Trim Saw

neil@multisaw-sawmilling.com
Neil - 082 569 2430
Office: 044 532 7840

https://m.youtube.com/user/multisawZA

Pinnacle Locally Manufactured by multisaw
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What’s not to love about Feb’s content...

During Valentine month, Wood SA was busy travelling along western border of Swaziland and environs, visiting part of our forest resources which cover over 40 million ha of the country’s land surface area, ensuring you the reader, are up to date on anything of relevance that will impact your productivity/operations or product line.

First on the list was a detailed itinerary for Dezzi Equipment, that entailed visiting three of the OEM’s clients within the Piet Retief area, including moving further north to around Amsterdam. Here I was able to see the local manufacturer’s machines in operation within the forestry sector, harvesting the mainly pulp timber. Deployed on all three harvesting sites, the Dezzi machines are proving time and again that they are the ‘go to’ equipment if you want robustness and reliability. See page 6 for the full article and read how they are changing the forestry sector through improving production through innovation.

Later in the month, an inspection of the recent installation of a sawmill in Vryheid for RF Gevers, features in our Sawmill of the Month article on page 29. The purchase of a Mill machine. Also with Nukor in mind, Wood SA reports back on Laeveld Trekkers (LVT), winners of Dealer of the Year award for ousting opposition in the sale of Nukor’s range of Linddana TP woodchippers and Ventura agricultural mulchers and woodchippers. LVT also supplies a range modified New Holland tractors used in forestry harvesting and this info can be found on page 14, where we speak to Johan Sutherland, salesman for LVT. In the Woodworking section, Wood SA interviewed Hennie Viljoen, marketing manager, MiTek Industries South Africa (Pty) Ltd, to discuss what make the company a world leader in the manufacturing of structural roof components, with focus on the in-house developed software used in the manufacture of wood trusses. Also of interest, is the new Pinnacle Linear Saw, manufactured by Multisaw and in production in two MiTek fabrication plants in the Western Cape.

Mike Dunbar takes us through the evolution of the Windsor Chair and the influence this style has had on chair manufacturing, while on page 56, the American Hardwood Export Council (AHEC) explores new possibilities for American hardwoods in exterior and structural applications.

For the Transport section, also with the surname of Sutherland – but no relation to Johan Sutherland – is doyen of transport, Hugh Sutherland, who takes us through Part 2 of his take on Beating the budgeting blues (on page 25) when it comes to transport fleets and how to streamline operations with an eye on the bottom line.

The last function of the month, Wood SA went to the Cradle of Humankind to attend Mercedes Benz Truck’s launch of its eagerly anticipated two new Arocs trucks for distribution and construction in South Africa. We will be seeing more of this vehicle in coming months as it is presently being adapted to the forestry sector as a timber truck.

“the world's forests are a shared stolen treasure that we must put back for our children's future.”

Desmond Tutu
The National Minimum Wage Act sets a floor for R20 per hour for the majority of the country’s workers, raising the earnings of an estimated six million South Africans – more than half of the labour force, who earn below this level at present.

The Act sets South Africa’s first National Minimum Wage at R20 an hour, equivalent to R3 500 per month, depending on the number of hours worked, and creates a phase-in period for farm workers, forestry workers, domestic workers, welfare sector and care workers, due to their vulnerability to disemployment.

Regarding national minimum wages in the forestry industry, Roger Godsmark, operations director, Forestry South Africa (FSA) reports the following:

FSA had made various inputs and submissions during the national minimum wage (NMW) process over the past two years. These included oral inputs made by FSA’s executive director to the inaugural CCMA Congress in March 2018 and an oral submission made by FSA’s operations director to the Portfolio Committee on Labour on 22 March 2018.

These recommendations included the following:

• Given the current economic climate and the potential job losses that could occur, the implementation of the NMW be postponed indefinitely.
• When implemented, the NMW for “farm workers” be phased in over a minimum period of three years.
• Allowable deductions from wages, as per the current Forestry Sectoral Determination, be maintained in terms of the NMW regulations.
• The definition of “farm worker” to be broadened to include those working in “on-site” primary forestry processing facilities (e.g. sawmills, pole treating plants and charcoal plants).
• The voice of the unemployed be heard through their representation on the NMW Commission.
• The exemption process be extended to allow for bona fide industry-based representative bodies, such as FSA, who are not registered as “employers’ organisations”, to apply for exemptions on behalf of their members or groups thereof.

The President, under pressure from COSATU, signed the NMW Act into law on 23 November 2018. It was thus implemented w.e.f. 1 January 2019 despite two studies indicating that between 205 000 and 897 000 people would lose their jobs.

The current minimum wage will thus increase from R16.25 per hour to R18.00 per hour – an increase of R1.75 per hour or 10.8%.

Although some of these recommendations were not adhered to, there is some good news:

1. Inclusion of forestry workers in definition of “farm workers”: Through FSA’s intervention, forestry workers had been included in the definition of “farm workers”, thereby benefiting from the R18.00 per hour dispensation. The swift action taken by FSA saved the Industry an estimated R150-250 million in its wage bill during the first year of the phasing in period. This equated to a saving of R390 per month or R4 680 per year per worker being paid the minimum wage.

2. Sectoral Determinations had been retained and would now be administered by the NMW Commission (previously the Minister of Labour). This could well lead to an extended phasing in period i.r.o. the wages for agricultural and forestry workers (as recommended by FSA).

3. The “allowable deductions” from wages for food and accommodation (in terms of the Sectoral Determinations) again, as recommended by FSA, would continue. Allowable deductions for food and accommodation would thus be up to 10% each from a worker’s wage as currently the case (if certain criteria were met), as per the Sectoral Determination for the Forestry Sector.

4. Jahni de Villiers, Agri SA’s Head: Labour & Development, had been appointed as a member of the NMW Commission. This was to be welcomed as it would give organised agriculture / forestry a voice on the Commission.

5. Given that forestry operations could be easily mechanised, FSA had been tasked with approaching the authorities to investigate the possibility of the introduction of a tax rebate for employers in the Industry who retained jobs rather than turn to mechanisation.
Advantages of modernising the timber sector

Forestry mechanisation in South Africa is gaining traction owing chiefly to the competitive nature of global timber and fibre markets. In order to compete effectively, the South African industry has to grow, harvest and get the timber to the processing site by the most cost-effective method – bearing in mind, that we are up against the likes of Brazil, who are way ahead in the mechanisation process.

South Africa’s forestry operations must be efficient, cost-effective, and operate in as a sustainable manner as possible, to make local product attractive, while meeting a litany of challenges related to people and the environment. There can be no compromise for equipment chosen and how it is operated.

When correctly selected, using equipment to harvest and extract timber delivers a reliable, sustainable, cost effective supply that not only decreases the cost of manual labour, but increases the safety of those in the forest – specifically when extracting on steep slopes – underscoring regulations put in place by government and landowners alike.

Attached to the Tigercat LH822D is the Log Max 7000XT harvesting head designed specifically for tracked harvesters working with large timber

This is where Afrequip (PTY) Ltd comes into its own.

The company supplies premium forestry equipment in the harvesting, extraction, loading and biomass sectors of the industry. Says Brendan Moore, Business Development manager for Afrequip (PTY) Ltd, “We have extensive knowledge on the capabilities of specialised mechanised systems, as well as the requirements of the contractors doing this work.”

The ideal solution is through matching high-quality products with high quality service, coupled with the overall understanding that minimising down time is the key to a successful operation.

An unbeatable solution is the Log Max 7000XT Harvesting head & Tigercat LH822D Tracked Carrier.

Tigercat LH822D

Brendan explains the combination: “Operating the Tigercat LH822D has multiple benefits for the forestry sector. Included in these are that there is zero tail swing on the machine which is designed for clear fell and thinning operations. It also comes with the option of a standard or telescopic stick and boom configuration.”
The Tigercat FPT N67 Tier 2 engine produces a 210Kw power rating and an average working fuel consumption of 18L/h and, to cope with the hazardous underfoot conditions, it has a super duty undercarriage with aggressive single grouser track shoes for climbing the steepest slope classes.

The Tigercat LH822D has a high-range levelling system with large levelling cylinders for extended life and is designed to work with a maximum processor weight of 2,500kg making it ideal for the Log Max 7000Xtreme.

For improved fuel efficiency, it has an efficient high-capacity cooling system with automatic variable fan speed and an automatic reverse cycle to clean the heat exchangers.

Active friction control allows for changing knife pressures according to the log diameter and the harvesting head has an hydraulic upper knife as well as an electrically controlled measuring wheel.

Remote log vehicle tracking and monitoring software for total equipment management in and out of the plantation comes standard with the machine.

Log Max 7000XT
Attached to the Tigercat LH822D is the Log Max 7000XT harvesting head designed specifically for tracked harvesters working with large timber. By means of a latched cover, the head offers easy access for maintenance. “It comes with an improved chassis design with thicker reinforcements, additional wear plates, protective cylinder covers and an option for variable speed or direct drive feed motors,” Brendan adds.

Active friction control allows for changing knife pressures according to the log diameter and the harvesting head has an hydraulic upper knife as well as an electrically controlled measuring wheel.

“This mechanised combination of machines ensures harvesting efficiency in more dangerous terrains, eg steeper slope classes, while maintaining the highest safety conditions for the operator,” Brendan adds.

Understanding the customer needs and the unique challenges each operation faces is fundamental to providing the correct solution to its customers. Afrequip supply and support premium brands such as Tigercat, Log Max, Morbark, Nokian, and Gierkink just to name a few, he adds.

“This mechanised combination of machines ensures harvesting efficiency in more dangerous terrains, eg steeper slope classes, while maintaining the highest safety conditions for the operator.”
Good fellers

Timber harvesting and extraction is an arduous business, requiring hardy, reliable machines that are up to the challenges this demanding operation entails. One South African OEM that is increasing its footprint in this difficult environment, is Dezzi

Uwe Böhmer, co-owner and operational manager for UG Timbers is working for one of the major timber producers on a contract that commenced at the end of November 2018 and will last four years.

Holding company, G&M Boerdery, which is a family business, comprises three separate contracting companies, one of which is UG Timbers which, with RM Timbers operates in the Paulpietersburg area, while Indlovu Forestry works in Iswepe.

Uwe explains that the contract entails the harvesting, primary transport and secondary transport of gum, pulp timber from the compartment to the rail siding in Paulpietersburg.

Equipment

For harvesting the gum, working in the felling department, UG Timbers operates three PC 200 Komatsu excavators, with fully mechanised SP 591 Maskiner harvester heads, distributed by Logmech.

Following the felling operation, two Dezzi AT30B forwarders are deployed for extracting the timber to the roadside, where it is loaded onto short haul trucks by one PC 200 Komatsu fitted with a grab, for transport to the rail siding in Paulpietersburg, where after it is loaded onto wagons for transport to Richards Bay.

Why Dezzi?
The six-wheel drive AT30B has a Cummins engine, a ZF gearbox and comes with a choice of either a Palfinger or a Loglift crane.

“We presently have one Dezzi AT30B forwarder, with a second vehicle due for delivery. [At the time of writing this machine was due 8 February,]” Uwe explains. “However, to serve as a stop-gap until the second Dezzi arrives, we have adapted a Bell B25C ADT for use as a forwarder in the forestry sector.”

The reason that Uwe had to resort to this stop-gap was owing to the recently introduced prohibition of some loggers or tractors in-field. Uwe explains: “This is all about safety and ergonomics. Also, the machines are constantly turning left/right and disturbing and compacting the ground and they are thus being phased out of the equation.
DEZZI has its own FINANCE!

TLB at prime (-5%) or 2 Year Warranty Service Plan - 3 000 hours parts

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DEZZI-Fin specials on all machines; e-mail for details: info@dezzi.co.za

www.dezzi.co.za
Tel: +27 39 6854100
The Dezzi AT30B however, only compacts the ground directly under its two tyre tracks and, with an on-board crane that works on either side of the truck, the truck moves in a straight line with underfoot slash reducing the compaction during the loading process.”

Uwe explains that the first Dezzi AT30B was delivered in late December, being deployed in the first week January when the forestry sector reopened after the Christmas shut-down.

Being such a new piece of equipment, Uwe stresses that statistics are not available for comparison, but assures that the machine is moving 15-ton payloads with ease from in-field to roadside and has been running tirelessly for the past three weeks, on a five-day basis, 7h00 to 16h00.

“While we will increase the payload, we are very aware of the balance between safety and productivity,” he adds. With this in mind, Dezzi widened the new AT30B, lowering the centre of gravity, preventing the potential of a roll-over should the machine inadvertently be over-loaded/top-heavy or be on extremely uneven terrain.

Uwe explains that the decision to award UG Timbers the contract took time, giving them a mere three weeks to equip the company with the necessary machines once they secured the contract. “The decision was all about time,” he says, and adds that the nearest competitor could only deliver a machine within a five-to-six-month window. “When we contacted Dezzi they considered the request, with the proviso we took two machines, and they delivered the first within three-to-four weeks. At the end of the day, we looked at what we needed, what is the after-sales service like, where do we get spares and how fast can we get them? You look at the big picture and Dezzi ticked all the boxes. They worked hard to produce the one machine at the end of December with the other due in February. That is phenomenal! Besides, we know that other contractors in the area run Dezzi forwarders, so it was a no brainer,” he grins. “This is a make-or-break for an operation; if you can deliver, you get the order, simple,” Uwe comments.

Concurring with this observation is Dana Swart, of D Swart Vervoer, who is also working on a contract in the Paulpieterburg forestry sector, offering extended primary transport services. This entails taking the timber from in-field to the railway station.

Owner of a four-year-old Dezzi AT20B, Dana is more than satisfied with his piece of equipment, with another one on order: “I am very happy with the present machine, which is standing at 18 000 hours presently, and runs 24-hours a day,” he says. He explains that the new machine (AT30B) comes with a retarder, which will make the braking system on the undulating forest roads a safer driving experience.

Dana’s Dezzi forwarder loads in-field and then transports the loads to the railway station, loading directly into the rail trucks, which negates double handling, he explains.

This aspect sets the Dezzi AT30B aside from other timber trucks. With forest roads becoming hazardous after rain and making timber transport impossible with normal logging trucks, the AT30B can not only transport timber from in-field, but it can take the load to the nearest tar road for off-loading or on to the depot, if necessary.

By operating an AT30B, only one machine is required to go in-field and load logs; there is no necessity for either an excavator with a grab.
SP661E
highest debarking quality & productivity

The SP 661 E is designed for one task only: one pass debarking of plantation grown eucalyptus. Highest debarking quality & productivity is achieved through a unique combination of specially designed debarking knives, replaceable bark deflectors & high-speed feeding capabilities.

Logmech not only leveled the playing field in the forestry industry, but is the main competitor in the business.

With more than 20 years experience in forestry harvesting, Logmech offers unparalleled versatility in SP Harvesting Heads with excellent debarking capabilities. Along with TimberPro Purpose-Build Forestry Machines, we offer the ultimate solution for your forestry & harvesting needs.
or a three-wheeler to load and off-load the timber onto a separate truck. It basically loads and off-loads itself with its on-board crane.

Dana claims that after looking at various OEMs, there were a couple of reasons that he settled for a Dezzi, one being that it was cheaper. So too, it came with a word-of-mouth reputation that swung the deal in its favour, along with the advantage of being manufactured locally to South African conditions and with spares and after-sales service a mere phone call away.

Yet another satisfied customer is Erlo Paul, technical manager for contractor, TR Mabuza. Erlo is responsible for maintaining the company’s mixed fleet of extraction and harvesting equipment, transport and timber trucks.

The contract he is working on presently includes harvesting, extraction and transport of the timber to the railway station or depo, which is about 65km distant. The company is felling, extracting and moving 7 500 tons of timber per month.

The very new AT30B that is operating on the contract is fitted with a Palfinger crane and replaced the three-wheelers and tractor/trailer units that are now being phased out, as mentioned. “This machine is great, it loads and off-loads itself at the dumping site. This impacts positively on machine costs and maintenance costs as there are fewer machines doing the same job,” Erlo adds. “Also, with service and spares delivery Dezzi is very quick. Just recently after a day, the spares were here on site.”

Dana Swart’s four-year-old AT20, with 18 000 hours-plus on the clock, is soon to be complemented by a new AT30B.

It’s a rugged machine, reliable and built Africa tough,” he concludes.

With this amount of support in the forestry sector, the future looks bright for the home-grown equipment manufacturer and we can expect to see many more Dezzi innovations in-field.

Dana claims that after looking at various OEMs, there were a couple of reasons that he settled for a Dezzi, one being that it was cheaper.
Forestry workhorses

Meeting timber production quotas, while bearing safety in mind, LVT has combined New Holland tractors with Igland winches to produce a hybrid workhorse for use deep in the forest – but that’s not all...

Forestry workhorses

Forestry is a tough business; the environment is challenging and the hazards are many, more so when it comes to extraction of timber from the compartments to the roadside. Piles of felled logs and deep slash make navigating the forest floor a high-risk operation as machines need to remove, lift or drag thousands of tons of wood through the forest, with productivity the goal and safety ever top-of-mind.

Johan Sutherlarnd, salesman of longstanding for Laeveld Trekkers (LVT), is effusive about the machines that the company produces – and rightly so, as they supply sturdy workhorses to the forestry section.

“The New Holland tractor is unbeatable when it comes to forestry application. The reason is, the machine has a stronger rear-section, which has been proven over the years.”

LVT offers a line of tractors that have been adapted to work deep in the forests, extracting the felled timber. The tractor of choice is the New Holland range which is modified to enhance productivity for the contractor and safety for the operator. The idea to rebuild a tractor for use in a forest, by attaching a winch to the vehicle was first conceptualised years ago by LVT and Komatiland Forest and, over time, has become LVT’s hallmark product offering.

Johan explains: “Our main goal is to offer a service to the harvesting sector of timber production. For this we modify New Holland tractors to extract the felled trees.” He adds with confidence: “The New Holland tractor is unbeatable when it comes to forestry application. The reason is, the machine has a stronger rear-section, which has been proven over the years. Other makes have differentials that crack and break, but not the New Holland, the reason why we will only modify this brand of tractor to an arduous forestry application.”

The favoured machines are the New Holland 830, the New Holland 6610 and the New Holland 5610, Johan shares. “The 6610s are the most popular as they are reasonably...
Modification process
The modifications involve attaching an Igland winch to the back of the New Holland tractor once the machine has been purchased. The Norwegian manufacturer has a wide variety of forest winches for skidding and transportation of timber in the forest. "The 55A is the smallest winch and the 65H single-drum winch is bigger, while the double drum is the most popular," Johan shares.

LVT undertakes a number of modifications to the tractor to make it forestry harvesting ready, as Johan explains: “The winches are made to fit on the back of the tractor, on the standard three-point hitch. LVT however, removes the three-point hitch and builds a back-plate for extra strength, onto which the winch is fastened.”

Johan explains that years past, the winches were operated mechanically with a lever inside the cab, whereas today, the winches are electro-hydraulic winches, operated with the flick of a switch.

The company also secures belly-plates to the underside of the tractor to help protect it from the harsh forest environment where stumps and other protrusions could damage the underside of the vehicle. In addition, the standard tractor tyres are replaced with stronger, more endurable Trelleborg tyres.

LVT undertakes a number of modifications to the tractor to make it forestry harvesting ready.

LVT also builds a roll-bar cage over the operator’s seat to minimise injury should (in the unlikely event) the tractor roll over on severe terrain.

Winches
The 55A is a heavy-duty single-drum winch with 5.5 tons of pull for moving large quantities of timber. Unusually large drum capacity accommodates a generous length of heavy cable. It has a simple design, solid construction, low centre of gravity and a clear view from the driver’s seat. The trapezoidal butt-plate provides maximum ground support during winching and is ideal for stacking logs. This model is fitted with high and low spooling points and is suitable for tractors in the 60 to 95hp range.

The 65H is a large and powerful single-drum winch with high or low spooling point. Equipped with electrohydraulic HP remote control and integral hydraulics, it can operate independently of tractor hydraulics. With no hoses to connect and disconnect, frequent implement changes are greatly facilitated, and oil drips and leaks are eliminated. Moreover, impurities in one system do not contaminate the other system.

The high-capacity drum maintains steady strength throughout the pull and the close placement to the tractor permits heavy loads. Its active ground-pressure stabilising action gives it a good foothold during winching, while the tower is hinged for easy inspection. This winch is suitable for tractors in the 45 to 74kW (60 to 100hp) range.

The New Holland range is imported standard, and LVT is the sole agent for the Igland winches. The company services nationwide as well as far afield as Zimbabwe.

<table>
<thead>
<tr>
<th>Ford-New Holland 6610 Power</th>
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<tr>
<td>Engine (gross): 82 hp [61.1 kW]</td>
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<tr>
<td>Engine: 78.5 hp [58.5 kW]</td>
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<tr>
<td>PTO (claimed): 72 hp [53.7 kW]</td>
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<tr>
<td>Drawbar (tested): 61.37 hp [45.8 kW]</td>
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<tr>
<td>PTO (tested): 72.30 hp [53.9 kW]</td>
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<td>Steering: power assist</td>
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<tr>
<td>Brakes: differential mechanical wet disc</td>
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<tr>
<td>Cab: Two-post ROPS. Cab optional</td>
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<td>Pressure: 2500 psi [172.4 bar]</td>
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<tr>
<td>Valves: 1</td>
</tr>
<tr>
<td>Pump flow: 9.7 gpm [36.7 lpm]</td>
</tr>
<tr>
<td>Steering flow: 3.6 gpm [13.6 lpm]</td>
</tr>
</tbody>
</table>
New kid on the block

Nukor is set to stump any opposition with its new stump grinder, due for imminent launch

Nicola Prinsloo, sales manager (mobile range) of forestry machines for distributor Nukor, explains the distributor’s role in forestry and describes a new stump grinder due for imminent launch that is set to set a precedent in clearing operations in the sector.

For the past 15-or so years, Nukor has supplied Linddana TP woodchippers, from Denmark, with the Linddana TP250PTO wood chipper mainly used for macadamia pruning and chipping, the most popular. Nico explains that while there are various models, the most popular is the Park range that cuts at a 90°angle, resulting in smaller chips which then break down more easily.

For clearing Nukor also supplies a Trin offset mulcher, with side-shift, that comes with an extended arm, enabling it to mow and cut underbrush from under trees, while the operator sits comfortably on a tractor, while the TSF-160 semi forestry mulcher is used to mulch tree prunings.

Part of planting preparation is the removal of slash and stumps. While slash can be removed and used as biomass, it’s often burnt, leaving stumps behind. Removing the stumps is a long and arduous task, which is normally done with the help of an excavator, after which the stumps are moved off site or hauled to an approved ‘stump dump’ somewhere. Burning them never works that well as green stumps and wet dirt don’t mix too well and there is still a lot to clean up afterwards.
Enter the stump grinder

Within eight weeks, (of the time of writing) Nukor will be receiving its latest offering from Spain, a forestry stump grinder used in planting preparation. Manufactured by TMC, the stump grinder is a very new methodology being introduced into the South African forestry sector.

The Cancela TS 840 is attached to a tractor and rides before the vehicle, grinding down the residue stumps that are left after harvesting. With a width of 660cm, the machine grinds to a depth of 30cm. Fixed hammers on a rotor spin and grind the stump away, churning the wooden pieces back into the soil, preparing it for new seedlings.

The TFC has the best conditions for milling in all areas, for agricultural and forestry works, obtaining an optimum depth of decompaction, uniform mixing and a very fine grain in the processed material. These factors are achieved thanks to the double milling height, which ensures high efficiency and a very fine grain size with low tractor power consumption.

When we talk about the milling process of the soil, the most important factors to consider are the depth and the capacity of the machine for grinding and mixing with the ground for its rapid decomposition. These factors are the strengths of the TFC model, which is set to change the face of the forest’s floor.

Laeveld Trekkers (LVT) was awarded Nukor Dealer of the Year last year, having beaten all the other dealerships during a six-month period (May to December 2018). Under LVT’s umbrella are a number of branches operating mainly in the Lowveld, which include Rocky Drif, Hectors Spruit, Hoedspruit and Letseteli, ensuring that LVT is available to its vast client base who have Nukor-supplied machines, mainly Ventura agricultural mulchers and woodchippers.
**TECHNICAL FEATURES of the TMC Cancela**

- Welded frame with fixed 3-point linkage
- Front protection with quadruple chains curtain
- 3 point linkage to tractor CAT II
- Hydraulic rear hood to facilitate the entry of material and increase the quality of the finished milling
- Mainframe and hydraulic rear hood made of high strength cold forming steel
- Skids for sideways protection
- Frame shell inside covered with wear resistant steel
- Rotor with fixed hammers
- Hammers assembled to the rotor with two bolts
- 12 XPC drive belts
- Gearbox with internal free-wheel and input to 1000 rpm (1” 3/4 Z6)
- Spherical roller bearings in the rotor
- TMC CANCELA hammers with 3 carbide tips and double cutting height
- Hammer holders placed on the rotor with helicoidal arrangement

TMC Cancela: New heavy-duty forestry stump grinder TFC-60 will arrive early May and will be on display at Nampo 2019 after which it will undergo field test in KZN.

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**THE BT 230 – DIG LARGER HOLES FASTER**

The new STIHL BT 230 is a 40 cm one-man auger that is robust and powerful enough to drill 30cm holes with ease, yet is lightweight and compact at 10.8kg. The engine unit is protected on all sides to withstand the demands of a rough-tough in-field working environment, and a sturdy support frame can be fitted to numerous STIHL augers for flexibility and adaptability. Impressive drilling power in a compact and adaptable design.

Like any superior item, STIHL products are only available at specialised dealers nationwide, for expert advice and matchless after-sales service.
Forestry

Hinteregger Technologies – HIN-TECH, the pioneers of cable yarding have been the leaders in the cable yarding market for over 30 years

The first URUS cable yarder was built in the Europe factory in the 1950s and today the URUS can be found in over 50 countries worldwide.

In the year 2000, Hintech was the first to build an excavator shovel yarder in Africa. Through design and engineering evolution, Hintech has become the leader in shovel yarders, catering to both the African and international market using CAT, Hitachi, Hyundai, Komatsu, Doosan, Kobelco and other excavator platforms. The shovel yarders are built to customers’ needs, whether it be a standing skyline, active skyline or highlead operation, or even a dual-purpose machine. The shovel yarders offer the forester high production and proven reliability at a very affordable price. Customers who have second-hand excavators often turn to Hintech to re-purpose the machine into a productive shovel yarder, and currently there is a ratio of 60% new and 40% used excavator carriers for conversion.

The 3-wheel loggers – with special focus on durability and performance – offer the lowest ownership costs per ton. Apart from local supply, Hintech also exports HT Loggers into Africa where the timber size is larger, and this is where the unit really shines. If clients need something customised, Hintech is on hand to support and deliver on their expectations. The HT Logger has basically been designed by forester clients since the first unit rolled off the production line in 2005. The evolution of the HT logger over the years has been remarkable and today there are two models on offer, the HT Logger 2.3A and the HT Logger 2.3SL.

Based on local market research, Hintech identified a need for a more mechanical, and compact cable skidder, with fewer frills. Many machines are designed around very large North American type operations, where timber sizes are vastly bigger than local timber sizes. With the reducing timber size within the local market, the forester must make running cost adjustments and cater to economical production, which is where the TAF 690 PE comes in.

The compact TAF 690 PE is a work horse, powered by an economical Perkins diesel engine through an Eaton gearbox. With its tight turning circle and a track of 2.5 metres it is able to easily access timber in the plantation, skidding and scavenging at fuel burn rate of 8 litres per hour.

Hintech specialises in custom builds as well as factory approved rebuilds, no project is too small for and this key focus on the client is what makes the company different. Its business is focused on forestry, meaning the clients’ success is the company’s success.

With the reducing timber size within the local market, the forester must make running cost adjustments and cater to economical production, which is where the TAF 690 PE comes in.
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How to prepare for tree felling

Although many of our readers are experienced in the field, Husqvarna has put this handy reference together for your felling team, as one can never know too much on any subject and these pointers serve as a good reminder.

It is important that you plan tree felling very carefully. Trees must be felled safely and in the direction that you want them to fall. Well-planned felling also makes it easier to continue with your planned work.

The factor that first and foremost affects tree felling is whether there are major obstacles in the area (overhead lines, roads and buildings, etc). Deploy warning signs if you know that the forestry area is crossed by a road or that a lot of people pass through the area every day.

Plan the felling

Start planning the felling work before you arrive at the tree. Decide felling direction. Note the different factors that could affect the felling, such as wind direction, wind strength, slope and obstacles around the area.

Study the tree. Has it been damaged by decay, cracks or some other factor? Is there a risk of dry or broken branches falling from the tree or from adjacent trees? Is the tree leaning? In which direction should the tree be felled bearing in mind the limbing and crosscutting work to come.

Check the height of the tree

It is often easy to misjudge the length of trees. Always estimate the tree’s length before felling it, especially in hazardous and confined locations, for example close to other trees, buildings, overhead power lines, etc.

METHOD

A simple way of estimating how tall a tree is.

1. Hold a stick with your arm stretched out straight in front of you so that the stick length (X) is equal to the distance between your eye and hand.

2. Then rotate the stick vertically to create a right-angled isosceles triangle between your eye, hand and the top of the stick.

3. Point at the tree and move around until you stand at a distance so that the tree appears to be as tall as the length of your stick. If the tree is leaning, you get a more accurate estimate if you measure from the side, so that the tree is neither leaning towards you or away from you.

4. The distance between you and the tree (H) is now equal to the height of the tree (H). Step out the distance, or measure with a tape measure. Always add a hefty margin of error.

Safety distance

Before felling, you should make sure that there are no people within a distance of at least twice the tree height from the tree you intend to fell. If only one person is felling, a safety distance equal to one tree length is sufficient. You and your work colleague should use signal coloured jackets or vests to be easily visible to each other and passers-by.
METHOD
Measure the lean of the tree.

1. To measure the lean of a tree, you need a plumb line, such as a nut tied to the end of a string.

2. Aim towards the top of the tree trunk. Note where the plumb line hits the ground.

3. Measure the distance from the plumb line’s point of impact to the centre of the trunk.

Fell in the natural direction of fall if possible
Most trees have a natural direction of fall. This is affected by the tree’s lean, the shape of the branches and any crown snow-load (snow-covered branches). If you are unsure of the tree lean, move a little away from the tree and check with a plumb rule.

To a certain extent, it is possible to force a tree to fall against its natural direction of fall, but this is always at a cost of increasing the risk and of the extra physical exertion needed. It requires knowledge, skills and experience together with the right felling support tools. Trees with weak timber, such as dead or decayed trees, should always be felled in the easiest direction.

Clear the undergrowth
Always clear around the tree so that you can fell it without obstacles. Also clear in the intended felling direction. Small trees, shrubs and branches could obscure the line when you determine the direction of fall.

Prune low branches
Pruning makes the felling safer by removing low branches and twigs which are in the way. The safest way to prune is to work with a pulling chain (underside of the guide bar) from the top down. Use the trunk as a barrier between you and the saw. Never prune higher than shoulder height. Follow the work pattern as shown here (steps 1 to 4).

Plan and clear your escape routes
The escape paths are your lifeline. When the tree starts to fall, you need to quickly move to safety. Cut down obscuring shrubs and small trees in your path of retreat, about 45 degrees behind the tree in both directions. Clear the ground of branches and other obstacles. You must always stand at around a 45-degree angle behind the tree at a safe distance when it falls. Very large trees require a longer safety distance. Uneven ground and trees with large and thick branches can cause the trunk to fall sideways, jump up or slide. The tree can also move backward and hit the ground with full impact. Also look out for dry branches when the tree falls.

For more information, visit www.husqvarna.co.za
Focus on Forestry 2019

Registrations are now open for Focus on Forestry 2019, being held at the Ingwenyama Resort, situated between Nelspruit and Mbombela (White River), taking place from 10 to 12 April 2019

Focus on Forestry is organised by CMO, Nelson Mandela University and Forestry South Africa. As per tradition, Focus is concentrated on forest managers and contractors, although tremendous benefit will be obtained by academics, researchers, consultants, training providers, governmental organisations and others. Focus also remains committed to serving the greater African forestry market.

The breakdown of the event is as follows:

10 to 11 April: Focus on Forestry Conference (at Ingwenyama). The conference now covers the entire forestry value chain (including nurseries, fire management, silviculture, forest engineering and wood biomass). The theme for the conference is ‘Bridging the digital divide in the African forestry sector’.

While the presentations have been selected to ensure that full value is obtained from the attendance of both days, **Day 1** focuses more on nurseries, silviculture and fire; while **Day 2** focuses on forest engineering and biomass harvesting.

The keynote address by Arthur Goldstuck, the managing director of World Wide Worx, takes place on Day 1. Arthur will bring us up to date and beyond on the technology trends that are shaping business strategy, consumer use of technology, and the social landscape of the future; all within a forestry context.

Presenters have been sourced from South Africa, Ghana, Sierra Leone, Uganda, Swaziland, USA, Brazil and Italy. All presenters come with practical and useful management information for operations improvement. A comprehensive exhibit area will be located immediately outside the
Forestry conference venue, which will allow delegates to interact with the suppliers of forestry services and or equipment to enable full value for the time invested at the conference.

Networking is also a critical component of Focus on Forestry, and a braai will take place each evening after the conference for catching up with old friends, making new business contacts, or discussing business.

Husqvarna has been very generous in the sponsorship of major lucky draw prizes for the conference. These include the main prize of an 18” petrol chainsaw, second prize hamper (Back Pack, MultiQuic Pic Quic, Sports Watch, Therms Mug and Measuring Tape) plus a second hamper (Sports Bag, Leatherman Skeletool, Golf Umbrella, Navy Bath Towel and Chrono Watch). Many other high-quality lucky draw prizes will also be available.

12 April: Focus on Forestry Field Day
The field day will take place on an MTO Lowveld plantation close to White River (off the R40 between White River and Hazyview). The field day will consist of static exhibits and live demonstrations; and will again cover the full value chain. Conference attendance gives free entrance into field day.

A change to this year’s Focus is that attendees will have the freedom to wander the field site at their leisure, as opposed to the structured field days of the past. MTO has provided a superb site that allows for ample parking, static exhibits and live demos. Some of the exciting equipment on displayed and seen in action will be Tigercat’s 1165 wheeled harvester, biomass processing equipment and even a helicopter used for weed control.

We thank our major sponsors for their continued support of the event. These include AfreQuip/Tigercat as Platinum sponsors; and Husqvarna, Forestry Plant and Equipment, Hino, Green Projects/Ponsse and Bell Equipment as Gold sponsors. We are also thankful to MTO Lowveld for their partnership in the hosting of the field day!

To register for the conference, please access https://www.cmogroup.net/focus-registration/.

For registration and general queries, please contact the Focus Administration Manager, Nontethelelo Ramantswana (nontethelelo@cmogroup.net).

For information on sponsorship and exhibits, please access https://www.cmogroup.net/sponsorship-opportunities/.

For sponsorship/exhibit queries, please contact Andrew McEwan (andrew@cmogroup.net).

For programme queries, please contact Muedanyi Ramantswana (Muedanyi.Ramantswana@mandela.ac.za).

Accommodation discounts are available at the Ingwenyama Resort. To obtain the discount, when making your booking (https://ingwenyama.co.za/), please indicate that you are attending the Focus on Forestry Conference. Do not delay as accommodation is limited.
Beating the budgeting blues (part 2)

By Hugh Sutherland

This article is extracted from www.talkingtrucks.co.za and forms two parts, published in two consecutive issues. The articles address budgeting with a view to assisting road transport operators to better understand this very contentious subject from descriptive alternatives presented by various academic approaches, to basic, but critical budgeting techniques.

Incremental vs zero-based budgeting
The budgeting process is an essential component of management control systems, as it provides a system of planning, coordination and control for management. It is often an arduous process, however, and often strikes dread in the hearts of those involved in budget preparation.

For example, a private company's objectives may be to maximise profit. The meeting of this objective can then be set out in the budget by aiming for a percentage increase in sales and perhaps the cutting of various costs.

Incremental budgeting
Incremental budgeting is the traditional budgeting method whereby the budget is prepared by taking the current period's budget or actual performance as a base, with incremental amounts then being added for the new budget period. These incremental amounts will include adjustments for things such as inflation, or planned increases in sales prices and costs.

It is a common misapprehension of students that one of the biggest disadvantages of incremental budgeting is that it doesn't allow for inflation. Of course it does; by definition, an 'increment' is an increase of some kind. The current year's budget or actual performance is a starting point only.

Incremental budgeting benefits
As indicated above, it is easy to prepare and is therefore quick. Since it is easy to prepare, it is also easily allocated to more junior members of staff:
1. As well as being easy to prepare, it is easy to understand.
2. Less preparation time leads to lower preparation costs.
3. It prevents conflict between departmental managers since a consistent approach is adopted throughout the organisation.
4. The impact of change can be seen quickly.

Incremental budgeting drawbacks
It assumes that all current activities and costs are still needed, without examining them in detail. By its very nature, incremental budgeting looks backwards rather than forwards. While this is not such a problem in fairly stable businesses, it will cause problems in rapidly changing business environments.

There is no incentive for departmental managers to try and reduce costs and in fact, they may end up spending money just for the sake of it, knowing that if they don't spend it this year; they won't be allocated the cash next year, since they will be deemed not to need it.

Performance targets are often unchallenging, since they are largely based on past performance with some kind of token increase. Therefore, managers are not encouraged to challenge themselves and inefficiencies from previous periods are carried forward into future periods.

Incremental budgeting is, by comparison, quick and easy to do and easily understood. However, the use of incremental budgeting indisputably gives rise to inefficiency, inertia and budgetary slack.

Zero-based budgeting (Z-BB)
With zero-based budgeting, the budgeting process starts from a base of zero, with no reference being made to the prior period's budget or actual performance. All of the budget headings, therefore, literally start with a balance of zero, rather than under incremental budgeting, when they all start with a balance at least equal to last year's budget or spend. Every department function is then reviewed comprehensively, with all expenditure requiring approval, rather than just the incremental expenditure requiring approval.

Zero-based budgeting tries to achieve an optimal allocation of resources to the parts of the business where they are most needed. It does this by forcing managers to justify every activity in their department as they know that, until they do this, the budget for their department is zero. If they are unable to do this, they aren't allocated any resources and their work therefore stops (as does their employment within the organisation, at this point, presumably). In this way, all unjustifiable expenditure theoretically ceases. A questioning attitude is developed by management, who are constantly forced to ask themselves questions such as:
- Is the activity really necessary at all?
• What happens if the activity ceases?
• Is the current level of provision adequate?
• What other ways are there of carrying out the activity?
• How much should the activity cost?
• Do the benefits to be gained from the activity at least match the costs?

All of these questions are largely answered by breaking the budgeting process down into three distinct stages, as detailed below.

**Stages in zero-based budgeting**
- Activities are identified by managers. Managers are then forced to consider different ways of performing the activities. These activities are then described in what is called a 'decision package', which:
  - analyses the cost of the activity
  - states its purpose
  - identifies alternative methods of achieving the same purpose
  - establishes performance measures for the activity
  - It assesses the consequence of not performing the activity at all or of performing it at different levels.

As regards this last point, the decision package may be prepared at the base level, representing the minimum level of service or support needed to achieve the organisation's objectives. Further incremental packages may then be prepared to reflect a higher level of service or support.

While some form of cost-benefit analysis may be useful at this stage, a degree of quantitative analysis must also be incorporated. Simple cost-benefit analysis would find it difficult to incorporate the financial effect of such considerations.
- Management will then rank all the packages in the order of decreasing benefits to the organisation. This will help management decide what to spend and where to spend it. This ranking of the decision packages happens at numerous levels of the organisation. The resources are then allocated based on order of priority up to the spending level.

**Benefits of Z-BB**
The benefits of Z-BB are substantial. They would have to be otherwise no organisation would ever go to the lengths detailed above in order to implement it. These benefits are set out below:

Since Z-BB does not assume that last year’s allocation of resources is necessarily appropriate for the current year, all of the activities of the organisation are re-evaluated annually from a zero base. Most importantly therefore, inefficient and obsolete activities are removed, and wasteful spending is curbed. This has got to be the biggest benefit of zero-based budgeting compared to incremental budgeting and was the main reason why it was developed in the first place.

By its nature, it encourages a bottom-up approach to budgeting in order for Z-BB to be used in practice. This should encourage motivation of employees:

Hugh Sutherland is widely recognised in the transport sector, having accumulated over 100 000 hours career experience in the heavy commercial vehicle, open cast mining and road freight industries. With over 55 years of practical experience in the industry, he has also specialised in providing expert evidence to Provincial Road Traffic Authorities and civil litigators.

His latest focus is on the development of a sophisticated and highly innovative road transport business strategy development structured around his commitment to road freight management excellence.

- It challenges the status quo and encourages a questioning attitude among managers.
- It responds to changes in the business environment from one year to the next.
- Overall, it should result in a more efficient allocation of resources.

**Drawbacks of Z-BB**
Departmental managers may not have the necessary skills to construct decision packages. They will need training for this, and training takes time and money. In a large organisation, the number of activities will be so large that the amount of paperwork generated from Z-BB will be unmanageable.

Ranking the packages can be difficult, since many activities cannot be compared on the basis of purely quantitative measures. Qualitative factors need to be incorporated but this is difficult. Top level management may not have the time or knowledge to rank what could be thousands of packages. This problem can be somewhat alleviated by having a hierarchical ranking process, whereby each level of managers rank the packages of the managers who report to them.

The process of identifying decision packages and determining their purpose, costs and benefits is massively time consuming and costly. One solution to this problem is to use incremental budgeting every year and then use Z-BB every three to five years, or when major change occurs. This means that an organisation can benefit from some of the advantages of Z-BB without an annual time and cost implication. Another option is to use Z-BB for some departments but not for others. Certain costs are essential rather than discretionary and it could be argued that it is pointless to carry out Z-BB in relation to these.
Since decisions are made at budget time, managers may feel unable to react to changes that occur during the year. This could have a detrimental effect on the business if it fails to react to emerging opportunities and threats.

- The organisation’s management information systems might be unable to provide the necessary information.

**Departmental managers may not have the necessary skills to construct decision packages. They will need training for this, and training takes time and money.**

**Conclusion**
Since Z-BB requires all costs to be justified, it would seem inappropriate to use it for the entire budgeting process in a commercial organisation. Why take so much time and resources justifying costs that must be incurred in order to meet basic production needs? It makes no sense to use such a long-winded process for costs where no discretion can be exercised anyway.

Incremental budgeting is, by comparison, quick and easy to do and easily understood. However, the use of incremental budgeting indisputably gives rise to inefficiency, inertia and budgetary slack.

In conclusion, neither budgeting method provides the perfect tool for planning coordination and control. However, each method offers something positive to recommend it and one cannot help but think that the optimal solution lies somewhere between the two.

(Written by a member of the (ACCA) Performance Management examining team)

**Where to now?**
Having reviewed extracts from these two dissertations, it becomes obvious that there is a great deal more to smart budgeting than simply guess work. However, it should be noted that all budget projections are subject to pure speculation based on how one interprets the budget period some three months ahead of implementation. And, right now it’s more than pretty gloomy and totally unpredictable. There is an old saying that goes: “If your crystal ball isn’t foggy it’s not switched on”.

In any event, how one sees a budget year is extremely subjective – especially regarding fleet replacements and additions, particularly given the current political and economic uncertainty. So now, more than ever, it’s essential to base future management decisions on intelligent interpretations of the local and foreign macro and micro-environmental trends.

**Part one in the January issue Hugh discussed:**
Budgeting techniques – review
What is incremental budgeting?
What is zero-based budgeting?
What is flexed budgeting?

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**Top level management may not have the time or knowledge to rank what could be thousands of packages. This problem can be somewhat alleviated by having a hierarchical ranking process, whereby each level of managers rank the packages of the managers who report to them.”**
Merc for timber

Mercedes-Benz Trucks has launched the eagerly anticipated new Arocs for distribution and the new Arocs for construction in South Africa

The basis for the robustness of the Arocs is provided by the extremely strong frame consisting of cold-worked, high-strength fine-grained steel, additionally, the modular layout of the chassis also allows for easier body mounting.

While the forestry sector is no stranger to Mercedes Benz trucks, the OEM doesn’t specifically produce a timber truck, they rather adapt one of their existing trucks to a customer’s needs.

Presently Mercedes Benz Trucks is testing an Aroc vehicle that has been configured to a timber logger for Timber 24, South Africa’s largest and one of the most respected timber logistics companies.

The adapted truck has taken the fundamentals of the more powerful mixer and the tipper, with slightly more variable suspension, and added a new logger-specific body.

The modular layout of the chassis allows for easier body mounting. Mounting elements are systematically oriented towards the respective add-on equipment and the chassis of the new Arocs has a consistent hole pattern of 50mm with easy access to electrical and pneumatic attachments.

The OEM will adapt a truck to meet the client’s applications and the concept will be that as requirements are specified, the OEM will adapt accordingly, creating bespoke vehicles for the forestry sector.

A new Aroc truck configured to a timber truck, one of the vehicles available to drive at the recent Mercedes Benz Truck launch.
Highlands Sawmill prospers with Wood-Mizer

A Wood-Mizer MP360 Planer Moulder combine forces with two Wood-Mizer sawmilling lines at Highlands Sawmill in KwaZulu-Natal to drive profitability even further

The road to Harding in KwaZulu-Natal where Highlands Sawmill is located, passes through some of the most scenic landscapes in South Africa.

Green pastures and plantations are framed by the Ingeli and Drakensberg Mountain ranges in the distance with timber and cattle farms dotting the banks of the wide rivers that cross through the area. Highlands Sawmill is located in one of the many fertile valleys outside Harding that is also home to the vast Weza and Singisi Forests from where large amounts of sawn timber exit for South Africa and the region.

Highlands Sawmill is located on a third-generation timber and cattle farm owned by the Hogg family.

Geoff Hogg, the current custodian of the farm, added to timber that his father first planted with some 740 hectares now set aside for timber production.

The areas on the farm planted to pine and eucalyptus produce logs for furniture and structural grade timber, CCA treated poles that are produced on the farm for agricultural applications and fibre for paper production as part of Highlands Sawmills’ membership of Sappi’s out-grower scheme.

Wood-Mizer Sawmills and MP360 Planer Moulder drive production

The 2018 start-up of the Wood-Mizer MP360 Planer Moulder at Highlands Sawmill added to the sharp increase in production capacity that followed the mill’s commissioning of two Wood-Mizer sawmilling lines in 2016 and 2017.
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Wood-Mizer
from forest to final form
Gerhard Pretorius, Highland Sawmills’ sawmill manager, fast-tracked the process to use Wood-Mizer technology as the backbone for the increases in output and recovery at the mill.

The two sawmill lines work in tandem to produce sawn timber for distribution to factories and hardware centres throughout KwaZulu-Natal, Eastern Cape and beyond.

Line No. 1 uses a Wood-Mizer LT70 Remote with an outfeed conveyor and transfer deck to a Wood-Mizer EG300 edger to produce accurately sawn, 6m structural timber lengths from maximum log diameters of up to 950mm.

Line No. 2 is built around a Wood-Mizer Twin Vertical Saw (TVS) and HR700 Multi-Head resaw. The line processes Highland Timber’s small diameter pine logs ranging in size from 150 to 250mm and up to 4.8m in length into furniture grade sawn timber.

Progressive and compartment kilns are used for drying, while Wood-Mizer blade maintenance equipment allows Highlands Sawmill to maintain their own blades to the standards they require.

Wood-Mizer MP360 planer moulder for bigger profits

The 2018 start-up of the Wood-Mizer MP360 planer moulder at Highlands Sawmill has extended the mill’s ability to seamlessly convert logs into sawn timber and then into finished wood products for increased profits.

“We were in the market for a planer moulder that would allow us to process sawn material into planed and moulded products with better margins,” Gerhard says. “But we could never afford a planer moulder, until we were introduced to the Wood-Mizer MP360. The price of the unit and the four-sided planing and moulding capacity that it offers, is well beyond anything that is currently available in the market. We can now process sawn material into high-value, planed and profiled boards in one pass. In doing so, we have improved our price/cubic metre by 200%.

“Wood-Mizer’s expertise and commitment to customer service makes our investment even more worthwhile,” the mill manager explains.

**MP360 – High production planer moulder**

Wood-Mizer’s Woodworking Machine Range now gives Wood-Mizer the ability to offer a full range of equipment that can seamlessly convert logs into dried lumber and finally into finished wood products – all backed by Wood-Mizer’s expertise and commitment to excellent customer service.

The range consists of four and two-sided planer moulders, thicknesser planers, a highly innovative universal spindle moulder with an all-purpose table saw adding to the versatility of the range.

The MP360 four-sided planer/moulder is a high-production, large capacity machine engineered for professional workshops. It’s a further development of the tried and tested Wood-Mizer MP260 planer/moulder.

Its robust design allows for the processing of thicker timber on four sides, offering a maximum planning/moulding height of 230mm and a maximum cutting width of 510mm.

The unit’s four cutter head motors range in size from 3 – 5.5kW with the feed speed pinned at 3 – 15m/minute.

For a full rundown on the specifications and options on the Wood-Mizer Planer Moulder range visit www.woodmizerafrica.com
Located in Vryheid, third-generation sawmilling concern, RF Gevers (Pty) Ltd., has just upgraded its operation to run more smoothly and more efficiently, with greater recovery volumes anticipated when the mill is under full production

Wood SA spoke to Kelvin Bland, mill manager of RF Gevers, Vryheid, to hear what the expectations are of the new installation which, at the time of writing, wasn’t in production, so figures and quantities were not available.

RF Gevers owns its SA pine plantations, which operate on a rotational system, enabling the mill to run, if necessary, without having to purchase outsourced timber.

The company contracts its felling operations and it runs an FSC operation on its woodchips, which are delivered to Mpact in Piet Retief. “We work on the mixed system, whereby 70% of material is FSC and the remainder non-FSC material,” he explains.

The timber is sold for broad-spectrum usage, from structural purposes and furniture, to crating and more. “We supply lengths from 0,9m to 6,6m, in four different widths and 25mm, 38mm and 50mm thicknesses,” he adds. About 80% of the timber goes into the KZN market, while the remainder goes to Freestate and Gauteng.

Old to improved
Kelvin describes the mill set-up prior to the new installation:

“For our small industrial logs, we were running a Klüver circular saw line. This set-up served us well until we realised that the recoveries on that line were astronomically poor; with a recovery of between 32 and 38% on our round logs.” Over the years, this poor recovery rate, along with an aging infrastructure and machines whose spares were difficult to come by, led RF Gevers to re-look its production line.

“It had become outdated, electric-wise, and also, it had a limited cutting length, namely 2,7m lengths. We couldn’t even cut a three-metre length,” he adds, pointing out that the price increases, when cutting three-metres upward.

To attempt to overcome this challenge, two years ago, the mill installed an Ultra TT finger-jointer from Weinig. At this time, the mill also installed a VK Valon Kone debarker, specifically for short lengths.

“But with the circular line being so heavy on recovery, for the new installation, we opted for the narrow band saw line from Brazilian OEM, Mill Industries, supplied by Nukor, the official importer.”
The new installation has added a fair deal of space to the existing operations – mainly length-wise – extending the existing shed by about 2 000m², including a new gantry crane to help with the installation and breakdowns.

Kelvin adds that all the conveying equipment that goes with the new installation -“the sawdust conveyors and cross-cut saws that Mill doesn’t build”, was sourced from Nukor who designed the configuration to the sawmill’s specifications, he explains. “Nukor did all the drawings for me, the layouts etc, there was major collaboration on the design of the installation and set-up.”

Kelvin stresses that from the get-go, when he took the reins as mill manager about six years ago, “I wanted equipment that works as we were in the process of redesigning our wet-mill from scratch, and back then, Nukor was the preferred supplier,” he emphasises.

The new G Force line from Mill has a wider two-and-a-half inch bandsaw, as opposed to the smaller width bandsaws. “We opted for a longer log length line so we could cut lengths from 1,8m to 6,7m.

So now we can recover anything from 1,8m from the plantations and finger-joint them into longer lengths,” he adds.

Kelvin Bland, RF Gevers Sawmill anticipates that the newly installed G Force line from Mill Industries will improve recoveries by 8%.

“For our small industrial logs, we were running a Klüver circular saw line. This set-up served us well until we realised astronomically poor; with a recovery of between 32 and 38% on our round logs.”

As an aside, Kelvin comments that the finger-jointing aspect was finding resistance in the KZN area, as the perception is that the end-product is not as strong as non-finger-jointed wood. “People are not informed that finger-jointing is often stronger than a single piece of wood, easier to work with and results in a straighter board,” he adds incredulously.

However, after offering a number of free samples to the wood agents and hardware outlets, this perception has changed radically, with finger-jointed timber now making up about 16% of total sales, up from 2% within a year.

“Another reason the choice was made to go for a 6,7m length, was to cope in the event of a breakdown or the need to run repairs on the frame saw line; the timber could be moved over to the bandsaw line with minimal disruption.”

While the new line could realistically, reduce the labour force by 5/6 people, with the upgrade, the company is averse to reducing labour. “We have not let staff go, as if we have odd logs that need cutting on that shift, we would still have to put them through the frame saw, requiring a number of people. So instead, we put them onto the stacking area and increase production that way,” Kelvin explains.

Outlook
“I’m hoping that with the new installation we will have at
least an 8% improvement on recoveries. Also, because the lengths of throughput before the new installation varied so much, there was nothing consistent that I can cite by way of figures. Nevertheless, I’d estimate that roughly we were putting about 80m³ in it per shift. With the 8% recovery I am looking at about 38m³ out,” he adds.

At the time of writing, the first timber was due to cut in the forthcoming week, initially working on a nightshift owing to power consumption restrictions and then phasing into full production over the next fortnight.

Nukor is training the operators and also upskilling Kelvin who, by his own admission is “more a frame saw man”.

He believes that over time the circular saw line will be disbanded as “the bandsaw line is capable of doing what the circular saw line does, and more” he states and adds that there may be automated stacking coming down the line, although he believes South Africa is not really ready for that level of automation yet, based on the variety of lengths that the industry cuts. “The Europeans cut a standard 2,4m which is easier to stack for the kilns, whereas we cut from 0,9m in modules of 300, right up to 6,6m. We have too much variance.”

In conclusion Kelvin says: “Delivering a quality product to a satisfied customer will ensure that RF Gevers will still be around for generations to come, with Nukor along for the journey.”

“The new installation has added a fair deal of space to the existing operations – mainly length-wise – extending the existing shed by about 2 000m², including a new gantry crane to help with the installation and breakdowns.”

“Another reason the choice was made to go for a 6,7m length, was to cope in the event of a breakdown or the need to run repairs on the frame saw line; the timber could be moved over to the bandsaw line with minimal disruption.”
### MILL Horizontal Bandsaw Specifications

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>M/PRO</th>
<th>L/PRO</th>
<th>G/FORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Cut Thickness</td>
<td>2mm</td>
<td>5mm</td>
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<tr>
<td>Maximum Block Height</td>
<td>330mm</td>
<td>330mm</td>
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<tr>
<td>Wood Width</td>
<td>20 to 210 mm</td>
<td>100 to 350 mm</td>
<td>100 to 450 mm</td>
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<tr>
<td>Wood length</td>
<td>400 to 3,000 mm</td>
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<td>Estimated Production</td>
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<td>Dependent on the number of heads</td>
<td>Dependent on the number of heads</td>
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<td>Length</td>
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<td>Height</td>
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<td>Width</td>
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<td>2,300 mm</td>
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<td>Conveyor Width</td>
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<tr>
<td>Return Conveyor Width</td>
<td>210mm</td>
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<tr>
<td>Saw Motor Feed Motor</td>
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<td>Thickness Adjustment Motor (optional)</td>
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<td>Switch Gear</td>
<td>Automatic Electronic Panel</td>
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<td>Automatic Electronic Panel</td>
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<td>Electrical Cables</td>
<td>Complete Up to the Panel</td>
<td>Complete Up to the Panel</td>
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<td>Blade length</td>
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<td>Blade Thickness</td>
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<td>Saw Kerf</td>
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<tr>
<td>Bandwheel Diameter</td>
<td>700mm</td>
<td>700mm</td>
<td>900mm</td>
</tr>
</tbody>
</table>

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SPECIALISING IN CIRCULAR SAW MANUFACTURING. DIAMETERS FROM 10MM TO 3000MM

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- Plate
- Bandsaws
- Food Grade Stainless Steel
- authorised reseller of saw maintenance and saw milling machinery
NUKOR’s LIGNA legacy

Nukor first attended LIGNA around 1970 and have been attending ever since. It is a way for us to spend extended time with our supplying partners as well as possible new ones. LIGNA helps us discover developing ideas and technologies in the woodworking and timber processing industries.

The Nukor Post LIGNA tour allows our customers to experience first-hand the magnitude of the timber industry in Western Europe. Our visits to timber processing facilities introduces the latest technology to our customers where they can observe and discuss with factory owners and production staff independently from the equipment suppliers all factors related to processing.

To emphasise equipment reliability, we also visit installations where lines have been running for more than 30 years. From family-owned businesses where father and son run framesaw lines, to corporate mills cutting 1,000,000m³ of round log per annum.

There has been a steady increase from our customers to visit sawmills that generate their own electricity from by-products (Bark, sawdust and chips). Most installations are CHP (Combined Heat and Power) plants generating from 1MW up to 24MW where thermal generation (hot water) is used in the kilns.

The woodworking and timber processing industries are developing rapidly, and we aim to be able to compete with our European counterparts.

We always welcome anyone interested in joining us.
Ligna 2019
Future showcase for the woodworking and timber processing industries

This May, over 1,500 companies will be gathering in Hannover, Germany, to showcase the future of the woodworking and timber processing industries. Whether it’s about digitisation, automation, IoT platforms or collaborative systems, LIGNA is where innovations are shown for the first time – and on an unrivalled scale. 130,000 square meters (nearly 1.4 million square feet) is the total net display area that will be occupied by exhibition stands featuring the latest woodworking and timber processing plant, machinery and tools.

“From 27 to 31 May 2019, exhibitors from over 50 countries will gather here at the Hannover Exhibition Center to showcase state-of-the-art processing solutions, applications and concepts for the entire forestry & wood industry.

The presence of all the world’s leading technology providers will make Hannover the global hotspot for the wood-based industries during those five days. No other fair compares in terms of international appeal”, asserted Dr. Andreas Gruchow, Managing Board member at Deutsche Messe, during the LIGNA Preview press conference on 5 February in Hannover, adding: “Once again in 2019, LIGNA will serve as the industry’s showcase of choice for unveiling their innovations, with a great many exhibitors even timing their development cycles to coincide with the show’s staging every two years.”

LIGNA 2019 has three focus themes: ‘Integrated Woodworking – Customised Solutions’, ‘Smart Surface Technology’ and ‘Access to Resources and Technology’. The latter is also the keynote theme of the Wood Industry Summit.

Themed ‘Smart Surface Technology’, the surface finishing exhibits at LIGNA 2019 will span all the intelligent processing solutions needed to cater for today’s surging demand for haptic, matt and reflective surfaces.
‘Integrated Woodworking – Customised Solutions’

In the wood industry, there is keen interest in IoT application scenarios, such as condition monitoring and predictive maintenance, as a means of further boosting production plant efficiency. In such scenarios, humans remain an integral part of the production process but are supported by cyber-physical assistance systems, such as collaborative robots, automated guided vehicles and smart worker support technologies. The trend is thus towards hybrid human-machine production systems in which the product is inextricably linked to the production plant and the humans who operate it. ‘Visitors to the next LIGNA will gain captivating insights into what the future has in store for the furniture and woodworking industries’, explained Gruchow.

Smart Surface Technology

Themed ‘Smart Surface Technology’, the surface finishing exhibits at LIGNA 2019 will span all the intelligent processing solutions needed to cater for today’s surging demand for haptic, matt and reflective surfaces. That’s digital printing and decorative gravure printing systems, inspection systems, the latest generation of spray coating machines, robotics systems, and much more besides. Here, too, digitization and automation are the key to achieving greater flexibility while keeping costs to a minimum. The full range of the latest surface technologies, applications, innovations and solutions will be on display in halls 16 and 17.

‘Access to Resources and Technology’ at the Wood Industry Summit

Providers of technology for the forestry and/or primary wood processing industry, in particular, will have an unrivalled opportunity to tap into new growth markets at next year’s Wood Industry Summit, which is themed “Access to Resources and Technology”.

Complete with forum, lounge and exhibition area, the summit is all about international communication and technology transfer. Among much else, its focus will be on ways of optimising the entire forest-wood-logistics value chain – from standing trees through to final processing in the factory – as well as on protecting forests from biotic and abiotic damage, and on climate and environmentally friendly harvesting processes and the future of the forest and wood industry.
Digital technologies, such as drone-based data capture systems, mobile applications, laser scanners and highly sophisticated IT programs, now span the entire forestry value chain, from forest information and integrated harvesting systems right through to modern forest management systems. And in each case, the focus is squarely on efficiency and productivity. Digitization will therefore be a prominent theme at the discussion forms and throughout the exhibits at LIGNA 2019.

In the wood industry, there is keen interest in IoT application scenarios, such as condition monitoring and predictive maintenance, as a means of further boosting production plant efficiency.

Main display categories

The last LIGNA featured a restructured site layout featuring seven main display categories – a layout well received by exhibitors and visitors, alike, and thus to be continued in 2019:

- Tools and Machinery for Custom and Mass Production in halls 11 to 15 and 27
- Surface Technology in halls 16 and 17
- Wood Based Panel Production in Hall 26
- Sawmill Technology in Hall 25
- Energy from Wood in halls 25 and 26, and in Pavilions 32, 33 and 35 on the open-air site
- Machine Components and Automation Technology in halls 15 and 16
- Forestry Technology on the open-air site and in Pavilions 32, 33 and 35

Guided Tours

In order for visitors to get the most out of next year’s show, the organiser is offering Guided Tours on “Smart Surface Technology”, “Integrated Woodworking – Customised Solutions” and “Sawmill Technology – Innovations and Trends”.

For further news and information about LIGNA, the show’s supporting program, Guided Tours, special displays and important product launches, visit www.ligna.de.

The future of framing

Hennie Viljoen, marketing manager, MiTek Industries South Africa (Pty) Ltd discusses what makes the company the world leader in the manufacturing of structural roof components

MiTek is a diversified global supplier of builder products, collaborative software, engineering services, and manufacturing equipment to the residential, commercial, and industrial construction sectors. MiTek Industries’ passion for its associates’ well-being, and its customers’ success, is the company’s hallmark. Founded in 1955 and a Berkshire Hathaway company since 2001, MiTek has operations in more than 40 countries on six continents.

Overview of MiTek

With its manufacturing facility in Gauteng and regional offices in Cape Town, Port Elizabeth and Durban, MiTek is well-placed to supply the widest range of timber connectors and light gauge steel products to roof truss manufacturers and hardware stores. The company provides connector plates, Ultra-Span, software, eCo Fasteners, machinery and engineering services to the roofing industry.

“All the connector plates, eCo Fasteners and Ultra-Span light gauge steel profiles are made from galvanised steel. Our eCo Fasteners are steel fastening devices that ensure strong connections and structural integrity,” he adds. MiTek’s Ultra-Span is a lightweight, compact and pre-fabricated light-gauge steel roof truss system, mainly used from low-cost projects to large-span structures.

MiTek also supplies timber alternative products for use in roof truss structures. The company also offers state-of-the-art manufacturing equipment, designed to cut and manufacture accurately, while reducing labour costs. MiTek also offer a range of SAQA accredited courses for different stakeholders in the construction process, ranging from our popular production training to our in-house/online training courses on the use of our software.

With Professional Engineers licensed in each region, we are strategically located to provide expertise in reviewing designs of component manufacturers. We lead the industry in credibility, speed, accuracy and efficiency.

Software

MiTek Industries South Africa will soon launch their new roof designing software called MiTek PAMIR, which enables quicker estimating capabilities, faster roof-editing tools and a
more integrated software environment, specifically designed for modern truss manufacturers.

“The launch of PAMIR is the most significant software development in our industry during the last 20 years and we believe that it will set our customers even further ahead in today’s competitive marketplace,” says Hennie Viljoen, marketing manager at MiTek Industries South Africa.

The software comprises of more than 760 000 lines of code and has taken 130 man-years of work to complete. “MiTek customers in Europe have used PAMIR for the past five years, and the software has reached a level of maturity that will be of great benefit to us in South Africa. We are currently ensuring that it is fully complying with the SANS codes,” Viljoen states.

Recent months have seen relentless testing of the software, simulating various design and practical scenarios relevant to the South African roofing industry in preparation for PAMIR to be rolled out to South African customers in the second quarter of 2019.

PAMIR combines roof layout, truss engineering and high quality CAD output features all into one integrated software platform which can be easily configured to meet specific users’ requirements. Historically, these three areas have been addressed by three distinct software packages, each with a training requirement.

Contrarily, PAMIR is a single integrated software environment, meaning that roof designers have just one platform to learn, and making the whole process more productive and faster. The software also allows the user to specify factors which will affect the structural performance of the structure, including roof cover, site altitude, wind speed and more.

“Modern roof designers need to be able to design a roof very quickly. With several new enquiries arriving on their desks every day, they need software solutions that enable them to design and quote roofs in no time. Customers expect information from you quickly and the ability to work within their time frame requirements can often make the difference when it comes to retaining their continued business,” Viljoen points out.

“With PAMIR you can edit truss and building dimensions and watch the roof dynamically re-frame. Whether you are moving walls, adding an attic room, changing the roof pitch or mirroring roof features, PAMIR’s dynamic framing allows you to make any changes required. Also, thanks to the software’s powerful CAD functions, users are able to produce high-quality output including building elevations, live cross sections, zoomed in 3D details and truss profiles, quickly and easily.

“PAMIR is the next generation of prefabrication software – more dynamic, more powerful and more versatile than any other software package available,” Viljoen concludes.

Recent months have seen relentless testing of the software, simulating various design and practical scenarios relevant to the South African roofing industry.
The benefits of using PAMIR:

- Simultaneous wall, plane and framing input
- High speed design to the latest Eurocodes
- Dynamic Framing allows live edits to building geometry with no need to re-input framing
- Import of dwg and pdf files allows for tracing of architect’s drawings, eliminating mistakes and saving huge amounts of time reading dimensions from drawings

Accuracy

- Powerful interactive 3D view
- Move frames with pinpoint accuracy
- Flexibility
- Extensive manufacturing settings allow for customisation to user preferences
- Powerful automatic framing works in conjunction with versatile manual editing tools to create any manner of roof design

Quality

- Powerful CAD tools enable high quality, multi sheet output
- Dynamic viewports allow for automatic drawing updates with edits
- Free viewer software allows sharing of the digital 3D interactive model
- Pamir viewer allows a 3D model to be sent to anybody with a Windows computer

Pinnacle Linear Saw

Neil Murray, owner of Multisaw in Plettenberg Bay – manufacturers of a multitude of machinery for the sawing of wet timber from logs to boards – recently added a new product to its range, the Pinnacle Linear Saw, which is backed up by excellent after-sales service.

The Pinnacle linear saw embodies everything that Mitek’s customers expect from their machines – heavy duty, robust, and made to withstand harsh African conditions. This is the new generation of saw machinery.

Key features:

- Timber Optimization
- Run two pieces of timber at once
- Inline printer
- Improved cutting efficiency
- Reduces timber waste
- Heavy duty
- Seamlessly integrates with MiTek roof truss design software.

The machine uploads jobs from the Mitek design software and automatically saws the roof parts according to the specified length and angle. The software for the Pinnacle machine was developed in-house by Multisaw and tested extensively. The great news for truss manufacturers is that Multisaw’s service department is on-line or a phone call away and parts are available in all major centres. In the case of an emergency a technician is only a local flight away.

Certification

“For timber roof trusses we adhere to criteria determined by the Institute for Timber Construction (ITC) and for the light-gauge steel, we are guided by criteria set down by the Southern African Light Steel Frame Building Association (SASFA).

“As a company we are audited and we have our DEKRA 9001/2008 accreditation in terms of quality where we uphold our quality standards,” Hennie assures. (DEKRA Certification South Africa is an Accredited Certification Body under the German accreditation body DAkkS.) “This is definitely a differentiator when it comes to the industry,” he adds and says that one of the biggest challenges facing structural componentry is the flood of below-par products that swamp the market, that are not engineered to a high standard and often don’t comply with any building regulation – yet are widely available and sought after owing to price.

Unlike many of these suppliers, we manufacture high quality products that are backed by PL & Pi insurance and by our professional engineering team,” he concludes.

![PAMIR combines roof layout, truss engineering and high-quality CAD output features all into one integrated software platform.](image-url)
MAKE THE SWITCH TO THE LEADER.

MiTek’s Machinery Division leads the building component manufacturing industry with innovative products and services that improve your efficiency and productivity.

With MiTek, you are buying more than just a piece of equipment. You are getting a team of design/build experts that focuses on delivering the perfect customer experience, support, and high-performance for your plant.

If you need assistance reducing operating costs, increased productivity, or building a new plant MiTek can help by providing tools for ordering parts, resources for safety, operator training, detailed preventive maintenance, and troubleshooting.

We don’t just specialize in selling and repairing equipment, we want to be a partner for reducing injuries and preventing the need for repairs. If you have any questions you have the support of our entire Machinery Division, from people with years of experience in the building components industry.

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MiTek®
CREATING THE ADVANTAGE

*MiTek Industries South Africa (Pty) Ltd, a Berkshire Hathaway Company
Rodney Weston, managing director of Truss World, describes what it takes to be recognised by Mitek as one of the top ten truss plants in the country and to maintain this status for the past five years.

The key to the sustainability of a winning business lies in a sharp vision for the future and succession planning,” explains Rodney, “I have 30 years of experience in managing truss plants, and, in 2005 started the company to create a business which my sons could work in one day.”

The company is based in Cape Town and provides employment for 34 permanent employees and Rodney has worked hard to put together teams of “special people” to ensure that it continues to serve and grow its client base.

“Our value proposition has never changed during the past 14 years and it will not change in the future,” comments Rodney. “We have built the business by offering good personal service with quality products at reasonable prices.” Emphasising the importance of succession planning for good leadership and management, Rodney proudly states, “One of my sons, Tyler, is a qualified Engineering Technologist and shares my passion for the company. I had no hesitation in harnessing his positive...
Truss World’s Mervin Mathews prepares the Pinnacle linear fully automated component saw to produce cut to length web components.

“We also created an Employment Trust about four years ago and have buy-in from most of our staff. This creates a healthy atmosphere with a sense of pride for all employees.”

Truss World opened its doors in January 2005. Rodney says the impetus for taking such a big step was his experience while managing a truss plant for a large corporate company. “There was a need to expand that plant and relocate it. I proposed a new busy site for a centralised truss plant that would service the company’s needs and allow for expansion in the future. Short-sightedly, the directors did not see the potential and it was not long before a competitor opened in the proposed location,” he relates.

“The Pinnacle saw is designed to optimise cuts out of longer lengths with minimal wastage. This works well with the web components, and since installation, it has pushed up production considerably.”

“Although this lack of vision frustrated me, it also convinced me that I had the potential to open my own business. I took the leap with a partner who used to work for Mitek and we launched while there was a strong market,” Rodney says. Like all small businesses, the journey to excellence has not always been plain sailing. “There have been challenges along the way, especially downturns in the market like the 2009/2010 recession. Every day has its trials, but our work is very fulfilling and satisfying.”

**Production process**

Truss World is a fully licenced Mitek truss plant and adheres to all the industry standards. The kiln dried, CCA treated and strength-graded pine timber is sourced from a range of sawmills in the country. Occasionally they use imported hardwoods for specially designed exposed roof trusses for upmarket homes.

“We use the full suite of Mitek software for our designs and a variety of manual and automated manufacturing machinery. These include a Mango semi-automated saw, a Mitek CPP3 saw, a web-saw and a standard Mitek roller press for pressing our pre-fabricated trusses,” explains Rodney. “The newest machine is the Pinnacle fully automated component saw we bought from local machine designer and fabricator, Neil Murray and his company Multisaw.”

The Pinnacle component saw can be programmed by means of Mitek’s design software to produce cut-to-length and angled truss components. “We always had a bottleneck with...
the cutting of components and when
we began looking at expanding the
plant and production, we looked for a
local solution,” explains Rodney.

“The Pinnacle saw is designed to
optimise cuts out of longer lengths
with minimal wastage. This works
well with the web components, and
since installation, it has pushed up
production considerably. We are not
using the full capacity of the machine;
however, this gives us the flexibility to
change in the future if required.”

“We use the full suite
of Mitek software
for our designs and
a variety of manual
and automated
manufacturing machinery.”

The future
Truss World also supplies light gauge steel trusses, and
although there is a growing demand for it as a replacement
for wood, Rodney says this is usually specified for public
buildings where it is believed that there is a fire-retardant
advantage. “Scientific studies indicate that this is not always
the case, and I don’t believe that steel can compete price-wise
with timber,” he says

Rodney is keeping abreast with the worldwide developments
like energy efficient buildings, carbon sequestration
and “green” buildings, and says Truss World is ready to
incorporate any new trends or innovations into its designs.

“We have forged a mark in the Western Cape as a reputable
player in the pre-fabricated truss Industry. We plan to
maintain and improve this mark, and I am confident that we
have the right people to achieve anything.”
Gold
Trusted for generations

Gold Max
This stearate coated paper abrasive is specially developed for intermediate and fine sanding applications. The antistatic paper and heat treated grains promote good durability and high cut rates. Gold Max has a semi-open coating that minimises clogging, increases the sanding lifetime and offers a smooth surface finish.

Gold sheets
Gold is a paper backed, multi purpose abrasive known for its versatility and quality finish. Universal sanding material for various wood types, well suited for intermediate and fine sanding as well as for paint and lacquer sanding. Available as discs, sheets and rolls.

Gold discs
This innovative sanding disc is ideal for sanding soft and hard wood types. Gold discs feature semi-open and special stearate coatings designed to prevent clogging which helps achieve an optimal sanding result.

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www.mirka.com
As a professional body for the engineered timber construction industry, the ITC-SA’s vision is to create and maintain the highest standards in the engineered timber construction industry by monitoring its membership, continuously improving standards, promoting and marketing engineered timber structures, and overseeing the training and development of its members.

What is a professional body?
In 2013, the ITC-SA became a South African Qualifications Authority (SAQA) accredited professional body, holding professional membership. In this capacity, the Institute must comply with the requirements set out by the National Qualifications Framework Act (NQF Act 67 of 2008) as amended.

A SAQA-accredited professional body must be a legally constituted entity with the necessary human and financial resources to undertake its functions, governed either by a statute, charter or a constitution and be compliant with and adhere to good corporate governance practices.

The Voluntary Association (VA)
The ITC-SA has recently been recognised by the Engineering Council of South Africa (ECSA) as a Voluntary Association in line with the newly-gazetted Voluntary Associations Recognition Framework, which came into effect in 2018.

According to Amanda Obbes, ITC-SA General Manager, “The amendments to the Recognition Framework are welcomed by the Institute. The changes necessitate that VAs will have to be more accountable for the responsibilities outlined in the framework, the most important being the promotion of ECSA registration. The update also facilitates a closer working relationship between ECSA and VAs than ever before.”

Recognised and accredited professional bodies like the ITC-SA are mandated to develop, award, monitor and revoke its professional designations in terms of its own rules, legislation and/or international conventions.

“Recognised VAs, like the ITC-SA, are benefitted through their association with a reputable and credible regulatory body, through which they may also apply for CPD accreditation,” says Obbes, remarking, “The ITC-SA’s now-enhanced association with ECSA will be passed on to its membership, and has great potential to influence an upswing in its
reputational profile through dynamic collaboration in programmes and on projects. ITC-SA members also qualify for discounts with ECSA due to their recognised VA membership status. This not only bodes well for the ITC-SA membership, but serves the greater construction industry and the ever-important consumer at the end of the value chain.”

According to Advocate Jacqui Grove of Grove Governance Consultants, in her article, titled, The role of associations in the regulation and promotion of professional conduct standards, published in Directorship (Q1 2019), “While membership is not a condition of practice in a specific field, these associations strive to advance the profession, advocate for their industry, and elevate the professionalism of their members as a competitive advantage.” “The fundamental difference between the so-called statutory or regulatory associations and a voluntary association lies in the fact that the former is empowered by legislation, while the latter relies on the principles of contract between association and its members. These voluntary associations generally set standards in two areas, namely qualification and conduct, with conduct regulation being the topic of interest here.”

“Self-regulated professionalism, underpinned by peer review of member conduct, is a hallmark of practicing a profession.” ~ Advocate Jacqui Grove

“Self-regulated professionalism, underpinned by peer review of member conduct, is a hallmark of practicing a profession. While it is understood that membership is voluntary, by accepting the terms of membership members undertake to conduct themselves in a manner which supports the aim and objectives of their association and they agree that their conduct will be subject to peer review.”

The importance of the ITC-SA for the industry

It is essential that an accredited professional body like the ITC-SA regulate and monitor its members’ individual profiles and performance with regards to training undertaken and completed for professional recognition. This training is in line with the criteria set by the ITC-SA and is approved by SAQA, and is key for the promotion and monitoring of continuous professional development (CPD) for members to meet the relevant professional designation requirements.

All professional members recognised by the ITC-SA must abide by the Institute’s published Code of Conduct as well as its mechanism for reporting and investigating members who are alleged to have contravened this Code. The ITC-SA works to ensure that the industry’s viewpoints are accommodated and protected in the compilation of all documents on grading specifications, design codes and matters affecting National Building Regulations. The Institute’s Timber Engineering Advisory Committee (TEAC) maintains its status as the official drafting committee for the code of practice for the Design of Timber Structures.

The ITC-SA ensures the continued existence of the Standards, Inspections and Audits Committee, in order to regulate and control safe and consistent standards within the industry. The Institute will pursue and assist in the enforcement of the ‘A19’ process of the National Building Regulations through all local authorities by offering the ITC-SA Accredited Engineers and appointed Inspectors to fulfil the role of Approved Members of the structural system in order to comply with statutory requirements.

The ITC-SA carries out random inspections of truss manufacturing plants to uplift and maintain desired quality standards in the industry, and Erectors and Timber Frame Builder Members also undergo annual audits to ensure compliance.

The Institute works to ensure close liaison with the education sector and training authorities in the development of unit standards for the manufacture of nail-plated timber roof trusses, for the erection of timber roof trusses, and to facilitate training in these disciplines, in compliance with the Skills Development Act.

The ITC-SA works to establish a Certificate of Competence for truss estimators/designers, to promote a code of ethics for roof truss fabricators, to monitor the contractual obligations of systems and licensees and ensure adherence to agreed procedures, and to continuously update bracing and
The benefits of using engineered timber products in construction industry.

While many people try to save on the construction of their roof, timber home or deck, they often end up spending more money and stress down the line. Hiring a builder that is not registered puts you at risk of having no method of recourse should things go wrong. Preventing this risk of having to accept poor quality materials and shoddy workmanship, and with little or no recourse to recover losses, for a professional and long-lasting end result, it is essential to engage the services of a professional, knowledgeable and experienced individual. This will, no doubt, cost more initially than engaging the services of an unqualified individual, but will save a great deal of money and stress down the line. Educate yourself as far as possible on the dos and don’ts of timber construction and whether you are a homeowner or property developer looking to have any type of timber structure built, do the right thing and enlist the services of an ITC-SA accredited member. Doing otherwise puts you at risk of having to accept poor quality materials and shoddy workmanship, and with little or no recourse to recover losses.

In short:
- Cheaper is never better
- Saving costs on a timber construction project will most likely cost you more down the line
- Hiring a builder that is not registered puts you at risk of having no method of recourse should things go wrong
- For complete peace of mind, hire an ITC-SA accredited professional who is an expert in the field of timber construction to assist you with your construction project
- With the ITC-SA, both the trade and consumer can enjoy the peace of mind and protection that come with a safely erected and inspected timber frame home, roof or deck structure. The Institute encourages queries and engagement from both the trade and the public and will assist where possible to help inform and educate the market on timber construction best practice.

For more information, visit www.itc-sa.org.

Reference:

About the Institute for Timber Construction (ITC-SA):

The ITC-SA was established 45 years ago to regulate the engineered timber roof structure industry and to provide design, manufacturing, erection, inspection and certification for compliance with inter alia SANS 10400 and SANS 10082, where engineering rational designs are applicable.

The ITC-SA is a South African Qualifications Authority (SAQA) accredited professional body with a professional membership and therefore has to comply with the requirements as set out in the National Qualifications Framework Act (NQF Act 67 of 2008 – as amended). The ITC-SA is also a Category B Recognised Voluntary Association in terms of the Engineering Profession Act, 2000 (Act 46 of 2000).

In 2014, the Institute for Timber Frame Builders (ITFB) was incorporated into the ITC-SA to ensure a better and more uniform representation of the timber engineered practitioners in the built environment.
Air Force System, available on the Stream A, is based on the physical principle of convection. By using a compressed hot air system, the edge bonds perfectly with the panel, guaranteeing resistance to water and heat and an excellent long-lasting quality finish.
“Why we need to make changes”

Up to now, the leading décor printing company Interprint, has presented the industry’s latest trends and developments in a format known as ‘Furniture Days’. This however is no more, as in 2018, the team introduced the HUB Interior Festival

With the new Interior Festival, along with over 600 guests from 250 companies, Interprint presented the interior design industry’s future from a variety of standpoints. Industry representatives, designers, architects and trend specialists from around the globe attended the event in Essen in their droves, filling presentations to capacity, revelling in the interdisciplinary approach that well-echoed the spirit of the times.

Interprint director of marketing & design, Salvatore Figliuzzi, reflected on a recently retired top manager from the automobile industry, who he heard present on the topic of ‘Innovations Management’, where he spoke self-critically about his industry’s obsession with technology that is guilty of, at times, completely losing sight of the customer. Says Figliuzzi, “His surprising statements ended with the sentence: ‘Did you hear me say the word ‘customer’ even once?’”

The thing is, the customer’s approach is changing, Figliuzzi, points out. Fewer people are interested in furniture the way their parents were, which was bought for longevity. Furniture barely lasts a phase of a lifetime today, as people are constantly looking for an ‘update’ to their home. Also, there is less concern as to how something is made, no longer does he/she want to know how or why a surface, for example, is produced. “The technology must do its job so that in the end, there’s a successful product. He’s only interested in the result and not the complexity behind the product,” says Figliuzzi.

He asks rhetorically: “Do we really know what the end consumer actually wants or do customers’ wishes get lost in the course of the value chain? Maybe however, the end consumer doesn’t know exactly what he wants and looks to us – the industry – for inspiration and orientation?” This was where the HUB was so successful, where talks included trends, colour theory, contemporary forms of marketing and more.

According to Figliuzzi, to manufacture successful products, two essential factors need consideration, technology and design. “Technology for longevity and functionality. Design for emotion, aesthetics and well-being. But is the end-consumer really interested
whether we print our decor digitally or in the conventional way for example?" he observes. Design, production, suppliers and those who keep in touch with the customer must collaborate in order to ensure that the overall outcome is satisfying.

**Fewer people are interested in furniture the way their parents were, which was bought for longevity.**

He describes how new web portals “work on customers more and more intensively” challenging the will to change. He believes that they will accelerate the transformation process even further: “I’m convinced: The key to success is a creative and conceptually strong presence in the minds of the end consumer.” He adds that while the “coolness factor of communication” plays a decisive role, first and foremost however, is “the will and courage to change”.

He urges that everyone in the ‘value chain furniture’ must awaken a desire for their products in the consumer and in this, lies the challenge, with we being the greatest challenge. “Do we have the courage to admit that we need to make changes?” he challenges.

Referring to the innovative HUB concept, he says that the aspect that "made the event special is that we do not just put something in front of the visitors. We not only provide them with input, but we also challenge them to some extent. They themselves are supposed to be HUB, so to speak". He says that visitors are supposed to exchange ideas and investigate each other, that way: “Everyone gives, everyone receives and everyone benefits,” he says.

In closing he says: “I think that we should talk about the topic ‘customer proximity’ much more openly and exchange ideas about this more, so that we can learn from one another. In the end we’ll all benefit from it.”

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Beaming in with FOMA
Leading Veneer board manufacture goes with FOMA

Veneer Tech, South Africa’s leader in the supply of wood veneer-faced boards and components, have enhanced their cutting capacity with the commissioning of a FOMA Southern Africa beam saw.

The HP 330 G automatic beam saw, optimising software and label printer was installed within two days of contract finalisation in early December 2018 and was able to assist in processing Veneer Tech’s remaining year-end order book.

“The FOMA team were fantastic,” says production head Herman Kotze. “They quietly worked away, assembling, installing and commissioning the beam saw, Next minute we were ready for training on the saw and on its optimising program, and before we knew it we were in the driving seat and into our production schedule.”

He continues with enthusiasm: “Veneer Tech has always been very proud of our efficiency and customer service and when we saw we were facing a cutting bottleneck we looked around in the market for a cost effective and quality solution. I had been impressed with the FOMA Southern Africa’s product at the Wood Pro show in June 2018 and so contacted them, along with other guys in the market.” He adds, “FOMA Southern Africa really went out of their way to provide me with a compelling offer, with product demonstrations at a customer as well as their showroom, a fast turnaround and a price and support offer which was really remarkable.”

Roddy Payne, FOMA Southern Africa’s MD shares: “We are very proud to have Veneer Tech, a legend in the veneer market, as our latest beam saw customer,” he says. “They take their business very seriously and every element and addition, is carefully checked and assessed. We are so chuffed that we were able to win his business and their trust and we look forward to our machine adding value in the business for many years to come.”

The HP 330 G beam saw has a maximum cutting width of 3280mm and a maximum cutting height of 100mm. The main blade runs on an 18kw motor and the scoring blade on 2.2kw. The beam saw comes with a 12-months mechanical and conditional electrical guarantee (proof of clean power must be provided) and is supported by technicians and a full range of spares out of the FOMA Southern Africa showroom in lower Germiston, Gauteng. FOMA Southern Africa can be contacted at www.chinafoma.co.za and +27 (0)10 822 2260.
Reinventing American hardwoods:
Exploring new possibilities for American hardwoods in exterior and structural applications

The wide range of American hardwood species offer the architect and designer a wonderful palette of colours, textures and grains from which to make furniture and design interiors. What they do not offer however is a very durable wood species that can be considered for outdoor applications such as cladding or decking. Meanwhile, their use in structural applications has been somewhat limited by a lack of know-how. However, this is now changing through the application of new, and relatively simple, technology coupled with a readiness to explore timber as a material for a wider range of construction solutions.

The growing outdoor cladding and decking market uses significant volumes of timber, which at present uses very little American hardwoods and, therefore, it provides major scope for growth.

In the hardwood forests of the United States, there are a few naturally-occurring very durable species, such as black locust, but they are not available in commercial quantities. American white oak has been used successfully in Europe on some large projects, but allowance must be made for sapwood and preservative treatment may be necessary. However, the application of 10,000 square metres of white oak exterior cladding on the EU Veterinary Centre in the harsh climate of Ireland back in 2002, shows that this species can be used for this purpose if handled and installed correctly.

**Thermal modification of timber**

With an aim to develop new markets for American hardwoods, AHEC realised early on that wood modification was going to play a significant role. Applying wood modification processes enables a non-durable species to be used externally. Thermal modification of timber is one such generic process and it is adaptable to a range of different timber species. The modern commercial method of thermal modification was developed in Scandinavia some thirty years ago, enabling the plentiful local softwood resource to be made durable without the application of chemicals. It soon became apparent that certain temperate American hardwood species could also lend themselves well to the thermal modification process. The leading species are ash, tulipwood, soft maple, yellow birch and red oak. Some lesser-known species such as hackberry, sapgum and basswood also modify very well.

AHEC has used thermally-modified timber (now known generically as TMT) to showcase its potential for outdoor application in various design collaborations. The first project was the Infinity Bench designed by Martino Gamper for the 2012 London Design Festival.
Reinventing American Hardwood...in his unique design, he used five different thermally-modified American hardwood species; tulipwood, ash, soft maple, red oak and yellow birch. The range of species allowed for an exciting contrast in colours, grains and textures. Other bench design collaborations in thermally-modified American hardwoods include Emirati designer Khalid Shafar’s CITY’s Bench in Dubai and Australian Ben Percy’s design for Sydney Indesign 2013. An interesting project also using TMT was ‘The Cocoon’, a collaborative installation between T.ZED Architects and AHEC, which was initially designed for Downtown Design Dubai 2016, and is now serving as an observation deck at the Dubai Creek Harbour Promenade.

Building with wood
In construction, there is no other material that comes anywhere near wood in its potential to offer environmental benefits. Recent developments in construction timber products such as cross-laminated timber (CLT) and glued-laminated (glulam) beams have meant that structural design in timber for buildings has been raised to another level. There are significant advantages to building in wood too; including lower foundation costs, as timber structures are invariably lighter; and an overall shorter construction time. Looking back to 2000, Hopkins Architects used American white oak for the Arup-designed grid-shell roof structure over the courtyard of Portcullis House in Westminster.

Initial strength testing showed American white oak to have a strength class of D50, roughly twice the strength of high-grade softwood. This meant that more slender timber members could be used, allowing for structural performance along with aesthetic design.

The use of white oak in Portcullis House prompted AHEC to test four commercially-important species for their strength values, so that these could be incorporated into the Eurocodes and design standards. White oak, red oak, ash and tulipwood were tested to EN338. This standard defines a range of strength classes based on values for bending strength, stiffness and density. All these values were published in AHEC’s technical guide Structural Design in American Hardwoods, which is available on the AHEC website (www.americanhardwood.org).

Interestingly, American tulipwood, although meeting the D40 strength and stiffness requirements did not have the necessary density in order to permit it to be classified.

More recently, an engineering marvel made of American white oak, features in the redevelopment of the Warner Stand at one of the world’s most iconic sporting facilities, Lord’s Cricket Ground in St John’s Wood, London. In this pioneering project, the roof of the stand is formed from 11 cantilevered glue laminated (glulam) American white oak beams, manufactured in Germany by specialist timber fabricators Hess Timber, that radiate dramatically from the corner of the ground, paving the way for brave new structural uses of sustainable American hardwoods. Each beam measures 900mm x 350mm at the deepest point. The longest glulam beam weighs approximately four tonnes and measures 23.4 metres in length, the same as 26 cricket bats lined up nose to tail. The new structure is more than an aesthetic success and crowd pleaser. It’s the first time the species has been employed in this format, on this scale, and in such a performance-critical environment – forming the primary structure of a roof projecting out over 2,674 spectators.

AHEC’s long-standing partnership with the London Design Festival has enabled it to showcase numerous ground-breaking structural collaborations using American hardwoods in iconic London locations. The first of these was in 2008, with David Adjaye’s Sclera pavilion, which used laminated and engineered American tulipwood. Perhaps even more intricate was the 12.5-metre-high American red oak Timber Wave, erected outside the entrance to the Victoria & Albert Museum in 2011.

Designed by Amanda Levete of AL A with Arup, this pushed structural design in timber to its very limits. Here, curved chords made from 7mm lamellas were glued together to form wavy laminated beams and the whole was held together with a series of cross-ties. Cross-laminated timber is quickly becoming established as an important construction material. Made from low-cost softwood, it is essentially a thicker version of plywood that is ideal for making structural wall panels and floor cassettes. So, the next structural collaborative project for AHEC at the London Design Festival set out to show that American hardwoods could also be considered as the raw material for structural CLT. The result was the innovative Endless Stair, designed by Alex de Rijke of dRMM. This complex, free-standing structure explored the first use of hardwood CLT, using American white oak.
tulipwood in this Escher-inspired series of staircases. While in situ, the Endless Stair allowed for many fine views over London and the Thames from its location outside the Tate Modern Gallery.

Building on their experience with the Endless Stair, dRMM designed the world’s first building made from hardwood cross-laminated timber (CLT) in the UK. Supported by AHEC, the opening of Maggie’s Oldham was a pivotal moment for modern architecture and construction. dRMM chose tulipwood for the design of Maggie’s Oldham for the positive influence wood has on people and for the beauty, strength and warmth inherent to American tulipwood. All in all, the project has been constructed from more than 20 panels of five-layer cross-laminated American tulipwood, ranging in size from 0,5m - 12m long, which were developed by CLT specialists - Züblin Timber.

For AHEC, Maggie’s Oldham is one of the most important developments in a decade of research and development into structural timber innovation and one that could broaden the use of CLT in the construction industry. The creation of this product and significant use of hardwood will hopefully transform the way architects and engineers approach timber construction. Tulipwood is particularly useful in structural applications given its very high strength to weight ratio. In fact, American tulipwood CLT is around three times stronger and stiffer in ‘rolling shear’ than its softwood equivalent and its potential in wood construction is extremely promising.

Through AHEC’s vision, sustainable American hardwoods are now beginning to enter new and exciting commercial markets. As the world re-embraces timber as a building material, it is hoped that they will become recognised more for the possibilities they can offer in all aspects of design and construction.
Lost art of chairmaking

By Mike Dunbar

Mike Dunbar discusses the evolution of the Windsor Chair and its influence on chair manufacturing

I became fascinated with Windsor chairs in 1971. I was in college and unwittingly purchased an antique Windsor at a yard sale. This chair was unlike anything I had seen before. I was so enthralled I had to know what it was. It turned out to be a Windsor, a type of chair developed in England shortly after 1700. By 1740, Windsors were introduced to Philadelphia. There, these chairs underwent a transformation; their designs and construction became thoroughly Americanised and, in a matter of decades, became the dominant seating form in the new Republic. They were produced in a large variety of designs and in mind boggling quantities. American chaimakers satisfied local demand and began exporting their Windsors around the world. Even more amazing, large numbers of these chairs survive after 250 years, still as tight as when made.

The story was compelling. How did these men, working with hand tools produce such large quantities, and how did they create chairs that never came apart? Unfortunately, chairmaking was an oral tradition. The old guys, long dead, didn’t leave a written record, only their chairs. That was all I had. I studied antique Windsors, especially broken examples that let me see hidden details.

Windsor chairs were an urban product, made in shops that were organised and innovative. Two generations before the Industrial Revolution they pioneered mass production by using interchangeable parts and a division of labour. Chairmakers purchased their turnings from turning shops. Other parts were made by journeymen, leaving the masters – the chairmakers – free to assemble. A good chairmaker could complete six chairs a day. Multiply that rate by all the shops in Philadelphia, New York, Boston, and other large and small American cities and you understand their production.

We are lucky to get a couple of decades out a chair purchased today.

We are lucky to get a couple of decades out a chair purchased today. However, 250-year-old Windsors are so plentiful they are a staple of the American antique market. And, thanks to their unique joinery and engineering most are
It divides the chair into two systems, the undercarriage and back, also serving as the anchor for these two divisions. This construction is unique to Windsors. In most chairs, the rear legs extend upward to frame the back. For their seats, chairmakers preferred pine, bass, chestnut, or poplar, whichever was locally available. These woods were soft, easy to carve, and compressible.

The undercarriage – the legs and stretchers – is turned from maple or birch – strong, stiff woods that turn cleanly, allowing crisp details. The leg tenons are conical, rather than cylindrical, and are fitted into reamed holes in the seat. They create a locking taper, a device well known to turners. A locking taper secures a lathe’s drive centre into the headstock spindle. Should a Windsor’s leg joints ever loosen the act of sitting drives the tapered tenons into their sockets, re-establishing the lock. Use – the act of sitting – slowly tears other types of chairs apart, while sitting in a Windsor tightens it. The concept is positively sublime.

Strong and reliable leg joints make possible another contribution to Windsors’ legendary durability. Unlike other types of chairs, Windsor stretchers do not hold the legs together. In other words, their joints are not in tension. Rather, Windsor stretchers are made slightly over-long, so they push the legs apart. As a result, the joints are in compression and cannot come apart even if the glue fails.

The chair back is equally strong as the undercarriage, but in a different way. It is tough rather than rigid, very much like a suspension bridge. A suspension bridge works by being a tough, flexible web anchored at both ends in concrete. Similarly, a Windsor chair back is anchored by maple stumps and short spindles, canted forward to resist the weight of the sitter’s torso.

The back is a web created by the horizontal arm and bow and vertical long spindles. These are all made ofoak, a flexible wood. The stock is obtained by splitting (riving) directly from the log. This process results in continuous grain from end to end, avoiding weakness caused by run out. Standing behind a Windsor you can watch the tough web of the back flex as it absorbs the sitter’s weight.

In 1981 I began teaching Windsor chairmaking across the US and Canada. In 1994 my wife and I founded a school – The Windsor Institute – giving the craft a permanent home. About 6,500 people from five continents took a class with us. Our retirement raised such a clamour from disappointed woodworkers that we needed to provide a solution. We did. I videotaped our celebrated introductory class and posted it on a YouTube channel – The Windsor Institute. Now, anyone throughout the world can take our sack back class without leaving home.

In the early 1970s Mike Dunbar revived the lost craft of North American Windsor chairmaking. He made Windsors and taught others for more than 45 years.
Education is key

Contributing towards the strengthening of an industry: Furntech develops furniture industry entrepreneurs, businesses and learners

Education is the heart of socio-economic development, as the level of literacy and numeracy is a key driver of employment and entrepreneurial opportunities and thus economic growth. The manufacturing sector is being hampered by a shortage of qualified manpower; however, there is also a realisation that the skill set required has changed. There is a need for more advanced (high-tech?) manufacturing skills thus the curriculum of many existing qualifications needs to be updated in line with demand requirements.

Vocational skills needed for a vibrant manufacturing sector are also non-existent. We need a system that can produce a regular supply of artisans with the appropriate level of skills. The level of skills must be based on demand to avoid potential skill mismatches.

The government seeks strategies to expand the current provision of education and training in South Africa, to improve its quality, to integrate the various strands of the postschool system, and to set out modalities for ways in which employers in both the private and public sectors can play an important role in the creation of a skilled labour force. These strategies have not been able to produce the required results, though there are positives visible. It noted that, despite the advances made since the advent of democracy, the education system continues to replicate the divisions of the past. The institutional landscape is still reminiscent of apartheid, with disadvantaged institutions, especially those in rural areas of the former bantustans, still disadvantaged in terms of infrastructure, teaching facilities and staffing.

Business incubation and skills training provider, Furniture Technology Centre Trust (Furntech) plays an important role in this sphere by offering an innovative range of programmes for individuals, existing and start-up businesses in the furniture and wood products sector. Business incubation is internationally recognised and Furntech is the leading developer of a sustainable model for manufacturing incubation in the South African furniture and wood products sector. Michael Reddy, Furntech’s CEO, says the organisation’s reputation has extended beyond South Africa and the company has participated in international incubation conferences.

Reddy describes Furntech’s incubation service as a flexible combination of skills training and business development processes, infrastructure and people. It is designed to nurture and protect new and existing small businesses by supporting them through early development and growth stages. “The objective is to develop new small businesses and assist existing small business in the furniture and wood products sector, and our programmes provide a protected and mentored environment wherein a new business can be established,” he says.

The incubation process promotes entrepreneurship and encourages the formation and development of sustainable and registered small and micro businesses. “The incubation process has its foundations in Furntech’s skills development activities. The skills development process has been designed to benefit both the employee and the employer,” says Reddy.

All Furntech centres are accredited by the Fibre Processing and Manufacturing Sectoral Education and Training Authority (FP&M SETA) to offer learnerships and skills programmes at National Qualification Framework levels 1 – 4, or basic and advanced short courses in a range of skills including:

- Cabinet Making
- Wood Finishing
- Wood Machining
- Upholstery
- CNC Manufacturing
- Shop Fitting and making and installing kitchens and cupboards
- Coffin Making
- Wooden doors and windows

The success of the Furntech Model is based on the combination of business technology incubation and skills development as significant drivers of international competitiveness and organisational development.

“The objective is to develop new small businesses and assist existing small business in the furniture and wood products sector, and our programmes provide a protected and mentored environment wherein a new business can be established.”
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