

MUTLI CELL MEDIA FILTRATION



KEY FEATURES

PACKAGE UNIT

Allows minimal installation time and cost. Filters are delivered fully tested and commissioned, complete with filtration media thereby reducing costly time on site.

CONTINUOUS FLOW

This design facilitates continuous operation by having only one cell out of operation at any one time. This may be as little as 5% of the overall filter capacity.

ECONOMICAL SOLUTION

Minimal civil work is required for this filter system making the initial capital investment low. The power required to operate these units is typically only 5kW, required for backwashing only.

OPTIONS AVAILABLE

The packaged unit can be offered in a range of alternatives to suit different requirements. These alternatives include various media types, various finishes on the filter shell and various control options, possibly to tie in with the control of other plant.

APPLICATIONS

This continuous flow filter may be used in a variety of applications including potable water and waste water treatment, industrial process filtration, etc.

- Removal of particles from raw processing stream
- Removal of chemically flocculated solids
- Manganese / iron removal using oxidising process
- Tertiary treatment of clarified waste water from activated sludge plant
- Removal of tastes and odours with dual media, etc.
- It is designed as a minimum head loss, multi-compartment, gravity filter.



DESCRIPTION OF OPERATION

The filter is divided into a number of equally sized cells through which the liquid is filtered. The filter remains on line at all times.

Each cell is backwashed in turn while the flow is filtered through the other cells. The system offers an economical, compact solution for a wide range of treatments including:

Each filter unit may be supplied as a complete unit incorporating several compartments within the filter shell, a travelling bridge, backwash hood and pumps, instrumentation and controls.

SYSTEMS MAIN COMPONENTS

Tank Structure:

The filter tank is fabricated from mild steel, epoxy painted to 300 micron coating. The tank is sized to suit the required flow and is made up of a number of 500 mm wide cells. The tank is supplied in modular form where necessary for ease of transportation / installation.

Filter Bed:

Each filter cell consists of a stainless steel floor in which a series of non clog nozzles are mounted. This floor supports the filtration media to a level of between 400 mm and 800 mm.

Bridge:

The bridge spans the tank and moves along the filters, supported in rails. The bridge supports the backwash hood and moves this hood to a position directly above each cell. The bridge is fitted with a complete floor and handrail, offering ease of access for maintenance / inspection.

Backwash hood:

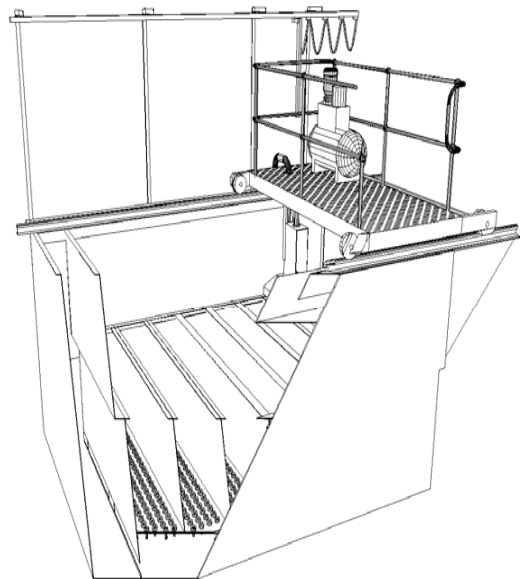
This hood is fabricated from stainless steel and is supported off the bridge. The bridge positions the hood above each of the filter cells and raises or lowers the hood onto the cell using two pneumatic cylinders.

Instrumentation and controls:

The filter is fitted with positional switches for indexing of the bridges, loss of head detectors and level switches to monitor the backwash hood level. The system is wired to a dedicated control panel mounted at the side.

Additional equipment:

The filter is designed for ease of installation into overall systems. An overall system may include chemical flocculation systems up front of the filter or a full clarification plant.



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