

CONCRETE CONNECT

BUILDING THE FUTURE – LAYER BY LAYER

ISSUE: 5/2025



ABECE Concrete Roof Tile Equipment: The Smart Choice for South Africa

CULVERTS CHOSEN FOR
MBOMBELA BRIDGE REBUILD

REDEFINING THE
BACKHOE LOADER

RE CYCLING REJECTS AND
OTHER CONCRETE WASTE

SOME TEAMS WORK BEST UNDER PRESSURE.



New pressure booster systems for water supply applications.

With its Delta product family, KSB offers the right pressure booster system for every application.

A dependable and economical operation is characteristic of our reliable and efficient pressure booster pumps. Easy installation and commissioning save time and stress.

Visit www.ksb.com/en-za for more information or contact our sales team

KSB
BUILDING SERVICES

W: www.ksb.com/en-za
T: +27-11-876-5600



CONTENTS

COVER STORY



ABECE CONCRETE ROOF TILE EQUIPMENT: THE SMART CHOICE FOR SOUTH AFRICA

- 02 ABECE Concrete Roof Tile Equipment: the smart choice for South Africa
- 07 Development bank calls for bankable projects
- 08 Quality of cement is critical to our future
- 11 Mobile adhesives support van launched
- 13 New premises for stalwarts
- 14 Academy pumps out the next generation of experts
- 16 Municipalities must insure what they build
- 18 Local engineering manufacturer leads the way in Southern African roof tile manufacturing industry
- 21 How to build concrete drainage channels in your garden
- 22 The confidence behind concrete
- 26 Momentum builds at Conradie Park with launch of Signal



- 27 Culverts chosen for Mbombela bridge rebuild
- 28 Understanding building employee rights
- 30 TLBs: for concrete plants & construction sites
- 34 Redefining the Backhoe loader with Manitou
- 36 Polymers improve earthmoving equipment reliability
- 37 FAW trucks strengthens focus on construction and concrete sectors
- 38 Powerhouse bakkie launches in SA
- 39 Water levels in construction essential tool, costly mistakes
- 40 Recycling rejects and other concrete waste
- 42 107 metre converter stack demolished at Phalaborwa mine
- 43 Materials handling solutions from a global giant.
- 44 CMA Members list



Endorsed by



Publisher & Advertising: Andrew Meyer (Owner)
Cell +27 (0)82 456 5175
E-mail: Andrew@concreteconnect.co.za

Editorial Director: Raymond Campling (Owner)
Cell +27 (0)76 297 2775
E-mail: Raymond@concreteconnect.co.za

Production & Administration: Lynn Malcolm
Cell +27 (0)84 031 3057
E-mail: Lynn@concreteconnect.co.za

Design & Layout:
dv8ion.creative

Technical Support:
Tech Xperience

Distribution:
Mail Blaze

Publishing Platform:
ISSUU

The views expressed in this publication does not represent those of the publishers or advertisers. While every effort has been taken to ensure the accuracy of the content, the editor, writers or publishing house can't be held responsible for any omissions or errors or damages that might arise from the content. No part of this publication can be reproduced in any form without written permission from the publishers.

ABECE CONCRETE ROOF TILE EQUIPMENT - THE SMART CHOICE FOR SOUTH AFRICA

“ABECE machines are built to last and are designed to endure decades of operation with minimal major overhauls.”



Andreas Hasselmosse- ABECE Sales Manager

Rooftile manufacturers are turning to quality production equipment to produce concrete rooftiles that are more in keeping with modern developers requirements for durable and cost-effective rooftiles that are more aesthetically appealing with stronger colours and finer finishes.

For local tile producers the acquisition of ABECE equipment gives them an edge in a highly competitive roofing market where every cent counts. The advanced machinery maximises efficiency and reduces material usage with the added benefit of allowing individual producers to continuously develop their product lineup and introduce new innovations that are constantly being developed by the equipment manufacturer.

ABECE is a Swedish company with more than 100 years of industrial experience. Its machinery for concrete roof tile production is built tough and capable of operating reliably in even the most challenging African conditions. Supplied locally by PMSA the equipment ranges from small-scale manual units producing 500 tiles per day to fully automated plants capable of producing over 60 000 tiles in a standard shift.

According to ABECE sales manager, Andreas Hasselmosse, the company has fine-tuned its equipment in response to global demand for the production of tiles that are less expensive to produce with modern innovations that allow them to easily exceed functional and especially aesthetic demands of the buying public. This puts producers in a strong position at the busi-



Robot with large stick



ABECE M32 extruder and double servo knife

ness-end where world-class, aesthetically pleasing tiles can be produced at a lower cost per tile compared to traditional tiles.

Local advantage

"Having spent more than a decade in South Africa and now working back at head office, it is a huge advantage for the company to understand South African conditions and the specific challenges for tile manufacturing. These range from area to area and includes anything from varying sand quality and temperature extremes to local labour availability price sensitivity and pressure from low-cost manufacturers.

"As a result our machines are designed to tackle these realities. Models such as the SPS extruder feature dual stop-start safety functions while the extrusion head is fully accessible to allow operators to maintain and clean it efficiently even in smaller production plants. This type of ease of operation is the kind of adaption we have made for local producers to ensure lower learning curves for new staff while also minimising downtime due to maintenance issues," says Andreas.

He explains that not all concrete tile manufacturing equipment is created equal. One of the most significant advantages of ABECE roof tile equipment is the ongoing research and development by the manufacturer to improve products that can be produced with its machines. An example is the constant improvement of existing profiles such as the Double Roman tile which has led to the development of a new tile that uses 6.4% less material, is lighter and equally strong as current designs yet can still be used in place of existing Double Roman tiles.

In practice, this translates to up to a reduction in both material consumption and end-product weight which is an impressive saving in a business where even small efficiencies dramatically impact profitability.

The reduction in weight and material also benefits logistics. Lighter tiles reduce transport costs and handling issues on site, while the precision of ABECE machines ensures every tile produced is consistent in dimension and quality. For manufacturers this precision minimises breakages, reduces waste and maximises the usable output from raw materials. This is an important consideration in parts of the country where sand quality can vary significantly depending on the source. ABECE machines are engineered to accommodate different sand types without compromising tile density or structural integrity giving manufacturers more flexibility when sourcing materials locally.

Efficient curing

In addition, quick and balanced curing systems are available to mitigate loss-

es as a result of weather events as well as being less likely to crack, chip or warp which saves manufacturers costs related to rejected or returned tiles. As energy prices continue to increase the use of ABECE Greenbox provides manufacturers with a smarter solution where the exothermic reaction of the concrete is utilised to maintain the heat needed for the tiles to cure.

Andreas adds that correct curing ensures that concrete tiles achieve optimal strength and durability faster and tiles are stronger which directly reduce warranty claims and improve the long-term reputation of the manufacturer. ABECE equipment integrates advanced curing systems that control temperature and humidity, creating ideal conditions for tiles to cure and harden without additional heating and energy usage.

As the sole distributor of ABECE concrete tile manufacturing equipment in southern Africa, PMSA is well positioned to supply and support the machines through its branch network. It is also best positioned to meet market trends for tile profiles and finishes. This

Twin loader





provides the kind of flexibility that is required locally with new trends and architectural styles often driving sales. These range from classic Roman styles to Tudor and a variety of other tile profiles in a variety of colours and finishes.

PMSA's Quintin Booysen explains that colour consistency in tile production is a significant advantage with ABECE machinery. "In competitive markets, like ours, aesthetically uniform tiles command higher prices and coatings applied during production or through-coloured concrete tiles provide longevity over post treated painted roofs. Multi-colour and antique effects can also be added to give architects and developers the freedom to offer visually distinct roofs without compromising on tile performance.

"PMSA offers producers the ability to manufacture tiles that are lighter, stronger and more consistent than older production methods and our range of solutions allow companies to experiment with designs that meet evolving market trends. This ability to produce a variety of profiles allows manufacturers to innovate as well as respond more quickly to consumer demands without

the need for multiple machines," says Quintin.

Market trends

Concrete roof tiles are seeing increased sales in both urban and rural developments due to their durability and low maintenance requirements. According to recent market research the South African concrete roof tile market is expecting an annual growth of 5-7% due to urbanisation, residential expansion and commercial construction projects.

This growth is driving demand for high-capacity and reliable production equipment capable of producing large volumes without compromising on quality. ABECE's modular systems also allow manufacturers to scale up production as demand increases and the long-lasting nature of the equipment ensures that producers can scale their operations over the years as demand increases.

ABECE machines are "built to last" and are designed to endure decades of operation with minimal major overhauls. This durability aligns with South African producers' need for reliable returns on investments. Solid local support through PMSA also means operators can receive training, guidance and troubleshooting assistance quickly to ensure production targets are consistently met.

For local investors or existing plant owners considering establishing a concrete roof tile manufacturing plant in South Africa the case for ABECE machinery is compelling:

- Ongoing support and innovation

ensures customers can adopt the latest tile designs and innovations to make stronger, lighter and more cost-effective tiles.

- Versatility: Multiple tile profiles, finishes and trim options to suit the local market.
- Curing excellence: ABECE Green-box curing systems provide a smart solution where the exothermic reaction of the concrete is utilised to maintain the heat needed for faster more efficient tile curing.
- Market alignment: Machines designed to meet current and growing demand in the R1-billion plus South African roof tile market.
- Local support: PMSA provides training, spare parts and technical assistance, ensuring minimal downtime.
- Sustainability: Reduced material use, lower energy consumption and environmentally friendly design.
- Long-term reliability: "Built to Last" philosophy ensures decades of productive operation.

"When investing in an ABECE solution producers are buying machinery capable of handling the unique challenges of the South African market with an extremely competitive edge due to the exceptional quality and operational efficiencies. Whether producing small volumes for niche markets or high-volume output for large-scale housing projects, PMSA has an ABECE solution to meet any requirements," Quintin concludes.

Roof tile manufacturers are turning to quality production equipment to produce concrete roof tiles that are more in keeping with modern developers



Quintin Booysen - PMSA

requirements for durable and cost-effective roof tiles that are more aesthetically appealing with stronger colours and finer finishes.

For local tile producers the acquisition of ABECE equipment gives them an edge in a highly competitive roofing market where every cent counts. The advanced machinery maximises efficiency and reduces material usage with the added benefit of allowing individual producers to continuously develop their product lineup and introduce new innovations that are constantly being developed by the equipment manufacturer.

ABECE is a Swedish company with more than 100 years of industrial experience. Its machinery for concrete roof tile production is built tough and capable of operating reliably in even the most challenging African conditions. Supplied locally by PMSA the equipment ranges from small-scale manual units producing 500 tiles per day to fully automated plants capable of producing over 60 000 tiles in a standard shift.

According to ABECE sales manager, Andreas Hasselmos, the company has fine-tuned its equipment in response to global demand for the production

of tiles that are less expensive to produce with modern innovations that allow them to easily exceed functional and especially aesthetic demands of the buying public. This puts producers in a strong position at the business-end where world-class, aesthetically pleasing tiles can be produced at a lower cost per tile compared to traditional tiles.

“The company has fine-tuned its equipment in response to global demand for the production of tiles that are less expensive to produce and still easily exceed functional and aesthetic demands of the buying public”



A.Shak Construction Chemicals offers a wide range of products:

- Bonding Agents
- Chemical anchors
- Concrete bonding
- Concrete crack repair
- Concrete release agents
- Concrete repair mortars
- Curing compounds
- Epoxy adhesives
- Epoxy grout
- Joint sealants
- Non-shrink grouts
- Precast repairs
- Waterproofing

**Our Coatings and Bonding Agents are
low in VOC's and comply to
ISO 6503:1984 for lead content.**

Providing quality products to the South African
Construction industry for 67 years.

DEVELOPMENT BANK CALLS FOR BANKABLE PROJECTS

Africa's greatest obstacle is not a shortage of capital but a shortage of bankable projects. That was the central message from the PMI Global Summit Series Africa in Kigali, where African Development Bank leaders and nearly 1000 delegates emphasised that poorly prepared projects remain the biggest barrier to the continent's transformation.

The Summit, the largest of its kind on the continent, served as a powerful platform to discuss how Africa can turn its vast potential into reality through bankable projects, professional project management and strategic partnerships that deliver long-term impact.

In his special address, Dr. Akinwumi Adesina, President (now former), African Development Bank (AfDB), emphasised that Africa is at a pivotal moment in history. "The world is becoming more African," he said, noting that one in four people on the planet will soon be African. With 65% of the world's uncultivated arable land, abundant critical minerals for the green transition and 13 of the world's fastest-growing economies, Africa is poised to drive global prosperity.

Yet to realise this potential, he stressed, Africa must close its infrastructure gap, estimated at \$70 billion annually and ensure that projects deliver real impact. "Projects must not just exist on paper," Adesina said. "They must change lives. As one Kenyan beneficiary told me, 'We once were in darkness. Now we have light.' That is the true measure of success."

Adesina highlighted the AfDB's Top five priorities: Light up and Power Africa, Feed Africa, Industrialise Africa, Integrate Africa and Improve Quality of Life, which have already impacted over 565 million people. From expanding electricity access to building transport corridors and digital infrastructure, he emphasised that projects are the vehicles of transformation.

"At Project Management Institute (PMI), we believe project success

is not measured only by schedules and budgets, but by outcomes that change lives. Dr. Adesina captured this perfectly when he said projects must change lives," said George Asamani, MD, PMI Sub-Saharan Africa. "Africa's future will be shaped not by the number of projects we launch, but by the impact those projects deliver."

Building on this vision, Armand Nzeyimana, Director, Development Impact and Results Department at the AfDB, spotlighted a persistent obstacle: the shortage of well-prepared, bankable projects.

He explained that a bankable project is one that meets three essential tests: technical feasibility, with proven designs and resilient standards; financial viability, with clear revenue models and acceptable risk-return profile for investors; and robust risk management, where currency, political and market risks are identified, allocated and mitigated. "Without these fundamentals," Nzeyimana said, "even the most noble intentions cannot secure the financing needed to move from paper to reality."

He warned that poor preparation comes at a steep cost. Projects designed for five years often stretch to eight or more, with completion timelines extended by up to 50%. "The cost of delay is not just financial, it is developmental," he said. "Every missed deadline slows progress on the Sustainable Development Goals and leaves millions waiting for essential services. Today, 600 million Africans remain without electricity. That statistic will not change without bankable projects."

The choice of Kigali as host city reinforced the Summit's theme, "Africa On Purpose." Rwanda's rapid transformation, ranging from major infrastructure investments to its growing role as a hub for tourism, sport and innovation, offered delegates a vivid demonstration of purposeful leadership and disciplined execution. "Kigali is changing by the day," Adesina noted "and it

shows what is possible when vision is matched with planning and delivery."

Throughout the Summit, a clear consensus emerged: project management is not just a discipline but a strategic enabler of Africa's transformation. By embedding PMI's global standards, certifications, and methodologies into Africa's project landscape, the continent can build the capacity needed to deliver transformative projects at scale.

Adesina proposed a deeper strategic alliance between PMI and AfDB. "Even as I near the end of my term, I see extraordinary opportunities for the AfDB and PMI to forge a strategic alliance that raises global standards in project delivery. We can create learning partnerships that blend PMI's global methodologies with the Bank's deep experience in cross-border initiatives, while building the next generation of African project professionals among the world's most capable. Africa is brimming with opportunities, but to seize them, we must develop and execute projects at scale, with excellence and purpose."



Armand Nzeyimana AfDB



George Asamani, PMI

QUALITY OF CEMENT IS CRITICAL TO OUR FUTURE



AfriSam continues to prioritise quality across its cement, aggregate and readymix concrete operations.

In a construction landscape where cost pressures are rising, AfriSam's Amit Dawneerangen is raising a red flag cautioning contractors that cutting corners on material quality may appear cost effective in the short term, which compromises the long-term performance and value of infrastructure.

As the executive for sales and product technical at AfriSam, he sees worrying signs of a growing trend across public and private sector projects where the drive to reduce costs is resulting in widespread 'buying down' on material quality. "The foundation of any durable and cost-effective infrastructure project lies in the quality of materials used. Cement, aggregates and readymix concrete must meet rigorous standards if structures are to withstand time and usage.

"Quality is the basis for longevity in construction projects yet, there is an increasing appetite for lower quality alternatives that may meet the immediate budget but not the design intent or long-term performance requirements. Infrastructure investment remains one of the most powerful tools for economic growth, with a proven multiplier effect. But the benefits only materialise if the projects built are sustainable - both structurally and financially."

Dawneerangen points to AfriSam's own commitment to quality assurance, noting that all its cement products are produced in ISO 9001-certified facilities and conform to SANS 50197 requirements. On road projects especially, material testing is critical. AfriSam applies globally recognised method-

ologies such as Los Angeles Abrasion, Polished Stone Value and California Bearing Ratio tests. Its quarries produce a range of products from G1 to G7 for layerworks in line with COTO and other relevant specifications and most also supply stone and crushed sand for asphalt production.

Yet despite the availability of tested compliant materials, Dawneerangen is seeing a shift in specifications that opens the door to lesser products. From an aggregate perspective, the traditional 'blue' rock - competent material mined from deeper layers - has always been preferred for its high compressive strength. Increasingly, however, this is being blended with overburden or 'brown' material, resulting in downgraded specifications. These blends are being embraced as a



Water infrastructure, including reservoirs, pipelines and treatment facilities, requires materials capable of withstanding continuous moisture, pressure, and chemical exposure.

cheaper alternative even though they may compromise structural integrity.

The practice has also led to a rise in illegal mining operations where unregulated borrow pits offer free-dig material with minimal processing costs. "There is no drilling or blasting required. It is a quick fix for contractors chasing margins. But it undermines legal operators who invest in compliance and quality," he says.

The same trend is evident in the readymix sector. AfriSam, traditionally known for supplying premium strength concrete upwards of 35 MPa, has seen demand shift below the 30 MPa mark. "The drop in average strength tells its own story. Affordability is driving decisions but at what long term cost?"

Dawneerangen emphasises that using subpar materials often results in hidden costs. Inconsistent properties can lead to rework, premature failure and costly delays. "The right material used in accordance with design specifications eliminates the need for unscheduled corrective work," he says. "So-called cheap materials can end up being very expensive."

Working with a reputable supplier is non-negotiable. AfriSam's vertically integrated offering from quarry to cement plant to readymix site ensures that quality is consistently monitored throughout the value chain. The company's SANAS 17025-accredited Centre of Product Excellence collaborates closely with customers to tailor solutions to specific applications, backed

by in-house labs and quarterly testing.

He also notes the importance of sourcing aggregate from legally registered quarries. Unfortunately, no such structure exists in the readymix industry which has become highly deregulated. This has created space for opportunistic suppliers who under-yield or engage in questionable practices, often undercutting responsible operators on price while delivering poor product quality.

AfriSam's technical experts perform daily process control and product testing to ensure consistent performance.



Ultimately the message is clear. South Africa cannot afford to sacrifice infrastructure integrity for short term savings. "Adherence to quality control guarantees successful execution of projects on time and within budget. With the role that infrastructure plays in our country's future, we must stop seeing quality as optional. It is the smartest investment we can make."



GEAR UP IN STYLE WITH

CLOTHES THAT WORK AS HARD AS YOU DO!

Stay warm, sharp, and on-brand with Refined Cuts – your go-to supplier for high-quality hoodies, jackets, and durable workwear. Whether you're outfitting a team or refreshing your uniform range, we combine local manufacturing with expert craftsmanship to deliver premium, custom-branded apparel that stands out. Get in touch today for a quote that fits your style and budget!



**BUSINESS
MEETS
CASUAL**

REFINED CUTS



+27 82 211 1130

ORDERS@REFINEDCUTS.CO.ZA

MOBILE ADHESIVES SUPPORT VAN LAUNCHED

Adhesives manufacturer, Henkel South Africa, has launched its first Loctite mobile training unit designed to bring hands-on product support, technical training and adhesive demonstrations directly to its users.

The mobile van was unveiled in Johannesburg in partnership with Randel, a proudly South African SME and trusted logistics partner to Henkel for over a decade. The move marks Henkel's commitment to educating users on the correct use of adhesives while also promoting skills development and training.

"The primary goals of this initiative are to bring technical training and product knowledge directly to the people and places that need them most from remote worksites and industrial areas to educational institutions," said Natasha Naidoo, director of adhesives industrial, Henkel South Africa. "This is about improving standards, empowering youth and giving SMEs the tools and support they need to grow and compete on a larger scale."

Fully equipped with demonstration stations, industry-specific simulation tools and a variety of digital resources, the Loctite mobile van is built to deliver on-site training that is tailored to sectors such as mining, manufacturing, construction and automotive repair. The rollout will start in Gauteng, with plans for a nationwide expansion.

"This project means growth for us, for Henkel and for every community we visit. It creates awareness, uplifts small businesses and brings professional-grade training to people who may never have had access before. The Mobile Van isn't just transport, it's a moving opportunity," said Kreolan Pillay, managing director of Randel.



CONCRETE MOULDS

Industrial quality polyurethane and steel moulds. Custom made moulds...

Please contact Nigel Brown for information:

Tel. (064) 658-7556
outeniquarust@gmail.com
 13 Buitekant Street
 George Industria
 George, 6529



CONCRETE QUALITY YOU CAN TRUST



Our Services

TESTING & QUALITY:

- Custom Mix Designs
- Reliable Concrete Testing
- Comprehensive Audits

SUPPORT & TRAINING:

- Hands-On Training
- Expert Consulting
- Lab Equipment Supply

Our team is ready to support you in delivering top-quality results on every project.
Reach out today and let us be your trusted partner for success!

Scan & Subscribe



STAY INFORMED

Subscribe to our newsletter for expert
tips, tricks and insights.

📞 011 869 6803

✉️ info@conpro.co.za

🌐 conpro.co.za

NEW PREMISES FOR STALWARTS

One of South Africa's best-known industrial manufacturing and engineering services conglomerates, 2Roads Group, recently announced the relocation of its member companies Paltech, Groupline Projects and PSC Integrity to the newly developed 2Roads Industrial facility at 7 Simgold, Germiston, effective September 2025.

This move strengthens 2Roads Group's commitment to sectors including concrete, power generation, chemical, mining, oil and gas among others by consolidating operations in a cutting-edge facility designed to enhance collaboration and operational efficiency.

Paltech, renowned for manufacturing high-quality valves, supplies the

concrete industry with DN200 Butterfly Valves, vital for flow regulation in concrete processing plants. Groupline Projects brings specialised expertise in wear lining, offering ceramic wear-lining installations that protect chutes, silos and bins from the abrasive conditions typical in concrete production facilities. These services significantly extend equipment lifespan and reduce maintenance costs ensuring consistent productivity for concrete manufacturers.

"Relocating Paltech, Groupline Projects, and PSC Integrity under one roof at 2Roads Industrial is a strategic step to better serve diverse industries, including the concrete sector. Our combined capabilities in manufacturing, maintenance and protective solutions

allow us to deliver tailored, reliable services that help clients optimise their operations," says Kingsley Duba, executive chairman of 2Roads Group.

About 2Roads Group

2Roads Group is a leading South African industrial manufacturing and engineering services company comprising eight member companies, including Paltech, Groupline Projects and PSC Integrity. The Group specialises in manufacturing, maintenance, inspection, testing and repair of process flow equipment such as valves, pumps, vessels and pipelines. Serving sectors including concrete it is dedicated to innovation, quality and social impact.



ACADEMY PUMPS OUT THE NEXT GENERATION OF EXPERTS



KSB SupremeServ Academy was established to provide knowledge and skills to people and partners needed to successfully repair, maintain, install and fault-find KSB products and related equipment

As a major supplier of pumps and valves to the concrete and construction industry, pump manufacturer, KSB Pumps and Valves, has invested in a specialised training centre designed to equip internal and branch staff, as well as certified partners with in-depth knowledge of KSB products and systems. Clients are also catered for with provision of 1st line maintenance and operator training

According to Craig Hawkins, who heads up the SupremeServ Academy the initiative was started due to the growing need for skills development across KSB's service value chain particularly in support of the company's broad pump portfolio.

"Our academy is designed to arm our people and partners with the knowledge and skills needed to successfully repair, maintain, install and fault-find KSB products and related equipment. It also aims to ensure that end-users are educated in how to operate our pumps efficiently and reliably," says Craig.

He explains that the training offered at the SupremeServ Academy has been created to suit a wide audience including artisans, technicians, engineers, sales teams, certified service partners and clients. It encompasses over 280 training modules, covering everything from basic pump theory, pump selection and industry-specific applications to model-specific maintenance, val-

ue-added products like Pump-Guard and even site installation and set-up simulation training.

These modules vary in duration ranging from one-day sessions to week-long courses and offer a blend of theoretical and interactive content depending on the needs of participants. While the Academy is currently not a profit generating centre, course costs are structured to cover facilitator fees, training materials and related travel or accommodation expenses particularly when sessions are delivered off-site.

"Knowledge is power and by completing our courses our staff improve their skillsets and meet personal development goals. Certification also assures our clients that our work is being carried out by qualified professionals," Craig adds.

He continues that training is mainly held at the company's Jet Park-based facility, where a well-equipped lecture room accommodates up to 16 participants. The room features a Clevertouch screen, individual workstations, display models of pumps, components and amenities including tea, coffee and light meals.

Although still in its early stages the academy has already hosted several successful courses including SAPMA's advanced pump training and API standards overview. Upcoming sessions designed for specific industry person-

nel such as for boiler water circulating pumps for our energy partners, are already scheduled.

Phase two of the Academy, which is currently underway, will include a dedicated practical workshop at KSB's SupremeServ Jet Park centre allowing for hands-on training and product familiarisation. These sessions are tailored to needs and will also benefit field service teams who support critical installations such as power stations, water reticulation, Petro-chemical, paper industry as well as other industry sectors

Internal training is coordinated through department heads, while its clients typically make contact via sales or contracts/projects teams, or directly through SupremeServ



Craig Hawkins heads up the KSB SupremeServ Academy

CONCRETE CONNECT

BUILDING THE FUTURE – LAYER BY LAYER

SUBSCRIBE FOR FREE

**Scan this QR code & make
sure you never miss an issue.**

Join 6000 plus readers in the industry and
make sure you are in the know when it comes
to the concrete and construction market.



follow us on:  

MUNICIPALITIES MUST INSURE WHAT THEY BUILD



In April 2022, heavy rains caused catastrophic flooding in KwaZulu-Natal, claiming over 400 lives and damaging infrastructure and homes. The eThekweni Municipality infrastructure damage cost about R25 billion.

The disaster exposed vulnerabilities in municipal asset management and insurance coverage with reports indicating that large portions of critical infrastructure were uninsured or under-insured. While some accounts suggest only one-third of key assets were adequately insured this ratio has not been confirmed in public municipal records. The infrastructure crisis wasn't about aging systems or maintenance backlogs it was a failure to manage risk.

For the construction industry it is clear that South African municipalities face a dilemma. As climate threats intensify insurance companies are retreating from high-risk zones. This is creating a coverage crisis and forcing a revolution in how municipalities manage infrastructure. And within this crisis lies an opportunity.

According to the South African Insurance Association (SAIA) the risk landscape for non-life insurers is evolving, with industry data showing that weath-

er-related claims including storms and hail have increased significantly in recent years. While fire remains a major cause of loss in some commercial sectors, improved prevention measures have helped to mitigate certain fire risks. In response to these shifts, insurers and municipalities are exploring ways to collaborate more closely, using insurance mechanisms not only as post-disaster safety nets but also as levers to incentivise infrastructure resilience and risk-reduction initiatives.

The crisis behind the crisis

South African municipalities seem to face a simple infrastructure problem. But dig deeper, and a more complex challenge emerges: many cities don't know what they own.

Pam Ramagaga, insurance risks general manager, SAIA, said, "Many municipalities can't tell you the exact number of transformers they have, let alone their condition."

This knowledge gap isn't just an administrative headache it's becoming an existential threat. When the 2022 KZN floods hit, many municipalities discovered that their infrastructure valuations were decades out of date. Some critical assets weren't listed at all. Insurance claims failed not because of the

disaster, but because cities couldn't prove their losses.

The evidence is clear. A 2025 national study covering 1980-2023 shows a significant increase in hydrological and meteorological disasters. Yet, the conventional wisdom that municipalities need more funding misses the point. Municipalities with accurate asset registers and regular maintenance face lower insurance premiums even in high-risk zones. The problem isn't just money it's how cities manage what they have.

Transforming through insurance

This reality is forcing a fundamental shift in municipal governance. Municipal assets need to be physically verified, geotagged, valued and captured into a GIS-enabled register integrating engineering, financial, legal and disaster-management data. Annual re-valuations will ensure insurance coverage reflects true replacement costs with pre-loss documentation embedded into routine operations.

This modernised asset governance will support a multi-layered disaster-risk financing strategy, combining fit-for-purpose insurance, contingency reserves and access to concessionary credit guided by hazard-exposure

mapping to prioritise resilient infrastructure investment.

A promising innovation comes from Australia's municipal insurance model. There, municipalities use mutual companies for insurance, enabling a unified risk management system across local governments. This centralised approach allows officials to access a comprehensive dashboard view of the risks facing different municipalities.

"If we adopt the Australian model we can create our own captive for municipalities to contribute equitably," said Ramagaga.

Centralising municipal risk management offers several advantages. Uniform risk management standards means municipalities can operate according to consistent guidelines, promoting fairness and efficiency. This approach allows the national government to exercise better oversight and control, ensuring cohesive risk management across the country. To make insurance and risk mitigation more affordable and achieve significant cost savings, municipalities should pool risks. Centralisation improves coordination and facilitates a more effective response to large-scale events, enhancing the resilience of municipal operations.

Implementing a centralised municipal insurance programme would require overcoming several challenges and meeting specific requirements. Legislative changes would need to be enacted to enable such a system, involving cooperation and coordination among various government levels. Significant resources would be necessary for effective implementation and ongoing management. The National Treasury would drive this initiative as the primary agency overseeing the development and operation of a centralised risk management system for municipalities.

The national treasury has the power to do this they've got the mandate from a fiscus protection perspective.

The path forward

It's a vicious cycle. Without insurance, municipalities can't rebuild after disasters and without proper infrastructure management they can't get insurance. Breaking this cycle requires technical solutions and a fundamental reimagining of how cities manage their assets.



CONCRETE ROOF TILE EQUIPMENT USED WORLDWIDE SINCE 1985



**THE ONLY EQUIPMENT MANUFACTURER IN THE
SOUTHERN HEMISPHERE PRODUCING HIGH SPEED
CONCRETE TILE EXTRUSION PLANTS**

**EXTRUSION MACHINES
CAPABLE OF MULTI-PROFILE
PRODUCTION**



**OVER 100 CONCRETE ROOF
TILE PLANTS INSTALLED
IN AFRICA**



**OVER 1000 DIFFERENT SPARE PARTS SUPPLIED
DIRECTLY FROM OUR STORES IN SOUTH AFRICA**



Manufactured by
Jessop & Associates (Pty) Ltd

Tel: +27 16 421 2521
E-mail: sales@protile.co.za

www.protile.co.za



LOCAL ENGINEERING MANUFACTURER LEADS THE WAY IN SOUTHERN AFRICAN ROOF TILE MANUFACTURING INDUSTRY



JESSOP & ASSOCIATES PTY LTD, the only South African based equipment manufacturer specialised in concrete roof tile plants, has satisfied this industry and its market for more than four decades.

Since launching, the PROTILE® Double Roman tile profile, as an SABS approved design, in 1986,

Jessop & Associates went on to design and launch into various concrete roof tile markets the well-known PROTILE® TUSCAN tile, loved by local and Brazilian architects and extensively manufactured by Jessop & Associates clients, then followed by the PROTILE® SHINGLE tile profile developed for the Australian market now popular in South Africa and across borders.

HIGH SPEED EXTRUSION

Jessop & Associates from its factory in the Vaal Triangle, is the only equipment manufacturer in the whole of Africa capable of manufacturing and installing as turnkey projects the specialised plant and equipment for high-speed continuous extrusion of concrete roof tiles, at speeds up to 100 tiles per minute. In fact, there are probably only three companies world wide with this capability, with the other Companies only having local agents who import such equipment.



The PROTILE® P70HD, capable of extruding 100 tiles per minute.

FORMING THE ROOF TILE

Using the critical mix design parameters, the high-speed extrusion process requires precise control of concrete flow in the extrusion head. The PROTILE® Double Roman Mk VI aluminium pallet is a far cry from the earlier Mk II Double Roman pallet of the 1980's.

Since the bottom surface of the concrete roof tile is completely formed via the detailed design of the aluminium pallet, it goes without saying that a lot of the success in terms of "compaction" or extrusion density lies in the pallet design.

The material flow enabled by the design of the aluminium pallet is of course critical. This becomes more apparent at the higher extrusion speeds. These high production tile plants need to create a fine balance between tile body thickness, typically, within a tolerance of 10.5mm to 11mm $\pm$ 0.25mm, and tile depalleting strength which could be as low as 900 Newton at 24 hours testing.



Thickener components of extrusion head in Tungsten



Grahame Jessop, Managing Director



Ronald Jessop, Director

PASSING ON THE KNOWLEDGE

The founder of Jessop & Associates, Grahame Jessop, started his career in the concrete roof tile industry with a UK based company in 1978. After completing four major tile plant projects with this company, he launched Jessop & Associates in 1985. Now, with over 130 tile plants in 36 countries, the PROTILE® Equipment Brand is synonymous with quality in many parts of the world.

Passing on this vast experience has been an ongoing journey undertaken by Grahame Jessop, significantly through the presentation of more than 12 seminars and workshops both locally for the African market and internationally in South America and Australia.

The South African seminars are frequently attended by concrete roof tile manufacturers from foreign countries, flying into South Africa specifically to attend these seminars. The extensive seminar manual and notes became the industry "reference book" in many instances.

Ronald Jessop, also a Director of Jessop & Associates, and an expert in the extrusion process has been using his professional engineering expertise in innovative product design and development for over two decades

RAW MATERIAL ANOMALIES

A good understanding of the specific characteristics of the raw material requirements for the extrusion process is fundamental to success in this industry, and for this reason a full day of the three-day seminars is dedicated to exploring and demonstrating these criteria. During this time, it is shown that the aggregate gradings alone are of relatively little value.

Crucial is the mineralogy together with particle shape and texture, interstitial moisture, and water requirements of the aggregates.

This information together with a WET grading analysis resulting in a more relevant FM calculation, minus 75-micron content and characteristics and flow properties tested using a flow cone apparatus, enables an optimal mix blend design for extrusion to be achieved. The concrete roof tile industry in the modern roofing market is very demanding, requiring the expert assimilation of this data to enable a competitive edge in a market where the difference between an aggregate/cement ratio of 3.85:1 and 3.95:1 could make a significant difference to margins.

Typical Materials Handling layout with bins and conveyors feeding sand and cement automatically into the mixer



SUCCESS OF ALUMINIUM PALLETS

Jessop & Associates budget approx. 12 months for the development of a new aluminium pallet design, followed by a further six months for manufacturing the high-pressure die needed to cast these pallets.

The risk is high as is the capital expenditure involved. Due to the extreme extrusion forces, optimal strength to mass ratio is crucial for the pallet.

Only aluminium achieves this, with no flexing of the pallet, in a cost-effective manner, borne out by the fact that after considerable research 95% of the industry uses aluminium pallets worldwide. Should flexing occur as it does with steel pallets, then the tiles formed will not conform to stringent roofing criteria. It will "rock" and have varying overlapping and interlocking gaps. The less known advantage of the aluminium is the formation of aluminium stearates during the extreme extrusion pressure to form a physical interface barrier between concrete and pallet, thus assisting high speed depalleting of tiles from pallet.



Aluminium alloy pallet cast under high pressure



Branding. Public Relations. Communications.

The Gears That Drive Your Reputation

Media
Savvy

When your message image & voice turn together, your brand gains unstoppable momentum!

Branding defines who you are. PR builds trust in what you stand for. Communication keeps every story consistent and connected. Like gears in motion these three disciplines power each other creating alignment, credibility and impact. When they move as one, your brand doesn't just operate smoothly — it drives growth.

Media Savvy specialises in aligning these three elements through our technical expertise in communications combined with our understanding of the construction industry.

We partner with you and working together, we elevate your marketing efforts and move your business forward.

Tel: 011 973 0108 | www.mediasavvy.biz

HOW TO BUILD CONCRETE DRAINAGE CHANNELS IN YOUR GARDEN

With summer rainfall season approaching many suburban homeowners are preparing for heavy storms. In suburban areas with an average stand size ranging between 500m² and 3 000m², water runoff can quickly overwhelm gardens and even damage foundations. One of the most effective ways to manage this is by installing small concrete drainage channels or stormwater drains that collect water and direct it safely to the street or a designated collection point.

With basic tools, some planning and a bit of elbow grease most DIY enthusiasts can tackle this project. Here's how to go about it.

Step 1: Plan the Route

Start by identifying the lowest points in your garden where water naturally collects. The channel should run downhill, with a consistent slope, towards the road or a soak-away pit. A fall of about 1 cm for every metre of length is usually sufficient to keep water moving. Use a builder's line and spirit level to mark out the route or a water level for those that know how to use it.

Step 2: Dig the Trench

Mark the channel path with string or spray paint. Dig a trench roughly 200mm wide and 200–300mm deep, depending on how much water you expect. Keep the base smooth and ensure it slopes consistently in the chosen direction. For smaller gardens, narrower trenches can be used, but make sure they are large enough to handle heavy rainfall.

Step 3: Build Shutters (Formwork)

To give your channel straight sides and a neat finish use shutters or formwork. For DIY work, timber planks or plywood sheets make the most affordable option. They can be cut to size and supported with pegs hammered into the soil. Plastic or metal garden

edging boards can also work for smaller sections or be used in conjunction with bricks. The formwork should be secured tightly so that the concrete doesn't bulge out when poured.

Step 4: Mix the Concrete

For stormwater channels a strong yet workable mix is recommended using:

- 1 part cement
- 2 parts sand
- 3 parts stone (19 mm aggregate)

Add water slowly until the mix is workable but not runny. A stiff mix will hold its shape better in the shutters. If mixing by hand do it on a flat surface with a spade or hire a small concrete mixer for larger jobs.

Step 5: Pour and Shape

Pour the concrete into the trench and spread it evenly with a shovel. Compact the concrete to remove air pockets, then smooth the surface with a steel trowel or wooden float. If you

want water to flow more effectively form a shallow curve or "U" shape in the base of the channel using a rounded tool or pipe as a guide before the concrete sets.

Step 6: Curing and Finishing

Allow the concrete to cure slowly for at least seven days. Keep it damp by covering with plastic sheets or lightly spraying water to prevent cracks. Once hardened, remove the shutters and backfill the sides with soil. You can also install mesh covers or paving slabs over the channel to make it safer and blend into the garden.

Important Tips

- Always ensure the channel directs water away from your house.
- For larger properties consider connecting multiple channels to one main channel.
- If unsure about water volumes or municipal regulations consult your local authority or a professional contractor.



THE CONFIDENCE BEHIND CONCRETE



Concrete has a funny way of keeping people honest. It's a bit like a bad curry, get the recipe wrong and you'll know about it almost immediately. And not just you, everyone within a ten-metre radius will know about it too. You can cut corners on mixing, skip a step in curing or decide that one cube test "isn't really necessary," but sooner or later the truth shows up. And unlike people, concrete doesn't lie. It literally cracks under pressure.

That's why testing matters for both Ready-mix Suppliers and Contractors. For suppliers, it confirms their plant, materials and mixes are under control. For contractors, it proves the concrete delivered and placed on site actually meets the spec. In both cases, testing isn't a tick-box exercise, it's peace of mind.

Because here's the reality: without proper testing, suppliers end up defending their concrete with promises and contractors end up explaining failures with excuses. Neither holds up well when your suspended slab starts looking like the waves in Durban.

Why Ready-Mix Suppliers Don't Just Wing It

Every reputable Ready-Mix Supplier tests their concrete. It's a cornerstone of quality control. Regular cube tests, slump checks and monitoring of raw materials keeps the batch plant in line and ensures the mix designs perform the way they're supposed to.

Some suppliers even send their cubes and raw material samples to independent labs for ongoing testing. That's a smart move. It builds credibility and

helps spot issues early. But let's be clear: these tests are primarily for the supplier's benefit. They're about consistency, compliance and making sure production stays on track because no one wants to be the supplier whose concrete collapsed faster than a politician's promise.

Suppliers need confidence in their own process. But—and this is the key—those results don't automatically prove what happens when that same concrete hits the contractor's site, gets exposed to weather, waits in traffic or is placed by a crew in the real world.

Supplier testing is quality control for them. Independent testing is quality assurance for the project. And when both are done correctly, everyone wins.

Don't Just Trust The Truck!

For contractors, testing isn't about proving the Ready-Mix Supplier wrong. It's about proving the concrete on your site is right.

Concrete doesn't travel in perfect conditions. It leaves the batch plant looking great on paper, then hits traffic, sits in the sun, gets topped up with "just a splash" of water and is finally placed by a crew under pressure to finish before tjaile at which point your beautiful 35 MPa mix has become a 20 MPa milkshake. By the time it's curing in your formwork, it's not the same as the cube the supplier made at their plant.

That's why contractors need independent test results. They show how the actual concrete delivered, placed and cured on your project performed. Not the "best-case scenario" cubes from the supplier's plant.

Independent testing gives contractors confidence when signing off, protects them in disputes and ensures they don't end up footing the bill for concrete that wasn't up to scratch. Put simply: it's your proof that what went in the ground will stay in the ground.

And here's where Ready-mix Suppliers also benefit when contractors do their own independent testing, it reduces finger-pointing later. Instead of endless debates over who's at fault, everyone has objective results to work with. Less drama, fewer disputes and more trust.

The Referee No One Invited (But Everyone Needs)

Independent labs aren't there to take sides. We're not waving flags for the Ready-mix Supplier and we're not handing out "gotcha" moments for the contractor. Our job is simple: to test, to measure and to tell the truth about the concrete.

Think of an independent lab as the referee on site. We don't care who mixed it, who poured it or how many trucks got stuck in traffic, we care whether the concrete meets the spec. When the whistle blows, the call is based on the data, not on who shouts the loudest, although let's be honest, shouting does seem to be the industry's first form of dispute resolution.

For Ready-mix Suppliers, independent lab reports back up your own quality control. If your concrete is performing, external results are the best way

to prove it. They add credibility, build trust with contractors and reduce the late-night phone calls that starts with "Boet, your concrete failed."

For Contractors, independent labs provide confidence. You're not relying solely on the supplier's results, you've got your own data that reflects your site, your pour, your conditions. It protects you in disputes, strengthens compliance and makes signing off less nerve-wrecking.

The real win? Independent testing strengthens the relationship between suppliers and contractors. With objective results on the table, there's less arguing, less finger-pointing and more collaboration. Everyone can focus on building, not blaming.

Spotting the Flop

Testing isn't about filling out paperwork for the file. It's about spotting problems before they turn into expensive, reputation-damaging disasters.

For example, a driver or site worker decides the load looks "a bit stiff", wants to be a hosepipe engineer and adds a quick splash of water. Suddenly your high strength mix has the consistency of flapjack batter. It will still set but weaker, more porous and itching to crack the first time it faces stress. A slump test on site would have flagged it before it went anywhere near the formwork.

Or the dreaded inconsistent cube results. One week the results are rock solid, the next week they're embarrassingly low. Without proper testing, all you've got is finger pointing. Was

it moisture in the sand? A batching hiccup? A site "adjustment"? Independent results help both Ready-mix Suppliers and Contractors get to the bottom of it quickly. And when both test regularly, there's more data to analyse, meaning quicker and more accurate answers.

Then there's the inconsistent mix problem. One truck delivers perfect concrete, the next looks like something scraped out of a sandpit. Independent cube tests spot the variations and force the conversation before the slab becomes a geological experiment.

For Ready-mix Suppliers, this protects your reputation. You've got proof your concrete left the plant within spec. For Contractors, it protects your project. You've got proof that what went into your columns can actually hold up the suspended slab.

Testing gives clarity. Without it, you're just guessing. And guessing, last time we checked, isn't an approved building method.

Skip the Test, Pay the Price

Testing costs money, sure. But not testing costs far, far more.

Skip it and everyone loses. For contractors, it can mean slabs that crack, floors that sink or columns that quietly underperform until the first inspection or worse, the first storm. For Ready-mix Suppliers, it can mean endless disputes, rejected loads and the uncomfortable accusation that your concrete "wasn't up to spec."

Repairs are messy and expensive. Jackhammers, epoxy injections, re-



CMA Awards for Excellence

#A1E **2026**



CMA Awards for Excellence 2026 season is open.

Submit your entries for this spectacular digital marketing event NOW!

To showcase your precast concrete projects and form part of this spectacular marketing opportunity, make sure to enter your entries NOW!

**Contact the CMA to request your entry form:
marketing@cma.org.za, Tel: 011 805 6742**

placement pours, all of it eats into margins and timelines. Add project delays while everyone debates fault and suddenly that “saving” from skipping tests looks like the most expensive decision on site. It’s like saving money by skipping car insurance, then crashing into a Ferrari...that’s not Ayoba.

And then there’s reputation. Concrete failures have a nasty habit of living forever. Contractors get remembered for the bridge that collapsed or the building that failed. Suppliers get remembered for the mix that “didn’t hold.” Neither side walks away clean.

Independent testing is the cheapest insurance policy in construction. A few slump and cube tests cost far less than patch jobs, rebuilds or becoming the star of a “lessons learnt” slide deck at an industry seminar.

When you don’t test, you don’t save money. You just roll the dice and hope the concrete forgets. Spoiler: it doesn’t.

Where We Fit In (And Why It Matters)

At Concrete Proficiency, concrete testing isn’t an occasional service, it’s what we do every day. Slump tests, cube tests, mix verifications, we’ve seen it all. We’ve designed mixes that made

engineers smile like kids at Christmas and we’ve tested concrete so weak it wouldn’t survive being sneezed on.

This experience gives us balance. We work with Ready-mix Suppliers who want independent confirmation that their mixes are performing as designed. And we work with Contractors who need assurance that what was delivered, placed and cured on site is up to standard. The common thread? Everyone benefits when the testing is independent.

Our role isn’t to take sides. We’re here to add a layer of confidence. For suppliers, it’s credibility. For contractors, it’s protection. For both, it’s fewer disputes and fewer sleepless nights.

And beyond day-to-day testing, we also audit Ready-mix plants (ideal when a major project is coming up), design mixes to suit specific performance needs and consult when something requires a deeper look. Whether it’s routine testing or technical backup, we’re here to keep the concrete and the project on solid ground.

Concrete Never Forgets

Concrete doesn’t forget. Get it right and it will stand quietly for decades. Get it wrong and it will keep reminding

you with cracks, callbacks and costs.

Ready-mix Suppliers should always test their concrete, it keeps plants, materials and processes under control. Contractors should also test, it proves what actually happened on site. And independent labs? We’re here to give both sides the clarity and confidence that comes from results nobody can argue with.

At the end of the day, a few slump and cube tests costs far less than a rebuild and far less than being remembered for “that project” that failed—because people never forget those.

So whether you need testing, a plant audit, a tailored mix design or consulting backup, Concrete Proficiency is here to help. We’ll give you the data, the confidence and the peace of mind you need. Because concrete may be grey, but the results should always be black and white.

Enjoyed this? Stay one step ahead of costly mistakes. Scan the QR code in our advert and join our bi-weekly newsletter. It’s quicker than a slump test and unlike bad concrete, it won’t let you down later.



MOMENTUM BUILDS AT CONRADIE PARK

WITH LAUNCH OF THE SIGNAL



Designed to be 20 to 25% lighter than conventional structures, The Signal reflects Concor's innovative and sustainable construction approach.

Concor has commenced groundwork on The Signal, a new residential block within the Conradie Park mixed-use development next to Pinelands, Cape Town. This latest addition will comprise 263 studio units, expanding the estate's residential offering.

According to Sebastian Dieperink, Junior Project Manager at Concor, the units are designed to appeal to both young homeowners and buy-to-let investors. The Signal will be strategically located above The Pines Shopping Centre and four other residential blocks within Conradie Park - Castle Rock, Arch Rock and Lion's Head - further enhancing the integrated lifestyle

the development offers.

The Signal will feature a ground floor retail level, a parking deck on the first floor and six residential floors above. In line with Concor's innovative and sustainable construction approach, the building has been designed to be 20 to 25% lighter than a conventional structure this has allowed Concor to reduce the extent of piling required for the building, says Dieperink.

Piling began in May 2025 and involved the installation of 105 concrete piles, ranging in diameter from 350 mm to 600 mm. These were constructed using a 35 MPa compressive strength

concrete mix and were driven to depths of between 8 and 10 metres.

Work on The Signal will also contribute to the precinct's broader goals of training and skills development across various trades and disciplines, with a strong emphasis on empowering and upskilling local youth.

Construction of The Signal is set to begin in the fourth quarter of the year and will feature a reinforced concrete frame with post-tensioned concrete floors. The building is expected to be ready for occupation - either by owners or rental customers - by October 2026.



The Signal will comprise 263 studio units, expanding Conradie Park's vibrant mixed-use residential community.



Modern studio interiors at The Signal are designed to appeal to both young homeowners and buy-to-let investors.

CULVERTS CHOSEN FOR MBOMBELA BRIDGE REBUILD

Rocla was recently awarded the contract to supply culverts and bases for the rehabilitation of a bridge in Karino, Mpumalanga. The project was in partnership with the contractor, 'The Hope Mandate' and Mbombela Municipality, who had embarked upon an infrastructural upgrade and maintenance programme.

"We supplied 28 Rectangular Portal (RP) 2100mm x 2100mm Culverts and 28 x 2100mm RP Culvert Bases to this project. Our RP Culverts are particularly well suited for bridge and roadwork developments as they reduce construction time and associated labour costs due to their ease of installation and general suitability for stormwater drainage applications. Rocla's excellent reputation in the manufacture and supply of high quality pre-cast concrete culverts was a key reason for the company being awarded this bridge re-build contract," said Rocla sales consultant, Keegan Prince.

The RP Culvert, which primarily allows for a waterway underneath a road, consists of a deck and two legs and is placed on a concrete base. This base can be cast in-situ or prefabricated.

Whilst the Rocla Culverts supplied to the Karino bridge re-build were stan-

dard culvert sizes, special sizes can be considered for design and manufactured to customer specifications, however, minimum quantities might apply in order to off-set associated costs. For angled road crossings, culverts can be cut on site or skew culverts can also be considered for custom manufacture.

The standard strength classes for these culverts are 75S, 100S and 125S. Special intermediate strengths or heavier loading requirements can be custom designed and manufactured. These are subject to various material constraints, which can be evaluated by Rocla engineers on a case-by-case basis.

When there are project time constraints, Precast Concrete Base Slabs

are more economical and a quicker option than cast-in-situ bases.

RP Culverts are also suitable for culvert crossings and can be used inverted as a drainage ditch, however, this modification must be advised at time of quotation request as the lifting holes are moved and the reinforcement layouts might need to be adjusted. Custom designed culverts have been used as tunnels, especially in mines, where a conveyor runs along the centre of the culverts underneath stock-piles, down incline shafts, in cable ducts, etc.

Rocla is a member of the Concrete Manufacturers Association of South Africa.



UNDERSTANDING BUILDING-EMPLOYEE RIGHTS

If you work in the building industry in the Cape Peninsula area, it is your legal right to be registered with the Building Industry Bargaining Council (BIBC). Being registered protects you, makes sure you are paid properly and gives you access to important benefits.

“Every worker in the building industry has the right to be registered with the BIBC. Registration is your legal protection. It ensures you receive your minimum wage and all benefits due to you,” says, Council Spokesperson (Labour), BIBC.

The BIBC is a bargaining council registered by the Minister of Employment and Labour. It is a platform where trade unions and employer organisations come together to agree on fair wages, benefits, and working conditions for employees like you.

Trade Unions represented on the Council include Building Wood and Allied Workers’ Union of SA (BWAU-SA), Building Workers’ Union (BWU) and the National Union of Mineworkers (NUM). Employer organisations are representative of employers in the building industry.

“All employees and employers in the building industry must register with the BIBC,” continues Mqamqo. “If your employer refuses to register you,

this is illegal. Registration is how you get your wages, benefits, and protection under the law.”

When you are registered, you are entitled to a number of benefits that come with your employment:

1. Wages

As of 01 November 2024, to 31 October 2025, the minimum daily wage, for the lowest category of employer, is R38.99 per hour. This wage is paid weekly, fortnightly, or monthly, depending on your employer.

2. Holiday Fund

The Holiday Fund ensures that you get paid for leave days. Even if you work for different employers during the year, the fund keeps track of your leave pay. Payment is usually made in December.

3. Bonus Fund

The Bonus Fund gives you extra money at the end of the year. This is separate from your normal wages and is also paid in December.

4. Pension Fund

The Pension Fund protects your future.

- Retirement benefit: You get a payout when you retire.

- Emergency fund (Two-Pot system): Access money in case of urgent needs.
- Funeral cover: Your family is protected if you pass away.
- Repatriation: Helps with transport if needed.
- Minor beneficiary trust: Your children or dependents can benefit.

5. Sick Fund

If you qualify for sick leave, you will be paid a portion of your daily wages when you are sick and provide a valid medical certificate.

6. Medical Aid for Artisans

If you are an artisan, you may access a medical aid to help cover healthcare costs.

7. Free Labour Advice and CCMA (Commission for Conciliation, Mediation and Arbitration) Services

If you have problems at work, the BIBC offers free advice on your rights and help with disputes at the CCMA.

Let’s look at the example of Adam Brown who works on an EPWP project (first-time worker, not registered). His EPWP rate is R15.83 per hour, much less than even the minimum wage for employees in areas where there is no bargaining council (R28.79 per hour). Adam will receive no benefits. An employee working for a full month of 22 working days on an EPWP project will earn R 2 786.08 for the month with no benefits.

Now let’s look at the example of Siphiso Cele who works as a BIBC-registered employee. In July, he earned R6,614.42 in wages before any deductions, plus R1,152.76 in benefits (Holiday Fund, Bonus Fund, Pension). His total pay including benefits was therefore R7,767.18 for that month. Cele’s holiday and bonus fund will be paid to him by the BIBC when the industry closes in December. His pension fund



will be invested on his behalf. If he qualifies, he will also be paid a portion of his wages for each day that he is off sick.

This shows how registration significantly increases pay and protection. In addition, the Council publishes a new agreement every three years and the wages and benefits, that were used in the example of the BIBC-registered employee, will increase on 01 November 2025.

From your wages, the following deductions are allowed by law:

- PAYE (Tax)
- UIF (Unemployment Insurance Fund)
- SDL (Skills Development Levy)
- Trade Union dues (if you are a member)
- Employee contribution to Pension Fund
- BIBC levy

Your employer cannot deduct more than these amounts without your agreement.

What to do if you are not paid correctly:

1. Check your payslip: Compare with the minimum BIBC rates.
2. Ask your employer: Speak to them respectfully and ask why you were underpaid.
3. Report to BIBC: If there is no proper reason, you can:
4. Email bibc@bibc.co.za: Send your payslip and explanation to the BIBC.
5. Call 021 950 740: Speak to a BIBC administrator who can help.
6. Submit a Whistleblower Report online at www.bibc.co.za.

"You have the right to fair pay and benefits. If you are not receiving them, do not wait. Report it! The BIBC is here to protect you," emphasises Luyanda Mqgamqo.

If you are not registered, you are missing out on money and protection that belong to you by law. "Remember that registration is your right. Your benefits and legal protection depend on it," stresses Mqgamqo.



REVELSTONE
the alternative to real stone

Your partner in design

Revelstone provides high-quality, beautifully crafted stone products to elevate any architectural or landscaping project.



CONNECT WITH US:

 @Revelstone
  @revelstonecape
  www.revelstone.co.za

TLB's: FOR CONCRETE PLANTS & CONSTRUCTION SITES



The good old tractor-loader-backhoe (TLB) is as much a part of South African construction industry as biltong and braais evolving from a rudimentary machine to sophisticated machines designed for a wide range of purposes.

Back in the day the first TLB's were produced as an idea to put digging power on the back of a loader and began evolving as new and different purposes were found on sites. Today, they fulfil many roles and have become multi-role machines with the ability of one operator doing the job of two.

That versatility is exactly why TLBs still make sense on concrete batch plants, precast yards and small to medium construction sites across South Africa where they load, lift, dig, break and tow.

A bit of research reveals that the back-

hoe's origin is incremental. In the late 1940s engineers fitted swing-frame hydraulic diggers to tractors. That basic concept evolved into a dedicated backhoe loader in the 1950s and 1960s as manufacturers integrated loader and backhoe functions into a single chassis. From those early patents grew the modern TLB: mobile which is hydraulically driven and fitted to do multiple tasks with a single powertrain.

In the concrete industry the TLB is in its element. Concrete batching plants are material-handling centres. Aggregates, sand, gravel and recycled concrete need moving between stockpiles, hoppers and conveyors. Silos demand housekeeping and bays require routine cleaning and quick repair work. A TLB answers this mix of chores because it combines a front loader for fast scooping and charging of hoppers with a rear digger that can reach or dig

drainage and service work.

Where space is tight a TLB's compact footprint and ability to move quickly on wheels beat the logistics of bringing in separate wheel loaders and small excavators. Practical benefits for batching plants include quicker hopper-charging cycles, faster clean-ups between mixes and immediate on-site maintenance capability.

In smaller concrete yards this "front-end loader / rear-end excavator" combination reduces handling stages, simplifies logistics and lowers the number of operators on site. This can amount to a reduction in labour on site where costs are high and skilled operators are scarce.

The TLB's utility depends on its after-market use with a range of quick-couplers, buckets, augers, hydraulic breakers (hammers), cold planers, rakes, thumbs, grapples, brooms, pallet forks and compaction wheels among others. It is little wonder that building contractors find such a versatile machine indispensable on site.

Attachment choice changes job scope and can change with different stages of construction or in the batching plant for different products being manufactured. For example, high-capacity front buckets speed hopper charging, trenching buckets increase excavation precision, hydraulic thumbs and grapples tidy demolition and handle reinforcement. For concrete environments the specialised buckets (high-capacity, wear lined) and brooms for clean-down are particularly valuable.

Demolition and slab work push TLBs beyond digging. Most modern backhoe loaders supply hydraulic flow and dedicated take-offs (power-take-off arrangements or auxiliary hydraulics) to operate hydraulic breakers and other powered attachments. Contractors

commonly fit hammers for breaking old concrete slabs, asphalt and footing during servicing or reclamation work at plants.

Using a hammer from a TLB gives a fast mobile demolition solution where the operator positions the machine, stabilises the rear outriggers and powers the breaker via the TLB's auxiliary hydraulics. OEMs routinely show backhoes using hydraulic hammers for pipe bedding and slab removal — a standard configuration on many yard and municipal jobs.

Backhoe loaders span compact small to heavy construction models. In concrete and construction mid-size machines (5–9 tonnes) handle most batching-plant and site tasks. Large “heavy frame” TLBs push 9–11.5 tonnes and carry 1.0–1.4 m³ loader buckets and extendible backhoe booms for deeper digging.

Two global models show the top end of the spectrum: Caterpillar's 444 series and JCB's 4CX/5CX ranges represent the class of the largest contemporary backhoe loaders, with operating weights approaching 9–11 tonnes, loader bucket volumes around 1.2–1.4 m³ and digging depths in the 4–5 m range. These machines also deliver road speeds of about 40 km/h and substantial hydraulic flow for heavy attachments.

Work-rate example

A well specified heavy TLB with a 1.3

m³ loader bucket can cycle aggregate into a hopper quickly with several full loader cycles per hour depending on stockpile geometry and operator skill. On the backhoe side, with an extendible dipper and efficient bucket, a single operator can dig and load several metres of trench per hour (conditions dependent). When fitted with a hydraulic hammer, the same machine will break thin concrete slabs at a rate much lower than an excavator with high-flow hydraulics, but it offers unmatched versatility. One machine completes demolition and material handling without extra plant.

Buy, run and maintenance costs decide many equipment choices. A TLB typically costs less than the combined price of a medium excavator plus a medium wheel loader. In South Africa, market listings show new heavy TLBs the banking-size range of roughly R1.0–R1.5 million (new or late-model used figures vary). Popular used JCB 3CX machines appear in classifieds typically under R1m depending on hours and model. By contrast, a medium wheeled loader plus a compact excavator together carry a higher upfront cost and require two operators.

Rental or hourly rates also differ with specialised excavators (and large wheel loaders) attracting higher hourly hire and fuel consumption. For contractors who need wide capability but cannot justify two machines a TLB is often the lower total-cost-of-ownership route.

Ask distributor or plant hire operators and they will tell you that there are clear limits. If the work requires deep trenching, continuous digging or high-flow hydraulic breakers a tracked excavator will be faster and more fuel-efficient. If a plant needs very high hopper throughput (hundreds of m³/hr), a dedicated wheel loader with larger bucket capacity will move material faster. The choice is about matching machine capability to the duty cycle: TLBs excel when variability and versatility outweigh the need for specialised throughput or extreme digging depth.

South Africa's market supports global OEMs and regional dealers. Major suppliers and dealer networks include Caterpillar (through Barloworld in Southern Africa), JCB (local dealers and Bell Equipment distribution in some channels), LiuGong (through ELB Equipment), Kubota (and the Kubota/Escorts branded TLBs through Smith Power Equipment), Bell, Case/New Holland and a range of Chinese and Indian brands for lower-cost alternatives.

Dealers maintain parts inventories and attachment supply chains which is an important consideration for concrete plants that cannot tolerate long downtime. For serious buyers, dealer support and proximity often matter more than a few rand on the initial purchase price.



Specifying a TLB for a concrete plant

Buyers should be systematic: specify bucket volumes appropriate to the hopper throat, choose a heavy-duty front bucket and wear liner for abrasive aggregates, pick a backhoe configuration (standard or extendible) to match trenching depth and ensure sufficient auxiliary hydraulic flow for breakers or planers.

Quick-couplers and heavy-duty undercarriage reduces downtime and a good cab with climate control improves operator uptime. Finally, discuss service intervals and guaranteed parts availability with the dealer as plant throughput depends on machine uptime.

SmartRock™

Wireless Concrete Sensor for Temperature and Strength Monitoring

“SmartRock has been a good investment in that it’s extremely user-friendly, convenient, and saves us time on our project.”

Allan Hayes
Construction Quality Manager
Regional Rail Partners



Wire-Free
& Wireless
Technology



Remote
Monitoring
Capabilities



Easy
Activation &
Installation

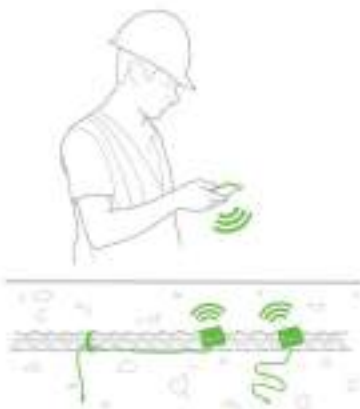


Real-Time
Data
Collection



**AUTHORIZED DEALER
IN SOUTH AFRICA**

SmartRock



Overview

SmartRock is the world's leading wireless sensor for monitoring the curing and hardening of concrete. The sensor is fully-embedded and secured on the rebar, making it completely maintenance and hassle-free. Temperature data is collected at two locations in the sensors' cable and body. The strength of your in-place concrete is then calculated automatically based on the maturity method (ASTM C1074). These results are accessible in real-time and remotely through the SmartRock mobile app and on the Giatec 360™ cloud dashboard to help you make informed decisions. SmartRock's AI assistant, Roxi™, eliminates human-error by sending smart notifications and alerts to give you the upmost confidence in your mix calibration data and accuracy of strength test results.

Features

Software

- Accurate real-time data display (i.e. temperature, strength, max-min values, and graphs)
- Maturity calibration database
- Free Android/iOS app with easy-to-use guide
- Project management tools including live data sharing
- Giatec 360 web-based cloud dashboard
- Proactive AI notifications of concrete pouring time and mix calibration errors
- Full PDF & CSV reporting and data exporting
- Open API integration with project management applications (i.e. Procore)

Hardware

- Wire-free and wireless technology
- Fast, simple, and hassle-free activation and installation
- Extended temperature cable and probe for mass concrete
- Two points of temperature measurements located in sensor cable and body
- Rugged and waterproof design
- Long battery life
- 24/7 remote monitoring capabilities with the SmartHub™ device

Conventional Methods



Applications

- Measure temperature differentials
- Accelerate formwork removal
- Control quality in the field
- Speed up post-tensioning
- Open roads to traffic faster
- Optimize curing conditions
- Improve saw cutting time



Technical Specifications

Reading Range

-22 to +161 °F (-30 to 85 °C)

Measurement Accuracy

± 1.6 °F (± 1 °C)

Measurement Resolution

± 0.78 °F (± 0.1 °C)

Measurement Frequency

Once every 15 mins
(for 2 months of data)

Wireless Signal Range

Up to 40 ft (12 m)

Temperature Cable Length

12 in (30 cm) / 10 ft (3 m)

Battery Life

Up to 4 months after installation

Data Communication and Analysis

Free Android and iOS app
Giatec 360 Cloud Dashboard

Standards

ASTM C1074 (Approved by
ACI 318, CSA A23.1, most
USDOT specifications)

TLB's: REDEFINING THE BACKHOE LOADER



The tractor-loader-backhoe, commonly referred to as the TLB, has established itself as an indispensable asset on construction sites across South Africa. Regarded as the quintessential workhorse, the TLB excels in a multitude of tasks, from digging and loading to lifting and trenching, all while demonstrating tireless efficiency. However, as the construction landscape evolves, so too do the expectations of modern contractors. Today, operators seek more than just functionality; they aim for machines that enhance speed, safety and profitability.

At Manitou, our commitment to innovation goes beyond the basic mechanics of a backhoe loader. A TLB should be an extension of the operator - a multi-tool to maximise productivity while simultaneously minimising operator fatigue and costs. With a particular focus on superior engineering and a deep understanding of the South African market, Manitou is proud to offer a generation of backhoe loaders built for the challenges of today and tomorrow.

What to Look for When Buying or Renting a TLB

When deciding to purchase or rent a TLB, it is crucial to look beyond the spec sheet. The true value of a machine lies in its performance, durability and safety on the job site. Here's what sets a Manitou backhoe loader apart:

- **Unmatched Versatility and Control:** A remarkable TLB is one that can handle a variety of tasks and the Manitou MBL-X 920 machine is engineered for exactly that. It has a best-in-class dump height of 2.78 metres, making it ideal for loading tippers and heavy trucks, while its breakout forces with a Z-bar loader arm allow it to dig effectively without being stressed.
- **Manitou backhoe loaders** are compatible with a wide range of attachments, including an extended dipper, various loader and excavator buckets, rock breakers, grapple buckets and the innovative 4-in-1 bucket, which enables operators to effortlessly switch between loading, dozing, grading and clamping tasks. This versatility is enhanced by a standard quick-coupling system on both the front and rear as well as a stan-

dard rock breaker circuit, making it a multi-functional solution for the construction site. The MBL-X 920's powerful hydraulic system delivers precise control for fine-grade work and heavy-duty digging. Additionally, the side-shift backhoe design allows operators to dig flush against walls and in confined spaces.

- **Engineered for Performance and Efficiency:** Our TLBs are designed to be as powerful as they are fuel-efficient. The heart of every Manitou machine is a robust, clean-running engine that delivers impressive power without the high running costs. Combined with smooth, responsive transmission options and exceptional lifting capacities, our machines ensure you get the job done quickly and efficiently, boosting your bottom line.
- **Operator Comfort and Safety:** An operator who is comfortable is an operator who is productive. The cabs on our backhoe loaders are spacious and ergonomic, with 360-degree visibility that improves safety and control. Us-

er-friendly joystick controls reduce operator fatigue and allow for intuitive, precise movements, even during long shifts. We've also integrated key safety features, including ROPS/FOPS certification and safety valves, because we know that a safe site is a productive site.

The true potential of a TLB lies in its array of attachments. At Manitou, we have invested in a quick-attach system that allows for rapid tool changes in mere minutes, effectively transforming a single machine into a multi-functional powerhouse.

A single machine can break up concrete with a hydraulic breaker, drill foundation holes with an auger, and seamlessly switch to a grapple for sorting demolition debris. Our extensive range of purpose-built attachments ensures that your Manitou TLB can handle various tasks that would typically require multiple dedicated machines. This flexibility not only accelerates project completion times but also significantly reduces your total capital expenditure on equipment.

A great machine is only as good as the support behind it. Manitou has a solid commitment to the South African mar-

ket, supported by a national dealer network offering expert sales, service and parts.

We understand that downtime is a contractor's greatest concern. That's why we prioritise the availability of genuine Manitou parts. Our team of highly trained technicians is on standby, prepared to provide expert maintenance and support. When you choose Manitou, you're not just buying a machine; you're investing in a long-term partnership that ensures your equipment remains reliable and productive for years to come.



No grease, please!

Metal out, plastics in - save lubrication, money and maintenance

Save 40% costs with 100% maintenance-free properties igubal® spherical insert bearings function without lubrication, are cost-effective and can be easily installed. Due to their corrosion resistance and insensitivity to dirt and dust, spherical insert bearings for metal pillow block and fixed flange bearings can increase the service life of your applications by up to eight times. Request a free sample box now: www.igus.co.za/spherical-insert-bearing

More information and application examples: www.igus.co.za/spherical-insert-bearing

igus.co.za
motion plastics®

POLYMERS IMPROVE EARTHMOVING EQUIPMENT RELIABILITY

Overall reliability of earthmoving machines can be dramatically improved by replacing steel bearings and bushings that need constant greasing with longer lasting lubrication-free polymer equivalents at a fraction of the cost.

Juan-Eric Davidtz of polymer producer, igus South Africa, says not only are polymer bearings and bushings usually cheaper than traditional ones, they also outlast them many times over. "Our biggest obstacle in this industry is to convince owners and fleet managers that polymers are tough enough for back-breaking earthmoving work. Once we show them and prove the worth of these components they never look back and we have a customer for life – it's just about setting up the first meeting and proving what we already know," says Juan-Eric.

He explains that igus polymers not only improve reliability but also reduces lubrication, extends service intervals and keeps machines working longer between scheduled stop times. Its high-performance igutex fibre composite plain bearings and iglidur Q3E heavy-duty plain bearings are designed with solid lubricants built in. They are corrosion and dirt resistance for harsh environments typical of construction, mining and earthmoving. The advantages include:

- igutex bearings are made via a two-layer winding process with an inner gliding layer imbued with solid lubricants, as well as outer layers of robust, wear-resistant fibreglass filaments. That means no grease or oil is required nor is central lubrication, necessary and eliminates messy over-greasing.
- iglidur Q3E is a newly developed polymer with injection-moulded two-component technology that combines a load-bearing shell with an inner low-friction surface. The result is a cost-effective op-



tion for high-load applications with excellent surface pressure capability.

Juan-Eric says there are many examples of tracked vehicles used in rough mud, dust, even salt and corrosive environments. In these instances the swing-axle and tension-axle bearing points traditionally need regular maintenance and replacement. This is simply not the case with igus bearings that easily survive these types of conditions without lubrication.

"Our bearings easily outlast other bearing materials including metallic and plastic types. Our polymers, like iglidur Q3E have been shown to dramatically outperform the rest. In these types of applications it is not uncommon to eliminate 20 to 30 lubrication points per machine per day simply by switching to dry-running iglide and igutex plain bearings.

Polymer bearings offer the following advantages:

1. Reduced Service Intervals: With no need for regular re-greasing or oil changes at bearing points, machines have fewer scheduled stops.
2. Lower Total Cost of Ownership (TCO): Savings as a result of less lubricants, labour, downtime, vibration damage and shaft-wear all add up.
3. Better Reliability in Harsh Environments: Dirty environments kill metallic and poorly sealed bearings fast while solid-lubricant plastics resist these challenges as well as reduce corrosion and dirt ingress.
4. Simpler to use: Fewer greases to buy, store and dispose. Less risk of environmental contamination from grease run-off. Reduced health risks to staff from handling lubricants.

"It is important to owners and fleet managers to realise that every minute machines are idle costs money. That is why we are reaching out to encourage them to look at incorporating igutex and Q3E bearings in their machines. We want to show them how they will be able to shift maintenance from constant vigilance to scheduled intervals by making the simple switch to our advanced engineered polymer solutions," concludes Juan-Eric.

FAW TRUCKS STRENGTHENS FOCUS ON CONSTRUCTION & CONCRETE SECTORS

The FAW JH6 550FT-AMT is an extra-heavy-duty truck built for long-haul and construction applications



FAW Trucks Strengthens Focus on Construction and Concrete Sectors

At the recent Big 5 Construction expo in Midrand leading truck manufacturer, FAW Trucks Southern Africa, highlighted three models tailored for the demands of construction and concrete operations. The vehicles are engineered for both urban and remote projects.

The models include:

JH6 28.550FT – AMT TT

The JH6 550FT-AMT is an extra-heavy-duty truck built for long-haul and construction applications. It delivers 550 horsepower and includes a full safety suite with AEBS, EBS, ESC, FCW and LDWS. The model is suited for transporting materials to large-scale projects.

JK6 33.310FD Tipper

The new JK6 33.310FD Tipper with a 10m³ body is designed for bulk material handling. With a reinforced chassis and high payload capacity, it is positioned for use on construction sites and in quarry operations where speed and durability are critical.

J5N 35.340FC Mixer

The J5N 35.340FC Mixer addresses the needs of the concrete industry. It combines a high-capacity drum with mixing technology that ensures consistent concrete quality. The unit's rugged build and fuel-efficient engine make it suitable for local ready-mix suppliers.

About FAW

FAW Trucks has operated in South Africa since 1994 and assembles most of its range at its Eastern Cape facility. Local production supports job creation and ensures models are adapted to Southern African conditions. The company also maintains a comprehensive dealer and service network to support fleet operators across the region.

"FAW's JH6 550, JK6 310 Tipper and J5N 35.340 Mixers are designed to meet the specific requirements of our local construction and manufacturing operations," said Jian Yang, CEO of FAW Trucks Southern Africa. "They consistently deliver reliability and performance needed for infrastructure development."

FAW J5N 35.340FC concrete mixer



POWERHOUSE BAKKIE LAUNCHES IN SA

LDV Terron 9 set to change the game for construction and concrete industries

LDV South Africa has unveiled its upcoming double-cab powerhouse, the Terron 9, during an official launch at the Festival of Motoring held at Kyalami recently.

For business owners in the industry the Terron 9's ability to combine workhorse toughness with executive-level comfort at a competitive price point makes it an attractive option.

The Terron 9 enters South Africa's double-cab workhorse market with a bold design backed by practical muscle. Its 2.5L turbo-diesel engine delivers 163kW and 520Nm of torque providing the pulling power needed for hauling trailers, moving equipment and tackling rough construction terrain. While its attractive design ensures it does not look out of place at the executive car park.

For construction leaders, the value lies in versatility:

- **Load & Tow Capacity** – With an extra-large load bin and 3500kg towing capacity it is built to manage heavy payloads from scaffolding to site generators.
- **Off-Road Confidence** – Handles unpaved access roads, muddy construction sites and uneven quarry terrain.
- **Comfortable Dual Role** – Transitions seamlessly from site vehicle to client-facing transport with premium finishes and refined interiors.

Priced right

The Terron 9 aims to compete aggressively in South Africa's workhorse double-cab market offering a balance between premium features and affordability. Contractors looking for fleet expansion or multi-role vehicles will find a strong return on investment with a vehicle that is designed to be durable and fuel efficient with a range of models depending on requirements.

"The response to the Terron 9 has been phenomenal," said Neil Barker, COO of LDV South Africa. "We wanted to create a moment that not only unveiled the vehicle but also highlighted our serious commitment to the South African market. This is The Future, Unleashed."

The Terron 9 reveal also coincided with the opening of the LDV Bryanston Dealership under Avari Cars, showcasing LDV's growing footprint and long-term investment in South Africa.

As CEO Bevan Nel noted: "Exciting times are near as we prepare to launch the Terron 9 we are excited to bring this powerhouse to the South African market."

With its mix of robust capability, refined luxury and competitive positioning the Terron 9 is a good proposition in the construction and concrete businesses that need reliability, power and presence in one package.



WATER LEVELS IN CONSTRUCTION

ESSENTIAL TOOL, COSTLY MISTAKES

In the world of construction, especially in South Africa where site conditions often vary dramatically, the humble water level remains one of the most reliable and cost-effective levelling tools available. While laser levels and digital instruments dominate large-scale projects, the water level continues to be a trusted instrument for smaller residential and general building work — but only when used correctly.

A water level, also known as a hose level, is a simple device made of a length of clear plastic tubing partially filled with water. Based on the principle that water seeks its own level, the tool allows builders to establish a common height across distant points. It's particularly handy when levelling across corners or obstacles where direct sight lines are impossible.

Because it doesn't rely on batteries or electronics, a water level is ideal for rural or remote sites where technology might fail, or as a reliable backup when digital tools malfunction.

To use a water level, two operators hold the ends of the tube at different points — for instance, on either end of a wall or across a large slab. By observing the height of the water in the tubes relative to each point, they can mark level benchmarks on both surfaces. These reference marks are then used to guide further construction, such as bricklaying, plastering, floor screeding or tiling.

Proper calibration is key: bubbles in the tube, kinks, or temperature-related expansion can all cause slight deviations. The tool must be held vertical at both ends and allowed to settle before readings are taken.

Despite its simplicity, the misuse or neglect of levelling — whether with a water level or other tool — is widespread. On building sites across the country, it's not uncommon to see slabs or walls levelled by eye or "corrected" with a quick fix: throwing extra concrete into

a low spot or filling gaps with mortar.

This leads to multiple problems:

- **Structural integrity:** Mortar used as a filler for low slab areas or as patchwork in place of concrete compromises strength. Mortar is not designed to bear load and can crumble under pressure.
- **Dry joints:** When fresh concrete is added to hardened or drying concrete without proper preparation, it creates a dry joint. These weak interfaces reduce monolithic performance, increasing the risk of cracking or delamination.
- **Jointing and finishing:** Rushed jobs often ignore proper jointing techniques. Expansion and contraction joints are either omitted or poorly placed, leading to cracks and surface failures.

If discrepancies in level are detected — ideally before pouring concrete — the correct approach is to re-establish benchmarks and recompact the substrate or adjust formwork accordingly. If concrete must be poured in phases,

the use of bonding agents and keying methods are vital to avoid cold joints.

For slabs, self-levelling screeds can be used after ensuring structural concrete is correctly laid. Brands like **A Shak**, **Sika**, **Chryso**, and **a.b.e. Construction Chemicals** supply reliable bonding agents, admixtures and repair mortars suited for these jobs.

Water levels can be found at most South African hardware and builders' suppliers.

For more advanced levelling, rotary lasers and dumpy levels are available from **Lasercorp**, **Survey Instruments Africa** and **Stabila**, but these come at a higher cost and require training.

While it may seem like a relic compared to digital gadgets, the water level is a fundamental tool that, when properly used, ensures accuracy, avoids costly rectification work and contributes to the long-term durability of any structure. But even the best tool is only as good as the hands that wield it — and no amount of mortar can fix a bad job done without a level head and a proper level.



RECYCLING REJECTS AND OTHER CONCRETE WASTE



Management of concrete waste as an inevitable byproduct in precast and readymix operations can dramatically cut disposal costs and turn waste into valuable materials that can contribute to the sustainability and operational efficiency of a plant.

Concrete by its very nature is hard and heavy. Depending on the size and composition of the waste it may need specialised equipment to break into manageable sized materials ready to be repurposed as an aggregate or other useful material. While smaller units may be manually moved and recycled,

heavy equipment is usually needed to handle bigger units and higher volumes.

In most instances the most effective way of dealing with these large units is excavators equipped with hydraulic breakers to break down large concrete pieces into smaller more manageable sizes. These breakers deliver powerful, repeated blows, cracking the concrete into fragments suitable for further processing. For smaller volumes or off-cuts this method is cost-effective and flexible allowing for immediate onsite processing.

Once broken down the concrete fragments are fed into crushers. Jaw crushers are typically employed for primary reduction and can effectively handle large dense blocks of concrete. For secondary processing impact crushers may be used to produce well-graded material while cone crushers can generate fine consistent aggregates. Screens are integral to the process for classifying the crushed material into various sizes and ensuring that the final product meets specific requirements for different applications.

Where volumes don't warrant an on-site plant the use of mobile crushing units that can be brought in occasionally offer the advantage of flexibility and allows for processing at multiple sites without the need for transporting waste to a central facility. These units can be equipped with integrated screening systems that enable the production of multiple aggregate sizes in a single operation.

However, embedded reinforcement steel can become a major nightmare. This must be removed to produce clean recycled aggregates. This is either done manually and painstakingly with the use of a lot of labour or with magnetic separators that are commonly used to extract ferrous materials from the crushed concrete. These separators are integrated into conveyor systems and screens ensuring that the steel is efficiently removed without contaminating the recycled product. In addition, the recovered steel can be sold to scrap dealers or steel mills which provides an additional revenue stream for the operation.

The primary goal of recycling concrete is to produce Recycled Concrete Aggregate (RCA), which can be reused in various applications. RCA is commonly used as sub-base material for roads and pavements, as backfill for trenches and excavations and as a partial replacement for natural aggregates in new concrete mixes where specifications allow. In some instances the use of RCA reduces the demand for virgin

materials with associated savings in transport costs.

However, it's important to note that the quality of RCA can vary depending on the source material and the processing methods used. Quality control measures such as testing for water absorption, particle size distribution and compressive strength are essential to ensure that the recycled aggregate meets the required specifications for its intended use.

It is not only precast plants that face the accumulation of concrete waste. Readymix plants also face unique challenges with returned concrete which can be difficult to manage due to its perishable nature. While advanced plants may have reclaimers which allow for the separation of sand, stone and water from the returned concrete not all can afford to do so.

The vast majority of this concrete is dumped where large volumes of returned concrete accumulate and can be processed by mobile crushers which can be employed to process the material onsite where it is converting to reusable aggregates. In all cases it is advisable to collaborate with mobile operators and recycling specialists to provide solutions for handling excess

concrete efficiently and ensuring that the material is processed in an environmentally responsible manner.

By reducing the amount of waste sent to landfills these operations can lower disposal fees and minimise their environmental footprint. The recovery of aggregates and steel provides cost savings and potential revenue streams. Additionally, the use of RCA in construction projects supports sustainability goals by reducing the demand for virgin materials and conserving natural resources.

Efficiently managing concrete waste through recycling is a practical and beneficial strategy for precast and readymix operations. By investing in appropriate equipment and or partnering with specialist waste disposal companies many of these operations can reduce waste and by doing so they can contribute to the sustainability of their plant as well as assisting to meet environmental goals.



DYNAMON MS100

the sacrificial admixture that deals with the "GREMLINS" in your aggregate.

DYNAMON MS100 is an innovative, high-quality sacrificial admixture which is ideal for use with super absorbent aggregate on site.

It has been developed to accommodate various site conditions and raw material characteristics and should be used with your chosen superplasticizer.

When your aggregate is not working with you, trust **DYNAMON MS100** to get it back in line.

From the foundation to the roof
MAPEI is your solutions partner



Learn more at mapei.co.za
Tel: +27 11 552 8476
Email: info@mapei.co.za



107 METRE CONVERTER STACK DEMOLISHED AT PALABORWA MINE



Draco Group successfully completed one of South Africa's most technically challenging demolition projects: the controlled blasting and toppling of a structurally compromised 107-metre concrete converter stack at Palabora Mining Company (PMC).

The reinforced concrete stack, built in 1960 and refurbished in the late 1980s, had reached the end of its serviceable life. By early 2025, a structural assessment by consulting engineers Knight Piésold revealed alarming signs of instability. The structure was leaning six degrees with a 600 mm off-centre deflection, exceeding national SANS 10160 serviceability limits. This raised the risk of a sudden collapse. Situated at the heart of PMC's live smelter operation in close proximity of the Kruger National Park the stack posed significant safety, environmental and operational risks.

Conventional dismantling methods such as scaffolding or a top-down demolition were ruled out due to instability and limited space. The smelter plant surrounded the stack on 340° of its perimeter, leaving only a narrow 20° corridor for a safe fall zone. Fur-

ther complicating the project, three live railway lines crossed the designated drop area and had to be dismantled and within a 48-hour timeframe to avoid production delays.

Draco Group's engineers developed a solution that combined demolition expertise with advanced technology. More than 400 precision-drilled blast holes created a controlled failure plane, while diamond rope cutting introduced a hinge line to guide the toppling direction and reinforcement bracing was installed to stabilise weak points. Sophisticated surveying methods mapped over 1,000 data points across the structure, informing digital models and refining the blast design. On the day of the blast drones equipped with thermal imaging surveyed the 300-metre exclusion zone to detect any wildlife or human presence confirming the area was clear.

At precisely 12:00 on 17 June 2025, the blast was executed. The stack fell exactly within the planned corridor, crossing the three railway lines with a margin of less than 20 metres. Surrounding infrastructure remained intact and smelter operations resumed immediately once the rail lines were reinstated.

Safety was the cornerstone of the project. The Department of Mineral Resources approved the blast plan and strict safety procedures were enforced. A 300-metre exclusion zone

was cleared and monitored, while daily safety briefings and PPE checks ensured compliance. The project concluded with zero incidents, zero injuries and zero damage to adjacent plant assets.

Environmental protection was equally critical, given the project's location inside the Kruger National Park. Measures included dust suppression, blast blankets and strict debris containment. Within 48 hours, rubble was removed to a designated mine landfill site, with reinforcing steel recycled. Post-blast monitoring confirmed no contamination of soil or water and no disturbance to wildlife.

Community and stakeholder engagement also played a role. Public notices were issued in local newspapers and collaboration with the Palabora Foundation, PMC's CSI arm, ensured transparency. Local subcontractors were employed for post-blast clean-up, creating jobs and skills development opportunities.

"This project was undertaken to protect lives and to safeguard critical infrastructure, while ensuring environmental responsibility," said Teddy Habib, CEO of Draco Group. "We are proud to have delivered a project of this scale and complexity without incident and to have set a new benchmark for specialist demolition in South Africa and across the continent."



MATERIALS HANDLING SOLUTION FROM A GLOBAL GIANT

Combilift has revolutionised the material-handling industry with its custom, space-saving solutions for materials handling and innovative idea especially for the concrete manufacturing industry.

Since 1998 its extensive product range has grown to include multidirectional forklifts, side loaders, articulated forklifts, compact stackers, straddle carriers and mobile gantries, with lifting capacities from 1 ton to over 150 tons. This Irish manufacturer has exported 100,000 trucks to 85 countries and is well-known for its innovative products.

These innovations are particularly valuable in industries that deal with heavy, irregularly shaped materials which come in a wide variety of shapes, sizes and weights, ranging from slabs to large pipes - making them challenging to handle. Combilift's equipment is uniquely engineered to meet the challenges of lifting and moving these heavy and oversized loads in concrete warehouses and yards.

Combilift's range of heavy lifting equipment includes the Combi-SC (Straddle Carrier) and the Combi-MG (Mobile Gantry). These machines are ideal for handling and transporting very large loads commonly found in the precast concrete industry, such as structural beams, precast panels and slabs.

Globally sustainability is on every company's agenda. A significant advantage of the SC and MG product ranges is their light footprint, which makes them extremely fuel-efficient. Additionally, their large puncture-proof flotation tyres greatly reduce ground pressure allowing them to operate on all floor conditions including poor and semi-rough terrains. This also eliminates the need for ground resurfacing. The ability to optimise storage capacity and avoid costly ground resurfacing reduces both the physical and carbon footprint of a site while eliminating the need for unnecessary greenfield expansion and its associated costs.

Additional benefits include exceptional manoeuvrability in confined spaces



and enhanced safety offering excellent all-round visibility on the models with a driver's cab and remote-control options further enhancing safety and productivity and requiring only one operator to steer.

Combilift's multidirectional C-Series forklifts are ideal for the concrete fabrication industry, as they are designed to manoeuvre sideways while handling long and bulky concrete loads. The sideways function eliminates the need for overhead carrying while navigating narrow aisles and tight spaces, which significantly reduces the risk of injury, collision and product damage and allows optimisation of warehouses and yard space, improves efficiency and enhances operational safety.

Additionally, it boasts an integrated platform, providing a stable base for resting loads during transportation.

The C-Series range is designed to improve workflow by effectively becoming three forklifts in one: a side loader, counterbalance and narrow aisle forklift.

Due to the increasing demand for electric-powered equipment, Combilift continues to expand its now extensive range of electric forklifts. The multidirectional Combi-CB70E is one of the latest additions to the range. With a 7t lifting capacity, it is the most compact counterbalance forklift in the market of its capacity.

Combilift's versatile product range is an example of innovation to meet the needs of customers in varied markets. These machines can transform concrete handling operations by making them safer and more efficient while optimising storage and yard space.





CONCRETE MANUFACTURERS ASSOCIATION (CMA) MEMBER LIST

Producer Members

Precast Pillar: Infrastructure - PI and Building - PB



BERTS BRICKS
TEL: (018) 238 1815
PROVINCE: NW | PILLAR: PB/PI



BLUBLOK (PTY) LTD
TEL: (021) 204 0079
PROVINCE: WC | PILLAR: PB/PI



C.E.L. PAVING PRODUCTS (PTY) LTD
TEL: (021) 905 5908
PROVINCE: WC | PILLAR: PI



CAPE CONCRETE WORKS (PTY) LTD
TEL: (021) 905 1900
PROVINCE: WC | PILLAR: PB/PI



CEMBLOCKS (PTY) LTD
TEL: (014) 538 0311
PROVINCE: NW | PILLAR: PB/PI



CEM BRICK (PTY) LTD
TEL: (051) 433 4479
PROVINCE: FS | PILLAR: PB/PI



CORESLAB (PTY) LTD
TEL: (067) 232 2462
PROVINCE: LM | PILLAR: PB/PI



CONFRAMAT (PTY) LTD
TEL: (0661) 33 5099
PROVINCE: GT | PILLAR: PB/PI



COROBRIK (PTY) LTD
TEL: (031) 640 3252
PROVINCE: KZN | PILLAR: PB/PI



DUKATHOLE
Concrete Industry, Builders and Engineers

DUKATHOLE EAST LONDON
TEL: (031) 727 2648
PROVINCE: EC | PILLAR: PB



ELDOFOX (PTY) LTD
TEL: (030) 011 1070
PROVINCE: KZN | PILLAR: PI



ELEVATIC SA (PTY) LTD
TEL: (011) 423 2700
PROVINCE: GT | PILLAR: PB/PI



GLOBAL PRECAST (PTY) LTD
TEL: (012) 666 6158
PROVINCE: GT | PILLAR: PB/PI



GOLDEN GLOW INVESTMENTS (PTY) LTD
TEL: (082) 786 2063
PROVINCE: KZN | PILLAR: PB



FICK SEMENTWERKE BK
TEL: (022) 913 1901
PROVINCE: WC | PILLAR: PB/PI



HORIZON CONCRETE WORKS
TEL: (012) 943 3701
PROVINCE: NW | PILLAR: PB



AGW TRADING T/A KOLBE BLOCKS
TEL: (041) 400 7906
PROVINCE: EC | PILLAR: PB



LATEGAN'S
CONCRETE & BLOCKS

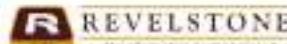
LATEGANG CEMENT WORKS (PTY) LTD
TEL: (021) 870 1154
PROVINCE: WC | PILLAR: PB/PI



MOBICAST (PTY) LTD
TEL: 086 111 2046
PROVINCE: WC | PILLAR: PB/PI



NORTHWEST BRICK
TEL: 053 527 1034
PROVINCE: NW | PILLAR: PI



REVELSTONE (CAPE) (PTY) LTD
TEL: (0861) 179 835 / (021) 781 9737
PROVINCE: WC | PILLAR: PI



ROCLA (PTY) LTD
TEL: (011) 670 7800
PROVINCE: GT | PILLAR: PB/PI



SHUKUMA BRICKS (PTY) LTD
TEL: (041) 372 1013
PROVINCE: EC | PILLAR: PB



**SHUKUMA FLOORING SYSTEMS T/A
ZITTLAU DIENDOMME (PTY) LTD**
TEL: (041) 372 1029
PROVINCE: EC | PILLAR: PB



SMIT STEENWERKE BK
TEL: (022) 713 4035
PROVINCE: WC | PILLAR: PB/PI



TECHNICRETE (PTY) LTD
TEL: (011) 872 1426
PROVINCE: GT | PILLAR: PB/PI



VIBRO BRICKS & PAVING (PTY) LTD
TEL: (012) 374 2222
PROVINCE: GT | PILLAR: PB/PI



VIBRO BRITS (PTY) LTD
TEL: 012 943 3701
PROVINCE: NW | PILLAR: PB/PI



VANSTONE PRECAST (PTY) LTD
TEL: (012) 541 2050/1806
PROVINCE: GT | PILLAR: PB/PI



VAN DYK STONE (PTY) LTD
TEL: (022) 713 1244/5 - (022) 713 1807/6
PROVINCE: WC | PILLAR: PB/PI



**VISCON PRECAST
CONCRETE PRODUCTS**
TEL: (031) 904 1683/4
PROVINCE: KZN | PILLAR: PI



VNH PRECASTING CO
TEL: (039) 862 0748
PROVINCE: KZN | PILLAR: PI



VULA CONCRETE (PTY) LTD
TEL: (011) 422 2700
PROVINCE: GT | PILLAR: PI



WEST END CEMENT BRICKS (PTY) LTD
TEL: (011) 851 1935
PROVINCE: GT | PILLAR: PB/PI



WZ BETONWERKE
TEL: (057) 733 1020
PROVINCE: FS | PI



ZENZLE BRX (PTY) LTD
TEL: 079 401 1829
PROVINCE: GT | PILLAR: PB



CONCRETE MANUFACTURERS ASSOCIATION (CMA) MEMBER LIST

Non-Producer Members

Machinery, moulds, technology, admixtures, chemicals, etc



ABEL EQUIPMENT
TEL: (044) 574 1875
PROVINCE: WC



BIRKENMAYER H (PTY) LTD
TEL: (011) 570 3000
PROVINCE: GT



CHRYSO SOUTHERN AFRICA (PTY) LTD
TEL: (011) 385 8700/
(031) 564 0325 / (021) 828 1650
PROVINCE: GT/KZN/WC



CVZ CONSULTING TRAINING
TEL: 083 701 4167
PROVINCE: GT



DICK KING LAB SUPPLIES (PTY) LTD
TEL: (011) 499 9400/
(031) 700 2551
PROVINCE: GT/DBN



KERNEOS SOUTH AFRICA (PTY) LTD
TEL: (011) 444 3090
PROVINCE: GT



KOBRA MOULDS B.V.
TEL: 003111 356 2460
COUNTRY: NETHERLANDS



MAGNI SOUTH AFRICA (PTY) LTD
TEL: (011) 385 2227
PROVINCE: GT



OLI ELECTRICAL VIBRATORS (PTY) LTD
TEL: (011) 352 1054
PROVINCE: GT



Quadra South Africa
TEL: 071 688 5395
PROVINCE: National



Concrete Equipment Solutions and Technology
PAN MEERS SA (PTY) LTD
TEL: (011) 576 8700/8600
PROVINCE: GT



QUANGONG MACHINES CO LTD
TEL: +86 886 8679 8789
COUNTRY: CHINA



REVARO CONCRETE EQUIPMENT
TEL: (011) 754 8271
PROVINCE: GT



TERRAFORCE (PTY) LTD
TEL: (021) 465 1907
PROVINCE: WC



WAM South Africa

WAM South Africa
TEL: (021) 951 1840
PROVINCE: WC



CMA CERTIFICATION SERVICES
TEL: (011) 855 6742
PROVINCE: GT

Associate Members

Engineers, architects, quantity surveyors and associations



STEFANUTTI STOCK & CO
TEL: (011) 571 4300
PROVINCE: GT



YOUNG & SATHARIA CONSULTING CIVIL ENGINEERS (PTY) LTD
TEL: (031) 207 7252
PROVINCE: KZN

SEKHUKHUNE & ASSOCIATES
TEL: (012) 346 1845
PROVINCE: GT



SOILCON
Geotechnical and Civil Engineering Laboratory
Tel: (012) 333 7817
PROVINCE: GT

Contractor Members

Installation experts:

Cement Member



VALCAL INTERNATIONAL EXPORT CC
TEL: (011) 867 2471
PROVINCE: GT

VISIT THE CMA WEBSITE BY
SCANNING THE QR CODE
BELOW.



AFRISAM
SOUTH AFRICA (PTY) LTD
TEL: (011) 670 5500
Website: www.afrisam.co.za

PLEASE NOTE:

The member list is correct at the time of going to print. For any additional information regarding CMA membership or current members please contact the CMA at marketing@cma.org.za or give us a call on tel: (011) 805 6742.

TERRAFORCE® DESIGN



SINCE 1979

IMPORTANT: Our comprehensive services are exclusively available for Terraforce® products purchased through our network of licensed manufacturers. This ensures you receive genuine Terraforce® products backed by our technical support and quality assurance. Use of counterfeit blocks could lead to performance issues and potential safety risks on site, which could also result in insurance complications.

TERRAFORCE Licensed Manufacturers in South Africa

- | | | |
|--------------------------|--|--------------------|
| ■ Cape Concrete Systems | ■ Corobrik Pmb & Dbn | ■ Deranco Blocks |
| ■ Ecocrete | ■ EFS Construction | ■ Fick Sementwerke |
| ■ Mobicast | ■ Van Dyk Stene/Precast | ■ Poort Beton |
| ■ Port Shepstone Precast | ■ ReMaCon | ■ Retain-A-Wall |
| ■ TFSD Concrete Products | WWW.TERRAFORCE.COM/MANUFACTURERS | |



**IF IT IS NOT MADE BY THE RIGHT PEOPLE
THEN IT IS NOT THE REAL PRODUCT**



WWW.TERRAFORCE.COM
TEL: +27 (0)21 465 1907
EMAIL: INFO@TERRAFORCE.COM