

INTERNAL LINING OF 36" INLET FLOW CONTROL VALVE



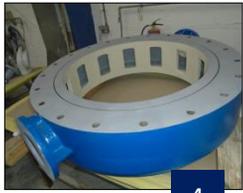
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36" Inlet Flow Control Valve Subject to Water Flow Erosion

A 36" inlet flow control valve had been in service for 60 years at Ladybower reservoir, one of three reservoirs in the Upper Derwent Valley in Derbyshire, England.

The valve parts, 5 in all, were delivered to Corroserve's Leeds workshop where they were abrasive blasted to achieve the required cleanliness standard before being thoroughly cleaned down and vacuumed. Multiple coats of WRAS approved Polyglass VEF were then applied to reach the client's specified DFT of 1000µm.

Polyglass VEF is excellent in immersed environments and is resistant to chemicals across the pH range. WRAS approved VEF is suitable for town water and potable water service.

After suitable curing, thickness and spark testing was carried out and final visual inspection made to ensure the quality of the coating work completed. The vessel was then prepared for dispatch to the customer and subsequent recommissioning.

The protective coating will enable a significantly extended service period for the valve. The customer can also expect a fast return on investment due to reduced maintenance intervals, that take the valve out of service, being required. Good for another 60 years?



Industry	Water supply
Environment	Flow control at reservoir
Plant Coated	36" Inlet control valve
Preparation	Sa2½, profile 50µm
Coating	Polyglass VEF, ZF, AP1
Application	Hand
DFT	1000µm
QA	Thickness & spark testing

1: Internals after blasting showing erosion corrosion. 2: Internal lining. 3: Valve body completed. 4: Completed parts.



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A Brief History of Ladybower Reservoir

The dam was built between 1935 – 1943 to supply water to the East Midlands industrial area, and it took a further 2 years after completion to fill completely with water. It was made famous due to its association with the Royal Air Force's 617 Squadron – the Dambusters, when the location was chosen as a practice area.

The squadron was formed during the 2nd world war for the specific task of attacking three major dams that contributed water and power to the Ruhr industrial region in Germany: the Mohne, Eder and Sorpe. The plan was codenamed Chastise and the mission was carried out on 17 May 1943.

The squadron had to develop the tactics to deploy Barnes Wallis's 'bouncing bomb' and undertook some of its training over the dams of the Upper Derwent Valley in Derbyshire.

The dams were chosen as the towers on the dam walls were similar to those to be found on some of the target dams in Germany. This meant that important approach and targeting tactics could be perfected. This similarity can be seen by comparing images 1 and 3 in the panel to the left and below.



1



2



3



4

1: Ladybower reservoir. 2: King George VI inspecting 617 Squadron in 1943. 3: Bouncing bomb in motion. 4: Mohne dam breach.

