

## Case Study: Christleton Pool Undergoes Filter Refurbishment



**A swimming pool filtration system plays a vital role in keeping the pool water clean and safe to swim in. It is responsible for filtering out any debris, dirt or dust from the water which would otherwise discolour it. So when a local pool started experiencing problems with their filtration system, immediate attention was needed.**

Christleton High School in Chester boasts a 25m swimming pool (right) amongst its facilities and recently the pool experienced problems with sand getting into the pool. Total Pool Chemicals Ltd were called in to assess the problem and immediately the engineer inspected both filters that were in operation. On opening the filters he discovered an uneven sand bed in each filter. This along with the sand in the pool indicated that there was almost certainly some damage to the laterals at the bottom of the filters.



Following the inspection, Total Pool was given the job of refurbishing the filter and examining the laterals more closely. To begin with the team of engineers emptied the existing sand from both filters. Once both filters were empty they analysed the laterals and as expected there was significant damage to the majority of them. In this instance Total Pool decided to replace each of the 60 laterals in each filter to ensure the problem could be completely rectified.

After replacing all of the laterals EGFM (Eco Glass Filter Media) was then loaded into each filter. Steve Carder of Total Pool explains the reasons why this was used ahead of sand. "EGFM has many benefits over standard filtration sand. It saves on water, energy and chemical bills because it has a smoother particle than sand. It is also more efficient and more durable so you may never need to change the filter media once it has been installed. EGFM is also less dense than sand so 15% less EGFM is needed to fill each filter".

To begin with a layer of grade 2 EGFM which ranges from 1.0mm to 3mm in size, was put on the bottom of each filter. This ensured that no finer material could pass through the laterals. After an adequate layer of grade 2 had been loaded, the remainder of the filter was filled up with grade 1 EGFM which is the equivalent size of filtration sand.

Once both filters had been filled to their required level, the covers were refitted and the filters were backwashed for a prolonged period of time. Finally the filters were re-commissioned and the pool could operate as normal again. Since the filters were refurbished the pool has not experienced any further problems with media getting into the pool.