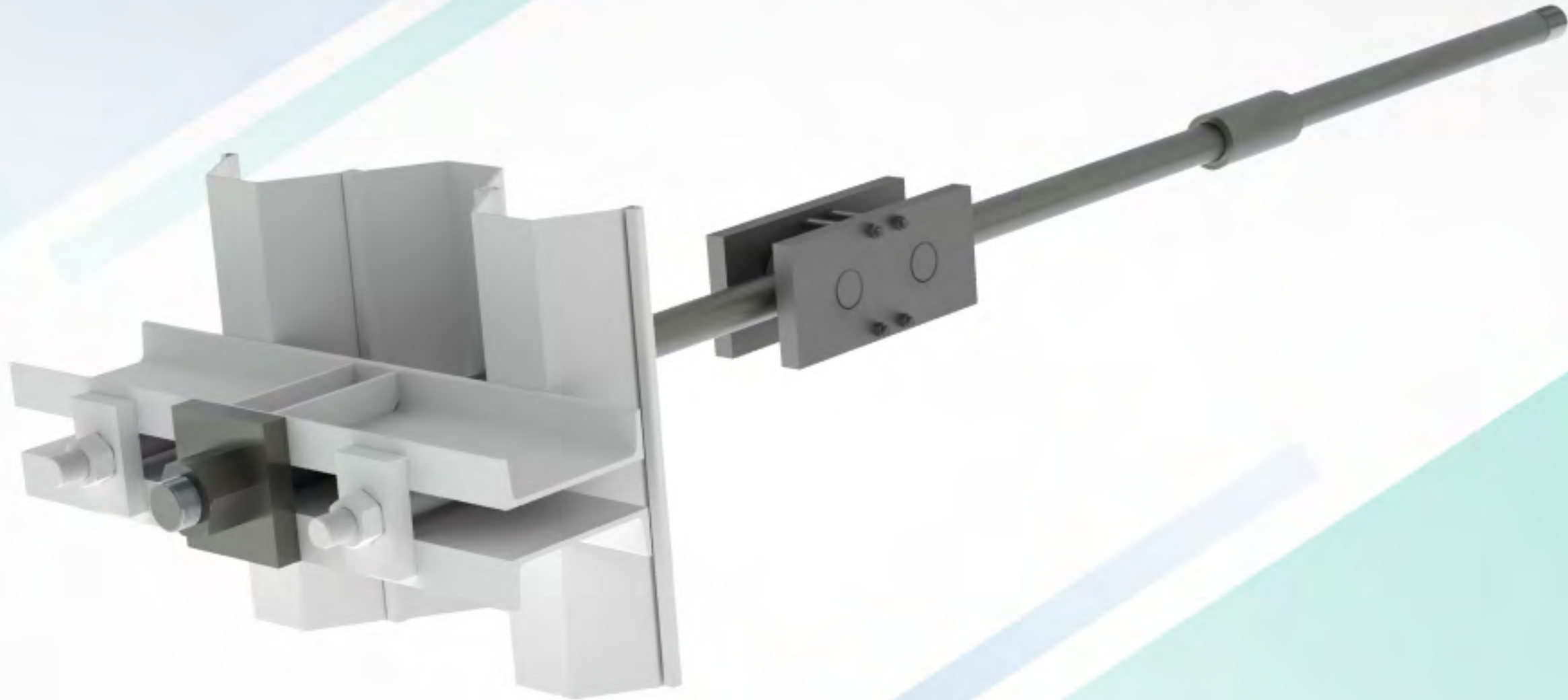


Marine Tie Bars System



Dextra

About our range

Tie Bars are used in port and harbour construction to anchor waterfront structures. Steel grades from 355 to 700 N/mm² in yield strength, and thread diameters from M48 to M162.

Different standard designs of articulated joint are available, including swivel plates, captive nuts and ball cages, to ensure the project requirements are fully accommodated.

Anchorage can be made compatible with all sheet pile profiles, combi walls and concrete diaphragm walls.

For projects using sheet piles, Dextra can also design and prefabricate waling beam systems with waling bolts to provide a complete anchoring system which will ensure full compatibility and consistency with our tie bars systems.

Product features

- Available in steel grades 355/510, 500/600, 700/900 N/mm².
- Thread diameter range M48 to M162.
- Rolled threads for better fatigue performance.

Corrosion protection / surface finish

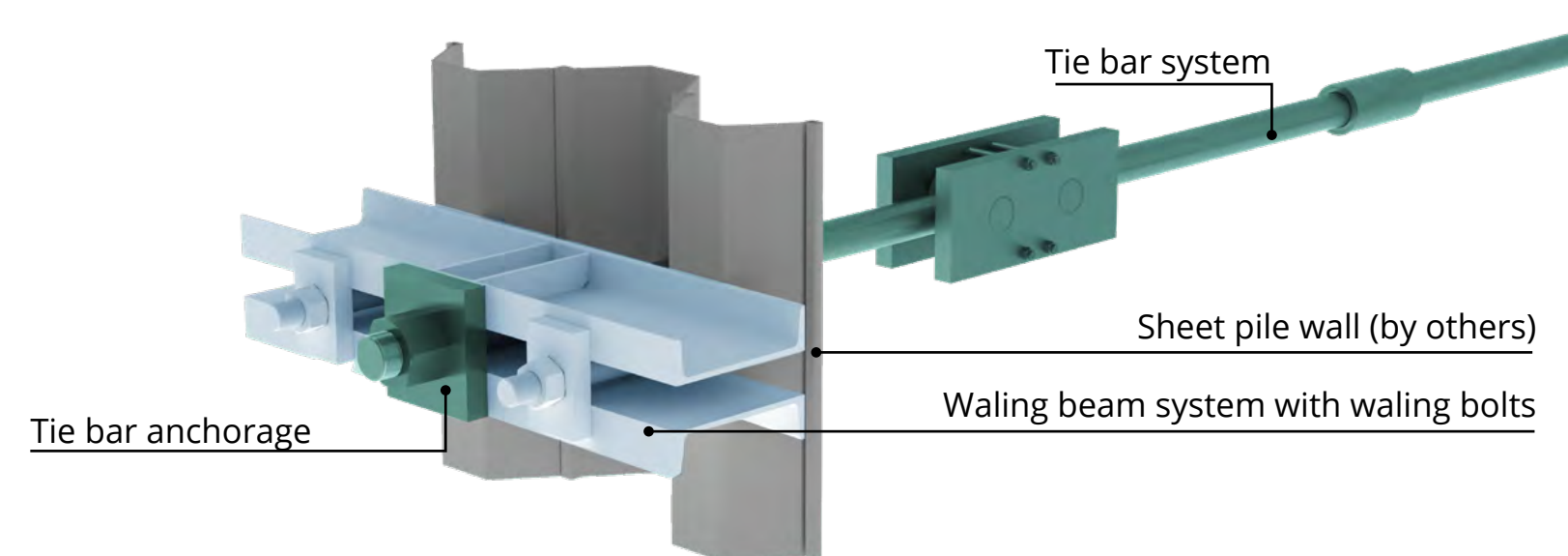
Various corrosion protection options are available such as bituminous tape, epoxy coating, sacrificial thickness depending on the project design and requirements.

Typical applications

- Harbors
- Wharves
- Jetties
- River embankments
- Container terminals
- Oil & Gas terminals

Product benefits

- Ductile design.
- Quick installation.
- Full range of accessories and corrosion protection options.
- Post-tensioning applicable.

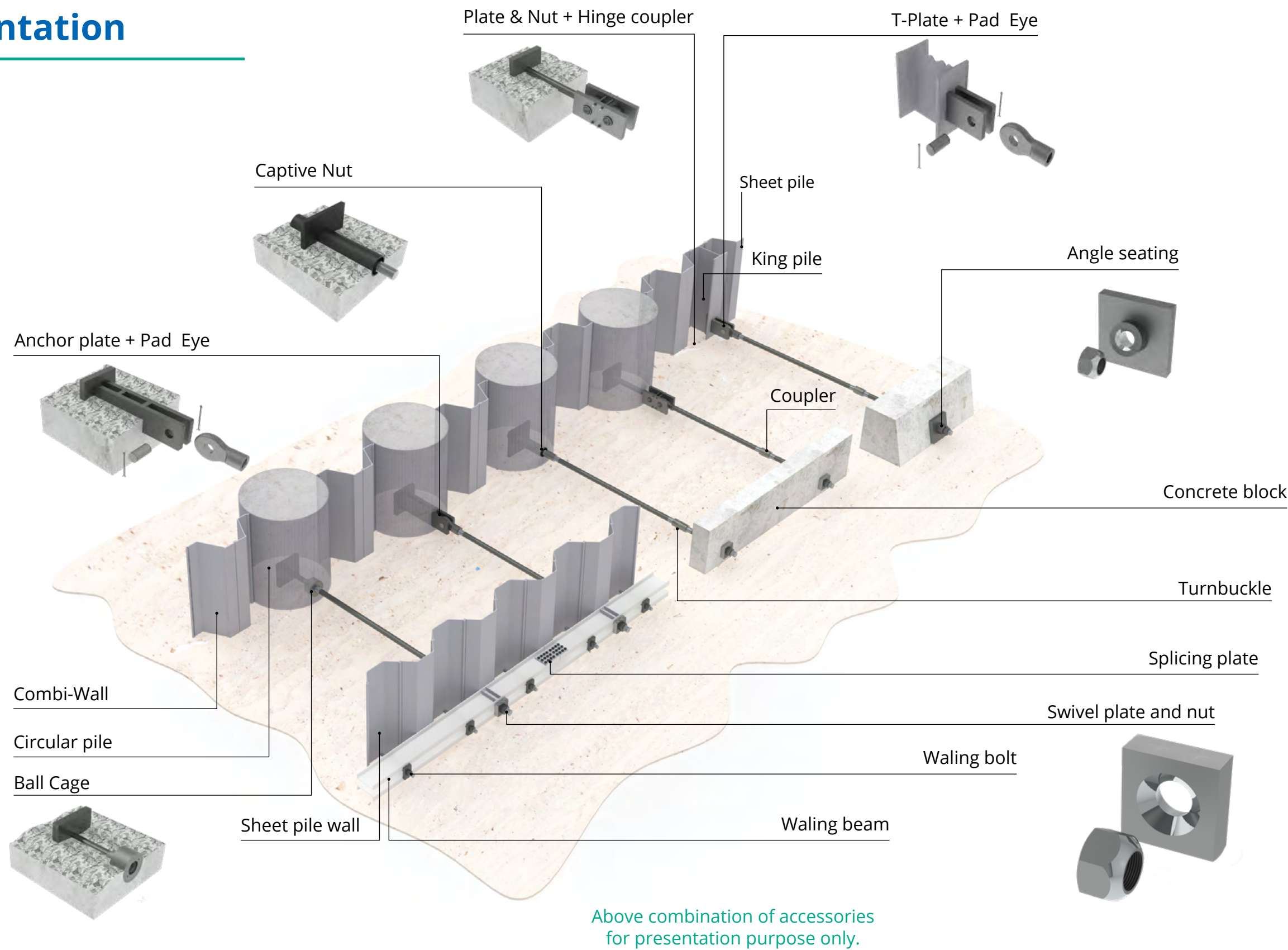


Load capacity

Thread size	Grade 355/510			Grade 500/660			Grade 700/900		
	Un-factored Yield Load	Un-factored Ultimate Load	Tension Capacity as per EC3*	Un-factored Yield Load	Un-factored Ultimate Load	Tension Capacity as per EC3*	Un-factored Yield Load	Un-factored Ultimate Load	Tension Capacity as per EC3*
mm	kN	kN	kN	kN	kN	kN	kN	kN	kN
M48	523	751	541	737	972	700	1,031	1,326	955
M52	624	896	645	879	1,160	835	1,230	1,582	1,139
M56	721	1,035	745	1,015	1,340	965	1,421	1,827	1,315
M60	839	1,205	867	1,181	1,559	1,122	1,653	2,126	1,531
M64	950	1,365	983	1,338	1,766	1,272	1,873	2,408	1,734
M68	1,085	1,558	1,122	1,528	2016	1,452	2,139	2,750	1,980
M72	1,228	1,764	1,270	1,730	2,283	1,644	2,422	3,114	2,242
M78	1,460	2,098	1,510	2,057	2,715	1,955	2879	3,702	2,666
M83	1,669	2,398	1,726	2,351	3,103	2,234	3,291	4,231	3,047
M88	1,892	2,718	1,957	2,664	3,517	2,532	3,730	4,796	3,453
M93	2,128	3,058	2,202	2,998	3,957	2,849	4,197	5,396	3,885
M98	2,379	3,418	2,461	3,351	4,423	3,184	4,691	6,031	4,342
M103	2,643	3,798	2,734	3,723	4,915	3,539	5212	6,702	4,825
M108	2,922	4,198	3,022	4,115	5,432	3,911	5,762	7,408	5,334
M113	3,214	4,618	3,325	4,527	5,976	4,303	6,338	8,149	5,867
M118	3,521	5,058	3,642	4,959	6545	4,713	6,942	8,926	6,426
M123	3,841	5,518	3,973	5,410	7,141	5,141	7,574	9,738	7,011
M128	4,175	5,998	4,319	5,881	7,762	5,589	8,233	10,585	7,621
M133	4,523	6,498	4,679	6,371	8,410	6,055	8,919	11,468	8,257
M143	5,261	7,559	5,442	7,411	9,782	7,043	10,375	13,339	9,604
M153	6,055	8,699	6,263	8,529	11,258	8,106	11,940	15,352	11,053
M162	6,818	9,794	7,052	9,602	12,675	9,126	13,443	17,284	12,444

* Loads as per EN 1993-5 (Eurocode 3) considering kt=0.9 as permitted when rotation is possible at anchorages.

System presentation



Type of walls and compatibility

Wall element		Captive Nut	Ball Cage	Hinge Coupler	Anchor Plate	T-Plate	Swivel Plate	Swivel Angle Seating
Additional accessory on bar end		-	Plate & Nut	Plate & Nut	+ Pad Eye	+ Pad Eye	+ Swivel Nut	+ Swivel Nut
Rotation capability		5°	± 10°	45°	± 90°	± 90°	± 7°	± 7°
Directions		all	all	vertical	vertical	vertical	all	all
Steel wall	Sheet Pile + Waling beam						X	X
	HZ Pile (King Pile)					X		
Concrete wall	Circular Pile / Combi-Wall	X	X	X	X			
	Concrete Capping Beam	X	X	X	X			
	Diaphragm Wall		X					
	Concrete Block			X			X	X



Resources



Brochure



Datasheet



Webpage

Project References



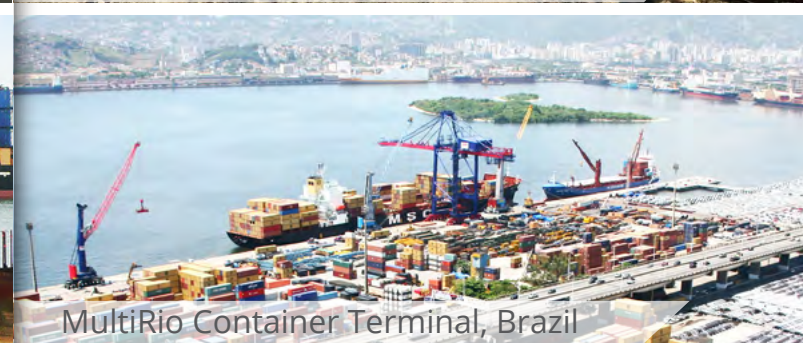
Maitree Super Thermal Power, Bangladesh



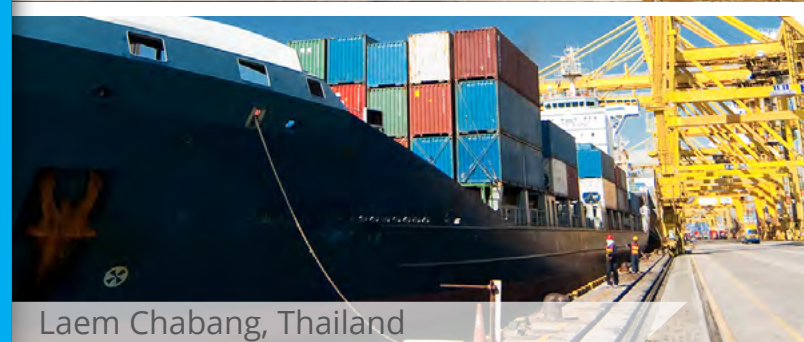
Sète Port, France



Port Autonome De Pointe-Noire, Republic of the Congo



MultiRio Container Terminal, Brazil



Laem Chabang, Thailand



Port Of Douala, Cameroon

CAD & BIM Tools

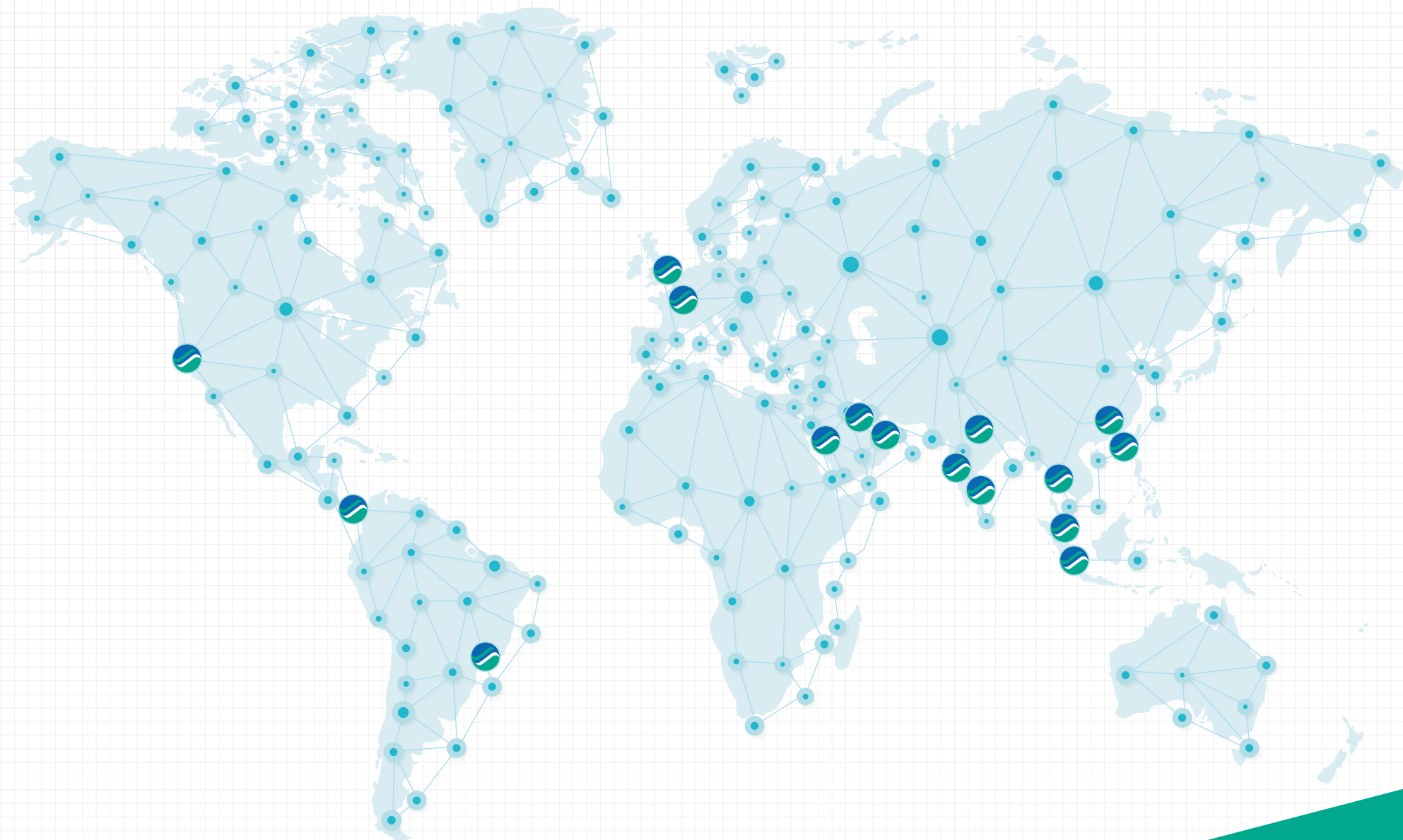


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in more than
55 countries



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