



Technical Bulletin no 15

HYRATE Plastic Media Biofilters

Over the past 30 years we at Sewaco Ltd have developed and refined the design of our specialist range of HYRATE plastic media biofilter structures. We can now offer designs to meet almost all types of application where the containment of modular plastic media is required.

Our specially designed structures comply with BS 449 and BS6399 for wind loadings. All steelwork is fabricated 'in house'; enabling us to keep a close check on quality at every stage of work during the build program. Structures are sub assembled to confirm correct alignment of components prior to application of the required protective finish. Most structures are hot dip galvanised to comply with BS EN ISO 1461:1999, although we are able to offer painted steelwork if required.

Structures can be externally or internally clad, using preformed plastic coated galvanized steel box profile sheeting finished to a wide range of colours and profiles to meet local planning requirements. A unique feature of our HYRATE design is the inclusion of a second internal impervious wall that provides maximum protection of both cladding and structure from contact with waste water passing through the media pack.

Secondary Media Support Matrix.

Sewaco manufacture a prefabricated timber matrix media support system, using structural grade timber sourced from TRADA managed forests. Timber is graded and cut to specific lengths prior to being treated with a high strength AC500 solution. Modules are then factory jig built to produce easily transportable modules. This modular system can be manufactured to suit any configuration of containment structure. Modules are delivered to site ready for installation on prepared concrete dwarf walls, prepared by the civils contractor to our outline design. The system is quick and easy to install. On completion, it provides a working platform from which to construct the containment shell. Our modular media support system provides an exceptional service life, combining effective air flow with free drainage for the media pack, minimising cell blinding at point of contact.



Factory check of pre-assembled timber matrix modules ready for loading onto delivery transport to site of new filter shell



Timber matrix modules in place ready for construction of new HYRATE Polytower filter shell.



New 25 mt dia Polytower filter shell under construction using timber matrix as a working platform and for storage of materials.