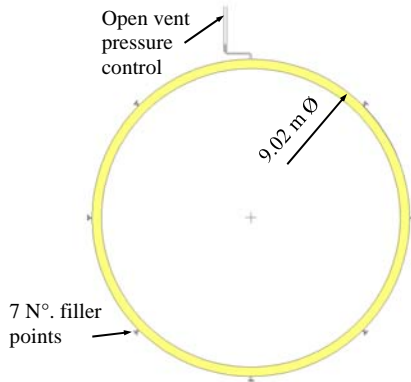


TBM Launch Ringseal

Contractor: Morgan Vinci Bachy

2011

A 9 m diameter APS-Proserve Ringseal was used to assist the launch of the Lee Tunnel TBM at Beckton. The Ringseal provided a continuous grouted stopend seal between the launch eye and the steel launch ring, for groundwater control, and to allow after-grouting of the annulus outside the segmental concrete tunnel lining.

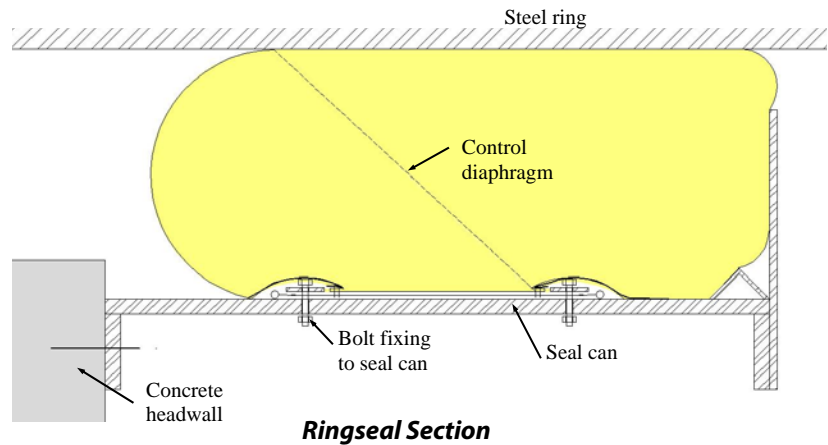


The Ringseal system was custom engineered and manufactured by Proserve for the expected 10 bar water pressure.

The Ringseal was pre-installed into a steel can at the surface using bolt fixings, which was lowered into place and fixed to the concrete headwall. A fireproof rubber break cover provided temporary protection to the Ringseal during handling and installation, the cover was designed to self-break during Ringseal filling.

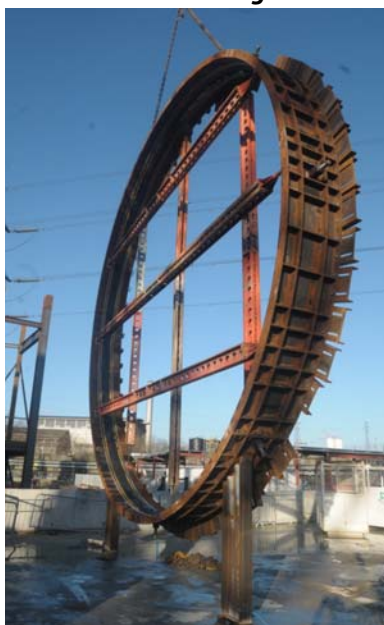


Launch Ringseal



The Ringseal was pump filled insitu with neat cement grout via 7 N°. filler sleeves, at a controlled rate to manage the seal filling pressure. Top contact and final pressure control was controlled by a 1 m high open vent sleeve, to avoid overpressuring the Ringseal.

The Ringseal system was subsequently selected to form stopend seals for insitu concrete lining of the completed 7.8 m Ø tunnel.



Seal Can



Insitu Concrete Lining Stopend Ringseal