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WOODNEWS

Furniture and Manufacturing Technologies

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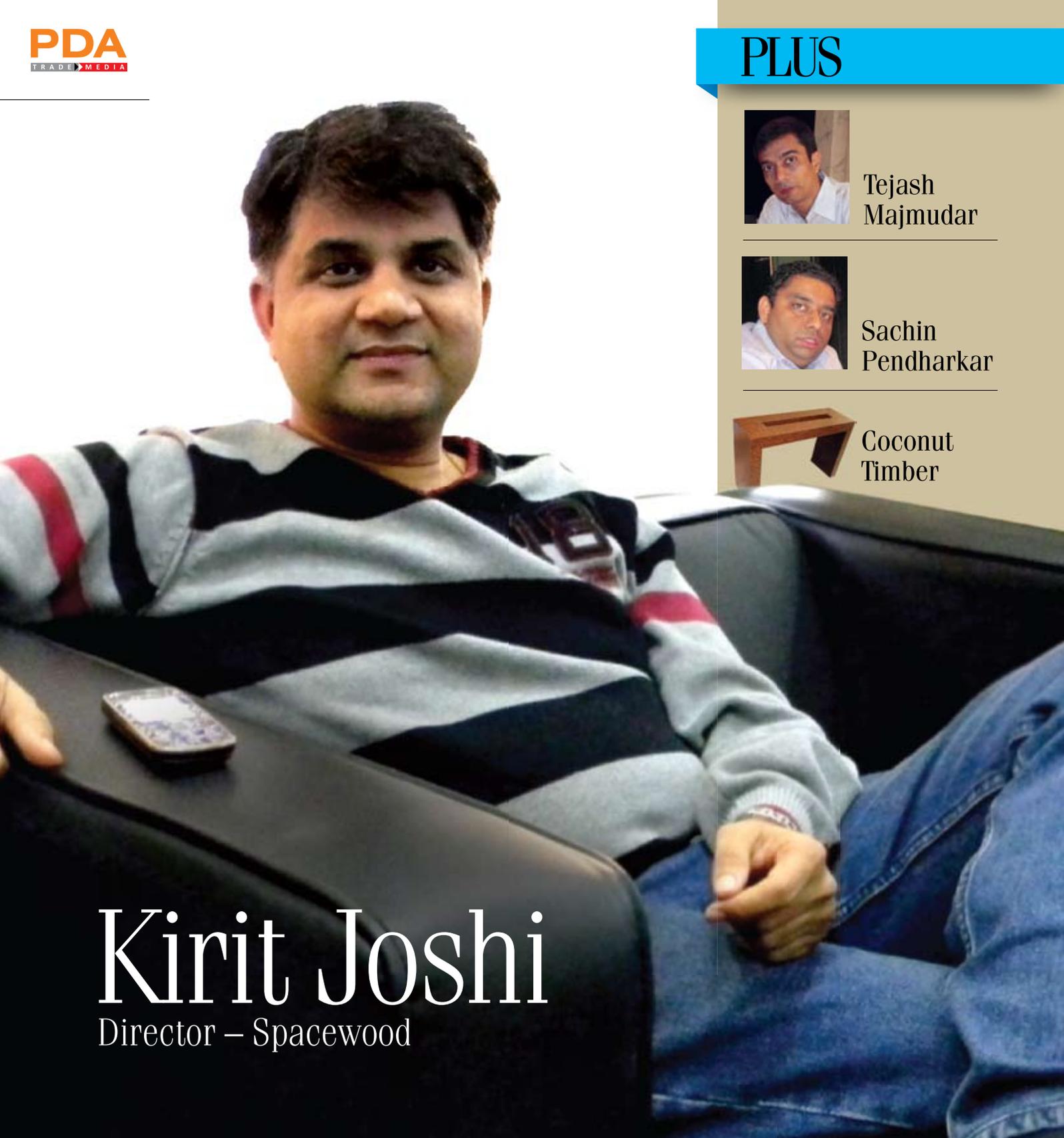
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Coconut
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Kirit Joshi
Director – Spacewood

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Many business people feel threatened by the added costs associated with meeting new technical and environmental standards. Dr. Ernst Kürsten offers a different approach, showing how in the long run, standards are also good for business.

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DESIGN
AND
FINISHING

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Editorial



Dear Readers,

This is the first issue of *Wood News* with me as the Chief Editor and I sincerely hope you will enjoy it. I don't think you will notice any major change from the style we have adopted since last year and I am trying to follow in the footsteps of my predecessor, Mr. David Macdonald, as best I can. David is an inspirational and dynamic force in the global woodworking industry and we will surely miss him here in India.

As we all gear up for Indiawood, I'm sure most of our regular readers will not have much time to spend reading magazines. However, I do believe there is some very interesting and useful information in this issue and, if you can spare the time, it is definitely worth a look!

We have an exclusive interview with the new team for Weinig in India. Though they are for the time being working under the company's 25-year-old Singapore office (Weinig Asia), they do have big plans for expanding their activities in India and opening an office here in the near future. Tejash, Sachin and Gero Bauer were all very interesting people to talk to as they are all extremely knowledgeable and experienced in the woodworking sector.

I also really enjoyed chatting with Kirit Joshi from Spacewood. He is a very amiable person and I like his modern approach to running a business – it certainly seems to be paying off for Spacewood!

Dr. Ernst Kürsten, who is a regular contributor to our magazine, makes the case for a more positive attitude towards adopting technical and environmental standards in our business practices. Though it can add to the cost, in the long run it is in all our interest to follow these standards and best practices. Wood industries are in a unique position today in that there is enormous potential for positive as well as negative effects on the environment. As science and technology continue to develop, we are finding more and more opportunities on the positive side. In particular, wood products offer a unique way to mitigate global warming by storing large amounts of carbon. I believe this will become more and more important in years to come and wood products will be in even greater demand as the planet heats up.

Mr. N. Sathappan contributed a very practical guide to the different wood-based panel materials on the market which should be a handy reference for freshers and provide some additional, little-known information on the subject even for experienced panel professionals.

There is also a nice article by K. P. Jayabhanu about the use of coconut timber. This underused resource does in fact have a wide range of commercially viable applications and, in this day and age, with the rising cost of raw materials and environmental concerns like global warming and deforestation, more research on this topic is definitely worth pursuing.

Talking about raw materials, I would like to take this opportunity to announce the *Wood News* Seminar Series at Indiawood 2012. This will be the third time we have organised Seminars concurrent with the big woodworking exhibitions. At Indiawood 2010 we had a very successful Seminar on "Wood in Architecture", a similar event at Delhiwood 2011 and this time we are giving the theme "Know Your Wood". Inspired by the regular *Wood News* Feature with the same name, the Seminar provides a unique opportunity for timber importers, manufacturers, architects, interior designers, construction industry professionals and other interested parties to gain an in-depth understanding of some of the different types of timber now being imported to India, some of which are very new and relatively unknown in the industry, and of some innovative and potentially profitable ways to make use of these resources.

I sincerely hope that the event is well attended and that it has some lasting impact in terms of enabling growth and business development. As it has been for the past 21 years or more, *Wood News* is committed to facilitating the industry as it strives to go forward.

Any comments or questions on this issue can be sent to me free of cost, using the Business Reply Envelope included in the last few pages of this magazine.

Happy Reading!
Daniel Ship

WOODNEWS

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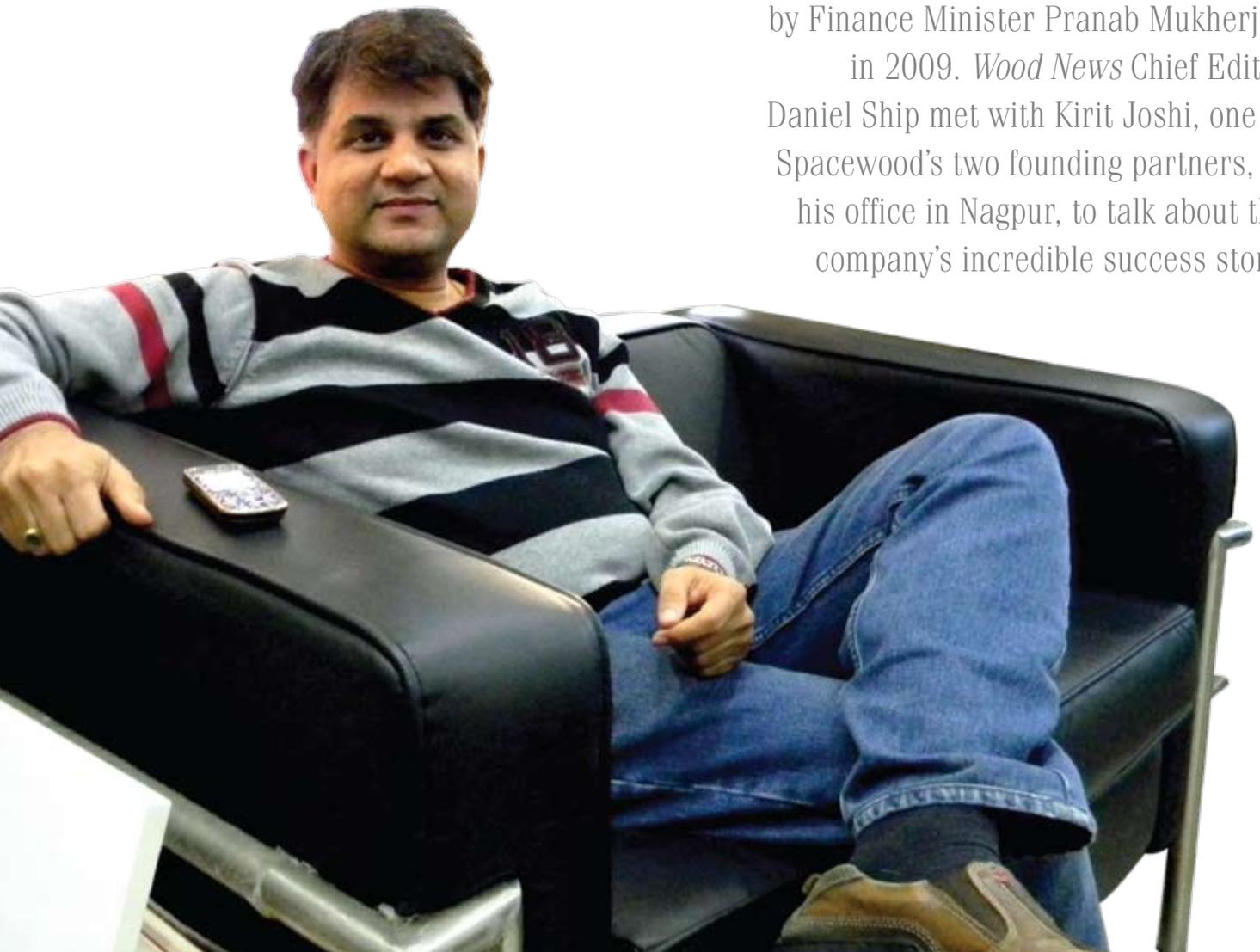
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Kirit Joshi

*Director, Spacewood
Furnishers Pvt. Ltd.*

Since the 1990s, Spacewood has been a well-known name in India. The company revolutionised the kitchen industry when it started making membrane pressed kitchen shutters in 1997, paving the way for the growth of the entire modular kitchen segment today. Starting with just ₹ 50,000 investment, the company has grown into a huge multi-product entity with pan-India reach, over 600 employees and with a turnover of more than ₹ 150 crore in the last financial year. In recognition of the company's outstanding growth and entrepreneurship, Spacewood has been presented the CorpExcel Award by Finance Minister Pranab Mukherjee in 2009. *Wood News* Chief Editor Daniel Ship met with Kirit Joshi, one of Spacewood's two founding partners, at his office in Nagpur, to talk about the company's incredible success story.





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Can you tell me the story of how Spacewood got started?

Spacewood got started in 1994. I was working in a furniture company – Ergo – which used to be called Furn Plastics earlier. After my college and engineering days I got my first job there in Furn Plastics. My very close friend and colleague, Mr. Vivek Deshpande, was working in the same group company, VIP Industries. I worked there for about one and half years and, since it was a furniture company, they were looking for a vendor. So we both resigned from both of our jobs and started a very small working unit for their office furniture division. We started with a very small factory, with about 2,000 sq. ft of rented space, with about 6 workers and about ₹ 50,000 investment. We were doing job work for them – cutting panels, edge banding, some machining – just doing basic operations for their components.

I would say that when we bought the membrane press in 1997, it was the major turning point. We got our first membrane press from Bürkle, and I will always have a very high regard for Mr. Bender who is the MD and owner of Bürkle. He was very kind and offered the membrane press at a very attractive price because we were pretty young and there was no membrane press in India. At that point in time it cost us 200,000 Deutsche Marks (approximately ₹ 40 lakh). It took almost two years to regain that ROI.

Then we started supplying the membrane pressed panels to all the kitchen companies all across India. Spacewood was becoming synonymous with modular kitchens. People used to look at a modular kitchen and say, “What is this? It’s a Spacewood”.

How did the word spread quickly across India?

We participated in various exhibitions. I worked very hard for about two years in promoting these shutters. I travelled to almost every city and met almost everybody who was into the kitchen field and who owned the kitchen showrooms. We marketed it very well in the beginning and afterward, the word kept on spreading.

How long was it before another company also came in with a membrane press?

I think after we started, a lot of companies saw how lucrative it was and within about two years, we started facing competition. However, we can say that we are still the biggest suppliers of kitchen components in the country today.

Nowadays, a lot of people are moving out

of the kitchen components business and they are concentrating more on complete modular kitchens. This needs a lot of focused attention in terms of service, in terms of delivery, in terms of relationship, in terms of new product development. It needs a commitment.

Spacewood has been very sensitive to this, actually. Problems are going to come but then who commits on a long term basis is very important. We never say, “Forget it. It’s out of guarantee period” or something. We still take responsibility for every product that is manufactured here. In India, people don’t understand guaranteed validity. They understand life expectancy. That issue has to be addressed more sensitively in my opinion.

Right now we offer a three year warranty on membrane pressed kitchen shutters – but actually, we are working on something with a few MDF manufacturers, foil manufacturers and glue manufacturers whereby we want to offer a 10 year warranty. It’s a combination of the glue, foil, MDF and the process. I have seen that IKEA offers 10 years’ warranty on some of their kitchen panel products. That’s a significant advantage. There’s a significant customer confidence that can come back. In India, there is a big issue in terms of the usage of MDF. People are scared of using MDF right now.

How many machines do you have now?

We have more than 70 machines in the two factories. We have 12 CNC routers, 2 membrane presses, innumerable edge banders – I’ve stopped counting. We recently added a new IMA edge bander. We also

have a second factory now, which is totally dedicated to manufacturing office furniture. In total, the two factories occupy over four lakh sq. ft.

How about on the labour side? Is it hard to get the workers you need?

Yes, we have a big scarcity. Beyond a certain limit it is impossible to get skilled workers. What is more important is that we train a lot of workers here. A lot of furniture factories have also come up at Nagpur now. They try to pull in all the key people from here. However, people know that Spacewood is growing at a steady speed and the management is good. They learn a lot and overall they find that their future security here, unlike at smaller workshops where there could be a lot of issues. Luckily, we have grown to a level where we are able to pull manpower on our strength now. We are being rated very high in terms of working culture.

You are using imported MDF?

Yes, we use imported MDF and imported chipboard. In my experience, the quality is higher and the price is also better. From Malaysia and Thailand we are getting a cheaper price. I think in Malaysia the wood is very cheap, the plants are older so they might have taken out their investments long back. The cost of power is also cheap there. That’s the reason I think most of the big buyers are still importing.

What are the environmental credentials of Spacewood?

We are one of very few companies that is ISO 14000 certified. We are very concerned



The Quality Control Lab at Spacewood’s factory in Nagpur includes dozens of different testing equipments.

Spacewood's new Experience Center is nearing completion in Nagpur.



We need to improve every day and we always look at good companies which follow best practices and try to follow that.

Furniture is about evolving. You can't be stagnant. You have to look up. You can't look down.

What's new for Spacewood this year?

For the last three years, Spacewood is more focused on complete finished products. We have started opening some new showrooms called Spacewood Experience Centers. We have complete bedroom furniture, complete kitchen furniture and complete office furniture. We have two divisions. The industrial division supplies components to the industry – semi finished products. We

about waste treatment, effluent treatment, dust, the raw material which we use. We don't use any material with a lot of fumes. A lot of our office furniture, we are working on green certification. I think within 3 months we will have green certification for our office furniture.

Can you tell me about the testing center?

We have a dedicated testing center in the factory. We test everything. For all the stationary materials, we test the modulus of rupture, density, screw holding capacity, etc. For melamine chip panels we test the abrasion resistance. We check every mechanical property of the panels. Then for the moving parts we test the cycles. For example, for a hinge we check it for about 50,000 cycles. The same thing for slides. We test for performance under different conditions like high heat and humidity. Before we start using any material for manufacturing, it has to pass all the tests.



Over 600 employees work in Spacewood's 4-lakh-plus square feet of factory space.

also now have a complete finished products range. We are coming all across India with small retail showrooms.

What are your plans for Indiiwood 2012?

As you know, we have been traditionally supplying kitchen shutters and components for the furniture industry. That's how Spacewood is known in the industry. Today we are getting more into complete finished products. As of now, 20% of our business is components and 80% is furniture. We see a lot of growth potential on the furniture side.

From January 1st we are likely to come out with a new brand for the semi-finished products. So the components will likely not be branded as Spacewood anymore. We will be launching the new brand in time for Indiiwood.



This membrane press, the first in India, was instrumental in the company's success.

All About Wood Based Panel Materials

By N. Sathappan

Timber is becoming a scarce material because of the continuing destruction of forests all over the world. Tropical deforestation in developing countries is having a devastating effect on food production, fuel wood, fodder supplies, soil fertility and water resources. The destruction of forests is resulting in widespread loss of unique ecosystems, directly contributing to the extinction of plant and animal genetic resources. Moreover, timber is available only in limited sizes and thicknesses and is susceptible to insect/termite attacks. Less availability of timbers leads to skyrocketing timber prices.

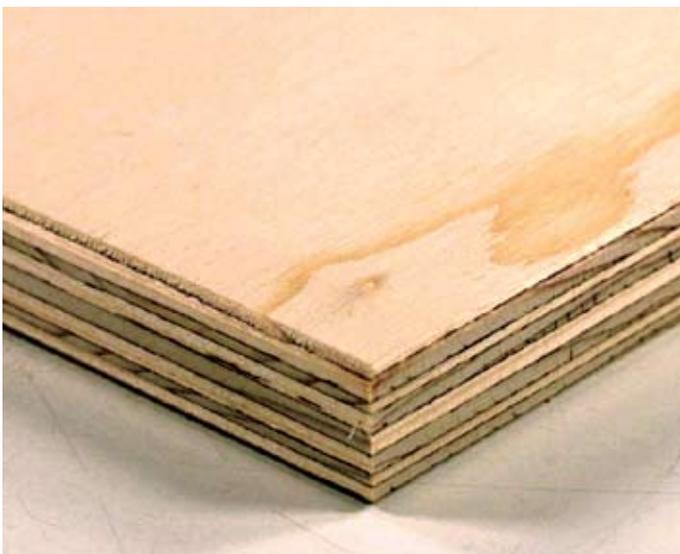
The phenomenal advances made by man in the field of science and technology have created a variety of wood based panel materials (WBPM) to substitute for scarce timber.

Wood based panel materials are “boards manufactured by using wood veneers, wood chips, wood fibres or wooden waste as raw materials” and can be classified into various categories. The following are the most common WBPM:

- (1) Plywood
- (2) Block Board
- (3) Particle Board
- (4) Medium Density Fibre Board (MDF)
- (5) Hard Board or HDF
- (6) Oriented Strand Board (OSB)

Plywood

Plywood is manufactured from veneers cut from a wide range of timbers and glued together in layers. By orienting the grain of alternate layers at right angles, superior strength and stiffness is achieved; the veneers’ thickness and orientation can be varied to achieve particular strength and appearance characteristics. Plywood of various types and grades is available: (i) Commercial Plywood, (ii) Water Resistant / Proof Plywood, (iii) Boiling Water Resistant / Proof Plywood, (iv) Shuttering Grade Plywood, (v) Marine Grade Plywood, (vi) Fire Retardant Plywood, (vii) Veneer Faced Plywood, and (ix) Chequered Plywood.



Plywood has many applications, including both interior and exterior wall paneling and cladding, flooring, furniture manufacture, shuttering boxes, boat building, packages and boxes, automobile interiors, musical instruments, sign boards and sports equipment.

Block Board

Block board is made up of a core of softwood strips glued together. The strips are sandwiched between veneers of softwood, hardwood, thin MDF or particleboard and glued under high pressure. The internal strips are generally made of lightweight wood.



Blockboard is used to make doors, table tops, shelves, cabinets and partitions. It is generally not suitable to outdoor use.

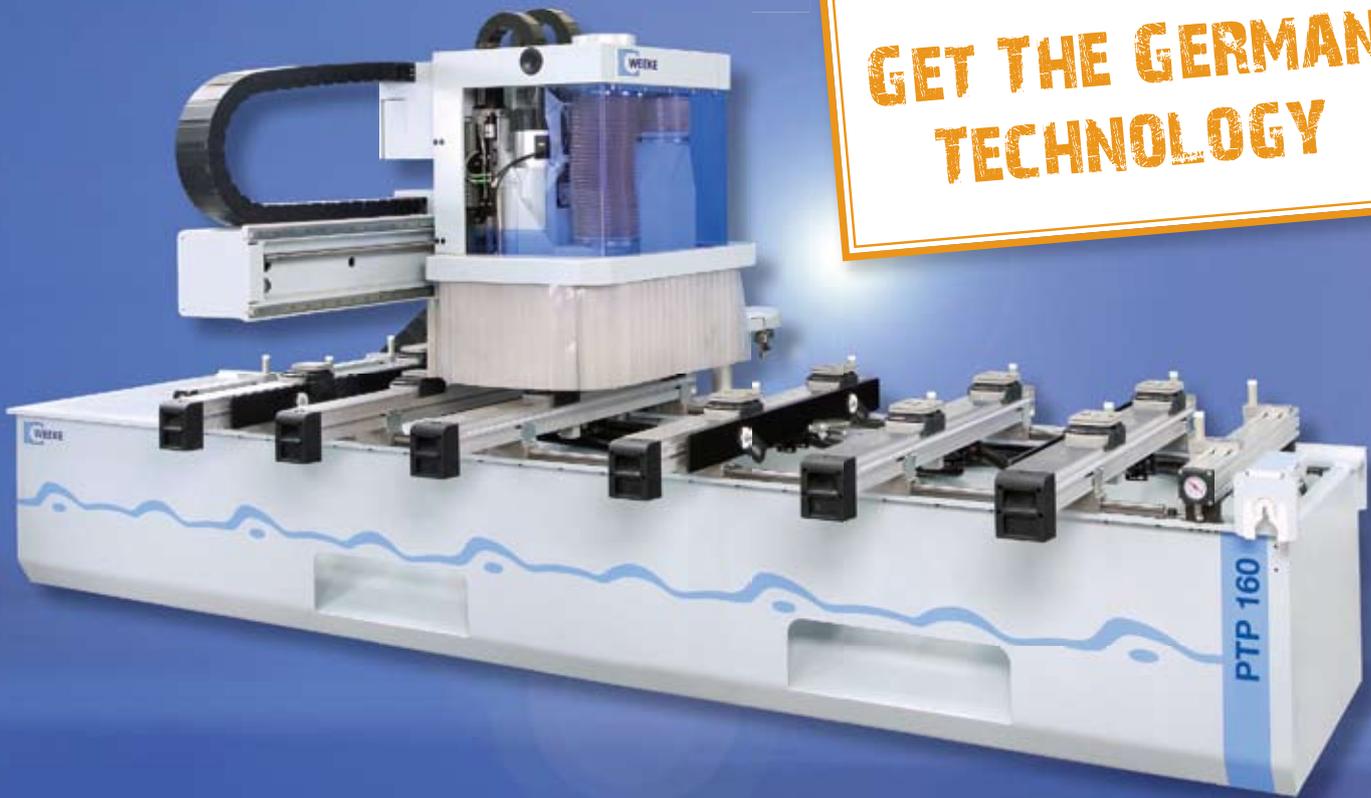
Particle Board

Particle boards of different types are manufactured from a range of cellulosic materials such as wood, flax and bagasse. Particle boards are classified into two major grades: (1) Interior Grade Particle Board and (2) Exterior Grade Particle Board. In both the grades, the major types are (i) Veneered Particle Board, (ii) Prelaminated Particle Board and (iii) Commercial Particle Board.



Particle board is widely used in furniture and interiors.

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Medium Density Fibreboard (MDF)

MDF is manufactured by using wood species such as Rubber, Pine, Eucalyptus or Acacia. These species of wood are converted into wooden fibres which are then compressed under high temperature and pressure with synthetic resins. MDF is generally denser and stronger than particleboard and the fibres used to make MDF are much finer. MDF boards are also available with various grades and types: (i) Interior Grade MDF, (ii) MR Grade MDF, (iii) One Side Prelaminated MDF and (iv) Both Sides Prelaminated MDF.



MDF may generally be used in the same applications as particle board. Because of its smoother texture, it can be cut, sanded, drilled, machined and filled without damaging the surface. MDF is produced in various grades like E2, E1, MR, Shuttering Grade, etc. to meet a wide range of requirements related to performance and cost. The major areas of MDF usage are follows:

- Flush doors and panel doors
- All types of furniture and interiors
- Partitions
- False ceilings
- False flooring
- Kitchen cabinets, wardrobes
- Handicrafts
- TV cabinets, speaker boxes
- Bus and rail coach building

Hard Board & HDF

High Density Fibreboard (HDF) is made the same way as MDF but it is much harder and stronger. Hardboard may be even more dense and hard and is made by a wet process. Both are used in construction, flooring, furniture, door skins, home appliances, automobiles and cabinetry.

Oriented Strand Board (OSB):

Oriented Strand Board is manufactured in wide mats from cross-oriented layers of thin, rectangular wooden strips compressed and bonded together with wax and resin adhesives (95% wood, 5% wax and resin). The layers are created by shredding the wood into strips,

which are sifted and then oriented on a belt or wire cauls. Most of the world's OSB is made in the United States and Canada.

OSB is used in furniture manufacture and construction. It has properties generally similar to plywood and has some advantages:

- OSB is generally more square and has smaller dimensional tolerances.
- It can be manufactured into panels of up to 8' x 24', far larger than plywood.
- There are no soft spots such as those that can occur in plywood.
- OSB is made from smaller (often farmed) trees reducing the demand for old growth timber.
- OSB has greater shear strength than plywood; the span rating, nail pull and screw hold are all roughly the same.

The major disadvantage of OSB is that it is more susceptible to deformation when exposed to moisture.

General Information on the Manufacturing Process

Plywood

Different types of plywood are manufactured from veneers cut from a wide range of timbers. For furniture applications, the surface veneers are normally selected to be relatively free from knots, stains or other defects according to the grading rules applicable to each type of veneer. The density of plywood is in the range of 500-900 kg/m³.

Particle Board

Particle boards of different types are manufactured from a range of cellulosic materials such as wood, flax and bagasse. The raw material is processed mechanically to produce particles of varying sizes. The particles are dried, mixed with a resin binder and then laid as a mat which is pressed at high temperature and pressure to form the board. Particle boards used by the furniture industry have densities generally in the range 550-750 kg/m³.



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Medium Density Fibre Board – MDF

Most MDF is manufactured by a dry process – the wood fibres are dried before they are formed into a mat for pressing. The high strength of MDF is achieved by the addition of a synthetic resin binder. Wet process MDF relies on the lignin naturally occurring in the wood to bind the fibres; it is generally not as strong and more susceptible to moisture absorption. The typical density range of MDF is 600-900 kg/m³.

Hardboard & HDF

To make HDF and hardboard, the wood fibres are exploded and highly compressed. The high temperature and pressure used in the wet process to make hardboard eliminates the need for added resin binder; however, resin may still be added for greater strength. HDF is a dry process board and is made the same way as MDF. The names of HDF and hardboard are often used interchangeably. The typical density range of MDF and hardboard is 800-1040 kg/m³.

Usage of Wood Based Panels in India

Plywood is the oldest WBPM and still the largest selling in India. However, the Plywood Industry faces problems due to shortages as well as increasing cost of raw materials. This has contributed to the rapid increase of production and usage of particle board and MDF in India. Though ply, PB and MDF all use timber as a raw material, the conversion ratio of raw material to finished product is much higher in MDF and PB. Furthermore, it is only MDF and PB which can use any waste wood/ plantation timber of any size, or even other non-wood fibres such as bagasse, which is agro waste from sugar cane. The usage and application of PB is limited to vertical and horizontal applications only, whereas MDF can be used in a variety of applications where natural timber/plywood is used.

General Advantages of MDF

A. Wide range of sizes and thicknesses available:

Available thicknesses: 2.3mm, 2.7mm, 3mm, 3.6mm, 4mm, 4.75mm, 5mm, 5.2mm, 5.5mm, 6mm, 7.5mm, 7.8mm, 8mm, 9mm, 10mm, 11mm, 12mm, 15mm, 16mm, 17mm, 18mm, 25mm & 30mm.
Available sizes: 4'X6', 4'X8', 6'X8', 6'X12', etc.

B. Availability of raw materials:

MDF is commonly made from rubberwood, acacia, poplar, causerina, albizia, eucalyptus or pine as raw materials. Most of these species are fast growing plantation varieties, easily available and need to be cut and replanted in periodical intervals. Species whose timber is not otherwise commercially viable may be used for production of MDF. Wood waste from sawmilling / manufacturing and agro waste fibres such as bagasse or rice stalks can also be used to make MDF.

Unique Advantages of Plywood

- Wide range and grade to suit each and every application.
- High load bearing capacity due to the cross placed nature of veneers

- Easy workability
- Easy availability because of more number of producers
- Retain the natural look of timber on the face
- Termite and water resistant
- Special grades with fire-resistant quality also available
- High Modulus of Rupture
- High level of carpenter's acceptance

Limitations of Plywood

- Chances of delamination because of the existence of layers
- Will splinter while cutting
- Cannot be machined or carved
- Thickness tolerance very high
- Low tensile strength
- High cost

Unique Advantages of Particle Board

- Does not delaminate
- Edges can be moulded and shaped with special tools
- Smoother surface (100 grit finish) and edge
- Adequate levels of modulus of rupture and tensile strength

Limitations of Particle Board

- Thickness range is limited – starts from 8mm only, whereas plywood starts from 3mm and MDF from 2.3mm
- Requires skilled labour and special tools and fittings
- Poor capacity to retain screws and nails
- Requires edge banding/lipping
- Proper care should be taken against moisture related problems.

Unique Advantages of MDF

- Does not delaminate since there are no layers
- Edges can be moulded and shaped just like solid timber
- Does not splinter
- Excellent capacity to retain screws and nails
- Can be carved on face and edge like expensive varieties of natural timber
- Can be joined, rebated, turned, and grooved like solid timber
- Smoother surface (140-160 grit finish) and edge
- High Modulus of Rupture and tensile strength

Limitations of MDF

A Proper care should be taken against moisture related problems

The main problem area where extra care must be taken with MDF and PB usage is in moisture prone applications. This can be tackled by using special grades like MR grade and proper sealing of edges and surfaces with laminations, coatings or sealants.

Most varieties of wood based panel materials are resistant to termites and other insects. This quality is achieved by adding formaldehyde as the binder during manufacturing process. The poisonous content of formaldehyde resists termite attack.

As WBPM offers the feel, look and richness of natural wood, its acceptance and popularity is ever increasing. As long as proper care is taken while converting WBPM into end applications, it offers excellent value for money.



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Value Added Products from Coconut Timber – An Overview

By K.P. Jayabhanu, Chairman, Plant Wood Interiors Pvt. Ltd.

The increased demand for timber has caused indiscriminate felling of trees from the natural forests, seriously affecting the ecology as well as the living conditions on earth. Growing population and higher per capita consumption of timber products due to elevated living conditions have put tremendous pressure on the natural forest resources. Illegal felling has caused serious environmental problems in many regions of the world, which are considered to be the green areas required for maintenance of the ecological balance.

The development of plantations for timber has been a parallel activity and the results in terms of yield from such plantations are not yet adequate in comparison to the increased requirement for timber. Many heavily wooded areas in developing countries have become importers of timber to meet their requirements for wood and wood products. India, with a very large requirement for timber and a highly depleted forest resource, depends largely on imported timber to meet the various requirements for wood products. Since the effect of plantation timber is not appreciable yet, it is absolutely necessary to explore the possibility of processing plantation residue timber as well as monocots from plantation or fast growing species like bamboo. The coconut tree has been planted in many tropical regions and is one of the oldest plantations in both the organized and unorganized sectors. Over matured coconut trees offer a good raw material base for production of lumber and products for various end-uses.

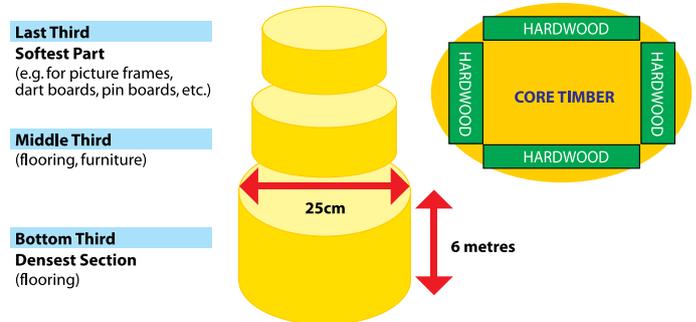
Salient Features of Coconut Wood Processing

The proposal for production of value added products from coconut wood should seriously consider the structure and density variation of coconut wood stems. The variation in density necessitates a programme to manufacture various end-use products based on this particular feature. The coconut trunk stem analysis is as shown below.



HT. FROM GROUND (M)	STOCK LENGTH (M)	DIAMETER OF PALM							PRODUCT PROCESSING
		700	500	400	300	200	100	700	
15	5								PARTICLEBOARD BIO ENERGY TORREFACTION WPC
10	2								PARTICLEBOARD CHARCOAL
8	3								SCANTLINGS WALL PANELING FURNITURE
5	2								LUMBER, PANELING FURNITURE
3	3								LUMBER FLOORING

The following sketch indicates the segment which is considered to be hardwood suitable for parquet, deck and production of high density items.



The durability of the hardwood segment is increased by coating the wood surface (at the bottom) with a suitable low toxicity chemical preservative. The coconut wood does not have any diametric growth, wood rays, branches or annual rings, and hence the swelling and shrinkage properties hardly differ in the tangential or radial direction. Compared to other species of corresponding densities, the volume of shrinkages and expansion is negligible. The outer segment which is air-dried for normalisation provides a stable parquet slat input.

The following table shows the density segment of a coconut stem recommended for different uses as coconut lumber product, for building construction.

Segment	Density	Uses
Lower Stem	Hard	Flooring, Trusses, Floor Joists, Staircase Components, Door Panels, Rafters, Window Jambs and Sidings
Middle Stem	Medium Hard	Exterior Wall Panels, Ceiling, Studs, Purlins and Roof Shingles.
Top Stem	Soft	Panels and Interior Partition Walls.

As a rule, it is suggested that coconut wood with density below 400 kg/m³ should not be used as load bearing structural components but only in the internal parts of a building such as ceilings and wall linings in the form of boards and wall paneling.

The other end-use products from coconut wood could be listed as follows.

Segment: Lower Stem

Density: Hard

Uses: Cigar Boxes, Jewelry Boxes and Chests, Rods and Sticks, Handles, Lampshade Stands, Show Cases, Mouldings, Plates, Bowls, Paper Weights, Ash Trays, Flower Vases, Parquet Flooring, Balusters, Street Sign Posts, Road Guard Railings, Table Tops, Stool Tops and Furniture Components.

MATERIALS

Segment: Middle Stem

Density: Medium Hard

Uses: Packing Boxes, Glass Shutter Frames, Name Plates, Shelves, Cabinet Dividers, Balusters, Headboards, Drafting Boards and Furniture Components.

Segment: Top Stem

Density: Soft

Uses: Shelves, Radio and Television Cabinets and Clothes Hangers.

Production of Charcoal

Coconut wood is comparable to other woods as a fuel. Medium to good quality charcoal could be produced from coconut wood using any of the conventional methods of making charcoal.

The high density segments of the trunk yield higher charcoal recovery and better quality, compared to that from the low density segments. Experience has also shown that good quality charcoal can be obtained from logging and sawmilling residues like coconut trunk slabs and timber off-cuts and from the butt part of the trunk. The upper portion of the trunk, consisting of low density wood, gives charcoal of inferior quality.

Torrefaction

Coconut wood chips could be utilised to generate high quality fuel by the process of torrefaction. Fuel produced by torrefaction burns with very little smoke and generates less ash. However, this process is still under trials and commercial exploitation has not started.

Coconut Fiber-Cement Board (CFB)

Coconut fiber-cement board (CFB) is a relatively new product that makes use of coconut wastes and can be combined with coconut wood. It is manufactured from fibrous materials like coconut coir, fronds, mid-ribs, coconut top logs, or even shredded wood from small diameter fast-growing trees growing along the borders of coconut plantations. Manufacturing CFBs can be a good investment segment in developing countries facing huge demand for housing. CFB is a good replacement for tiles, brick, plywood, asbestos and cement hollow blocks.

Housing and Shelters

Coconut lumber and CFB could be utilised for building residences and commercial blocks, utilizing a well engineered prefabricated housing technology. The coconut lumber houses are built in various parts of the world. Efforts are made in India also to establish alternate products for building houses and coconut wood and boards could be a reliable source.



The model houses built in Philippines indicate considerable scope for utilising coconut lumber and coconut wood based panels.

Wood Polymer Composite (WPC)

Efforts have been made to produce coconut fiber / chips and polymer composites for various end-uses. The trials have been successful and WPC based on coconut fiber could be produced on a commercial basis. However, the cost of production seems to be high. Hence the production is commercially viable for few selected applications only.

Commercially Viable Value Added Products from Coconut Wood

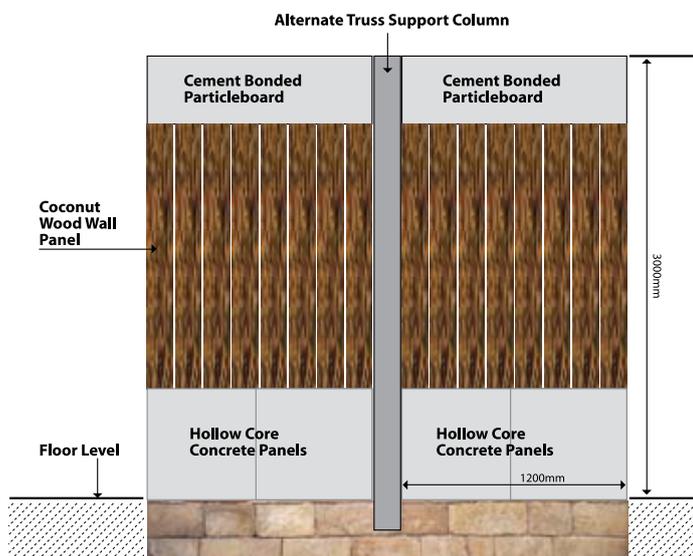
Investment Opportunities

Currently, in India, there is no organized investment programme in the sector of secondary processing of coconut wood. Some of the items which could be commercially manufactured with viable economics are listed below.

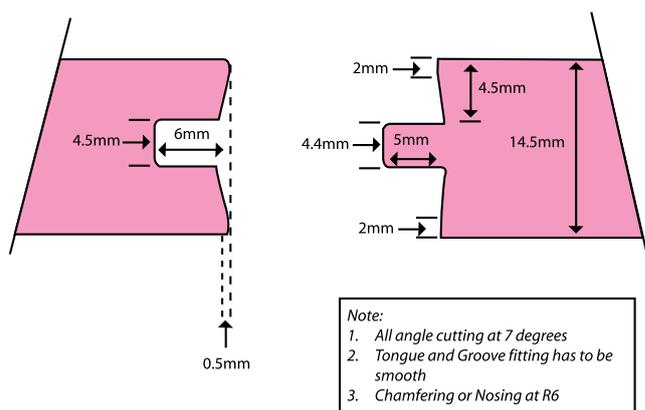
Parquet Flooring



Model Coconut Wood Wall Panel System



PARQUET TONGUE & GROOVE JOINT DETAILS



The wooden parquet flooring market in India has registered very high growth rate in the last few years. The discerning customers prefer wooden flooring in selected areas in their residences or apartments. Recently wooden parquet flooring has made inroads to commercial buildings, office spaces, super markets and clinics also. The high price of timber and the resultant increase in the prices of wood parquet encouraged use of coconut wood parquet for various end-uses. The technological development improves the durability and wear and tear of the coconut wood parquet and renders it as a cost effective eco-friendly natural product.

Wall Paneling

The demand for solid wood wall paneling for interiors in residences, commercial spaces and restaurants has been increasing at a rapid pace. The preference for eco-friendly natural product is strong and coconut wood wall paneling is one of the alternate sources which is cost effective. An investment in coconut wood parquet flooring could produce wall paneling also.

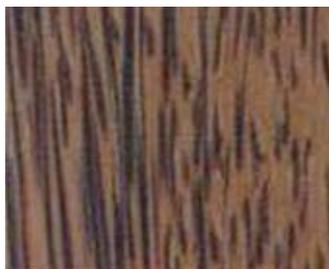


Door and Window Frames

Matrix impregnated door and window frames from processed coconut wood could be a product which will meet the large demand for door and window frames in India. The recovery could be increased by laminating smaller thickness scantlings. Such a product will be more stable and cost effective.

Coconut Wood Veneers

There is demand for coconut wood face veneer from certain panel manufacturing units in India and abroad. Slicing of coconut wood could cause problems of fiber separation. This problem will be acute during the veneer drying process. One solution is to upgrade the input coconut wood slab, for slicing, by impregnating a matrix which will provide lateral binding of fibers. Also, the thickness of the veneer has to be designed to minimise such a problem. The timber slicing units in India could be interested in developing coconut wood face veneers also.

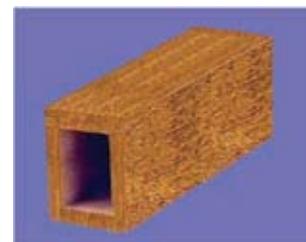


Furniture and Components for Interiors

Processed coconut wood offers a refreshing change in the segment of solid wood furniture. Considerable headway has taken place in developing coconut wood furniture for various applications and end-uses.



Coconut wood hollow beams of different cross sections could be produced in lengths up to 4 m. The product may find application in interiors as well as exterior pergolas. The design and cross section of the product could be varied according to the applications. This component could be employed as columns also. In combination with metal sections, the hollow beam could be used as a load bearing component.



The web of the beam could be engineered either as a finger jointed and laminated timber or as solid planks with glued lap joints. Pre-engineered and pre-finished components could be produced from coconut wood for application in interiors as well as exteriors. The range includes hollow beams, columns, pickets, poles, cabinets and other utility products.

The item could be mass produced as long hollow beams and the same could be cut to the required length for the production of various smaller components. The product may find application as an element in house construction also.

Novelty and Crafted Products

A well processed and upgraded coconut wood lumber could be utilised for production of various crafted items and utility products.

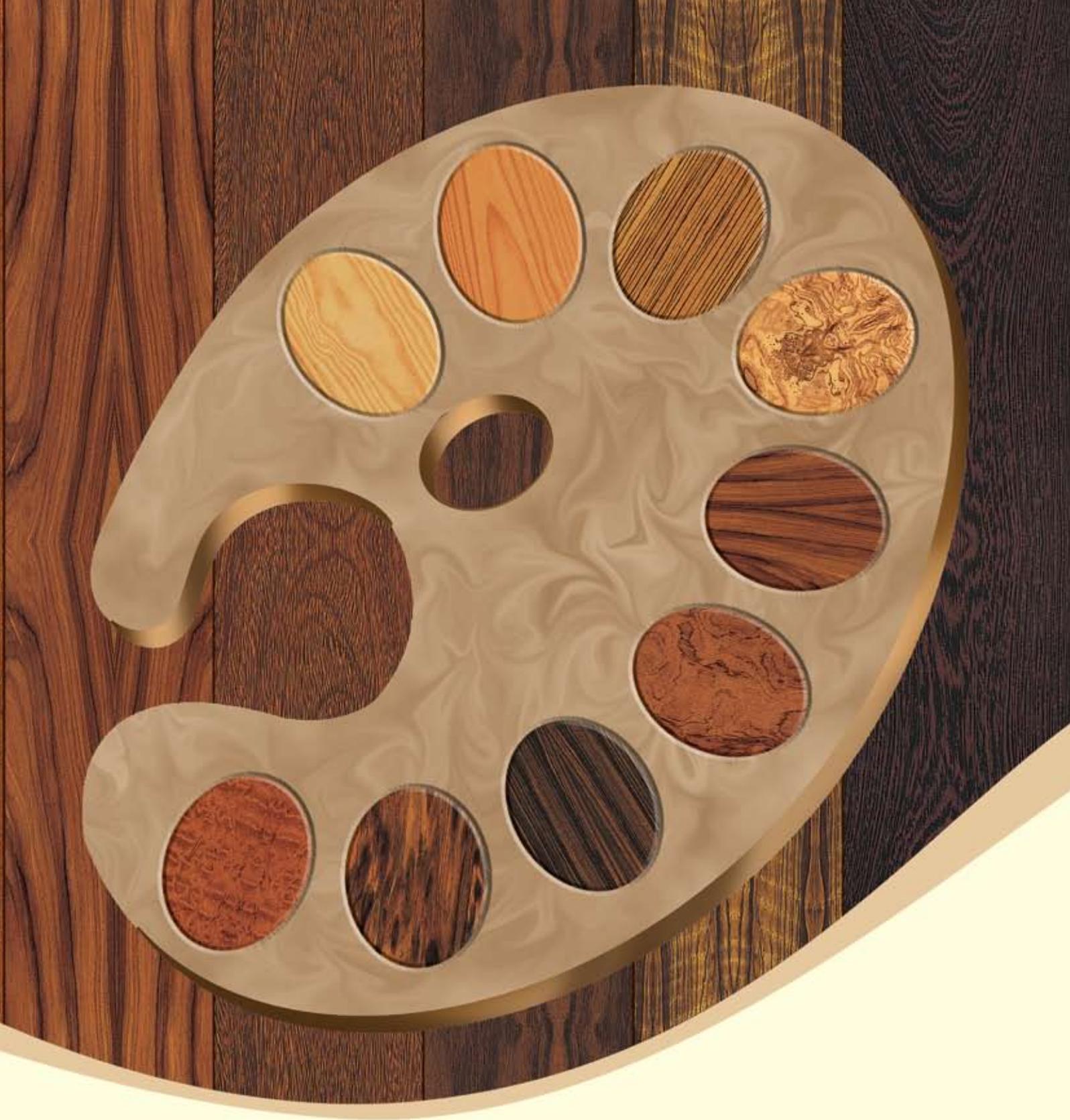


Handicrafts could be produced from coconut shell also. Such items which are combined with the craftsman skills could find export markets in Europe and other developed countries.

Coconut wood provides a suitable input for development of skills and production.

Conclusion

Large scale replantation of the senile coconut trees opens opportunity for investment in coconut wood lumber processing, secondary processing of lumber as well as power generation. A coordinated and a well planned effort will be of tremendous social benefits. The rejuvenation and replantation scheme initiated by the Coconut Development Board will act as a prime mover for the development of primary and secondary processing of senile coconut palms, generating considerable economic benefits to the society.



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Weinig Asia

Germany's Weinig Group is a technology leader in solid wood working with over 100 years of history. Different group companies specialise in different product segments and last year, the company bought out Holz-Her, adding panel processing into its portfolio. Weinig has had a presence in India for 11 years and this year, they are dramatically increasing their focus on India. They have taken on a new team including Tejash Majmudar (marked below as TM) and Sachin Pendharkar (SP) – two well known figures in the industry. *Wood News* Chief Editor Daniel Ship met up with those two, as well as their Singapore-based boss, Gero Bauer (GB), for breakfast at the St. Marks Hotel in Bangalore.

Why is Weinig expanding its presence in India today?

GB: The market has evolved from the entrance of the machine supplier where you worked with agents that have large portfolios. Now is the point in time where the company has to be more around; more present; to show the customers that we are around for the long run. Weinig will set up an office in India in the future. We know that the customer base is there but we want to develop that in a sustainable way, in a profitable way – otherwise it makes no sense – so we start with a small team: Tejash and Sachin, and the technicians to take care of our Holz-Her and Weinig customer base.

We have the team in place and we will move forward step by step.

TM: We want to convey the message of Weinig. Weinig has one simple motto – “We want to help people save wood”. Usually when you save your most important raw material, you are becoming more and more profitable. It’s also more environmentally friendly when you can do more with less. We are perceived as a premium brand and that our machines are much more expensive. Yes, the fact is that the investment in Weinig machines is a little bit higher than what you would get from other companies. However, the value proposition that we offer is much higher. Weinig machines are in operation for over 40 years. The machines have immense

value – especially in a country like India. People do not even throw away ball pens – they use refills. In this country, if you offer a machine that will run for 40 years, you know that’s value.

GB: In Europe, the only machines at auctions that still retain their value after 30 years are the Weinig machines. You still get spare parts for 30-year-old machines, 40-year-old machines.

“ You can count your profits, you can count your losses, but you cannot count your lost profits. ”

If the value proposition offered by Weinig is higher, how long does it take for the additional investment to pay off?

GB: Usually, experience shows us that when you buy a moulder, you see the difference after two years down the road. You see the difference in the quality that comes out of your machine, where our service capabilities kick in, where spare parts availability helps you immensely. When you buy Weinig machines, you get married for the long run. We are not here for short quick sales. I always describe it as a marriage.

TM: What we are telling to the customers is, in business, you can count your profits, you can count your losses, but you cannot count your lost profits.

One of my colleagues from Grecon has investigated amongst our customers the use of 4 or 6 mm finger joints, instead of 10 mm. Anyone would say, "Six mm is peanuts. Why would I bother?" Customer experience shows how it can result in additional production of 794 cubic metres per year, based on the volume that the machine can produce, which is worth approximately US\$200,000. If you factor in all the other advantages we can offer, it turns out to another \$165,000 that you can save by investing in a Grecon finger jointer. That's a total of \$365,000.

I have customers in the insulation business. These people are overloaded. They say that they are unable to produce what their customers demand. Insulation is an excellent example because we are adding to our power requirements tremendously. Many people do not know that we have readymade solutions whereby they can not only speed up production but also reduce the wastage that they are doing right now.

What are the applications for which Weinig machines have been used in India to date?

SP: The most common applications are for making door frames, finger jointed boards and wooden I-beams. Weinig actually has a lot of special purpose machines which include plastic profiling, pencil manufacturing, insulation material, wine barrels, etc. With the takeover of Holz-Her, we actually have more than 150 clients in India who are into their own segments, especially in wood as well as in panels.

Are there some applications where Weinig has a lot of potential but is not yet known in India?

GB: The trend for European style windows and doors is coming to India and we will be ready. Next year at Indiawood, we will showcase the Unicontrol 6 machine to introduce to Indian customers how professionally high quality doors and windows are being made. Further applications of the Weinig group for which there will also be a future here in India would include wooden houses, glulam beams to build gymnasiums, bridges, etc., flooring, kitchen cabinets, anything and everything to do with furniture. Not only standalone machines but also, with the help of our company in Germany, complete turnkey solutions giving the customer peace of mind. We provide solutions starting from sawmill operations all the way to finishing. If you are a customer and you do not find the product for the thing that you want to do in solid wood, call Weinig.

You mentioned Indiawood. What else have you got planned?

TM: At Indiawood 2012 we will be displaying a range of machines from our different group companies. That is, a finger jointing line from Grecon, a cross cut saw from Dimter, a rip saw from Raimann, a moulder, a tool grinder and a tool measuring system from Weinig, as well as the Unicontrol 6 – a special machine for manufacturing windows. We also have a moulder where the changing of settings is very quick and very easy. This is essentially contributing to your production time.

GB: That is what we call our PowerLock technology where you don't work with a standard spindle anymore. Usually on standard moulders, for example on the 6 spindle moulder, you have a changeover time of 45 minutes when you change each spindle to a different profile. With the PowerLock technology you are talking less than 10 minutes, which gives the customer incredibly more production time, speed and precision – the first product is perfect when it comes out of the machine.

Also, on the 6 head Powermat with HSK clamping shaft we have the feature called the oscillating spindle which can produce complex 3D profiles in high speed, things which could previously only be done with a CNC machine. This provides the perfect

solution for one application which is out there on the market. So we have several new things to show to the Indian customers. Two of the machines will be of particular interest to architects, the oscillating spindle moulder and the Unicontrol 6 for manufacturing windows.

“ When you increase your volume, you can decrease your costs. If you pass on the cost benefit to your customers, you enter what is known as a virtuous cycle. ”

How can most Indian businessmen improve their businesses?

SP: The new generation of solid wood workers coming in has seen worldwide how solid wood can be processed and wants to implement the same procedures in India. That is where technology is always coming in. Before, it was an unorganised sector, and everything was done on paper. Now it is converting to computers and everybody wants all the data on their palm. Weinig offers a complete range where you can have the data from your factory directly to your office or even to your iPad in real time.

TM: In 1995 or 1996 mobile phones came into India. I remember all the rates were approximately ₹ 16/minute. How many mobile phones are there in India now? Half a billion. More. Everybody and his dog has a mobile. Do you think that if mobile phones had kept the prices at ₹ 16/minute they would have got so much business? Of course not. They had to make some investment, they made their services more affordable and the people lapped it up.

This is the reality today. When you increase your volume, you can decrease your costs. If you pass on the cost benefit to your customers, you enter what is known as a virtuous cycle. You can keep your prices high, which will deter people from investing in your product, which will mean that you have to keep heightening more to justify your costs and you enter into a vicious cycle. The choice

is up to the manufacturer. The change is not going to be stopped by anyone. It's going to happen whether you do it or someone else does it.

What are the biggest challenges faced by the industry?

SP: The slow response from the banking industry and the higher interest rate. Customers are not willing to go for the bigger machines because the return on investment is going to 4 or 5 years because of the interest. The banking structure or the government bureaucracy was stopping the big buyers from investing in the machines.

India is a growing country so this industry is growing very slowly. A lot of effort has to be taken to educate people in terms of technology, the benefit they can get out of the technology and the right way of processing any material. That has been the big challenge for Weinig over the past 11 years.

GB: It's not easy to convince Indian customers because they always want to have an easier or cheaper way, not to invest in a professional solution. This is something from which the Indian customer has to evolve a little bit. Underneath that is the underlying problem of not having a vocational training

system that creates that trained woodworking force that, when looking at different technology, understands immediately what it means for them.

“Company owners in both the panel and wood processing industries have to be willing to spend a certain amount of good money to have good people.”

Do you think if there was more education at the working level, it would benefit the industry?

GB: Yes, this I can 100% sign that statement. For example, in our Singapore headquarters we have a training course for operators. When the operators are exposed to all the technology that they see in the demo room, it's like boys in the candy store. "Please wrap it up I want it." They know how this can help them in their daily work.

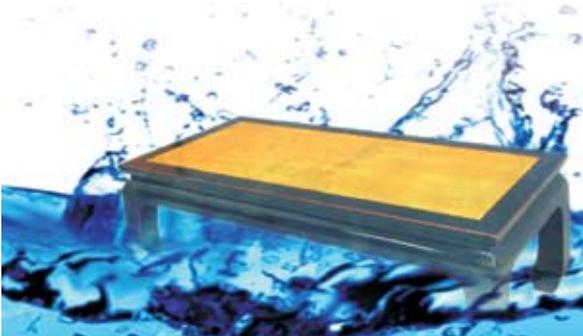
SP: The basic problem with the woodworking industry is the manpower which is available to run the machines. With the changing scenario, there is a shortage of manpower. In India, labour is not cheap anymore, so the manufacturer has to rely on some sort of manufacturing technique which can give him benefits and which doesn't involve as much labour – but the labour has to be skilled.

GB: Company owners have to accept that they also have to make investments into people, not only into technology. You have to have the good guys like they have in the electronics, chemical, engineering, automotive and IT sectors. Company owners in both the panel and wood processing industries have to be willing to spend a certain amount of good money to have good people. The more they want to introduce technology, the more they need to have 3, 4, 5 key personnel who are on a different level but who run the show on a daily basis. For that you have to spend a little bit more – there is no way around it. In South East Asia and China we have companies who specifically hire university graduates to operate their CNC machines. In India we also have to come up with a different approach to what sort of people we are hiring, how we develop those people. It's an investment in people as well as it is in machines.

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Altendorf WA 6



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Altendorf WA 8X with motorised rise/fall and tilt adjustment of the main saw blade and motorised adjustment of the rip fence.

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FEATURES WA 8

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.....
Cutting width 1,000 or 1,300mm
.....
Cutting height max. 100 or 125mm

Standards for a Better World

By *Dr. Ernst Kürsten*, Head of International Cooperation
ZHEUS (Zentrum für Holz, Energie, Umwelt und Sicherheit)
Holzfachschule Bad Wildungen (College of Wood Technology)



Machine to test the performance of cork flooring exhibited on the DOMOTEX fair in Hannover

Technical and environmental standards have become an important issue in the international trade of tropical timber products. For example, recently introduced phytosanitary regulations in importing countries require that wood and wood-packaging materials are subject to either debarking, fumigation or drying treatments. In the United States of America, imports are subject to the Hardwood Plywood and Veneer Association (HPVA)'s voluntary plywood standards and the grading standards of the National Hardwood Lumber Association (NHLA). Imports to the European Economic Area are subject to the mandatory Conformité Européenne (CE) marking of timber products. Other technical standards include rules for the consistency of wood dimensions exported for various uses such as flooring, decking and furniture (ITTO 2011). Indian companies who are involved in the international trade of timber products have to be aware of these developments. This article shall call their attention to a recently published comprehensive study of the International Tropical Timber Organisation (ITTO) about this topic.

Standardisation may begin with round timber (Requirements for the measurement of dimensions and methods for the determination of volume: ISO 13059:2011), and goes on with coniferous and broadleaved tree sawlogs (Sizes – Vocabulary: ISO 4476:1983; Visible defects – Classification, Terms and definitions, Measurement: ISO 4473 – ISO 4475). If both the partners of a trading transaction accept the same international rules, misunderstandings regarding quantity or quality can be avoided.

For sawnwood there are many different grading rules which are based on two different basic methods: a sawnwood piece

may be graded on the basis of the number of standard defects it contains in proportion to the overall size of the piece. The European Standard EN 14081 for strength graded structural timber with rectangular cross section is an example for this. The other approach involves the measurement of the defect-free surface area as a percentage of its total surface area. That's the approach of the grading rules of NHLA. Based on such grading rules a building company can be sure that a wooden beam will carry the load, respectively a furniture producer can calculate the yield of clearwood cuttings from the sawnwood he is buying.

In order to minimize accident hazards, health risks and material wastage by low quality products, there is also a huge and always increasing number of standards for wooden commodities. Basically, their application is voluntary. However, in the case of building products for the European market, the certification of quality is obligatory. For example, since March 1st, 2010, all wood floorings to be sold in the European Union (EU) need a CE mark. It confirms that they have been produced according to the European Standards (EN). To apply for the CE mark a company must be assessed by an organization known as a 'notified body' that is accredited by the EU. The assessment for wood flooring encompasses a number of tests according to European standards (EPH 2011):

- Fire behavior (EN 13502-1)
- Formaldehyde emissions (EN 717-1)
- PCP (pentachlorophenol)-content (CEN TR 14823)

In addition, in some cases other tests may be necessary:

- Determination of bending strength under static load (EN 1533)

- Slip resistance - Pendulum test (CEN/TS 15676)
- Thermal performance (EN 12664 or EN 12524)
- Natural durability (EN 350-2)

Of course, the development and testing of products meeting the requirements of such standards is quite expensive and time consuming. But these efforts are required to enter certain markets. Standards can enhance industrial efficiency and competitiveness. Quality control in the manufacturing process and the adoption of product standards will help to reduce costs by reducing wastage and production downtime. The objective of standardizing product quality and safety is to ensure that all wood products and furniture available on the market are safe to use and of solid and strong construction. Therefore, standardization as such can hardly be considered harmful to manufacturers, including those in India. On the contrary, the widespread use of standards is a necessary precursor to the evolution of a 'quality' culture in society. Standards can contribute directly to economic growth, environmental integrity and social equity. (ITTO 2011)

References:

EPH 2011. *CE-Konformitätsnachweis für Fußbodenbeläge*. Download from http://www.ihd-dresden.de/fileadmin/IHD-DRESDEN/images/Pruefen/R70/Fussboden_CE-Kennzeichnung.pdf

ITTO 2011. *Raising the standards – Monitoring the technical and environmental standards of tropical timber products in international markets. Technical Series No 39*, by Jukka Tissari, 67 pp. Download from http://www.itto.int/direct/topics/topics_pdf_download/topics_id=2725&no=0&disp=inline

Indonesian Furniture

By Tarun Lewis, Teak Heirlooms

Indonesian furniture has a unique, elegant and sophisticated style. Gifted carpenters produce top quality hand-made furniture. Teak Heirlooms enjoys working with these hard-working artisans.

Indonesia has a rich history, and this is reflected in its lovely designs. Dutch, Portuguese, Indian, Chinese, Spanish, and Islamic influences can be seen on many pieces.



Indonesia has its very own ethnic style as well. This is seen prominently in the concept of the royal daybed. This piece is used as a place to relax and enjoy the outdoors. The carving lavished on pieces like these is highly valued.



This chest of drawers on the left is the perfect example of the fusion styles. The handles are wooden and go very well on this piece. It has an understated elegance.



Indonesia is also very well known for its handicrafts. In this article, we would like to showcase Indonesian figurines made in teak and coloured using vegetable dye.



A chest showing Spanish influence.



More than 80% of the world's outdoor furniture is imported from Indonesia, most of which is teak. Appropriate weather proofing is done on the furniture.



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Brandt Ambition 1600 & 1400 Series

Ambition 1650 C - 1660 FGC

Setting new standards in performance and quality

In the standard version, the machine is equipped with a precision gluing unit, a tiltable end trimming unit, a multifunctional top/bottom trimming unit and a contour trimming unit. A perfect finish is guaranteed by the radius scraper and a buffing unit.

The powerful motors on all of the units provide the unrestricted power that is needed to process a broad spectrum of different parts. To offer the perfect solution every time, there is a joint trimming unit, a tiltable grooving unit as well as a glue joint scraper available.

With the optional Quickmelt gluing unit, plus the standard workpiece gap optimisation package for more effective production, and also the available separation and detergent agents, this range is optimally-equipped for all requirements. The versatility of this series is highlighted by the variable feed rate of 8-18 m / min.



- Infeed stop - For minimum workpiece spacing and safe operation.
- Automatic edge infeed device (optional) - Automatic edge infeed device for fast change over between different coiled materials.
- Trimming unit - Multifunctional trimming unit with DFC (Dust Flow Control) tooling technology for optimal extraction. Optional pneumatic or servo axis adjustment available.
- Tiltable grooving unit - For grooving work pieces either from the bottom side or from the edge side. It is possible to do either continuous grooving or non continuous grooving, as well as non continuous grooving for biscuit joints.
- Corner rounding unit - For corner rounding of thick PVC edges, as well as postforming and softforming profiles. Equipped with automatic adjustment between thin and thick edge materials.
- Magazine + pre-melter (optional) - Coil and automatic strip magazine with optical monitoring for reliable material supply, high availability and perfect glue quality via the Quickmelt gluing unit.
- Profile scraping unit - Unit to smooth radii or chamfers, equipped with quick change heads for fast profile change.
- Pressure zone - Heavy pressure zone (up to 12 mm) to ensure an optimum glue joint quality.
- End trimming unit - Perfect cutting by the end trimming unit using rigid high-precision linear guides and the workpiece gap optimisation package to achieve higher output in the same processing time. Soft-touch for optimal end trimming results even at high speeds.
- Central lubrication unit - Fully automatic lubrication of the feed track guidance system to guarantee precision and a long-life time of the conveyor chain.

Ambition 1420 - 1440 FGC

The powerful compact class

Perfect for the craftsman, as well as small and medium-sized enterprises, the Ambition 1400 series provides long-term competitive advantages. In the standard version, the machine is equipped with a precision gluing unit, a tiltable end trimming unit, a multifunctional top/bottom trimming unit, a radius scraper and a buffing unit.

Depending on requirements, the machine can also be equipped with separation and detergent agent spraying units, a joint trimming unit, a Quickmelt gluing unit for more efficient production, a rough trimming unit for heavy trimming, a contour trimming unit for corner rounding, a grooving unit and a glue joint scraper.

The feed speed is 11 m / min. which can optionally be increased to 14 m / min. without compromising the performance of the contour trimming unit. The optionally available automation packages shorten the setup time and provide a higher level of operational convenience.



- Grooving unit - For grooving of drawers or back walls.
- Pre-melter (optional) - On-demand availability and perfect glue quality with Quickmelt.
- Magazine - Coil and automatic strip magazine for a reliable material supply.
- Pressure zone - Heavy pressure zone up to 8mm edge thickness and 60mm workpiece height for an optimal glue joint.
- Corner rounding unit - Optimum corner rounding without adjustment or set-up, resulting from the coupled DIA tool and tracer roller.
- Profile scraping unit - To smooth radii or chamfers.
- End-trimming unit - Precise end-cut through a strong end trimming unit, equipped with THK guides.
- Multifunctional trimming unit (optional) - Flexible adaptation to different edge thicknesses and profiles through servo axes.
- Nesting package (optional) - Includes a multi-roller tracing device for the trimming and scraping units to compensate for hinge holes.
- Central lubrication unit - To lubricate the feed track guidance system to guarantee precision and a long life of the conveyor chain.

www.brandt.de

Significant competitive advantages – pace setting performance and quality

- Infeed stop - For minimum workpiece spacing and safe operation.
- Joint trimming unit - Perfect cut and high operating life due to diamond tipped tools for an optimum edge joint quality
- Radiant heater - Strong adhesion through optimal pre heating of the workpiece.
- Multifunctional trimming unit (Ambition 1440 FC) - Trimming of the edge overhang on top and bottom side as well as contour trimming

on the front and rear edges. Equipped with an automatic adjustment to switch between thick and thin edges. Workpiece thickness up to 60mm.

- Glue joint scraping unit (optional) - For the perfect finish and for edge scraping up to 0.3mm.
- Rough trimming unit - For rough trimming of all common edgebanding materials.
- Buffing unit - Buffing unit to polish edges and maintain their natural colour.

Strongbond Melamine Copolymer Glue

Melamine urea formaldehyde resin (MUF) is being widely used by the plywood industry for various value additions, such as to improve the water resistance properties of the end products and to work with high moisture content veneers during production. We have observed that, in many countries, MUF glue is mostly used for wood based panels (WBP). It is mainly due to the convenience of working with MUF glue, and secondly, some of the test results are even better than corresponding results using phenolic resin.

With MUF glue; if prepared and applied properly, one can make all types of WBP products such as shuttering and marine grade plywood, flush doors, panel doors, decorative overlaying, etc. The testing results satisfy various international standards. In India, so far the MUF products are not very popular in the case of WBP products. One of the reasons for this is that the BIS specifications recommend the use of PF resin. Of course, phenolic resins have their own unique merits and both the products are not in competition with each other.

Major advantages of MUF based products are that, with an even higher percentage of melamine in the resin, the specific pressure and hot press temperature requirements are almost the same as those for UF resin. Defective percentages can also be reduced remarkably. We have observed that MUF glued products have higher density compared to phenolic glued ones; moreover, the swelling properties are also comparatively less.

The plywood industry uses MUF resin starting from 1-2% melamine content up to 60% to produce different grades of wood panels. There are various methods of making MUF glue, such as adding melamine into the glue mixture to react in the resin kettle at different levels. One major constraint that has restricted the popularity of MUF is due to the lack of awareness on how to make MUF resin in the kettle itself with more than 30% melamine content. Melamine is not cold water soluble and its melting point is at 125 °C. To get the best results, melamine is required to react with formaldehyde to produce a copolymer at a particular pH and at a particular stage while making the resin in the kettle.

ARCL Organics Ltd., (formerly Allied Resins & Chemicals Ltd.) has a series of melamine based products in powder form, starting from various percentages of melamine in the products for different end uses, as well as MF resin powder that is useful for end applications in

plywood, laminates and some other industries. The biggest advantage of these powder MF & MUF products is that the shelf life is much longer than that of liquid resins. It is generally known that the more the melamine content in the MUF liquid resin, the shorter the shelf life is. As such, the industry is facing many difficulties in maintaining the quality of their products on a regular basis and also restricting wastage.

ARCL offers different gluing systems starting from using 100% own products to mixing with different additives to provide various value additions to the existing gluing systems. These products help the industry to provide MR grade plywood to BWR & BWP grade norms of various international standards – also including BIS. ARCL’s decorative gluing systems are trouble free to provide MR, BWR & BWP grade overlaying and with boards almost free of black marks. Below are some of the main advantages of ARCL’s melamine based amino resins and additives:

1. Increased water resistance properties (MR,BWR,BWP), which is beneficial for various grades of plywood, block boards, flush/panel doors, decorative, etc. suitable for both pre-pressing and direct hot pressing.
2. Melamine based gluing systems are of low level of free formaldehyde emissions and as such are environmental friendly.
1. Gloss on the surface of the finished products also improves remarkably. Due to its high molecular weight, it also resists glue penetration to the surface of the panel.
2. All ARCL’s melamine based resins are of minimum 6 months shelf life. Rate of rise in chemical properties such as viscosity, etc is very slow compared to that of liquid resins with higher melamine percentages.
3. Melamine based additives also enhance the water resistance quality of the liquid UF and MUF resins if added as per technician’s advice.

ARCL is exporting MF and MUF based gluing systems to different countries regularly and has recently started supplying the same to many domestic customers. The company’s most recognized brand is Strongbond (BR- 40, BR-201G, BR-202G).

www.arclorganics.com

Siko Position Indicators with Pneumatic Clamping

Siko has been a global fixture for spindle positioning in production machines and electronic and mechanical position indicators for many years. To ensure smooth production, it would appear obvious to fix the set position values, determined with the aid of the Siko counter, with a clamping device.

For the first time, the new pneumatic clamping plate KP09P now enables locking of all adjustable axes with the push of a button. Compared to conventional manual clamping levers, locking the spindles is achieved with compressed air. For correct positioning of all adjustment axes, the connected clamping plates are pneumatically admitted by means of a control command and fix the spindles into position with a holding torque of up to 3 nm.

The contour of the tried and tested Siko counter DA09S is ideal due to its combined use of display and clamping plate. The compact and robust design of the KP09P can also be used as an independent machine



element in order to lock any type of rotating adjustable axes of a machine. The flat design with a hollow shaft maximum diameter of 30 mm ensures that the clamping plate can be optimally integrated into existing machine designs.

www.siko.de

New CNC Boring & Routing Solution – Biesse Skipper V31



Biesse introduces its new solution for automatic drilling - the Skipper V31. It is a compact and versatile drilling machine, which combines flexibility and performance in a small space. Skipper V31 is the ideal solution for “just in time” production: with zero set-up time thanks to the panel handling by a fully automatic gripper.



Air flotation tables and presser rollers ensure handling without scuffing / scratches and provide adequate panel support.

Laser photocell automatically reads the panel reference (origin) and the real panel length: Skipper V31 automatically corrects the dimensional errors in the 'X' working positions.



Compact and rigid, with the vertical panel structure, it ensures ergonomic and comfortable panel loading and unloading.

The operating unit configured with 10 vertical independent spindles + 6 horizontal spindles, 1 sawblade unit dia. 120 mm and a routing unit, to complete all the machining on 5 sides of the panel.



The machine is controlled and managed by a new generation Control PC system: the modern software interface makes it particularly easy to program the machine.

Main Standard Features

- Vertical handling of the panel
- Reading double “0” panel device for tolerance management
- Anti scratch working tables
- Easy and intuitive operator software interface (Biesse Works).

www.biessemanufacturing.com/www.biesse.com



Homag Venture 316 Processing Centre

5 axis technology for panel and solid wood processing

The Venture 316 Processing Centre is a true all-rounder. This is a heavy duty basic machine frame and a stable moving gantry form the optimum basis for a high standard of processing quality. Five – axis technology with the Drive5C spindle creates maximum flexibility and operating scope for everybody.

With its patented interface including compressed air transmission, the Drive5C working spindle affords access to the universal processing unit world of the Homag Group 5 axis technology for product design of the future.



Venture 316

Advantages

- High-performance 5 axis spindle up to 12 kW for universal application.
- Small investment through saving of additional units.
- High-speed drilling operations including groove sawing with the high-speed drilling head.
- Fast, reliable positioning of clamping elements with patented LED chains in the consoles.

The 5-axis spindle minimises your outlay for processing units:

- Lock case trimming.
- Shift cuts fit right from the word go.
- Drill holes at “any angle”.
- Lamello grooving on “any level”.

Features

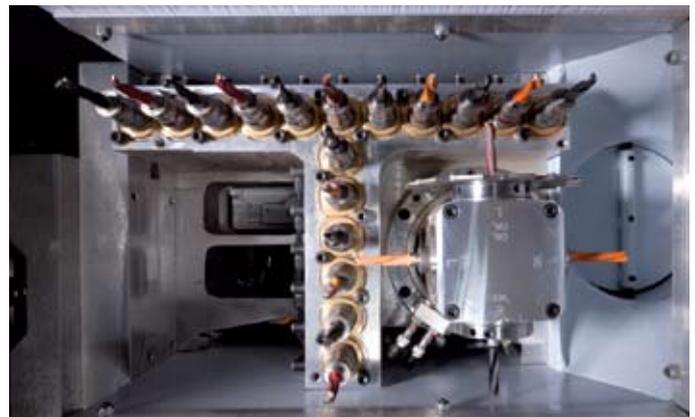
- 5 axis trimming spindle for interpolating operation and a controlled spindle speed of 1000 to 24,000 RPM for high torque even at low speeds.
- Fast 1 tool changers up to 18 slots, also for tools and units with large diameter.
- Drilling head with 21 spindles (17 vertical, four horizontal and 0/90° grooving saw) for efficient drilling.

One can choose from three equipment packages for Venture 316:

1. The Basic Package: Entry level 5- axis processing with full functional scope.
2. The Future Package: 5- axis processing with the patented LED set-up aid for fast, reliable set-up of clamping elements and consoles.



Five-axis trimming spindle



Drilling head

3. The Performance Package: For higher drilling performance in panel processing and wide processing variety with bigger drilling head, tool changer and LED set-up aid.

Options:

- powerClamp clamping system for reliable clamping of window components and frame parts.
- Clamping device for uprights and staves.
- Projection laser for easy positioning of raw parts.

	Venture 316M	Venture 316L	Venture 316XXL
Workpiece length			
All units - Individual processing	3300 mm	4200 mm	6000 mm
Workpiece length			
All units - Alternating processing	1025 mm	1475 mm	2375 mm
Workpiece length			
with tool diameter 25 mm			
Alternating processing	1200 mm	1650 mm	2550 mm
Workpiece width			
A = 0° with tool diameter 25 mm Rear stop	1550 mm	1550 mm	1550 mm
Workpiece width			
A = 90° with tool length 230 mm Rear stop	1400 mm	1400 mm	1400 mm
Workpiece width			
A = 0° all units			
A = 90° with tool length 230 mm Front stop	1050 mm	1050 mm	1050 mm
Workpiece thickness			
with tool diameter 230 mm from console	250 mm	250 mm	250 mm

www.homag-india.com

Weinig Unicontrol 6 Window Production Centre

Profitable Production for Solid Wood and Wood-Aluminium Windows

For a profitable modern and compact window production centre, the Unicontrol 6 offers, as one of the main customer benefits, the frame-by-frame or one-off manufacturing method.



This means that, as each order is processed, the raw material needed for each step is organised step by step, bringing all the required sash, jamb, mullion and transom parts in the right order by means of a manually movable sorting and transport rack. This saves ample production time by eliminating all the organizing and reorganising of raw material. Unicontrol helps the customer achieve more than 20% additional production volumes – minus all the hassles.

A special advantage is the unique double-piece production during profiling for tenon and groove, as well as the automatic singulation thereafter for the length profiling sequence. Based on this unique machine feature and design, the time needed compared to other technologies is reduced by more than 50%.



Stormproofing with a climb-cutting spindle. This turns the Unicontrol 6 into an automatic stormproofing machine. Controlled feed rollers reduce throughfeed time.

All the usual transport and stacking steps that have to be conducted several times when using ordinary machines are now completely eliminated by the Unicontrol 6 work centre. Last but not least, when using the Unicontrol 6, “storm proofing” of the sash parts – always a problematic step – is reduced to a normal, worry-free production step, giving the customer great performance and superior surface quality at extreme tolerances.



The customer benefits of the Unicontrol 6 work centre are mainly derived from the rationalisation of the workflow and its centralisation of production steps.

- End-profiling of workpieces with tenon and groove
- Length-profiling inside of sash parts (stiles & rails)
- Outside profiling of frames including coupling/linking grooves
- Profiling of roller shutter casing and possible arch profiling
- Production of window sill connection inside/outside

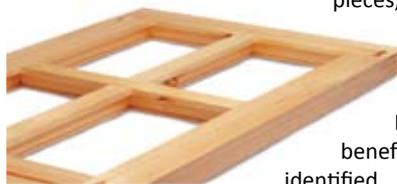


Because the window frame has to be introduced into the Unicontrol 6 only once, all necessary work sequences are then conducted in a fully automatic but operator-controlled work flow. Due to the Weinig feed system, the entire operation is done in a one-man approach. Moreover, splintering on the edges is eliminated through the climb-cutting mode. Thus, no more additional re-work is needed afterwards and the quality of the overall product is extremely high.

Due to its compact design and the chainless feed system, the Unicontrol 6 achieves a smooth, continuous transport of the wooden

pieces, providing the manufacturer with increased surface quality and unmatched precision of all the parts.

Based on all the customer benefits from the Unicontrol 6 identified, as well as taking real life customer statements into consideration, one can easily assume an overall time saving of 60-90 minutes for a full scale single sash window compared to using ordinary machines.



www.weinig.com

Productive Panel Division Saws



The cut-to-size saws from Schelling Anlagenbau GmbH in Schwarzach, Austria, are convincing through their high quality performance. The flexibility of the systems is significantly increased with the new VS area storage system. Within the machine numerous innovations also ensure optimal division of the wood panels. Single cuts, as well as pattern cuts can be entered automatically or downloaded quickly and easily with the HPO optimisation software developed specifically by Schelling. The compact fh 4 and fh 6 panel dividing saws for the furniture industry and the joinery sector are appealing to both these sectors due to their high cutting accuracy and their long service life, thanks to the robust design that prevents characteristic vibrations.

Panel dividing saw fh 4

from Schelling Anlagenbau GmbH



The fh 4 from Schelling is equipped with a 15 kW motor that effortlessly handles book cuts. The saw blade, with a diameter of 350 mm, allows saw blade projection of up to 95 mm, which can be automatically adjusted via the variable positioning element for optimal saw blade projection, and thus guarantees a perfect cutting result. The feed speeds can be adjusted forward and reverse to 80 m/min (EU to 25 m/min forward). The saw blade speed of up to 120 m/min ensures extremely short saw cycles. Saw cycles are further optimised by the simultaneous lifting or lowering of the saw aggregate and through the automatic detection of book heights and panel sizes.

Schelling offers flexible adaptation to the respective operating requirements with different versions in cutting lengths of 3300, 4300 or 5800 mm and insert depths of 3300, 4300 or 5800 mm.

Panel dividing saw fh 6

with rotary table from Schelling Anlagenbau GmbH



The fh 6 saw offers the same cycle optimisations, however, with a saw blade diameter of 460 mm it allows a saw blade projection of up to 135 mm, which offers a significant increase of panel throughput in the package. The insert speed is also 80 m/min; the saw feed speed at up to 150 m/min results in higher ejection speed for finished parts. The cutting lengths are 3300, 4300, 5800 or 6300 mm, the insert depths can be 3300, 4300 or 5800 mm.

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Director of Marketing
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Fax: +43 5572/396-5295
email: stefan.krebs@schelling.at

Jai Industries Double Head Multi-Boring J-21 DH



Salient Features

- Strengthened frame to hold boring heads.
- One head assembly tiltable from 0-90°
- Anti-sliding working table
- Adequate and effective pneumatic clamps
- Turret wheel to regulate drilling depth
- Drill feed can be controlled from the control panel
- Fence with magnified lenses
- Foot switch for convenient operation

Hydraulic Cold Press J-50T

This machine is suitable for pressing various types of laminations onto composite wood, cork board, fiber board, plywood, particle board, MDF, HDF, honeycomb boards, etc.

Salient Features

- Good splicing effect
- High speed, high efficiency
- Manual & semi automatic controls
- Control panel for controls and display

with compression holding timer, alarm, pressure meter with pressure setting indicator

- Rigid construction
- Emergency stop switches
- Motor overload relay
- Platen designed to take heavy compression loads. Pressing platen is synchronized geared bar for smooth up/down movement.



Jai-Modula Vacuum Membrane Press J-1100



This machine is used for applying a uniform lamination of PVC, decorative papers and veneer till 0.4mm on top surface and borders of flat / designed workpieces having smooth shape.

Salient Features

- Vacuum abnormality wrapping technology

- Single table / double table models available
- Silicon membrane offered for veneer application
- Silicon membrane sheet & two spare heaters are standard supply with the machine
- Short pressing cycles
- High grade vacuum pump is efficient, stable and long lasting
- Centralized control panel for controls and display with digital temperature controllers and adjustable timers for fully automatic cycle
- Manual feeding of single loading tray
- Special steel work table is proof against high temperature and corrosion.
- PVC foil roll holder with stand

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CNC Router J-1224 VT (A)

This is an ideal machine for doing crafting, carving and CNC decorative designing on wood and panel board, especially doors and shutters, as well as for wave board effect, furniture and decoration relief work, gift articles, etc.

Salient Features

- High precision Taiwanese linear rail
- German ball screw with high accuracy
- Maintenance-free air cooled spindle
- Cast steel structure for stability
- Auto lubrication makes maintenance much easier
- Free 2D & 3D designs along with the machine
- Control Panel with Digital Signal Processing for Control System



- Precision Vacuum Table for vacuum fixing and sure clamping of the workpiece ensures steadiness during the entire routing operation

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American White Oak

Quercus spp

*Other Name: Northern white oak,
Southern white oak*

Distribution & Availability

Widespread throughout Eastern USA. The white oak group comprises many species, of which about eight are commercial. Very widely available in lumber and veneer, in a full range of grades and specifications.

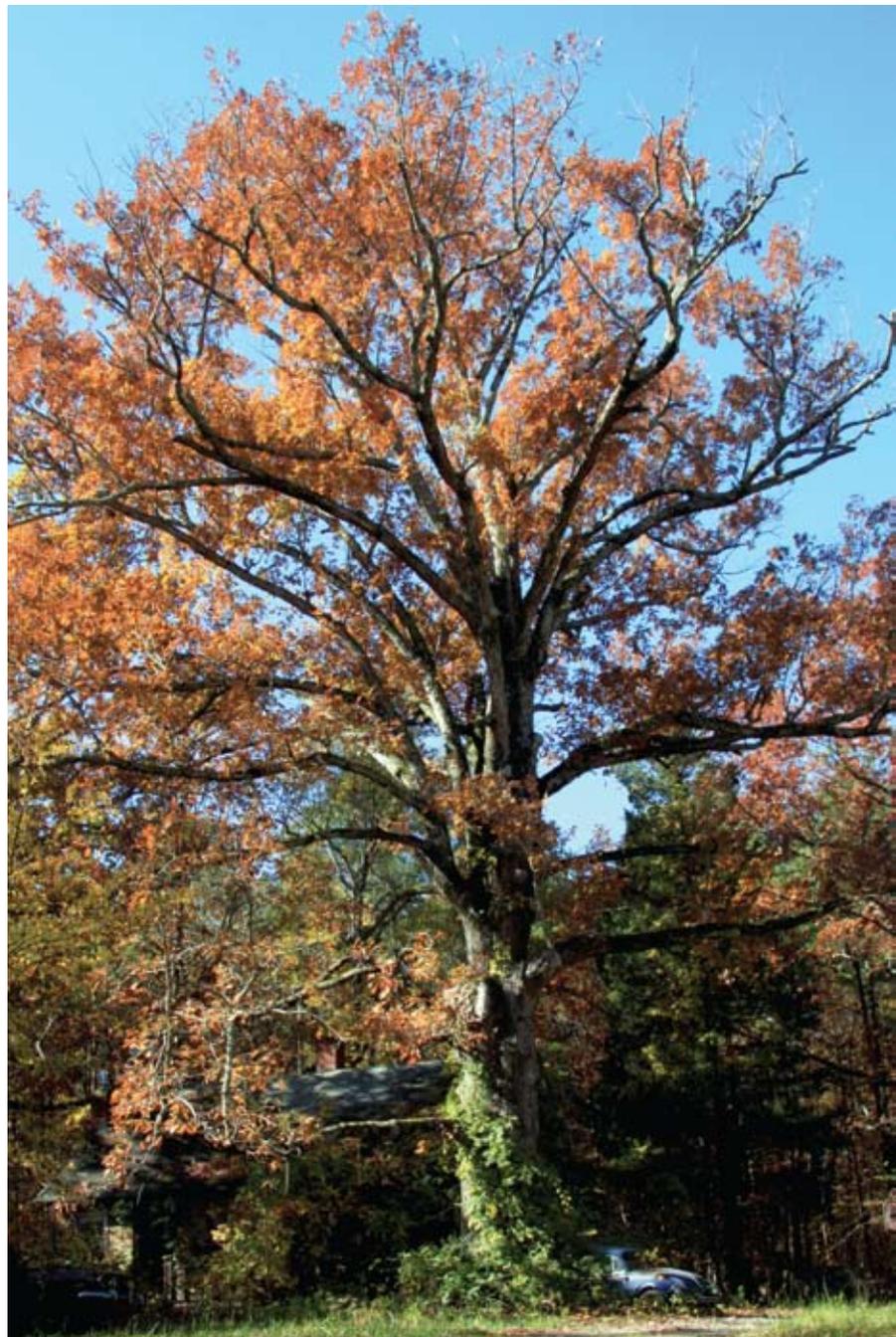
General Description

White oak is similar in colour and appearance to European oak. The sapwood of American white oak is light coloured and the heartwood is light to dark brown. White oak is mostly straight grained with a medium to coarse texture, with longer rays than red oak. White oak, therefore, has more figure.

Physical and Mechanical Properties

A hard and heavy wood with medium bending and crushing strength, low in stiffness, but very good in steam bending. Its good overall strength means it is increasingly being used by architects and designers in structural applications. More detailed information can be obtained in the AHEC publication *Structural design in American hardwoods*.

Specific gravity (12% MC)	0.68
Average weight (12% MC)	769 Kg/m ³
Average volumetric shrinkage (Green to 6% MC)	12.6%
Modulus of Rupture	104.804 MPa
Modulus of Elasticity	12,273 MPa
Compressive strength (parallel to grain)	44.955 MPa
Hardness	6049 N





Centro de Artes Escénicas of Salamanca, Spain

Working Properties

White oak machines well, nails and screws well, although preboring is advised. As it reacts with iron, galvanised or copper nails are recommended. Its adhesive properties are variable, but it stains and polishes to a good finish. The wood dries slowly and care is needed to avoid checking. Due to its high shrinkage, it can be susceptible to movement in performance under variable moisture conditions.

	Poor	Fair	Good	Excellent
Sawing			✓	
Planing			✓	
Drilling				✓
Boring			✓	
Turning			✓	
Carving			✓	
Moulding			✓	
Nailing			✓	
Screwing			✓	
Gluing			✓	
Finishing				✓



Vertical Chest

Durability

The heartwood is resistant to decay, extremely resistant to preservative treatment, and the sapwood is moderately resistant to treatment. Its natural durability means that white oak heartwood can be used externally without preservative treatment, but localised climate and exposure conditions should be taken into account to determine its potential performance.

Main Uses

Construction, furniture, flooring, architectural joinery, exterior joinery, mouldings, doors, kitchen cabinets, panelling, railway sleepers, timber bridges, barrel staves and coffins. White oak can vary in colour, texture, characteristics and properties according to the growing region. It is therefore recommended that users and specifiers work closely with their suppliers to make sure the wood they order is suited to their specific needs. Northern and Southern may be sold separately.

End use applications	Main uses
Doors	✓
Flooring	✓
Furniture	✓
Joinery	✓
Kitchen cabinets	✓
Mouldings and turnings	✓
Veneered panels	✓
Sports goods	
Tool handles	✓



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Other Information

White oak tends to be consistent in colour throughout its wide Northern to Southern range. Certain areas of the Appalachian Mountains produce a highly figured wormy variety and this is sold as Sound Wormy. Sapwood is admitted without limit in the NHLA rules, but usually sorted with a minimum of one heartwood face for export. Consult your supplier about their grading standards for sapwood. White oak is used around the world and complements European oak, although its colour consistency and the high volume of square edged lumber production make it first choice for many furniture, flooring and joinery manufacturers.



Haberdashers Hall

Goodbye and thank you to Fulvia Scherini

Assago, November 7, 2011 – A long career serving woodworking technology, and mostly supporting and promoting the activity of Eumabois, the federation that gathers 14 European national associations. A sign of recognition and appreciation was due for the work done by Mrs. Fulvia Scherini, a homage paid during the recent general assembly of the European Federation, held in Valencia during Fimma-Maderalia.

Born in Sondrio, Fulvia Scherini graduated in Foreign Languages and Literature, then in May 1980 she joined Acimall, the association of Italian manufacturers of woodworking machinery and accessories. In Acimall, she covered different positions, until she became Head of the Promotion Department. Finally, she dedicated full-time to the general secretariat of Eumabois.

In both positions, she promoted technology and associations all over the world, a task she carried out with great professionalism. Fulvia has been a regular visitor to India and is well known to most in the woodworking industry here. She was also instrumental in Eumabois' 2010 decision to support local woodworking vocational training centres in India.

Franz-Josef Buetfering, President of Eumabois, expressed his appreciation for Mrs. Scherini's work. "On behalf of Eumabois and myself, I want to thank Fulvia Scherini for the competence and passion she devoted to European wood technology", he said in Valencia. "She served not only with professionalism and competence, but also with the passion that distinguishes people who believe in what they do and commit themselves to the success of a project and other people".



Fulvia Scherini at the Delhiwood 2011 Inauguration.

"I know my words may seem banal", concluded Buetfering, addressing the representatives of 14 European associations. "It's hard to find a way to describe the accurate and proactive contribution Mrs. Scherini has given to our federation. So, I won't add anything else and I will give her a tight hug on behalf of all of you and everyone who had the pleasure to work with her, asking you to join me with a round of applause".

HeveaBoard Berhad Malaysia Awards Top Indian Performers

HeveaBoard Berhad, Malaysia recently celebrated its 15th Anniversary in Malaysia. HeveaBoard has emerged as a preferred plain particle board supplier to the Indian furniture and laminating industry.

HeveaBoard has established a unique partnership concept ensuring year round supply at competitive prices with high quality consistency and just in time delivery schedules unlike other Asian suppliers who supply material on an opportunity basis.



Mr. Nitin Vaze, Director – Sleek Boards receiving the 'Best Agent' Award

Several Indian furniture manufacturers and short cycle laminators attended the 15th Anniversary function, including Mr. Satheesh Kumar, Vice President of Indian Furniture Products Ltd., Mr. Vivek Deshpande, Director of Spacewood Furnishers Pvt. Ltd., Mr. Rakesh (Bobby) Verma and Mr. Sant Kwatra, Directors of Amazon Wood Private Ltd.; Mr. Devichand Jain and Mr. Sheetal Jain, Directors of Devikkesh Novamate Boards Pvt. Ltd.; Mr. Kishen Patel, Director of Royal Touch Laminates Pvt. Ltd.; Mr. Nishant Khanna, Director of Wintek Prelam; Mr. Sanjay Bhilare, Purchase Manager of Godrej and Boyce Mfg Co. Ltd.; Mr. Anoop Kumar Agarwal of Shell Laminates Pvt. Ltd. and Mr. Nitin Vaze, Director of Sleek Boards India Ltd.

During the celebrations several Indian top performers were felicitated and awarded for their long term partnership. Mr. Satheesh Kumar received a 10 year loyalty award. He stated on the occasion, "This new millennium has been very promising for India and Indian industry. Indian Furniture Products Limited, a part of the 3 billion dollar Adventz Group, has literally pioneered India's entry into particle board based furniture manufacturing in early 1998. From 1999 onwards, we have been associated with HeveaBoard and today a decade later we are extremely proud and happy to continue sourcing our major requirements from them. We appreciate and acknowledge

HeveaBoard's quality, on-time delivery, transparency in dealings and more importantly quick response to our issues. We wish Hevea Board greater success and would like to be a partner in their growth story for many years to come".

Mr. Vivek Deshpande received a 5 year loyalty award and said, "We at Spacewood trust that success in business is largely dependent on the quality of suppliers one ties up with, as they have a mighty role in the business one undertakes. Our experience with Hevea Board has been a pleasant one in terms of the product quality and phenomenal openness in outlook to answer customers' demands. You have been accommodative to our volume demands and your flexibility in the overall service rendered certainly merits admirations. These factors have favoured our business engagements with you. We thank you for being quality suppliers to us and trust this to continue in future too, to make our business mutually enduring and satisfying."

Mr. Devichand Jain and Mr. Sheetal Jain were awarded for 'highest volume growth' and on the eve of this occasion, Mr. Devichand Jain

stated, "We most heartily convey our gratitude for extending your unflinching support to our particle board lamination industry over the last 5 years. We expressly congratulate you on this occasion of 15th anniversary and thank you for partnership in business".

Mr. Nitin Vaze received an award for 'best agent' and on eve of this occasion stated "I have been associated with the particle board industry for over 26 years and with HeveaBoard for over 5 years and have a special praise for the Tenson's HeveaBoard team who have maintained great dedication and perseverance to live up to the corporate motto to achieve excellence in consistent quality, just in time delivery and competitive pricing. I congratulate everyone for their untiring efforts which has enabled HeveaBoard to be the preferred supplier".

Earlier the Indian delegation participated in team building events with all top executives of HeveaBoard and other customers from China, Thailand, Vietnam, Korea, Japan, the Middle East, Philippines, Indonesia, Singapore and Sri Lanka.

Introduction of "Richfill Plywood Plus" Plywood Cosmetic at Perumbavoor Saw Mill & Plywood Manufacturers Association Kerala

Richwood, a well-known Indian wood putty manufacturer has developed their new product Richfill Plywood Plus, a cosmetic for plywood.

M.D. Mr. Hrishikesh Badamkar introduced the new product at the Annual General Meeting of the Saw Mill and Plywood Manufacturers Association in Perumbavoor, Kerala on 19th Oct. at Seema Auditorium, Perumbavoor.

Hrishikesh explained how his company Richwood has studied all these problems in plywood and has developed a new solution: Richfill Plywood Plus. Richfill Plywood Plus is a magical crack filler powder which has to be mixed with a little PVA or white glue and water. Once this paste is applied on any crack or gap in the plywood, it stands stable and the filled surface doesn't fall out from plywood.

Richfill Plywood Plus can be filled in commercial plywood, flexible plywood, flush doors, block boards and also on water proof plywood, said Hrishikesh. It is a research based, patented product and there are already some plywood manufacturers who are regularly using this product, he continued.



Hrishikesh told the assembled members that, when the plywood is manufactured in the factory, there are always some cracks or gaps at the core or edge, which are commonly filled by conventional methods like TSP (tamarind seed powder), whiting, POP or saw dust. These conventional fillers always shrink or fall out from the filled surface. When the plywood is sent to the dealer's warehouse or shop or when a carpenter cuts the plywood, normally the filler comes out from the filled surface.



At this Annual General Meeting, President Mr. Mujib Rahaman, Secretary Mr. K.M. Mohamad, Treasurer Mr. Rajib Thumas, Mr. M.M. Aliyar, Mr. V.A. Perid, Mr. Sureshkumar, all the board of directors and members of Perumbavoor Saw Mill & Plywood Manufacturers Association Kerala were present.

Global Economic Downturn Affecting Indian Economy

India's GDP fell to a two-year low of 6.9 percent in the second quarter of this financial year, slipping below 8% for the third straight quarter. The economy grew 8.4% during the corresponding quarter of last year. Simultaneously, the Indian Rupee suffered its worst decline against the US dollar in 16 years. In November the currency plunged almost 7 percent, pushing the downward trend to over 14 percent for the year to date. Dollar demand from importers and financial outflows, as investors reacted to growing risks, caused the slide. The government and the Bank of India are acting to arrest this situation and stabilise the Rupee exchange rate.

Real estate sector performance slows

Analysts suggest that the shadow of the global economic weakness will dent India's growth figures for a while. The focus of domestic manufacturers will shift from consumer demand in the mega cities such as Mumbai and New Delhi to other newly developed cities. Government investment in rural development projects holds a better promise for industry than the weakening demand in the traditional urban domestic markets. Boom and bust swings in demand are a common phenomenon and this provides an opportunity for the industry to attend to production and distribution weaknesses and to improve performance by delivering higher quality products and better services.

The emerging so-called 'integrated townships' are where the future of India's manufacturing sector will be in the future say analysts. The global economic weakness and the undermining of consumer confidence have put a brake on consumption by consumers in the high-end domestic market.

The timber industry has to turn to the affordable home segment which was not given much attention while the overall real estate market was booming. Housing demand from middle and lower income groups will probably be the driving force for the manufacturing industry from 2012 onwards.

Smugglers of red sanders become violent

Forest officials and wardens are facing increased violence from timber smugglers. The unresolved case of the death of a forest officer in Andhra Pradesh, the main producing area for red sanders or red sandalwood, is

thought to be caused by the action of gangs stealing this timber. This is the first time that a forest officer has been killed pursuing thieves. It is estimated that approximately 2,000 tons of this precious wood is being smuggled to other Asian countries for the manufacture of herbal medicines, special musical instruments and cosmetics.

In 2010-2011, 1,591 persons were arrested and a total of 1,290 tons of red sanders was seized.

First hardwood auction in the Central Province fetches good prices

Harda, Jabalpur, Hoshangabad and Betul Forest Division depots have just completed the first post Deewali auctions for the current season and the dates for sales during December have been set. Approximately 20,000 m³ of teak logs and 14,500 m³ of other hardwoods as well as bamboo and teak poles will be sold at the upcoming auction.

At the recently concluded auction good demand resulted in high average prices for teak logs as shown below:

Teak Log Prices (per cubic foot)

2 ~ 3 metres length

46 ~ 60 cm girth	₹ 1000~1100
61 ~ 75 "	₹ 1100~1200
76 ~ 90 "	₹ 1200~1300
91 cm and up	₹ 1400 plus

3 ~ 4 metres length

46 ~ 60 cm girth	₹ 1050~1150
61 ~ 75 "	₹ 1200~1300
76 ~ 90 "	₹ 1300~1400
91 cm and up	₹ 1500 plus

4 ~ 5 metres length

45 ~ 60 cm girth	₹ 1300~1400
61 ~ 75 "	₹ 1400~1500
76 ~ 90 "	₹ 1600~1700
91 cm and up	₹ 1800 plus

Laurel logs (per cubic foot)

3 to 4 metres length

46 to 60 cm girth	₹ 250 ~300
61 to 75 "	₹ 300 ~350
76 to 90 "	₹ 400 ~450
90 cm and up	₹ 500 plus

Imported Plantation Teak Prices (C&F)

	US\$ per m ³
Tanzania Teak sawn	450-800
Côte d'Ivoire logs	450-850

PNG logs	500-700
El-Salvador logs	400-550
Guatemala logs	400-500
Nigeria squares	300-500
Ghana logs	350-650
Guyana logs	300-450
Benin logs	425-650
Benin sawn	475-600
Brazil squares	400-600
Columbia logs	400-600
Togo logs	350-500
Ecuador squares	350-1000
Costa Rica logs	350-650
Panama logs	350-475
Sudan logs	350-800

Variations exist based on lengths and average girths of logs in a parcel.

Prices also vary with measurement allowances given for bark and sap in different countries of origin.

Domestic Ex-mill Sawnwood Prices for Myanmar Teak

Sawnwood (Ex-mill)	₹ per ft ³
Myanmar Teak (AD)	
Export Grade F.E.Q.	4200-10400
Plantation Teak A grade	3100-4200
Plantation Teak B grade	2600-3100
Plantation Teak FAS grade	2000-2600

Domestic Ex-Mill Sawnwood Prices and Ex-Warehouse Sawnwood Prices for Imported Timbers

Sawnwood (Ex-mill) (AD)	₹ per ft ³
Merbau	1300-1500
Balau	1350-1750
Kapur	900-1050
Red Meranti	750-950
Radiata Pine (AD)	500-550

Sawnwood (Ex-warehouse) (KD)

Beech	900-1200
Sycamore	900-1200
Red oak	950-1300
White Oak	1250-1650
American Walnut	1800-2150
Hemlock clear grade	900-1100
Hemlock AB grade	750-850
Western Red Cedar	1200-1350
Douglas fir	950-1000

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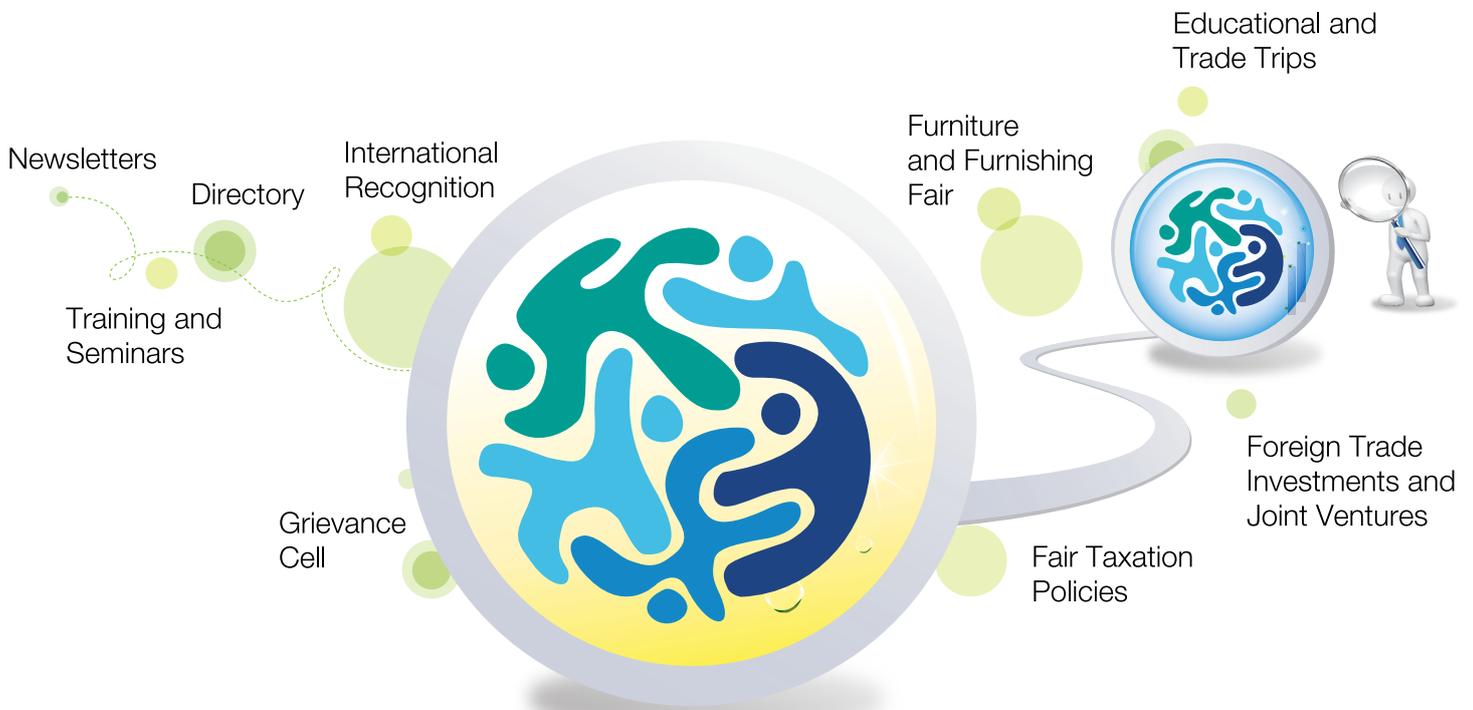


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Domestic Ex-Warehouse Prices for Imported Plywood

Plywood, (Ex-warehouse) (MR Quality)	₹ per sq.ft
4 mm	30.25
6 mm	44.00
12 mm	66.50
15 mm	79.00
18 mm	95.00

Domestic Ex-Warehouse Prices for Locally Manufactured Plywood

Locally Manufactured Plywood "Commercial Grade"	₹ per sq.ft
4mm Rubberwood	Hardwood
6mm	14.10
8mm	20.60
12mm	26.50
19mm	32.00
5mm flexible ply	27.00

(Source: ITTO Tropical Timber Market Report Volume 16 Number 23 1st – 15th December 2011)

Hard metal prices back to growth in the second half of the year. Tungsten is number one in the ranking of most unreliable material supplies in 2011

Despite shrinking demand, the situation of tungsten prices and availability is still tense. Tungsten is the main constituent of hard metals, which are one of the key materials for the production of cutting edges for tools used in several operations and machining processes in the wood and furniture industry.

In October, the price of the most popular tungsten-based commercial product (ammonium paratungstate, APT) was around 450 dollars per metric ton (mtu). At half 2010, such price was in the range of 250

dollars. The current cooling of global economy has granted a short rest to tools manufacturers, with stable prices for a few months now. "However, this positive signal should not reduce our level of attention to the difficult situation of raw material markets," said Paul Oertli, President of Eumabois Toolgroup. "As a result of reduced export by Chinese suppliers, prices are still at critical levels despite a slight reduction of demand from many tools manufacturers," Oertli added.

In October, the "British Geological Survey" placed tungsten at number one in the list of elements ranked by unreliability of supplies in 2011.

"In 2012, we expect a still difficult market scenario. Chinese suppliers dominating the sector will focus on tungsten as strategic metal also in the future. Other raw material sources will not help relieve tension in the short and medium term," said Dr. Andreas Bock, President of Wolfram Bergbau und Hütten AG, Austria, one of the few European suppliers of tungsten and related carbides.

(Source: Eumabois Press Release)

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MODEL: SD-700A

Wintersteiger Thin-Cutting Days Attracted Visitors from around the World to Ried

From 10 to 12 October, the Wintersteiger headquarters in Ried turned into an international competence center for innovative thin-cutting technology. Customers and interested parties from across Europe, the USA and New Zealand accepted the invitation to the exciting thin-cutting days.

“The entire range of industries was represented – from producers of boards and panels, furniture, parquet and doors to manufacturers of composite materials for the automotive industry,” says a delighted Franz Haas, Head of the Woodtech Division. Decisive from the point of view of Haas were the audience’s quality and potential. “The goal was to extensively advise the interested visitors and to present the state of the band saw technology with focus to tools and machines in detail. Some of the visitors are sure to have interesting investment decisions coming up,” says Haas.

Visitors tested the machines.

Wintersteiger is regarded as a center of excellence that offers band saws, machines, tools and technology from a single source. And thus many visitors even brought their own wood – hard, soft or green – to test the products as to functionality and flexibility. One of the real highlights was the modular thin-cutting band saw DSB Twinhead NG. Its kerf, precision and compactness made this machine the visitors’ top topic. The DSB Twinhead NG offers a 2-modular basic configuration

and several machines can be connected in series, making it interesting when the focus is on capacity.

The single-module band saws were likewise able to score during the thin-cutting days. The DSB Singlehead 310 won the audience with its reversing system, and the DSB Singlehead 660 was able to arouse interest with 660 mm cutting width, particularly for producers of multi-layer boards. The mobile saws for sawmills and carpentry as well as the block and band resaws were also compelling. There is a noticeable trend toward minimal use of material. “As a specialist in thin-cutting, we strive for each and every bit of extra efficiency. Even 1/10 of a millimeter of timber saved is money in our customers’ pockets – certainly a highly popular topic,” says Haas.

Study tours through the production department.

The focus of the study tours through the plant was on Wintersteiger’s production quality and the newly equipped sharpening shop. “Customers should get what they want. Sharpening saws is therefore part of the comprehensive service of a full-service provider,” says Haas. The enhanced version of the Easy Saw Management software was also officially presented during the thin-cutting days. “This lets you manage your saws professionally and use your tools optimally – thus reducing the costs considerably!”

www.wintersteiger.com

Faithfully Leading the Way to 25th Anniversary

Wood Processing Machinery and Intermob 2011 Fairs have made success at Tüyap Fair Convention and Congress Center

Wood Processing Machinery 24th International Wood Processing Machines, Cutting Tools, Hand Tools Fair and Intermob 14th International Furniture Related Industry, Accessories, Forestry Products and Wood Technology Fair, organized by Tüyap Inc., were simultaneously held on 15-19 October, 2011 at Tüyap Fair, Convention and Congress Center of Buyukcekmece-Istanbul

Tüyap Continues to Introduce New Markets for the Industries

Wood Processing Machinery Fair and Intermob Fair, getting ready to celebrate 25th and 15th anniversary thereof, respectively, in 2012, and Intermob fair, have met the expectations since the beginning for introducing new markets for the industry. Steady organization for years thanks to the drive and trust granted by the industry draws great attention as a result of such collaboration.

741 Exhibitors from 23 states met with 53.847 visitors from 81 states

Net exhibition area of 23,000m² in 2010 has reached to the figure of 34,500m² in 2011. 741 exhibitors from 23 states found the opportunity to exhibit state-of-the-art products and designs thereof for 5 days at Tüyap Fair, Convention and Congress Center. Wood Processing Machinery and Intermob 2011 fairs have been the stage for meeting exhibitors with 53,487 professionals, 6,073 of which are foreign persons from 24 states.

Excitement for 25th Anniversary

Reflecting the power of the industry, Wood Processing Machinery Fair and Intermob Fair are ready to celebrate 25th and 15th anniversary thereof, respectively. The conventional meeting shall take place on 13-17 October, 2012 at Tüyap Fair, Convention and Congress Center of Buyukcekmece-Istanbul.

www.tuyap.com.tr



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PRACTIVE

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PEFC Stakeholder Dialogue Recognises the Real Value of Forest Products in a Changing Climate

“Shifting our economy to a green economy will require a radical transformation throughout all aspects of our society,” said Sten Nilsson during his keynote address at the annual PEFC Stakeholder Dialogue. “With the forest sector’s reliance on renewable resources, it is uniquely placed above competing sectors to lead this transformation. But we need to do better at demonstrating forest solutions in greening the economy and advancing the innovation in our sector.”

The event, held in Montreux, Switzerland on 10 November 2011, attracted almost 100 stakeholders from every corner of the world to hear a line up of international speakers on a wide range of subjects including life cycle assessment, carbon footprint, forestry standards, and innovative forest products and services.

Attendees considered the many positive attributes of the forest sector, and worked to deliver a stronger understanding of the broader sustainability agenda that responsible corporations are striving towards. The dialogue sought to address a disconnect between those concerned and invested in implementing sustainable forest management, and many users of that same fibre who are rather pre-occupied with a broader range of sustainability issues spanning water, carbon, health, social justice and natural resources.

In this context, forests and forest products are just one issue for them amongst many. But maintaining healthy forests in our landscapes creates positive impacts to all facets of our life thereby contributing to different aspects of sustainability. The dialogue re-enforced that all stakeholders need to work together to distribute this message and improve the recognition of forests and forest products within our society’s pursuit of sustainability.

Representatives from private sector consortiums including the World Business Council for Sustainable Development (WBCSD), The

Sustainability Consortium, and consulting firms including Quantis and BioIntelligence Services presented a wide range of emerging initiatives, collaborations and techniques. By incorporating tools like Life Cycle Analysis (LCA), and carbon or water footprinting, companies are better placed to make well-informed decisions during product design and production phases. These tools also present opportunities to communicate the sustainability credentials of a product to consumers. This topic was well discussed and debated by dialogue participants who grappled with ways to balance assessment complexity and scientific rigour, with the practice of using simplified logos and labels to communicate on product packaging.

“For forest certification to stay relevant, we need to understand all the different ambitions companies have towards integrating sustainable supply, production and consumption,” commented Ben Gunneberg, PEFC International. “The sourcing of sustainable forest products is an essential part of exercising corporate responsibility, but we need to ensure such actions are rewarded within the tools companies are utilising to measure and mitigate their sustainability impact. Moreover, we need to position forest issues as overarching to many sustainability issues, through forests’ provision of multiple values and benefits to society. We need to find new means for communicating this, and the momentum behind establishing a green economy may offer such opportunity.

Summing up the day, Sarah Price re-emphasised the need to green the whole economy so that the population of 7 billion that will become 9 billion can thrive. “The forest sector can contribute but needs confidence to do so” she concluded.

www.pefc.org

International Conference on the Art and Joy of Wood

19-22 October 2011, J N Tata Auditorium Complex, Bangalore

The International Conference on the Art and Joy of Wood (AJW), a United Nations Food and Agriculture Organization (FAO) and Ministry of Environment and Forests, Government of India initiative hosted at the Institute of Wood Science and Technology in Bangalore, was a landmark event in India and a smashing success for all who participated. In honour of 2011 being the International Year of Forests, FAO decided to promote a series of events all over the world and India was chosen to host one of the major events of the year. AJW was supported by the Indian Council of Forest Research and Education (ICFRE), Indian Plywood Industries Research and Training Institute (IPIRTI), Forest Research Institute (FRI) Dehra Dun, International Wood

Culture Society (IWCS) and the International Union of Forest Research Organisations (IUFRO).

Rediscovering Wood: The Key to a Sustainable Future

A three-day conference included a veritable who’s who of important speakers, including several who had traveled from overseas specifically for the conference. In addition, an exhibition hosted a variety of artists and woodworkers from different parts of India and even a few international exhibitors were there to display some traditional wood carvings from their home countries. A photo competition was also held in conjunction with the event.

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Rectangular Tenoner

Oscillation Mortiser



Horizontal Mill



Straight Line Rip Saw



Multiple Rip Saw



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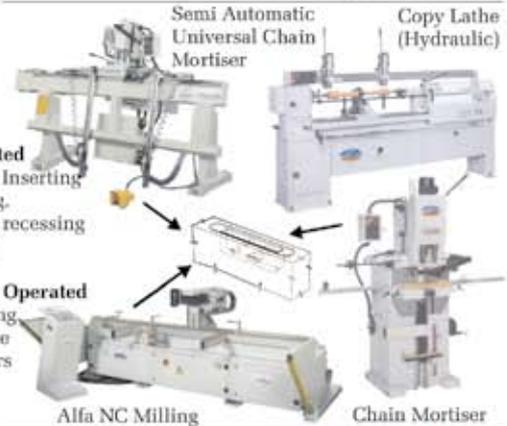


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- Lock face plate recessing doors slots etc.



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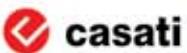
Segmented Pad



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Auto Panel Saw



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By Licence



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INDIAWOOD 2012



7TH INTERNATIONAL TRADE FAIR FOR WOODWORKING MACHINERY, TOOLS, FITTINGS, ACCESSORIES, RAW MATERIALS AND PRODUCTS
10 - 14 February 2012, Bangalore International Exhibition Center, Bangalore, India. | www.indiawood.com

Calling all interior designers, architects, builders and furniture manufacturers to attend!

Machines

The latest, state-of-the-art machines from all over the world will be on exhibit. Visitors can see live demonstrations of the machines at work and talk directly with the engineers and experts who know the machines best. Hundreds of machines of every shape and size will be on display, including many of the latest machines which will be seen here for the first time ever in India.



Over 30,000 square meters

Materials

For the first time ever, the entire Hall 3 will be devoted exclusively to non-machinery items like raw materials, hardware and fittings, coatings, adhesives, etc. A separate Registration Counter at the entrance to Hall 3 will enable those visitors who are interested primarily in the non-machinery side of the exhibition can go directly to Hall 3 and register there, thus avoiding the long queues which have become a regular part of the Indiawood experience in recent years.



New Feature of Indiawood 2012 Pre-fixed Business Meetings with exhibitors
To schedule a meeting, log onto www.indiawood.com

Multiple Visitor Registration
Registration at the Entry Plaza.
Registration also at entrance to Hall 3

Seminar

For the third consecutive year, *Wood News* is organizing a Seminar concurrently with the event. This year's *Wood News* Seminar will have the theme of "Know Your Wood" and will include an impressive programme of international speakers. For more information on the *Wood News* Seminar at Indiawood 2012, please see page 61.



Many new innovations & launches

Carpenter's Corner

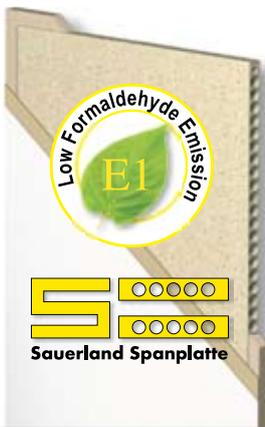
For the first time ever, as a value addition for visitors and as a contribution to the preservation and advancement of traditional woodworking culture, the organisers of Indiawood 2012 have decided to provide some space to several traditional Indian carpenters and wood carvers. These skilled artisans have been selected from among the very best at their craft from various regions in our great country. The best part is, they will be doing what they do best— working with their hands – live at the show!



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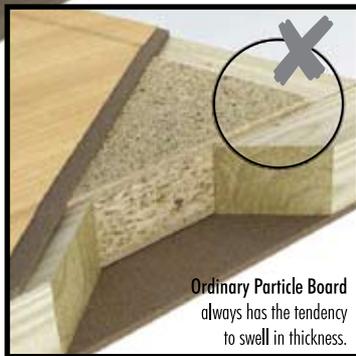


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Ordinary Particle Board always has the tendency to swell in thickness.

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SAUERLAND Guarantee
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weight reduction



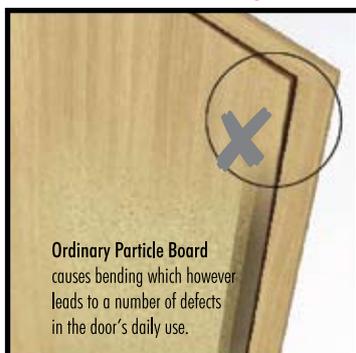
Ordinary Particle Board is heavy. This affects handling during installation and increased labour costs.



Doors that close properly

SAUERLAND Tubular Board is the ideal core to prevent doors from bending. We proved that compared to other infills the bending effect can be reduced significantly.

SAUERLAND Guarantee
No bending



Ordinary Particle Board causes bending which however leads to a number of defects in the door's daily use.

Doors protecting from fire

SAUERLAND Board as infill has proven to give easily 20 minutes fire protection to the door. Up to 60 minutes can be achieved using upgraded types of construction.

SAUERLAND Guarantee
Fire protection



Fire is a serious threat especially in big cities. Using conventional doors it will take you only minutes to face a burn through.

Door manufacturers interested in new technology Contact :

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TEL: 020 - 25463471/25421021, Fax: 020 - 25442559

Email: sleekboards@gmail.com

More than 70 leading door manufacturers are already supplying doors with modern technology. Ask your door manufacturer to supply door with tubular cores inside.

EXHIBITOR LIST

The following is a list of confirmed exhibitors as on December 25th, 2011:



3D Mac Infotech	Esson Furnishing	Jowat	Nihar Industries	Shree Umiya F-Tech Machines
Aadita Impex	Exel Finishing	Jupiter Machinery	Nirvana Technologies	Shri Navlaxmi Automation
Accutec Wood Tooling Systems	Eximcorp India	K.K. Impex	Oasis Décor	Shri Ram Panels
ACIMAL	Exor Trading	Kaff Appliances	Oskar Nolte	Shubham Enterprises
Agarwal & Associates Impex	Fab Wood	Kalinga Crafts	Otto Martin	Siempelkamp
Agoform	Fein Power Tools	Kalpatharu Doors	Ozone Overseas	Sign Age Products
Aica Laminates	Felder	Kangaroo Industries	Pade	Sign Technologies
Akzonobel India	Ferro Foundries	Kapasi	Pag International	Simo Corporation
Alcea Coatings	Festool	Karan Industries	Pagnoni Impianti	Sircolor Wood Coatings
Alfa Wood	Fibro Industries	Karl W. Niemann	Pal	Smartedge Industries
Altendorf	FlexiCAM	Kastamonu Integrated Forestry	Pallmann	Sri Ledang
Amazon Boards	Forbes Wyncke	Katabe Trade	Paul	Sri Sharada Associates
Amazon Wood	Forbo Adhesives	Kayalar Kimya	PC Henderson	Srichakra Engineering
Ambica Hydraulics	Formenti & Giovenzana	Kaymo Fastner Company	Perfect Enterprise	Equipments
Ambition Mica	Fraunhofer-Institute for Wood	Keseseböhmer	Perfect Tools	Stam Singapore
American Hardwood Export	Research / WKI	Kingdecor	Pidilite Industries	Stanton Asociados
Council	Freud	Kitchen N Bath	Pipe Agencies	Steineman Technology
American Softwoods	Fritz Kohl	Klausner Trading International	Platinum Business India	Sterling Lam
Ante-Holz	G Tek	Kleiberit Adhesives	PNC Korea	Sundek
APP Timber	Geeta Plyboards	Koelmesse	Pollywood Industries	Supreme Tradeline
ARCL Organics	Graco	Konrad Hornschuch	Polygel Industries	Surteco
Armin Industries	Grass	Krish Furniture Components	Pooja Hardwares	Tanaka Engineering & Trading
As Makina	Grecon	Krono System	Poonam Engineering Works	Tanish Industries
Ascend Marketing	GreCon Greten	Krutz	Prashant Bamboo Machines	Teverpan MDF Levha
Asian Paints	Green Panel Products	K-Services	Premium Coatings & Chemicals	Textile Machinery Fabricators
Asian Prelam Industries	Greenply		Prima Electro	Thaicil
Atlas Wood Products	Gulf Trading		Printo	The Rubber Board
B S Engineering	Guru Amar Industries		Pro Holzbau	Timber Merchant Association
Bakis PVC Ve Yapi Elemanlari	H. R. Industries		Promas	Tocchio HR Impregnation Plants
Balaji Action Buildwell	Haberlein		PT Dynea Mugi	Total Tools & Equipments
Balestrini	Hajee Timber Complex		PT. Sumatera Prima Fibreboard	Trilok Lasers
Bargstedt	Hanstar Hardware		Purbanchal Laminates	Turakhia Overseas
BayernLB	Haupt Tools		PVS International	Turman Wood Group
Bell Pins	Heinrich Kuper		Quebec Wood Export Bureau	U Tech Fasten
Bhawna Steel Home	Hettich		R P Steel	Umisons Industries
Biele	Hevea Board	Kündig	Raimann	Umiya Engineering Works
Biesse Manufacturing	Hi Build Coatings	L M Engineering	Rajkripal Exim	Universal Tools Industries
Big Champion	Hitachi Koki	Landesbetrieb Wald und Holz	Rapidex	Utturkars
Big Sea Marcom	Holzindustrie Templin	NRW	Rasa Engineering	Varun Impex
BMW Information Booth	Holzma	Leitz	Rehau Polymers	Ve bim N.V
Bosch	Homag	Ligmatech	Remmers India	Vedanta Polychem
Brandt	Hüttemann Holz	Lignar Engineering	Renolit	Vedhak Engineers
Brij Plywood	Hunter Automation	Linan Hallmark Trade	Richwood	Veeshan Engineering
Bütfering	Huntsman Advanced Materials	Lion Picture & Frames	Ritikaa Enterprises	Venjakob
Busch Vacuum	Hvalsoe Sawmill	Lispo	Robert Bürkle	Veteran's Interiors
Cefla	Hydro Mech Engineers	Locksmiths Industries	Robland	Vimal Industries
Centerinox	Hymmen	Maggi Engineering	Rohini Machinery	Vin Forest Industries
Century Plyboards	I. D. Holz	Makita Power Tools	Rossetto	Virgo Industries
Ceratzit	IMA Klessmann	Malaysian Timber Council	S S Steel Craft	Virutex
China Foma	IMAL	Manoj Brothers Extension	Samet	Vishnu Engineering
Coast to Coast Design	Imaskayu Door Export	Mapple Stainless Processing	Sandvik	Vits Technology
Comafer	IMEAS	Mario Zaffaroni	Sarawak Timber Industry	Vollmer Werke
Costa Levigatrici	Index Media	Maruthi Hardwares	Development Corporation	Wagner Industrial Solution
Crystal Digital Solution	Indiana Group	Maruthi Impex	Sauerlander Spanplatten	Weeke
Daphne Impianti	ICA	Masonite Doors	Schattdécor	Weinig
Dellatecnica	Innovest Advisory Services	Master Handlers	Schmalz	Weinmann
Dieffenbacher	Intec Engineering	Matchwell	Schuler Consulting	Wemhöner
Dimter	Interdoors	Matha Wood Carving	Segamet Panel Boards	Westwood Floorings
Dongwha International	Interpro Forest Products	Mecanica Cape	Senate Associates	Whitestar Engineering
Dreamworld Enterprises	Italpress	Mehta Cad Cam Systems	Sharpex Engineering	Winsol Energy Systems
Duemme Tranciati	ITW Finishing	Menzerna Polishing Compounds	Shaw Almex	Wood Craft
Easytech CNC Machinery	Jai Bharat Timbers	Modul Systeme Engineering	Sherwin Williams Italy Coatings	Woodmaster
Ebco	Jai Industries	Mohtimbas Engineering	Shield Alloy Products	Wud Care
Electronic Wood Systems	Jamuna Engineering	Neo Chem	Shirdi Industries	Yash Toolings System
Emmaus Mach	Jekson Hydraulic	Newood Industries	Shivshakti Engineering	
Endico Power Tools	JIT Korea	New Era Interior Collection	Shree Ramdev Metal Mart	

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U.S. Hardwood Lumber Grading Expert
National Hardwood Lumber Alliance & American
Hardwood Export Council, USA

**Topic: Processing, grading and marketing
American hardwoods**



Dr. Scott Bowe, Ph.D.

Professor & Wood Products Specialist
Department of Forest and Wildlife Ecology
College of Agricultural and Life Sciences
University of Wisconsin, USA

**Topic: U.S. hardwood forest resource and its
potential for end-use applications in India**



Mr. Richard Kleiner

Director, International Market Development
Southern Forest Products Association, USA

Topic: Introduction to U.S. Southern Yellow Pine



Mrs. Phillipa Sanderson.

Director of Market Initiatives
Forestry Innovation Investment Ltd.
Government of British Columbia (B.C.), Canada

**Topic: Innovative Applications for British
Columbia Softwoods in the Indian Context**



Mr. Frank Stewart

Product Support Services Manager
Western Wood Products Association, USA

Topic: Lumber Specifications in the Current Market

Registration on a first-come, first serve basis. To register in advance, simply log in to: www.indiawood.com/IW_SeminarRegistration.aspx

Or you can fill in the Registration Form on this page and post or fax it back to our office.

For more information, contact Miss Sumuda: +91-80-42505000
sumuda@pdatradermedia.com

**Programme/Speakers/Topics/Timings are all tentative and may be changed at any time.*

For more than two decades, *Wood News* has acted as a guiding light, leading the Indian Wood Industries towards a brighter future by providing the industry with the latest information it needs to develop and progress.

Since 2010, *Wood News* has also organised a series of groundbreaking seminars for select groups of industry professionals, enabling them to learn and discuss new trends and developments and providing outstanding opportunities for networking between Indian and international business people.

Once again, as part of INDIAWOOD 2012, *Wood News* invites you to be a part of this unique opportunity.

The Seminar will be held in the Conference Centre at BIEC on February 11th, 2012 – Day 2 of INDIAWOOD.

The Theme of the Seminar is “Know Your Wood” and it will cover practical information for businesspeople about several commercially useful timbers.

A variety of International Speakers will enlighten the audience with presentations about new products/materials on the market, enhanced by ample networking activities: this will create a complete package to take your business to the next level in a single day.

Lunch, dinner and Network Evening will be included for all registered delegates.

Seminar Registration Form

Name: _____

Designation: _____

Company Name: _____

Address: _____

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Tel: _____

Mob: _____

Fax: _____

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Completed forms may be sent to:

By Post:
Wood News Seminar at Indiawood 2012
32/2 Spencer Road, Frazertown,
Bangalore – 560005, Karnataka, India.

By Fax:
+91-80-25513078
--or--
Register Online at
www.indiawood.com

Wood-Mizer Outdoor Exhibition Area.



Wood-Mizer's exhibition stand at Indiewood 2012 will be dominated by the company's new WM1000 sawmill for large diameter logs, which is being exhibited for the first time in Asia.

Developed particularly for sawing tropical hardwoods, the WM1000 is the largest sawmill to be manufactured by Wood-Mizer to date, but still uses the efficient thin-kerf blade technology that features in all of the company's sawmills. At India Wood the machine will be shown with the full hydraulic bed for loading, turning and clamping logs.

The stand will also feature the LT20B sawmill with 10.8m bed length. This sawmill has proved popular worldwide with its modular construction allowing customers to easily extend the bed with additional 2m sections to achieve any desired cutting length. In addition to enabling long logs to be sawn, the sawmill is ideal for the increasingly popular practice of loading two or more shorter logs on the bed and sawing them all in a single pass of the head.

Visitors will also be able to see the affordable HR115 single-head horizontal resaw. Available with optional networks, this machine is ideal for cutting sawn boards and battens for construction, pallet and fencing industries. The head can be tilted by up to 8 degrees for making angled cuts or producing 'feather edge' boards.

Wood-Mizer's team, led by Bobby Joseph, country manager for India, and James Wong, regional manager for Asia, will be on hand to help visitors with information about the complete range of sawmills and secondary processing machinery for smaller, medium and large size businesses - as well as the range of SilverTip, DoubleHard and RazorTip (Stellite-tipped) thin-kerf narrow bandsaw blades.

Blade production at the company's manufacturing facilities in Europe and America has increased significantly with additional lines being installed to meet growing demand. The blades are designed for top performance on Wood-Mizer machines and other makes of band saws. The thin-kerf blades cut less sawdust and more valuable board from the log and are easy to maintain with the company's sharpening and setting equipment.

www.wood-mizer.com

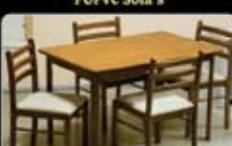
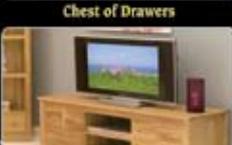


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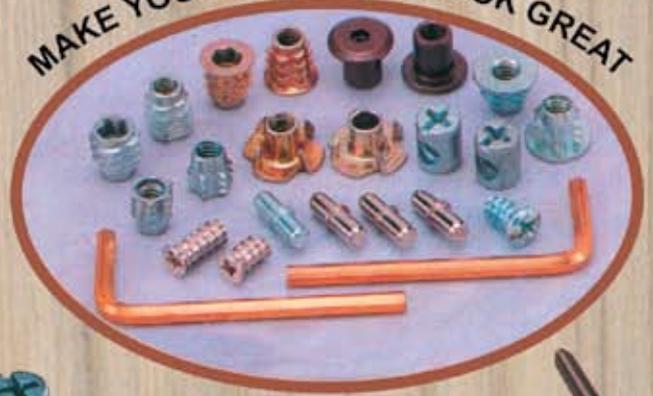
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Time to book your space in the Dubai International Wood & Wood Machinery Show 2012

The Dubai International Wood & Wood Machinery Show, to be held at the Dubai International Convention and Exhibition Centre from 3rd to 5th April 2012, is calling for exhibitors to reserve best positions now. The new venue provides different exhibition facilities that will attract many international and local exhibitors and visitors from all over the world.

The theme for 2012 “Sustainable Wood for a Better World”, which was launched recently, reflects the increased interest throughout the wood trading and manufacturing sectors for all sustainable materials to be in line with international standards. The Dubai WoodShow is the most established Middle East trade show that focuses on wood, wood products and woodworking machinery and proves to be the biggest to date. Dubai is the gateway to the Middle East wood industry and is the centre of trading in wood products for the region. It is a potential market for wood working machinery for the myriad of projects which continue to develop, requiring skilled and high technology installations.

The Dubai WoodShow is the foremost exhibition that offers a chance to meet wood and woodworking professionals and develop ideas for increasing the range and quality of business and learn new techniques and sources of supply. It has a vision to be the prestigious rostrum of creative ideas and new technologies, as the attention of wood manufacturers and traders turns to innovative resources. Dubai, the business hub of the Middle East, is the place where the global wood industry meets annually. The region as a whole has been resilient to the effects of the Global financial crisis and construction continues at a sustainable level, so that Dubai remains a major centre for supply and manufacturing in the wood sector for the Gulf and beyond where domestic growth is driving many economies.

Exhibiting at the WoodShow in Dubai will connect exhibitors with the global wood industry, especially key raw material supply areas. Specialized trade visitors who are knowledgeable, professionals and serious business buyers from all over the world will use the region's leading trade fair as an opportunity to strengthen ties with new customers, make valuable new contacts and catch up on the latest trends and technological developments in the wood industry.

A number of key country associations have already confirmed their return to the show, including the Taiwan Woodworking Machinery Association, American Hardwood Export Council (AHEC), French Timber, American Softwoods, Quebec Wood Export Bureau and Malaysian Timber Council (MTC). The American hardwood industry has been a key supporter of the show and has been accompanied in recent years by increasing numbers of American exporters. The Malaysian Timber Council has maintained a strategic office in Dubai for many years as a key part of its global representation and in recognition of the importance of Middle East markets for Malaysian timber and

wood products. The American softwood industry had a busy show in 2011, despite the temporary slowdown in regional construction. It represents a wide range of softwood suppliers. The hardwood options at the show are strengthened by the continued promotion of French hardwoods by French Timber, as also by the Quebec Wood Export Bureau from Eastern Canada. Taiwan is a key supplier of woodworking machinery and is expected to be joined by German and Italian exporters as in previous years. The show is supported by ATIBT. Pavilions from more than 10 countries are expected to take part in this comprehensive show covering all types of wood, wood materials, tools, fittings and machinery from over 30 countries. Plans are now being made for three days of key exhibitions, demonstrations and participation by trade associations, country pavilions and government free zones. Online registration will guarantee privileges for international visitors.

Among the companies that have already confirmed exhibition space are Teverplan MDF Levha San, Tanaka Engineering & Trading, Al Nibras General Trading, Shenyang Zhengyi Decoration Material, Fayek Abrasives, Klausner Group, Saleh International, United Agencies, Pytha 3D CAD, DLH Nordisk, most of which are key regional traders and regulars at the Dubai Woodshow.

As part of its global marketing of the Dubai WoodShow, Organiser, Strategic Marketing and Exhibitions has entered media partnerships to ensure maximum coverage to attract visitors from all around the world to maximize the benefits to exhibitors. Strategic will be pleased to discuss special requirements of any new or established exhibitor. Plans are also afoot, yet to be announced, to incorporate other events and attractions for the show in April.

Key Information

Date: 3 - 5 April 2012

Venue: Halls 2 & 3

Location: Dubai International Convention & Exhibition Center

Timings: 10:00 am - 6:00 pm

Exhibition Size: 20,000+ square meters

Expected Visitors: 8,000+ specialized trade visitors

Expected Exhibitors: 250+

For more information and registration see

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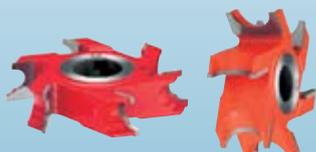
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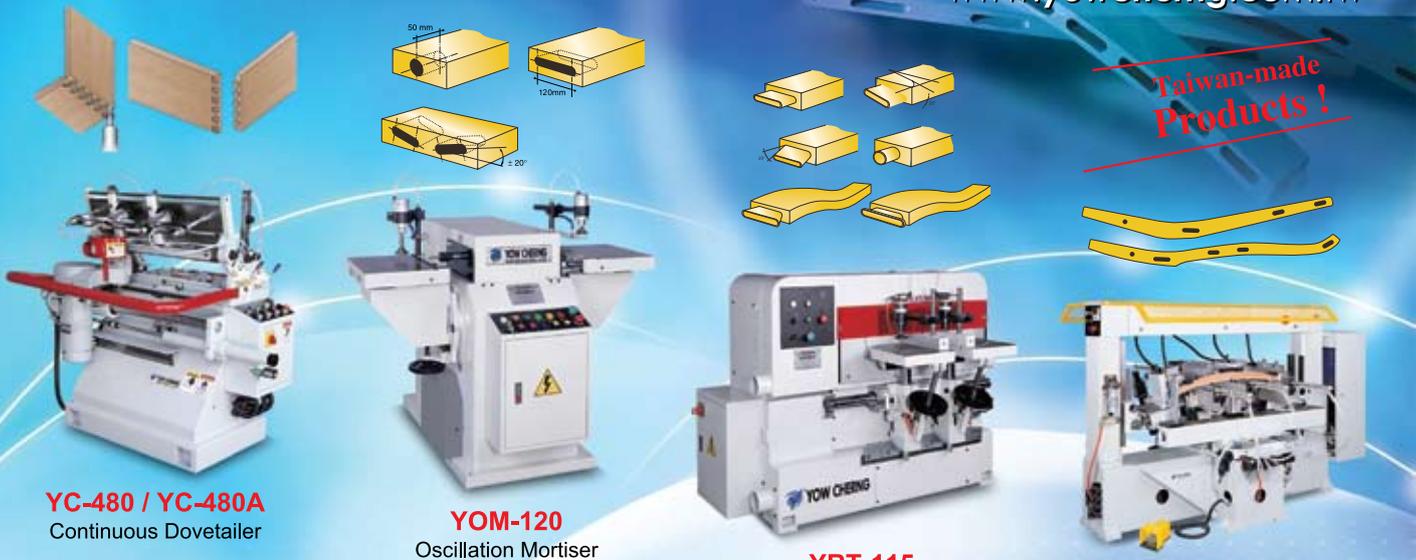
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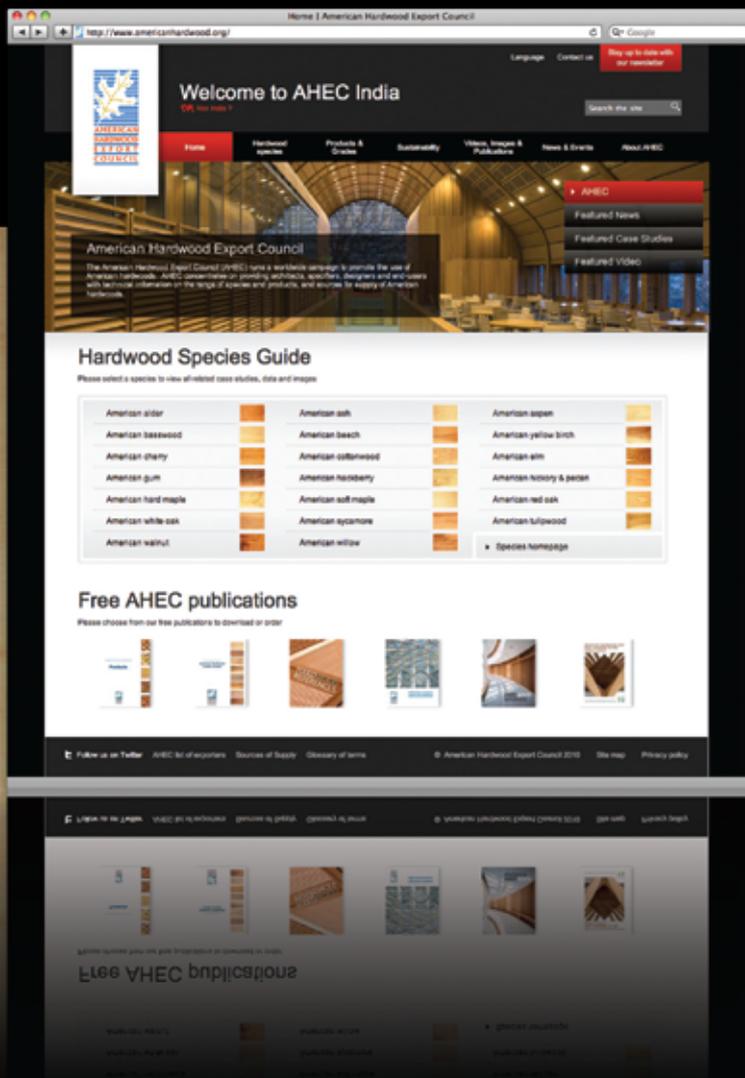
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