The Customer Engineering Equipment division of Allied Colloids, the UK’s leading manufacturer of synthetic flocculants, is incorporating specially designed cast iron, low flow progressing cavity pumps from Mono® NOV, into its flocculant preparation and dosing rigs installed primarily in waste water treatment facilities all over the country.

Based in Bradford, Allied Colloids’ Engineering Equipment division is responsible for providing customers with the appropriate technology to ensure that the chemicals manufactured by its production division are utilised efficiently.

A number of pumps were required to fulfil two main duties on the flocculant preparation and dosing rigs; a larger pump to transfer the mixed and aged flocculant at 50m³/h from the storage tank to the dosing points; and a smaller pump for the accurate dosing of flocculant into the waste water.

To meet Allied Colloids requests for lower-cost cast iron pumps rather than stainless steel, Mono designed and manufactured a special cast iron model, now named the CB range, which are ideal for low pressure transfer duties and dosing applications.

Allied Colloids prefers a progressing cavity pump system due to the shear sensitive nature of the polymer-based flocculants, which are rendered useless if broken down. Incorporating a helical rotor turning within a resilient stator, the CB range provides a smooth pumping action which ensures the integrity of the shear sensitive polymers.

Steve Wilson, Allied Colloids’ Customer Engineering Services Manager was delighted with Mono’s ability to respond proactively to his specifications, he comments “Mono not only designed and manufactured a new cast iron pump for us, it also incorporated several other unique design features. For example, for ease of installation, service and maintenance, the drive unit incorporates both the inverter and potentiometer, resulting in a more compact and cost effective package”.

Due to the dirty conditions in the water and paper industry, the pumps were also supplied with additional flanges for direct mounting onto a robust Renold Gear MK02 Carter Variator to ensure long term reliability and maintenance-free operation.

With the ability to accommodate flows up to 600 l/h and viscosities in excess of 5,000 centipoise, the CB range easily handles the Allied Colloids’ water based flocculant solution which has a viscosity of 3000 centipoise.