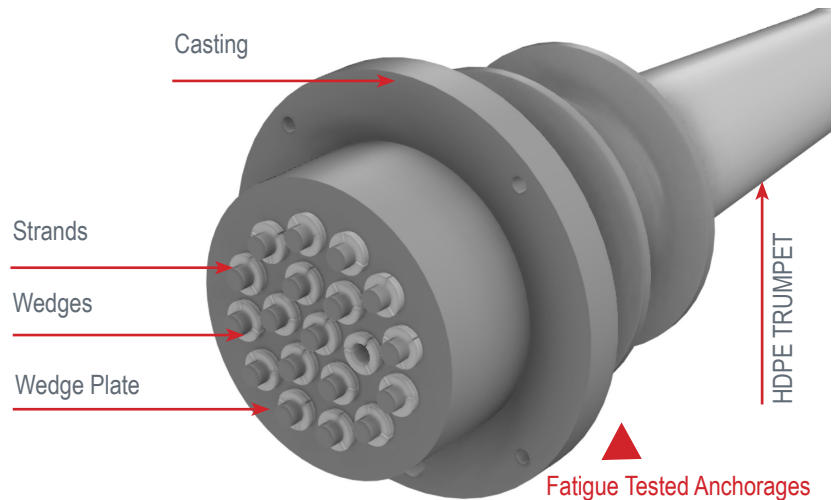


Bridges Posttensioning

Typical applications for internal bonded post-tensioning technology include the prestressing of bridges and precast segmental construction. external or band post-tensioning systems - placed outside of the cross-section and transferring the forces to the structure only at the anchorages and deviators - are commonly used for the repair and strengthening of existing bridges.



What we do

- Supply of post-tensioning materials
- Supply of post-tensioning equipment
- Provision of supervision and labour
- Construction engineering
- Supply of launching Gentries and Lifting Frames
- Heavy Lifting
- Structural earings and Expansion Joint

Advantages of using Posttension in Bridges

- Ability to create complex bridge structures with demanding geometry, such as variable super-elevation & significant grade changes
- Extremely long span bridges can be constructed without the use of temporary intermediate supports
- Increased load-carrying capacity & reduced structural depths
- ESPT offers the right bridge construction equipment, knowledge and resources, plus technical support from design to final execution
- Significant cost-savings can be achieved by choosing the right bridge construction technique.

Construction Methods

Balanced Cantilever

The economical range of span lengths for cast-in-situ cantilever construction begins at roughly 70m and extends to beyond 250m

Incremental Launching

The incremental launching method is particularly suited to the construction of continuous post-tensioned multi-span bridges. It involves casting 15-30m long sections of the bridge superstructure in a stationary formwork behind an abutment and pushing a completed section forward with jacks or friction launching system along the bridge axis.

Span by Span

The precast span-by-span bridge construction method offers a very high speed of construction. It is most often used in conjunction with an erection truss under the bridge segments or an overhead erection gantry to guide the precast elements into position