



Tunnel segment gaskets

Trelleborg cuts engineering time by a third to meet customer demand in Azerbaijan.

Trelleborg's marine and infrastructure operation reduced its engineering time by a third, to meet the short turnaround time required to supply its tunnel segment gaskets for the new Metroline Baku tunnel, Azerbaijan.

Usually taking approximately three months to produce a new profile type, Trelleborg developed a new gasket profile to meet the project's needs for increased water pressure, in just two months. Working alongside the Tunnel Boring Machine (TBM) partner and forming close internal project groups, leading manufacturer, Trelleborg, maximized the efficiency of its processes to ensure that a high performance solution could be supplied on time.

Vincent van de Vrie, Sales Manager within the Infrastructure operation of Trelleborg in Ridderkerk, the Netherlands commented: "The time pressure that we put ourselves under was tough, as was the challenge to meet the high water pressure of the tunnel, using a small profile to fit into the current gasket groove. The gasket also had to handle this water pressure with more than a 50% offset of the profile.

"As the water tightness performance decreases overtime, the testing pressure should be higher than the working pressure. This meant that rather than designing for a performance of 6 bar, we actually had to cater for minimal 12bar, to guarantee the pressure for over 100 years."

Trelleborg locates the gaskets in pre-cast grooves surrounding the mating faces of each segment, which ensures a secure rubber-to-rubber waterproof seal as soon as the segments are compressed together. Even when faced with natural ground movement, differing water pressures and harsh wet and dry conditions, the gasket keeps its bond and ensures a tight seal.

The proven track record for durability and reliability of Trelleborg's gaskets, mean that costly remedial work to seal leaks after construction are eliminated.

For additional information regarding these products, please visit our website at [Trelleborg Marine and Infrastructure](https://www.trelleborg.com/marine-and-infrastructure)