



726 Beacon St, Loves Park, IL 61111 | 815-636-8833 | 800-919-0888 | 815-636-8844 fx | www.watersurplus.com

### EQUIPMENT DATA SHEET INCLINED PLATE CLARIFIER

<b>Description</b>	400 GPM Incline Plate Clarifier
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<b>Asset #:</b>	WWE3560029
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<b>Owner</b>		<b>Mfg. Yr.</b>
Watersurplus		2015

<b>EQUIPMENT TYPE</b>	<b>OEM</b>
Clarifier	Ellis Corp.

NORMAL OPERATING PARAMETERS			
Operating Water Temperature	50-90	°F	
Fluid Type	Water		
Design Solids Removal		ppm	
Design Fllow	400	gpm	
Retention Time at Design Flow	5.00	min	
Liquid Volume	7115	gal	
Total Pretreatment Volume	6185	gal	

UNIT CONFIGURATION	
Clarifier Type	Inclined Plate-IPC-4-1320
Reaction Tank - Zone #1	4180 gallons
Reaction Tank - Zone #2	2005 gallons
Sludge Settle Zone	930 gallons
Lamella Plates & Mat'l	(138) 4'x4'x1/8" Polypropylene
Projected Plate Area	1267 ft <sup>2</sup>
Plate Angle	55 Deg
Internal Lining	White Polyamine Epoxy

POWER REQUIREMENTS						
Control Panels	VAC	PH	HZ	Amps	Src	
Main Control Panel	120	1	60	21	Ext	
Clarifier	120	1	60	12	Ext	
Reaction Tank	120	1	60	5	Ext	
Neut. Tank	120	1	60	5	Ext	
Motors	VAC	PH	HZ	HP	Amps	
Reaction Mixer - #1	480	3	60	1	1.6	
Reaction Mixer - #2	480	3	60	0.5	0.9	
Neutralization Mixer	480	3	60	2	3	

FLOW RANGE		
Min Disch Flow	n/a	gpm
Rise Rate	n/a	gpm / ft2
Max Disch Flow	507	gpm
Rise Rate	0.40	gpm / ft2
Design Flow	400	gpm
Rise Rate	0.31	gpm / ft2

PHYSICAL SPECIFICATIONS						
Dimensions	Length	Width	Height	Wt - Shipping	Wt - Flooded	
Reaction Tank	15.5'	8'	9'	8,700 lbs	55,200 lbs	
Inc. Plate Clarifier	25.5'	8'	8'	11,500 lbs	60,000 lbs	
Neutralization Tank	9.5'	9'	8.5'	5,900 lbs	44,000 lbs	

AVAILABLE DOCUMENTATION			
Description	AVAIL	Description	AVAIL
Process & Instrumentation Diagram - P&ID	Y	Electrical Schematics	Y
Piping layout/General Arrangement	Y	Program Logic	N
Major Component List - MC List	Y	Operations/Maintenance Manuals	Y

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<b>PROCESS CONNECTIONS (SIZES &amp; LOCATION SYMBOLS)</b>		
	Size & Type	Location
Reaction Tank Inlet	10" 150# Flange	(2) Front - Upper Right & Left
Reaction Tank Outlet	12" 150# Flange	(1) Back - Upper Center
Clarifier Inlet	12" 150# Flange	(1) Front - Upper Center
Clarifier Outlet	12" 150# Flange	(1) Back - Upper Center
Clarifier Sludge Outlet	4" 150# Flange	(3) Back - Lower Right, Center, & Left
Neutralization Tank Inlet	12" 150# Flange	(1) Front - Center Right
Neutralization Tank Outlet	6" 150# Flange	(1) Back - Lower Right





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**MISCELLANEOUS INFORMATION**

This system manufactured by Ellis Corporation includes a WCRF-400-001 reaction tank, WIPC-4-1320-001 lamella style clarifier and a WCNT-400-011 neutralization tank. Additionally there are mixer/motors, shafts and impellers included. Also included is a main control box with HMI.



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**MAJOR COMPONENTS**

Controls	Qty	Type	Model / Manuf	Description
pH (2) Reaction Tank (1) Neut. Tank	3	n/a	Signet Electronics: 3-2751-2 Probe: 3-2724-00	In-Line pH sensor electronics with easycal dryloc electrode, 2-14 pH
Level Transmitter Reaction Tank Clarifier Neut Tank	3	n/a	IFM Electronics: LR2350 Probe: E43353	Continious level sensor with guided wave radar, 4-digit LED display, 3/4" NPT process connection with flange adapter

Motors	Size	Type	Model / Manuf	Description
Reaction Tank Mixer - Zone 1	1 HP	Top Entry	Sharpe 1E3-30	Motor Model NB0014FCA*, 56C frame, TEFC enclosure, 1750 rpm, 230/460 volts, 3ph, 60hz. Single Reduction Worm, E3, Hollow shaft gearbox, Worm Gear Oil, (30:1) RATIO. RPM = 58, 1.75" dia. Shaft, 38" dia. HYF-218 Hydrofoil Impeller (4) Blades, 1-Piece Hub
Reaction Tank Mixer - Zone 2	0.5 HP	Top Entry	Sharpe 0.5E3-30	Motor Model NBY0054FCA*, 56C frame, TEFC enclosure, 1750 rpm, 230/460 volts, 3ph, 60hz. Single Reduction Worm, E1, Hollow shaft gearbox, Worm Gear Oil, (30:1) RATIO, RPM = 58, 1.5" dia. Shaft, 32" dia. HYF-218 Hydrofoil Impeller (4) Blades, 1-Piece Hub
Clarifier Sludge Pump	n/a	Air-Operated	Yamada NDP	3" Air sludge transfer pump
Clarifier Sludge Auger	0.5 HP		Atex	115V, 60 HZ, TEFC Motor, 250:1 Ratio, 7 RPM output

Plates / Packs	Size	Material	Model / Manuf	Description
Inclined Plate	1/8" Thick	PPL	Ellis	(138) 1/8" Thick x 48" Wide x 48" Deep Polypropylene (6) Packs of (23)