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NEWS STORY

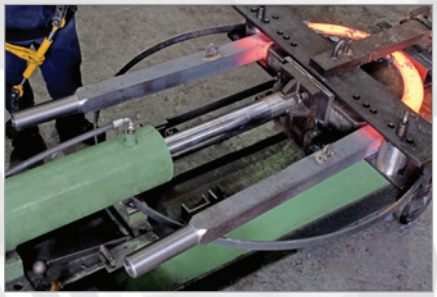
SPECIALIST M80 U-BOLTS FOR METHIL DOCK GATE RESTORATION PROJECT

Brooks Forgings' latest project was for an engineering company involved in managing and conducting works on an upcoming refurbishment project at Methil Docks. The docks are situated in Methil, Fife, Scotland, on the northern shores of the Firth of Forth.

The overall project entails the removal and restoration of the dock gates to replace critical parts and ensure the continuation of service for many more decades to come.

We were asked to manufacture the specialised and fully bespoke M80 U-bolts that are installed at the top of each lock gate. These are commonly referred to as anchor collars and are a critical component of the top hinge/pivot assembly. This type of assembly is used all over the globe and implemented into many types of canal lock and dry dock gate designs.

A furnace was constructed to isolate heating at the center point.



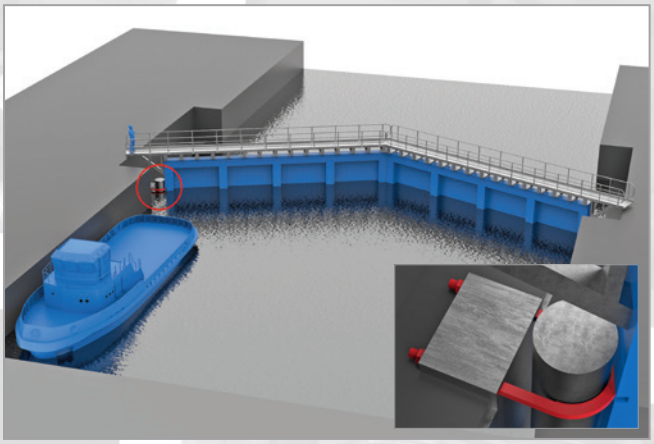
We successfully bent the U-bolts to an inner radius of 311mm.

Each M80 U-Bolt measures 782mm wide and 1600mm tall overall.

Each U-Bolt is produced by starting with a straight blank that is produced from fully certified S355 mild steel measuring 80x80x3520mm, each weighing 175kg. These were turned and threaded M80 x 260mm at each end.

A hot bending process was required to form the bend and a furnace was specially constructed that allowed us to isolate heating at the center point. Using bespoke tooling, jigs, and equipment, our specialist team of operators successfully bent the U-bolts to an inner radius of 311mm. Following inspection of the bend, a wearing plate was welded in place to complete the project.

A total of 4 pieces were manufactured and supplied to the project.



For illustrative purposes only. How the U-Bolts are typically installed on the port/dock gates.

Brooks Forgings is highly recognised for its extensive manufacturing capabilities that enable the production of fully bespoke components to customer requirements. If we can assist with your latest project don't hesitate to get in touch with our team of experts who will gladly assist you.

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