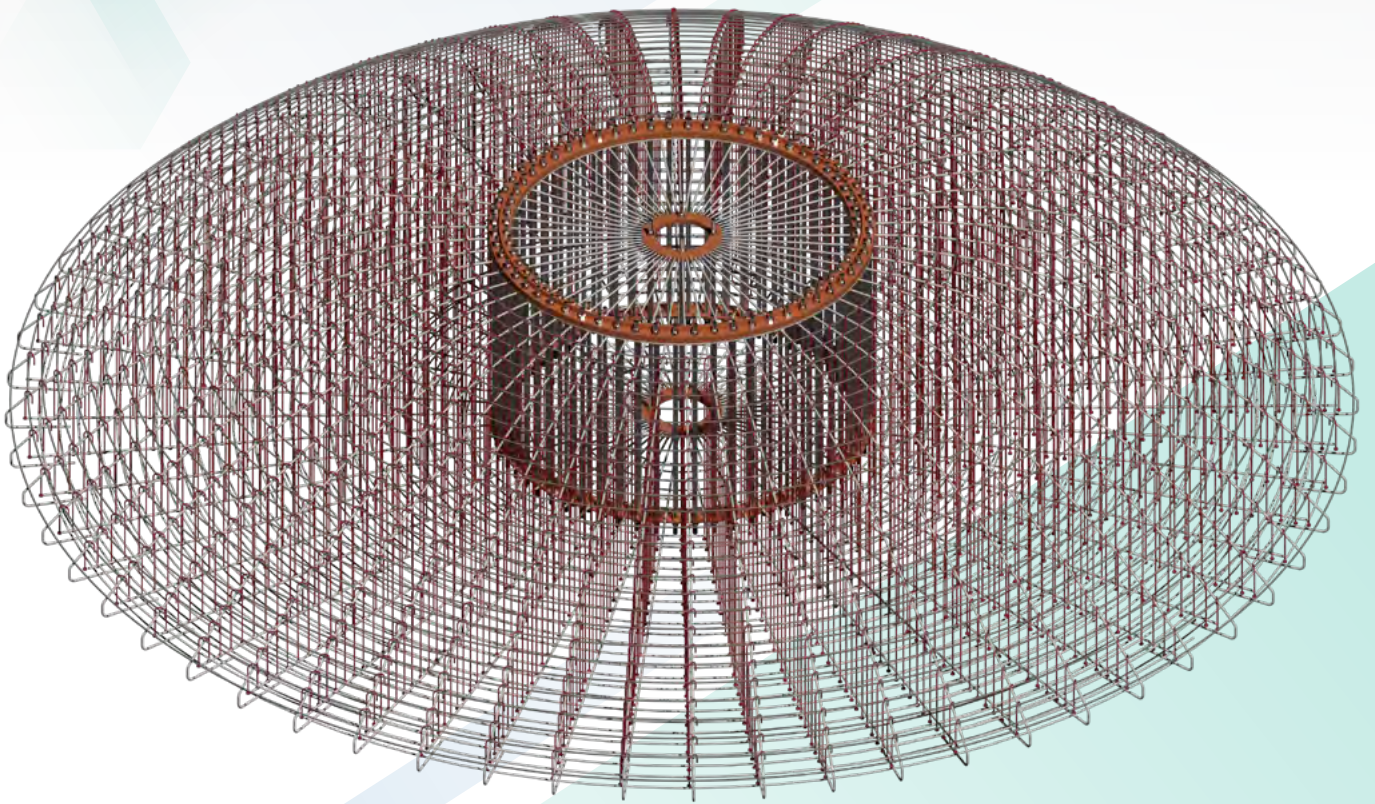


Wind Turbines

Anchor bolt and steel pylon splicing systems



Dextra

www.dextragroup.com

Product features

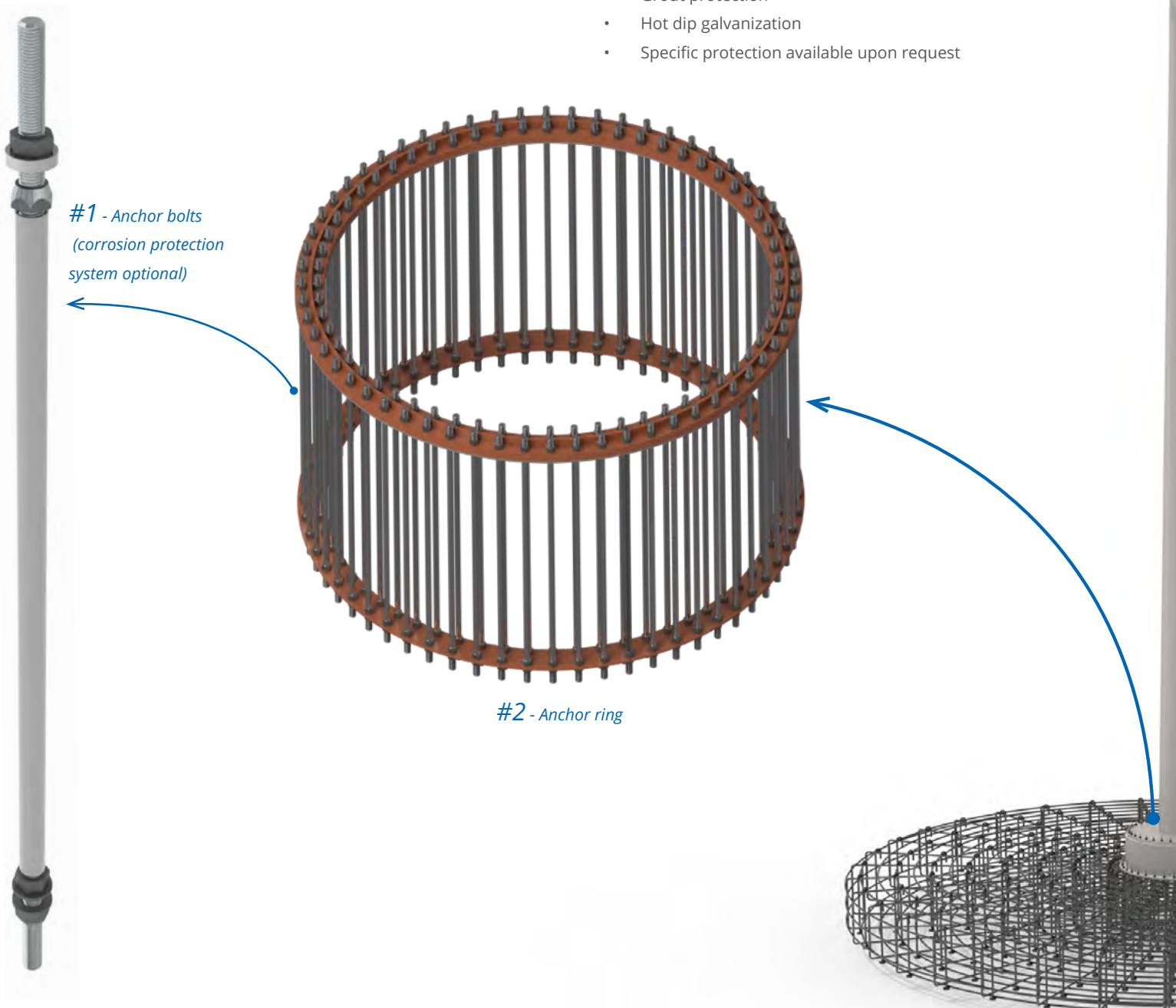
- Diameter range from 31 mm to 100 mm (M33 to M103).
- Three steel grades available.
 - » Gr 835/1030
 - » Gr 930/1080
 - » Gr 1050/1200

Rolled threads (obtained by cold plastic deformation of the metal between two dies) optimized for fatigue performance.

- Thread profile is ISO metric thread according to ISO 262.

Anchor bolt systems for windmill foundations

Dextra manufactures and supplies prefabricated foundation systems for wind turbines comprising of high-tensile anchor bolts (#1). Anchor ring (#2) is available as per project requirement.



Benefits

- High impact resistance
- High ductility
- High fatigue resistance
- Full traceability and individual bar labeling
- Small thread pitch allows fine adjustment and results in a smaller lock off loss compared to other anchor bolt systems
- Ready-to-install conditions
- Project engineering support by dextra dedicated Bar Systems Engineering team

Corrosion protection

- Heat shrink
- Polyethylene sheathing injected with grease or wax
- Grouting system (by others)
- Zinc flake coating
- Grout protection
- Hot dip galvanization
- Specific protection available upon request

Post tensioning bars for the splicing of steel pylon

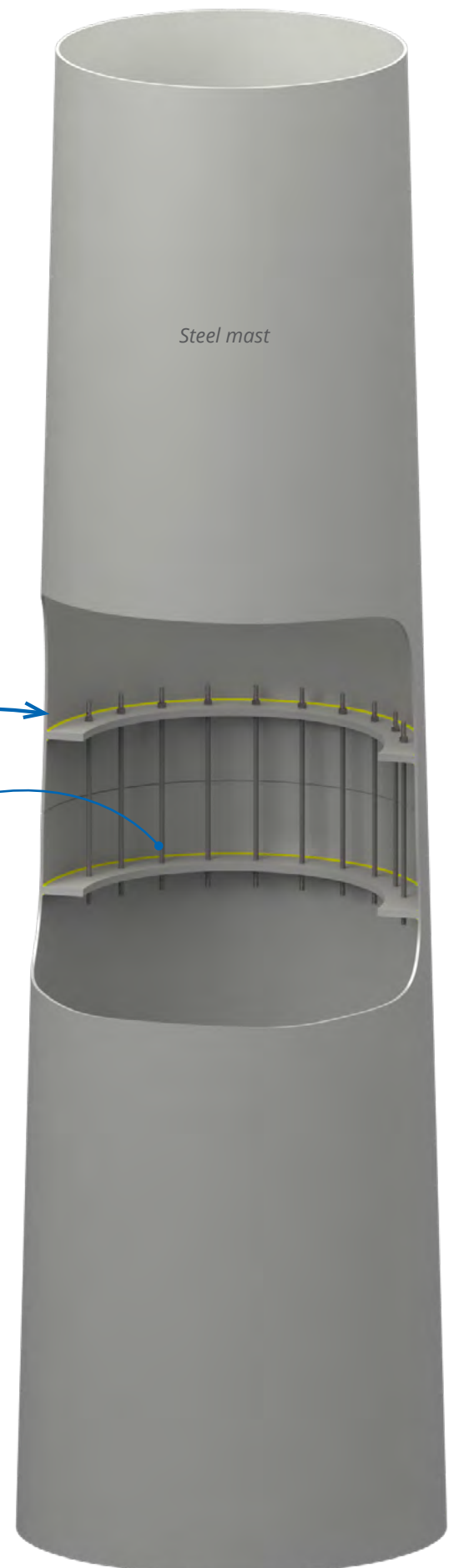
In order to make transportation and erection easier, wind turbine steel pylons are usually constructed by site joining various segments. Dextra post tensioning bars can be used to connect or splice the various sections of pylon in order to produce a stiff and robust connection.

- Less lock-off loss than other post tensioning systems
- Corrosion protection systems available
- Reliable modulus of elasticity and low relaxation
- Easy to de-tension and re-stress
- Close spacing and small recesses can be used with small jacks

With proven experience in the civil industry, Dextra post tensioning bars have guaranteed levels of ductility and impact strength that make them the safest choice for such applications.

Materials comply with ASTM A722, prEN10138 or equivalent. Bars are available in grades 835/1030, 930/1080 and 1050/1200 within diameters ranging from M33 to M103.

*Post tensioning bar systems
for segment splicing
between upper and lower sections*



Load table for smooth end threaded bars

Thread Size	Critical Cross Section Area	Nominal Diameter	Linear Weight	Grade 835/1030		Grade 930/1080		Grade 1050/1200	
	(mm ²)	(mm)	(kg/m)	Yield Load (kN)	Ultimate Load (kN)	Yield Load (kN)	Ultimate Load (kN)	Yield Load (kN)	Ultimate Load (kN)
M33	694	31	5.92	579	715	645	750	729	833
M39	976	37	8.44	815	1,005	908	1,054	1,025	1,171
M45	1,307	43	11.40	1,091	1,346	1,216	1,412	1,372	1,568
M48	1,474	45	12.48	1,230	1,518	1,371	1,592	1,548	1,769
M52	1,758	49	14.80	1,468	1,811	1,635	1,899	1,846	2,110
M60	2,363	57	20.03	1,972	2,434	2,198	2,552	2,481	2,836
M68	3,056	65	26.04	2,551	3,148	2,842	3,300	3,209	3,667
M78	4,114	75	34.67	3,435	4,237	3,826	4,443	4,320	4,937
M88	5,329	85	44.54	4,450	5,489	4,956	5,755	5,595	6,395
M98	6,702	95	55.63	5,596	6,903	6,233	7,238	7,037	8,042
M103	7,447	100	61.64	6,218	7,670	6,926	8,043	7,819	8,936

Other solutions by Dextra

Weldable couplers

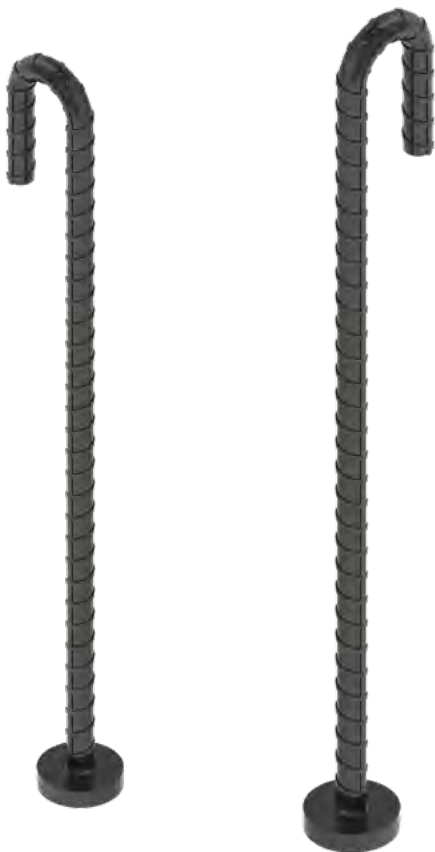
Made of low carbon steel they can be easily welded to the steel core to provide horizontal connection points to the reinforcement cage of the turbine raft.



Headed Bars

Dextra offers Headed Bars as an efficient solution for the vertical reinforcement of the foundation.

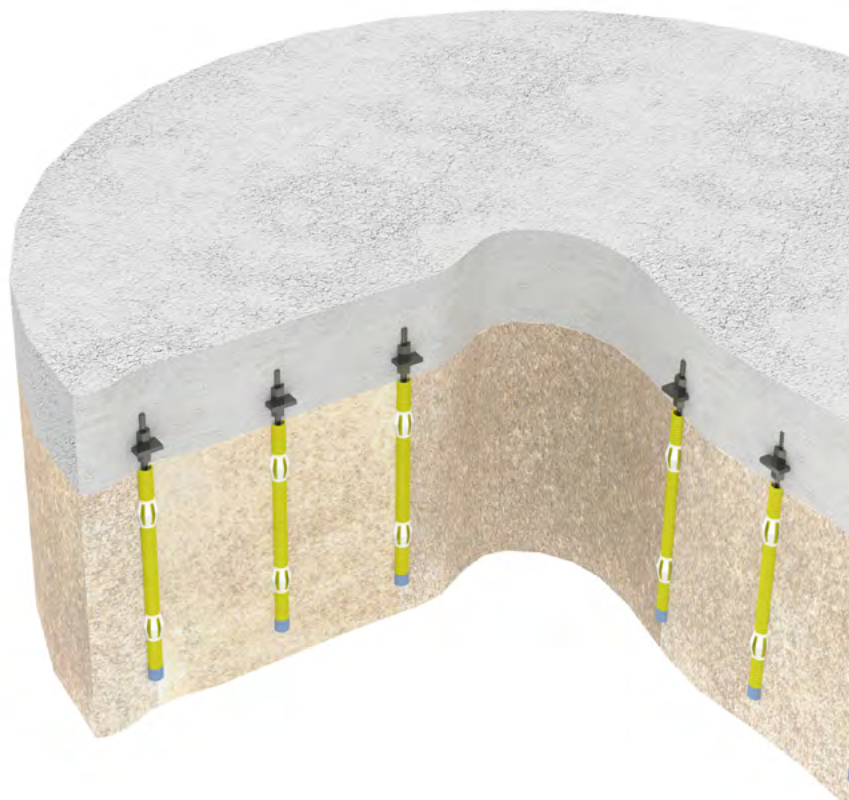
Using threaded anchor plates 4 or 9 times the cross-section area of the bar they fit both ACI and Eurocode standards and reduce the typical rebar congestion in the raft, saving you time and headaches during installation on site.



Micropiles

Dextra Micropiles are structural elements that can be used to anchor the concrete raft of the wind turbine into the ground. They use smaller bore holes compared to standard piles, which simplifies drilling and ground operations.

Dextra Micropiles consist of one or multiple coarse fully-threaded bars with nuts and plates for tension and compression. They are available from diameter 20mm to 50mm in three different steel grades. Double corrosion protection can be offered based on HDPE corrugated pipe.





Wind farm in Satara District, Maharashtra, India



Huay Bong Wind Farm, Nakhon Ratchasima, Thailand



Commercial presence
in more than
55 countries



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