31.5m diameter 4-arm HYCOVER trough type rotary distributor manufactured and installed by Sewaco Ltd at Crewe Waste **Water Treatment Facilities for United Utilities**

This electro/pneumatically powered open trough type HYCOVER rotary distributor is the largest in their range of open trough type machines that Sewaco Ltd have designed and manufactured in their 40 years of trading. This marks a big step forward in the Company's ability to supply the UK wastewater sector with efficient and reliable machines for their ever larger plastic media type bio-filtration filters to treat urban waste water on smaller footprints.

Mineral media provides 40m³/m² and is normally packed to 1.5m deep. Plastic media in this filter is packed to 6.0m with media that has a surface area of 125m³/m², enabling 12.5 times more effluent to be treated per 1m² of the footprint occupied by the biofilter.

The 31.5m diameter Biofilter contains some 4,669m³ of modular plastic media upon which to grow the micro organisms that convert the soluble organic contaminant to living cells thus reducing the downstream pollution entering our rivers. Periodic slow speed flushing of the media pack to flush out excess biomass is automatically achieved by the specially designed





Wastewater Treatment

Proven Screenings Waste Handling Equipment

The SHT 200-50-0.75 can take wastewater screenings from screens of any size and manufacturer.

The transfer unit can process screenings from raw sewage screens efficiently and effectively. The process takes raw screenings direct from the screen discharge or via launder flow, separates the faecal matter rag and non-organic waste, returning liquor back to the forward process, reducing the screenings to a dry product ready for disposal.

- Greatly reduces transportation.
- Greatly reduces operational costs - no back wash water
- Organics removed from flow reduces BOD load to down stream process.
- Separation system can be com- assembly. bined with flow balancing tank as • Proven Low maintenance requirea complete package.
- Options suitable for any small S.T.W. up to P.E. 2000.
- Operating capacity from 0.2 tonnes to 3.5 tonnes per hour.



- Low capital cost combine with low power requirement give good TOTEX benefits to customers
- 75% volume reduction.
- 30%+ dry matter can be achieved.
- Proven solids water separation systems combined into a simple
- Built in grit protection and solids handling capability.
- Simple maintenance procedures with extended service intervals.





Other range of products available from Sewaco include:

- HYCOVER Static & Rotary distributor systems (from 51/s up to 9801/s flow range) with optional auto cleanse and electro pneumatic belt drive mechanism.
- HYRATE Polytower biofilter systems using modular plastic media for:
 - High Rate (BOD/COD reduction), upstream of existing treatment plant.
 - Secondary (BOD removal only or combined BOD removal/Nitrification).
 - Tertiary Nitrification applications, downstream of existing secondary treatment processes.
- HYRATE Polytowers that can easily incorporate natural ventilation or air extraction systems for odour control purposes.
- Factory built timber support matrix for secondary modular plastic media support.
- Steel structures including access stairways, platforms and bridges.

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variable speed drive and associated local motor control system which has a data link interface with MCC SCADA control system.

This HYCOVER distributor is capable of handling up to 503 l/sec $(43,459\text{m}^3/\text{hr} \text{ or } 6,640 \text{ imp g.p.m.})$ and applying this evenly over the plan of the media pack, within a range of +/-10%, throughout the full range of incoming flows.

The machine is powered by 2 (No.) 0.25kW electric motors with variable speed control to regulate its rotation speed between 0.306 and 0.03 r.p.m, supplied by Drive Systems Ltd.

The range of Spülkraft values or SK for normal flows range from 21-210mm per pass. At maximum flows the SK range is 31-310mm per pass. The machine has a design life of 27 years with an operational weight of some 21.5 tonne.

This HYCOVER distributor is designed without any horizontal wires this is due to the unique structural design of the arm meaning that it can with stand the considerable compressive forces without distortion. The irrigation arms are fitted with reversing scoops to control rotational speed in the event of power loss to the control system, the rotary distributor reverts to reaction drive.

Sewaco Ltd have been in the wastewater utility market since 1979 and have achieved a number of milestones. The Crewe scheme is another first for the company. The aim for the business is to achieve BSEN 1090 and ISO 9001 by the end of this year and be well placed to continue to supply quality engineered systems to the UK and European wastewater utility markets. If you have a project requirement you would like to discuss then please visit www.sewaco.co.uk.

Filter Distributor Drives

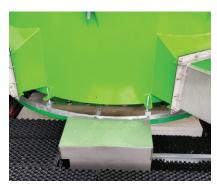
KEEPING YOUR DISTRIBUTOR ROTATING UNDER ALL CONDITIONS

From the smallest to the largest



- Low energy consumption
- Universal design can be fitted onto any distributor
- Gives constant and reliable effluent treatment
- Ideal replacement for inefficient hydraulic drives

- High torque capacity for large bacteria beds
- Excellent reliability
- Flexible speed ranges
- Programmable media flushing regime





AVAILABLE OPTIONS INCLUDE:

- Continuous operation even during power outages
- Drive speed set proportional to flow through the bed
- Custom speed ranges to suit special applications



For more information and further details please contact:

Drive Systems Limited T: 01772 703222 F: 01772 703272

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