

PRODUCT DATA SHEET



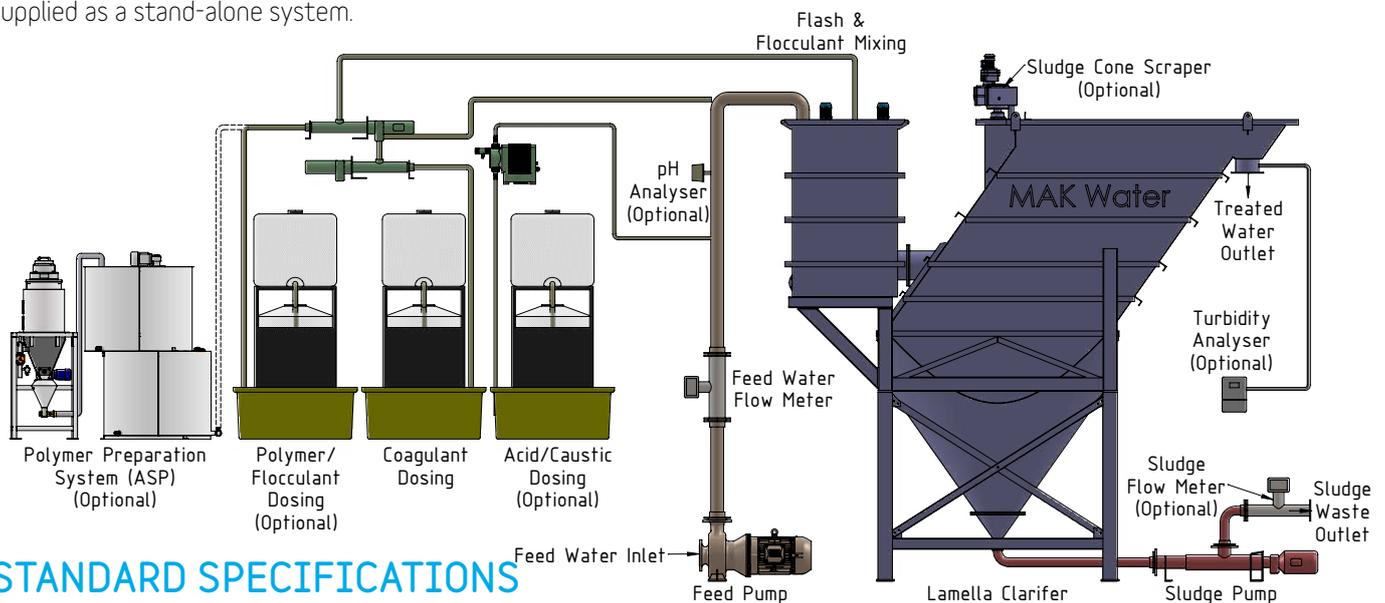
Lamella Clarifier (LC)

water | wastewater | sewage

OVERVIEW

MAK Water's Lamella Clarifiers (LC) are designed to remove high concentrations of suspended solids from water, where the solids have a specific gravity >1.0 . They are ideal for applications where the solids loading is >30 mg/L, particle sizing is fine, or for removal of dissolved metals via hydroxide precipitation.

The standard treatment process includes coagulant dosing and mixing, followed by solids separation with automated sludge wasting. Additional treatment steps, such as pH correction for precipitation of heavy metals, and various optional equipment is available to suit project specific requirements. MAK Water's Lamella Clarifiers can be integrated into a treatment process, or supplied as a stand-alone system.



STANDARD SPECIFICATIONS

Parameter	Units	LC-015	LC-040	LC-060	LC-090	LC-120	LC-150
*1Projected effective settling area	m ²	15	40	60	90	120	150
*2Feed water flow rate	m ³ /hr	7.5 ~ 15	20 ~ 40	30 ~ 60	45 ~ 90	60 ~ 120	75 ~ 150
*3Typical sludge flow rate	m ³ /hr	0.15 ~ 1.5	0.4 ~ 4	0.6 ~ 6	0.9 ~ 9	1.2 ~ 12	1.5 ~ 15
*3Treated water recovery rate	%	90 ~ 98 (varies according to feed water quality / solids settling volume)					
Treated water turbidity	NTU	1 ~ 10 (varies according to feed water quality / system design)					
*4Typical coagulant dose rate	L/hr	0.4 ~ 3	1~8	1.5~12	2.3~18	3~24	3.8~30
Polymer Preparation System capacity	-	Refer to MAK Water's Product Datasheet for Polymer Preparation System (ASP)					
Power supply	-	AC 380~415 V, 3 Phase, 50/60Hz					
Power consumption	Flash mixer	kW	0.37	0.37	0.37	0.37	0.37
	Flocc mixer	kW	0.37	0.37	0.37	0.37	0.37
	Coagulant dosing	kW	0.024	0.024	0.024	0.024	0.024
	*5Feed pump	kW	1.1	2.2	4	5.5	7.5
	*5Sludge pump	kW	1.1	1.5	2.2	3	3
	*5Sludge scraper	kW	-	0.37	0.37	0.18	0.18
Dimensions (clarifier only), L x W x H	m	4.0 x 1.7 x 3.3	5.1 x 1.9 x 4.0	5.2 x 2.1 x 4.7	6.4 x 2.1 x 5.2	7.5 x 3.0 x 6.1	7.3 x 3.0 x 6.5

*1 Based on 50mm plate spacing, *2 Based on 0.5 ~ 1.0 m/hr settling rate, *3 Based on solids settling volume $<10\%$,

*4 Based on 0.05~0.2 mL/L dose rate, *5 Optional equipment

STANDARD INCLUSIONS + OPTIONS

✓ = Standard Supply, o = Optional Supply

Equipment	LC-015	LC-040	LC-060	LC-090	LC-120	LC-150
Feed pump	o	o	o	o	o	o
Sludge pump	o	o	o	o	o	o
Flocculation system	Elevated flocculation tank with flash and floc mixers	✓	✓	✓	✓	✓
	Skid mounted flocculation tubes with static mixer	o	o	o	o	o
Lamella Clarifier with composite plate pack, SS316 internal launders & access platform with caged rung ladder to AS1657	Epoxy coated mild steel tank and support stand	✓	✓	✓	✓	✓
	Electrically actuated sludge dump valve	✓	✓	✓	✓	✓
	SS304 tank with galvanised steel support stand	o	o	o	o	o
	SS316 tank with galvanised steel support stand	o	o	o	o	o
	Sludge hopper scraper	-	o	o	o	o
Chemical dosing	Coagulant	✓	✓	✓	✓	✓
	Additional (flocculent, acid, caustic etc.)	o	o	o	o	o
Polymer Preparation System (ASP)	o	o	o	o	o	o
PLC control system with HMI	✓	✓	✓	✓	✓	✓
Instrumentation	Standard package	✓	✓	✓	✓	✓
	Premium package with ClearAccess™ remote monitoring	o	o	o	o	o

Instrumentation & Controls	Standard package	Premium package
Feed and treated water tank float level switches	✓	-
Chemical dosing tank(s) float level switches	✓	✓
Pressure switch on each pump discharge	✓	✓
Pressure gauge on each pump discharge	✓	✓
pH analyser (with acid and/or caustic dosing only)	✓	✓
Magnetic flow transmitter	Clarifier inlet	✓
	Sludge outlet	-
Variable speed drives	Feed pump	✓
	Sludge pump	-
Treated water turbidity analyser	-	✓
Feed and treated water tank level transmitters	-	✓
ClearAccess™ remote monitoring & control capabilities	-	✓

MODEL SELECTION

- 015** Capacity – 7.5 ~ 15 m³/hr
- 040** Capacity – 20 ~ 40 m³/hr
- 060** Capacity – 30 ~ 60 m³/hr
- 090** Capacity – 45 ~ 90 m³/hr
- 120** Capacity – 60 ~ 120 m³/hr
- 150** Capacity – 75 ~ 150 m³/hr

- X** Without feed pump (feed by client)
- F** With feed pump
 - X** Without sludge pump (gravity drain)
 - S** With sludge pump
 - X** Elevated flocculation tank with flash and floc mixers
 - T** Skid mounted flocculation tubes with static mixer
 - X** Epoxy coated mild steel tank and support stand
 - 4** SS304 tank with galvanised support stand
 - 6** SS316 tank with galvanised support stand
 - X** Without sludge scraper
 - L** With sludge scraper
 - X** Chemical dosing - standard (coagulant only)
 - D** Chemical dosing - custom (specify)
 - X** Polymer Preparation system - without
 - A** Polymer Preparation system - included
 - X** Standard instrumentation package
 - P** Premium instrumentation package
 - X** Specifications - standard
 - C** Specifications - custom

LC - - - - - - - - - -

NEED A QUOTE?
 COMPLETE THIS TABLE
 AND EMAIL TO...
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