



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

## COUNTER FLOW INDUCED DRAFT LBC TYPE COOLING TOWER SPECIFICATION

DATE :  
 TOWER MODEL NO. : LBC - T - 60  
 NO. OF SETS : 1

### DESIGN & OPERATING CONDITIONS

WATER FLOW RATE. : 667 LPM.  
 HOT WATER TEMP. : 37 °C  
 COLD WATER TEMP : 32 °C  
 AMB. WET BULB TEMP. : 28 °C  
 FAN B.H.P. : 1.25 BHP  
 TOWER PUMP HEAD : 2 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 : 2000 MM  
 DRY WEIGHT : 229 Kg  
 OPERATING WEIGHT PER TOWER : 669 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.  
 FAN GUARD : 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.	
<input type="checkbox"/>	FOR REFERENCE
<input checked="" type="checkbox"/>	FOR APPROVAL
<input type="checkbox"/>	APPROVED
<input type="checkbox"/>	OTHER.....
DATE :	
TECHNIC BY :	



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

## COUNTER FLOW INDUCED DRAFT LBC TYPE COOLING TOWER SPECIFICATION

### WATER DISTRIBUTION

STAND PIPE : P.V.C.  
 SPRINKLER HEAD : NYLON  
 MODEL : LSH - 080  
 SPRINKLER PIPE : P.V.C.

### MECHANICAL EQUIPMENTS

#### FAN UNIT

NO. OF UNIT : 1 UNIT / SET  
 TYPE : AXIAL FLOW  
 MODEL : LSF-120  
 MANUFACTUROR : LIANG CHI IND.CO.,LTD.  
 DIAMETER : 1170 MM  
 NO. OF BLADES : 3  
 FAN SPEED : 700 RPM  
 TIP SPEED : 42.8 M/S  
 BLADE MATERIAL : A.A.  
 HUP MATERIAL : A.A.  
 AIR VOLUME : 420 M<sup>3</sup> / MIN/SET

#### FAN MOTOR

NO. OF UNIT : 1 UNIT / SET  
 TYPE : TEFC  
 INSULATION : CLASS F IP55  
 MANUFACTUROR : LIANG CHI  
 SPEED : 700 RPM  
 RATED H.P : 2 H.P \* 8P  
 POWER SOURCE ( VOLT / PHASE / HZ ) : 380 / 3 / 50

LIANG CHI IND. (THAILAND) CO., LTD.	
TECHNIC DEPT.	
<input type="checkbox"/>	FOR REFERENCE
<input checked="" type="checkbox"/>	FOR APPROVAL
<input type="checkbox"/>	APPROVED
<input type="checkbox"/>	OTHER.....
DATE :	
TECHNIC BY :	



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

## COUNTER FLOW INDUCED DRAFT LBC TYPE COOLING TOWER SPECIFICATION

<u>PIPING CONNECTION</u>		SIZE		QTY / SET
WATER INLET	:	3	B ( 80 A )	1
WATER OUTLET	:	3	B ( 80 A )	1
AUTO FILL	:	3/4	B ( 20 A )	1
QUICK FILL	:	3/4	B ( 20 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

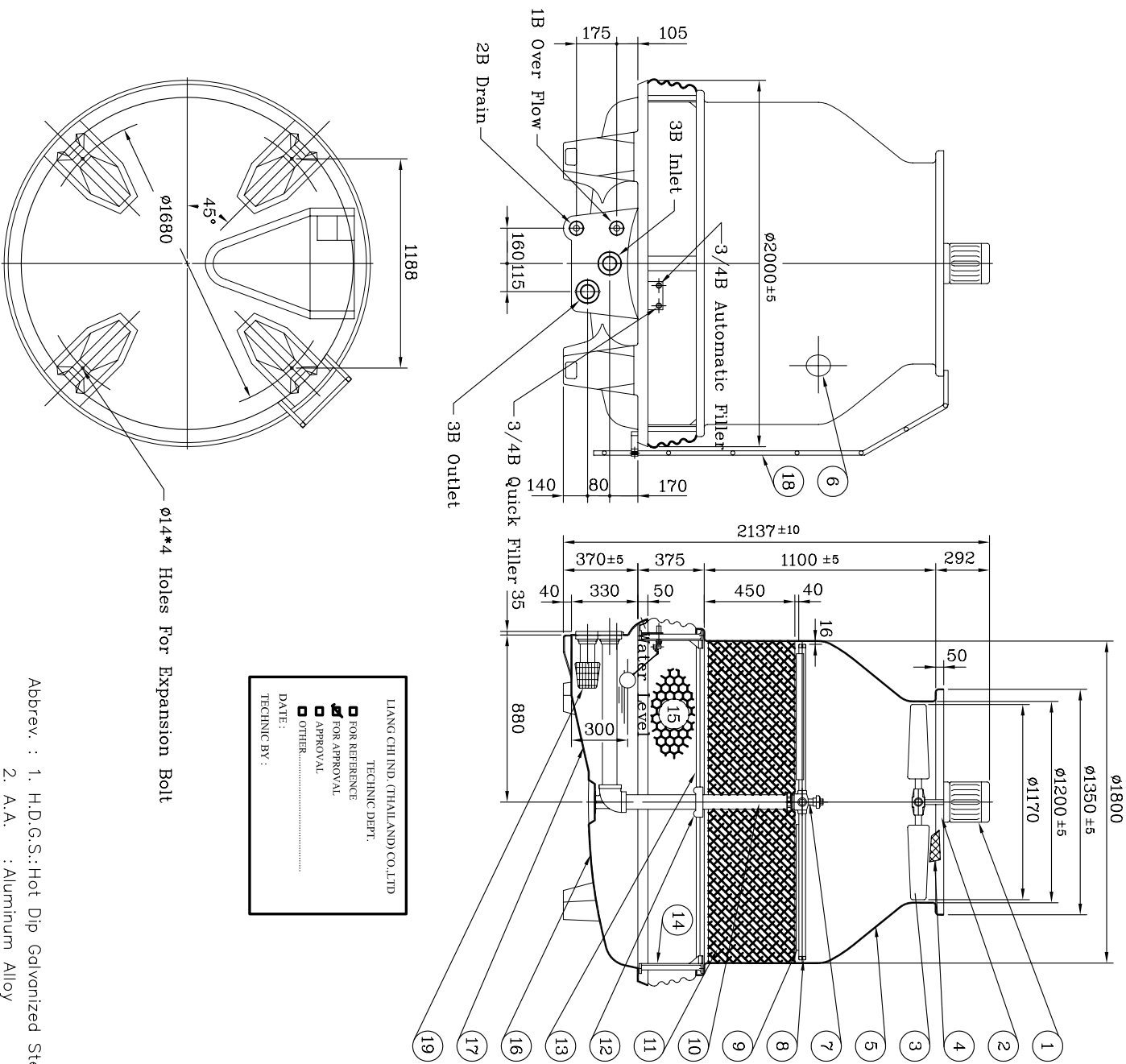
C.P.S. : CHROMATED - PLATING STEEL

DESIGNED :  .....

CHECK :  .....

APPROVE :  .....

LIANG CHI IND. (THAILAND) CO., LTD.	
TECHNIC DEPT.	
<input type="checkbox"/>	FOR REFERENCE
<input checked="" type="checkbox"/>	FOR APPROVAL
<input type="checkbox"/>	APPROVED
<input type="checkbox"/>	OTHER.....
DATE :	
TECHNIC BY :	



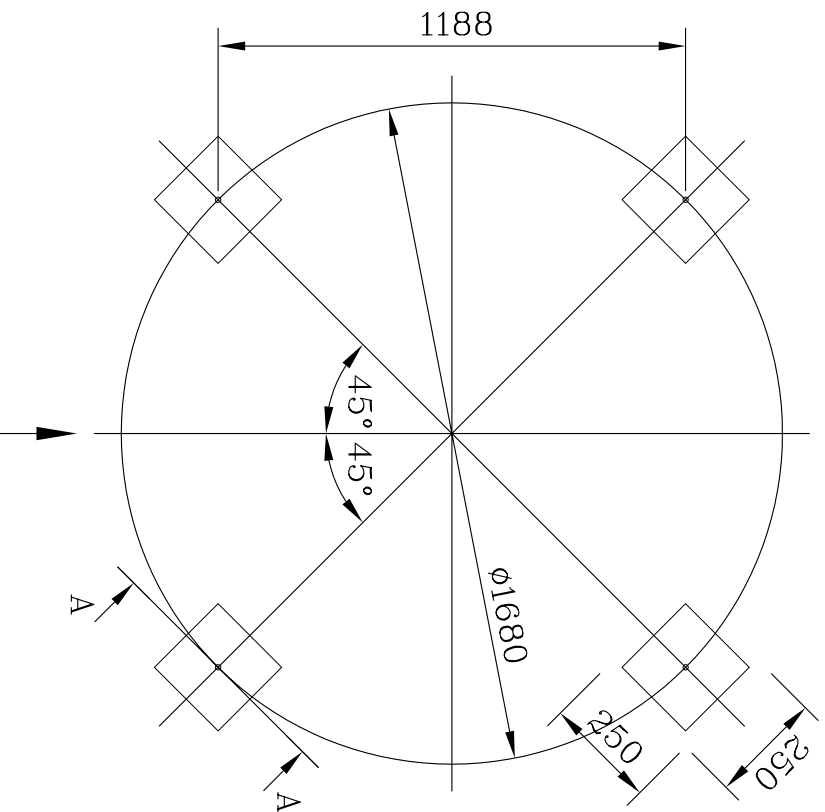
LIANG CHI IND. (THAILAND) CO.,LTD  
TECHNIC DEPT.  
 FOR REFERENCE  
 FOR APPROVAL  
 APPROVAL  
 OTHER  
 DATE :  
 TECHNIC BY :

Ø14\*4 Holes For Expansion Bolt

- Abbrev. : 1. H.D.G.S.: Hot Dip Galvanized Steel  
 2. A.A. : Aluminum Alloy  
 3. S.T.S. : Stainless Steel 304  
 4. F.R.P. : Fiberglass Reinforced Plastic

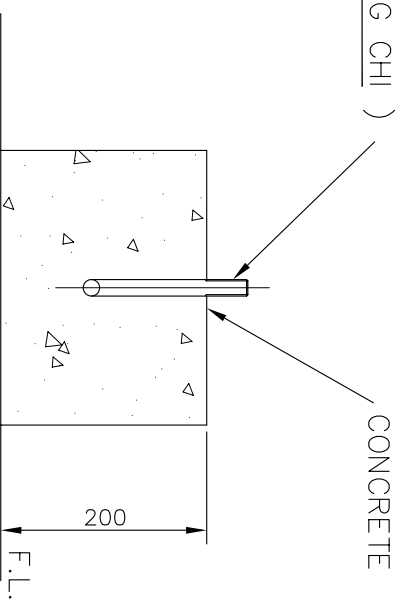
Description	M.T	Specification	Q'ty
1 Fan Motor		2HP*8P	1 PCS
2 Motor Framework Ass'y	H.D.G.S		1 PCS
3 Fan	A.A.	LSF-120	1 SET
4 Fan Guard	H.D.G.S.		1 SET
5 Casing	F.R.P.		4 PCS
6 Hand Hole	E.V.A		1 PCS
7 Sprinkler Head	NYLON	LSH-080	1 PCS
8 Sprinkler Pipe	P.V.C.		4 PCS
9 Eliminator	P.V.C.		4 PCS
10 Stand Pipe	P.V.C.		1 POS
11 Filling	P.V.C.		1 SET
12 Stopper or Column	A.A.		1 SET
13 Filling Supporter	H.D.G.S		1 SET
14 Casing Supporter	NYLON		4 PCS
15 Inlet Louver	P.V.C.		1 SET
16 Water Basin	F.R.P.		2 PCS
17 Water Sump	F.R.P.		1 PCS
18 Ladder	H.D.G.S		1 POS
19 Strainer	P.E.		1 PCS

Drain	50A ( 2 B )	Over Flow	25A( 1 B )
Outlet	80A ( 3 B )	quick filler	20A( 3/4B )
Inlet	80A ( 3 B )	Automatic filler	20A( 3/4B )
Pipe Connections			
Dry Weight	229 kgs	Operating Weight	669 kgs
Loading Data			
Ambient Wetbulb	: 28 °C	Air Volume	: 420 M <sup>3</sup> /MIN
Outlet Water Temp	: 32 °C	Water Flow	: 667 LPM
Inlet Water Temp	: 37 °C	Cooling Capacity	: 200,100 Kcal/HR
Design Condition			
REV.	DATE	DWG BY	APP.
TITLE		LBC-T-60	
OUTLINE VIEW			
APP.	K.Somonsi	DESIGN	Annot
CHECK	SURASAK	DWG BY.	Annot
LIANG CHI INDUSTRY (THAILAND) CO., LTD.		MM	
223 Moo 9 Tab-YaoLad-KRABANG BANGKOK 10520		DWG-NO	
(NUM KRAL INDUSTRIAL ZONE LUANG-PAENG RD.)		LBC-T-60-01	



Water Inlet

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 ±2 mm.
4. THE HEIGHT OF FOUNDATION EXCLUDES THERMAL INSULATOR AND WATER PROOF.
- \* 5. EXPANSION BOLT & RUBBER PAD SHALL BE FURNISHED BY LIANG CHI  
( PLEASE DON'T PREPARE HOLE OF EXPANSION BOLT BEFORE INSTALLATION )

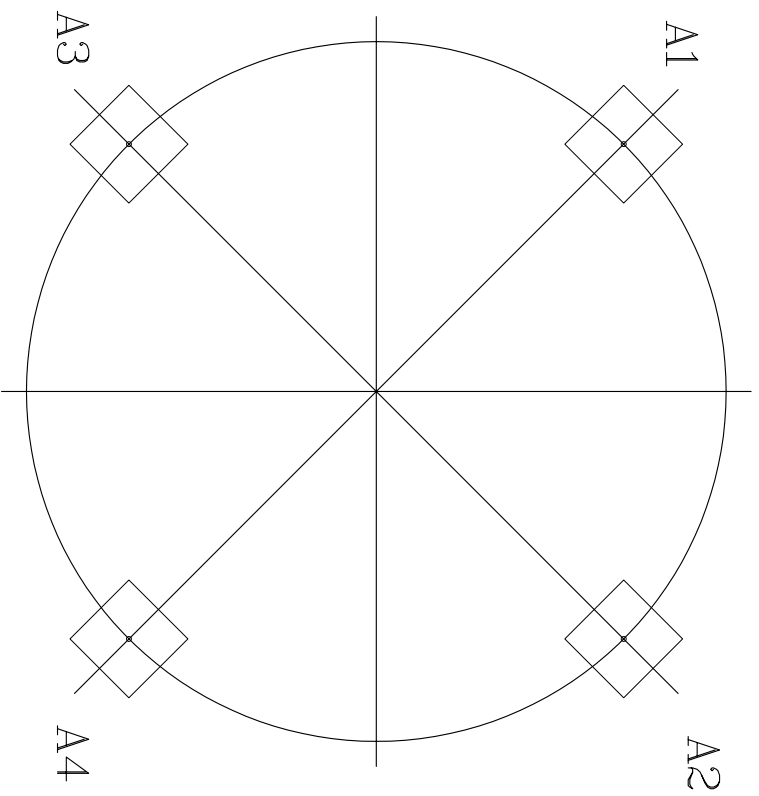
LIANG CHI IND. (THAILAND) CO.,LTD
TECHNIC DEPT.
<input type="checkbox"/> FOR REFERENCE
<input checked="" type="checkbox"/> FOR APPROVAL
<input type="checkbox"/> APPROVAL
<input type="checkbox"/> OTHER.....
DATE :
TECHNIC BY :

REV.	DATE	DWG BY	APP.	NOTE

TITLE		Concrete Foundation	
APP.	K.Somnans	DESIGN	Annot
CHECK	SURASAK	DWG BY.	Annot

MM	MM	DWG-NO

LIANG CHI INDUSTRY (THAILAND) CO., LTD.		LBC-T-60-02
223 Moo 9 Tab-Yaolad-Krabang Bangkok 10520		
(NUM KRAI INDUSTRIAL ZONE LUANG-PAENG RD.)		



UNIT : KG.

LBC-T-60	A1,A2,A3,A4
	167

LIANG CHI IND. (THAILAND) CO.,LTD  
 TECHNIC DEPT.  
 FOR REFERENCE  
 FOR APPROVAL  
 APPROVAL  
 OTHER.....  
 DATE :  
 TECHNIC BY :

REV.	DATE	DWG BY	APP.	NOTE
		LBC-T-60		
TITLE Loading Data				
APP.	K.Somnonsi	DESIGN	Annat	MM
CHECK	SURASAK	DWG BY.	Annat	<del>MM</del> 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-60-03