

## Waterco Case Study

Leicester  
Hospital Pool

# New filter media improving patient care at Leicester Hospital

*Hydrospec, UK's premier contractor to the commercial swimming pool sector, recommended Waterco's Glass Pearl media to bring the water quality up to superior standard.*

“ *Waterco Glass Pearls were used as independent tests confirmed that Waterco Glass Pearls could filter down to an impressive 3 micron and as a result were far superior in filtration than other media available, including sand and crushed glass medias* ”

*explains John Cheek,  
Hydrospec's Managing Director.*

Hydrotherapy is a vital rehabilitation service for those recovering from major surgery or a serious injury, not to mention the elderly and the very young. The vulnerability of this group makes it absolutely essential for hydrotherapy pools to be free from potentially harmful bacteria.

On weekdays, the hydrotherapy pool at Leicester Hospital, one of the largest and busiest hospitals in the United Kingdom, is filled with patients and staff, while on the weekends it is used by mothers and their babies. It's little wonder, then, that this high turnover of users combined with an unsuitable filtration system led to frequent closures of the pool due to problems with water quality.

To solve this pressing issue quickly, Hydrospec, UK's premier contractor to the commercial swimming pool sector, recommended Waterco's Glass Pearl media to bring the water quality up to superior standard.



Waterco's Glass Pearls are manufactured from 100% pure glass and provide an extremely narrow particle size range, enabling the creation of a dense homogeneous filter media bed.



Waterco's fully automated SPDD1200 Nozzle Plate Filter with a 1.2m bed depth with Waterco Glass Pearl Media.



Waterco's Glass Pearl Media offers finer filtration and less maintenance than conventional filter media such as sand and cartridge.

"There were always problems on a Monday at the Leicester Hospital hydrotherapy pool, which led to cancellations of important appointments at the start of the week," explains Hydrospec's Managing Director, John Cheek. "The best filtration media needed to be used in this installation, as this is considered a high risk pool."

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Glass pearl media also makes maintenance easier, as it needs less frequent backwashing than other media types.

"The filtration rate is at 22m<sup>3</sup>/h/m<sup>2</sup>. Plus it backwashes at only 16m<sup>3</sup>/h/m<sup>2</sup> and this fluidises the bed extremely well," comments John.

Currently the backwashing process is automated and runs for less than four minutes which has reduced the water used for the backwashing process which in turn saves heated and chemically treated water.

Leicester Hospital serves over one million people living in Leicester, Leicestershire and Rutland, and its special services in cardio-respiratory diseases, cancer and renal disorders reach a further two million patients.

Therefore, this 40m<sup>3</sup> hydrotherapy pool needed to be back in action fast, and had to exceed health and safety standards in terms of water quality to ensure the risk to patients was kept to an absolute minimum.

"Hospital patients use the pool five days a week, and often around 4-6 patients will be using it each hour," says John. "In November 2013 Hydrospec installed a Waterco SPDD1200 Nozzle Plate Filter with a 1.2m bed depth with Waterco Glass Pearl Media with great results."

"Micro biological tests are carried out on a weekly basis in-house. No problems have arisen since the installation and the client is very happy with it. We continue to service and maintain this site and have inspected the filter and media on several occasions and have not found any issues."

[www.hydrospec.co.uk/](http://www.hydrospec.co.uk/)

[www.leicestershospitals.nhs.uk/](http://www.leicestershospitals.nhs.uk/)

### Waterco's Glass Pearl Media at a glance

Waterco's Glass Pearl Media offers finer filtration and less maintenance than conventional filter media such as sand and cartridge.

- Made from 100% pure glass, Glass Pearls are chemically inert for superior purity.
- This new media can filter out any contaminants down to 3 microns, and since they are made to specific geometrical shapes, they provide an extremely small particle size range of 0.6mm-0.8mm.
- Small particle size range greatly reduces the need for backwashing, and enables a fast start-up.
- The perfectly spherical shape of the Glass Pearls means they are able to filter out smaller particles, unlike other types of media such as sand.