Road-deck replacement in a river-crossing tunnel

Dartford, UK

Spanning the river Thames, the Dartford River Crossing forms a vital part of Britain’s busiest orbital road, the M25. The crossing comprises two dual-lane tunnels carrying traffic to the north and a four-lane cable-stayed bridge carrying traffic to the south.

Essential remedial work on the East Tunnel required more than one kilometre of road deck to be replaced. The replacement road deck was installed as slabs of 4.5 metres; each slab had two endplates. In total, 474 stainless steel endplates were delivered. Each endplate measured 7.34 m in length, 0.62 m in height and 25 mm in thickness, weighed 835 kgs and had 18 gussets welded to one side. The contract required that the endplates were supplied as match-drilled pairs to guarantee the precise positioning of 34 close tolerance bolts at each shear connection.

Details

Environment: Road Tunnel
Fabricator: Ancon Building Products, Sheffield (UK)
Stainless steel grade: 316 (EN 1.4401)
Product type: Plate
Dimension: 7.4 m x 0.62 m x 25 mm
Total quantity: 474 t
More information: ancon.co.uk