



# LIANG CHI INDUSTRY ( THAILAND ) CO., LTD.

## COUNTER FLOW INDUCED DRAFT LBC TYPE COOLING TOWER SPECIFICATION

DATE :  
 TOWER MODEL NO. : LBC - T - 30  
 NO. OF SETS : 1

### DESIGN & OPERATING CONDITIONS

WATER FLOW RATE. : 332 LPM.  
 HOT WATER TEMP. : 37 °C  
 COLD WATER TEMP : 32 °C  
 AMB. WET BULB TEMP. : 28 °C  
 FAN B.H.P. : 0.83 BHP  
 TOWER PUMP HEAD : 1.8 M  
 DRIFT LOSS OF WATER FLOW RATE : 0.2 %  
 EVAPORATION LOSS OF WATER FLOW RATE : 0.83 %  
 DESIGN WIND LOAD : 150 Kg / M<sup>2</sup>

### STRUCTURAL DETAILS

OVERALL DIMENSION : 1580 MM  
 DRY WEIGHT : 115 Kg  
 OPERATING WEIGHT PER TOWER : 488 Kg

### CONSTRUCTION

TOWER SUPPORTER FRAME ASS'Y : F.R.P.  
 CASING : F.R.P.  
 CASING SUPPORTOR : NYLON  
 COLD WATER BASIN : F.R.P.  
 FILLING : P.V.C.  
 FILLING SUPPORTOR : H.D.G.S.  
 MECHANICAL EQUIPMENT SUPPORTOR : H.D.G.S.  
 INLET LOUVER : P.V.C.  
 BOLTS,NUTS & WASHERS : C.P.S.

LIANG CHI IND. (THAILAND) CO., LTD.	
TECHNIC DEPT.	
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TECHNIC BY :	



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### WATER DISTRIBUTION

STAND PIPE : P.V.C.  
 SPRINKLER HEAD : NYLON  
 MODEL : LSH - 065  
 SPRINKLER PIPE : P.V.C.

### MECHANICAL EQUIPMENTS

#### FAN UNIT

NO. OF UNIT : 1 UNIT / SET  
 TYPE : AXIAL FLOW  
 MODEL : LSF-080  
 MANUFACTUROR : LIANG CHI IND.CO.,LTD.  
 DIAMETER : 770 MM  
 NO. OF BLADES : 3  
 FAN SPEED : 930 RPM  
 TIP SPEED : 37.5 M/S  
 BLADE MATERIAL : NYLON  
 HUP MATERIAL : NYLON  
 AIR VOLUME : 225 M<sup>3</sup> / MIN/SET

#### FAN MOTOR

NO. OF UNIT : 1 UNIT / SET  
 TYPE : TEFC  
 INSULATION : CLASS F IP55  
 MANUFACTUROR : LIANG CHI  
 SPEED : 930 RPM  
 RATED H.P : 1 H.P \* 6P  
 POWER SOURCE ( VOLT / PHASE / HZ ) : 380 / 3 / 50

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<u>PIPING CONNECTION</u>		SIZE		Q'TY / SET
WATER INLET	:	2 1/2	B ( 65 A )	1
WATER OUTLET	:	2 1/2	B ( 65 A )	1
AUTO FILL	:	1/2	B ( 15 A )	1
QUICK FILL	:	1/2	B ( 15 A )	1
OVER FLOW	:	1	B ( 25 A )	1
DRAIN	:	2	B ( 50 A )	1


### REMARK


F.R.P : FIBERGLASS REINFORCE PLASTIC


H.D.G.S : HOT DIP GALVALNIZED STEEL

A.A. : ALUMINIUM ALLOY

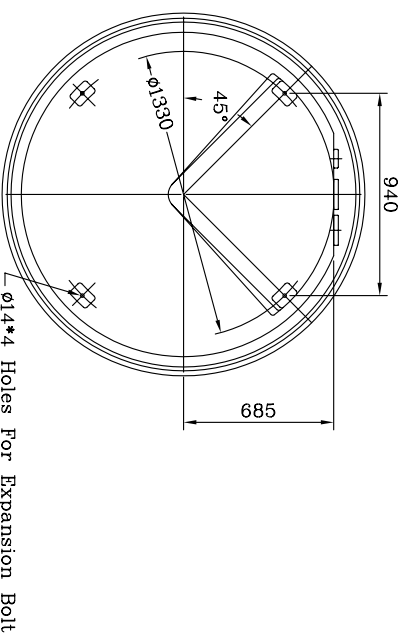
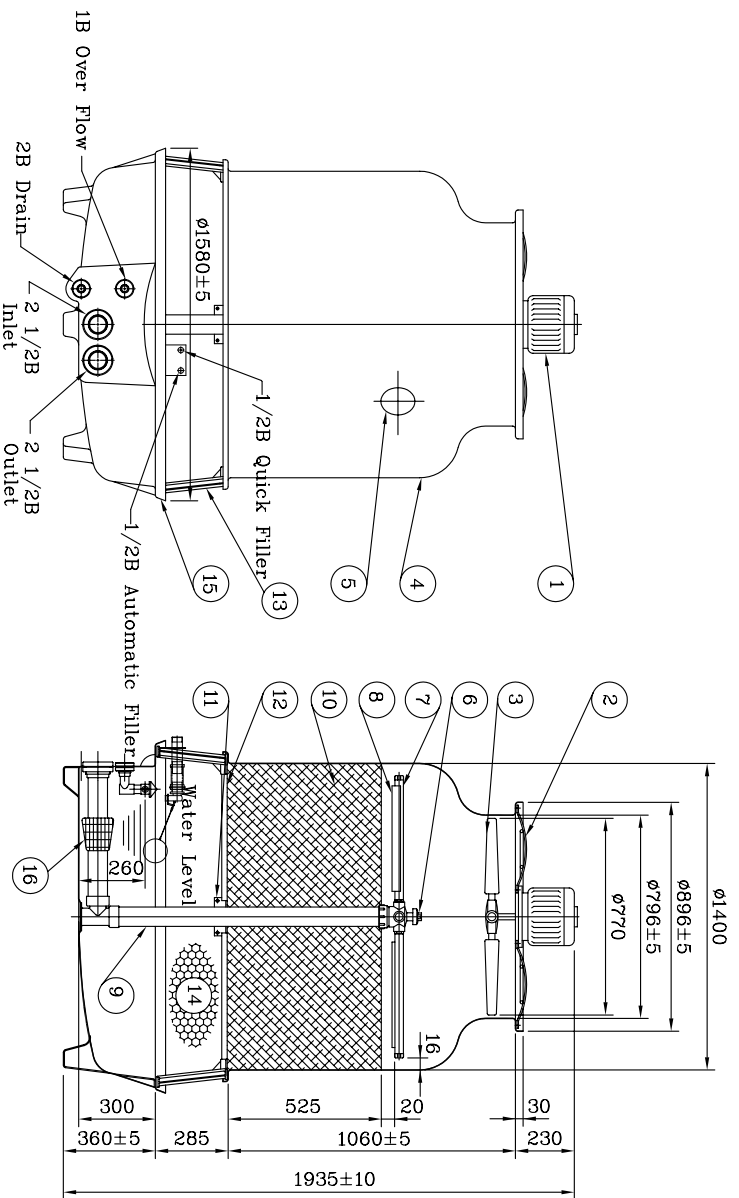
C.P.S. : CHROMATED - PLATING STEEL

DESIGNED : .....  .....

CHECK : .....  .....

APPROVE : .....  .....

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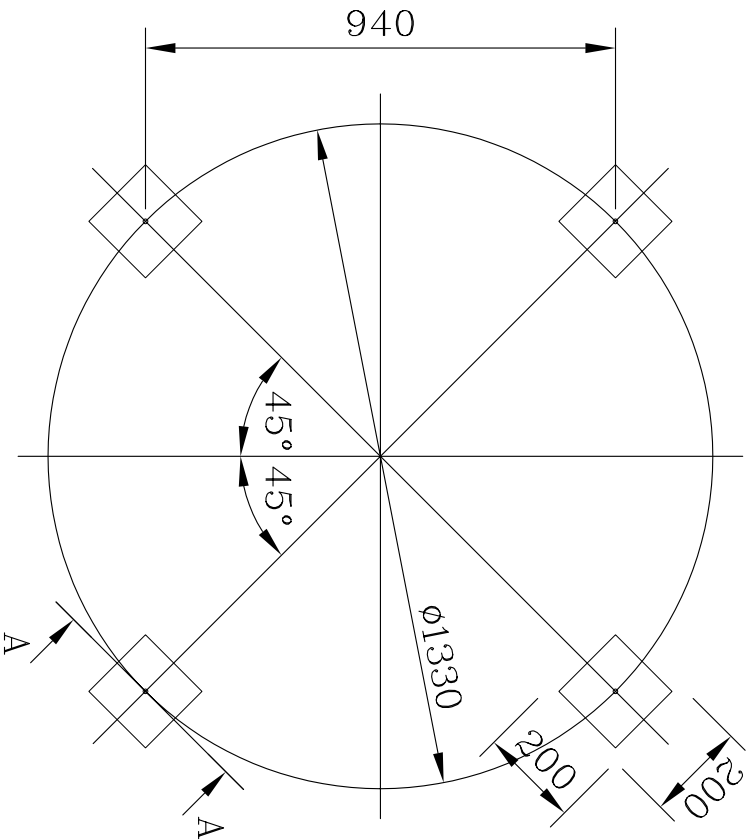
Description	M.T	Specification	Q'ty
1 Fan Motor		1HP*6P	1 PCS
2 Motor Framework Ass'y	H.D.G.S		1 PCS
3 Fan	Nylon	LSF-080	1 SET
4 Casing	F.R.P.		4 PCS
5 Hand Hole	E.V.A.		1 PCS
6 Sprinkler Head	NYLON	LSH-065	1 PCS
7 Sprinkler Pipe	P.V.C.		4 PCS
8 Eliminator	P.V.C.		4 PCS
9 Stand Pipe	P.V.C.		1 PCS
10 Filling	P.V.C.		1 SET
11 Stopper or Column	A.A.		1 SET
12 Filling Supporter	H.D.G.S		1 SET
13 Casing Supporter	NYLON		4 PCS
14 Inlet Louver	P.V.C.		1 SET
15 Water Basin	F.R.P.		1 PCS
16 Strainer	P.E.		1 PCS

Abbrev. : 1. H.D.G.S: Hot Dip Galvanized Steel

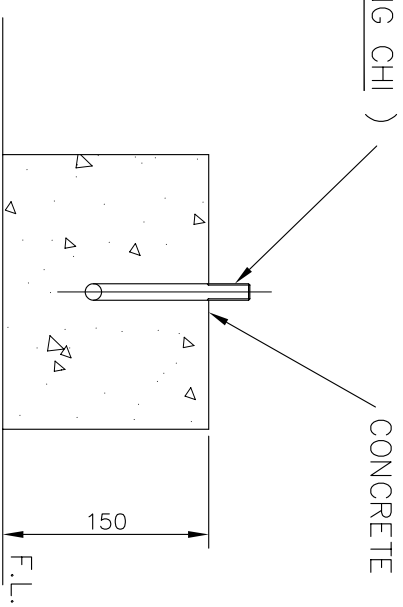
- 2. A.A. : Aluminum Alloy
- 3. ST.S. : Stainless Steel 304
- 4. F.R.P. : Fiberglass Reinforced Plastic

Drain	50A ( 2 B)	Over Flow	25A ( 1 B)
Outlet	65A ( 2 1/2 B)	quick filler	15A ( 1/2B)
Inlet	65A ( 2 1/2 B)	Automatic filler	15A (1/2B)
Pipe Connections		Operating Weight	
Dry Weight 115 kgs		Loading Data	
Ambient Wetbulb : 28 °C		Air Volume : 225 M <sup>3</sup> /MIN	
Outlet Water Temp : 32 °C		Water Flow : 332 LPM	
Inlet Water Temp : 37 °C		Cooling Capacity : 99,600 Kcal/HR	
Design Condition			
REV.	DATE	DWG BY	APP.
TITLE			
LBC-T-30			
OUTLINE VIEW			
APP.	K.Somons	DESIGN	Annat
CHECK	SURASAK	DWG BY.	Annat
LIANG CHII INDUSTRY (THAILAND) CO., LTD. 223 Moo 9 Tab-Yaolad-Krabang Bangkok 10520 (NUM KRAL INDUSTRIAL ZONE LUANG-PAENG RD.)			LBC-T-30-01

REV.	DATE	DWG BY	APP.	NOTE
TITLE				
LBC-T-30				
OUTLINE VIEW				
APP.	K.Somons	DESIGN	Annat	
CHECK	SURASAK	DWG BY.	Annat	
LIANG CHII INDUSTRY (THAILAND) CO., LTD. 223 Moo 9 Tab-Yaolad-Krabang Bangkok 10520 (NUM KRAL INDUSTRIAL ZONE LUANG-PAENG RD.)				LBC-T-30-01



EXPANSION BOLT ( BY LIANG CHI )



A-A SECTION

REMARK :

1. THIS FOUNDATION DRAWING IS PROVIDED FOR END USER'S REFERENCE.
2. COOLING TOWER DOES NOT INCLUDE FOUNDATION
3. THE LEVEL TOLERANCE OF FOUNDATION IS  $\pm 2$  mm.
4. THE HEIGHT OF FOUNDATION EXCLUDES THERMAL ISOLATOR AND WATER PROOF.
- \* 5. EXPANSION BOLT & RUBBER PAD SHALL BE FURNISHED BY LIANG CHI  
( PLEASE DON'T PREPARE HOLE OF EXPANSION BOLT BEFORE INSTALLATION )

LIANG CHI IND. (THAILAND) CO.,LTD  
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 APPROVAL  
 OTHER.....  
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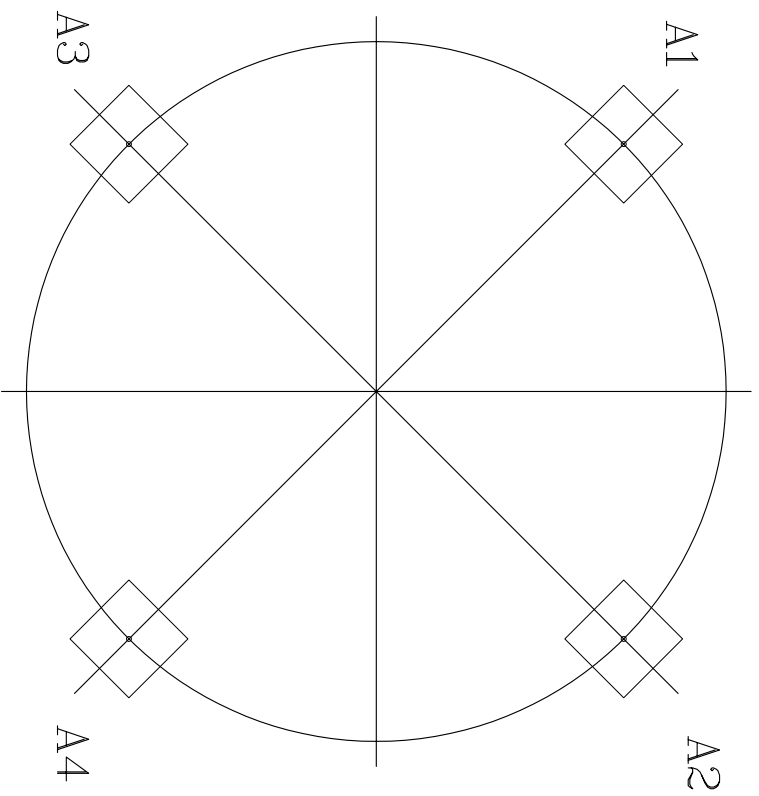
Water Inlet

REV.	DATE	DWG BY	APP.	NOTE
		LBC-T-30		
Concrete Foundation				

APP.	K.Somons	DESIGN	Annnt	MM	X
CHECK	SURASAK	DWG BY.	Annnt		
					DWG-NO

LIANG CHI INDUSTRY (THAILAND) CO., LTD.  
 223 Moo 9 Tab-Yaolad-Krabang Bangkok 10520  
 (NUM KRAL INDUSTRIAL ZONE LUANG-PAENG RD.)

LBC-T-30-02



LBC-T-30	A1,A2,A3,A4
	122

UNIT : KG.

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 DATE: .....  
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REV.	DATE	DWG BY	APP.	NOTE
TITLE				
LBC-T-30				
Loading Data				
APP.	K.Somons	DESIGN	Annnt	MM
CHECK	SURASAK	DWG BY.	Annnt	DWG-NO
LIANG CHI INDUSTRY (THAILAND) CO., LTD. 223 Moo 9 TAB-YAO, LAD-KRABANG BANGKOK 10520 (NUM KRAI INDUSTRIAL ZONE LUANG-PAENG RD.)				LBC-T-30-03