



HYCOVER Static Distribution System



The effective application of the effluent over the available surface area of the media is a fundamental requirement for all biofilters. Without this there is no possibility of obtaining the maximum biological performance for which the biofilter has been designed. Proper control of both maximum and minimum irrigation rates will regulate the build up of biomass. Excessive accumulations of biomass will cause blockage of the passage ways within the media which in turn lead to ponding and development of anaerobic conditions. Whilst scouring by over irrigation results in a reduction of the active biomass. With the introduction of plastic media for use in high rate biological roughing filters came the need to provide an effective even distributor to ensure that all the media was effectively irrigated. The different types of media now available require a wide range of irrigation rates. The HYCOVER distribution system which has been developed over number of years is specially designed to meet these important criteria.

Design

The HYCOVER distribution system has been designed as a freestanding self support system which incorporates an integral media level walkway to which the pipework support brackets are attached. These brackets ensure to correct location of the splashplates and distribution pipework above the surface of the media.

By providing an integral walkway and pipework support the design of the main tower construction can be simplified. No structural steelwork is required above the media pack to carry the distribution system and only an inspection catwalk is required. Alternatively access can be made directly onto the media level walkway. The walkway network also prevents damage to the media which can occur due to regular walking on the unprotected media surface



Washout points are provided on header mains and laterals. Section isolating valves will be fitted, where necessary to permit routine inspection without shutting down the whole system. Pipework systems can be supplied without the steelwork, when required for special applications.

Construction

All parts of the HYCOVER system are manufactured from corrosion resistant materials. For normal applications, PVC pipework and fittings are used. The plastic injection moulded splashplates are suspended by stainless steel rods beneath the quick strip easy clean nozzles. All support steelwork walkway frames and open mesh flooring is hot dip galvanised. No nuts or bolts are required. Alternative materials are available. These include stainless steel, galvanised, ABS, PVC/GRP and filament wound GRP pipework. Stainless steel or plastic coated steelwork can also be supplied.

Applications

The HYCOVER system is suitable for all modular plastic media packed biofilters. Systems can be arranged to suit rectangular or circular towers of any size.

Among other applications where this equipment has been used are: Random media biofilters; Gas scrubbing towers; Ammonia stripping towers; Cooling towers; Foam damping; Dust damping.

Installation

No special tools are required for site installation which is quick and simple. Irrigation rates can be easily adjusted and routine cleaning and servicing can be carried out by site trained plant operators.

Irrigation rates

A wide range of irrigation rates are available from 1.9m³/m²/hr – 4m³/m²/hr with operating pressures from 0.7 – 5.0m head (1-7 psi). Nozzle sizes vary from 10 – 30 mm.

Optional Systems

Where equipment is to be installed with minimum supervision or in hazardous areas an automatic or manually controlled pneumatic cleansing system can be supplied. Full details on request.

The HYCOVER Distribution System is marketed exclusively by SEWACO LIMITED. We reserve the rights to change or modify designs without notice.

