



# SPANCRETE

Innovation in Concrete

Spancrete Industries Ltd

1 Queen Elizabeth Str.

Lafenwa, Abeokuta

Ogun State

Phone No. +234-809-283-9696

Email: [accounts@spancrete.ng](mailto:accounts@spancrete.ng)

## Who We Are & What We Aim to Do

Spancrete Industries was born of the belief that: building construction in Nigeria need not inspire dread in the minds of prospective building owners; that quality, affordability and timeliness in construction are not mutually exclusive goals; and that a Nigerian run business could profitably deliver these services (and in doing so change the industry) without undue reliance on “expatriate” know-how.

What distinguishes the Nigerian building industry from most foreign (including other African) counterparts is its near exclusive use of in-situ concrete construction methods; other building industries use per-cast concrete construction methodologies to a greater or lesser degree. In graphic/lay-man’s terms you could say Nigerian builders *hew wood, fetch water, mold clay/cement and break backs* while struggling to build.... while builders in other countries *buy “lego” pieces at the buider’s depot and assemble on site....*

The Spancrete **Mission** is to popularize the use of a broad range of pre-cast concrete construction technologies, empowering local builders to better serve client needs.

The Spancrete **Vision** is a Nigerian building industry positioned to meet the needs of a burgeoning population/economy, with improved quality and efficiency standards and reduced reliance on imported skills.

## Our Journey (so far....)

Spancrete Industries was incorporated in August 2015 after extensive market/opportunity surveys indicated that a market exists for a commercial pre-cast concrete operator in the Lagos/Ogun/Oyo State area. The 2 key findings of that research were that;

- Previous attempts at introducing pre-cast had limited success due to a combination of (i) business models that tied products to a parent construction firm, rather than a commercial offering to the public, (ii) focus on specialist products inaccessible to the average construction firm, (iii) falling product/quality standards, leading to loss of customer confidence, and/or (iv) poor commercial management.
- To successfully penetrate the mass-market, any pre-cast offering needs to factor the preponderance of manual over crane-assisted site lifting methods, and the peculiar transport/site logistics associated with Nigerian construction sites.

Research also turned up a moribund precast plant (Prestrest Nigeria Ltd) that had been set up in 1952 and operated for many years before it ceased production activities in 2013/14. In



2016 SpanCrete leased production facilities at one of Prestrest's factories and proceeded to re-tool the plant for more efficient production of an existing product (pre-stressed ribs) that had gained market acceptance over the years.

2016 and a good part of 2017 was consumed by production set-up/testing and product development/marketing, thus our launch product only hit the market in late August 2017. In the last 2 years we have further built the business and reduced the sustained production cycle from 72 to 48hrs (on occasion we pushed this down to 32hrs). We now plan to move to purpose built premises by mid 2020 in order to expand production to meet demand.

## Our Product Offering(s)

Our product offering is focused primarily on Pre-stressed Concrete Technology, a sub-set of Precast Concrete. The key benefit of pre-stressed concrete is the smaller section sizes it affords, which make manually portable concrete products possible (concrete is typically too heavy for a man to carry).

Our product pipeline will ultimately include products that cater to all parts of a typical building (foundations, structural frame, walls, floors/roofs and stairs). In our launch phase though, we have focused on our Pre-stressed Ribbed Floor Solution (**RhinoSlab**); we plan to launch a Pre-stressed Lintel solution in 2020.

SpanCrete **RhinoSlab** reintroduces pre-stressed ribbed slabs into the Nigerian concrete slab construction space. The system is neither "new" nor "ultra-modern", as the system has been in continuous use in Nigeria since 1953 and shares many similarities with the "Clay Pot" system that is in wider use within the industry.

Inefficient in-situ concrete slab, subject to high on-site quality control constraints, remains the primary choice floor slab construction and as a result, managing **Quality, Time and Cost** remains difficult in the Nigerian construction space. "Clay Pot" ribbed floors address some of these shortcoming and have made an inroad among higher-end contractors, but the high cost of burnt clay (high energy costs) and continued need for expensive formwork result in this solution addressing **Quality**, and to a lesser degree **Time**, but it remains **Costly** for most projects.

SpanCrete **RhinoSlab** Pre-stressed Rib & Block Solution is a variant of the "Clay-Pot" ribbed slab that substitutes sandcrete pots for burnt brick, while pre-stressed ribs eliminate the need for formwork; it thus makes further improvements on **Quality** and **Time** management, while..... wait for it..... **Cost** is comparable with an in-situ slab!

A picture tells a thousand words and the graphics below fully outline the system;



# SPANCRETE

Innovation in Concrete



*Positioning Ribs*



*Placing Hollow-Pots*



*Construction deck in place*



*50mm conc. topping*

The benefits of the RhinoSlab system are derived from;

## Quality;

- Use of pre-stressing steel (2,060MPa vs 500MPa for regular reinforcing rods) – less steel used and confirmation of strength of each strand!
- Factory controlled concrete casting/curing – greater than 30MPa achieved in concrete ribs, 25MPa in-situ concrete reduced to circa 40% of volume used in an in-situ slab

## Time;

- Shuttering is eliminated – decking can start once ring-beam formwork/reinforcement is in place
- Minimal propping below the slab – following trades can be initiated faster

## Cost;

- Comparable price to 150mm in-situ slab, 12% lighter – additional savings on structure and foundations.
- Price of ribs & blocks (circa 70% of total slab costs) fixed at the outset – limits price variations
- Produced to order/design – less waste & pilferage on site.
- Option to produce sandcrete pots on site – additional cost savings (large projects only).

The system does not impose additional management/expertise requirements on the project; all that is required is a site foreman and labor. SpanCrete Ind. provides explanatory material/video and on-site guidance to ensure the contractor's team is properly equipped to deliver.

## Our People

### **Gboyega Songonuga, ▶ CEO**

B.Sc. Architecture, Obafemi Awolowo University, 1989  
M.Sc. Architecture, Obafemi Awolowo University, 1991  
M.Sc. Finance, London Business School, 1999  
Chartered Financial Analyst Charter, 2003

---

Mr. Songonuga trained as an Architect before embarking on an over 2 decades long sojourn in finance with Citibank, HSBC and the International Finance Corporation. More recently (starting 2009) he supported his wife in building a family run design-consulting firm, with completed projects in Nigeria, S. Africa and the US. That experience, particularly in dealing with the chaotic Nigerian construction market, with the conviction that things could be done better, led to the Spancrete initiative in 2015. His architectural training, business orientation and hands on approach have been key in identifying and developing the business opportunity.

### **Yinka Adewuyi, ▶ Structural Engineering**

B.Sc. Structural Engineering, University of Sussex 1982  
M.Sc. Highway Engineering, University of Birmingham 1983  
Fellow, Nigerian Institute of Structural Engineers  
Member, Nigerian Society of Engineers

---

Mr. Adewuyi started his career with Ove-Arup before launching his structural engineering firm EMMS UF-A (<http://www.uf-a.com>). Over the last 3 decades he has acted as the lead structural designer on many iconic projects in across the country, while training a crop of engineers who are now in senior positions across the industry. Along the way he has developed a reputation as the go-to person for difficult engineering challenges and is regarded as an authority/professional-witness on structural collapse and remediation. Mr. Adewuyi chaired the Nigerian review board for the adoption of BS-8110 engineering code in 1998. He has prior experience in precast technologies, having advised both Tectonico Ltd. and DamDem Modular Systems (the two leaders in the field locally) at the outset of those ventures.

### **Sina Akinyemi, ▶ Sales & Marketing**

B.Sc. Quantity Surveying, Obafemi Awolowo University, 1992  
M.Sc. Construction Management, University of Lagos, 1997  
Member, Nigeria Institute of Quantity Surveyors

---

Mr. Akinyemi built Artscapes Ltd (<http://artscapes.ng>) into the premier specialist concrete floor finishes provider in the Lagos area. Artscapes also serves as specialist turn-key contractor in the residential and commercial building sector, and Mr. Akinyemi's industry knowledge and networks are proving instrumental in the launch of the Spancrete product line.





SPANCRETE

Innovation in Concrete

**Tunde Ogundele, ▶ Production Operations**

B.Eng. Agric. & Bio-resources Engineering, University of Minna, 2008

---

Mr. Ogundele has vast experience with precast and concrete plant in general, having run production operations for Tectonico Ltd. and DamDem Modular Systems, in addition to advising Simply Concrete Ltd on the set up of its ready-mix concrete and block making plant in Lekki. Tunde also runs a structural steelwork business.









# SPANCRETE RHINO SLAB SOLUTIONS

## INDICATIVE PRICING

RhinoSlab suspended floor systems  
Price List valid from May 1<sup>st</sup>, 2017



**RhinoSlab**

Span [M]	Slab depth [cm]	Approx. price per 1m <sup>2</sup> Ribs & Hollow Pots Material / (Installed) [ex VAT]
1.00 to 5.10	20 cm	<b>9,150 (13,050)</b>

Call for pricing on spans exceeding 5.1 meters.

- Traditional and proven materials.
- Highest quality, with construction flexibility
- Crack control, reduced deflection
- Reduced slab depth, larger spans
- Perfect for all levels, including raised ground floors

### Basic Material Data

- Prestressed T-Beams ("R" Range)
  - Steel: 2060MPa Low Relaxation Prestressing Tendons in various combinations of 6.85mm & 5.2mm Strand.
  - 105 x 130mm T-Beam Geometry
  - Concrete Grade: 50MPa
  - R132: Max 3.0m length
  - R133: Max 4.5m length
  - R134: Max 5.0m length
  - R136: Max 6.5m length
  - Lengths: 1.8m up, in increments of 100mm.
- Vibro-compacted Concrete Hollow Pots ("Rhino Pots")
  - RP16: 160mm / 600centers
  - RP16M: 160mm / 520centers
  - RP12: 120mm / 600centers
  - RP20: 200mm / 600centers

Contact SpanCrete Industries design office in the case of non-standard loads or special structural solutions.

Additional construction costs: (i) topping concrete: 25MPa, min. 40mm thick, 0.58/sq.m, (ii) 5mm, 200x200mm welded mesh, (iii) construction props, (iv) labour, 1.35 man-hrs/sq.m; total estimated at approx 3,900 NGN/m<sup>2</sup> ex VAT. The above price list is for informational purposes and does not constitute a commercial offer.

## Value Added Services.....

- Advice on choice of flooring system and related calculations
- Structural drawings for the slab and bills of quantities
- Technical and Installer support.

*Innovation in Concrete*

**SpanCrete Industries Ltd.** Factory: 1 Queen Elizabeth St. Lafenwa, Abeokuta, Ogun State  
e-mail: sales@spancrete.ng