

WWE

**WATER & WASTEWATER
EQUIPMENT COMPANY**



INCLINED PLATE CLARIFIER (Lamella)



Practical and Economical Solutions to Pollution



Model IPC 140/60 incorporated into a 30gpm system. Design includes: neutralization, clarification, sludge storage and dewatering filter press. WVE offers individual components, engineering, system upgrades and complete treatment systems.

IPC Offers these important **Benefits** and **Advantages** over the competition

- Lower installed costs, up to 50%
- Reduced floor space, up to 90%
- Less Equipment, less sludge holding required
- Low Maintenance, No moving parts
- Completely automatic, gravity in gravity out
- Conservative Design - 0.2 gpm/ft.² hydraulic loading

BASIC IPC CLARIFIER

IPC Model	No. Of Packs	Projected Settling Area	No. Of Cones	Weights		Flow Rate GPM*	Dimensions		
				Operating	Dry		L	W	H
140/60	1	140 ft. ²	1	11,000#	4,000#	30	8'-1"	4'-6"	10'-0"
280/60	2	280 ft. ²	1	18,000#	5,000#	60	7'-0"	8'-0"	10'-0"
560/60	4	560 ft. ²	2	35,000#	7,000#	120	11'-6"	8'-0"	10'-6"
840/60	6	840 ft. ²	2	54,000#	10,800#	180	11'-6"	12'-0"	12'-0"
1120/60	8	1,120 ft. ²	2	60,000#	12,500#	240	19'-6"	8'-0"	11'-0"
1680/60	12	1,680 ft. ²	4	98,000#	17,000#	360	19'-6"	12'-0"	12'-0"

The IPC Gravity Clarifier is available in six standard sizes as shown in the chart above. Custom modifications of the standard units and installation of packs to existing circular or rectangular clarifiers to improve efficiency are available to meet your exact requirements.

**Based on solids loadings <1000 ppm. For higher loading, consult the factory.*

Metal Hydroxides Inclined Plate Clarifier (Lamella)

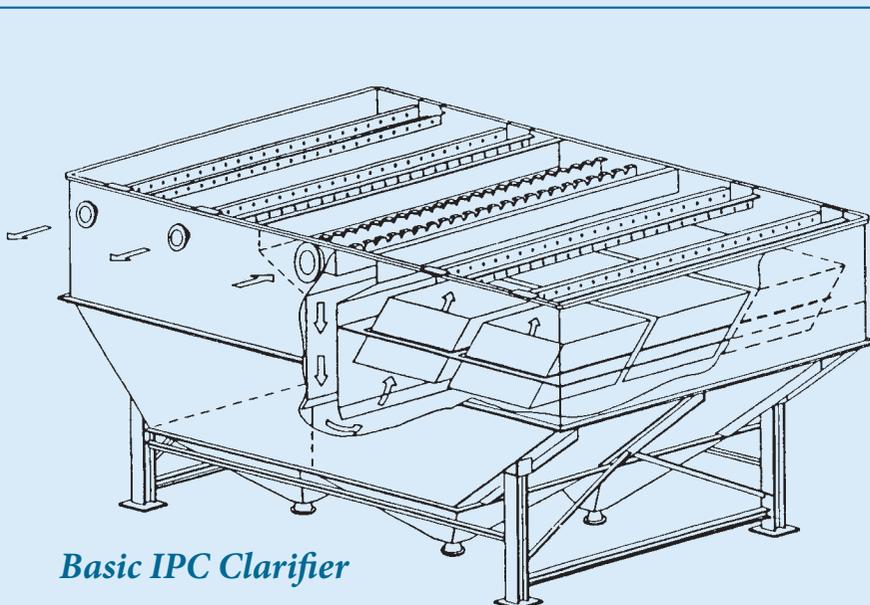
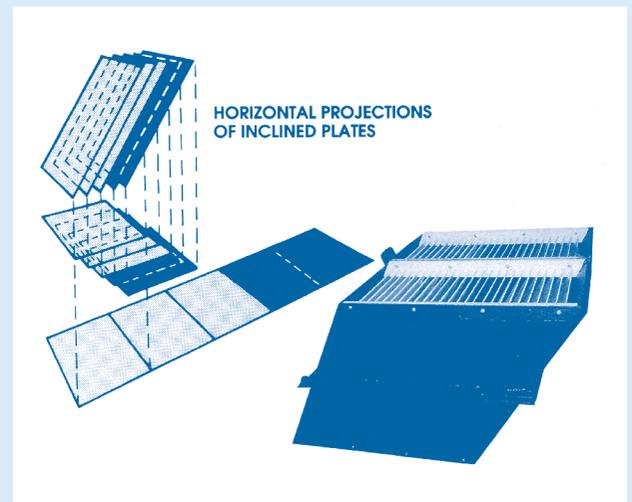
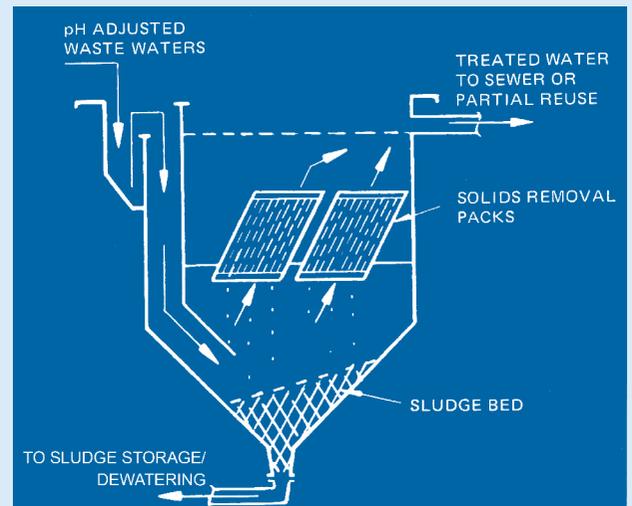
Principles of Operation

The IPC Series is a cost competitive clarifier which utilizes the time proven concept of Inclined Plate Clarification. Unlike conventional circular or rectangular basins, an Inclined Plate Clarifier relies solely on gravity to settle and concentrate suspended solids in the pre-treated liquid flow. The most significant aspect of the design is the large settling area provided by the 60° Inclined Plates. Each plate pack offers a projected equivalent settling area of 140 sq. ft. and are constructed of PVC to resist corrosion.

Metal hydroxide wastes, which have been previously treated, flow by gravity or are pumped to the IPC to remove the insoluble Hydroxides. Flowing first to the Flash Mix/Flocculation Chamber where polymer flocculants are added to promote floc growth, then up through the packs with the solids settling out in the large cone bottom. Solids which accumulate in the cone are automatically removed at concentrations of 2-3% by weight for subsequent final dewatering.

IPC Construction

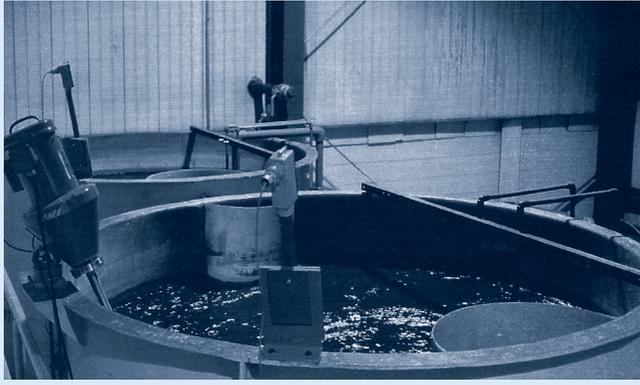
The "IPC" is constructed of rugged 1/4" rolled mild steel. All wetted steel parts are sand blasted to white metal then coated with a high performance epoxy to resist corrosion. Exterior surfaces are, likewise, sandblasted, primed and painted with chemical resistant epoxy. The Inclined Plate packs are made of chemical resistant PVC providing a smooth surface which retards solids build-up between the plates. Influent V-Notch weirs and effluent launderers guarantee even flow throughout the plate settling area. Included as standard to the IPC is the built-in flash mix/flocculator section with gear driven mixer, sludge removal butterfly and air operated pinch valves. The conservative sludge collection/thickening cone sizing enhances the density of the underflow to the sludge storage tank.



STATE OF THE ART Metal Hydroxides Removal

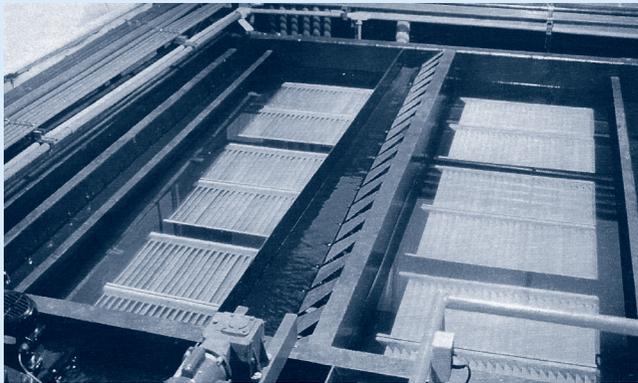
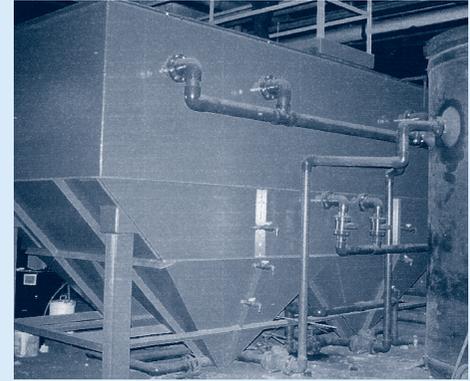
Large circular and rectangular clarifiers have been used for many years in the Metal Finishing Industry. The Inclined Plate Clarifier designed for metal hydroxides offers cutting-edge clarification proven effective in numerous installations.

The IPC is a complete package offering high efficiencies of solids removal combined with enhanced sludge thickening within the large cone bottom storage area.



Neutralized waste stream iron hydroxide at 2500 ppm suspended solids loading. Prior to entering IPC 1120/60 Flash Mix/Flocculation compartment.

Model IPC 1120/60 Clarifier operating on 2500 ppm Iron Hydroxide Flocculated Waste.



Top view of IPC 840/60 showing clarified water leaving the IPC through effluent launderers. Inclined “Lamella” plates are visible through clear water layer.



WWE can also provide custom made plastic or stainless steel clarifiers to meet your company’s specific needs. Please contact us for additional information.



32100 Solon Road | Solon, OH 44139
P: 440-542-0972 | F: 440-542-1386
info@wwe-co.com | wwe-co.com