EVOQUA
WATER TECHNOLOGIES

TOTALTREAT® CPS CONTINUOUS PRECIPITATION SYSTEM

The TotalTreat® Continuous Precipitation System (CPS) is a packaged system used to perform continuous flow chemical precipitation and clarification in many industries and applications. The system includes reaction tanks with chemical injection pumps, pH meters and mixers, flocculation chamber with mixer, inclined plate clarifier, dual sludge age tanks, sludge transfer pump, and an effluent clearwell. Sludge removal and decant pumps are available as options. The CPS can be used as a standalone unit or integrated as part of a larger system.

The system requires a single power connection and process connections at the influent and sludge effluent. The chemistry used in the CPS is selected to provide optimum treatment for the waste. The five standard equipment dosing pumps can be supplemented and additional instrumentation, such as oxidation reduction potential (ORP) is optional.

System Features:

- UL 508A electrical enclosure, NEMA 4X
- Compact design for small footprint
- Inclined tube settling modules for clarification
- Dual sludge age tanks to improve filter press operation
- Epoxy coated carbon steel construction for superior corrosion resistance
- TEFC mixer motors
- Pre-piped, pre-wired, factory tested

Available Standard Options:

Max Flow Rate:
- 10 gpm
- 30 gpm
- 50 gpm
- 100 gpm

ORP Sensor:
- None
- Single Sensor
- Dual redundant sensors

Reaction Chamber One Liner:
- None
- Low pH resistant coating with PVC-coated mixer shaft/impeller

Reaction Chamber pH Sensors:
- Single Sensor
- Dual redundant sensors
- Single Fluoride-resistant sensor
- Dual Fluoride-resistant sensors

Clearwell pH Sensor:
- None
- Single Sensor
- Dual redundant sensors

Sludge Removal Pump:
- None
- Manually controlled AOD double diaphragm pump

Supernatant Decant Pump:
- None
- Manually controlled AOD double diaphragm pump

Additional Polymer Dosing:
- None
- Powdered chemical makeup tank with metering pump

Additional Volumetric Dosing:
- None
- Metering pump

www.evoqua.com/en/brands/IPS/Pages/totaltreat-cps.aspx

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SPECIFICATIONS

Model Number	CPS-10	CPS-30	CPS-50	CPS-100
Two Reaction Chambers	230 gallons, 0.87 m^3 (each)	320 gallons, 1.2 m^3 (each)	450 gallons, 1.7 m^3 (each)	990 gallons, 3.7 m^3 (each)
Flocculation	50 gallons, 0.19 m^3	150 gallons, 0.57 m^3	250 gallons, 0.95 m^3	500 gallons, 1.9 m^3
Clarification Chamber	690 gallons, 2.6 m^3	1,360 gallons, 5.1 m^3	2,450 gallons, 9.3 m^3	4,080 gallons, 15.4 m^3
Two Sludge Thickening Chambers	250 gallons, 0.95 m^3 (each)	400 gallons, 1.5 m^3 (each)	910 gallons, 3.4 m^3 (each)	1,390 gallons, 5.3 m^3 (each)
Effluent Chamber	85 gallons, 0.32 m^3	95 gallons, 0.36 m^3	415 gallons, 1.6 m^3	935 gallons, 3.5 m^3
Two Reaction Chamber Dosing Pumps	Pulsafeeder Positive Displacement PVDF/TFE/Ceramic			
Reaction Chamber Mixer	Lightnin 1/4 HP, 316 SS Shaft & Impeller	Lightnin 1/4 HP, 316 SS Shaft & Impeller	Lightnin 1/4 HP, 316 SS Shaft & Impeller	Lightnin 3/4 HP, 316 SS Shaft & Impeller
Flocculation Chamber Mixer	Bodine Paddlewheel Type, Gear Drive, 1/12 HP, 304 SS & Polypropylene			
Sludge Transfer Pump	ARO Air Operated Double Diaphragm			
Environmental Ratings	Indoors, 40-120 °F, <3000 ft elevation, Seismic UBC Zone 4			

VALVES AND PIPING

Influent	By Customer			
Sludge Decant	1" - PVC Schedule 80	1" - PVC Schedule 80	1" - PVC Schedule 80	1" - PVC Schedule 80
Process Effluent	1-1/2" - PVC Schedule 80	1-1/2" - PVC Schedule 80	1-1/2" - PVC Schedule 80	3" - PVC Schedule 80
Sludge Effluent	1-1/2" - PVC Schedule 80	1-1/2" - PVC Schedule 80	1-1/2" - PVC Schedule 80	1-1/2" - PVC Schedule 80
Effluent Clearwell Emergency Overflow	3" - PVC Schedule 80	3" - PVC Schedule 80	6" - PVC Schedule 80	6" - PVC Schedule 80
Air Line (CDA)	1/2" - NPT	1/2" - NPT	1/2" - NPT	1/2" - NPT
Water Line (ICW)	3/4" - PVC Schedule 80	3/4" - PVC Schedule 80	3/4" - PVC Schedule 80	3/4" - PVC Schedule 80

INSTRUMENTS

pH / ORP	Rosemount
Level Switches	Erecta

UTILITIES REQUIRED

Power	480 VAC, 3 phase, 60 Hz, 8 A
Compressed Air	20 cfm @ 100 psi (34 m^3/h @ 690 kPa), 10% duty factor
Industrial Cold Water	130 gpd @ 40 psi (0.02 m^3/h @ 276 kPa)

CONSTRUCTION

Material	Carbon Steel			
Paint - Internal	Three coats Cycloaliphatic Amine Epoxy – total coating thickness 8.0 to 12.0 MDFT – CPS61			
Paint - External	Single Coat DTM Urethane Mastic – total coating thickness 4.0 to 5.0 MDFT – Evoqua Blue			
Overall dimensions (LxWxH)	12'-6" x 7'-5" x 7'-9" 3,180 x 2,261 x 2,362 mm	17'-1" x 7'-5" x 8'-11" 5,207 x 2,261 x 2,718 mm	18'-3" x 11'-1" x 9'-6" 5,563 x 3,378 x 2,896 mm	27'-5" x 10'-11" x 10'-10" 8,357 x 3,327 x 3,302 mm
Shipping Weight	4,700 lbs (2,130 kg)	6,200 lbs (2,820 kg)	8,200 lbs (3,720 kg)	13,700 lbs (6,220 kg)
Operating Weight	19,700 lbs (8,940 kg)	31,600 lbs (14,340 kg)	57,000 lbs (25,860 kg)	99,500 lbs (45,140 kg)

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