2013 attracted 60 delegates. It now convenes biannually in different European venues, averaging 18-20 CA representatives, four to five from US Lacey Act administration and enforcement agencies and at least one from Australia. Consequently TREE's agenda setting is collaborative

TREE's pragmatic approach is also reflected in its speaker line-up. Presenters are described as an 'expert resource', invited strictly to provide information that can assist CAs, Lacey Act and AILPR agencies in their work.

But that proviso doesn't restrict the speaker range. They're drawn from consumer and supplier country authorities, the timber and forestry





Enforcement agencies must be familiar with global supply chains

industry, end users, NGOs, research and technical bodies and consultancies. And at April's TREE meeting in Prague, countries in focus, from timber supply or regulation perspectives included Belarus, Cameroon, Indonesia, Russia, South Korea, Taiwan and Ukraine. Auditing professionals are among TREE's most valued speakers.

To ensure frank discussions among enforcement bodies, private sessions take place after the presentations, and meetings are generally held under the Chatham House Rule, so comments are reported unattributed. Delegates also continue discussions after hours to swap ideas and intelligence.

Underlining that TREE's roots continue to spread, the Prague meeting had the first delegates from Polish, Portuguese and Greek CAs. That meant 25 out of 28 have now attended.

How the organisation develops and evolves will be down to participants, but Jade Saunders, who attended the first meeting where the idea of TREE was conceptualised and has since been a keen observer, stated that as enforcement agencies undertake more investigations and prosecutions of

potential violations, the meetings could focus more on these; so more peer-sharing about what they are doing than what they are thinking could possibly be a direction for the future.

"Reflecting activity on the ground, the focus so far has been on enforcement but as understanding here grows, delegates may want to move to prohibition issues," she noted.

And there can be little doubt TREE will continue to convene. Attendance is growing and delegate surveys get 80-90% 'agreed' to questions such as whether the content helped them strengthen enforcement capacity, or contributed to consistent implementation of regulations.

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Accoya helps get world's most sustainable building certified





The head office of machine builder, Geelen Counterflow, situated in Haelen, the Netherlands, has been given a five-star BREEAM certification in 2016 for its environmentally sustainable building. The construction was made using Accoya, which is acetylated wood manufactured by Accsys Technologies.

BREEAM is the foremost environmental assessment method and rating system for buildings, and identifies some of the most environmentally sound properties across the globe.

weather and requires minimal energy input.

The new, two-storey property is an architecturally striking building designed by architects Roermond and mixes glazed Accoya windows and cladding to help it blend in with its surrounding environment.

Constructed by joinery firm Helwig, the amount of glass used allows for an abundance of natural light to enter the building. The majority of windows are tilt-and-turn, with lock fittings hidden to provide a more streamlined look. The cladding, which was prefabricated and fixed from complete segments, was used in the construction and made it possible to complete the work in a short time.

Mr. Jos Wagemans who worked as construction and financial manager for the project, stated that a critical factor was the importance of producing one of the most environment-friendly building and the decision to use Accoya was very easy as the product has sound environmental benefits as well as being durable, long lasting and stable.

The mix of light and natural construction products provides a comfortable internal environment which supports passivehouse guidelines. These guidelines assist designers and builders in the construction of properties which require minimal energy input.

Internally 1,200 cubic metres of light coloured solid wood sourced from Germany's Black Forest was used. This wood was provided by the German company NUR-Holz.

Accoya cladding measuring 40x40-mm was used for the build, which was prefabricated and fixed from complete segments. This approach made it possible to complete the building's wall cladding in just a few days. All Accoya was coated with Drywood woodstain in a semi-translucent colour.

Accoya is distributed through Ritikaa Wood in India, and is well suited to withstand the monsoon season and the country's hot and humid climate.





The building for 50 office employees generates 50% more solar energy than it needs for heating, air conditioning, lighting and computers. The extra energy is used in the factory for laser cutting of stainless steel and recharging of electric forklift trucks.

The design team behind the project decided on Accoya, a cradle-to-cradle certified product, to produce key elements of the building to meet their client's requirement of a new office with unrivalled "green" credentials.

The team agreed that it was the most appropriate wood for constructing the building's impressive windows and doors as the wood's dimensional stability ensures that they do not expand and warp when faced with changeable

New EuroTech device saves space, time and cost



valve provides the necessary vacuum. Four additionally installed bellows suction cups guarantee effective board singling.

The vacuum lifting beam lifts up the securely held board, which is then carried along the suspension rail to the desired set-down station. A toothed drive belt, geared motor with integrated DC brake and incremental position encoder ensure the required accuracy. During set-down, an integrated measuring system checks that the board is precisely set down and cannot slide off. To protect the sensitive components, a separate suction cup set is activated to lift up the occasionally soiled protector boards.

The vacuum lifting device developed for the timber and furniture industry can be operated manually or fully automatically and can also be used in other types of business. If necessary, the system can be extended by additional loading and removal stations along the horizontal axis. This efficient handling solution is suitable for a large variety of singling, sorting and consignment tasks and can be linked up both with warehouse logistics and production systems.

The new EuroTech vacuum lifting device integrated in a cantilever rack system consigns half-format boards using four pick-up and set-down stations in a linear configuration. This versatile handling solution can also be extended by additional stations according to requirements.

The efficiently and space-saving accommodated stacker sorts board formats of dimensions measuring up to 2800 mm x 2070 mm and weight of up to 200 kg.

This innovative EuroTech vacuum lifting device is currently being used in one of Europe's largest producers of timber materials for the furniture and building industries, semi or fully automatically

sorts half-format products, such as chipboard and lightweight structural boards, with varying dimensions.

The stacker was integrated into the existing bearing and racking system to customer specifications and thus required no additional supporting structure. The consignment system runs on suspension rails and serves four pick-up/set-down stations extending over a length of 12 metres.

The electrically operated scissor-lift mounted on the guide carriage lowers the installed light-alloy suction cup frame at the pick-up point. The variably positionable flat suction cups set down on the stack of boards and a powerful side channel blower with change-over





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Festool solves the jigsaw puzzle



The pendulum jigsaw Trion PS300 from Festool has all the features that characterise a premium segment jigsaw: extremely handy, an extended service life and maximum cutting precision.

Jigsaws are some of the most important hand-held machines in the woodworking trade and are used on a daily basis. Apart from precision, the most important requirements for a jigsaw are versatility and manoeuvrability.

The slim, ergonomic design of the Trion PS300 gives a firm, comfortable grip and increases sensitivity when guiding the machine with one hand, even around tight curves.

Extraction channels integrated in the saw table directly beside the saw blade provide effective dust extraction and a clean working environment. Hardwearing drive elements and bearings guarantee maximum service life.

The stepless MMC electronics allow the user to adjust the speed of the machine to suit the material: solid wood, chip board, laminate, metal, plastics, insulating materials, etc. The high-performance motor generates a strong pulling force and is both smooth-running and durable.

The PS300 has a three-way saw blade guide, a bend-resistant lifter rod made from forged steel and three pendulum stroke settings that combine to guarantee maximum cutting quality.

The machine also has an ingenious splinter guard for perfect cutting edges that ensures impressive cutting power without the saw blade running off course and time consuming re-work. Straight, splinter-free precision cuts across the width of the work piece, even when making mitre cuts.

Festool also offers an extensive assortment of saw blades and accessories for a wide variety of applications.











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All 5 Components of a raised panel door can be produced faster than other moulders

Rebato'Mould (auto)

Special design machine for Rebating & moulding in single operation for door frame



HDHQ Spindle Moulder (ST)

Heavy duty machine for mass production of solid wood doors & windows frame



TenoMac-S

Chain-n-chisel Mortiser Chisel Mortiser (Pneumatic)

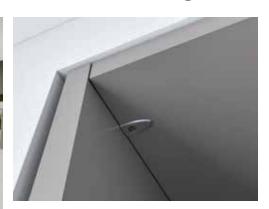
Drum Sander

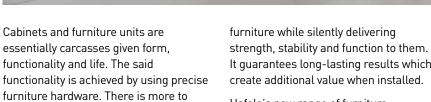


Nr. Ajit Mill Cross Rd., B/s Rakhial - Odhav Flyover, Rakhial -Odhav Main Road, Rakhial, Ahmedabad-380 023. Gujarat, India.

Italiana Ferramenta: details in design







They are those crucial details that shape your entire furniture aesthetics and hence must be chosen wisely. Hafele understands this need for detail and presents to you a diverse range of furniture hardware and accessories by Italiana Ferramenta, an Italian company specialising in the production of high quality accessories and ironmongery for the furniture industry.

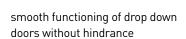
essentials for building efficient furniture.

hardware than them being veiled

The new hardware and accessories range enhances the aesthetic of your It guarantees long-lasting results which

Hafele's new range of furniture hardware and accessories by Italiana Ferramenta consists of:

- Shelf Supports: Connect wooden and glass shelves to the furniture unit/ cabinet
- Shelving Systems: Provide support for free-standing shelves
- Connectors: Enable complete cabinet construction
- Levellers: Align heavy duty wardrobes, bookcases and modular furniture
- Hinges for Drop Down Doors: Allows



- Lid/Flap Fittings: Enable automatic or controlled upward/downward opening of the cabinet door
- Concealed Cabinet Hangers: Assist hanging cabinets onto the wall
- Magnetic and Push Catches: Provide automatic opening for cabinet doors without the use of handles
- Door Buffer: Prevents cabinet doors from noisily slamming.











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- . Water Proof Edge Banding
- . Easy Cleaning of Gluepot after Using PUR Glue
- · Hassle Free Cleaning
- Available in Colours

- · Invisible Glue Line
- · Perfect Bonding
- · Anything to Anything Glue
- Resistant to heat and water, providing quality advantages in all areas of cabinetmaking.

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Advanced technology helps Fipa stay ahead



Fipa, a market leader in the lifting technology market and a specialist in gripper, vacuum and lifting technology, is really upping the ante with its new Fipa Spider.

Thanks to its lightweight aluminium structure, the Fipa Spider is extremely easy to handle and its modular construction and extensive accessories mean that it can be customised. Its

plug-and-play concept means installation takes no time, making handling flat work pieces in sheet metal and timber processing simple.

The new vacuum crossbeam, also known as a vacuum lifter, comes in two designs: up to 250 kg and up to 500 kg. Alongside its lightweight properties, as well as modularity and rapid installation, the Fipa Spider offers further benefits that facilitate ergonomic working and an efficient material flow.

The large selection of Fipa vacuum cups guarantees safe handling of panels and sheets without leakage issues. For sheet metal processing the company offers low-marking vacuum cups to ensure gentle handling before painting or gluing processes.

Compared with other manual solutions, the Fipa Spider makes it considerably easier for the user to handle bendresistant work pieces and increase safety. The tube lifter FipaLift achieves short cycle times, facilitates rapid, smooth working and can cope with a variety of work pieces.

The Fipa Spider is designed for use on a chain hoist and can lift weights of up to 500 kg. As there is no block dimension it can also be used in areas with a low ceiling height.



WOODNEWS

WoodNews thanks the various companies that have submitted information. For any editorial submissions, please contact Mr. Dhananjay Sardeshpande, Chief Editor, at dhananjay@pdatrademedia.com. The information published in this, Notes and News, Indiawood Products section is as per the details furnished by the respective manufacturer / distributor. It does not reflect the views of WoodNews or of the management of PDA Trade Media.



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Hafele unveils 'made-for-India' products

Hafele, the home interiors specialist brand, constantly strives to introduce innovative and new interior functionalities that cater to all areas of the home – right from the main and internal doors to the different corners of the living room, bedroom, kitchen and bathroom.

It ensures a seamless transformation of non-functional spaces into truly functional zones. The company has recently added several new innovations to its range of Nagold built-in home appliances, Blanco kitchen sinks and Aqua Trendz bathroom fittings.

'Nagold by Hafele' is an international range developed specifically for India and is the first of its kind of built-in home appliances that are remarkably international by design and functionality, yet distinctively Indian by features and functions. It makes way for a value proposition that has never before been experienced in the built-in appliances segment of India. Some of the unique features are:

 Tropicalised compressor: The Nagold built-in refrigerator has a climatic class of SN (Sub-Normal) –T (Tropical) which has an operating temperature of 10°C to 43°C. The compressor works perfectly for the Indian climate providing optimum cooling and humidity thus reducing wear and tear and boosting the life-span of the refrigerator.

- Supernova burners: They give the
 efficiency of the traditional wood-fire
 Indian cooking along with the
 convenience of modern technology
 through its range of ORO built-in
 hobs. These hobs come with a brass
 burners that have been engineered to
 provide the most favorable flame for
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 cooking pot, be it a round-bottomed
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- Filter-free extraction: The Teresa 90
 extraction hood has been specially
 designed to absorb the heavy fumes
 from Indian cooking. In addition this
 hood comes without filters,
 eliminating tiresome cleaning and
 maintaining the filters on a weekly
 basis.

Kitchen sinks

These are exclusive and ergonomical designer sinks made of high grade stainless steel that are sturdy and long-lasting. They are customised to the client's requirements and are appealing for its simple aesthetics and unique matching geometries.

The recyclable stainless steel is a natural, environment-friendly material that can go back into the production of

new materials at the end of its life cycle. Blanco uses the highest stainless steel quality that consists mainly of iron (72%), chrome (18%) and nickel (10%). This composition makes it resistant to corrosion.

Stainless steel does not rust. Any rust marks that appear on the surface are from other sources. This rust is an oxidation of foreign materials. Stainless steel constantly renews itself. In fact, it is said to have a self-healing surface; also called the passive layer.

If the surface is damaged, oxygen helps it to renew itself. This is always of benefit to the material in daily use. Thanks to the zoning of the passive layer, there is no need for corrosion protection. As a consequence, stainless steel retains its value and brilliance for decades.

Whether it's an energizing shower, a quick shave or a candlelit soak, Hafele's new bathroom fittings, falling under the Aqua Trendz range, converts the bathroom into a wellness center.

The new collection of overhead shower systems, bathroom faucets, fittings and accessories is characterised by clean lines and distinctive aesthetics thus enhancing the bathroom space. These new functionalities can be experienced first-hand at Hafele's Design showroom at D-89, Okhla Phase-I, New Delhi.





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Schelling cut to size saw s 45: The all-round cut-to-size saw with mitre cut

Cutting boards to size and mitre cuts with one machine: is this really possible?

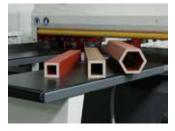
Yes it is; and that's not all:

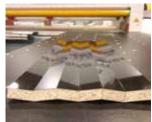
Slashed process costs and is raised precision with the Schelling s 45.

Ideal for anyone who works in the demanding field of furniture and shop fitting









Schelling Anlagenbau GmbH is headquartered in Schwarzach, Austria. The company has 400 employees worldwide at a total of 10 locations.

The product line includes cut-to-size saws and systems, as well as automatic area storage and stacking systems for wood materials, and precision saws and systems for plastics, NF-metals, ferrous metals and PCB materials.



ics, Schelling Anlagenbau GmbH 6858 Schwarzach/Austria, www.schelling.com Your contact in India: Bhat Dayanand Cell No. +91 9900 515 210, Email: dayanand.bhat@schelling.in



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Constant growth and R&D consolidated JAI's position as the 'First Choice of the Nation.' Now from basic entry level to ultimate all features m/c; Modula has an Edge-bander Just for you!

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'No-marks' aluminium cabinets launched

Inox India has announced the introduction of the 'no finger mark' aluminium cabinets for kitchens. It is geared to meet any specification, with expertise, on time and under the budgets of every household.

Aluminium cabinets are not only known for their durability and strength but for their extreme versatility to meet the needs of the environment. Skilled professionals at Inox will work with you to customize your space to function efficiently.









The aluminium cabinets can easily handle regular problems of rusting, bending, warping, termite/borer infestation, screw loosening and mostly of water, which is already a big issue in kitchen and bathroom cabinets.

Inox can customize these cabinets to fit any space, whether large or small, tall or short. These cabinets can be supplied within 24 hours, can be easily installed and are completely ideal for kitchens and bathrooms. (www.inoxdecor.com)

Jowatherm-Reaktant now in granulate form

The 97 year old Jowat SE is one of the



The 97 year old Jowat SE is one of the leading suppliers of industrial adhesives to the woodworking and furniture Industry.

Its unfilled polyurethane hot melt adhesive (PUR) Jowatherm-Reaktant 608.00, is characterised by a wide range of adhesion and an excellent thermal stability, and was already being used in edgebanding since the start of the year.

Now, Jowat has introduced a granulate version of the unfilled PUR hot melt, which can be processed on all standard edgebanding units. The translucent adhesive film of this product provides an almost invisible bondline. It can be processed without additional investments on existing applicators; only a non-stick coating on the inside of the unit is required and a special melteris not needed.

Thus, this hot melt facilitates an easy introduction to PUR technology, especially for first-time processors and smaller companies that want an adhesive which provides superior edgebanding, both from a visual and a technical point of view



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Marsun rolls out new shutters











Marsun, a New Delhi-based ISO Company, has introduced state-of-theart kitchen hardware that is durable and strong. The hardware lets the user feel safe while working, without the fear of breakdown as the company places the highest priority on the quality and durability of the product.

One such product from its collection is the Spanish rolling shutter for modular kitchens. These PVC rolling shutters are of very high quality standards and are

available in various colours and finishes. It provides centralized storage while adjustable shelves are precisely positioned for maximum kitchen organisation. A tall door rolls up and down smoothly to reveal adjustable shelves positioned only a few apart for tray storage.

Marsun was established in 1996, with a vision to provide best quality modern hardware and accessories to modular kitchens and wardrobes at value-for-

money prices. It is an importer and supplier of a comprehensive range of Indian and imported modular kitchens hardware and accessories, such as roller shutters, corner solutions, drawer runners, pull-down Units, cutlery trays and dish-racks.

It also retails wall-hanging holders, cabinet jointers, soft-close ball bearing slides, aluminium profiles and pantry units. (www.marsun.in)

New tenoner from Yow Cherna

Yow Cherng is introducing its new NC rectangular tenoner dedicated to make easier and faster tenoning operations. The NC-YRT-150 rectangular tenoner is equipped with an advanced PLC touch control. The operator only needs to input wood sizes, tenon sizes and angles.

Then, the machine automatically gets into position and performs automatic tenoning operations. This machine also utilizes a conversational 7" highresolution display for easy operation.

Capable of cutting two tenons simultaneously with its double table design, it greatly increases efficiency, reaching high production rate up to 15 pieces per minute. In addition, the servo motors mounted on X and Y axes ensure high positioning accuracy with low backlash.

Lastly, this machine comes with a memory capacity of 200 sets, allowing users to produce a wide range of tenons, including cylindrical, rectangular, miter, square and dovetail

All Yow Cherng machines are subject to rigorous quality inspections before shipment to ensure years of dependable operation performance.



Yow Cherng Machinery Co. Ltd. relies on a broad-based development framework, starting from structure design, manufacturing process, assembly line to strict machine testing. Yow Cherng keeps on innovating through research and development for achieving good quality and high efficiency machines.

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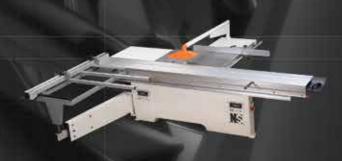
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EDGE BANDER WITH AUTO-FEEDER







Formaldehyde is a matter of concern



Pic: Amazon Wood, Pune

L-shaped office work station.

By Nitin Vaze

The reclassification of formaldehyde by the International Agency for Research on Cancer as "carcinogenic to humans" has triggered enormous concern globally. Office furniture is a functionally needed utility value, keeping in view the ergonomic design for good working conditions.

Good lighting and aesthetics enhance office interiors. One of the most neglected aspects in India is the awareness to keep the level of formaldehyde emissions to acceptable levels in office interiors. These are released from the furniture, more particularly from wood-based panels used in the fabrication of furniture, such as plywood, block board, particle board and medium density fibre board (MDF).

Formaldehyde exposure potentially causes a variety of adverse health hazards, such as eye, nose, throat and skin irritation, coughing, wheezing and allergic reactions (see Table). Long-term exposure to high levels of formaldehyde has been associated

with cancer in humans. Formaldehyde can affect people differently.

Some people are very sensitive to formaldehyde at a certain level, while others may not have any noticeable reaction to the same level.

Formaldehyde levels in indoor air can vary depending on temperature, humidity and air exchange rate within the indoor space. In addition, several studies have shown that, in the presence of ozone, formaldehyde levels increase; therefore, the outdoor and indoor ozone levels are also relevant.

Formaldehyde levels in internal office spaces may change with the season, day-to-day, and day-to-night. Levels may be high on a hot and humid day and low on a cool, dry day.

Measuring formaldehyde emissions from individual consumer products is difficult because a variety of products in the office can release formaldehyde, or trap formaldehyde emitted from other sources. Products with greater emissions and larger surface areas in the office will most likely have a

greater contribution to indoor air formaldehyde levels.

We keep this in mind when categorising different product types:

Wood-based products: Pressed wood (hardwood plywood, particle board and MDF) especially those containing UF resins, may be a significant formaldehyde source.

Wallpaper/ paints: Moderate levels of formaldehyde are released initially after application. Some paints are now found with low-VOC (volatile organic compounds) formulations.

Other materials: Formaldehyde can be created from the chemical reaction between ozone and other VOCs during the use of personal computers, laser printers and photocopiers.

Re-emitters: Because they are porous, products such as carpets or gypsum board do not contain significant amounts of formaldehyde when new. However, they may trap formaldehyde that is emitted into the air from other products and later release it into the indoor air.

Formaldehyde exposure can cause a variety of symptoms and potential adverse health effects. A person's ability to smell a chemical odor, such as formaldehyde, does not always mean that the levels of the chemical are of concern, or will cause an adverse health effect. Therefore, some people can smell formaldehyde before being adversely affected by it.

You can reduce exposure to high levels of formaldehyde by installing wood floors or finishes that are not 'acidcured', which is a type of finish that is formaldehyde-based. When installing pressed-wood products - such as particle board, MDF or hardwood plywood - for construction of office furniture and interiors, ensure that it is stamped in compliance with E1 emission norm at the most minimum.

Several safety standards are in currency across the globe, but the main ones are CARB (California Air Resources Board) P1&P2, the North American voluntary standards ANSI, the E2, E1 or E0 European emission standards (most imported products from Asia are E2 or worse), and the F-star emission standards set by the Japanese Industrial Standards. (See table for classification).

There are panel products even lower than E1 such as E0, or CARB P2 available in market. Attention and concern is required from all office furniture manufacturers to purchase wood panels having the minimum E1 certification for the safety and health concern of the people working in the office environment for which they supply the furniture made in their factories. Buyers also must make conscientious decisions while ordering furniture.

The writer is a well known figure in the world of panel products in India and abroad, having been in the business for several decades. His company, Sleek Boards (India) LLP, is one of the country's leaders in marketing a variety of technologically advanced panel products.

Common adverse effects on health from formaldehydes					
Affected Areas/Systems	Potential adverse health effects				
Eyes	Stinging, burning, itching				
	Excessive tearing				
Nose and Throat	Stinging, burning, itching				
	Sore throat				
	Running nose				
	Blocked sinuses				
	Sneezing				
	• Cancer				
Respiratory	Chest tightness				
	Wheezing				
	• Asthma				
Skin	Allergic contact dermatitis				
	Skin rashes, blisters and flaking dry skin				
Neurological	Headaches				
	Mood changes (depression, irritability)				
	• Insomnia				
	Attention deficit				
	• Nausea				
	Impairment in dexterity, memory, equilibrium				

International composite board emission standards.							
Composite Board Emission Standards	Product	Formaldehyde Emission Limits	E1333 Equivalent				
CARB-P1	HWPW	0.08 ppm	0.08 ppm				
	PB	0.18 ppm	0.18 ppm				
	MDF	0.21 ppm	0.21 ppm				
CARB-P2	HWPW	0.05 ppm	0.05 ppm				
	PB	0.09 ppm	0.09 ppm				
	MDF	0.11 ppm	0.11 ppm				
ANSI A208.1, A208.2	PW	0.2 ppm	0.20 ppm				
	PB	0.3 ppm	0.30 ppm				
	MDF	0.3 ppm	0.30 ppm				
E2	PW	30 mg/100 g	0.38 ppm				
	PB	30 mg/100 g	0.38 ppm				
	MDF	30 mg/100 g	0.38 ppm				
F** / E1	HWPW	0.12 mg/m ³	0.14 ppm				
	PB	0.12 mg/m^3	0.14 ppm				
	MDF	8 mg/100 g	0.10 ppm				
F*** / E0	HWPW	0.5 mg/L	0.07 ppm				
	PB	0.5 mg/L	0.07 ppm				
	MDF	0.5 mg/L	0.07 ppm				
F**** / SE0	HWPW	0.3 mg/L	0.04 ppm				
	PB	0.3 mg/L	0.04 ppm				
	MDF	0.3 mg/L	0.04 ppm				

High-tech CNC routers, presses from Jai workpiece, to ensure steadiness

Jai Industries offers an unparalleled array of products that include wood working machinery, panel processing machinery and electric motors. All the machines are manufactured using premium grade metals and electrical components. The company uses advanced technology and quality machines to ensure robust construction, unmatched reliability, high durability and proven performance. These machines have application in heavy duty, processing, construction, automobile and electrical industries.



CNC router J-1325 VT (A)

This is a high quality CNC model, with ergonomically designed control panel that allows greater efficiency in the engraving and designing of flush doors and kitchen shutters. The cast steel structure makes these routers more stable and auto lubrication makes maintenance much easier. The heavy ball screw drive ensures high accuracy and allows the use of high end technology at affordable cost.

Salient features:

- Tool holding guide system: A precision system to carry the CNC design commands. This Auto-Sliding guide system allows great design of flexibility.
- · Control System: A convenient, separate control panel box allows flexibility and efficiency in machine operation. Digital signal processing is applied here as the controlling system.
- Precision vacuum working table: For fixing and sure clamping of the

during the entire routing operations

CNC routers with higher capacity spindle and routers with Auto Tool Changer (ATC) are also available.



This machine uses vacuum abnormity wrapping technology and is most suitable for flush door and shutter manufacturers. It is used for applying a uniform lamination of PVC, decorative papers and veneer of up to 0.4mm on the top surface, and borders on flat and designed work piece having a smooth shape. It ensures high quality performance and finish while ensuring high production output. J-1252.in, J-1100.in & J-1102, which are high performance single and double trolley models also available

Salient Features:

- Used for applying a uniform lamination of PVC films, decorative papers and veneer till 0.4mm.
- · Lamination on one sided prelam MDF / particle board.
- · One set of tray minimize with machine for optimal usage of work tray.
- Silicon membrane offered for veneer application on flat surface only.
- Heavy duty 3 hp German vacuum
- Centralized control panel for controls & display with digital temperature controllers and adjustable timers for fully automatic cycle.

The Work Table has a single side opening for easy loading, manual feed of tray for loading, special steel work table to protect it from high temperature and corrosion. It is also equipped with a PVC foil roll holder with stand.

Hot press J-120T1

This model ensures quick and uniform thermal pressing and is suitable for pressing & laminating on fiber boards, decorative papers, plywood & other lamination sheets. It can also be used for particle / MDF / HDF board.



Salient Features:

- Rigid construction to take care of thermal distortion
- Platens designed to have uniform temperature distribution system throughout its surface
- Manual and semi-automatic controls
- Specially design high temperature oil pump for circulating the heating fluid in to platens. Pump gives steady function, endures high temperatures, low noise and long working cycles.
- · Pressure controller with indicator
- · Graphical and tabular pressure charts
- Equipped with emergency stop

Six heavy duty free floating cylinders

take care of alignment and lifting solid steel platen for uniform pressing of work piece. Steel platens avoid easy platen breakage and clear the glue that settles



Cold Press J-50T

This model ensures panel board strength and durability and is suitable for pressing various types of laminations on composite wood, cork board, ply, mdf, fiber board, and honey comb board. It is used for various applications in the furniture and board lamination industries. It is mainly used to press

various glued wood parts in regular temperature.

Salient Features:

- Good splicing effect and fast high efficiency.
- Manual and semi automatic controls
- Rigid construction
- Emergency stop switches. Limit Switch for limiting the pressing workpiece
- Motor overload relay

The platen is designed to take heavy compression loads. Pressing platen uses a synchronized geared bar for smooth up-down movement with eccentric

Roller press J-1200.in

This model is the quickest way to ensure uniform pressing and is used to cover

laminates on the materials such as chipboard and MDF. It has no waiting period like other cold press machines, no limit to the work piece length and is easy to use. The energy consumed by the machine is less than of normal presses



production as it is a continuous system.

Salient Features:

- Hard rubber rollers and four heaters elements that ensures a perfect fix of laminate on board
- Motorized up and down movement for thickness adjustment
- Adjusting roller speed and temperature is necessary for the best result
- In-feed and out-feed is on wide conveyors for easy handling



Healthy living conditions due to the low-emission foil adhesive from Jowat with the best classification level.

A new Jowat dispersion adhesive received the highest classification (A+) from Emissions D'ansl Air Interieur (EDAI), currently the strictest rating system in Europe. Emissions in foil lamination have been reduced by a factor of 25 in the new powerful Jowacoll foil adhesive, which far outperforms standard dispersions based on EVA.

Jowat's new foil adhesive earns top slot

Healthy living conditions are becoming more important to consumers and legislation is working hard to come up with the corresponding regulations for building and furnishing products. Due to the lack of any EU or international classifications, there are currently a number of different national rating systems.

EDAI provides emission classifications from A+ to C, depending on the total VOC (volatile organic compounds) emission and a rating of 10 individual substances, including formaldehyde. The new Jowacoll foil adhesive received the highest classification level and the emission label.

Jowacoll foil adhesive is a vinyl acetate co-polymer dispersion developed for laminating wood-based substrates with thermo-plastic foils and decor papers. The adhesive is part of Jowat's product

group of innovative ER (emissionreduced) adhesives and the processing characteristics are outstanding.

Due to the neutral pH of the adhesive, undesired colour reactions, which may occur on the laminated substrate in combination with acidic dispersions, are avoided. The wide range of adhesion to different surfaces and substrates that have to meet the demanding requirements in the flooring sector facilitates flexible manufacturing processes.

In addition, processing speed is increased due to the high initial strength, and the good heat resistance provides a superior quality level of the final product. Higher water resistance, as it is recommended for the manufacture of door leaves or flooring elements, can be reached by adding a corresponding cross-linking agent. (www.jowat.de/en/)

Osai 'drives' in brushless

motors



The new line of OSAI OPEN drive OD700 servo-drives for brushless motors perfectly matches the new CNC of OPEN control family, improving system dynamic performances and simplifying configurability and commissioning. OD700 are provided with Ether CAT fieldbus, they have compact mechanical dimensions and they support a wide range of operating currents and power supply voltages. They are then the perfect solution for machines dedicated to metal sheet cutting, wood and marble working and for swarf removal machines. There are six available sizes, in four different mechanical formats, having nominal currents of 3A, 4,5A, 6A, 12A, 18A and 36A.

The capability to withstand a high peak current, which can reach the 300% of the nominal current for some specific sizes, allows optimizing costs and plant dimensions. High internal sampling, advanced motor-management algorithms and the high speed of the

communication bus allow managing high dynamics machines, while the possibility to connect an auxiliary transducer allows improving mechanical system precision.

The automatic recognition of the connected motors and the configuration by "ODM", a powerful browser executable on the numerical control are able to contemporarily manage all connected drives and motors, notably facilitate start-up operations.

ODM allows both the display and the modification of motors and drives characterization parameters, both the diagnostic analysis of the drive through several graphical pages that ease its use.

A complete multi-trace oscilloscope allows performing a detailed analysis of the dynamic behaviour of the axes, obtaining the best performances of the machine



All sizes have available the integrated security function STO (Safe Torque Off) to control the cut of the power supplied by the drive and allow the intervention of the operator without cutting power to the machine tool.

OSAI offers two series of high-power sinusoidal brushless servomotors, with low inertia and high dynamics.

XML Series Servomotors

Models belonging to this series, characterized by compact dimensions, all with a maximum speed of 3000 rpm and equipped with an incremental encoder 3000 ppr and optionally with a brake, have different characteristics according to their operating voltage, 230V or 400V, and to the stall torque ranging from 0,64 Nm to 15,9 Nm.

OS3 Series Servomotors

OS3 servomotors have available a thermal sensor and can also be equipped with an optional brake. The position transducer is a Resolver or a SinCos 1024 pulses/turn, with Hiperface protocol. All servomotors have an IP65 protection level. According to the model, the available stall torques range from 0,2 Nm to 66 Nm, maximum speed of 3000, 4000 and 6000 rpm.



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P-32 SLIDING TABLE SAW



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JR-18 STRAIGHT LINE RIP SAW



JRS-12TK STRAIGHT LINE RIP SAW





Far-reaching implications of Brexit

The UK's decision to leave the European Union (so-called "Brexit") by a narrow majority of 52% to 48% in a referendum on 23 June is already being felt in currency markets and stock exchanges around the world. The short-term economic effects are already evident - a slowdown in growth, certainly in the UK, which might even dip back into recession, and also in the wider EU economy.

The UK plays an important role in the EU. Whether it is the share in total population, total gross domestic product (GDP) or foreign direct investment (FDI), Britain ranks in the top three countries, and Brexit has significant implications for the whole continent. The UK is also the EU's largest importer of timber from tropical countries by a significant margin.

In economic terms, the overwhelming issue is uncertainty. There are already signs that this is leading UK businesses and external investors to delay decisions until there is greater clarity and there is some settling in volatility of currencies and share prices.

For timber importers in the UK, the weakening of the Pound Sterling to a 30-year low against the US dollar, and a 30% fall in the share value of the largest UK house builders after the referendum are certain to result in a big decrease in buying.

Whether this is short- or long-term depends heavily on the progress of the challenging political processes now underway and the extent to which the wider economy is able to ride the storm. If all timber-based products are included (primary raw materials, secondary processed products and tertiary products like furniture), in 2015 the UK accounted for around 25% of the total value imported into the EU from tropical countries. This compares to 15% imported into France, the second largest EU market for tropical timber.

UK import value of tropical timber products increased by 32% from Euro 720 million in 2011 to Euro 960 million in 2015. This is in contrast to other leading EU markets for which, during the same period, tropical timber imports were either flat (Belgium) or declining.

A large part of the recent growth in UK imports of timber products from these countries has been in the form of furniture from Vietnam, Indonesia and Malaysia - a trade now likely to slow in the short to medium term.

The UK has been a leading player amongst EU countries to develop measures such as the EU Timber Regulations, provide political and technical support for FLEGT and promote responsible timber procurement policies.

What is certain is that the starting positions for negotiation are a long way apart and it will be extremely challenging to reach a mutually acceptable agreement. Many EU officials and member states are calling for the EU to impose tough conditions on UK trade with the EU to discourage leave campaigns in other EU member states. - ITTO

Greenply to raise Rs. 100 crore

Greenply Industries plans to raise up to Rs. 100 crore through various instruments, including issuance of equity shares, convertible bonds and debentures via qualified institutional placement (QIP), the Hindu Businessline reported.

The company's board recently approved and recommended for approval by shareholders through postal ballot to raise an amount not exceeding Rs. 100 crore through issue of equity shares, convertible bonds/debentures through QIP and/or depository receipts and/or any other modes.

Greenply Industries said in a BSE filing that it has also constituted a 'QIP Committee' of the board of directors for this purpose. Greenply Industries has four manufacturing facilities for plywood and one facility for medium-density fibreboard (MDF) in the country.

It has presence in over 300 cities across 21 states and is India's largest interior infrastructure company with a turnover of Rs. 1655 crore, accounting for almost 30% of the organised plywood market and 30% market share in domestic MDF market.



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Himmat Singh named MTCC Chairman



The Malaysian Timber Certification Council (MTCC) now has a new Chairman in Mr. Himmat Singh, a person of India origin. Singh began his career in the Malaysian civil services with the Ministry of Science, Technology and Environment in 1981.

Singh possesses a Master's degree in Park Recreation Resources from Michigan State University (USA), and a Bachelor of science in Ecology from the University of Malaya. He has extensive leadership experience with economic planning, social services, infrastructure and utilities, plantation industries and commodities.

Suriname plans second furniture corridor in Hyderabad

The Republic of Suriname plans to set up an exclusive furniture design corridor in Hyderabad (Telangana) to export furniture to Latin American countries. It is working in collaboration with the National Institute of Design (Ahmedabad) and the Union government.

The *Hindu Businessline* quoted Mr. Asif lqbal, Honorary Consul of Republic of Suriname, as saying in Hyderabad recently that Indian teak is so expensive that it makes a good business proposition to design and manufacture furniture in Hyderabad with Suriname timber and export it.

While local teak costs Rs. 2,800 per cubic feet, imported Suriname teak costs only Rs. 700, he claimed. The South American country is home to 36 rare varieties of timber, including beach timber, which is collected from under the sea.

The proposed corridor in Hyderabad will have about 170 craftsmen to begin with. A second similar furniture design corridor is coming up in Kolar (Karnataka), and will be up and running in the next six months.

IoT is focus of automation conference

The fourth Industrial Revolution is changing manufacturing: automation improves productivity and optimizes efficiency, digitalization creates new business models.

The Global Automation & Manufacturing Summit on 14 September, 2016, will cover these topics under the motto 'Industrial Internet of Things' as part of the Industrial Automation North America in Chicago.

"The Industrial Internet of Things has changed the way industry thinks about manufacturing," said Mr. Wolfgang Pech, senior

vice-president at Deutsche Messe. "In order to stay competitive, industry professionals have to keep up not only with core technologies, but also best practices, strategies and trends. The Global Automation & Manufacturing Summit provides a discussion platform that advances smart manufacturing."

Online registration for the Global Automation & Manufacturing Summit is at http://industrialtechnology.events/gams. For further information email brock.mccormack@messe.de.

New powder coatings brighten outlook

A project by research partners from UK and Greece envisages the development of novel, advanced polymer-based raw and composite materials as well as processing and production technologies.

In addition to tight European VOC legislation, the growing demand for high performance organic coatings and also improved processing and cost efficiency in formulation development, will continue to drive new and innovative developments in this vast industrial area.

The coatings industry is expected to gain significant technological and financial benefits from replacing conventional with alternative, environment-friendly

technologies (like powder and high solid systems) and adopting recent advances in nanotechnology.

Such multi-level strategies can clearly contribute to the much wanted transformation of the traditionally SME-dominated coatings industry by paving the way for the conception and production of high-added value, multi-functional materials.

The Glow project envisages the development of novel, advanced polymer-based raw and composite materials as well as processing and production technologies, responding at the same time to the industrial requirements for quality improvement at

lower cost, production of environmentfriendly materials and shorter development cycles.

The project will pursue the generation of multifunctional formulations, based on new bifunctional polymeric binders and new nano-additives to expand significantly, the current range of powder coating systems to economically attractive niche markets.

The partnership includes five partners from three European countries (Greece, Italy, and UK) and one associated country (Israel), and bridges fundamental research with technological development and product application.

Postforming

Edgebanding

- www.europeancoatings.com



Vaccum Press

Multiboring



As of September 1, 2016, Mr. Joergen Koeppel (53), will become the new spokesman for the management of Leitz GmbH & Co. KG, Oberkochen. From 2009, Koeppel was the Director of sales, service and marketing for the Homag Group AG, and is well known in the Indian woodworking and furniture manufacturing industry.

Juergen Koeppel to join Leitz Group

From 2004 he was the Managing Director of Brandt Edge Banding Machines GmbH (Lemgo). From 2000 until 2004 he managed the sales and application Engineering position of Gildemeister Turning Machines GmbH, Bielefeld.

From 1994 until 2000 he held leading positions with Leico GmbH & Co. Machine Tool Industry, Ahlen. Prior to that, during his 12-year tenure with the German Air Force, he completed studies in Aerospace Engineering and a second degree in Industrial Engineering.

At Leitz, Koeppel also will be responsible for marketing and sales, and is expected

to move the strategic expansion of the Leitz Group and continue to strengthen its position as a global market leader of precision tools for the professional processing of wood, wood derived materials and plastic.

Dr. Cornelia Brucklacher, Chairwoman of the Leitz advisory board said: "We are glad to secure Juergen Koeppel... He knows our industry in detail as well as its characteristics and is appreciated by our international customers. We wish him every success for the demanding tasks ahead and look forward to good cooperation."

Serra technology wins innovation prize

The 26-year-old Serra Maschinenbau GmbH from Bavaria is now a member of an elite club of German innovators, after its sawmill technology was recognised by science journalist and TV-host, Rangar Yogeshwar.

The traditional 'Top 100 Trophy' has been awarded for 23 years now and is the only company comparison of the German middle class which does not only awards innovations but also outstanding breakthroughs of companies.

Serra's founder, Mr. Hans Fritz, developed in 1990 the first mobile sawmill. Seven years ago his son, Mr. Johann Fritz, took over and leads and introduced stationary and industrial sawmilling technology in 77 countries all over the world.

The new developed mobile sawmills from Serra are the only ones in the market that count on a total galvanized main frame. Because of the international markets which are being supplied by the company Serra's technology has been developed to work under different conditions: from -48°C in Siberia to +48°C in tropical countries.

For these conditions the electric, hydraulic and materials have been carefully selected and developed. Because of this the sawmills have a very low depreciation level, granting that after years the machines maintain a very high resell price.

Cure-on-demand wood adhesive on cards

A team of researchers from Louisiana State University demonstrated, for the first time, a cure-on-demand wood adhesive using thermal frontal polymerisation with Southern Pine wood.

Monomer structure, initiator loading, and filler loading all had an impact on the strength of the adhesive and the cure-on-demand ability. More flexible, ethoxylated monomers produced stronger adhesives; though the ethoxylate groups reduce the ability of the system to be polymerised frontally.

The researchers also demonstrated that fillers help overcome decreases in strength. Addition of a highly reactive comonomer (acrylic acid) to increase molecular weight between cross links along with the ethoxylated triacrylate increased the propensity for frontal polymerisation and made a tougher polymer.

Increasing initiator loading could help ensure front propagation, but a maximum initiator loading was reached where the gaseous by products of the peroxide initiator made the network highly porous and thus lacking strength. Fillers such as kaolin and sawdust helped overcome decreases in strength at high initiator loadings.



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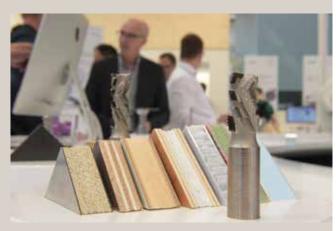
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Deutsche Messe enters Mexican market



Effective 8 June 2016, Deutsche Messe has acquired a majority stake in Magna ExpoMueblera in a key move that expands its footprint in the Americas trade fair market. The acquisition gives Deutsche Messe a presence in Mexico to match its line-up in the USA, Canada and Brazil.

ExpoMueblera is an international trade fair for timber processing, woodworking, furniture production and equipment. It has been a staple of the Mexican woodindustry trade fair market for 22 years and is the undisputed leader in its segment. The show will next be held at the Centro Banamex Exhibition Centre in Mexico City from 18-21 January, 2017.

Deutsche Messe aims to enlarge its offering for the forestry, sawmill technology and wood panel industries so that it encompasses products, machinery and equipment for all segments of the wood value chain, from forestry and wood-based construction, right through to the furniture industry and industrial manufacturing of finished wood products.

The flagship of Deutsche Messe's worldwide portfolio of wood industry trade shows is Ligna, which it operates in Hannover, Germany, in partnership with the German Engineering Federation (VDMA). Ligna is the world's leading trade fair for wood-industry machinery, plant, tools and equipment.

The company ranks among the five biggest trade show organisers in Germany, with revenues of around Euro 329 million in 2015. The company's event portfolio includes such world-leading events as CeBIT (digital business), Hannover Messe (industrial technology), Labvolution and Biotechnica (lab technology and bio-technology), CeMAT (intra-logistics and supply chain management), Didacta (education), Domotex (carpets and floor coverings), and Interschutz (fire prevention, disaster relief, rescue, safety and security).

Myanmar logs in to its stocks

The Myanmar Timber Enterprise (MTE), which has enforced a one-year suspension of log extraction, is proposing to sell around 4,00,000 tonnes of logs from its accumulated stock to sustain domestic production. Part of the teak and other hardwoods will be priced and sold in US dollars while the rest sold in the domestic currency.

Meanwhile, the Myanmar Investment Commission has approved eight new foreign direct investment in plywood and veneer. One of the successful applicants in the timber sector is CO2 Solution Co. Ltd., which proposes production of high quality veneer and plywood.

Domestic companies find it very hard to secure financing and the interest rates, which are in the region of 12%, much higher than the rates that investors in Myanmar can obtain offshore. The disparity in rates is a handicap for domestic companies.

Altem wins 'India Small Giant' award



Altem Technologies, one of the leading companies involved in 3D printing technology and stimulation software, recently won the prestigious 'India Small Giants' award. Mr. Kalraj Mishra, Honorable Union Minister for MSME, felicitated Altem's team in Mumbai on 24 June.

India Small Giants was constituted by the India SME Forum, established in 2011, to help the growth of small and medium business enterprises in the country. The award recognises, honours and acknowledges India's most successful entrepreneurs who have created a legacy.

Altem, established in Bangalore in 2011 by Mr. Prasad Rodagi and his friends, has been instrumental in creating awareness about 3D printing technology in India. Their vision and drive established them as one of the leading players in the industry in the South-East Asian region in less than 2 years of their inception.

Ghana, Korea join PEFC as members

In June this year, Ghana became the third member from Africa, alongside Cameroon and Gabon, to become a PEFC national member. A spokesman from the working group on forest certification stated that joining the PEFC alliance is a vital step towards gaining international recognition for the Ghanaian National Forest Certification System.

Ghana follows Hungary as the latest country whose membership can be traced back to seed funding provided through a PEFC collaboration fund project.

Following the acceptance of Republic of Korea as a PEFC national member in June this year, an elated spokesman from the Korea Forestry Promotion Institute [KoFPI] said that they are very happy and proud to officially become part of the PEFC family.

Korea becomes the latest country in Asia to join the PEFC alliance, highlighting their continued growth in the region. Korea also received help from other PEFC national members, in particular from Brazil, Canada, China, Germany, Japan and Malaysia.

Linear motor tech speeds CNC router

Giben America will feature the new Anderson model GS CNC router, designed to out-produce conventional routers by as much as a 100%, according to the company. With speed and precision, the new GS CNC router bridges the gap between nesting on a conventional router and cutting books of panels on a beam saw.

The company said in a statement that with an average nest time of around half that of a standard router, it can produce nearly double the output of a conventional machine. But it's driven by technology, not magic!

A linear motor is much like a rotary motor, but unrolled into a linear configuration. It offers the benefits of contact-free, magnetic drive that can react quicker, reach higher accelerations and ultimately, reach much higher speeds with no mechanical strain or tension.

The new model GS offers linear motor technology on both X and Y axes for incredible speeds for both positioning and machining. This innovative approach drastically reduces cycle times for both drilling and routing alike. (www.giben.com)



MDF & Particle Board Plants

Two MDF and one Particle Board Plants located in North India are available for

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Successfully run for nearly 5 years, plants are in excellent working condition with their boards well accepted in the market under an established popular brand. Based on bagasse which is available in plenty in the surrounding areas, these plants are located next to sugar mills. All infrastructure including power supply is in place and these plants can be put into operation in a short time.

Interested parties may respond to engineerwood@rediffmail.com or contact on Mobile: 8376904938

Ligna 2017 to focus on forestry technology



Come 2017 and Ligna (22 to 26 May) will feature a revamped thematic layout and a fresh, new forestry technology display on the open-air site and in the pavilions under the expo canopy.

With an outdoor demonstration site, "avenues" addressing certain themes, an activity zone and the Wood Industry Summit, the enhanced Ligna is putting

forestry technology on centrestage.

The world's leading trade fair for machinery, plant and tools for the woodworking and timber processing industry, is gearing up for more visitor-centric layout of themes. The significance of the new layout for the primary timber industry is that forestry technology displays will be located

immediately adjacent to the sawmill technology, energy from wood, and wood-based panel production offerings.

They will also be bordered by the new tools and machinery for custom and mass production showcase, where the providers of solutions for solid wood processing will be clustered. This new distribution of content in the halls bordering the open-air site will generate powerful synergies for visitors from the primary timber industry.

The themed avenues will address the following five topics: mobile sawmills, logistics and transport, large-scale forestry machinery plus forestry tools, energy from wood, firewood production lines and tools.

The demonstration site will be flanked by a grandstand, so visitors will have a clear view of each day's live demonstrations. Organized in partnership with the German Forestry Council (KWF), the site will feature a mix of moderated demonstrations and static displays by participating exhibitors.

The other big highlight of the open-air site is the activity zone where, in a series of daily live demonstrations, the focus will be on the use of unmanned aerial vehicles and multi-copters in forestry operations, management and firefighting.

Henkel India wins sustainability award



Henkel Adhesive Technologies India Private Limited (Henkel India), the leading solution provider for adhesives, sealants and surface treatment, was honoured at Frost & Sullivan's Sustainability 4.0 Awards 2016 with the 'Challengers Award'

under large business, corporate category.

This award was presented to Mr. Sundar lyer, CFO of Henkel India, and other team members from the company in Mumbai recently. Henkel India was assessed on different parameters of sustainability at an organisation level: business strategy, governance and ethics, risk management, stakeholder management, sustainable supply chain, society, customers, environment management (waste, water, energy, and emissions), bio-diversity, human capital management and occupational health and safety.

Henkel India's operational efficiency with respect to energy, water and waste management has seen year-on-year improvements (3% reduction), its robust risk identification and mitigation system, and prominence given by it to any negative impact from its partners (0EMs and customers).

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Adequate maintenance is a crucial factor for longer life of a machine, and to obtain optimal working conditions from the machine itself. All maintenance operations must be done with the machine turned off and with protective gloves.

The machine and working area must be kept clean from working scrap and anything that could hamper the working cycle or access to the machine itself.

Make sure that no material not required by the machine can gather on it, preventing safe operation and causing danger to the operator during the normal working cycle. Do not use detergents or lubricants.

Regular cleaning of the machine – in particular the conveyor, panel path and guides – is an important safety factor, and ensures correct machine movements and efficiency.

Cleaning of glue

While adding fresh glue in the glue tank, always be careful that any other particles like spikes / iron piece don't fall along with the glue. Clean the unit slide ways with a soft cloth and lubricate them

every week.

Make sure the machine is lubricated regularly. Check the electric system safety and inspect the condition of the electric cables. Make sure there are no signs of wear, scrapes, etc.

Do not feed work pieces that are too large or too small for the machine to handle. Check the clamping of the various mechanical components. Clean the entire suction hood daily or when necessary. Here is a detailed maintenance check-list:

Problems/Causes / Remedies

Problems	Causes	Remedies		
Motor does not start	No power on one or more phases	Make sure that the 3 phases are correct		
	Emergency button is pressed	Switch off the emergency button		
Conveyor does not start.	Motors of the unit have not yet reached the right speed	Wait till speed is attained		
	Glueing temperature not reached	Wait till temperature is right		
	Conveyor motor or inverter damage	Check operation and, if necessary, replace it		
Glue tank does not reach the	Heater wire damaged	Check and replace it		
set temperature	Thermocouple wire damaged	Check and replace it		
	Temperature controller damaged	Check and replace it		
	Neural wire damaged	Check and replace it		
Excess or less glue quantity on the panel	Improper opening or closing of glue tank lever	Adjust the quantity of glue by setting it		
No glue on the rear part of the panel.	Wrong panel insertion into the machine	Keep the panel in contact with the inlet of fence		
Inadequate pressing of	Glue feeding too less	Adjust the quantity of glue		
edge band & work piece	Pressure roller pressure not enough	Increase pressure roller pressure		
	Glue does not melt completely.	Increase the temperature, check the quality of glue. If not proper replace it		
Edge cut not glueing properly	Pressure of the shear unit not sufficient	Adjust the pressure.		
	Shear defective	Check the sharpness of shear blade. If necessary replace it		
Edge band at the back end	The position of switch which controls feeding	Adjust the switch to the correct position		
is not enough.	material & cutter is not correct			
End cutting not accurate.	Glue residues on the tools or aligning units	Remove the glue residues and clean the entire area		
	Fastening not efficient or excessive tool wear	Check the fastening or replace the tool		
	Tool worn out	Replace it		
Edge projecting to the panel sides	Distance between tools and panel sides not right	Adjust it		
Panel sides damaged by tools				
Motors do not reach the right	Working pressure not right	Adjust the pressure		
position for the end cutting				
Trimming on the panel not constant	The guide does not follow the panel surface	Increase the guide pressure		
Trimming at the beginning of panel is not perfect	Position or stroke of the guide devices wrong	Adjust the position or pressure of guide		
Splinters present on the edge	Tool cutting edge worn out	Sharpen the cutting edge of tool or replace the tool		
Trimming unit vibrating.	Fitting of unit was wrong or tool not balanced	Check the fitting of unit or balance the tool		
Buffing effect is not perfect	Buffing wheel position not correct	Adjust the buffing wheel position		
	Buffing wheel worn out	Replace the buffing wheel		

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EVENTS CALENDAR

The Malaysian Timber Council seminar & B2B meeting

26 August, 2016 (Friday) - 0930-1600 hrs Venue: Shangri -La Hotel, Palace Road, Bangalore

The Malaysian Timber Council (MTC) seeks to promote the development and growth of the Malaysian timber industry and develop the market for its timber products globally. As part of its Marketing Mission 2016 it plans to hold a seminar & B2B meeting in Bangalore For further details & registration email: response@woodnews.in

International Woodworking Fair (IWF)

24-27 August. 2016

Venue: Georgia World Congress Centre, Atlanta, **United States**

IWF, the second-largest biennial trade show in the world, provides buyers from around the world the unique opportunity to see side-by-side the most comprehensive innovative new technology available to the marketplace for machinery, supplies and services for the industry, showcased by over 900 exhibitors. www.iwfatlanta.com

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EVENTS CALENDAR

Sri Lanka Wood Expo 2016

9-10 September, 2016

Venue: Bandaranaike Memorial International Conference Hall, Colombo, Sri Lanka

Sri Lanka Wood Expo is an international exhibition that showcases products from across the globe. It creates an opportunity for investments, joint ventures, technology and innovation transfers through one platform of worldwide companies of the industry. Last year's expo was supported by Ceylon Institute of Builders, Wood Based Industrial Association and many more. www.srilankawood.com

Drema

13-16 September, 2016

Venue: Poznan, Poland

The four-day event, Drema is a great opportunity for professionals looking for new wood processing technologies. The scope of the fair constitutes a comprehensive offering for the whole industry: from the sawmill sector, through wood processing, up to the production of final products, such as windows, doors or ready-made furniture. The latest trends and development directions for the sector will be presented, both directly by exhibitors and at conferences and seminars that will be organised.

www.drema.pl

Lignum Expo

27-30 September, 2016

Venue: Agrokomplex, Nitra, Slovakia

The 20th international fair for machines, tools, equipment and materials for wood-processing, and the 16th International forestry exhibition, LES 2016, together creates one of the largest fairs focused on wood in Slovakia. It is supported by Eumabois, the European federation of woodworking machinery manufacturers. Exhibitors include producers of adhesives, cutting machines, door forming, fixtures, fittings & accessories, gluing and fixing machines, plywood manufacturing machinery, pulp preparation equipment, sanding and polishing machines and saw-milling. www.lignumbrasil.com.br

Llisderevmash

27-30 September, 2016

Venue: IEC International Exhibition Centre, Kiev, Ukraine

The 15th edition of Lisderevmash (the international fair of machinery and equipment for forestry, woodworking and furniture industry) is an exhibition where several industry related machinery and products will be on display. Typically this would include woodworking, woodworking machinery, wood products and furniture. www.lisderevmash.ua

Ifmac & Woodmac

28-30 September, 2016

Venue: Jakarta International Expo, Kemayoran Wakeni, Jakarta, Indonesia

The only dedicated exhibition for furniture and the woodworking sector, Ifmac & Woodmac are the leading procurement source where 250 industry leaders will gather for three days to fulfil market demands.

www.ifmac.net

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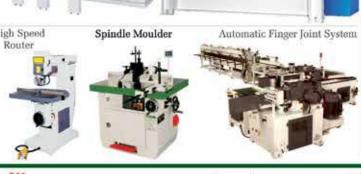


















































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