

# PARAFIL<sup>®</sup> Pre-stressing

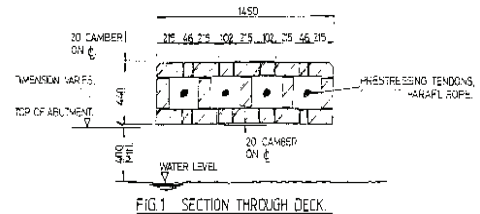
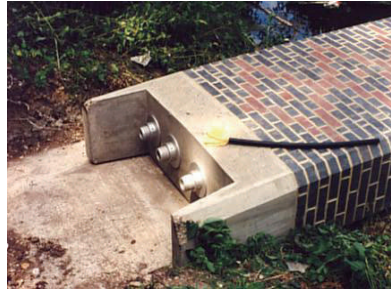
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Project:	<b>Tring Bridge</b>
Project Date:	1994
Design:	Curtins Consulting Engineers
PARAFIL <sup>®</sup> :	Type G, Kevlar <sup>®</sup> 49 core yarn, 45 tonne Nominal Breaking Load
Terminations:	Anodised aluminium pre-stressing

The bridge deck is constructed as a brick box girder section with a two way camber to improve weathering and run off. Assembled as a vertical chimney, the deck was pre-stressed then lifted and lowered into position. The PARAFIL<sup>®</sup> tendons were given a final pre-stress load of 200kN giving a total load for the deck of 800kN.

Subsequent loading trials indicated a better than anticipated performance. Planned trials conducted 12 months after positioning the deck confirmed that the PARAFIL<sup>®</sup> tendons can be easily removed and replaced - tendon flexibility and ease of handling were critical to success in this exercise.

Ongoing performance of the bridge is being monitored from the Civil Engineering Group at the University of Plymouth.



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