



SPEAKER:

Julien Raybaud-Gines

General Manager
Engineered Bars Systems
Dextra Group



TRANSPORT
MIDDLE EAST 2026

Use of Composite & Steel Materials and Precast Technology in Marine Structures

Tuesday 27 to Thursday 29 January 2026
InterContinental Abu Dhabi, United Arab Emirates

Global leader in design and manufacturing of engineered solutions

Over 40 years of experience on 20,000+ of the world's most prestigious projects



Integrated engineering
& manufacturing
products & equipment



90+ fabricators &
distributors worldwide



International
& local contractors



Landmark projects:
high-rise, infrastructure
and energy projects



Compliance with
international standards,
approved by major
consultants

COMPANY INTRODUCTION



GLOBAL FOOTPRINT



17
Locations

3
Manufacturing
Plants

MANUFACTURING CAPABILITIES



Bangkok, Thailand



Pune, India



Guangzhou, China





Bangkok, Thailand

16 Million Splices p.a.

12,000 Tons Bars p.a.

60,000 Sonic Tubes p.a.

150 Equipment Sets p.a.





Guangzhou, China

8 Million Linear Meters FRP bars p.a.

2 Million Linear Meters FT bars p.a.

1.6 Million Linear Meters Core bars p.a.

360,000 Sonic Tubes p.a.





Pune, India

8 Million Splices p.a.

3.4 Million Linear Meters FRP
bars p.a

540,000 Sonic Tubes p.a.



INNOVATIONS FOR PORTS INFRASTRUCTURE AND PERFORMANCE



Speed of execution & increase
in productivity



Sustainability & Durability

INNOVATION

Applications
&
Materials

Production processes

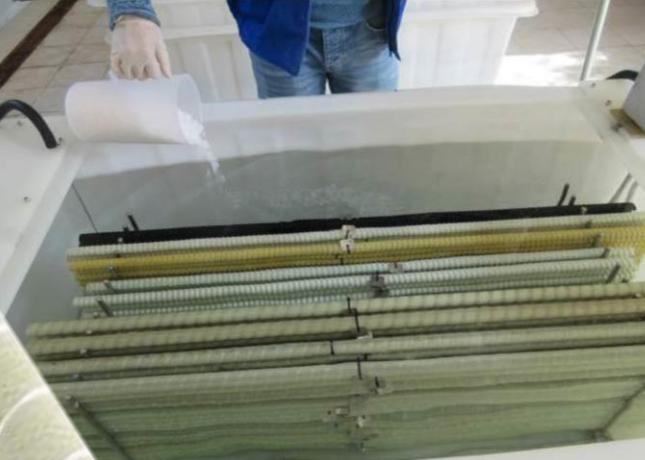


Quality & Safety



Modularity

DEXTRA FIBRE REINFORCED PRODUCTS



Stronger & Lighter than steel

- 2x the tensile strength of steel
- 1/4 weight of a steel bar of same diameter



Non-corrosive, non-conductive

- Material doesn't corrode and offer high resistance to chlorides and alkali.
- Particularly suitable for environments exposed to water, salt, & humidity.
- Non-conductive. It's the perfect reinforcement solution for high voltage currents and magnetic fields.



Simplified Installation

- Delivered in straight bars up to 11.8m or in coils.
- Labor required for installation reduced by 2x to 3x.



The Perfect Alternative To Steel



Material is safe & easy to handle, requiring much less labor for installation, generating both time & money saving.



Durable material, allowing to design for a longer lifetime of the structure. As no maintenance nor repair work is needed, ASTEC generates savings during the whole project life.



Sustainable material, with significantly less energy required and CO₂ emission, both at production stage and for its transportation & installation.

MARINE APPLICATIONS



Dry dock facia rehabilitation, Hawaii, USA



Dock of Aramco, KSA



Elizabeth Quay, Australia



Jizan Flood Mitigation Channel,
Saudi Arabia

Construction of Quay & Jetty



Outer skin of wall in contact with sea-water

MARINE APPLICATIONS

Storage of Oil & Gas at Port Terminal



Dry-Dock Rehabilitation



Grid of 19mm (#6) GFRP bars
doweled and epoxied in place

MARINE APPLICATIONS

Jetty Repair / External Strengthening



Concrete with GFRP dowels
& post-tensioned steel bar

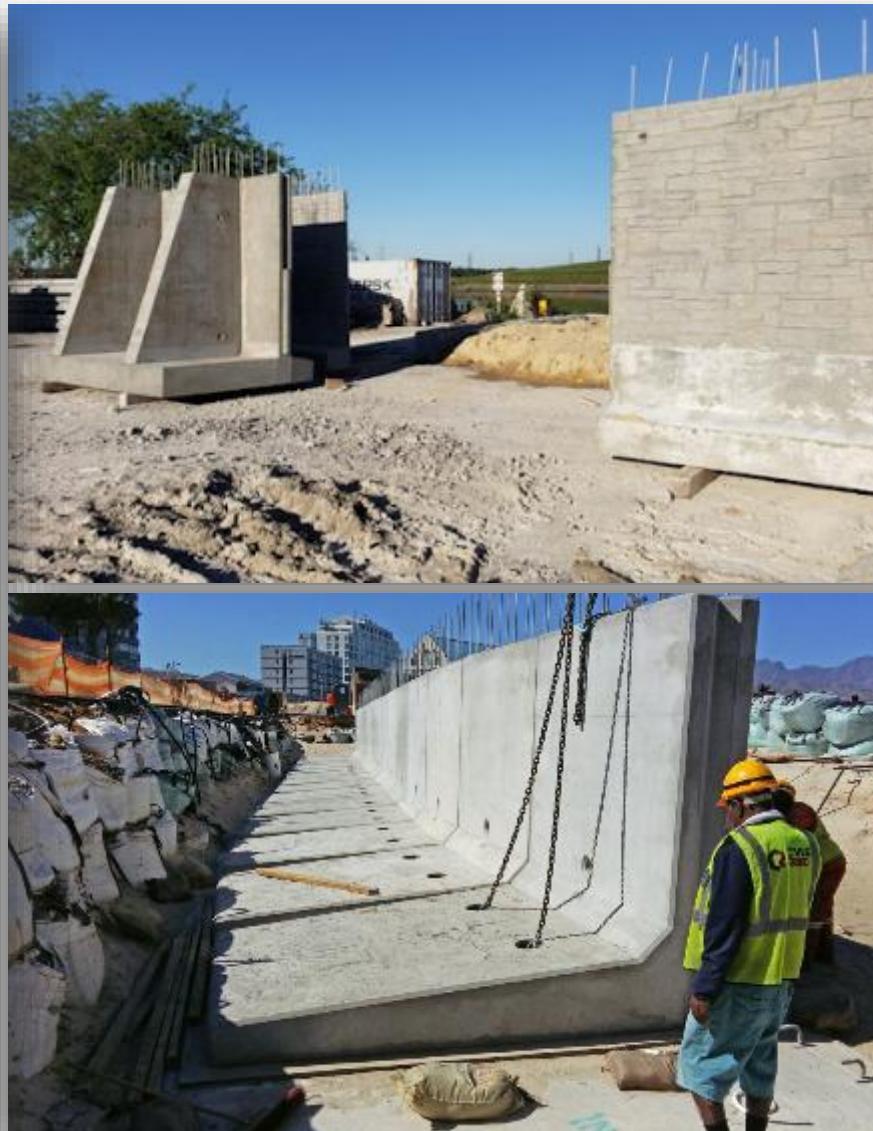
Platforms and Floating Structures



Precast and Composite
Materials at glance

MARINE APPLICATIONS

Sea Walls



Precast and Composite
Materials at glance

MARINE APPLICATIONS

Caissons Structures



Dextra couplers = splicing systems designed for the connection of concrete reinforcing bars

MARINE TIE BARS



Short installation time thanks to reduced assembly scope



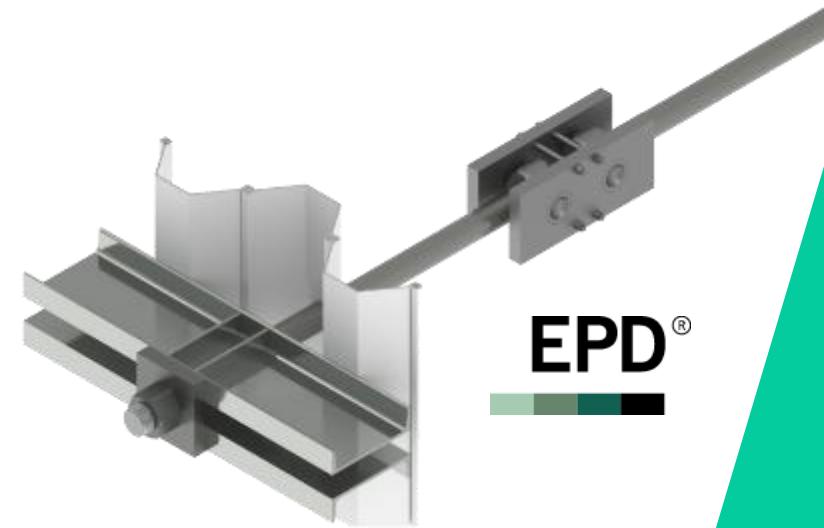
Control over delivery sequence



Overall efficiency in detailed design phase



Cost saving



Steel Piles



Diaphragm Wall



Tubular Piles



Increase steel grades, reduce diameters and go “lighter”

For a given working load of 4,400 kN



Grade	500	700
Diameter	110 mm	95 mm
Weight per lm	75 Kg	56 Kg
<p>Up to 25-30% savings for the contractor with Grade 700</p>		

SEA-SAND SEAWATER CONCRETE (SSC)



Life cycle cost analysis of structural concrete using seawater, recycled concrete aggregate, and GFRP reinforcement have shown significant CO2 reductions along with cost savings

Substitute the use of freshwater with saltwater for concrete production ...

To construct durable and economical concrete infrastructures



Key benefits:

1. *Resource Conservation*
2. *Early Strength*
3. *Sustainability*
4. *Cost Efficiency*
5. *Durability*

*Coastal Enhancement Works
at Lei Yue Mun (HK)*

SEA-SAND SEAWATER CONCRETE (SSC)



SUSTAINABILITY

Beyond direct reductions of 60% to 70% of embodied carbon (CO₂)

Biggest impact is the reduction of CO₂ from concrete itself: reduce the quantity - up to 30% - and change its composition with recycled materials

GFRP Rebars



Sea-sand Seawater



Recycled Concrete Aggregate (RCA)



ACI Committee 243 - Seawater Concrete

New ACI committee whose mission is to develop and report information on concrete made with brackish, saline, and brine water and sea aggregates

As of June 2024 - Dextra is associated member of this new committee

CAD & BIM DETAILING TOOLS

 Get fast and precise 2D & 3D design

 Easy to use

 Up-to-date libraries

 Dedicated support



	Rebar Couplers	Tension Rods	PT Bars	Marine Tie Bars	Ground Engineering
	✓	✓	✓	✓	
	✓	✓	✓	✓	
	✓	✓	✓	✓	
	✓				
					✓

Free Download 

www.dextragroup.com

ESG POLICY



We are fully committed to upholding our ESG principles, which encompass environmental stewardship, social policy initiatives, and sound governance practices to ensure responsible and sustainable business operations.

ENVIRONMENT

- Environmental protection
- Sustainable resource use
- Waste reduction
- Continual improvement



GOVERNANCE

- Legal & regulatory compliance
- Code of conducts & ethics
- Risk management
- Stakeholder engagement



SOCIAL

- Respect of human rights
- Working conditions
- Community health & safety
- Responsible supply chain



ENVIRONMENTAL CERTIFICATIONS



THE INTERNATIONAL EPD® SYSTEM



Dextra solutions are **EPD (Environmental Product Declaration)** verified and officially listed on the **EPD Hub** website

<input checked="" type="checkbox"/> Marine Tie Bars	<input checked="" type="checkbox"/> Steel Ground Anchors
<input checked="" type="checkbox"/> Tension Rods	<input checked="" type="checkbox"/> Steel Self-Drilling Rock-Bolts
<input checked="" type="checkbox"/> Post-Tensioning Bars	<input checked="" type="checkbox"/> Steel Combination Bolts
<input checked="" type="checkbox"/> Rebar Couplers	<input checked="" type="checkbox"/> Sonitec CSL Tubes
<input checked="" type="checkbox"/> GFRP Rebars	



Presenter: Julien Raybaud-Gines
E-mail: jrgines@dextragroup.com



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THANK YOU

