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ClariDAF™ Inclined Plate Clarifier with Integrated DAF System`– Highlights

Highlights

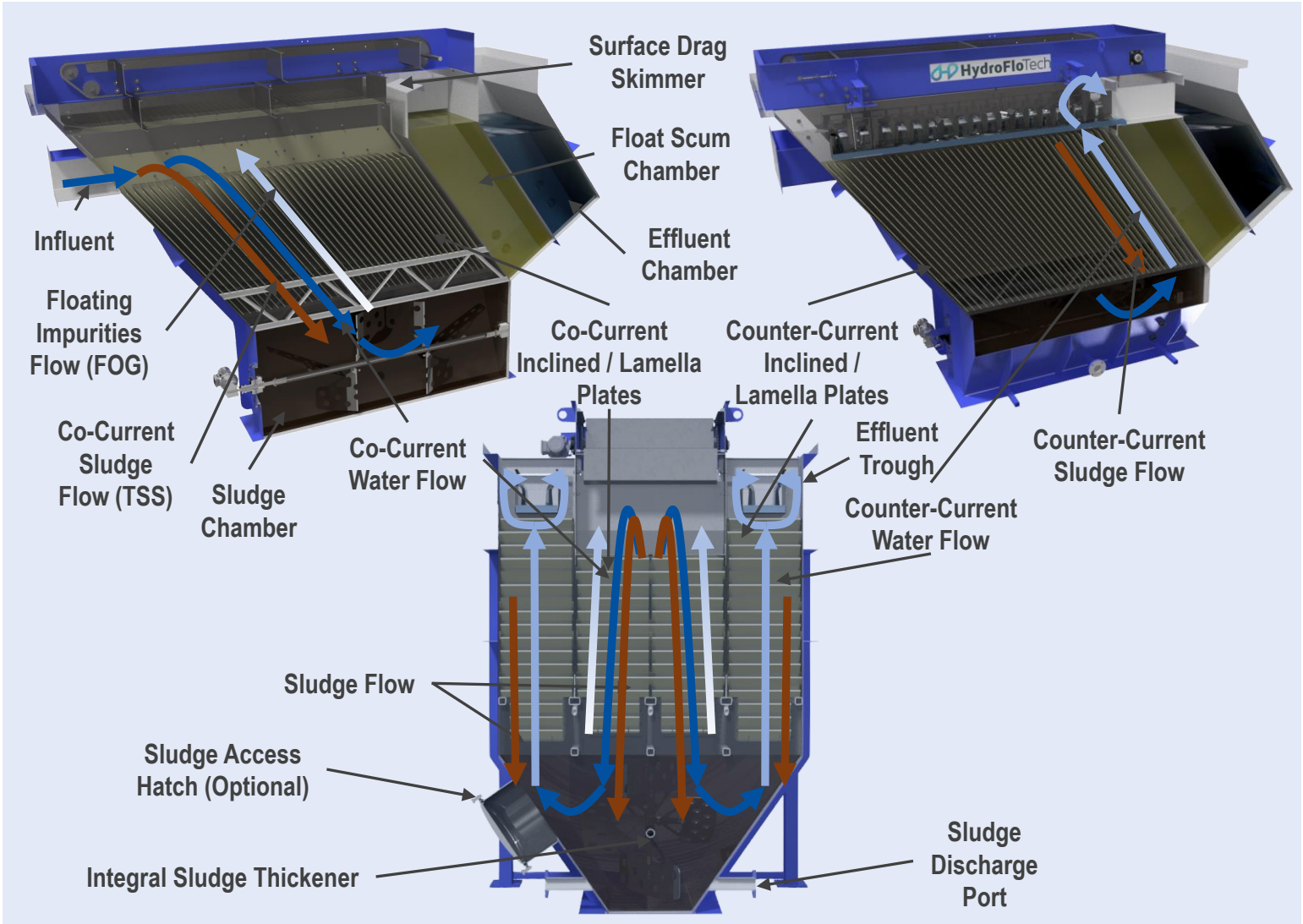
- 5 to 2,370+ gpm flow-rate configuration
- Inclined / Lamella Plates for sinking solids and Injected air for floating materials (Clarifier with DAF combination)
- Advanced influent distribution system
- Patent pending Co/Counter-Current technology
- Hopper bottom with integral sludge thickener auger

Standard Features

- Adjustable effluent V-notch troughs
- Epoxy coated ASTM A-36 carbon steel tank
- HDPE plate packs
- Stand-alone operation in a single above grade tank
- Integral mechanical sludge thickener

Options

- ❑ Automatic sludge pump out packages
- ❑ Effluent monitoring and sampling ports
- ❑ Polypropylene or 304/316 stainless steel construction
- ❑ Influent / effluent lift stations
- ❑ Polypropylene / stainless steel plate packs



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ClariDAF™ Inclined Plate Clarifier with Integrated DAF System`– Design Details

ClariDAF™ CLARIFIER WITH INTEGRATED DAF SYSTEM - STANDARD PRODUCT DATA SHEET

MODEL #	2" PLATE SPACE		1" PLATE SPACE		CHAMBER CAPACITY			UNIT DIMENSIONS (inches)			OPERATING Weight (lbs.)
CU FT	SQ FT	GPM*	SQ FT	GPM *	Separation	Sludge	Unit	L	W	H	
CLM – 045	154	39 - 54	308	77 - 108	650	229	1,399	111	101	137	15,512
CLM – 090	308	77 - 108	616	154 - 216	1,266	455	2,241	136	101	137	23,227
CLM – 135	462	116 - 162	923	231 - 324	1,883	681	3,084	160	101	137	31,003
CLM – 180	616	154 - 216	1,231	308 - 431	2,500	907	3,927	185	101	137	38,819
CLM – 225	770	193 - 270	1,539	385 - 539	3,117	1,133	4,770	209	101	137	46,693
CLM – 270	923	231 - 324	1,847	462 - 647	3,734	1,359	5,613	234	101	137	54,800
CLM – 315	1,077	270 - 378	2,155	539 - 755	4,350	1,585	6,455	258	101	137	62,659
CLM – 360	1,231	308 - 431	2,462	616 - 862	4,968	1,811	7,299	283	101	137	70,542
CLM – 405	1,385	347 - 485	2,770	693 - 970	5,585	2,037	8,142	307	101	137	78,656
CLM – 450	1,539	385 - 539	3,078	770 – 1,078	6,200	2,263	8,983	332	101	137	86,632
CLM – 495	1,693	424 - 593	3,386	847 – 1,186	6,820	2,489	9,829	356	101	137	94,524
CLM – 540	1,847	462 - 647	3,694	924 – 1,293	7,436	2,715	10,671	381	101	137	102,571
CLM – 585	2,001	501 – 701	4,001	1,001 – 1,401	8,053	2,941	11,514	405	101	137	110,438
CLM – 630	2,155	539 – 755	4,309	1,078 – 1,509	8,670	3,167	12,357	430	101	137	118,313
CLM – 675	2,309	578 – 808	4,617	1,155 – 1,616	9,287	3,393	13,200	454	101	137	126,426
CLM – 720	2,462	616 – 862	4,925	1,232 – 1,724	9,904	3,619	14,043	479	101	137	134,301
CLM – 765	2,616	655 – 916	5,233	1,309 – 1,832	10,521	3,845	14,886	503	101	137	142,169
CLM – 810	2,770	693 – 970	5,540	1,386 – 1,940	11,138	4,071	15,729	528	101	137	150,282
CLM – 855	2,924	732 – 1,024	5,848	1,463 – 2,047	11,755	4,297	16,572	552	101	137	158,151
CLM – 900	3,078	770 – 1,078	6,156	1,539 – 2,155	12,372	4,523	17,415	577	101	137	166,026
CLM – 945	3,232	808 – 1,132	6,464	1,616 – 2,263	12,989	4,749	18,258	601	101	137	174,139
CLM – 990	3,386	847 – 1,186	6,772	1,693 – 2,371	13,606	4,975	19,101	626	101	137	182,007

** Approximate flowrate based on Hydraulic Loading Ratio (HLR) 0.25-0.35 gpm / sq. ft.*

System Description

A complete 1,100 sf Clarification System, which includes 4-Stage Chemical Reaction System (pH Adjustment, Coagulation, Flash/Rapid Mix, and Flocculation with chemical dosing system and mixers), Control Panel with PLC, instruments, owner-supplied EQ and clear water tanks, effluent pumps, sludge pumps, and sludge tank monitoring.

Project Description

The 300 gpm system is installed at a world-class refractory maker for the metals industry located in the Midwest. The system is used to treat water used as coolant for a grinding operation. Treatment goals included the removal of solids and the addition of chemicals such as rust inhibitors to prolong the life of their equipment. Solid ceramic material such as alumina, zirconia, and carbon are targeted for removal. Treated water is reused in the manufacturing process. The Clarifier and other components replaced a DAF (Dissolved Air Flotation) system.

System Description

3,000 sf Clarifier System (2,394 sf effective). Complete system consists of equipment mounted on eight (8) trailers, to include Induced Air Flotation System, Oil Water Separator, Chemical Reaction Tanks with Flocculation, Clarification and Transfer Pump Systems, as well as a two-Stage pH Neutralization with main system effluent pumps. There are also four Support Trailers providing electrical controls, acid / caustic storage, and soda ash/lime blending systems.

Project Description

The 500-850 gpm system is operating in the oil and gas fields in the southwestern United States and is designed to treat flowback and process water generated from natural gas and oil fracking applications. The system is mobile, can be moved from site-to-site, and trailers can be added or removed as needed based on changing treatment requirements.

System Description

Five (5) Stainless Steel Clarifiers complete with bottom sludge augers and access platforms, ladders, and handrails. Each of three (3) Clarifiers handles 88 gpm and provides 390 sq. ft. of effective surface area. Clarifier number four provides 590 sf of effective surface area treating a 132 gpm flow rate. The fifth Clarifier provides 1,320 sf of effective surface area while treating a 308 gpm flow rate.

Project Description

Installed at an Iron Oxide Pigment Plant in Georgia, these five (5) Clarifiers were engineered to recover clarified liquid and discharged solids from the manufacturing processes. The five individual treatment processes addressed the following: A) Black Pigment Wastewater, B) Red Pigment Salt Water, C) Red Pigment Washing Water, D) Yellow Pigment Wastewater, and E) Copperas (Iron II or Ferrous Sulfate).

System Description

Complete 430 sf Clarifier / DAF System combination with RAD Assembly (aeration system for DAF capabilities), bottom sludge Auger, surface Drag Skimmer, 4-Stage Chemical Reaction System for pH Adjustment, Coagulation / Precipitation, and Flash Mix / Flocculation (to include chemical injection pumps, mixers, pH probes). The Clarifier / DAF and Chemical Reaction Systems are built of heavy-duty polypropylene. A Triple-Cell Sand Filter polishes the effluent from the treatment system. System Controls also supplied by HydroFloTech.

Project Description

This Wastewater Treatment System is one of two that we have operating at Naval Bases in the Pacific Northwest. This 100 gpm Clarifier / DAF Wastewater Treatment System operates at the third largest Naval Base in the United States that provides operation and support services for surface ships as well as fleet ballistic missile and other nuclear submarines with home ports in the Pacific Northwest. The Clarifier / DAF system meets stringent effluent requirements since a significant amount of the treated water is returned to the ocean.

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ClariDAF™ Inclined Plate Clarifier with Integrated DAF System – Photos










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