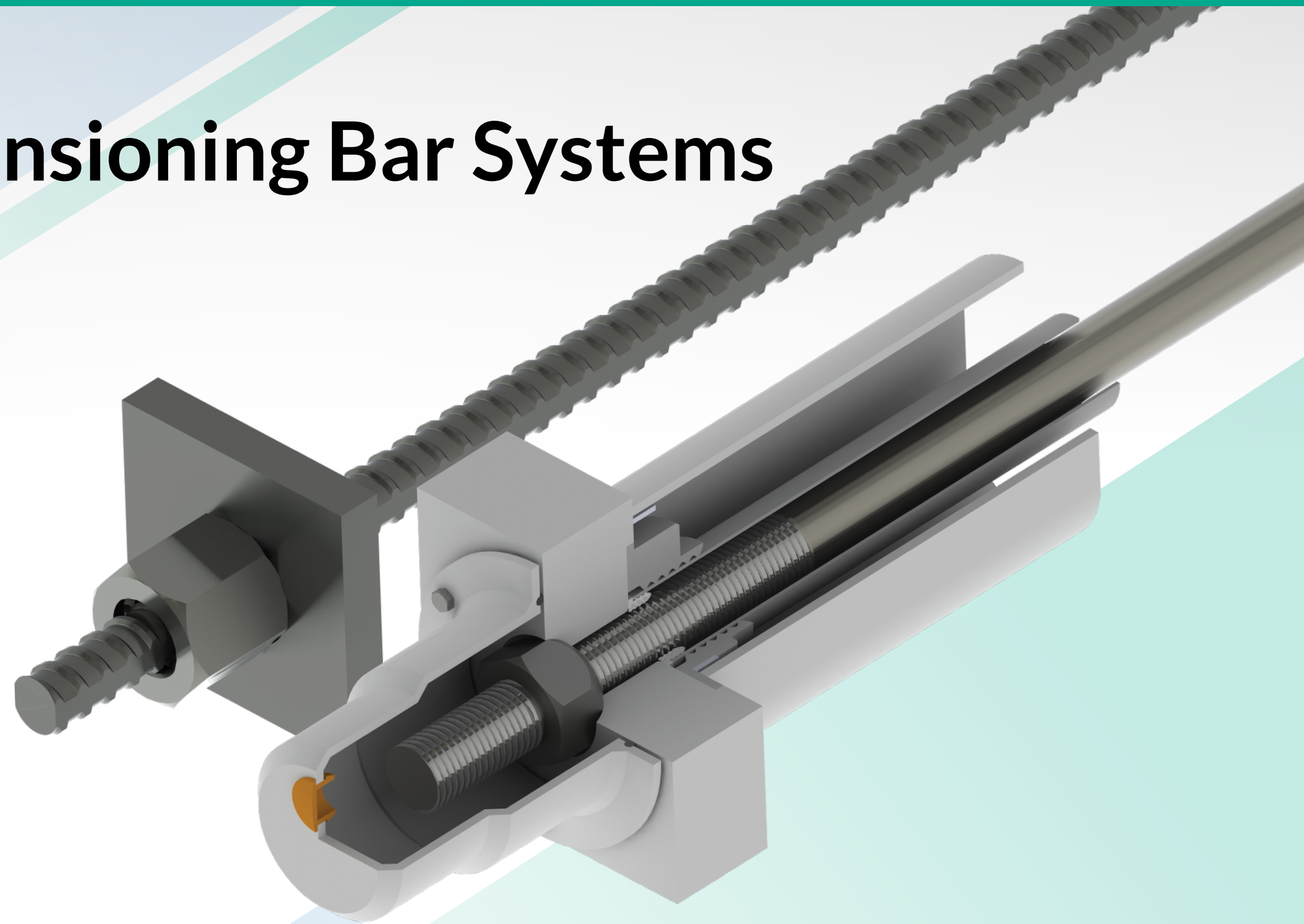


Post Tensioning Bar Systems



Dextra

About our range

For permanent works such as connecting various segments of bridge structures, shear keys for seismic resistance, connection of segments or girders and the reinforcement of piers.

For temporary works such as the anchoring of temporary steel frame supports, lifting bars for segment launching trusses, and stitching bridge segments.

The Dextra post-tensioning range features both **fully-threaded bars** and **smooth bars**, with a full range of accessories.

The services of a fully dedicated design team are available to provide engineering support.

Corrosion protection

Various corrosion protection measures are available depending on whether the tendon is temporary, permanent, bonded, un-bonded and with or without free un-bonded length.

Protection can be achieved by the application of a heat shrink sleeve, grease, paint, grout, or a combination of these.

The smooth bars for shear key applications are normally supplied in a HDPE tube injected with grease and complete with specially designed accessories.

Typical applications

- Post-tensioning of concrete structures.
- Temporary bracing / Temporary post-tensioning.
- Heavy lifting.
- Hold down for steel structure, wind turbine.
- Structural steel frame ties.
- Bridge segment connections.
- Bridge segment continuity tendons.
- Pre-stressed concrete.
- Pile-testing.
- Seismic restrainer system.



Smooth bar range



Design references

- AASHTO
- Eurocode 2

Special application: Shear key & Hold down bar systems

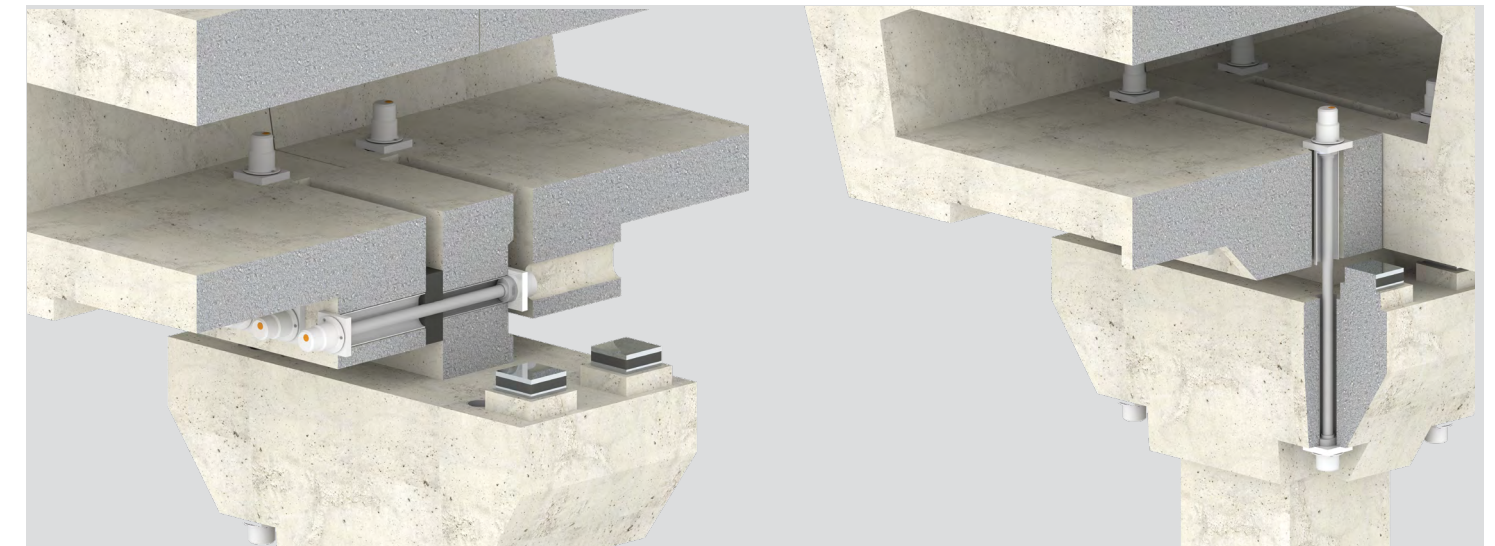
- Shear key and hold down bars are a special application of PT smooth bar systems where an assembly acts as a permanent seismic restrainer for the connection of precast elements (e.g. for elevated metro road).
- Shear key bar systems and hold down bar systems are available with a full range of accessories for grade 1050/1200 and in four diameters: 37/M39, 43/M45, 45/M48 and 49/M52.

About our range

- High impact resistance.
- Smaller pitch allows finer adjustment and brings less draw-in loss.
- Full range of accessories for specific applications.
- High fatigue performance.

Product features

- Diameter range from 31 mm to 100 mm.
- Three steel grades available.
 - › Gr 835/1030
 - › Gr 930/1080
 - › Gr 1050/1200
- Rolled threads (obtained with cold plastic deformation of the metal between two dies) optimized for fatigue performance.
- ISO metric thread as per ISO 965-1.



Shear key bar

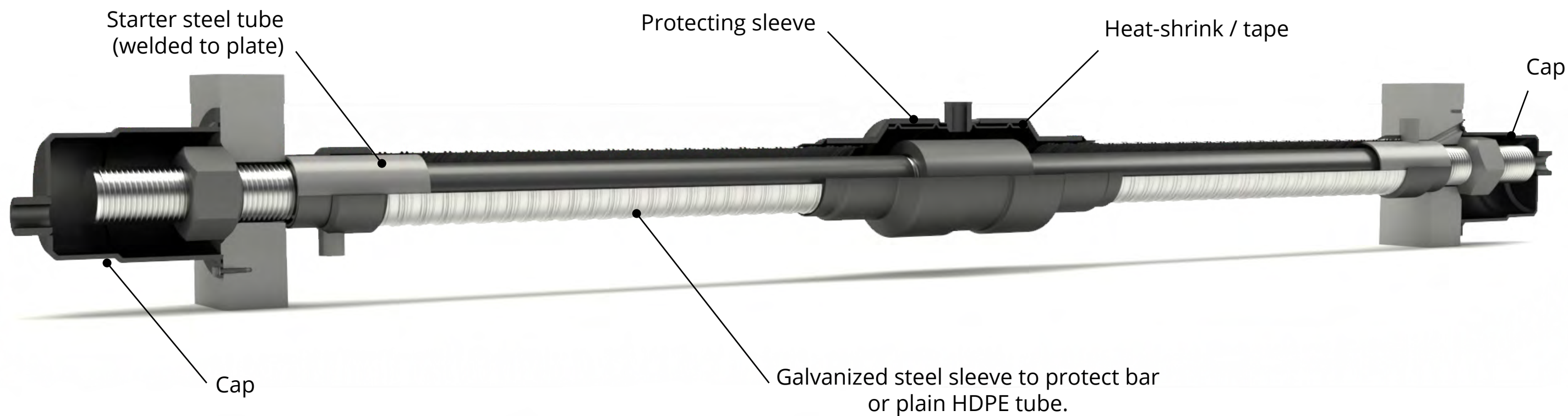
Hold down bar

Load table

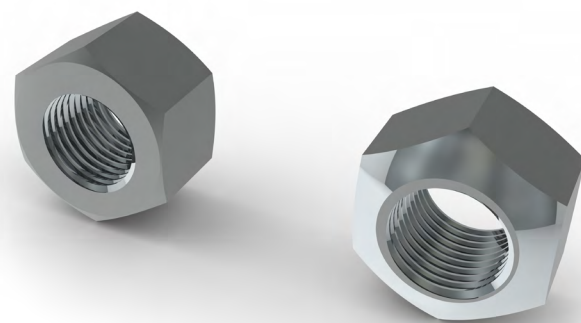
Thread Size	Critical Cross Section Area	Nominal Diameter	Linear Weight	Grade 835/1030		Grade 930/1080		Grade 1050/1200	
	(mm ²)	(mm)	(kg/m)	Yield Load (kN)	Ultimate Load (kN)	Yield Load (kN)	Ultimate Load (kN)	Yield Load (kN)	Ultimate Load (kN)
M33	694	31	5.92	579	715	645	750	729	833
M39	976	37	8.44	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

System accessories

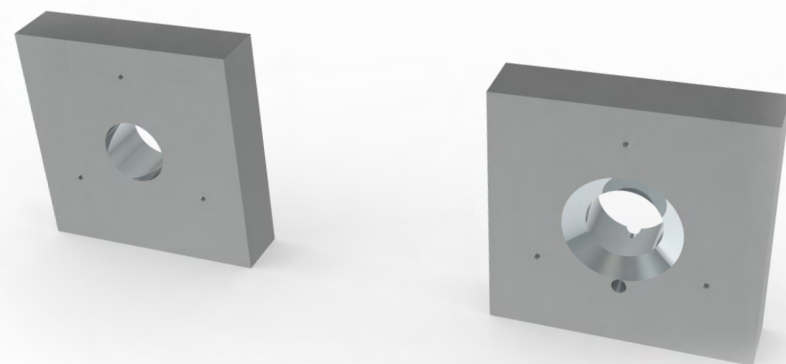
Corrosion protection accessories



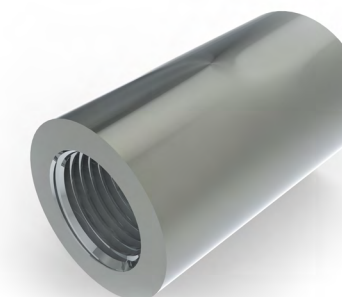
Nuts



Bearing plates



Coupler system



Fully threaded range



Design references

- AASHTO
- Eurocode 2

Product features

- Diameter range from 25 mm to 50 mm.
- Three steel grades available:
 - 830/1030.
 - 930/1080.
- Continuous hot rolled thread.

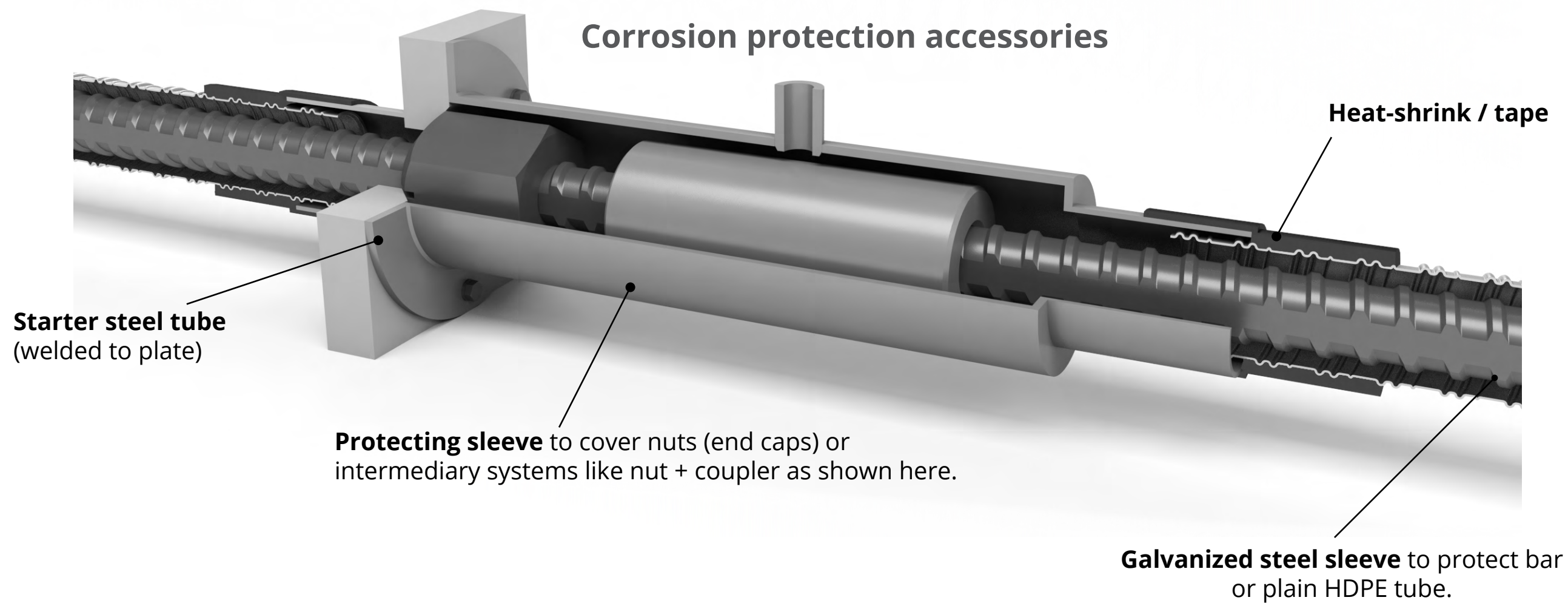
Product benefits

- Re-usable.
- Cuttable at site.
- Continuous thread makes connection possible at any point.
- Large pitch especially suitable for fast installation and temporary applications.
- Re-tensioning possible without any damage.
- Full range of accessories, including corrosion protection accessories, also supplied by Dextra.

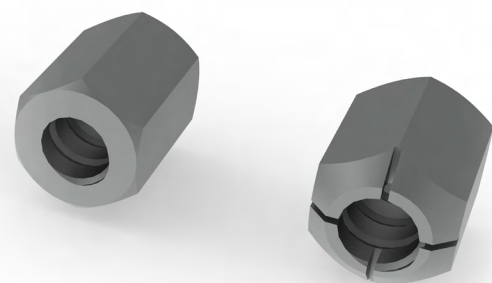
Fully threaded systems load table

Nominal Diameter (mm)	Cross-section Area (mm ²)	Linear Weight (kg/m)	Grade 830/1030		Grade 930/1080	
			Yield Load (kN)	Ultimate Load (kN)	Yield Load (kN)	Ultimate Load (kN)
25	491	4.10	407	506	457	530
32	804	6.65	667	828	748	869
36	1,018	8.41	845	1,049	947	1,099
40	1,257	10.34	1,043	1,294	1,169	1,357
50	1,964	16.28	1,630	2,022	1,826	2,121

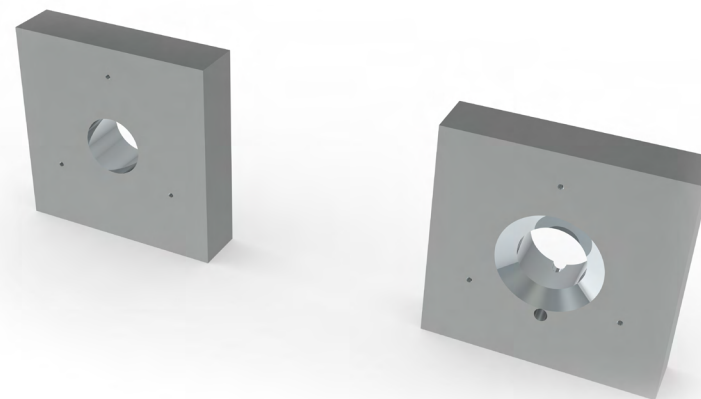
System accessories



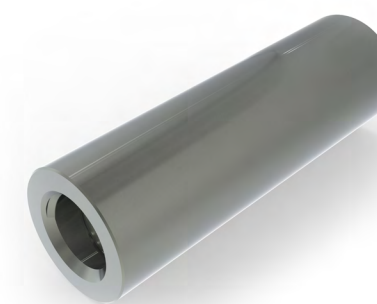
Nuts



Bearing plates



Coupler system





Resources



Brochure



Datasheet



Webpage

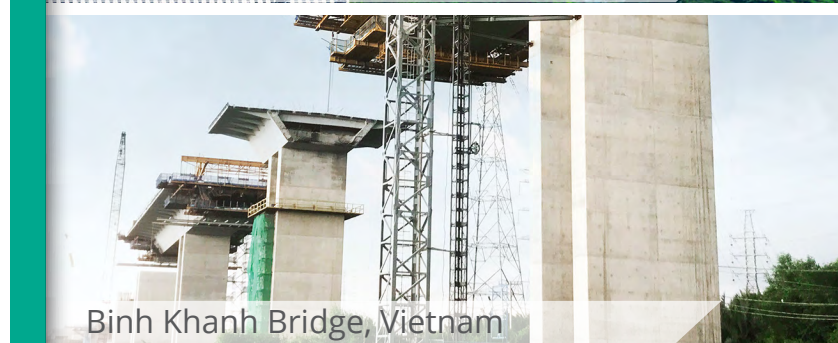
Project References



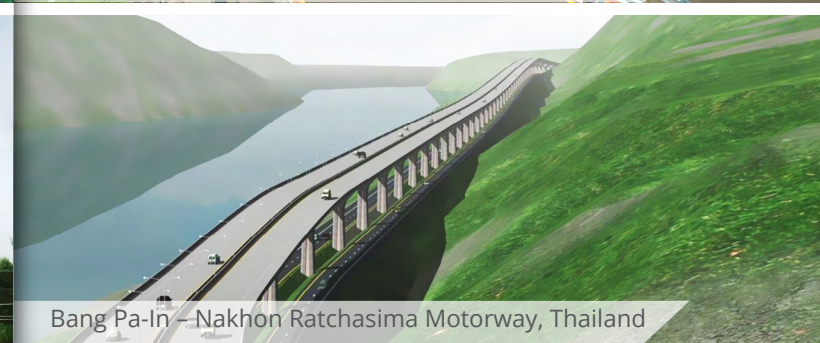
Chennai Metro, India



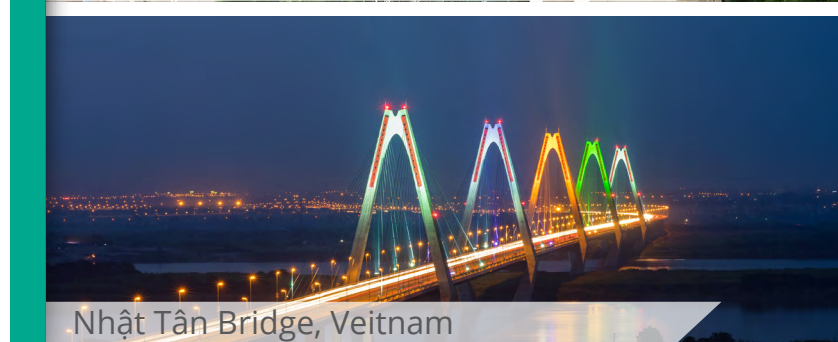
Elevated Stretch of NH-44 Banner, India



Binh Khanh Bridge, Vietnam



Bang Pa-In - Nakhon Ratchasima Motorway, Thailand



Nhat Tan Bridge, Vietnam



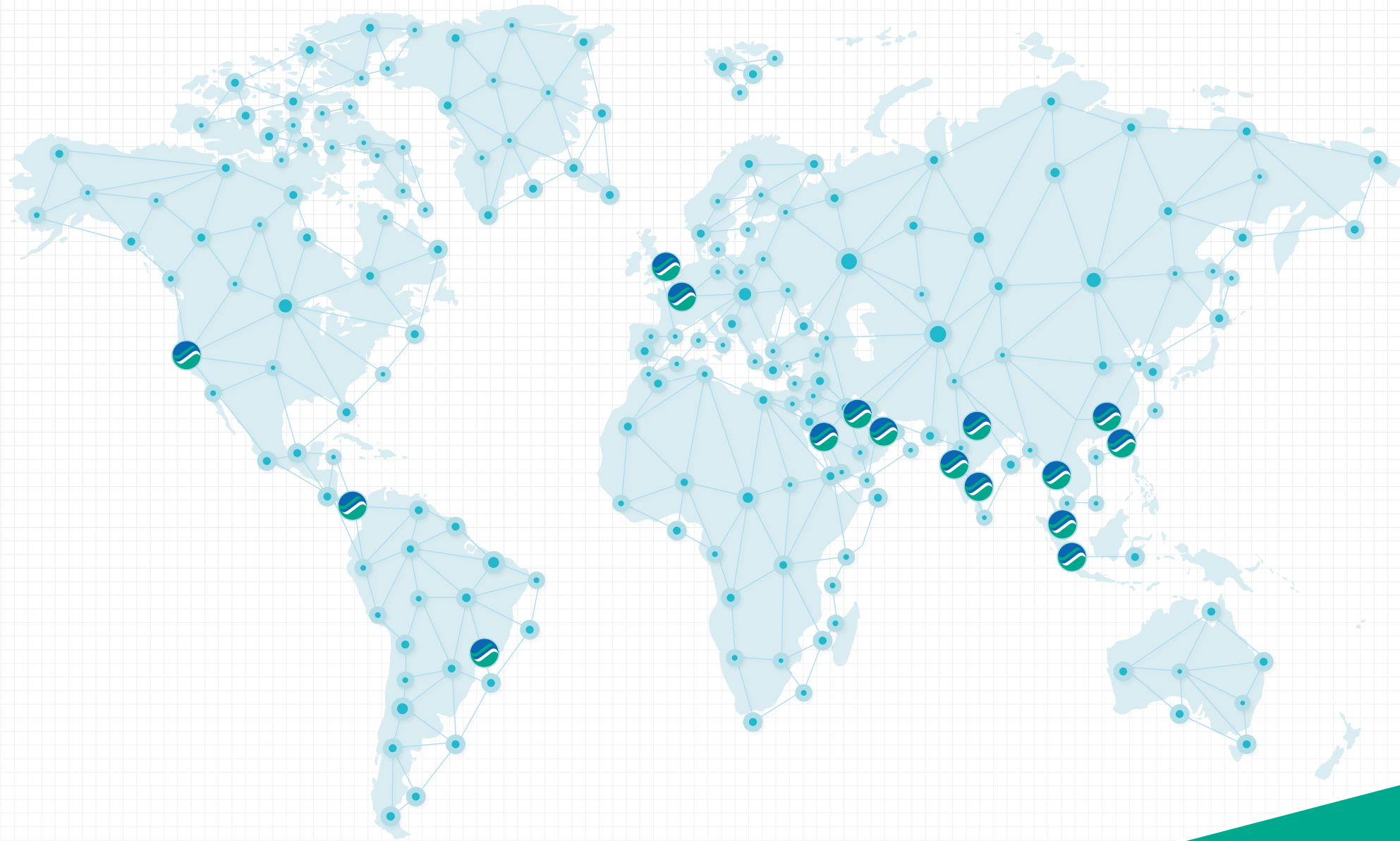
Causeway Across Kuwait Bay, Kuwait

Connect with us



www.dextragroup.com





Commercial presence
in more than
55 countries



Dextra

Main offices (click on the address to see more information)

HEADQUARTERS THAILAND
Dextra Manufacturing Co., Ltd.
Tel: (66) 2 021 3800

CHINA
Dextra Building Products (Guangdong) Co., Ltd.
Tel: (86) 20 2261 9901

HONG KONG
Dextra Pacific Ltd.
Tel: (852) 2511 8236

EUROPE
Dextra Europe S.A.R.L.
Tel: (33) 1 45 53 70 82

MIDDLE EAST
Dextra Middle-East FZE
Tel: (971) 4886 5620

INDIA
Dextra India Pvt. Ltd.
Tel: (91) 22 2839 2694

NORTH AMERICA
Dextra America Inc.
Tel: (1) 206 742 6020

LATIN AMERICA
Dextra Latam
Tel: (507) 6454 8100