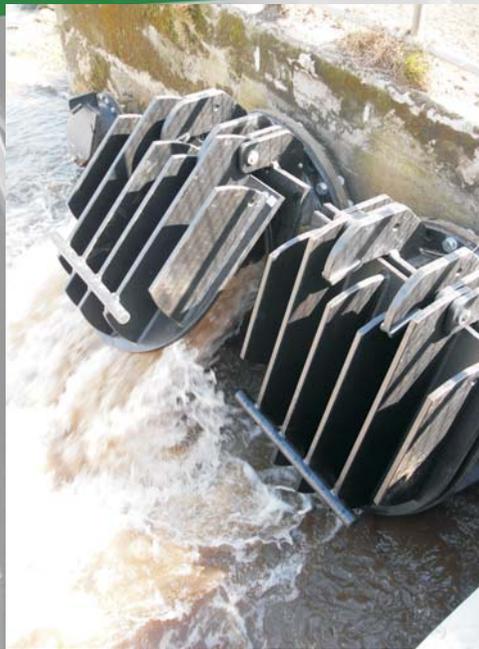


PROJECT NAME: Kellingley Crook Pumping Station

CLIENT: Selby Area Internal Drainage Board

AQUATIC CONTROL ENGINEERING LTD- PROJECT PROFILE



ACE non return valves at Kellingley Crook Pumping Station

It was late summer 2008; Aquatic Control Engineering Ltd (ACE), having worked previously with JBA Consulting's Engineering Division in Doncaster, were contacted to assist, in what was initially thought, to be a simple replacement of four pumped and four gravity cast iron non return flapvalves. It was during that time, that the price for scrap metal was still rising sharply, meaning any unattended piece of metal tended to grow legs and disappear! Unfortunately, the Selby Area Internal Drainage Board, who maintain the site on behalf of the Coal Authority did not escape such thefts, even after spending time and money on security fencing and barriers.

For this project an attempted mindless theft of the cast iron flap valves at the Kellingley Crook Pumping Station, left communities and acres of agricultural land, open from the increased risk of flooding. ACE, on behalf of JBA Consulting's Engineering Division in Doncaster, attended the site, to review the damage to the old cast iron flapvalves, to see if they could help, using their product portfolio and 14 years of knowledge and experience to assist in the most affordable and practical way.

The site in this instance proved to be a little different, having two of the original non return flapvalves mounted at 90 degrees to one another, one being a standard gravity fed flapvalve, the other fed from a large pump. ACE's heavy duty pump flapvalve, is designed with two great features; the flap is mounted at 15 degrees, offering an advanced sealing technology and stroke limiters to remove any risk of the flap flipping up to a vertical position as the pump energises. When Kellingley Crook Pumping Station was designed such technology had not been thought of, meaning the modern features of ACE's pumped flapvalve posed a restriction on the operational clearance of the adjacent flapvalve. ACE redesigned the scheme to use one of their WaStop non return valves, one of the fantastic benefits of the WaStop is the self contained unit fits neatly inside the pipeline, with nothing protruding from the head wall. This meant not only any potential thief would not see anything worth taking, it also meant the pumped non return valve adjacent to this WaStop unit would freely operate.

Utilising the WaStop technology at this site ACE and JBA were able to overcome the apparent overlapping issues of the original flapvalves and provide an improved non return valve system, after which they lived happily ever after!

The entire non return valve system at Kellingley Crook Pumping Station was provided and installed by Aquatic Control Engineering. ACE would like to thank both JBA Consulting's Engineering Division in Doncaster and the Selby Area Internal Drainage Board for their assistance during the project.

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