

Stepping In & Stepping Up

IMI Critical shows importance of world-class strategic supply chain as competitor valves fail quality test

The Challenge

A major oil & gas producer in the North Sea had commissioned several control valves for use in phase 2 at an offshore oil field in the North Sea.

The company contracted a competitor to manufacture these valves, which included two high-value, severe service valves for water injection. However, when the castings of the completed valves did not meet the high-quality requirements for such critical equipment, the operator cancelled the order and contacted IMI Critical. IMI Critical had already supplied a number of highly engineered valves for the platform, which gave the operator the trust and confidence to approach IMI Critical in its quest for a high-quality product, that met the tough specifications required of this application.



IMI CCI 100D DRAG® Control Valve body casting

The Solution

IMI Critical's long history of sizing, selecting and manufacturing severe service valves meant it was able to draw on its engineering and manufacturing expertise to find a solution.

IMI Critical recommended replacing the cancelled valve order with two 100D DRAG® Control Valves, 14"x14" with a Super Duplex steel cast body. IMI's DRAG® technology is renowned for providing precise fluid control at extreme pressures. Super Duplex is a very high-grade steel, whose high chromium content makes it stronger and gives it even higher resistance to corrosion than other grades of steel, especially in seawater applications.

IMI Critical's analysis identified a number of challenges, including the size of the valves, but specifically the complexities of casting Super Duplex steel. Precision manufacturing is required to ensure the metals are mixed correctly, that it cools evenly and without air pockets.

In order to achieve the right quality, IMI Critical recommended using a sub-supplier for these highly specialist castings. IMI Critical is able to draw on a high-quality supply chain of strategic suppliers, with whom it has established relationships, and is confident in the quality of the manufacturing. Using sophisticated software to model the casting process, IMI Critical was able to meet the client's specification, including quality and safety, for the casting and valves.

Once again, IMI Critical has shown that the quality of its engineering, materials and application expertise, make it the right partner for critical valves.

One of the two IMI CCI 100D DRAG® Control Valves manufactured for the client, at our facility in Brno

