



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

## COUNTER FLOW INDUCED DRAFT LBC TYPE COOLING TOWER SPECIFICATION

DATE :  
 TOWER MODEL NO. : LBC - T - 600  
 NO. OF SETS : 1

### DESIGN & OPERATING CONDITIONS

WATER FLOW RATE. : 6,736 LPM  
 HOT WATER TEMP. : 37 °C  
 COLD WATER TEMP : 32 °C  
 AMB. WET BULB TEMP. : 28 °C  
 EACH FAN B.H.P. : 16.67 BHP  
 TOWER PUMP HEAD : 5 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 : 6600 MM  
 DRY WEIGHT : 3364 Kg  
 OPERATING WEIGHT PER TOWER : 10744 Kg

### CONSTRUCTION

TOWER SUPPORTER FRAME ASS'Y : H.D.G.S.  
 CASING : F.R.P.  
 CASING SUPPORTOR : H.D.G.S.  
 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.	
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DATE :	
TECHNIC BY :	



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### WATER DISTRIBUTION

STAND PIPE : P.V.C.  
 SPRINKLER HEAD : A.A.  
 MODEL : LSH - 250  
 SPRINKLER PIPE : P.V.C.

### MECHANICAL EQUIPMENTS

#### FAN UNIT

NO. OF UNIT : 1 UNIT / SET  
 TYPE : AXIAL FLOW  
 MODEL : LSF - 340  
 MANUFACTUROR : LIANG CHI IND.CO.,LTD.  
 DIAMETER : 3380 MM  
 NO. OF BLADES : 4  
 FAN SPEED : 282 RPM  
 TIP SPEED : 49.91 M/S  
 BLADE MATERIAL : A.A.  
 HUP MATERIAL : A.A.  
 AIR VOLUME : 3750 M<sup>3</sup> / MIN/SET

#### SPEED REDUCER

NO. OF UNIT : 1 UNIT / SET  
 TYPE : BELT  
 MODEL : VBA-150-B  
 MANUFACTUROR : LIANG CHI IND. CO.,LTD  
 REDUCTION RATIO : 3.37 : 1

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### FAN MOTOR



NO. OF UNIT : 1 UNIT / SET  
 TYPE : TEFC  
 INSULATION : CLASS F IP55  
 MANUFACTUROR : LIANG CHI  
 SPEED : 950 RPM  
 RATED H.P : 20 H.P \* 6P  
 POWER SOURCE ( VOLT / PHASE / HZ ) : 380 / 3 / 50

### PIPING CONNECTION

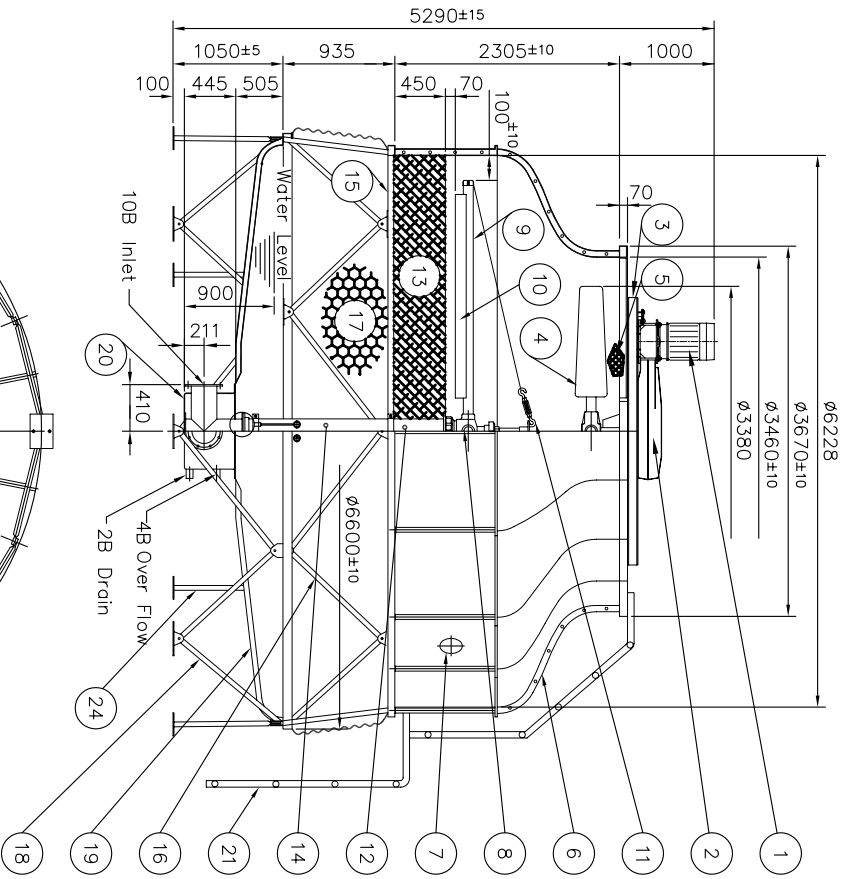
	SIZE	Q'TY / SET
WATER INLET	10 B ( 250 A )	1
WATER OUTLET	10 B ( 250 A )	1
AUTO FILL	2 B ( 50 A )	1
QUICK FILL	2 B ( 50 A )	1
OVER FLOW	4 B ( 100 A )	1
DRAIN	2 B ( 50 A )	1

### **REMARK**

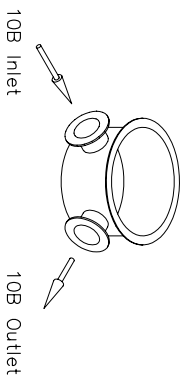
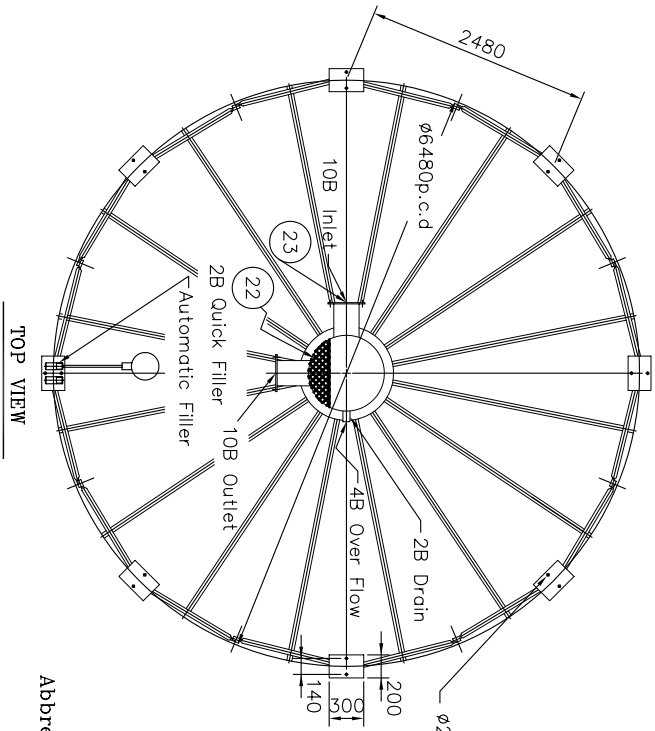
F.R.P : FIBERGLASS REINFORCE PLASTIC  
 H.D.G.S : HOT DIP GALVALNIZED STEEL  
 A.A. : ALUMINIUM ALLOY  
 C.P.S. : CHROMATED - PLATING STEEL

DESIGNED :   
 CHECK :   
 APPROVE : 

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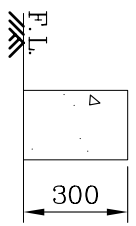
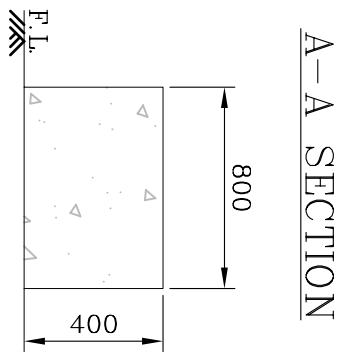
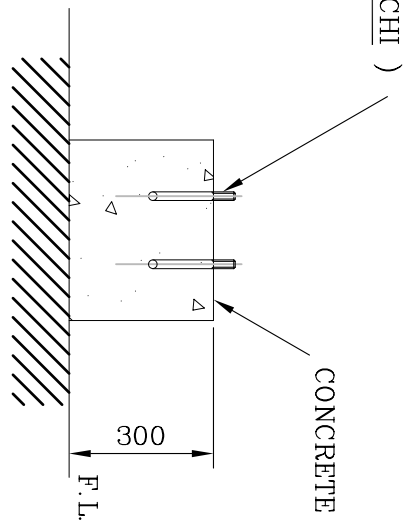
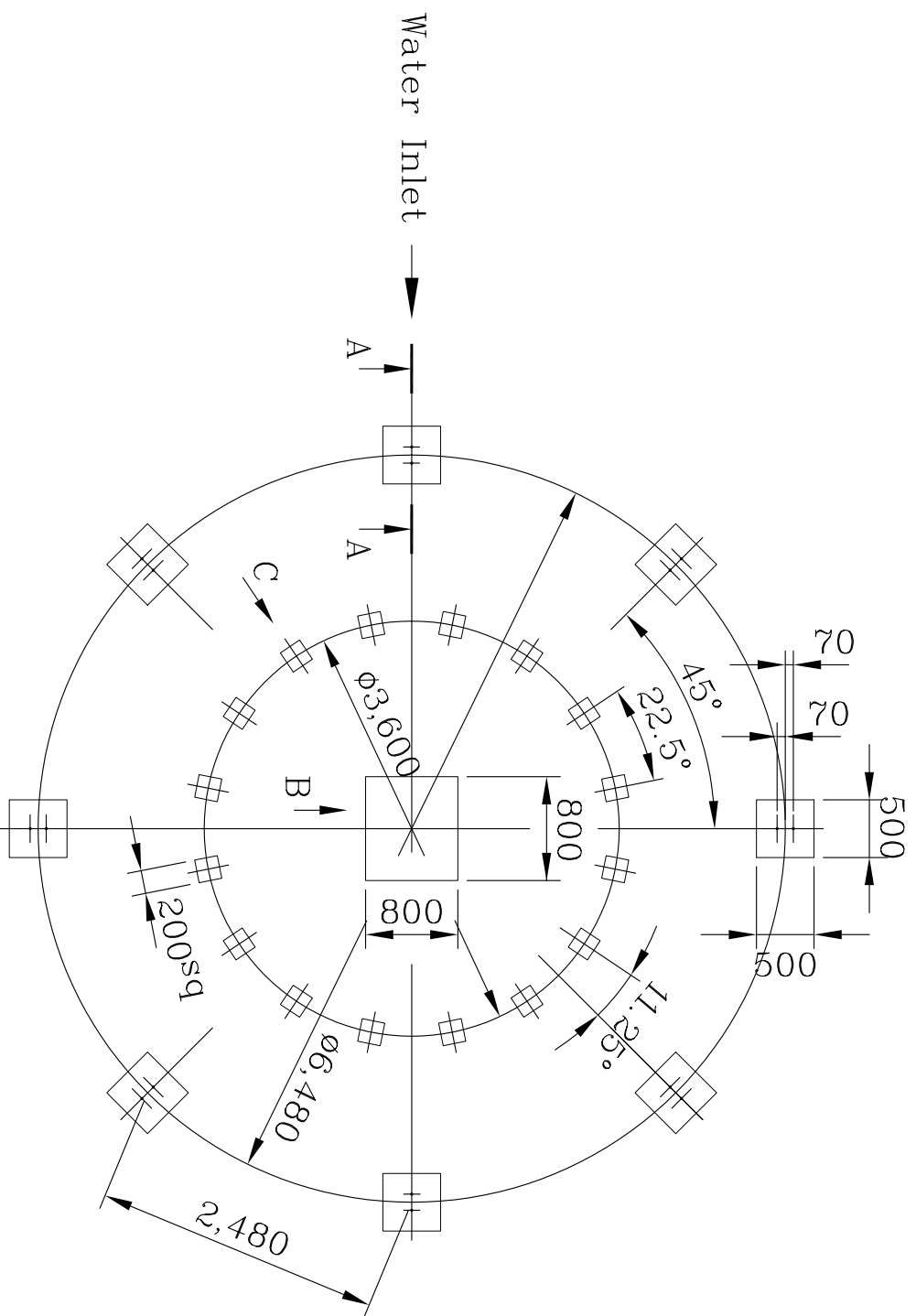


Abbrev : 1. H.D.G.S: Hot Dip Galvanized Steel  
 2. A.A : Aluminum Alloy  
 3. STS : Stainless Steel 304  
 4. F.R.P. : Fiberglass Reinforced Plastic

Description	M.T	Specification	Qty
1 Fan Motor		20HP*6P	1/pcs.
2 Belt Reducer		VBA-150-B	1/set.
3 Motor Framework Ass'y	H.D.G.S		1/set.
4 Fan	A.A	LSF-340	1/set.
5 Fan Guard	H.D.G.S		1/set.
6 Casing	F.R.P.		16/pcs.
7 Hand Hole	E.V.A		1/pcs.
8 Sprinkler Head	A.A	LSH-250	1/set.
9 Sprinkler Pipe	P.V.C.		8/pcs.
10 Eliminator	F.R.P.		8/pcs.
11 Tension Device	H.D.G.S		8/set.
12 Stand Pipe	P.V.C.		1/pcs.
13 Filling	P.V.C.		1/set.
14 Stopper or Column	H.D.G.S		1/set.
15 Filling Supporter	H.D.G.S		1/set.
16 Casing Supporter	H.D.G.S		8/pcs.
17 Inlet Louver	P.V.C.		1/set.
18 Frame Ass'y	H.D.G.S		1/set.
19 Water Basin	F.R.P.		16/pcs.
20 Water Sump	F.R.P.		1/pcs.
21 Ladder	H.D.G.S		1/set.
22 Strainer	ST.S		1/pcs.
23 Flange	H.D.G.S		2/pcs.
24 Basin Supportor	H.D.G.S		16/pcs.

Drain	50A ( 2 B )	Over Flow	100A( 4 B )
Outlet	250A ( 10 B )	quick filler	50A( 2 B )
Inlet	250A ( 10 B )	Automatic filler	50A( 2 B )
Pipe Connections			
Dry Weight	3,364 kgs	Operating Weight	10,744 kgs
Loading Data			
Ambient Wetbulb	: 28 °C	Air Volume	: 3,750 M <sup>3</sup> /MIN
Outlet Water Temp	: 32 °C	Water Flow	: 6,736 LPM
Inlet Water Temp	: 37 °C	Cooling Capacity	: 2,020,800 Kcal/HR
Design Condition			
REV.	DATE	DWG BY	APP.
LBC-T-600			
TITLE			
OUTLINE VIEW			
APP.	K.Somnongsi	DESIGN	Amnat
CHECK	SURASAK	DWG BY	Amnat
LIANG CHI INDUSTRY (THAILAND) CO., LTD. 223 Moo 9 Tap-Yaolad-Krabang Bangkok 10520 (NUM KAI INDUSTRIAL ZONE LUANG-PAENG RD.)			
			LBC-T-600-01

EXPANSION BOLT ( BY LIANG CHI )



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.

FOR REFERENCE

FOR APPROVAL

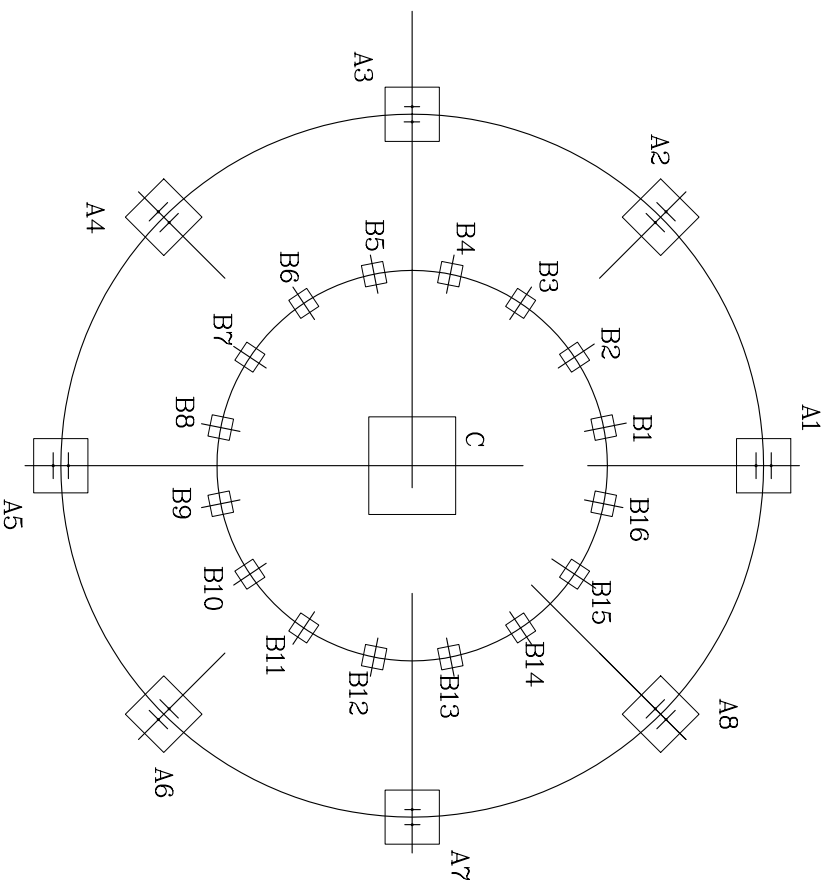
APPROVAL

OTHER.....

DATE : .....

TECHNIC BY : .....

REV.	DATE	DWG BY	APP.	NOTE
LBC-T-600				
Concrete Foundation				
APP.	K.Somnans	DESIGN	Annat	
CHECK	SURASAK	DWG BY.	Annat	
LIANG CHI INDUSTRY (THAILAND) CO., LTD.				
223 Moo 9 Tab-Yaolad-Krabang Bangkok 10520				
(NUM KRAL INDUSTRIAL ZONE LUANG-PAENG RD.)				
				LBC-T-600-02



UNIT : KG.

LBC-T-600	A1 = A2 = ... = A8	B1 = B2 = ... = B16	C
	627	98	4,160

LIANG CHI IND. (THAILAND) CO.,LTD  
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 OTHER.....  
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REV.	DATE	DWG BY	APP.	NOTE
LBC-T-600				
Loading Data				
APP.	K.Somnani	DESIGN	Annot	MM
CHECK	SURASAK	DWG BY.	Annot	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-600-03