

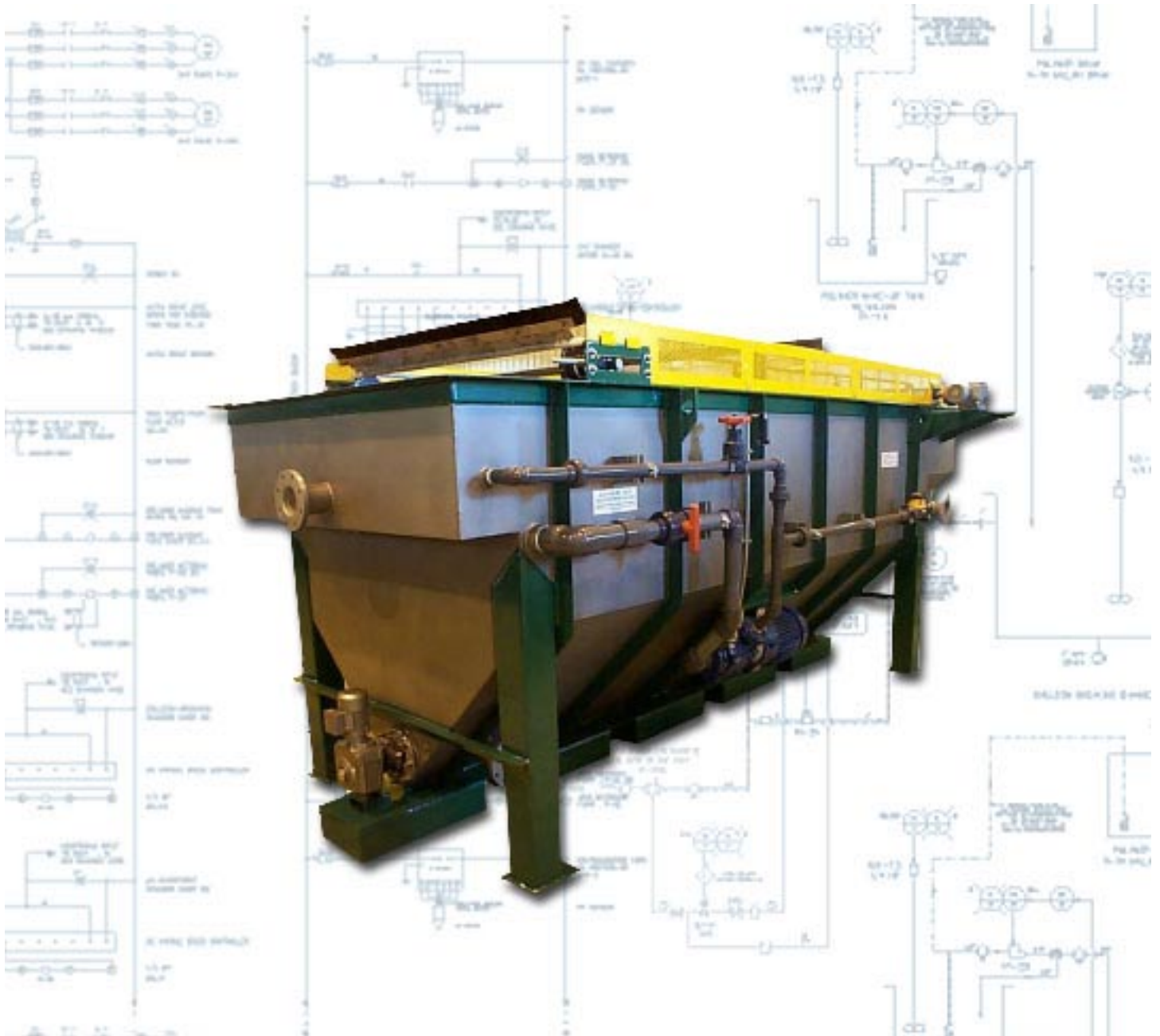
*Pan America
Environmental*



Industrial Wastewater
Treatment Systems

DAF

Dissolved Air Flotation Systems



Pan America Environmental

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DAF Series

Dissolved Air Flotation Systems

Standard Features

- A36 Steel Construction
- Epoxy Coatings in/out
- Hopper & Flat Bottom Designs
- Sludge Auger System
- Surface Drag Skimmer
- Chain Guard
- DAF Saturation System
- Influent Diffuser
- Heavy Duty Gear Drives
- Schedule 80 Piping
- Float Sludge Hopper
- Nema 4 Control Panel

Options

- 304/316 Stainless Construction
- Emulsion Breaking System
- Chemical Pretreatment
- Sludge Pumpout
- Float Pumpout
- Effluent Pumpout
- Influent Feed
- pH Adjustment System
- Effluent Filtration System
- Vapor Cover
- Alternate Wiper Materials
- Walkways / Stairs
- Flow Meter
- Flatbottom Designs



DAF Series

Dissolved Air Flotation Systems

The DAF process consists of super saturation of discharge water from the effluent end of the DAF tank with air. The super saturated water stream is then mixed with the wastestream. As pressure is removed from the saturated stream millions of microscopic bubbles form and attach themselves to the contaminants in the wastewater, thereby changing their buoyancy and floating them to the water surface where they can be skimmed and removed from the water. We offer our unique "Dinky DAF" design for small DAF applications up to 36 sq. ft. Chemical pre-treatment systems can be provided where required.

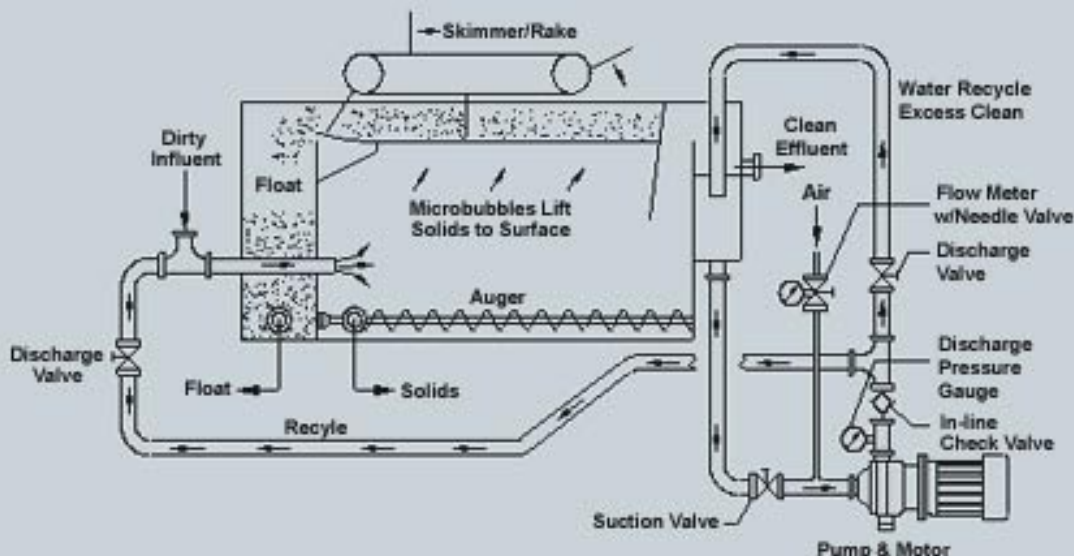
Chemical pretreatment often improves DAF solids removal efficiencies. The use of chemical flocculants with DAF is based on system efficiency, application (use of DAF) contaminant characteristics and cost. Commonly used chemicals include trivalent metallic salts of iron, such as $FeCl_2$ or $FeSO_4$ or aluminum, such as $AlSO_4$. Organic and inorganic polymers (cationic or anionic) are often used to enhance the flotation process. The most commonly used inorganic polymers are the polyacrylamides.

Attachment of most of the bubbles to solid particles can be effected through surface energies while others are trapped by the solids or by hydrous oxide flocs as the floc spreads out in the water column. Colloidal solids are normally too small to allow formation of sufficient air-particle bonding. They must first be coagulated by a chemical such as the aluminum or iron compounds mentioned above and then absorbed by the hydrous metal oxide floc generated by these compounds. Frequently the coagulant is required in combination with the flocculant.

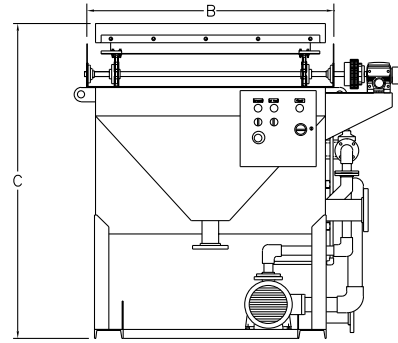
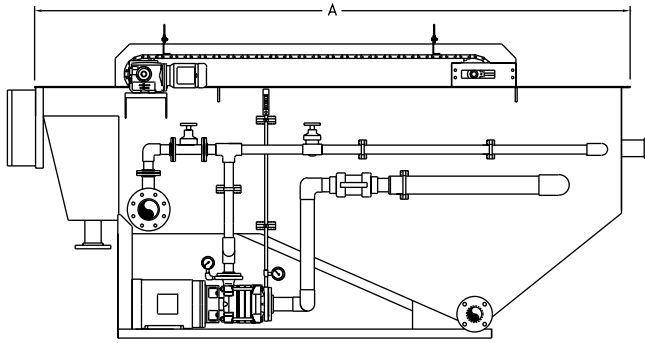


Dinky DAF
8 - 36 sq. ft. sizes available

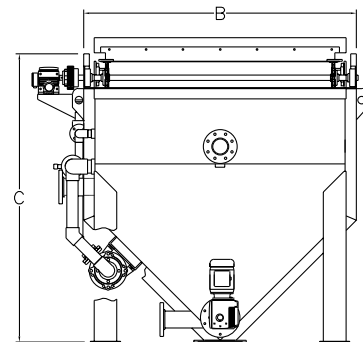
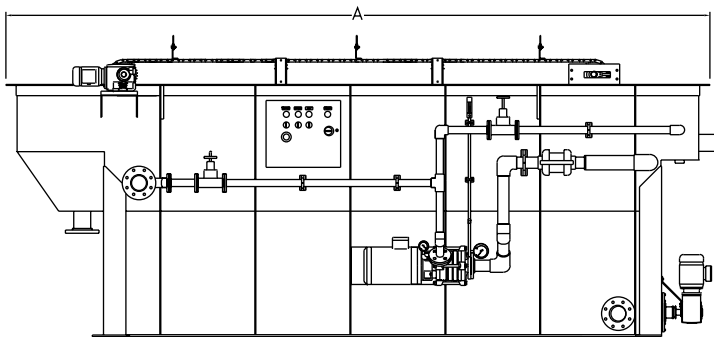
DAF System Process Layout



DAF Details



Model	Dimensions			Area Ft.2	Weights(lbs)		Flow GPM
	A	B	C		Empty	Operating	
DAF-8	10'-6"	2'-4"	5'-6"	8	890	2720	4-16
DAF-12	10'-6"	2'-10"	5'-6"	12	985	3422	6-24
DAF-18	10'-6"	3'-4"	5'-6"	18	1250	4925	9-36
DAF-24	10'-6"	4'-4"	5'-6"	24	1560	6605	12-48
DAF-36	10'-6"	6'-4"	5'-6"	36	2165	9481	18-72



Model	Dimensions			Area Ft.2	Weights(lbs)		Flow GPM
	A	B	C		Empty	Operating	
DAF-60	15'-9"	6'-0"	6'-1"	60	5800	25,200	30 - 120
DAF-85	20'-0"	6'-0"	6'-1"	85	7900	36,700	42 - 170
DAF-100	20'-0"	6'-8"	6'-7"	100	9250	50,000	50 - 200
DAF-120	24'-3"	6'-8"	6'-7"	120	10,600	60,200	60 - 240
DAF-150	27'-3"	7'-2"	7'-0"	150	12,175	73,900	75 - 300
DAF-180	28'-3"	8'-2"	8'-0"	180	14,000	91,750	90 - 360
DAF-200	31'-1"	8'-0"	8'-0"	200	15,100	100,600	100 - 400
DAF-250	33'-10"	9'-0"	8'-5"	250	18,200	129,870	125 - 500
DAF-300	36'-0"	9'-0"	8'-5"	300	20,800	166,000	150 - 600
DAF-350	42'-0"	10'-4"	9'-0"	350	22,300	174,300	175 - 700
DAF-400	48'-0"	10'-4"	9'-0"	400	25,350	225,000	200 - 800
DAF-450	55'-0"	10'-4"	9'-0"	450	29,000	240,500	237 - 950
DAF-550	59'-0"	11'-0"	9'-0"	550	39,700	268,000	275 - 1100
DAF-600	62'-0"	11'-4"	9'-8"	600	45,950	295,000	350 - 1200



Not for construction. Dimensions/designs subject to change. Flow rates are nominal.