

MITA WATER TECHNOLOGIES ADDED TO MAK WATER RANGE

DECEMBER 1ST, 2021

MAK WATER IS PLEASED TO ADD A NEW RANGE OF FILTRATION AND SEWAGE TREATMENT PRODUCTS FROM MITA WATER TECHNOLOGIES.

<u>MITA Water Technologies</u> was established in 2001 as part of <u>MITA Group</u>, which for over 60 years has specialised in cooling and wastewater treatment. MITA Water Technologies has always been committed to the development of new products and the continuous improvement of existing products and technologies, through their pilot facilities and purpose-built design software.

CLOTH MEDIA FILTERS (CMF)

MITA Water Technologies offers simple and effective cloth media filtration systems for tertiary filtration applications that can be a versatile alternative to sand media filters. Cloth media filters achieve similar performance to <u>MMF</u> in terms of effluent quality (typical effluent Total Suspended Solids (TSS) <5mg/L). The cloth filter is made up of a either a drum or a series of discs mounted (either vertically or horizontally) on a central hollow shaft inside a tank (concrete or metallic). The discs (or drum) are coated with a special polstoff filtration fabric 4-5 mm thick (cloth media) consisting of synthetic microfibers. The filtration is done by gravity using the difference between the inlet and outlet water levels in the tank to drive filtration. The discs (or drum) run completely immersed in the water to be treated.

KEY CMF FEATURES INCLUDE:

- Forward filtration continues while backwashing occurs; this means there is no need for standby filters to take a filter offline for backwashing.
- Using onboard backwash pumps and filtered water from within, cloth media filters do not require external filtered water storage and external pumps for backwashing.
- Require very low head loss
- Very low energy consumption
- Small footprint/space requirements

CLOTH MEDIA FILTER TECHNOLOGY IS BEST APPLIED IN:

• Tertiary treatment for total suspended solids (TSS) removal from secondary treated effluent from municipal and industrial wastewater treatment plants

- Phosphorus reduction from secondary treated effluent (with associated chemical dosing and flocculation) for values as low as < 0.1 mg/L
- Pre-filtration of secondary treated effluent for TSS removal prior to UV disinfection
- Replacing secondary settling in attached growth biological treatment applications such as Rotating Biological Contactors (RBC) and percolating filters.

ROTATING BIOLOGICAL CONTACTORS (RBC)

Rotating Biological Contactor (RBC) technology is an attached growth biological wastewater treatment system, that offers a low-cost and compact treatment solution. The RBC is comprised of a number of discs that are closely spaced and mounted on a shaft. The discs are rotated partially submerged in the wastewater to be treated, so that the alternate exposure of the contactor surfaces to the wastewater (from which the microorganisms obtain their organic nutrients) and to oxygen in the surrounding air, causes the formation of a biological film on the contactor surfaces.

KEY RBC FEATURES INCLUDE:

- Full treatment performance reached within 5-15 days of start-up without seeding
- Treatment performance is unaffected by variations in hydraulic or organic loads
- Very low electrical power consumption & very low maintenance costs
- No operator input required since no control or adjustments are necessary
- No need for any chemical dosing

ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY IS BEST APPLIED TO:

- Municipal sewage treatment applications
- Hotels, caravan parks, campgrounds, resorts
- Abattoirs & dairies
- Breweries & wineries
- Food processing facilities
- Commercial laundries
- Paper mills

BIOCOMBI (BC)

The BioCombi treatment system combines the benefits of Rotating Biological Contactor (RBC) and Cloth Media Filter (CMF) technology in one compact unit. The biological wastewater treatment phase (Biological Oxygen Demand (BOD) removal) is achieved with the RBC. The CMF component replaces the secondary settling step; moreover, it ensures a high effluent quality even when both influent hydraulic and/or suspended solids loadings are variable. The RBC effluent is only discharged once it has passed through the CMF. Typical wastewater pre-treatment for the BioCombi includes screening and primary settling. The BioCombi effluent typically contains <10 mg/L BOD and <10 mg/L TSS, and with additional disinfection, can meet Class C effluent quality or better.

BIOCOMBI TECHNOLOGY IS BEST APPLIED IN:

- Small municipal sewage treatment applications
- Remote communities & service sites
- Tourist complexes and camp sites
- Construction sites
- Schools

To discuss how these products could be applied to your water situation, <u>contact us</u> now.