Micro-strainer filter with UV disinfection MFO-UV

The micro-strainer filter with UV disinfection is designed for tertiary treatment of waste water and its sanitation.

The filter can reduce the content of insoluble solids to approximately one half and at the same it reduces, possibly completely eliminates, the content of microorganisms in the waste water.

Waste water is pumped from settling tanks to the internal space of the filter. The filtrate flows through the microstrainer filter directly to UV system, where the waste water is exposed to the dose of UV radiation in the range 200÷1200 J/m^2, depending on actual flow rate.

The aim is especially to eliminate the content of pathogenic microorganism as much as possible so as to prevent the contact of WWTP staff with them, as well as of public in receiving bodies and natural reservoirs.

Insoluble solids trapped on the filter are washed by filtered water into a collecting trough and drained by sludge pump out off the filter with UV disinfection.

The size of filter with UV disinfection should be chosen based on maximal flow rate, the content of insoluble solids upstream the filter and required % of eliminated organisms of specific sort.

The effectiveness of disinfection is reduced mainly by the content of insoluble solids in the water, its turbidity and the time of exposure to UV source.

The effect of UV radiation is that the DNA of microorganisms is damaged and their subsequent propagation is thus prevented. In the case of waste water, the effect of UV radiation is focused mainly on the Escherichia coli, enterococci other coliforms and Salmonellae.

Specific installation of the UV sources in relation to microstrainer filter depends on specific conditions as to possible height and layout. The UV sources are built-in under the microstrainer filter into the trough, which forms its part (MFO-UV - Q Z). Further, it is possible to install tubular UV module above or below the microstrainer filter (MFO-UV - Q T).

ISO 9001

MFO-UV - Q Z

MFO-UV - Q T

Size chart:

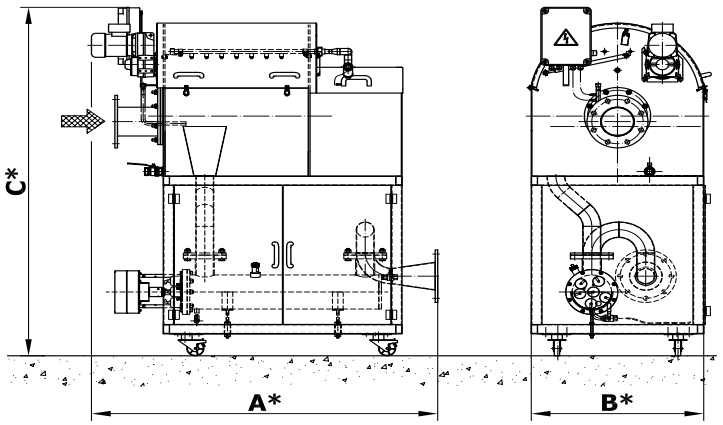
Specifications									
Type **Q**	10	15	22	32	50	75	100	160	220
Flow rate Q [l/s]*	1÷10	10÷15	15÷22	22÷32	32÷50	50÷75	75÷100	100÷160	160÷220
Length **A**	1600	1900	2200	2200	2300	2800	3300	3300	4500
Width **B**	805	805	805	1000	1300	1300	1300	2100	2130
Height **C**	1222	1222	1222	1430	1750	1750	1750	2350	2350
Length **A***	1620	1920	2250	-	-	-	-	-	-
Width **B***	805	805	805	-	-	-	-	-	-
Height **C***	1890	1890	1890	-	-	-	-	-	-
Filter power input	0,18 ÷ 1,1 kW, 400 V / 50 Hz								
Filter heating	0,42 ÷ 4 kW, 230 V / 50 Hz								
Emitter input	0,8 ÷ 2 kW		1,5 ÷ 14 kW						
Emitter voltage	230 V / 50 Hz		400 V / 50 Hz						
* Applies to water with insoluble substances content up to 30 mg/l and for the strainer mesh 40µm.									

Product designation: **MFO-UV - Q T**

MFO-UV - Q Z

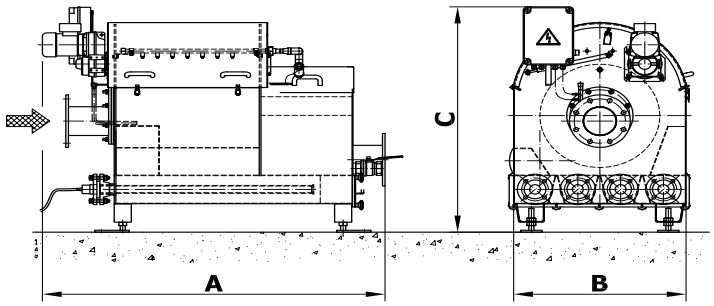
MFO-UV - Q T

Version
with UV unit
tubular



MFO-UV - Q Z

Version
with UV unit
in trough



A heated version of the equipment can be supplied on demand.

The materials used: the equipment is made of stainless steel, drum bearings are made of bronze, the filtration fabric itself is made of stainless steel.

The strainer mesh can be in the range 17 ÷ 125 µm (in irregular intervals).

In order to ensure optimum incorporation of the equipment to technological section of WWTP, *FONTANA R, s.r.o.* provides consultations and technical assistance as a free service for its customers. Service within 24 (48) hours.

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