



Process Description & Equipment Supplied

Irish Water identified a need to upgrade existing high lift pumps in a Pump Station located in Carlow County Council. Irish Water conducted a minicompetition between the Contractors to assess the best means to upgrade the pumps and pipe work to provide an efficient reliable system.

DPS were involved at an early stage in the project feasibility and provided design and selection services for the ultimate pumping solution and arrangement. DPS's scope involved design, fabrication, supply, installation and commissioning (full MEICA) of 2 no. KSB Multitec A 125 ring section pumps, pipe work and controls.

Project Overview

Client Name

Irish Water

Completion Date

July 2015

Reference Contact

Carlow, Co. Council

Value of Project

€65,000.00



Maximising efficiency and future proofing

With the initial pumps specified for providing 145m³/hr our Multitec pumps had the ability to deliver more.

Having spoken to the site operators we soon learned that future demand may increase to higher flow rates. With the potential higher flows required we selected full trim impeller units capable of in excess of 160m³/hr. The result was increasing the efficiency at the design duty while running at a slower speed and thus improving the service life of the pumps.

As we had the capacity to pump more than the tender duty we investigated the motors originally sized for the design duty resulting in 37kW machines. With the news that the flows may be increased in the future we made a case for using 45kW motors.

Using 45kW motors not only eliminated the need to upgrade the works at a later stage once demand increased, this also resulted in further efficiency improvements. The larger motors benefited from a slight efficiency increase across the operating range and when running at the tender duty are much closer to $\frac{3}{4}$ load allowing the motors to run close to their peak efficiency.

The Results

Once the pumps had been works tested to ISO9906 Class 1U in the factory the pumps were sent to site where we made necessary adjustments to the existing pipe work.

With the 1U testing we were sure to get the performance from the pumps and once up and running the pumps delivered as expected.

The client is delighted with the results and not only has an efficient pumping solution but one that should have them covered for many years service.