

CASE **STUDY**

LEAD SCREW ASSEMBLY

**REVERSE ENGINEERED
BY
WMH TRANSMISSIONS
DEXIS FOR WATER
TREATMENT WORKS**

CS235



HAYLEY

DEXIS

HAYLEY DEXIS ENGINEERING SERVICES // WATER

Focus on **value**

**TRACK
UP**

KEY VALUE AREAS



SERVICES



INCOME

THE SITUATION

Controlling the flow of water with penstocks is a vital technique used across various sectors—from hydroelectric power generation to wastewater treatment and flood management. Used in their thousands by all UK water companies they are a core equipment for controlling water movement reducing the threat of flooding.

A penstock is a type of sluice gate or valve that regulates water flow through a conduit, channel, or pipe. It can be manually or automatically operated to start or stop water flow, adjust flow rate, isolate sections of a system for maintenance or emergencies. Penstocks are typically made from a stainless steel leadscrew, brass nut, cast iron, galvanised steel or HDPE framework and can be mounted vertically or horizontally depending on the application.

A customer of the HAYLEY DEXIS branch in Kings Lynn contacted them to report a catastrophic failure of a six-metre-long stainless steel lead screw and brass nut of a Penstock. Due to its age, the customer had no spares and the original manufacturer had ceased trading many years ago. Sister company, WMH TRANSMISSIONS DEXIS, is one of the only companies in the UK that has a special lead screw Whirling (type of tooth generating) machine for manufacturing lead screws, and so they were contacted to book the job in.

THE SOLUTION

The team from the branch picked up the broken parts and delivered them to the WMH TRANSMISSIONS DEXIS workshop the same day. Within two hours, the team had worked-out the lead screw thread type, material and cost to manufacture.

The customer was quoted for the work and three hours following the breakdown, the job was underway.

All machining and assembly was performed in-house at WMH TRANSMISSIONS DEXIS using stock stainless steel bar and brass, meaning that this 6 meter long assembly could be completed within a matter of days.

“
THE SIX-METRE-
LONG ASSEMBLY
WAS BACK WITH
THE CUSTOMER
WITHIN DAYS.
”

THE RESULT

WMH TRANSMISSIONS DEXIS were able to inspect, quote, machine and assemble this six-metre-long Penstock lead screw assembly within the small time frame required by the customer. This ensured the risk of flooding remained minimal.

The unique service offering and fast reactions of the two DEXIS Europe companies combined to ensure the Penstock lead screw was replaced, despite it being a part whose manufacturer had long since disappeared.

KEY SOLUTIONS

Lead screw manufacturing services from
WMH TRANSMISSIONS DEXIS

KEY RESULTS

Downtime reduced.

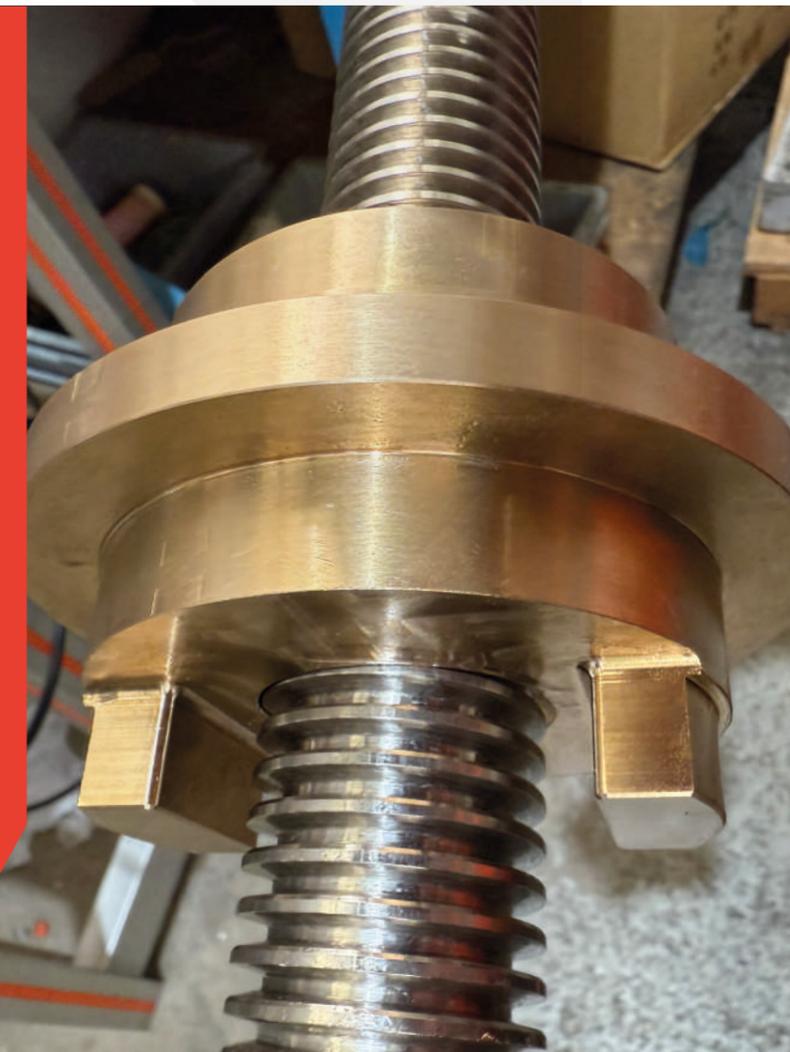
Flood risk minimised.

CONTACT US!

Speak to your local HAYLEY DEXIS branch today!

You can find their details by using our online Branch Finder tool:

www.hayley-group.co.uk/branch-finder.





HAYLEY

DEXIS