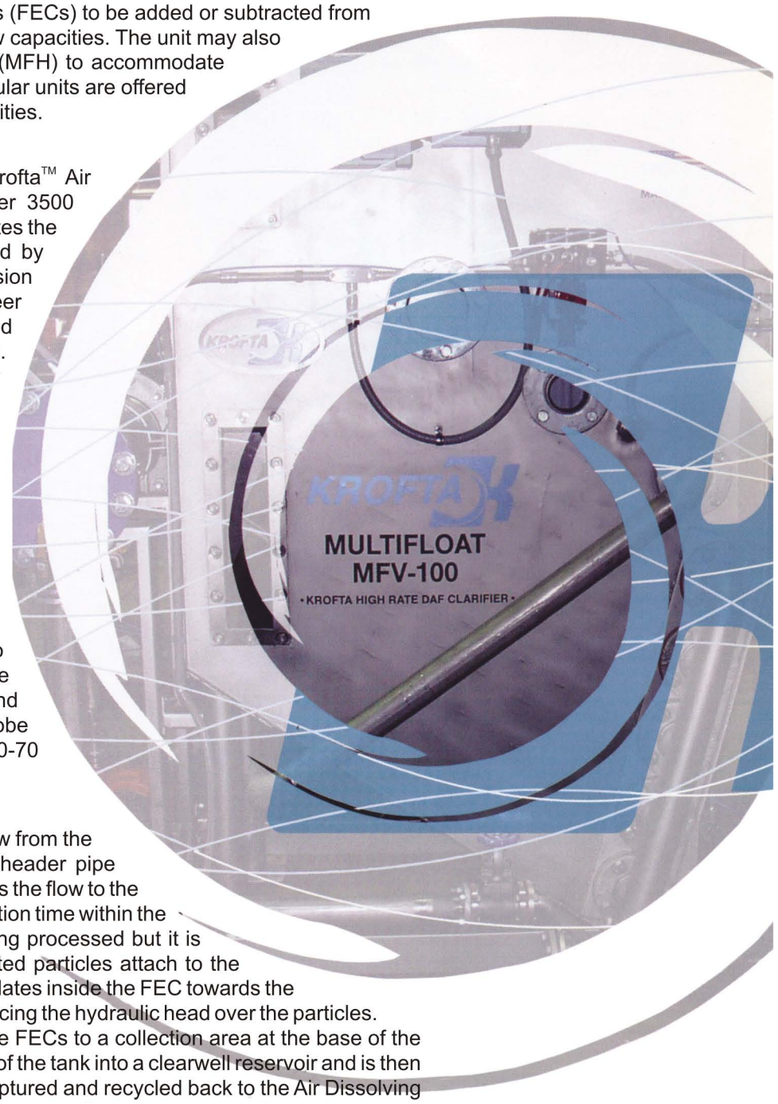
MULTIFLOAT RECTANGULAR DAF (MF)

Krofta's MULTIFLOAT (MF) is a rectangular DAF unit engineered to be installed on a wide variety of industrial or municipal applications. The modular design configuration of the MF allows additional Floatation Enhancement Cells (FECs) to be added or subtracted from the floatation cell to accommodate different flow capacities. The unit may also be configured vertically (MFV) or horizontally (MFH) to accommodate available space. The all stainless steel rectangular units are offered in 18 standard designs from 50-3000 gpm capacities.



The Air Dissolving Tube (ADT)

Common to all Krofta DAF technology the Krofta™ Air Dissolving Tube (ADT) is in operation in over 3500 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 pumped 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 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 dramatically. 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 create a plug flow around the air panel. A globe valve is used for pressure release, generating 30-70 micron bubbles well suited for DAF operation.

Multifloat Process Description

Raw wastewater mixed with aerated recycle flow from the ADT is introduced at the base of the unit. A header pipe affixed to the outside of the unit evenly distributes the flow to the individual FECs within the floatation 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 aerated water from the ADT and rise along the plates inside the FEC towards the surface. The plates assist in the rise rate by reducing the hydraulic head over the particles. Clarified water is drawn back down between the FECs to a collection area at the base of the unit, then flows up over a divider plate at the top of the tank into a clearwell reservoir and is then discharged by gravity. 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 small sludge collection trough and is discharged by gravity. The Krofta automatic level control system maintains a constant level. Grit or other debris, which do not float, are collected in the v-bottom of the unit, and purged by an automatic valve.

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MULTIFLOAT (MF)

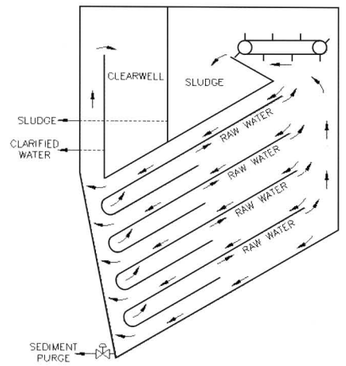
The unit is supported by four legs included with the basic package. Depending on the effluent quality requirements, the system may be operated with or without chemical pretreatment for coagulation and flocculation.

Automatic Level Control

The automatic level control system constantly monitors flow fluctuations and keeps the level in the tank accurate to ½" 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 by swapping the influent / effluent piping to either side of the unit.
- Any dimension x, y or z may be varied for maximum sizing options. The unit may be configured horizontally (MFH) or vertically (MFV).
- No scraping mechanism is required for sediment.
- Purging is controlled by an automatic valve.
- Floatation Viewing Windows - Two Plexi-glass viewing windows for floatation / 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 FEC's)



TYPE MFH	TYPE MFV	CAPACITY* GPM (total with recycle)
N/A	50	50 GPM
N/A	100	100 GPM
N/A	200	200 GPM
300	300	300 GPM
400	400	400 GPM
500	500	500 GPM
600	600	600 GPM
750	750	750 GPM
1000	1000	1000 GPM
1200	1200	1200 GPM
1400	1400	1400 GPM
1600	1600	1600 GPM
1800	1800	1800 GPM
2000	2000	2000 GPM
2250	2250	2500 GPM
2500	2500	2500 GPM
2750	2750	2750 GPM
3000	3000	3000 GPM

* Theoretical capacity at 2000 PPM of TSS or less. Actual capacity may vary depending upon application.