



A brand of
Aqseptence Group

Corby STP, England Passavant® Mammutrotors® - Good Choice for a Reliable and Maintenance-Friendly Aeration System

Situation

The town of Corby is located in England in the district of Northamptonshire. Until 1981 the second largest steel factory in Europe was located here. The wastewater treatment plant in Corby is designed for 110,500 PE, which corresponds to a dry weather inflow capacity of 18,454 m³/d. There are two process streams. Approximately 2/3 of the wastewater is treated in the conventional biological process and the remaining wastewater is treated in an MBBR process. The conventional biological stage consists of two rectangular oxidation ditches, each 50m long, 20m wide and 2.2m deep. The required oxygen input is achieved by surface aeration with 4 mammoth rotors in each tank. Anglian Water replaced the first 2 of 8 mammoth rotors in 2011. Following a series of reliability concerns, the decision was made to replace the remaining rotors.



Solution

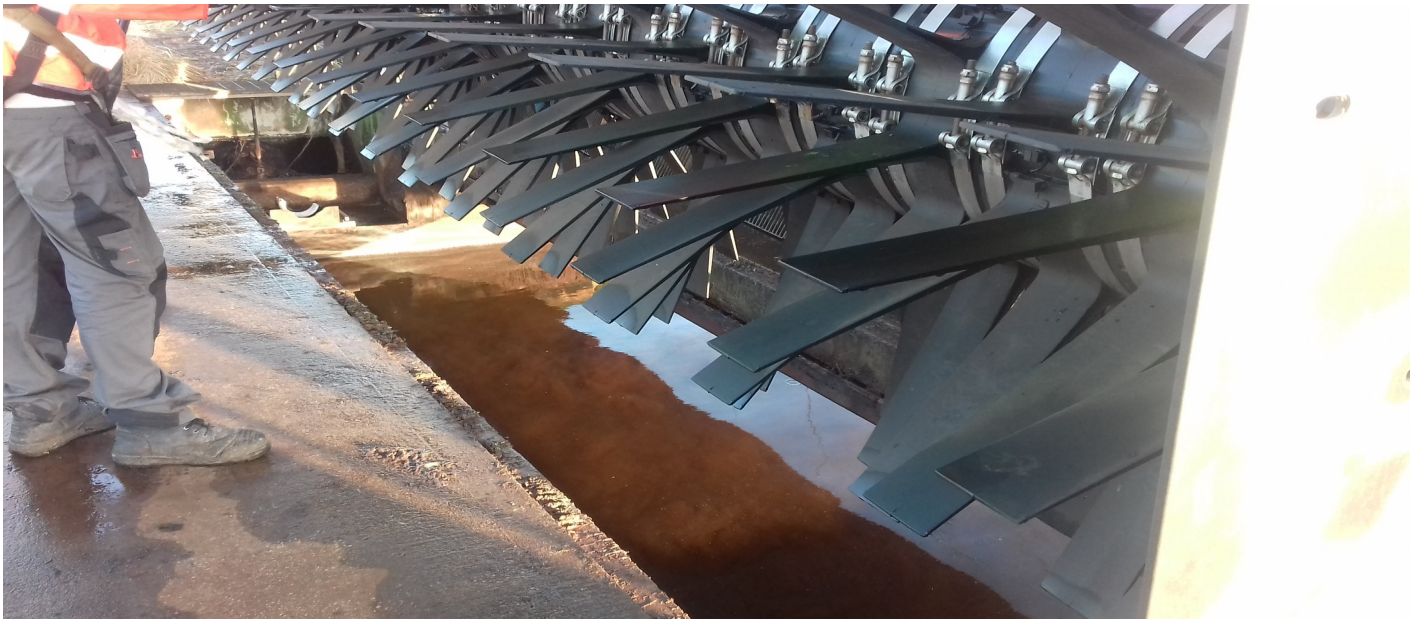
Following a tender process, Anglian Water decided to work with EPS Water based on a lump sum proposal that included lifting stations among others. When choosing the rotor manufacturer, the Aqseptence Group was able to convince with its Passavant® Mammutorotor® brand due to decades of experience and proven durability of the units. This was coupled with the installation of a new gantry crane system by EPS, which makes fitting and lifting out much easier especially for maintenance work. In 2016, 6 Passavant® mammoth rotors MR 1000-9.0 with GRP paddles were delivered and installed. The required oxygen input and performance is achieved without additionally installed guide baffles. The rotors are equipped with a 45 kW drive each and are operated at a speed of 72 rpm. The commissioned immersion depth of the paddles was 28 cm. This was sufficient to provide the specified oxygen transfer rate for the biological treatment. Moreover the installation of guide baffles can be carried out in further future to further improve the oxygen transfer rate by approximately 20%. Since commissioning took place in 2016, all 6 installed mammoth rotors operated efficiently and always reliably, demonstrating the efficacy and robustness of the solution selection.

Technical Data

6 x Passavant® Mammutorotor®

Type:	MR 1000-9.0
Year of Installation:	2016
Diameter of Rotor:	1000 mm
Length of Rotor:	9000 mm
Drive Unit:	45 kW
Material Blades:	GRP
	Installed under concrete bridge and covered by walkable metal sheets

Erection & Commissioning



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Product Line Water Treatment

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