



*The Best Just Got Better*

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# MODEL T-2400

# TOWER SPECIFICATIONS



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Cooling Tower Systems, Inc.

196 Lower Cherry Street Macon, GA 31201

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# TOWER SPECIFICATIONS: MODEL T-2400 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):                    | 1,190 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:                            | 15 HP                           | Type:  | Axial Flow          |
| Total Pump Head:                          | 13.2'                           | Manufacturer:                                    | CTS                 |
| Drift Loss of Water Flow:                 | 0.1%                            | Diameter:  | 117"                |
| 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:                              | 91,030 CFM          |
| Overall Diameter:                         | 203 7/8"                        | <b>Fan Motor</b>                                 |                     |
| Overall Height:                           | 153 1/8"                        | Number of motors:                                | One Unit per Tower  |
| Dry Weight:                               | 4,786 lbs.                      | Type:  | Induction           |
| Operating Weight:                         | 15,174 lbs.                     | Manufacturer:                                    | CTS                 |
| <b>Basic Tower Construction Materials</b> |                                 | Insulation:                                      | F Class             |
| Tower Support Frame Assembly              | HDGS                            | Rated HP:  | 15 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                     | 8"                  |
| Filling:                                  | PVC                             | Primary Water Outlet Diameter:                   | 8"                  |
| Filling Supports:                         | HDGS                            | Auto fill inlet diameter:                        | 2"                  |
| Fan Guard                                 | HDGS                            | Quick fill inlet diameter:                       | 2"                  |
| Mechanical Equipment Supports:            | HDGS                            | Overflow outlet diameter:                        | 4"                  |
| Inlet Louvers:                            | PVC                             | Drain diameter:                                  | 2"                  |
| Bolts, Nuts & Washers:                    | STS                             | Water Flow (GPM):                                | 1,190 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-2400

| FOR ASSEMBLY DIAGRAM |                          |     |
|----------------------|--------------------------|-----|
| Ref. No.             | Description              | QTY |
| 01-01                | Base Plate - A           | 6   |
| 01-02                | Ring Frame               | 6   |
| 01-03                | Truss Pipe - A1          | 6   |
| 01-04                | Truss Pipe - A2          | 6   |
| 01-06                | Tie Rod                  | 6   |
| 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   |
| 02-08                | Float Valve Assembly     | 1   |
| 02-09-01             | Over Flow                | 1   |
| 02-09-02             | Over Flow Connector Pipe | 1   |
| 02-10                | Suction Strainer         | 1   |
| 02-12A               | Connector                | 1   |
| 02-13                | Elbow                    | 3   |
| 03-01                | Water Basin              | 12  |
| 04-01                | Base Plate - B           | 6   |
| 04-02                | Stiffener Ring - 1       | 6   |
| 04-03                | Truss Pipe - B1          | 6   |
| 04-04                | Truss Pipe - A1          | 6   |
| 05-01                | Casing (Diffuser)        | 12  |
| 05-02                | Casing (Cylinder)        | 12  |
| 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    | 6   |
| 08-02                | Filling Supporter - B    | 6   |
| 08-03                | Filling Supporter - C    | 18  |
| 08-04                | Fill Supt. Clamping Band | 12  |
| 08-06                | Filling Supporter - E    | -   |
| 10-01-1              | Ladder (A Section - 1)   | 1   |
| 10-01-2              | Ladder (A Section - 2)   | -   |
| 10-02                | Ladder (B Section)       | 1   |
| 10-03                | Ladder Bracket - A       | 2   |
| 10-04                | Ladder Bracket - B       | 2   |
| 11-01                | Filling (Inner Section)  | 2   |
| 11-03                | Filling (1/3 Section)    | -   |
| 11-06                | Filling (1/6 Section)    | -   |
| 11-08                | Filling (1/8 Section)    | 16  |
| 11-10                | Filling (1/10 Section)   | -   |
| 12-01                | Sprinkler Head           | 1   |
| 12-02                | Center Post              | 1   |
| 12-03                | Turnbuckle               | 6   |
| 12-04                | Tension Wire             | 6   |
| 13-01                | Sprinkler Pipe           | 6   |
| 13-02                | End Cap                  | 6   |
| 13-03                | Eliminator               | 6   |
| 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   |
| 15-03                | 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 | 12    |
| 20-01  | Louver Supporter      | 36    |
| 20-01B | Louver Supporter - B  | 36    |
| 20-02  | Inlet Louver          | 12    |
| 20-08  | Wing Bolt             | 108   |
| 20-09  | Plastic Washer        | 108   |
| 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      | 12 pcs |
| 7                      | Hand Hole            | EVA      | 1 pcs  |
| 8                      | Sprinkler Head       | AC       | 1 set  |
| 9                      | Sprinkler Pipe       | PVC      | 6 pcs  |
| 10                     | Eliminator           | FRP      | 6 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             | STS      | 1 pcs  |
| 23                     | Flange               | HDGS     | 2 pcs  |
| 24                     | Basin Supporter      | HDGS     | 12 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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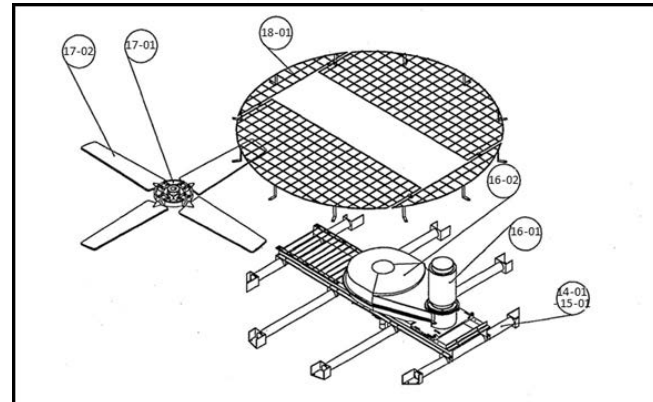
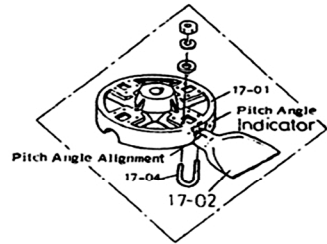
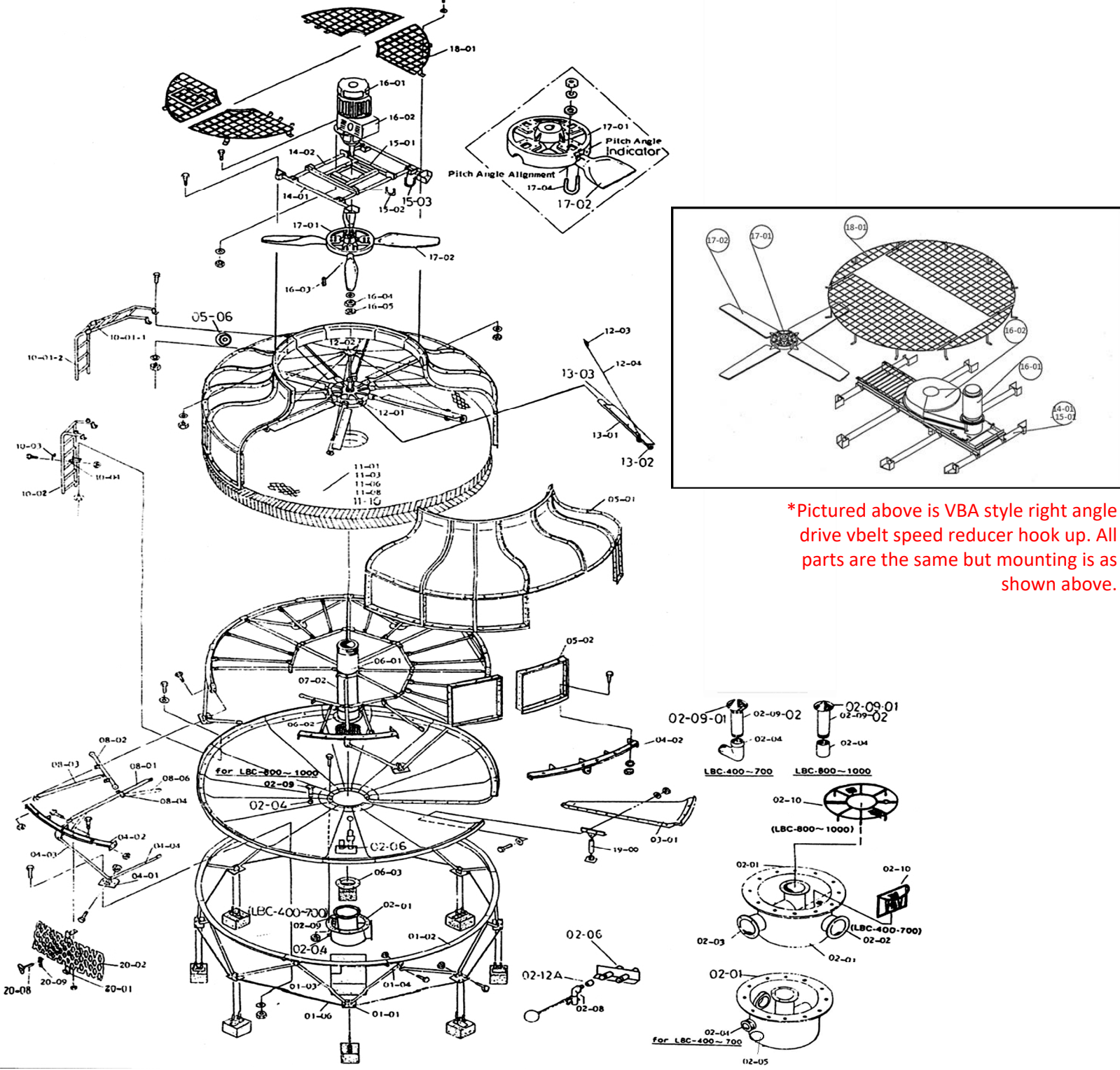
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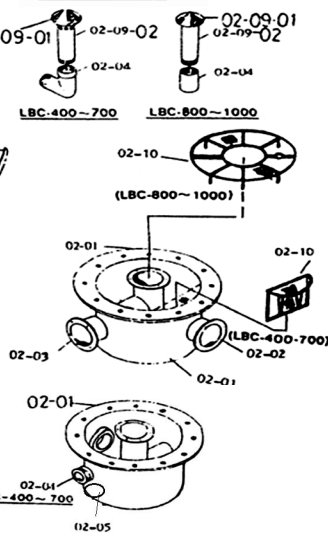
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# ASSEMBLY DIAGRAM: MODEL T-2400

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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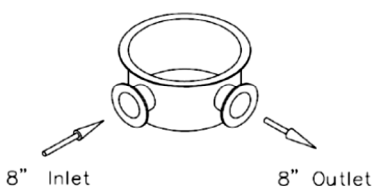
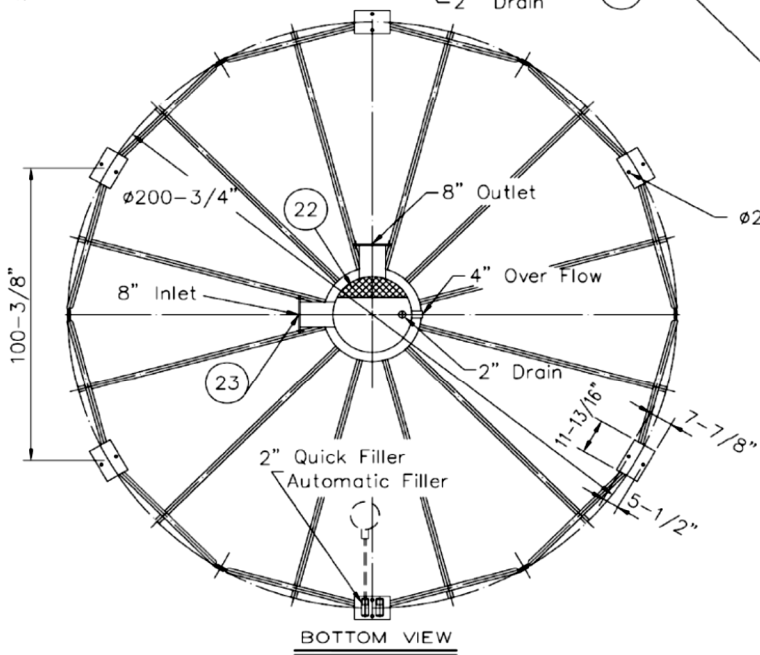
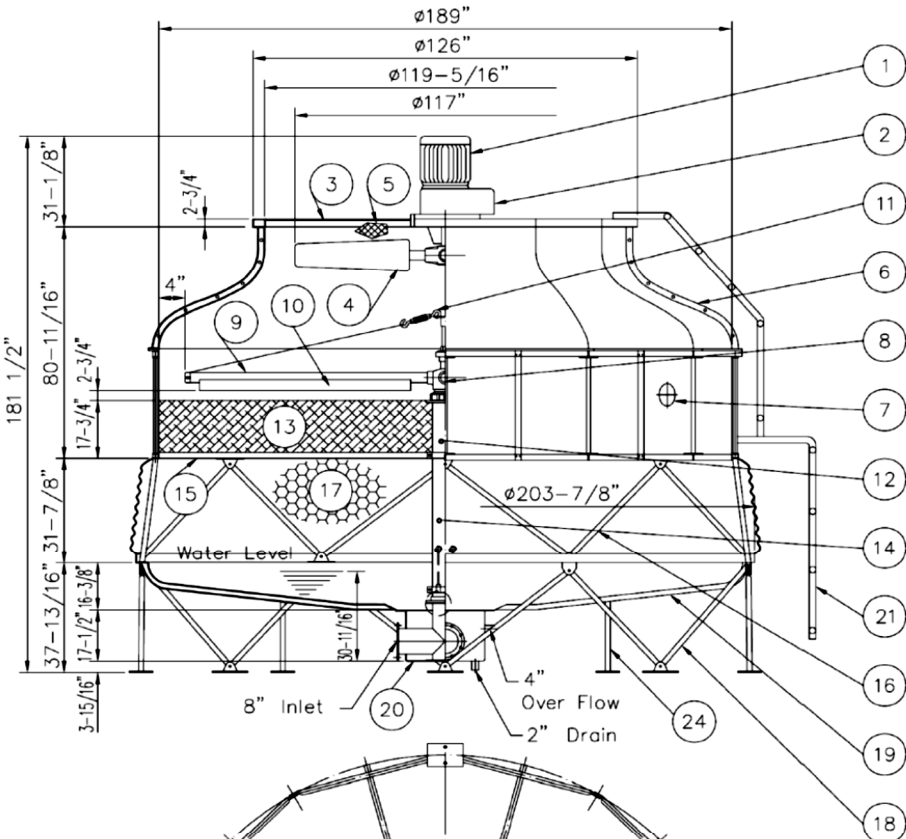
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TECHNICAL IMAGE A: MODEL T-2400



REMARK:  
 1.HDGS: Hot Dip Galvanized Steel.  
 2.A.C: Aluminum Alloy Cast.  
 3.ST.S: Stainless Steel.

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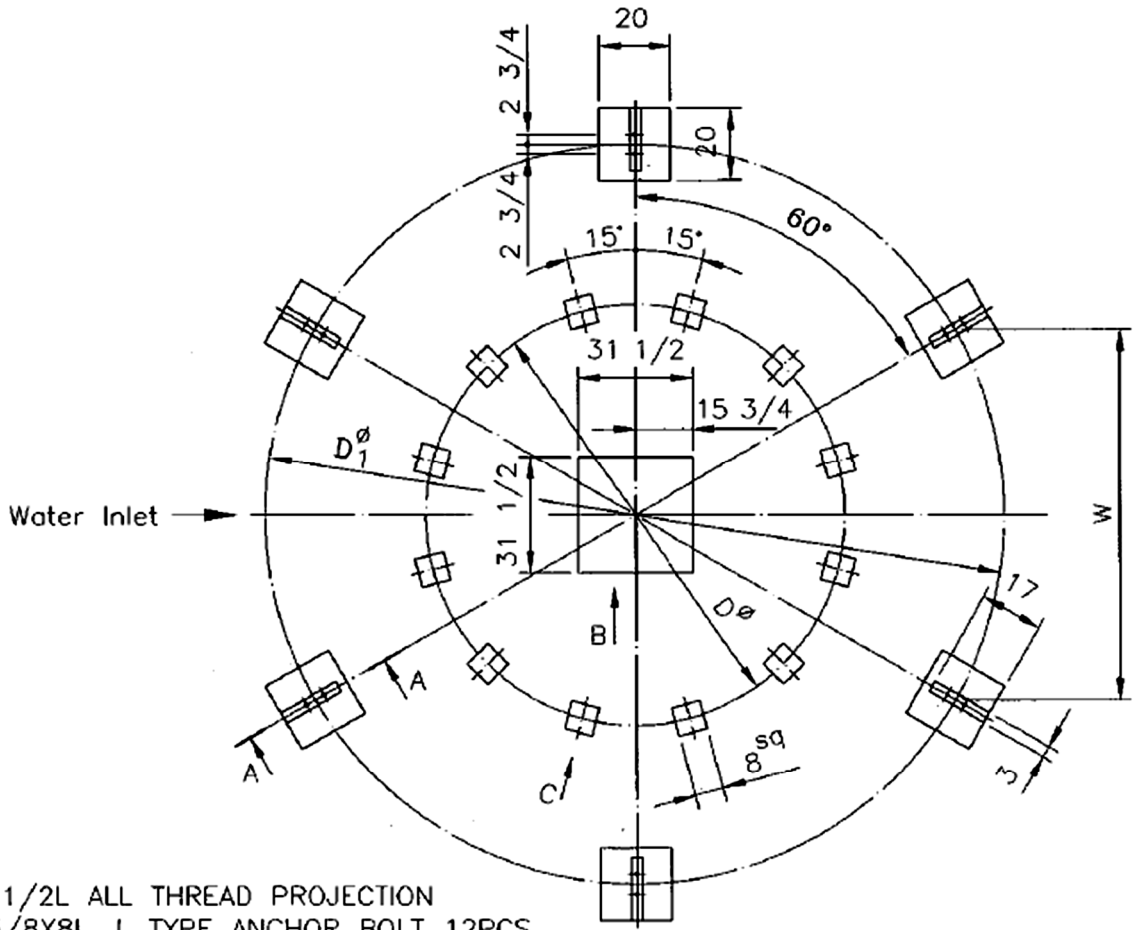
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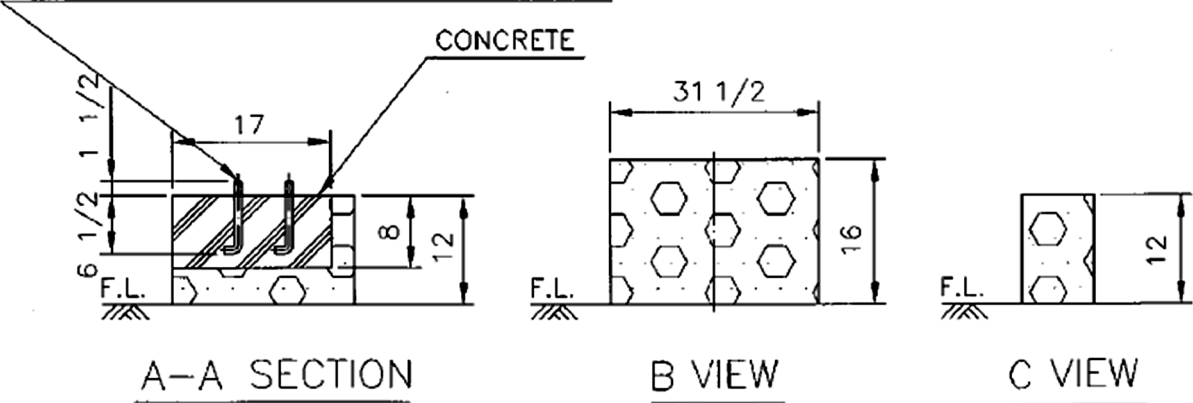


**FOUNDATION DRAWING: MODEL T-2400** Cooling Tower Systems, Inc.

| T-   | ∅D      | ∅D1     | W       |
|------|---------|---------|---------|
| 2400 | 114 1/2 | 200 3/4 | 100 3/8 |
| 2500 | 122     | 216 1/2 | 108 1/4 |



1 1/2" ALL THREAD PROJECTION  
W5/8X8L, L TYPE ANCHOR BOLT 12PCS



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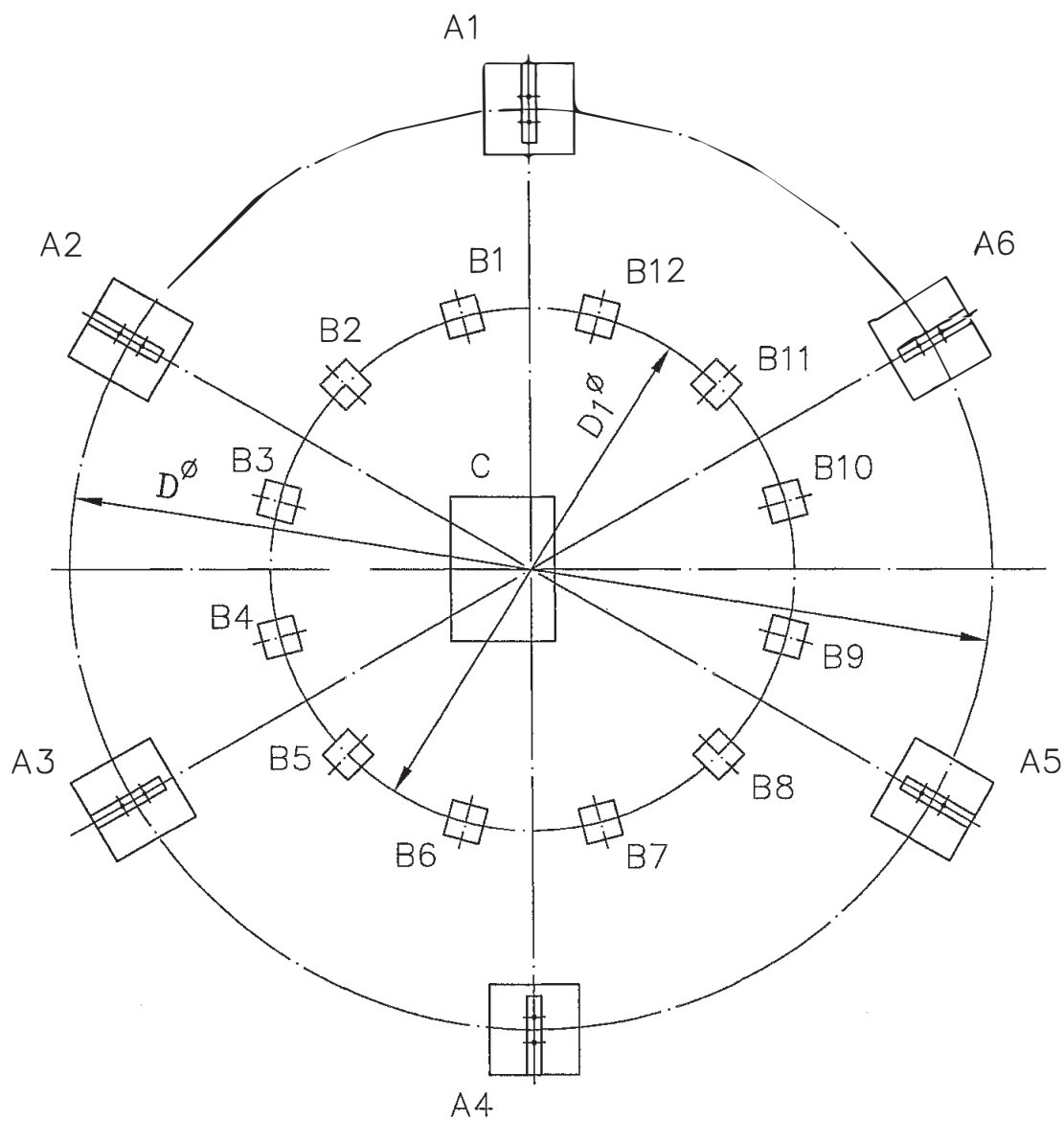
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| TOWER MODEL | $\phi D$ | $\phi D1$ | DEAD LOAD |            |        |
|-------------|----------|-----------|-----------|------------|--------|
|             |          |           | A1=...=A6 | B1=...=B12 | C      |
| T-2         |          |           |           |            |        |
| 400         | 200 3/4" | 114 1/4"  | 1141lb    | 223lb      | 5657lb |
| 500         | 216 1/2" | 122"      | 1342lb    | 270lb      | 6733lb |

| TOWER MODEL | LIVE LOAD |            |        |
|-------------|-----------|------------|--------|
|             | A1=...=A6 | B1=...=B12 | C      |
| T-2         |           |            |        |
| 400         | 356lb     | 71lb)      | 1787lb |
| 500         | 398lb     | 80lb       | 1999lb |