



MULTIFLOAT RECTANGULAR DAF

MODULAR DESIGN FOR PRECISE CONFIGURATION



The Krofta Technologies, LLC MULTIFLOAT (MF) is a rectangular DAF unit engineered to be installed in a wide variety of industrial or municipal applications. The unit can be configured vertically (MFV) or horizontally (MFH) to accommodate available space. The all stainless steel rectangular units are offered in 20 standard sizes from 50 – 1,500 gpm capacities.

MULTIFLOAT PROCESS DESCRIPTION

Raw wastewater mixed with aerated recycle flow from the ADT is introduced at the base of the unit. A header pipe evenly distributes the flow to the individual FECs within the flotation tank. Retention time within the unit will vary with the amount of raw water being processed, but it is generally a minimum of 3-4 minutes. Flocculated particles attach to the bubbles from the ADT and rise along the plates inside the FEC towards the surface. A portion of the flow is captured and recycled back to the Air Dissolving Tube (ADT) through a separate connection below the effluent connection. Floated materials are collected at the top of the FECs and directed towards the sludge collection rake assembly. The rake pushes the floated material over a simple beach design and deposits the material into a sludge collection hopper. The Krofta automatic level control system maintains a constant level. Grit or other sediment are collected in the v-bottom of the unit, and purged by an automatic valve. Depending on the effluent quality requirements, the system may be operated with or without chemical pretreatment for coagulation and flocculation.

AUTOMATIC LEVEL CONTROL

The automatic level control system constantly monitors level fluctuations and keeps the level in the tank accurate to 1/2" to ensure consistent and precise sludge removal. The automatic level control system consists of a pressure transducer mounted on the tank to monitor level fluctuations, a process control unit, and a level control valve mounted on the effluent line of the tank to modulate flow as needed to maintain the preset level.





OPERATIONAL ADVANTAGES

- The unit is configured to be installed tight against a wall on either side of a room.
- The unit may be configured horizontally (MFH) or vertically (MFV).
- No scraping mechanism is required for sediment.
- Sediment purging is controlled by an automatic valve.
- Flotation Viewing Windows – Two Plexi-glass viewing windows for flotation/ process observation.
- Skid Mount Packages Available – The MULTIFLOAT can be ordered with complete process piping, control panel, compressor, chemical feed equipment, and pumps mounted to a skid frame, ready for use upon installation.
- The MULTIFLOAT is available in an **explosion proof** design.
- 304L or 316L Stainless Steel Construction. (Including FECs)

STANDARD UNITS

TYPE MFV	TYPE MFH	CAPACITY gpm	CAPACITY m ³ /h
50	-	50	11
80	-	80	18
200	200	200	45
300	300	300	68
400	400	400	91
500	500	500	114
600	600	600	136
750	750	750	170
850	850	850	193
1000	1000	1000	227
-	1250	1250	284
-	1500	1500	341

THE AIR DISSOLVING TUBE (ADT)

Common to all Krofta DAF technology, the Krofta™ Air Dissolving Tube (ADT) is in operation in thousands of applications around the world. The ADT eliminates the need for large volumes of air and water used by typical pressure vessels, by using air dispersion technology and centrifugal force in place of sheer volume and gravity. Compressed air is released into the ADT across the surface of an air panel. The panel material and design disperses the air across the entire surface of the panel. This allows for faster dissolution of air into the water and hence a retention time of only eight to twelve seconds. The flow pattern within the ADT is a cyclone or vortex which produces a centrifugal force that eliminates undesirable entrained air. A specially designed inlet nozzle is sized specifically for each application and can be easily changed out if the recycle requirements of future waste streams change significantly. In addition, a proprietary bleed-off outlet also assists in eliminating too much air in the tube itself. This ensures that the tube will never air bind or release undissolved air to the DAF. A sized globe valve is used for pressure release, generating 10-70 micron bubbles well suited for DAF operation.

