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April 2019 Vol. 44 No.6
Who or what is Artisan 4.0?

In the first week of April, I attended Focus on Forestry in Mpumalanga, the most vital forestry focused conference in Africa. The topics were current and invigorating, the presenters were excellent, there was a logical flow to the content of the presentations and remarkably few delegates left before the end of the event.

Discussions were wide-ranging and it was both interesting and concerning to hear and see the rapid rate of development and adoption of innovative technologies in the fields of forest engineering and silviculture. It brought home the fact that Industry 4.0 is not a future trend. It is a reality. In the words of technology guru and futurist, Arthur Goldstuck: “Fear it and be left behind. Embrace it, and you build a better industry”

This month we introduce Focus on Forestry and look at a time-saving way to fertilise seedlings during planting and Sappi’s Lignex product that suppresses dust on gravel roads.

Readers, you can look forward to more news from the conference in the coming editions of the magazine.

We present the last of our previews of what to expect when the two most influential Europe-based wood processing and value-adding trade shows, Interzum in Cologne and Ligna in Hannover open their doors in Germany in May. The unparalleled growth of these industries in the East can be found in the article on the sale of technologies that took place at Interzum Guangzhou.

This leads me to my opening question, who or what is Artisan 4.0. In his State of the Nation Address, President Ramaphosa warned that unless the 4th industrial revolution is harnessed to serve South Africa’s developmental aspirations, the country is at risk of being seized by technology. Accenture’s 2018 report on Creating South Africa’s Future Workforce says one in three jobs is at risk, with close on 5.7-million jobs already at risk of automation. The conversation on Artisan 4.0 in our entire sector is overdue.

Advertisers and contributors take note:

On the topic of data analytics, WSA&TT is proud to report that 11 146 people downloaded the online version of the March magazine, up from 9 532 in January.
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Fantastic Focus on Forestry

For the first time in its history, Focus on Forestry attracted over 300 conference goers, and they were captivated by the information shared by the international and local presenters, and the technologies and services available from the exhibitors.

The organisers of the conference, CMO led by Michal Brink and Andrew McEwan and their professional staff and helpers, Forestry South Africa and Nelson Mandela University, went out of their way to ensure that the record-breaking event will be a talking point for many months to come.

“Bridging the technological divide in the African forestry sector,” proved to be a contemporary topic that has set the stage for meaningful conversations and, in the words of Dr Keith Little, will revitalise support and funding for forward-looking research.

The themes of the conference were selected in an attempt to integrate the value chain of the forestry industry and provoke a collaborative “systems thinking” approach. On the first day the themes were silviculture and fire management, while mechanised harvesting and forest engineering research results in practice were the topics for day two.

There were 30 presentations from industry experts and six additional presentations by the platinum sponsor AfrEquip / Tigercat and the gold sponsors, Husqvarna, Imperial Hino, Forestry Plant and Equipment, Ponsse and Bell Equipment. The MTO Group provided the venue for the field day.

Bulldozer of digital solutions

Welcoming everyone to the event, Michal described the plethora of rapidly developing technologies as a “bulldozer of digital solutions sweeping across the world today.” He pointed out the industry will only survive if “we are the bulldozer and not the road”.

Futurist and IT specialist, Arthur Goldstuck, presented the keynote address and reminded the audience that they have two choices: “The future is here: you can fear it and be left behind, or you can embrace it and go forward”.

He used Facebook, the biggest network of connectivity in the world, to describe the path and pace of technology in Africa from “digital darkness” in 2010 when interconnectivity was dismal, to 2013 when competition arrived when the undersea cable connected Africa to the world. In 2016 the lights were finally switched on with the arrival of smart phones.

Arthur described case studies of organisations like Blockbuster who did not have a business model that could compete with competitors like Netflix. He advised everyone to keep a keen eye on the Internet of Things (IoT) and artificial intelligence (AI). He said Industry 4.0 has already triggered a debate about what it will be like to live alongside robots in the future.

This talk paved the way for the discussions on digital developments that bridged the rest of the conference.

Digital forestry recognises four basic system behaviours to facilitate the storage, abstraction, feedback, and integration of forestry information:

• A network of data and information systems comprising an overall integrated forestry information infrastructure
• Data and information that needs to be abstracted at various levels to form multilevel decision-making systems
• Intervention from higher systems to prompt a drill down query to the lower subsystems for relevant data exploration and research
• Systems like precision forestry use technology sensing and analytical tools to support site-specific, economic, environmental, and sustainable decision-making.
Discussing disruptive technologies in-field were: Cebile Sibande of Safcol, Muedanyi Ramatswana of NMU, Nomcebo Ndlovu of Safcol, Nathi Sibetha of Mondi and Nonkululeko Nkosi and Miyelani Nkuna of Safcol.

NMU students embracing the 4th industrial revolution were: Sesikhona Dlamini, Eddie Mkhatshwa, Nduduzo Ngcobo and Avuyile Tywakadi.

Forestry

Safcol was well represented at Focus. Here Seobani Nembula, Msitsini Walter and Siyasamkela Mkutuka enjoy the field day.

Day one of Focus kicked off with silviculture, presented by Loffie Brandt from Absa, session chair Sthembiso Masihabane of Safcol, keynote speaker Arthur Goldstuck of World Wide Worx, Muedanyi Ramatswana of NMU and Novelquip’s Jaap.

The safety welcoming committee: AfrEquip’s John Barbour, Brendan Moore and Johan du Toit handed out safety gear to everyone at the field day.
Introducing Basacote fertiliser for plantation establishment

Focus on Forestry 2019, recently held in Mpumalanga, was chosen by Compo Expert as the ideal event to present Basacote controlled-release fertiliser “pills” to the silviculture experts

Michiel Meets, the sales manager of Compo Expert South Africa, says Basacote is not new to the forestry industry. The fertiliser is manufactured in Germany and has been trialled extensively in forestry plantations in Chile and more recently in Tasmania, where it has shown impressive growth responses.

“Progressively more companies in Tasmania are choosing to use it, with over 5000ha planted with Basacote in 2011 alone. Trials were undertaken in Tasmania by Serve-Ag, Forestry Tasmania, and Forest Enterprises Australia and showed increased growth rates for Basacote treated trees, particularly in the first six months of growth,” Michiel explains.

Each pill is evenly covered by a high-quality elastic polymer coating that controls water penetration which promotes climate adapted controlled nutrient release over a period.

After application, moisture slowly penetrates through the pores of the coating, dissolving the nutrients, which then dissipate into the soil by osmosis and diffusion. The coating thickness determines the rate at which water can absorb into the granule and the rate at which nutrients can diffuse out.

Long term trials in Chile have shown an above ground biomass increase of up to 10% after 30 months. “Whilst this result was not statistically significant, it does represent a major improvement over traditional fertiliser treatments due to the much smaller amount of fertiliser required per seedling. Only 30g of Basacote per seedling is applied in the hole at planting, compared with traditional application methods where up to 90 - 110g per seedling is used, explains Michiel.

Advantages of Basacote

Cost-effective
- Basacote is usually applied at planting in the pitting hole next to the tree roots
- There is no need for a second pass to fertilise the seedlings
- Less fertiliser by weight is needed, which reduces freight and handling costs.
- Money is saved through reduced application costs, fewer employees, and savings due to the price of the product itself.

Promotes healthier trees
- Trees exhibit a fuller appearance.
- Trace elements in Basacote are in chelated form and can overcome micro-nutrient deficiencies and help trees tolerate stresses.
- The early spike in growth helps trees overcome weed and browsing pressure.

A more reliable source of nutrition
- The fertiliser in the root zone is available to the tree early in its growth.
- Reduced possibility of leaching and volatilisation.

Advanced coating
- The coating is elastic and resistant to damage and frost.
- The rate of nutrient release is dependent on temperature.
- Climate adapted release correlates well with plant growth in response to temperature, hence less waste and better timing of nutrient release.

Environmental and health benefits
- The controlled-release properties mean less chance for leaching and nutrient eutrophication of waterways.
- Only the target plant is fertilised and not the weeds around the tree.
- The process does not produce dust, which minimises respiratory risk to planting crews.
- Small application amounts mean less product carried around the site.
- The health and safety benefits of the product are also significant because of the low use rate. Only 41kg of Basacote is required per hectare as opposed to 137kg of the alternative product (@1370 trees /ha), which employers would carry around the plantation.
- Meets requirements for new FSC industry accreditation

The science of Basacote

Basacote is differentiated from other coated fertilisers by its elastic coating material and advanced coating process. Based in North Western Germany, Compo Expert’s production plant uses an unique continuous coating process with numerous quality control points that ensure that every granule has a uniform coating thickness.

The coating is applied inside coating chambers with granules suspended by compressed air. The polymer coating is sprayed on the suspended granules, and as it gets coated their weight increases, causing it to fall to the bottom of the chamber. These heavier granules are transferred to a neighbouring chamber where the process is repeated.

The number of coatings determines the rate at which water can absorb through the granule and the rate at which nutrients can diffuse out. This rate can be three, six, nine or 12 months. The advanced coating of Basacote is a good fit for forestry since the fertiliser has to travel long distances on rough roads.

Michiel explains that competitor coated fertilisers are coated in a batch process which uses a slurry system to coat the granules in a setup similar to a cement mixer. “The nature of these coating processes means that the coating may not be homogenous, which can cause damage in transit and even seedling mortality due to nutrient dumping.”

Long-term Chilean trials suggest that using these comparatively low rates of fertiliser do not come at a yield cost, rather the Basacote treated trees exhibit an increased rate of growth. Michiel notes that the results suggest that the majority of the nutrients used in traditional treatments are unutilised or lost. Trials undertaken in Tasmania compliment the trends found in the Chilean trials.

“Overall the results achieved with Basacote to date are positive and demonstrate that Basacote in most cases has equal to, if not greater growth over traditionally fertilized trees. Considering that fertilising costs can be reduced, and early growth increased, Basacote is a good option to use in establishment programs.”

Article adapted from Basacote Fertiliser in Forestry
Serve-Ag Pty Ltd (www.serve-ag.com.au)
The United Nations has issued a massive global call to action to mobilise the political and financial support necessary to restore two-billion hectares of the world’s deforested and degraded ecosystems.

The UN Decade on Ecosystem Restoration, approved by the General Assembly on 1 March 2019, will run from 2021 to 2030 and is set to scale-up restoration work to address the severe degradation of landscapes, wetlands, and aquatic ecosystems worldwide. It aims to boost landscape restoration to the top of national agendas, building on public demand for action on issues such as climate change, biodiversity loss, and the resulting impacts on economies and livelihoods.

The UN Environment committee is working with the Food and Agriculture Organisation of the UN (FAO) to lead the implementation of the project.

The degradation of land and marine ecosystems undermines the well-being of 3.2-billion people and costs about 10 per cent of the annual global gross product in loss of species and ecosystems services. Key ecosystems that deliver services essential to food and agriculture, including supplies of freshwater, protection against hazards and provision of habitat for species such as fish and pollinators, are declining rapidly.

Land degradation is estimated to cost the global economy between USD 2- and 4.5-trillion each year, while economic benefits of restoration efforts could annually reach an estimated USD 84-billion. At least 7-million hectares of tropical forest landscapes are cleared and degraded each year, putting livelihoods, biodiversity, and food security at risk, while exacerbating climate change, conflict and human migration. Coastal and wetland areas have been declining faster than terrestrial ecosystems. Coral reefs are projected to decline by a further 70 to 90 per cent with a 1.5 degrees Celsius rise in global warming, having massively detrimental effects on biodiversity, the global economy, and the atmosphere.

The Decade will accelerate existing restoration goals, such as the Bonn Challenge, which aims to restore 350-million hectares of degraded ecosystems by 2030, at an estimated cost of about USD 800-billion. It will also remove 13 to 26 gigatons of greenhouse gases from the atmosphere.

To date, some 57 countries, sub-national governments and private organisations have committed to the project. It builds on regional efforts such as the African Forest Landscape Restoration Initiative (AFR100), that aims to restore 100-million hectares of degraded land by 2030.

Ecosystem restoration is fundamental to achieving elements of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), particularly on climate change, poverty eradication, food security, water and biodiversity conservation. It is also a pillar of international environmental conventions, including the Ramsar Convention on Wetlands and the three Rio Conventions on biodiversity.
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Strong Reliable Machines
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The IUFRO Working Group (WG) 7.03.13 that focuses on biological control of forest insect pests and pathogens will meet in Pretoria on 6-8 November 2019. It will be followed by a field trip on 8 – 11 November.

IUFRO is an international network of forest scientists working in a broad range of research areas, including forest health and the management of invasive species. The IUFRO working group 7.03.13 focuses on research related to the biological control of forest insect pests and pathogens.

This is the first meeting of the working group since a meeting in Poland in 2015, and the first time this working group is meeting in Africa! The meeting will be held at the newly opened facilities of the Future Africa Campus of the University of Pretoria.

Important Dates
- Send interest in post-meeting field trip: 30 April 2019
- Abstract submission deadline: 15 June 2019
- Notification of acceptance of abstracts: 30 June 2019
- Early registration deadline: 31 July 2019
- Late registration deadline: 30 September 2019

There will be a post-meeting field trip from 8-11 November. The field trip will include exposure to South African plantation forestry, including visits to sites with infestation of some of the main pests of pine and eucalyptus, such as the Sirex woodwasp (Sirex noctilio), the bluegum chalcid (Leptocybe invasa), the Eucalyptus snout beetle (Gonipterus sp.2), as well as native insect pests.

The field trip will include encounters with South Africa’s amazing native fauna and flora in the Kruger National Park.

Working Group 7.03.13 falls under IUFRO’s Forest Health Division 7. This division includes research on:
- physiological and genetic interactions between trees and harmful biotic impacts, including resistance mechanisms
- biological and applied aspects of tree diseases
- environment/pathogen interactions in forest decline
- the biology and control of forest tree insects; and impacts of air pollution on forest trees and forest ecosystems, including diagnosis, monitoring, biology, genetics and treatment of polluted forests and other wooded lands.

For more information contact - Prof Brett Hurley (FABI, University of Pretoria) on 012-420 5822, or brett.hurley@fabi.up.ac.za.

SA government committed to AFR100

AFR100 is a pan-African, country-led effort to restore 100-million hectares of land across Africa by 2030

In 2017 the government committed South Africa to restore 3.6-million hectares to promote integrated landscape management and adapt to and mitigate climate change. The main environmental programmes fall under the auspices of the Expanded Public Works Programme, such as Working for Ecosystems, Working for Water, Working for Land, Working for Wetlands, Working on Fire, and land care and forestry programmes.

The priority interventions are listed as:
- Water retention and landscape stability to combat erosion and desertification.
- Clearing sparse and dense stands of invasive plants and bush encroachment.
- Re-vegetation.
- Soil and donga rehabilitation and restoration
- Additional interventions determined by restoration opportunity assessments

Requested assistance from AFR100 includes:
- Programme and project investments and funding
- Support for workshops and institutional arrangements to implement AFR100
- Development/establishment of restoration targets
- Assistance in Identifying other financial mechanisms or resources to invest in landscape restoration
- Skills development and knowledge sharing
- Funding to conduct research
Invaluable outdoor power tools handbook launched

All forestry growers are urged to download a softcopy or get hold of a printed version of The South African Outdoor Power Equipment Safety and Operating Handbook.

The editors are Simon Ackerman, Duncan Fryer and Roger Jackson and it was published at the end of 2018 by the Institute for Commercial Forestry Research (ICFR).

The handbook is written for South African forestry operations and conditions. “The objective is to make operations using outdoor power equipment more efficient and safer. This is important because the use of outdoor power equipment is expanding, and the equipment is often used for work in applications that are different from its original design framework,” explains Simon.

The 140 pages book is substantial and has been designed to standardise outdoor power equipment handling requirements.

Simon says it is a convenient reference and guide to effective and safe working procedures. “All machine operators, instructors, training centres, tertiary education institutions, forestry company management, forest owners, maintenance facilitators and distributors should refer to this handbook for operational guidance.”

All standards contained in the handbook are internationally accepted and comply with those set out by the International Labour Organisation and the South African Occupational Health and Safety Act (Act 85 of 1993).

The Handbook underwrites all aspects of FESA’s Guidelines for Forest Engineering Practices in South Africa (1999, updated in 2014) and is complimentary to The South African Chainsaw Safety and Operating Handbook (2000, updated in 2015). It is generic and does not replace the outdoor power equipment owner’s manual, which is specific to a particular make and model.

“This book can be used in the development of training material for small plant operators. It is an indispensable tool for designing training courses and assessment guides and to complement work and safety procedures for companies and institutions,” advises Simon.

“It is important to check that your training provider is accredited with a sector education and training authority (SETA) and complies with industry and company specific requirements.”

He points out that due to the dynamic changes in forestry operations, many of the tools and applications detailed in this handbook are evolving and being refined. Appropriate updates and changes will be published when necessary.
Ins & outs of saw chain sharpening

By Simon Ackerman, Duncan Fryer and Roger Jackson

Maintenance is important for all mechanical equipment and it is particularly significant when it comes to dangerous hand-held power tools in plantations. The following is an edited extract from Chapter 11 of the South African Outdoor Power Equipment Safety and Operating Handbook published in 2018 by the Institute for Commercial Forestry Research (ICFR)

The sharpening procedure is basically the same for all portable equipment saw chains, but different filing angles and settings are necessary for different chain types. Always consult the manufacturer’s manual before operating and maintaining power saws.

Prepare for sharpening

The chain must be examined carefully for damage. Any damaged links, particularly cutters with badly nicked or chipped cutting edges, must be replaced. The cutter with the shortest top plate must be found as it is this cutter that is used as the master for sharpening.

All cutters must be the same length and shape (balance) after sharpening. Owing to the rearward slope of the top plate, the cutter heights will be uneven if the cutter lengths are different.

If the cutters are not the same height, the chain will cut roughly and may break.

After the chain has been re-sharpened, the filings can be removed from the bar groove by running the engine briefly off load at full throttle.

Terminology

To sharpen a saw chain the operator must understand the following:

The side plate angle is the angle between the side plate cutting edge and the horizontal line formed by the cutter toe and heel.

This angle varies on individual chain types:

Side plate angle

The top plate filing angle is the angle measured from the top plate cutting edge at a right angle to the guide bar;

Top plate filing angle

The filing angle differs on individual chains. The standard filing angle for normal applications is 25° - 30° as specified by the manufacturer. Wider filing angles increase cutting performance in softwood. Narrower filing angles ensure a smoother running chain and less vibration in hardwood.

The side plate angle and top plate filing angle have a considerable influence on the chain’s ability to cut wood and therefore it is essential to maintain the specified values.

The depth gauge is the small projection in front of the cutting edge. The difference in height between the top of the depth gauge and the leading edge of the top plate is known as the depth gauge setting.

It determines the height at which the cutter enters the wood (chip thickness) and therefore has an influence on chain cutting capacity.
Filing the chain

Use the correct tools according to the manufacturer’s specifications. The following are needed to file the chain:

- Round file for cutters;
- File holder or file gauge for cutters;
- Flat file for the depth gauges;
- Depth gauge tool (It can be incorporated into the file gauge).

It is the operator’s responsibility to make sure the chain is in a workable and safe condition. As a general rule the chain should be sharpened after each fuel refill, and the depth gauge checked after every second fuel refill.

New sharpening and depth gauge technology include devices that sharpen and adjust the depth gauge at once.

It is important to follow the supplier’s guidelines.

“Do not neglect preventive maintenance!”

BACKPACK WEED CONTROL

STIHL has two powerful backpack sprayers for professional weed control. The SG 51 backpack sprayer is lightweight at 4.5kg and has a 12 litre capacity, while the SG 71 weighs minimally more at 4.8kg while carrying a useful 18 litres. Both are ergonomic and well suited to getting into tight spaces for precision spraying. Both models allow for the pump lever to be on the left or right to suit the operator, and the SG 71 has a moulded back panel for greater user comfort. Both models are useful allies in any weed control programme.

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Preventative maintenance ...

Round file gauge

Depth gauge

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Round file cutter sharpening

Use the correct round file and file holder/gauge as prescribed by the manufacturer when filing the saw chain. Sharpening with a round file is performed in such a way that the file is set with part of its diameter protruding above the top plate according to the manufacturer’s specifications. The use of a file holder/gauge ensures that the file is kept at the correct height.

Sharpening begins at the master cutter (shortest top plate). File holders/gauges have reference lines showing the correct filing angles. Place the file holder/gauge in position. It is held so as to maintain the specific top plate filing angle required. The reference line must be parallel to the guide bar during filing.

To obtain the correct side and top plate cutting angles, the file holder must be held horizontally or at the angle specified by the manufacturer.

Sharpen all cutters on one side of the chain first. File from the inside to the outside of each cutter.

Repeat the process for cutters on the other side of the chain. Filing must be performed on the forward stroke only. The file must be lifted off the cutter on the backstroke. To achieve smooth faces and sharp cutting edges it is necessary to file
evenly and steadily. If the same number of file strokes and the same pressure is used on each cutter, cutters of similar length will be obtained. Two or three strokes of the file are usually sufficient.

The basic rule is to file frequently and take away as little material as possible.

**Filing the depth gauge**

The depth gauge setting must be checked regularly. The settings differ according to chain pitch; therefore the correct depth gauge tool must be used. If the depth gauge projects from the depth gauge tool it must be filed down level with a flat file.

If the cutters are sharpened with two to three light strokes of the round file, the depth gauges do not need lowering every time. When all depth gauges are level, their front edges must be rounded to the original profile.

**Saw chain sharpening errors**

The specified shape of the cutters can only be obtained if the correct tools are used (file and file holder/gauge for manual sharpening, or specially shaped grinding wheels) and the correct adjustments made. Every deviation affects at least one of the fixed factors. For example, if the file is too thin or the file holder sets the file too low, the side plate and top plate cutting angles will be too small (a hook).
Similarly, if the file diameter is too large or the file is set too high, the resultant side plate and top plate cutting angles will be too large (a back-slope). The top plate cutting edge is the major cutting edge on the cutter. Although it is difficult to measure, it will automatically be correct if the other specified angles are maintained. Common sharpening errors include the following:

- Cutter lengths not uniform
- Irregular top plate angles
- Different side plate angles
- Uneven depth gauges

Sustainable forests for customers and the future

By Jed Krige, senior director, forestry and milling at CHEP SA

Delivering long-term excellence and service in supply-chain management requires innovation. A fascinating manifestation of this involves backward integration, with logistics and container-pooling companies moving into production to better meet customer needs.

A pallet manufacturer, for instance, can take a progressive approach to its industry by moving into business sectors higher up its own supply chain. This can give the company greater control of its inputs and help provide an impeccable level of service to customers and ensure world-leading sustainability compliance.

Fittingly, a supply-chain company can deliver better service, by taking deeper control of its own supply chain. At CHEP SA, this has certainly been our experience.

As a company in the business of supplying and renting wooden pallets for re-use in regional and global supply chains, we relied on certain timber milling, processing, and pallet-producing companies to support the pallet-pooling business. We did not find this an ideal solution.

Backwards integration

To remedy this, the decision was taken in 2006 to enter the forestry sector, with the intention to secure standing timber plantations for later processing into industrial-grade sawn timber by contracted sawmills.

Today, CHEP SA owns 10 separate pine plantations, with interests in a sawmill and a pallet manufacturing plant. Together, these provide more than 50% of our timber requirements. This allows us to keep our sawn-timber prices in line with annual market pine-sawlog increases, to ensure high timber and pallet standards, and to guarantee that the entire production process is environmentally sound.

In the past couple of years, we have supplemented our own timber production and supply with domestic supplies. This has has reduced the requirement to import lumber from Brazil, which is a process with long lead times and potentially debilitating exchange rate driven price fluctuations.

This backwards-integration philosophy makes business sense and is the ethically responsible thing to do. CHEP SA’s pine plantations are strictly managed according to the stringent...
certification standards required by the internationally accepted Forest Stewardship Council (FSC).

Sustainable forestry

These FSC standards certify that CHEP SA’s forests are responsibly managed in terms of water use, ecosystem stewardship, protection of plant and animal species, co-existence and co-operation with local communities bordering pine plantations, and the safety of forest workers. In addition, all trees used to produce pallets are replaced with newly planted trees.

Our forestry general manager, Gordon McKenzie, has won the Sappi Forester of the Year award for KZN for four years running, including one year where he won the SA National Forester of the Year Award. This is proof that our forests comply to the highest audited international environmental, social and sustainability standards. This forestry capability also has an invaluable economic benefit. South Africa’s supply of government-licensed forestry land is finite, and the country currently stands on the cusp of what could be a crippling shortage of pine timber.

Many growers are converting from long-rotation pine plantations (20 years+) to shorter-rotation eucalyptus plantations (seven years) for the supply of pulp fibre to large chemical cellulose producers or to dissolving wood pulp producers. The devastating recent fires in the Southern Cape, where 20 000ha of standing pine plantations was destroyed, created a surplus through salvaged timber, but this is now exhausted. A pine-timber shortage is looming.

Quality pallet supply

Owning forests generally provides a reliable, sustainable timber supply, which mitigates the risks of massive price hikes and inconsistent supply. We are determined to minimise these risks, as we are committed to guaranteeing a supply of quality pallets for our customers.

Backward integration into forestry, milling and pallet production has allowed CHEP to be globally compliant and sustainable and to pass on that certified level of sustainability to our clients. In 2018, 99.4% of the timber used by CHEP globally came from certified sources.

Backward integration is essential for CHEP SA to guarantee its supply of quality, FSC-accredited pallets to customers on a sustainable basis, and to continue the superior, reliable service that our customers have come to expect.
Lignosulphonate improves gravel road surfaces

Speaking at Focus on Forestry 2019, Eric Schubert, sales manager at Sappi Biotech’s Lignin division, informed forest engineers about the advantages of using Lignex for dust suppression and the stabilisation of plantation roads.

Before getting to the benefits of using Lignex, Eric explained that it is produced from lignin extracted from trees. As part of Sappi’s continuous endeavours to maximise the value derived from its raw material, Sappi Biotech researches and develops various value-added products of lignin.

Sappi Biotech’s lignin activities date back almost 100 years through one of its European subsidiaries. Today the products are manufactured in Austria and Germany as well as the Tugela Mill in South Africa for sales to global markets.

“Lignin is a natural polymer found in wood and lignosulphonate is a highly soluble lignin derivative co-product of the sulphite pulping process. Sappi Biotech’s range of lignin-based products find application in process water treatment, resins, leather tanning, pelleting, fertiliser, crop protection, textiles and dust control. Eric said that globally the biggest consumer of lignosulphonate is the concrete admixture market.

Forest roads

Forest roads are notoriously dusty due to the heavy-duty vehicles using the roads. Eric expanded on the application of Lignex to improve high traffic, unpaved plantation roads, timber depots, log yards and nurseries.

“Lignosulphonate technology has been used as a surface stabiliser and dust palliative for roads globally since the early 1900s,” he said. “Local interest was spurred in the 1960s and the Council for Scientific and Industrial Research (CSIR) published various papers on its benefits in the eighties and nineties. Presently Sappi’s Tugela Mill supplies Lignex, into the local and export dust control market, mainly to mines and Sappi’s own plantations.”

Eric explained how Lignex works as an effective surface stabiliser and dust suppressant. “When mixed into the road materials and/or sprayed onto the road surface it acts as a surfactant which gives excellent dust suppressant properties. The polymeric binding power of lignin acts as a natural glue to bind the fines and soil aggregates together and the polymer traps moisture, effectively sealing the road surface,” he said.

The benefits include:
- It is environmentally friendly, biodegradable and has a neutral pH
- Reduced dust, which has a health and safety benefit.
- Reduced water usage in road building and repair
- Reduced road maintenance
- Reduced wear and tear on vehicles using the road
- Improved, more economical logistics.

Application

“Spray-on” surface treatments involve the spraying of diluted Lignex directly onto an existing gravel road surface using multiple passes of a water truck or bowser.

For a more durable and longer lasting effect Lignex can also be administered in the form of a “mix-in” application, where it is mixed in with the soil prior to compaction, during road construction or re-gravelling. This method improves the plasticity of the soils at lower moisture levels and results in a denser and firmer road surface when it is compacted.

Rejuvenation applications should be performed when required and will be determined by the nature of the gravel substrate, traffic volumes and climatic conditions.
Renewable resources for cost-effective road maintenance

Lignex is an environmentally friendly dust suppressant and surface stabiliser for unsealed (gravel) roads, which Sappi produces from a natural and renewable resource. When applied to a well-constructed, well-drained road, Lignex will generally increase the longevity and reduce the maintenance cost of the road.

For more information please visit [www.sappi.com/lignin](http://www.sappi.com/lignin)
For queries email [Lignin@sappi.com](mailto:Lignin@sappi.com)
We go the ECONomical way

BPW ECO Plus
Drum brake and cost reducer in one unit

With more than 11 million units sold worldwide, the BPW drum brake is the embodiment benchmark of a reliable brake for towed vehicles. It sets new standards for lifecycle costs thanks to its robust construction and ease of servicing through the ECO principle.
Sawmill 4.0: Microtec’s world of wood scanning

The Nukor Group’s supplier of integrated and artificial intelligence (AI) solutions for log yards and wood processing plants, Microtec, is presenting “the sawmill of the future” at Ligna 2019.

Microtec’s stands in two halls demonstrate the recovery, value-adding and costing predictions that are possible when sawmillers decide to invest in the latest technologies. Visitors can experience Sawmill 4.0’s gapless traceability and chain of custody from log to board in Hall 25 at Stand F39, and the world of innovative wood scanning solutions in Hall 27 at Stand F27.

Gapless traceability from log to board allocates a unique digital fingerprint to every piece of lumber which enables it to be traced back all the way to the original log. A combination of different Microtec technologies and AI makes this possible.

These include:
- CT Log 360°, a computer-based sawing optimisation system that enables 3D digital log mapping and virtual sorting
- Logeye Fingerprint, an X-ray log scanner for log identification and rotation angle evaluation
- Truespin, a scanner for rotation angle monitoring
- Goldeneye 900, multi-sensor scanner for wood components lumber identification and quality grading.

The wood processing series of Goldeneye is in Hall 27 where Microtec exhibits their fully automatic optimising x-ray scanners and cross-cut solutions. These include the Goldeneye 300, 500 and 600 scanners and the Curvescan, Viscan, Optiside, M3 Scan and ID Scan systems.

The Goldeneye 700 is presently the most advanced strength grader in the world.
LIGNA 2019: 27 – 31 May in Hannover, Germany

Gearing up for digitalised wood processing and finishing

Ligna, the world’s leading trade show for woodworking and wood processing plant, machinery and tools is focusing on smart factories, digital integration, and customer-centric manufacturing, which are the trends and themes currently shaping the global wood industry. Here are a few of the hi-tech and novel equipment on offer:

**Tomorrow’s forestry technology today: Pavilion P33**

The German Forestry Council (KFW) is running another season of its long-standing special presentation on forestry technology. The unique, technology-centric forestry industry meeting hub is organized by KWF with input from the German Association of Forestry Contractors (AFL) and the Lower Saxony Forestry Service (as represented by the Lower Saxony School of Forestry (NFBz)).

It is aimed at forestry companies and looks at key forestry issues and challenges, such as "Forestry & Wood Industry 4.0", battery technology, remote-controlled felling-wedge technology and forestry data flow chains.

In addition, there will be a demonstration site beneath the Expo canopy that will feature displays of new log measurement methods and a series of demonstrations themed "Natural Disasters in the Forest – Forest First-aid and Survival.

**Springer: Hall 25 stand F26**

Springer Maschinenfabrik will launch its ED 3000 fully automated film wrapper that is designed to film-wrap packs of timber at sawmills and planing mills efficiently and without human intervention. It can wrap a full pack of 3m boards in a protective plastic film in just 60 seconds. The polyethylene films used offer a simple, cost-effective packaging solution, and are 100% recyclable. Automatic centring ensures that the wrapping station and timber pack are correctly aligned at all times.

The film revolver can hold up to six rolls of film and dispenses them automatically. Grabber arms receive the film as it is fed to them and place it around the pack as it passes through. The corners are welded and trimmed in a single operation. The welds are durable enough to withstand the rigours of onward shipment.

**Linck: Hall 25 stand F25**

Log Motion Control optimises log positioning. Before the first cut is made into a log, it must be in exactly the right position to ensure maximum yield and minimum waste. Linck has pioneered automation technology for this process. The optimisation software calculates the precise angle of spin from the dimensional data provided by a 3D scan.

Linck will be showcasing an innovation for Log Motion Control at Ligna. The Microtec TrueSpin unit tracks and maps the actual position of the log as it is spun. The Linck optimisation program calculates the deviation from the ideal position and adjusts the spin trajectory if necessary. The more accurately the log can be positioned, the more useable – and saleable – timber it will yield.

**Vecoplan: Hall 25 Stand F66**

For sawmills, joinery shops and furniture manufacturers, it makes economic sense to reprocess scrap wood instead of disposing of it, and then to recycle the output either as a heat source or as raw material. Vecoplan specialises in supplying high-capacity shredders and chippers.

At this year’s LIGNA, Vecoplan will present shredding and reprocessing technologies as essential components of the full timber life cycle – from its primary use as raw material to its afterlife as recycled scrap. The exhibits will include an efficient single-shaft shredder with improved cutter unit and specially developed drive system, as well as plants for upstream and downstream processes such as handling, conveying and storage.

**Weinig: Hall 27**

At the Weinig stand visitors will be able to see a complex production line, from raw material to finished product, comprising eight integrated components in action. The stand will run daily demonstrations of the production process, from raw material to finished product. The line incorporates robotics technology and Weinig scanners.

All the line’s components are controlled centrally via Weinig’s new single-operator Control Suite system. Under the careful watch of this system, semi-finished goods will be manufactured then further processed into various products at downstream stations at the Weinig stand. One of the stations makes window parts using a Conturex CNC centre.

**SCM: Hall 13 stand C56**

SCM’s 4,000sqm stand will present its Smart&Human Factory. This cutting-edge production process is based on innovative, modular and easily configurable cells integrated with digital and automation systems. It allows advanced human-machine interaction and 360-degree control over the entire production flow.

It is a user-friendly wood panel processing automation system designed to respond to the challenges of mass customisation and Industry 4.0. The process aims to...
Quality equipment and tooling for all stages of wood processing

At Eurotech Consulting Services, we understand the importance of achieving cost-optimisation through the efficient processing of timber products throughout the entire value chain. With over 32 years of experience in the wood processing industry in Africa, Europe and Asia, Eurotech will help you to:

- Locate and supply quality fit-for-purpose equipment and tooling – new and refurbished machines from leading brands across Europe and Asia
- Import, install and provide training on equipment and turn-key plants
- Plan strategically for your technical requirements
- Provide international and local technical expertise and support for every stage of your production needs

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Mobile: +27 82 554 3668 (Guentor Blank)
Email: gblank888@mweb.co.za
manage panel cutting, edgebanding and drilling operations optimally to reduce waste and rejects and re-tooling requirements during product changeovers.

It then reassembles orders back together at the end of the process where customisation takes place.

Biesse: Hall 11 stand B32

With its B_Cabinet Four software, Biesse has developed a solution that can manage all stages of furniture production, from 3D design to monitoring the entire production flow. The software has a special interface where users can define and manage all processing stations and work steps required for each order. That includes everything, from cutting, milling, drilling and edge banding through to assembly and packaging.

Each processing station receives a work order comprising the production sequence, additional information on aspects such as the parts to be processed or the entire project, as well as parts programmes, work lists, cutting lists and PDF assembly instructions. The software features a dedicated interface for monitoring and controlling each processing phase right through to order dispatch.

Hymmen: Hall 26, stand F28

German company Hymmen offers state-of-the-art production technology for conventional laminate flooring manufacturing processes and multilayer modular flooring (MMF). Hymmen’s solutions are tailored to the process requirements of flooring manufacturers and can handle everything from full-size panel production to single plank manufacturing that involves digital printing across tongue-and-groove joints.

A turnkey solution from Hymmen can comprise a variety of different production processes, from primer application, digital decorative layer printing and the application of multiple functional layers, through to digital lacquer embossing (DLE). The company’s special excimer VUV curing process can produce fingerprint-resistant surfaces and a range of gloss levels.

Homag: Hall 14

On over 5,000sqm of display space, Homag will present a range of integrated, networked solutions comprising woodworking machines, cells, systems and software that can help operations of all sizes take the next steps towards a digitised future.

The company will run live demonstrations of its new networked cell systems beginning with digital entry, to the networked digital workshop, and ending with networked individual cells. These systems are available in a range of output classes tailored to operations of all sizes, from small woodworking firms to industrial-scale furniture manufacturers. Each solution is fully modular, allowing users to configure their own custom solutions.

Felder: Hall 13, stand C68

Technically demanding production processes require state-of-the-art software support. The F4-Solutions suite of programs developed by the Felder Group offers solutions for furniture production and interior design, nesting optimisation, window and door production, 3D free-forms and stairs and staircase construction as well as smart post processors.

Felder’s software can be seamlessly integrated into existing production lines and connects all the individual processing steps into a smart, fully integrated end-to-end process chain. F4-Solutions requires no further investment in new, networkable machines or another high-tech plant. The software modules are easy to use, fully functional the moment they are installed and can be added to at any point in time. It opens the door to integrated production for smaller woodworking firms using standard machines.

Barberan: Hall 17, stand B48

The G5 Jetmaster printer control software developed by Barberan enables simple and intuitive management of all printing operations, turning a highly complex machine into a system that is easy to operate.

With the G5 Jetmasters users can send print jobs from their PC directly to the machine, manage large-format digital images, create print queues and perform printing and maintenance tasks. The software, which was developed to improve the productivity of Jetmaster printers, was inspired by years of customer feedback and incorporates the company’s latest R&D advances.

Pade: Hall 27, stand D51

The Varioduet Jamb by Pade is a twin-head CNC machining centre with 15 controlled axes that produces jambs in large quantities while enabling the highest possible design flexibility and quick changeovers. Each head has five spindles, eliminating the need for separate automatic tool changers.

Because the tools are pre-installed and ready, the cut-to-cut time is less than two seconds. The design of the through-feed hopper feeders allows loading and unloading two pieces at the same time. The machine on display will feature automatic in-feed and out-feed rollers and can easily be integrated into processing lines.

Beck Fastener: Hall 13, stand A27

Beck Fastener’s LignoLoc wooden nails are made of beech wood and can be fired into solid timber or engineered wood without pre-drilling using the LignoLoc pneumatic nail gun. The energy released during firing “welds” the nail to the substrate, creating a seamless permanent bond. LignoLoc wooden nails avoid the problems of corrosion stains and damage to tools used for subsequent processing of the material. They are also environmentally friendly throughout their lifecycle, from initial production to recycling. For instance, the production of a LignoLoc wooden nail causes 75% lower greenhouse gas emissions than a comparable steel nail.
Wood-Mizer increases productivity for Tekwani’s Normandien sawmill

Tekwani’s investment in a Wood-Mizer Titan hybrid sawing line is resulting in improved efficiencies at its Normandien Sawmill, located near Newcastle, in KwaZulu-Natal

Tekwani is 27-years old and is an integrated, family-owned agri-industrial group in South Africa, with operations including cattle, water-bottling, forestry and sawmilling. The sawmilling arm of the group supplies sawn timber to local and export markets.

Wood-Mizer Titan hybrid units were commissioned at the Normandien sawmill in late 2018, with the goal of integrating and improving efficiencies between the company’s many agri-industrial divisions.

Normandien Sawmill is part of a forestry, cattle and water-bottling operation. These divisions have been combined to improve efficiencies within the business, and the new industrial timber line has proved integral to this process.

Prior to the installation of the new saw line, a single structural sawing line was used to produce structural and industrial grades of timber. However, this process reduced the volume of higher value structural material that could be manufactured by the mill.

Initially, Tekwani was having to pay for the pallets used in its water-bottling operation. Despite having a source of small diameter logs from plantation thinnings, it could not recover useable structural material from these logs.

The business knew these logs could be converted into pallet material with the correct machinery. To avoid taking capacity from the primary sawing process, the Wood-Mizer Titan hybrid line was selected to produce pallet material.

The addition of the second line resulted in increased output from the mill. The existing line is now dedicated to structural material only, and the Titan hybrid line is dedicated to industrial and pallet material. Splitting the lines has brought input on the Titan line to 73m³ per shift with a target of 80m³.

The Wood-Mizer units that have been incorporated into Normandien Sawmill’s industrial timber line consists of a single TV2000 twin vertical saw and two HR2000 horizontal resaws.

Titan Hybrid range

The Titan Hybrid range bridges the gap between narrow-band and wide-band technologies in the small to medium sized sawmilling industry. This range consists of primary- and secondary-breakdown solutions.
Go Hybrid - For the Best of Wide & Narrow Bandsaw Technology

TV2000
TWINBAND VERTICAL SAWMILL

TITAN Hybrid Twinband

HR2000
RESAW

TITAN Hybrid Twinband

Blade Widths – 50 mm to 80 mm

Wood-Mizer Africa (Pty) Ltd
Tel: +27 11 473 1313
enquiries@woodmizerafrica.com
www.woodmizerafrica.com

Wood-Mizer
from forest to final form
and provides customers with the flexibility to run wider blades for more performance, or narrower band profiles for those looking for a simpler saw doctoring process.

**Features of the range include:**

- **Affordability:** by offering heavy-duty sawmilling capacity at an affordable price, the range is accessible to small- and medium-sized sawmills
- **Customisable:** the range empowers sawmillers to increase margins and efficiencies
- **Varying blade widths:** the units can accommodate varying blade widths between 50mm and 80mm and can be customised further with spring set, swage set or stellite tipped 65mm to 80mm wide blades
- **Heavy duty feed mechanisms are standard for the entire range**
- **Simple maintenance and operation**
- **Easy integration into existing lines with minimal disruption**
- **The Hybrid range also slots in neatly between Wood-Mizer’s narrow band saw portable and industrial ranges and the Titan four and six-inch twin and resaw bandsaw ranges.**

Sawmillers can benefit from the wider product choice, increased flexibility to integrate different solutions from the same producer in one line, and the ability to do so in the most affordable manner possible.

**Unpacking the twin band hybrids**

The Wood-Mizer Titan Hybrid twin band range is an efficient and affordable twin vertical primary breakdown solution to cut a log into a two-sided cant. The range offers two models, the TV2000 and TV2000-AFL. Both are suitable for log diameters between 120mm – 400mm and up to 4.2m in length.

Features that can be highlighted are feed speeds of up to 40m/min, manual or automated log loading, various sharp chain options, pressurised feed rollers to ensure a stable cut,
Wood-Mizer gears up to unveil new machines at Ligna 2019

Wood-Mizer will display a new range of woodworking equipment, horizontal resaws, board edgers, and saws for entry-level and high-production operations at Ligna which will be held in Hannover, Germany, from 27 to 31 May.

Wood-Mizer Industries, the global company’s European headquarters based in Poland, has a long-standing presence at the Ligna woodworking show that is held every second year. At the event, the company showcases a broad range of wood processing equipment available through its established distribution network.

Visitors to Wood-Mizer’s stand (FG K44) will be presented with innovative high-volume sawmilling equipment and woodworking machinery alongside the company’s well-known professional sawing models.

“Wood-Mizer is dedicated to providing sawmillers and woodworkers throughout the world with the necessary wood processing equipment to efficiently process timber into finished wood products,” says Darryl Floyd, Wood-Mizer North America president. “Ligna is an excellent opportunity for our European headquarters to showcase our broad equipment range at one of the world’s largest trade fairs.”
Wood-Mizer gears up for Ligna 2019

Sawmilling

Fairs for the sawmilling and woodworking industries.” Wood-Mizer’s Titan line of high-volume saws will be represented at the show with several individual units including the WB2000 wideband saw, the EA3000 optimising board edger with scanning capability, and a high capacity EG800 multi-rip edger.

A new line of four-sided planer-moulders for woodworking companies will also be demonstrated. These products enable small to medium workshops to affordably plane and profile timber products with minimal investment.

Additional products on show include the LT15Wide saw that brings increased log capacity to customers, and the new horizontal resaws including the HR250 twin-band resaw. There will also be newly released equipment at the event.

According to Ligna’s organisers, the event is the world’s leading trade fair for the woodworking and timber processing industries. The biennial event is well attended by more than 1,500 exhibitors, 93,000 European visitors, and 42,000 people from outside the continent.

Darryl explains that since 1982, Wood-Mizer has earned a reputation as the world-leading wood processing equipment manufacturer with a strong legacy from its innovative sawmill products.

From forest to final form, Wood-Mizer offers an extensive line of equipment including narrow-band portable and industrial saws, wide-band sawmilling equipment, band resaws, board edgers, planer-moulders, bandsaw blades, and blade maintenance equipment for woodworking and forestry professionals and hobbyists all over the world.

 Visitors to Ligna flock to Wood-Mizer’s stand to experience the machines for themselves.
Meet the new CLT panel press and robot sticker handler

Mechanised sawmilling equipment manufacturer, Kallfass, will exhibit its wide-ranging product portfolio at Ligna alongside a new and innovative press for CLT large panels and a process optimisation solution for sticker handling using robot technology.

CLT press for large panels

The increasing request for machines to help them meet the demand for cross laminated timber (CLT) products by the suppliers to the European building industry convinced Kallfass that there is a promising future for this type of equipment. The panel press was developed specifically for the fully automated production of cross-glued wood panels.

The ground work for the machines was laid in 2017 when the concept of a large panel press was broached by Best Wood Schneider (BWS) in Germany. The company asked Kallfass to design a press for the fully automated production of box beam elements.

Best Wood Schneider is a family owned German manufacturer of construction wood products such as glued laminated timber, cross laminated timber, glued beams, glued timber for wall constructions, lamellae ribbed beams, glulam ceiling elements and rigid and flexible wood fibre insulation boards.

Kallfass designed and manufactured a press to produce box beam elements. This product is a combination of CLT panels and parallel laminated timber ribs. It lets Best Wood Schneider make large, self-supporting ceiling spans using the minimum of material while providing maximum stability. Thanks to the modular and stand-alone segmental design of the press, it makes no difference whether the layer package is built up of boards or pre-glued panels.

Precision and quality

The Kallfass solution focuses on the high requirements of the end product in terms of precision, quality, variable dimensions and the need for zero joints.

<table>
<thead>
<tr>
<th>Panel dimensions</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
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<tbody>
<tr>
<td>Length</td>
<td>7 000 mm</td>
<td>20 000 mm</td>
</tr>
<tr>
<td>Width</td>
<td>2 200 mm</td>
<td>3 600 mm</td>
</tr>
<tr>
<td>Thickness</td>
<td>60 mm</td>
<td>400 mm</td>
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The core component of the system is the sophisticated hydraulics which enable a virtually isobaric (constant pressure) pressing process.

In addition to vertical pressure, the through-feed press can also be fitted with longitudinal and transverse...
pressure units on request. Area-dependent pressure control enables a pressing force of over 1N/mm² to be applied, even for maximum panel widths.

This, combined with high-speed polyurethane adhesives and fully automated charging/emptying, results in minimum cycle times and maximum production capacity.

The heavy-duty machine is straightforward to operate and incorporates the high-level of Kallfass quality in terms of mechanical engineering and the end product.

According to the company, the new CLT presses are available for small, medium and large-sized CLT production systems, and have an attractive entry-level price.

**Robotic sticker handling**

Another new development in the Kallfass portfolio is the fully automated filling of sticker magazines with robot assistance.

The high demand for stickers to be used during kiln drying has always presented a challenge when it comes to the stacking of packages. Traditionally it involves considerable manpower requirements at the same time.

Kallfass says its new concept guarantees speedy and uninterrupted magazine filling and can achieve an output of over 100 sticks per minute. The fully automated magazine filling system with robot technology was launched in 2018 and is attracting great interest in the sawmilling industry.

See the Kallfass mechanised product range at LIGNA in Hall 25, booth D66.
Acoustic circular saw blade monitoring

The world’s only contactless saw blade protection system based on acoustics has come a long way since its first iteration in 2014 and Fellner Engineering will demonstrate and explain these developments at Ligna.

Saw blades are the heart of a sawmill because the quality of the cut affects the overall costs of running the mill. CSM Heartbeat comprises an acoustic sensor (microphone), an electronic unit and the latest version of the CSM software. The microphone continuously monitors the noise level of the saw blades.

If a value is registered which is above the set limit the CSM electronics and software immediately send a command to the sawing plant’s control unit resulting in a short reduction in the feed rate, and the plant is soon running at normal speed again.

This advance listening enables the operator to increase the feeding speed with some customers reporting an increase of as much as 30%. Thinner saw blades can be used, and the maintenance cycle of the saw blades is optimised by measuring moving average (MAV) level. If the saw teeth become blunt, the MAV increases. This allows the optimum time for maintenance to be determined. Re-sharpening is determined by the actual wear and not by the operating time. The service life of the saw blades can be extended several times over.
Astachem resins, adhesives and chemicals at Ligna 2019

Jerry Looi, CEO of AstaChem, advises entrepreneurs that: “Success is not an accident. It is the result of a lot of planning, challenging work and a dedicated team working together with a clear focus”

AstaChem is a leading Malaysian chemical manufacturer of formaldehyde, adhesive resins, speciality chemicals, hardeners, and fillers for its local and international customers. The company will exhibit and demonstrate its products in Hall 26, Stand A34 at the Ligna woodworking show in Germany in May.

“Since opening our doors in 1974, AstaChem continues to innovate and improve on its products and processes, explains Looi. “Our manufacturing facilities are located in the north and eastern regions of the Malaysia peninsula where our well-trained workforce is focused on protecting the environment, and the health and safety of our employees and communities. We provide value-adding products and assist our customers with technical support and solutions developed for their needs.”

The company will have an extensive range of products at Ligna and Looi believes the African customers will be particularly interested in its formaldehyde-based powder resins and the Astamite C501 adhesive for plywood manufacturing.

Formaldehyde-based powder resins

Powder resin is dried liquid resin that only requires the addition of water and where required catalyst or extenders. Unlike liquid resin, powder resin is highly flexible, and customers can adapt the glue formulation and preparation for different applications.

AstaChem offers three types of powder adhesives that all meet stringent international bonding standards and low emission requirements:
- Urea formaldehyde
- Melamine formaldehyde
- Melamine urea formaldehyde.

These are formulated specifically for use in the manufacture of wood panels. The powder version of the product is perfect for its international clients because, unlike liquid resins, it is easy to package, transport, ship and store. It has a long storage life of about nine months, which makes it ideal for small doses and irregular use.

The applications of powder resins include:

<table>
<thead>
<tr>
<th>Types of powder adhesives</th>
<th>Applications</th>
</tr>
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<tbody>
<tr>
<td>Urea-Formaldehyde (UF)</td>
<td>• Particleboard</td>
</tr>
<tr>
<td>Used in production of:</td>
<td>• Medium Density Fibreboard</td>
</tr>
<tr>
<td></td>
<td>• Plywood</td>
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<tr>
<td></td>
<td>• Furniture</td>
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<tr>
<td></td>
<td>• Laminating</td>
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<tr>
<td></td>
<td>• Bonding paper and veneer overlays</td>
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<td></td>
<td>• Interior flush doors, etc.</td>
</tr>
<tr>
<td>Melamine-Formaldehyde (MF)</td>
<td>• Scarf jointing</td>
</tr>
<tr>
<td>Urea-Melamine-Formaldehyde (UMF)</td>
<td>• Plywood</td>
</tr>
<tr>
<td>More resistant to moist environments than UF resin.</td>
<td>• Particleboard</td>
</tr>
<tr>
<td>Used in Production of:</td>
<td>• Medium Density Fibreboard</td>
</tr>
<tr>
<td></td>
<td>• End jointing of structural lumber</td>
</tr>
<tr>
<td></td>
<td>• Furniture</td>
</tr>
<tr>
<td></td>
<td>• Furniture, etc.</td>
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</table>

Astamite C501 for plywood

Plywood panels are composed of at least three veneer layers usually oriented with the grain running at right angles to the adjacent layer in order to reduce the shrinkage and improve the strength of the finished piece. During the gluing process the veneer sheets are pre-pressed together cold and are then fed into a hot press machine.

The glue mix used plays an important role in the quality, stability and consistency of the products. Used correctly, Astamite C501 has excellent pre-pressing characteristics with a resulting bond that is highly resistant to moisture, mould, and stains.
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RESIN MANUFACTURERS SINCE 1974

POWDER ADHESIVES
UREA FORMALDEHYDE RESIN
MELAMINE FORMALDEHYDE RESIN
MELAMINE UREA FORMALDEHYDE RESIN

Interior grade plywood | Particleboard | Assembly of high grade furniture
Overlaying of paper/veneer | Edge gluing | Doweling | Finger jointing

PRODUCT FEATURES
Longer shelf life than liquid resin • Minimum storage requirements
Suitable for small and irregular use • Meets strict low emission standards

QUALITY PRODUCTS | CRAFTED SOLUTIONS | BONDING EXCELLENCE

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## Austro at Ligna

**27 - 31 May 2019**

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<td>Striebig</td>
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Felder and Hammer ready for Ligna 2019

Austria’s famous woodworking machine manufacturer, the Felder Group, is preparing to put the “wow” into the biggest international woodworking trade show, Ligna.

South Africa’s Austro Engineering has been associated with the Felder Group for many years and has a special focus on the Felder and Hammer series of machines and equipment.

The trade show is taking place on 27 – 31 May in Hannover, Germany. Visitors to Hall 13 will find the Felder Groups’ products spread over nearly 2000sqm and seven stands. Austro invites you to visit the stands and look for your South African connection, or you can make an appointment to meet them and Felder staff at the stands for a tour and demonstration of the machines.

The Felder Group established Hammer in 1997 to meet the needs of small workshops and businesses who need access to high quality, affordable woodworking machines with a small footprint.

Hammer’s models have been specifically designed for this customer group and are available in a number of optimised solutions for every requirement. This includes thickness and surface planers, panel saws, spindle moulders, boring machines, rip saws, and sanding machines.

The Felder range includes edgebanders like the G600-series that can process several types of coiled and strip edge materials up to 8mm thick. The G300-series of compact edgebanders require less than two metres of space to operate in. Panel saws, surface and thickness planers, spindle moulders wide-belt sanding machines, dust extractors, stroke sanders, band saws, mortise and tenon machines and multi-boring machines are also available.

The Silent-Power spiral cutter block is available for Felder and Hammer planers. It is perfect for any business and is ideal for smaller workshops or garages because it reduces the noise created by the machine by half. The cutter block has quick-change tungsten carbide blades that offer a usable life 20 times longer than that of standard blades. A pulling cut ensures a splinter-free planing finish.

Combination machines

Both brands have developed an international following for their iconic...
Striebig scores with Vertical 4.0

Striebig, the leading manufacturer of vertical panel saws, is demonstrating its latest digital cut-to-size technology that it calls ‘Vertical 4.0 Solutions’ at the Ligna international trade show in Hannover (Hall 12 B40) in May.

Striebig is represented locally by Austro Engineering that has its head office in Johannesburg and branches in Durban and Cape Town, which ensures that the company can support all its Striebig customers.

Striebig specialises in designing and innovating vertical panel saws. It offers a comprehensive portfolio of services that result in optimised work processes, less waste, the best and most precise cutting quality and a consistent flow of data from preparation to sawing. There is also a retrofittable cutting optimisation or a software package that can be directly integrated into some of its products.

The OptiDivide cutting optimisation is independent of the machine control. OptiDivide imports parts list data from standard enterprise resource planning (ERP) software and CAD systems. It also works with MS Excel files in .csv-format. The operator uses the system to optimise complex cuts, either at the office workstation or directly whilst sawing. OptiDivide combines hardware and software in a compact aluminium casing. There is an integrated 12” touchscreen computer with installed software, a WLAN network connection and a label printer.

There are some trade-offs with combination machines because set up time is increased when moving from one function to another and back. Some combination machines run all of their functions from a single motor; while others may use more than one. Cutter heads are often shared: for example, a jointer-thicknesser may use the same cutter head for both functions.

Any disadvantages are offset by the small size of the machine footprint and cost saving over buying separate machines of similar quality.

OptiDivide is a digital cutting solution for some Striebig saws. It includes a network-ready touch-screen computer with software and a label printer.
BaseCut CON and ExpertCut CON provide even more options. Both solutions are tailored to the new Striebig Control saw. The systems are differentiated by the scope of the respective software package.

ExpertCut is the perfect system for Vertical 4.0. It imports records for cutting optimisation from standard market ERP or CAD systems, and of course from CSV-format Excel files as well. The software is installed on the user’s production planning and scheduling workstation. The user can also process and manage orders, materials and parts lists. The Control operator creates simple parts lists and optimises these directly on the 12” saw touchscreen computer.

Striebig’s top-of-the-range 4D-model has been equipped with general intelligent cutting optimisation for five years already.

With the widely usable and retrofittable OptiDivide system, and BaseCut and ExpertCut for the current Control model, Striebig covers all available models with a cutting optimisation solution, from the entry-level Compact model to the high-end saw.

Striebig's new Control vertical panel saw is available with optimised operator guidance using a 12” touch-screen computer, electronic positioning system (EPS), automatic saw beam positioning (ASP), label printer directly on the saw and a LAN or WLAN network connection.

The Striebig Control panel saw introduces Vertical 4.0 technology that includes a 12” touchscreen computer.
Industry 4.0 solutions from Cefla Finishing

In just a few weeks’ time, Cefla will lift the curtains on the results of its latest research and development into surface finishing when it takes centre stage at Ligna, the major global woodworking event in Germany.

Customers will find Cefla Finishing at Ligna in Hall 17 Booth F45. The company is represented locally by Geerlings, whose team will be at the Cefla stand: “We are looking forward to the chance to showcase the results of Cefla’s ongoing R&D activities which have led to solutions that respond to the demands of its customers and partners.”

According to Geerlings: “Cefla is famous for its innovations and we are all looking forward to the feedback from existing and new customers during the show.”

From new features to completely innovative technology, Cefla and Geerlings say they are ready to respond appropriately to the needs of the global woodworking industry.

During Ligna the company will demonstrate and explain developments in:

- Spray coating solutions
- 3D Digital printing
- Roller coating
- Wrapping, and much more.

Cefla Finishing believes customer needs are not confined to a new technology, an innovative function or to a software suite.

It is focusing on ways to provide an extensive range of comprehensive services devoted to efficiency, reliability and competence.

This system is called Ubiquo and is a carefully constructed recipe of expert consultancy, latest-generation tools and digital solutions to answer the real needs of its customers. It is always available anywhere in the world and Cefla says it is “simply a strategy where the main aim is to help improve the customer’s profits”.

It mixes the physical, virtual and digital domains and allows the company to address issues from all angles, providing a multi-dimensional solution rather than a two-dimensional remedy. The new cMaster web-based software accessed with a smartphone and internet connection provides real-time information and statistics. This includes monitoring the value-adding and non-value-adding activities while flagging issues like the need for preventive maintenance.

Come visit us at Ligna to view the incredible textured HD digital printing, bringing all surfaces to life - wood, board, plastics, glass, ceramics.

27 - 31 May
Hall 17 Booth F45
Call Cor
082 415 4653

Digital Printing: we print on everything. In HD.
Meet the Smart&Human Factory

SCM, a world leader in the field of secondary woodworking technologies, achieved a double-digit growth rate over the last two years which propelled the group over the €700-million turnover mark at the end of 2018.

Geerlings, the local agent for SCM’s products, says this success is due to the Italian company’s range of products that are increasingly in line with Industry 4.0 requirements. Geerlings advises: “Visit the SCM stands during the Ligna trade show in Hannover, Germany on 27-31 May 2019 to see these developments first hand.”

Since Ligna 2017 SCM has pulled out the stops to further develop its Lean Cell 4.0 highly automated production system with its breakthrough concept of Smart Manufacturing in the form of the Smart&Human Factory.

Come to the SCM stand that occupies over 4000 square metres of space in Hall 13 to encounter the new Smart&Human Factory. It is in the form of a cutting-edge production model based on digital and automation systems that allows advanced man-machine interaction and 360-degrees control over the production flow. The model is based on highly flexible, modular and easily reconfigurable systems that integrate robotics and is designed to respond quickly and effectively to the challenges of mass customisation.

Maestro is watching

SCM’s goal is a user-friendly wood panel processing automation system where “You will never work alone”.

**INTEGRATED CELL SYSTEM FOR THE PRODUCTION OF INTEGRATED PARTS**

Let us bring Automation to your factory

Call Cor to meet you at the SCM Stand 082 415 4653

SCM’s Smart&Human Factory concept is disrupting manufacturing as we know it.
The entire process, from furniture design to finished product is automated in a way that optimises panel cutting, edge-banding and drilling operations to reduce waste, rejects and retooling during product changeovers.

The customised products are assembled at the end rather than during the process. The system minimises repetitive human tasks by using Kuka industrial anthropomorphic robots, assisted by collaborative universal robots in the final process stages of assembly, hardware insertion, glue dispensing and surface finishing. It ensures totally safe conditions without the need for enclosures.

Finally, process logistics are facilitated by MiR intelligent autonomous self-driving shuttles. The entire system is managed and supervised by the Maestro Watch supervision software. It monitors the state of all products in the workflow using the IoT Maestro Connect system that collects and analyses SCM technology data, ensuring full control over the production flow and the implementation of smart predictive maintenance models.

Maestro is connecting

SCM is extending the Maestro Connect IoT platform to its cutting, edge-banding, drilling and routing, nesting and edging machines for panels and solid wood.

The data is gathered by new sensor kits that detect the changes in vital machine components, spotting any critical conditions of use or ones that are not ideal. This evolved data collection and analysis system offers maximum control of the machine or plant’s production flow, maintenance and planning of a spare parts strategy.

Maestro active

The Maestro Active man-machine interface software will be launched at Ligna. Maestro Active is the new operator interface which, combined with the touch eye-M control panel, revolutionises the way to interact with SCM technology. It offers a single integrated graphic platform that makes the operator’s work notably easier, reduces the risk of error and increases productivity.

Smart&Human Factory with SCM

This Industry 4.0 cutting-edge production process is based on innovative, modular and configurable cells integrated with digital and automation systems. It allows advanced human-machine interaction and 360-degree control over the entire production flow.
Adhesives spotlighted at Interzum Cologne: 21 – 24 May 2019

The world’s leading trade fair for furniture production and interiors, Interzum in Cologne, is a source of inspiration for the design of the living spaces of tomorrow and presents the most modern products along with technical and material innovations.

At Interzum 2019, adhesives will feature prominently. The most important industry players are signed up, including Alfa Klebstoffe/Simalfa, Collanti Concorde, Everad Adhesives, Frabo Adesivi, GMC Costruzioni Meccaniche, Jowat, Kimyapsan Kimya, Mastek, Quin Global, Robatech, Saba Adhesives & Sealants, Savaré, Sefa Kimya, Wakol, Xchem International, Zaklady Chemiczne Bochem and Zelu Chemie.

High-performance adhesives have always played an integral role in the manufacture of premium quality furniture.

Due to the wide range of surfaces, carrier materials, the many combinations of material and the hugely different requirements involved, careful consideration by all bonding partners is of the utmost importance in selecting a reliable adhesive.

At the same time, the quality expectations of furniture manufacturers and customers are increasing, due in no small part to current furnishing trends: The growing movement towards seamless living spaces means that furniture is no longer assigned to specific rooms. High-quality upholstered furniture can now be found in the kitchen or bathroom and demand for design and durability is increasing. At the same time, customers’ desire for sustainable goods is driving the demand for high-performance products based on renewable raw materials and low-emission adhesives.

The primary importance of adhesives in the furniture industry is stressed by Ansgar van Halteren, managing director of the German Adhesives Association. "High-performance adhesives support the furniture industry along the entire process chain. Without the various adhesive technologies, the requirements with regard to modern furniture could hardly be met."

The range of manufacturers represented by his association is broader than ever before and includes products from solvents and dispersion adhesives to thermoplastic and reactive hot melt adhesives.

The innovations in the supplier industry can be seen directly in the designs of the furniture manufacturers.
One hundred years ago Jowat started making adhesives for Germany’s wood and furniture industry and today it is a leading global supplier to the woodworking and furniture making, paper and packaging, graphic arts, textile, automotive and electrical industries.

To celebrate its centenary at the massive Ligna wood processing trade show next month, Jowat will present an extensive portfolio of PUR hot-melt adhesives for different applications. These will include its well-established products for edgebanding and its latest innovations.

Visitors to its stands in Halls 12, 15 and 27 will be able to interact with Jowat’s full ranges of:

- The Jowatherm-Reaktant range of monomer-reduced (MR) PUR hot melts for the wood and furniture industry
- The Jowatherm-Reaktant hot-melts for flat lamination of wood-based panels and sandwich elements
- The Jowapur one-component certified PUR prepolymer adhesives for load-bearing glulam

Jowatherm-Reaktant
The new and non-hazardous labelled Jowatherm-Reaktant products are the result of a decade of active research and development of alternative technologies for manufacturing PUR hot-melt adhesives that are not subject to hazardous material labelling.

Jowapur
Jowat will be unveiling another milestone in the development of PUR products for solid wood applications, the certified, liquid one-component PUR prepolymer adhesives of the Jowapur series for load-bearing glulam components. The range includes six products for manual to quick automated bonding processes. The adhesives differ substantially by composition, properties, and processing parameters, since they are each tailored for a specific purpose. Jowapur is certified free from formaldehyde.

The company says that by a simple change of the adhesive manufacturers can optimise their assembly-pressing time ratio, which will lead to an immediate marked increase in capacity.

Jowat SE was founded in 1919 and has manufacturing sites in Germany in Detmold and Elsteraue. It also has four other producing subsidiaries: Jowat Corporation in the USA, Jowat Swiss AG, Jowat Manufacturing in Malaysia, and the Jowat Universal Adhesives Australia Pty. Ltd. in Australia, as well as 23 subsidiaries. The company manufactures over 90,000 tonnes of adhesives per year and provides employment for over 1200 people.

The company has exhibited at Ligna for many years. This year’s participation is headed by the motto “Our word is our bond – since 1919”. You can find Jowat from 27 to 31 May in Hannover in hall 12 booth D69, in hall 15 booth A16, and in hall 27 booth D45.
TIMES ARE CHANGING.
AND WHAT ABOUT US?

THINK WEINIG

Batch size 100 today, a single item tomorrow, and get everything done by the day after tomorrow. In times of great change there are new challenges daily. I need a partner who not only sells me a machine, but who also guides me into the future with comprehensive personal advice and scalable, flexible solutions. WEINIG offers more.

Your first step forward: think.weinig.com

Discover WEINIG live:
LIGNA 2019 | Hall 27
New Eco-Spray booths from Thermosystems

The new range of Eco-Spray wood finishing booths from Thermosystems incorporates the latest paint filtration technology and air processing equipment.

The company has, for the past 32 years, specialised in designing customised, functional, and reliable paint and surface coating plants and equipment for sub-Sahara Africa’s paint finishing and coating requirements. This includes wood finishers in the panels, doors, and furniture making industries.

Glenn Greer of Thermosystems explains that the Eco-Spray booths are tailored for the demands of the wood finishing industry. “We have developed a number of special measures to provide the best and most affordable equipment to comply with national and municipal fire, health and environmental regulations,” he says.

Greer points out that the booths feature double paint filtration by means of either dry-filtration or water-wash technologies to eliminate the possibility of exhausting paint solids into the atmosphere. “This complies with the new environmental regulations which control the amount of waste air-borne paint pigments and solids may be emitted during spray painting operations. It also complies with relevant insurance...
Sanding benches and booths

The Sandeck range of equipment from Thermosystems includes sanding and polishing benches and booths that help to manage the dust produced during the sanding and polishing process.

The suction benches can be connected to an existing factory central dust extraction system or an independent dust extractor unit.

These benches have a slotted work surface that generates a suction velocity of 0.5m/s across the entire work surface. The suction creates a negative pressure which draws the fine dust particles generated during the wood finishing process into the dust extraction system. The heavier dust residues drop down into collection drawers for removal.

This helps to keep the dust on the finished surface to a minimum and the working conditions in line with health and environmental regulations.

For three dimensional and large component products the dust-off booth is ideal. The item is positioned in the booth suction area and can be safely blown clean with compressed air. The booth ensures that the air borne dust is removed and extracted by the exhaust filter system.

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<th>Dry filter booth features</th>
<th>Water booth features</th>
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<td>Less cleaning and maintenance</td>
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<td>Lower investment cost</td>
<td>Constant air flow extraction</td>
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<td>Easier disposal of paint filters</td>
<td>Reduced cost of paint filters</td>
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<td>Medium production capabilities</td>
<td>High production capabilities</td>
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requirements for safe operation and usage.” It is important to consider that a wide range of coatings can be sprayed using the same spray booth filtration system with maximum paint absorbing capacity, Greer advises. This includes primers, acrylics, waterborne, vinyls, metallics, urethanes, solvents, polyesters, and twin pack materials. “We assure our customers that they will have the correct spray plant for their production requirements.”

Plant design, manufacturing and implementation are achieved by informed decisions that are integrated timeously into a production sequence. “The capabilities of the equipment are based on the production requirements of each customer, considering the existing factory layout, work flow sequence, product output requirements and floor space constraints, he explains.

“We have total control over our in-house manufacturing processes as it ensures quality equipment manufactured on time to sound engineering principals. Communication, timing, and quality are the keys to successful customer relations.”

Many clients demand an overall package solution and Thermosystems is in a position to provide the total installation on a turnkey basis, with knowledge and capability based on many successful installations throughout Sub-Saharan Africa.

Dry filter booth features | Water booth features
--- | ---
Less power consumption | Less cleaning and maintenance
Lower investment cost | Constant air flow extraction
Easier disposal of paint filters | Reduced cost of paint filters
Medium production capabilities | High production capabilities
Digital printing takes centre stage

“Individualisation” and “customisation” are today’s buzzwords in furniture production. Technical innovations are central to individuality, and digital printing, on show at Interzum Cologne 21-24 May, will play a significant role in the future.”

Malik Fischer, director of Interzum, says that technical innovations, like Industry 4.0, the latest facing materials, and fabrics serve one purpose: to make the end customer’s dream of a personalised space a reality.

“Sustainability, individualisation, comfortable living and convenient shopping – these are just a few of the big areas where digital solutions would help companies to fulfil these requirements. “We are not presenting digitalisation as an end in itself. It is a tool that makes it possible to cater for customer requirements more effectively,” Fischer explains.

It’s the key to the efficient production of furniture, fabrics or carpets whose finishes are individually designed according to the customer’s wishes. As a source of inspiration for the design of tomorrow’s living spaces, Interzum is the ideal launch pad from which to present new, promising innovations such as digital printing to the industry.”

Koelnmesse in Cologne will host Interzum in May and the potential uses of digital printing will be shown in a highly practical demonstration ranging from the design concept to the finished piece of furniture. It will include the important process steps required for the integration of digital printing into furniture production and interior design.

“The entire process will be shown, from the choice of decoration and its transfer into the computer programmes to the printing and subsequent finishing step. In this way, visitors will discover how digital printing technology can be integrated into their processes to worthwhile effect,” says Fischer.

“Digital printing gives furniture manufacturers, architects and interior designers the ability to respond quickly and flexibly to customers’ needs,” explains Dr Anke Pankoke from Hymmen GmbH Maschinen- und Anlagenbau.

“Koelnmesse’s decision to explain the individual steps that are necessary to successfully integrate digital printing into furniture production and interior design is extremely helpful for companies – and it’s allowing us to reach out to new customer groups,” says Pankoke.
Invitation to meet REM & partners at Ligna

REM will be attending Ligna in Hannover, Germany between 27 and 31 May, and we would like to invite all South Africans who are visiting to join us and one or all of our proud partners. To book an appointment to meet a representative, e-mail your details to info@rem-sa.co.za

A brief description of our partners...

Bürkle: Hall 17 Stand F19
Bürkle is a world market leader in the field of pressing and surface-finishing technologies. The product portfolio comprises lacquering and printing, PUR, laminating, thermoforming, handling and press lines. With a staff of around 500 employees, the company plans and manufactures products like machines and lines for the furniture, wood-based panels, doors, parquet and building industries. Owing to an above-average expenditure for research and development and high technological standards, the machines and lines are well-known beyond German borders. It has its own innovation centre in Freudenstadt, Germany, where it constantly searches for new innovative processes together with its suppliers, customers and partners.

BUP: Hall 11 Stand E16
BUP is a company with 45 years’ experience in manufacturing cutting tools for the woodworking industry. It has a wide range of products in its catalogue and manufactures special custom tools for all purposes. The range includes HW changeable inserts cutters and cutter heads, PCD tools, chucks and collets for CNC machines, solid HW spiral router bits, circular saw blades and drill bits. The technical and commercial departments will work with you to find the best solution for you.

Elcon: Hall 12 Stand A15
Elcon produces a complete range of sawing machines for wood, plastics, and metals. The machines vary from a wide choice of vertical panel saws to automatic sizing saws and freely programmable systems. With over 65 years of experience Elcon guarantees reliability and accuracy.

Felder: Hall 13 Stands E68, B80,E80,G68,C80,E79 and C68
The premium brand Format-4 has met the high demands of professional operators in joinery shops, business and industry since 2001. With impressive solutions, numerous innovations and patents, maximum user comfort and perfect precision, Format-4 is an overwhelming success story. True to the principle, “everything from a single supplier”, Format-4 has developed CNC machines in combination with the appropriate software for a perfectly tailor-made complete package. The simulation of the customer’s production process in one of the Format-4 technology centres enables the configuration of an individual solution for each customer. Perfect advice, tailor-made machine configurations as well as delivery, commissioning and services complete a unique range of services provided.

Fravol: Hall 11 Stand D56
Fravol is based in Padova, the industrial heart of north-east Italy, and has been in business for more than 60 years. It opened under the name of Fratelli Volpato and started to manufacture woodworking machines in 1957. Today Fravol makes machinery for gluing, cutting, and trimming straight panels and for edging curved panels, on small and large scales. These products are used in craftsmen workshops and furniture manufacturers across the globe. Over the last half a century, its efficient, precision machinery, first-rate customer service and unbeatable after-sales assistance has enabled Fravol to win customers worldwide.

Gannomat: Hall 12 Stand D10
The Ganner Company in Austria was established in 1956 and looks back on a long and proud tradition of providing the world’s woodworking industry with quality multi-drilling and dowelling machines, cabinet assembly lines and presses. The distribution of Gannomat machines is through an established dealer network, with exports comprising 95% of sales. The range of customers spans the spectrum from the small custom cabinetmaker to the largest producers. Service and training are provided through the professionally trained staff of Gannomat dealers, or directly through the company’s own service technicians.

Höcker Polytechnik: Hall 12 Stand D46
“Fresh ideas for more than 50 years! Always one idea ahead!” This guiding principle applies today more than ever. Since 1962, Höcker Polytechnik has designed, planned, and built ventilation systems, briquetting systems and special solutions for industry and craft workshops. Starting with mobile de-dusters and extending to large filter facilities with capacities of more than 300 000 m³/h. Following several years of development, it has established itself as one of the market leaders in suction and filter systems, and pneumatic conveyance systems. And it says “we’re not running out of gas just yet: Our team operates worldwide, keeping its eyes and ears open, with an astute awareness of the most up-to-date methodological approaches and research developments, enabling us to satisfy the present and future needs of our customers.”

Kohnle: Hall 27 Stand B67
Kohnle is an international company with 60 years’ experience in the market. It is a leading manufacturer of TC- and PCD-tipped tools for working with the wood, plastics, non-ferrous metals, and special custom-made solutions. The best raw materials, latest technology and perfect geometries guarantee premium quality. The production range includes saw blades up to 2200mm diameter for aluminium, steel and woodworking.

Lamello: Hall 13 Stand B22
The products of Lamello are the epitome of quality in wood joining. The company, with production in Bubendorf Switzerland, has an international distribution network with five subsidiaries and 40 representations all over the world. Commercial and industrial customers enjoy Lamello’s practical, innovative, novel, efficient, simple and versatile high-quality wood joining and woodworking solutions. Lamello understands how important it is to develop new methodologies and technical solutions that provide new benefits and opportunities in the areas of productivity, handling, design and construction.
Woodworking

Ott: Hall 12 Stand D30
Ott is the Austrian producer of single-sided edgebanders and edgebanding solutions. Ott edgebanders can work with both hot melt glue (EVA-glue) and moisture-proof PUR glue. All adjustments are made using the touch screen with few manual interventions required. There are no combined units on their machines because a separate unit for each operation results in a perfect result with barely visible glue joints. The Synchroflex top pressure belt guarantees a perfect, constant, linear feed. Ott says its machines are the optimal solution for the traditional furniture industry, shop fitters and manufacturers of kitchen and bathroom furniture.

Ormamachine: Hall 13 Stand D01
Ormamachine is demonstrating its new patented energy-saving press system at Ligna. Depending on its size the press has an installed power of between 4.5kW and 6kW. After the first hour of operation it only uses 40% to 50% of this power which means that when compared with presses with the same standard electrical resistance the machines operate at the equivalent of between 9kW and 15kW. It operates at a maximum temperature of 20°C that lets it to perform any kind of gluing operation in any joinery. Once the set temperature has been reached, the power switches off and is automatically restored when the temperature drops. Ormamachine is based in Torre Boldone, Bergamo, in Italy’s Lombardy region near Milan. It employs about 120 people and exports more than 80% of its production. The company has manufactured cold and hot hydraulic presses, through-feed pressing plants, bending and embossing presses, vacuum presses for 3D-covering with PVC or veneer, solid wood gluing automatic lines and frame presses for more than 50 years.

Rehnen Maschinenbau: Hall 12 Stand E10
Rehnen Maschinenbau specialize in designing and building edge-trimming and profile milling machinery. It equips leading staircase makers and joineries around the world work with its edge processing machine and the SK1. Based in Germany’s Emsland, Rehnen’s speciality is simple and effective individual solutions. Durable, efficient machinery and suitable, sophisticated handling equipment made by the master machine builder from Germany!

Stark: Hall 15 Stand F77
Stark, established in 1962 is a major manufacturer of woodworking tools and world leader in the metal cutting field. The headquarters and production facilities are in Trivignano Udinese, Udine, Italy. Stark produces high-quality tools thanks to constant research and development, the use of advanced production systems and monitored production processes. It was one of the first companies to obtain the ISO 9001 quality management certification which guarantees an efficient customer care service.

TopSolid: Hall 15 Stand D47
Missler Software, whose headquarters is located just outside Paris, France, is the software developer of the TopSolid CAD/CAM/ERP software range dedicated to the mechanical manufacturing, toolmaking, wood and sheetmetal industries. In 2016 the company turnover was €36-million produced by 270 employees. Every year Missler Software invests about 30% of its annual turnover in research and development for its integrated software ranges. The company was founded in 1984 and has been present on the international market since 1997. Missler Software exports approximately 60% of its software licenses via a network of 60 value-added resellers throughout the world.

Weber: Hall 17 Stand F28
New materials are constantly being used in furniture, interior design and in exhibition stand construction. And yet, the aesthetic fascination of wood is timeless. Based on decades of experience and continual innovation, Weber has developed its automatic sanding machines to meet the highest standards. The company manufactures sanding machines for all requirements of the wood and furniture industry. These include traditional sanding machines like contact drums, combined and pad stations, cross belts and brush stations. Weber’s CBF technique operates with a crosswise running lamella belt situated internally within the wide belt station. The pressure lamellas continually interrupt contact with the sanding grains and thus prevent the sanding belt from leaving undesired chatter marks. The result is a perfectly smooth and even surface. At the same time, the continually changing force prevents the surface from heating up and the sanding belts from sticking during the processing of lacquered and plastic surfaces.
Great attendance and new brands launched at annual event

*Trade customers were once again treated to a great product and fun-filled weekend during the annual Vermont Sales Open Days*

Asking what it takes to stage such a major event every year, the CEO/MD of Vermont Sales, Roland Hunt, explained; “It’s all down to listening to our customers and hearing what they want along with our sales teams’ input. All this feedback is reported back to us and we make the changes to the show structure.” He went on to say; “We also need to ensure we have lots of new exciting products to launch and introduce at the show, along with new brands.”

This year Vermont introduced four new brands at the show, Halo, Rockler, SAMedia, and Real Steel and a brand-new Tork Craft hand tool range.

Every leading international brand was well represented, and had their own displays manned by international experts and local sales staff. All tools and equipment were demonstrated and customers could interface with them and handle the tools for themselves.

The German power tool leaders, Festool, had a huge display with every power tool in their range on display. New models and upgraded units were available along with their recently launched innovative ISC 240 cordless insulation saw.

Tork Craft introduced their comprehensive range of hand tools and a host of new power tools. Alpen, Austria’s world-renowned drill bit manufacturer, launched their technical advanced Force X concrete and masonry drill bits and introduced their new Smash/Sharp dust collector/drill bit combo, a first in the world and a new concrete drilling sensation.

All leading international brands Olfa, Bondhus, Multi Sharp, Felo, GAV, Air Craft, Bessey, Kreg, SawStop, RawlPlug, Cadex, Malco, MPS, Miles, ACCUD, Pony, Fixman, Howard, Wedgit, Drill Doctor, Bondic, Nes, Flexipads and Maun showed off all the exciting new products in their ranges, and that are now available in all leading stores countrywide.

Four exciting brands made their appearance for the first time at the show. Halo, a supplier of world leading LED strip lighting for the underground mining industry, has joined forces with Vermont Sales. Through a special collaboration these...
Record attendance and ... systems are now available to Vermont’s customers and the general public.

The product comes in the Halo HP 220VAC and 12VDC and Roland comments that it is the world’s first portable lighting system. They can be customised to fit client requirements and the supporting features include intelligent temperature and voltage control, surge management, ultra-power and long life, waterproof, dustproof, flame-retardant, explosion proof, and they come in a range of different colours.

The second new brand is SAMedia, a professional technical advanced diamond cutting tool range from Germany. The American Rockler fills the third new brand spot with its extensive range of woodworking hardware, clamping solutions, jigs, crafting kits and unique woodworking equipment. Lastly, the stunning new range of hammers and axes from Real Steel completes the new brand line up for 2019 from Vermont Sales.

Not even the continuous load shedding could disrupt the three days event. Vermont’s sales and management teams had plans in place and they handled everything without being noticed by the guests. Registration at the event was ultra-quick with the sales team meeting the customers on their arrival. Just to ensure the customers kept their cool, the entire warehouse was filled with mobile air conditioner units. Meals and snacks were served throughout the three days, with a well-stocked bar and outstanding coffee bar.

Talking to several customers and looking at the feedback box at the exit over the three days, no one had anything negative to say about the show, only praise for the Vermont Sales team on hosting another great show.
Asia's Leading Furniture Production Fair

- 150,000 m² exhibition space
- 1,500+ exhibitors
- 90,000+ visitors

Cliff 28 - 31.03. 2020 Guangzhou, China
Held concurrently with China International Furniture Fair

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Record sales at Interzum Guangzhou 2019

Asia’s largest and most influential trade fair for woodworking machinery, furniture production and the interior design industry came to a rousing end on March 31 after four days of business

Interzum Guangzhou, held in conjunction with the China International Furniture Fair (CIFF), showcased the entire industry value chain in the region with more international brands participating than before, which is a strong indicator of the event’s standing in the furniture industry.

A total of 94,863 visitors from 114 countries and regions checked in at the event, up by 5.57% from last year. Visitors who travelled from abroad accounted for 14,278. The exhibition spanned 150,000 square meters over 17 halls and featured a record 1,509 exhibitors from 35 countries and regions.

“The number of domestic and international exhibitors at Interzum Guangzhou has hit new historical highs this year. We’ve also seen a jump in the number of buyers coming and making use of this platform for procurement. The Guangdong-Hong Kong-Macau Greater Bay Area will no doubt inject a further boost to the furniture manufacturing node in South China,” says Keith Tsui the managing director of the organiser, Koelnmesse.

Besides the trading floor, the international exhibition zone hosted seven forums that analysed detailed market trends and conducted business matching activities. In addition, the special display of the 20 most outstanding furniture accessory products announced at the annual 20 PLUS 20 event saw winning products cover the areas of textiles, hardware and power systems. “The award is a recognition by Interzum Guangzhou for our innovative product. We have found many new contacts through this event and gained a deeper understanding of the Asian market, which will allow us to come up with more targeted designs and products that align better with market demand,” says the representative of the winner, Freitas Irmaos from Portugal.

“The furniture manufacturing capability in South China is second to none, but we still have some shortcomings in the procurement of raw materials. Through the seminars, we...
learnt about suppliers from countries such as Germany and Turkey and about trends on fabric colour, wood customisation, innovative mattress fabrics, and integrated office furniture,” commented the owner of Chengda Furniture.

“This has given international export-oriented companies like us a clearer direction. We’ve signed cooperation agreements with a number of suppliers and will be able to manufacture products that better meet their market demand.”

Participating as one of the VIP buyers in the business matching event this year, Vifa is a high-end customized home brand in China. The company’s representative said: “We’ve always been looking for suppliers of high-quality raw and auxiliary materials to provide more customized solutions to meet higher consumer demands, and this show is a constant source of surprises and solutions. We’ve found a number of overseas companies that are suitable for us and are currently in talks with them.”

A frequent buyer at the exhibition, Chris Gourdie, managing director of Silentnight Material from the United Arab Emirates, says: “I’ve attended Interzum Guangzhou seven times, and have also visited similar exhibitions in Malaysia, Germany, the UK, Shanghai and other places. In comparison, the biggest feature here is that there are many new products every year.”

Sharing similar sentiments, Vozniuk Yevhen, product manager of Nowy Styl from Ukraine said: “This is my first visit to Interzum Guangzhou. The main purpose of my trip is to find new products and gather market intelligence. I’ve also been to other exhibitions in many countries but this is the largest, with a lot of product information. I’ve also found a lot of products that are highly suitable for our local market. It’s been a fruitful trip.”

The next CIFM / Interzum Guangzhou will take place from 28-31 March 2020, at Pazhou Complex, Guangzhou, China.
1 trip + 1 ticket = 2 shows: visit Interzum and LIGNA in May 2019!

Interzum in Cologne (21-24 May) and Ligna in Hannover (27-31 May), are the world’s foremost trade fairs for the wood industry.

The cities are two and a half hours apart by high speed train and this year you can buy one ticket for both fairs.

You can buy tickets at www.interzum.com/tickets or www.ligna.de/en/tickets
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