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# MODEL T-3500 TOWER SPECIFICATIONS



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Cooling Tower Systems, Inc.

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# TOWER SPECIFICATIONS: MODEL T-3500 Cooling Tower Systems, Inc.

Design and Operating Conditions		Water Distribution System Construction Materials	
Tower Type:	Counter Flow Induced Draft	Stand Pipe:	PVC
Water Flow Rate (GPM):	4,516 GPM	Sprinkler Head:	AC
Entering Water Temperature	95°F	Sprinkler Pipes:	PVC
Leaving Water Temperature	85°F	<b>Mechanical Equipment</b>	
Wet Bulb Temperature:	75°F	Fan Unit:	One Unit per Tower
Total Fan BHP:	50 HP	Type:	Axial Flow
Total Pump Head:	23	Manufacturer:	CTS
Drift Loss of Water Flow:	0.1%	Diameter:	198 1/8"
Evaporation Loss of Water Flow:	0.93%	Blade Material:	AC
Design Wind Load:	41 lbs/sq. ft.	Hub Material:	AC
<b>Structural Details</b>		Nominal Air Volume:	264,874 CFM
Overall Diameter:	331 7/8"	<b>Fan Motor</b>	
Overall Height:	202.5"	Number of motors:	One Unit per Tower
Dry Weight:	15,432 lbs.	Type:	Induction
Operating Weight:	57,789 lbs.	Manufacturer:	CTS
<b>Basic Tower Construction Materials</b>		Insulation:	F Class
Tower Support Frame Assembly	HDGS	Rated HP:	50 HP
Casing:	FRP	Voltage and phase:	208-230/460V/3
Casing Supporters	HDGS	<b>Piping Connections</b>	
Cold Water Basin	FRP	Primary Water Inlet Diameter	12"
Filling:	PVC	Primary Water Outlet Diameter:	12"
Filling Supports:	HDGS	Auto fill inlet diameter:	2.5"
Fan Guard	HDGS	Quick fill inlet diameter:	2.5"
Mechanical Equipment Supports:	HDGS	Overflow outlet diameter:	4"
Inlet Louvers:	PVC	Drain diameter:	3"
Bolts, Nuts & Washers:	STS	Water Flow (GPM):	4,516 GPM
<b>Materials Key</b>			
FRP	Fiberglass Reinforced Polyester	STS	Stainless Steel
HDGS	Hot Dipped Galvanized Steel	AC	Aluminum Alloy Cast

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# PARTS LIST: MODEL T-3500

FOR ASSEMBLY DIAGRAM		
Ref. No.	Description	QTY
01-01	Base Plate - A	8
01-02	Ring Frame	8
01-03	Truss Pipe - A1	8
01-04	Truss Pipe - A2	8
01-06	Tie Rod	8
02-01	Water Sump	1
02-02	Outlet Nozzle	1
02-03	Inlet Nozzle	1
02-04	Over Flow Nozzle	1
02-05	Drain Nozzle	1
02-06	Automatic Filler Nozzle	1
02-07	Quick Filler Nozzle	1
02-08	Float Valve Assembly	2
02-09	Over Flow	1
02-10	Suction Strainer	1
02-12A	Connector	1
02-13	Elbow	2
03-01	Water Basin	16
04-01	Base Plate - B	8
04-02	Stiffener Ring - 1	8
04-03	Truss Pipe - B1	8
04-04	Truss Pipe - B2	8
05-01	Casing (Diffuser)	16
05-02	Casing (Cylinder)	16
05-03	Stiffener Ring - 2	8
05-04	Casing Stand	16
05-05	Inserted Bar	16
05-06	Hand Hole Cover	1
06-01	Stand Pipe	1
06-02	Stand Pipe Base	1
06-03	Packing	1
07-02	Column	1
08-01	Filling Supporter - A	8
08-02	Filling Supporter - B	8
08-03	Filling Supporter - C	24
08-04	Fill Supt. Clamping Band	16
08-06	Filling Supporter - E	16
10-01-1	Ladder (A Section - 1)	1
10-01-2	Ladder (A Section - 2)	1
10-02	Ladder (B Section)	1
10-03	Ladder Bracket - A	2
10-04	Ladder Bracket - B	2
11-01	Filling (Inner Section)	-
11-03	Filling (1/3 Section)	-
11-06	Filling (1/6 Section)	12
11-08	Filling (1/8 Section)	16
12-01	Sprinkler Head	1
12-02	Center Post	1
12-03	Turnbuckle	10
12-04	Tension Wire	10
13-01	Sprinkler Pipe	10
13-02	End Cap	10
13-03	Eliminator	10
14-01	Frame Ass'y Main Pipe	2
14-02	Frame Ass'y Stay Pipe	2
15-01	Motor Base	1
15-02	U-Bolt	4

16-01	Motor	1
16-02	Speed Reducer	1
16-03	Fan Key	1
16-04	Fasten Nut	1
16-05	Lock Nut	1
17-01	Fan Hub	1
17-02	Fan Blade	4
17-04	U-Bolt	8
18-01	Fan Guard	8
19-00	Basin Supporter Ass'y	16
20-01	Louver Supporter	48
20-01B	Louver Supporter - B	48
20-02	Inlet Louver	16
20-08	Wing Bolt	144
20-09	Plastic Washer	144
OTHERS	Bolts & Nuts	1 SET

FOR TECHNICAL DIAGRAMS			
Item	Description	Material	QTY
1	Fan Motor	-	1 pcs
2	V-Belt Reducer	-	1 set
3	Motor Frame Assembly	HDGS	1 set
4	Fan	AC	1 set
5	Fan Guard	HDGS	1 set
6	Casing	FRP	16 pcs
7	Hand Hole	EVA	1 pcs
8	Sprinkler Head	AC	1 set
9	Sprinkler Pipe	PVC	10 pcs
10	Eliminator	FRP	10 pcs
11	Tension Device	HDGS	1 set
12	Stand Pipe	PVC	1 set
13	Filling	PVC	1 set
14	Stopper or Column	HDGS	1 set
15	Filling Supporter	HDGS	1 set
16	Casing Supporter	HDGS	6 pcs
17	Inlet Louver	PVC	1 set
18	Frame Assembly	HDGS	1 set
19	Water Basin	FRP	12 pcs
20	Water Sump	FRP	1 pcs
21	Ladder	HDGS	1 set
22	Strainer	HDGS	1 pcs
23	Flange	HDGS	2 pcs
24	Basin Supporter	HDGS	16 pcs

Materials Key	
FRP	Fiberglass Reinforced Polyester
HDGS	Hot Dipped Galvanized Steel
STS	Stainless Steel
AC	Aluminum Alloy Cast
Water Basin Sealing Material	
Fiberglass	1 Set—A
Polyester Resin	1 Keg—B
Catalyst	1 Bottle—C

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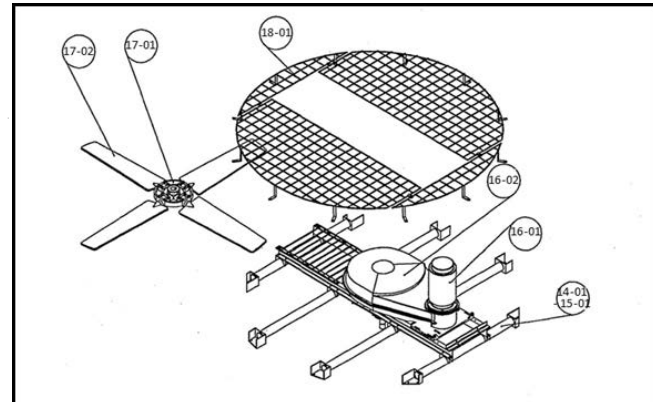
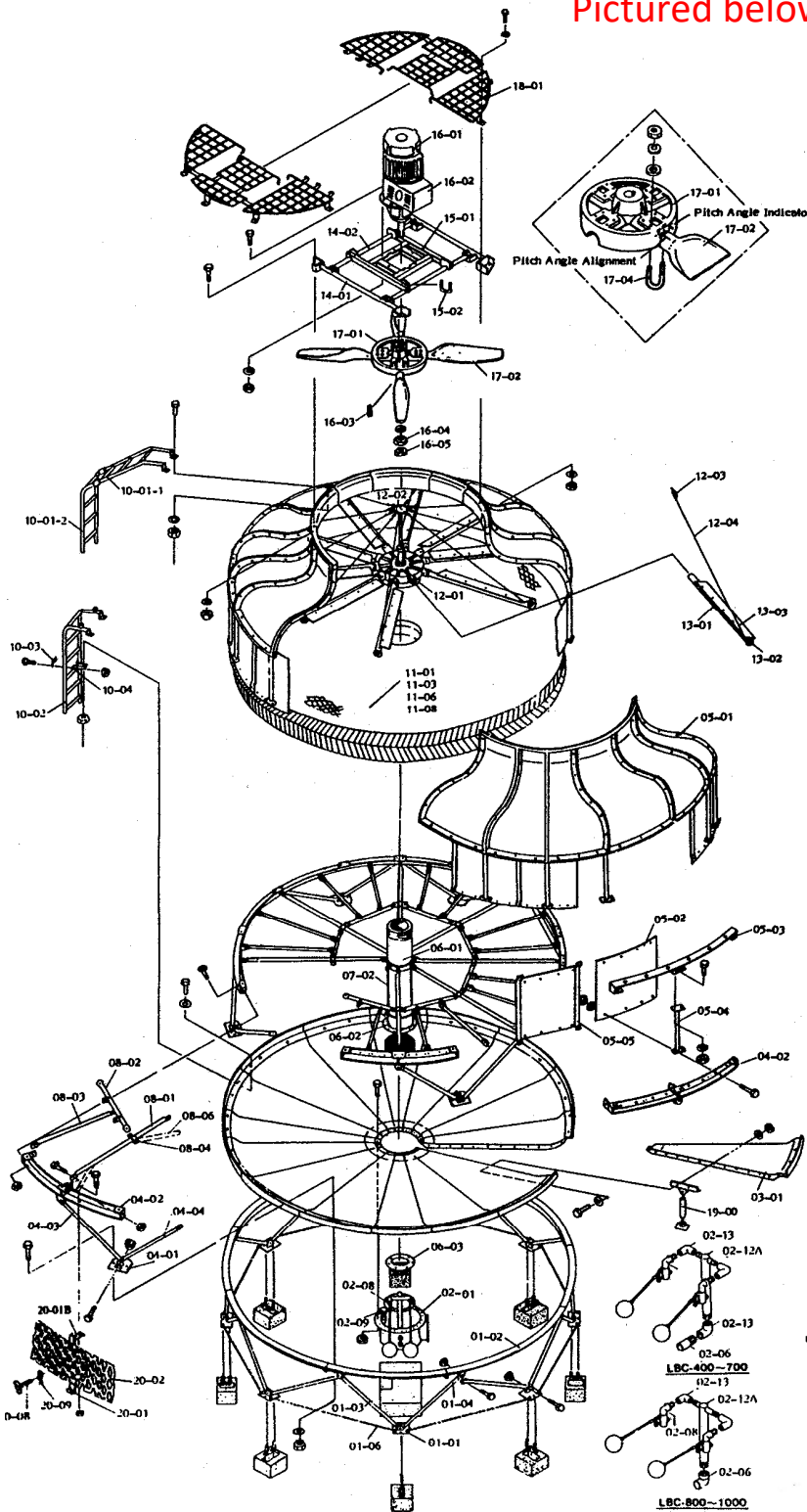
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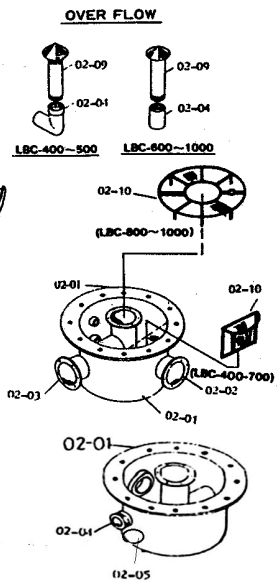
# ASSEMBLY DIAGRAM: MODEL T-3500

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Pictured below is LBM Vbelt speed reducer hook up



\*Pictured above is VBA style right angle drive vbelt speed reducer hook up. All parts are the same but mounting is as shown above.



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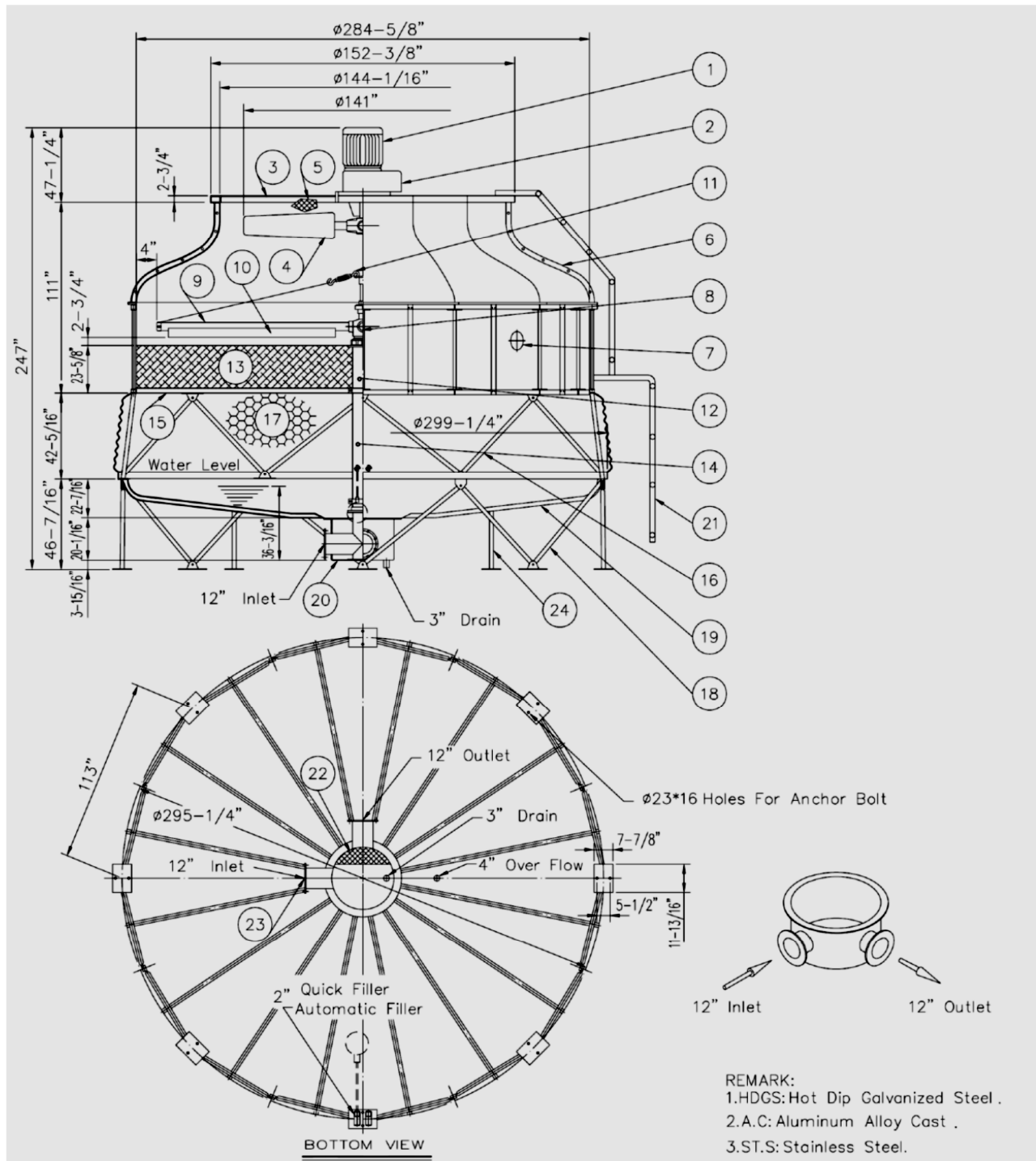
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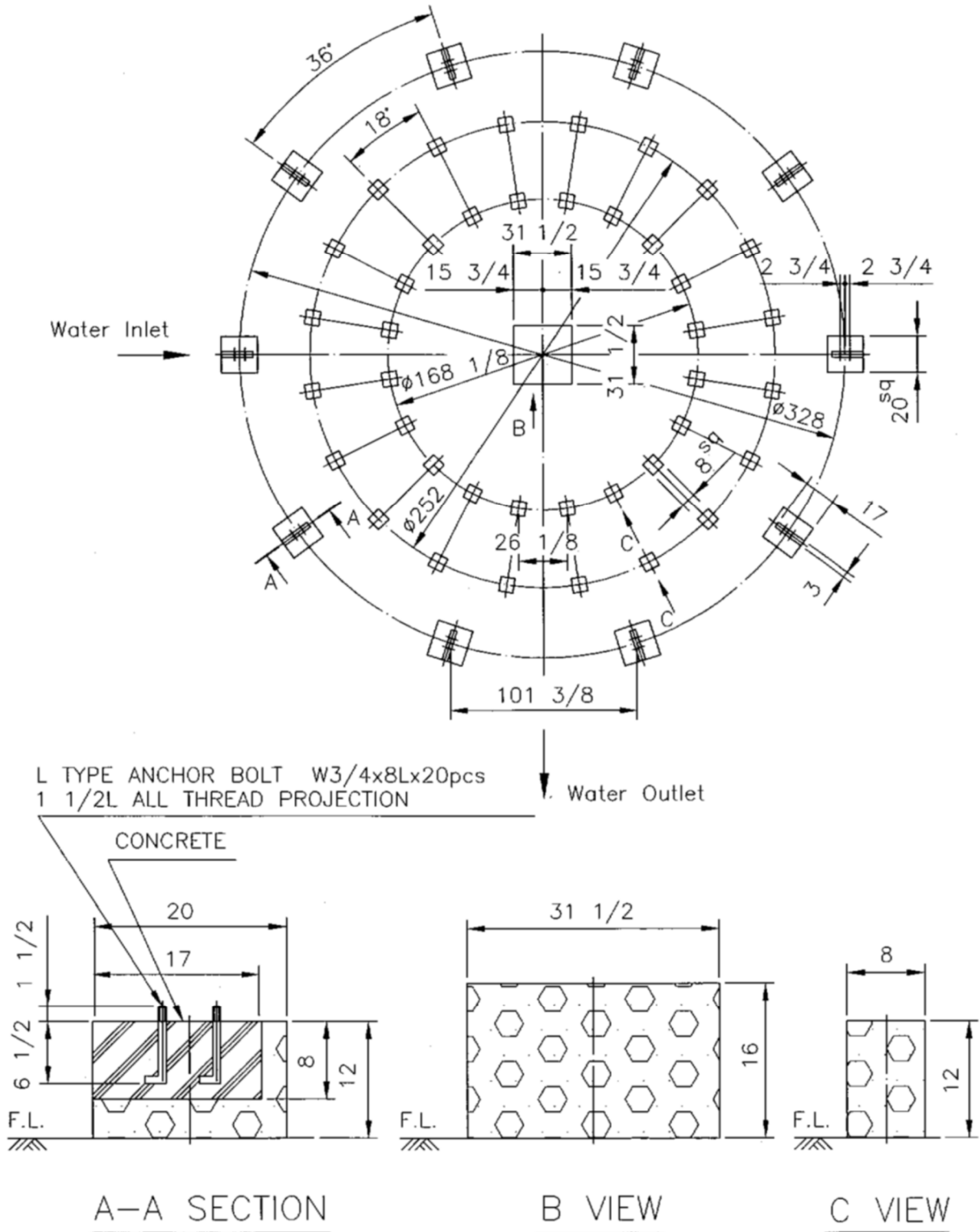
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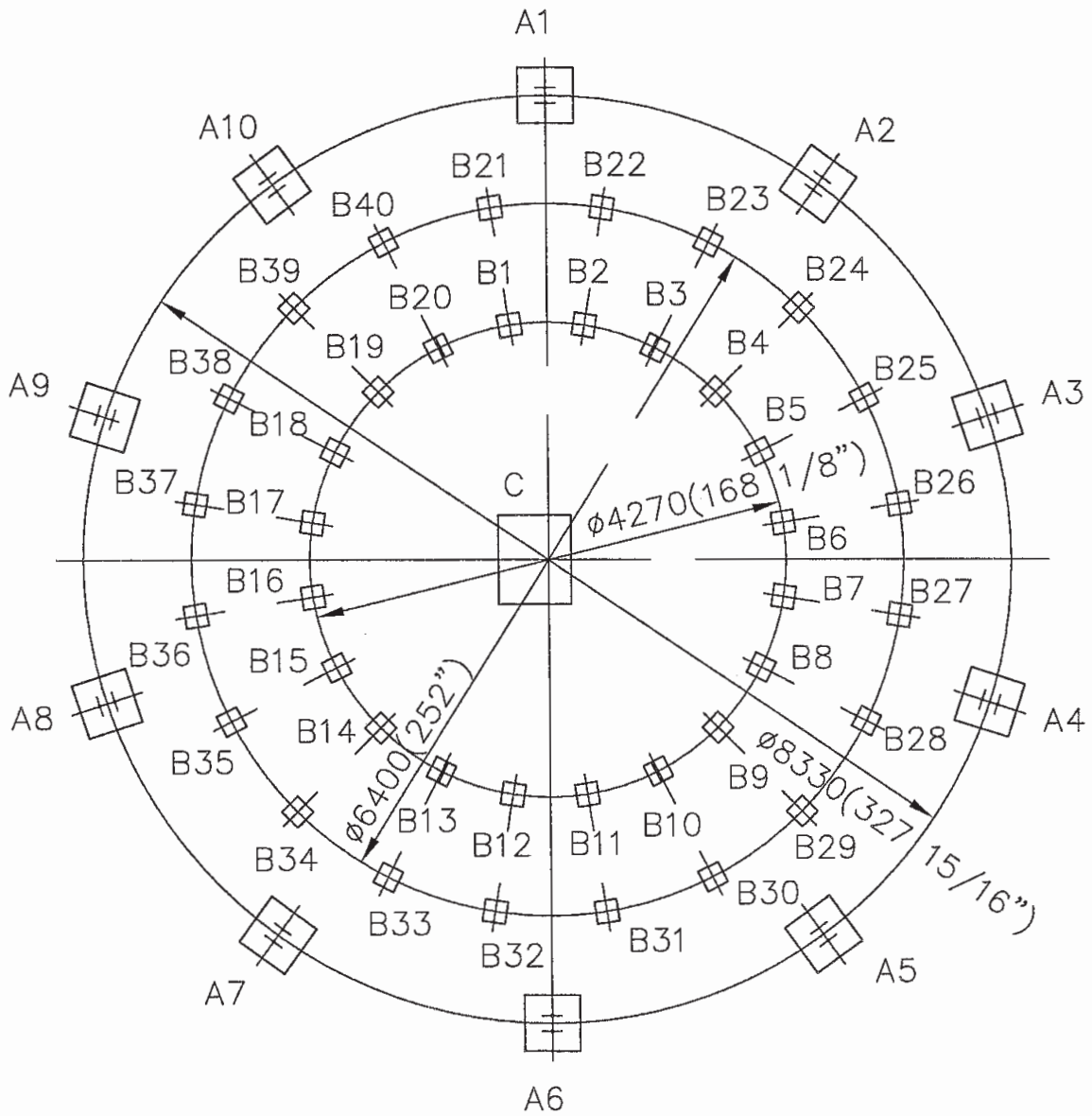
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TOWER MODEL	DEAD LOAD KG(lb)		
	A1=...=A10	B1=...=B40	C
1250	1633(3601lb)	89(197lb)	5857(12911lb)
1500	1659(3658lb)	89(197lb)	5898(13002lb)

TOWER MODEL	LIVE LOAD KG(lb)		
	A1=...=A10	B1=...=B40	C
1250	415(915lb)	23(49lb)	1490(3284lb)
1500	444(978lb)	24(53lb)	1591(3507lb)