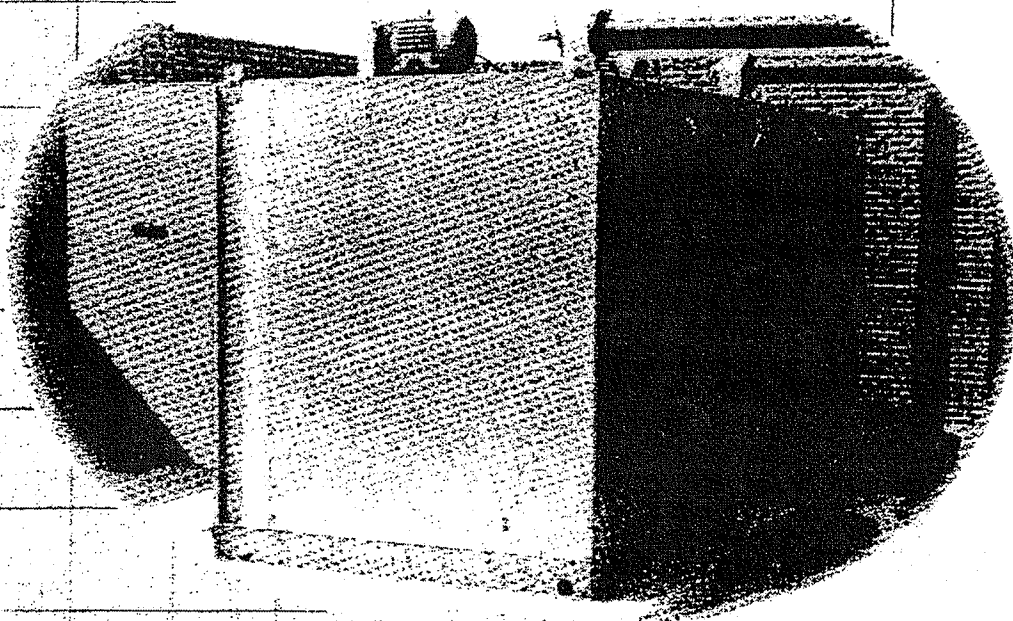


SUPER AQUATOWER



Features

- **GENERAL**

Towers are factory assembled. V-belt and motor are field installed. Fan guard is field installed on models 47150 and 47175.

Heavy gauge steel is used throughout to fabricate basins and casings. Bottom outlet basin drain plug is provided for hose-out cleaning of basin. Towers are easily disassembled for handling or installation in confined areas.

- **FILLING**

Tower fill is M106EH PVC with integral eliminators.

- **LOUVERS**

Louvers are formed steel sheets. They are sight tight to a horizontal view and ship in place.

MECHANICAL EQUIPMENT

Eight-bladed, V-belt driven fans are mounted on bearing housing with external lubrication lines. Protected motors are designed and tested specifically for cooling tower use.

- **GRAVITY WATER DISTRIBUTION**

Distribution basins are provided with closed inlet flumes to insure even water distribution. Spiral target nozzles provide distribution over the fill sheets.

- **BASIN FIXTURES**

Towers are equipped with bronze, automatic make up water control valves. Overflow, drain, suction fitting and suction screens are furnished.

- **CORROSION PROTECTION**

All steel utilized in the manufacture of Super Aquatowers is galvanized, providing a finish on both interior and exterior which is recognized for durability and long, maintenance-free service life.

SPLASH BOX

14 Gauge

DISTRIBUTION NOZZLES

Marley Type ST Polypropylene

HOT WATER BASIN

14 Gauge

SOLID BACK V-BELT DRIVE

TOP SHEET

14 Gauge

FAN SHEET

14 Gauge

CASING SHEET

14 Gauge

FILL

M106EH PVC with integral eliminators

FAN GUARD

8 Gauge Rings on 1" Centers
3 Gauge Diameter Spokes

LOUVER

Steel

FLOAT VALVE

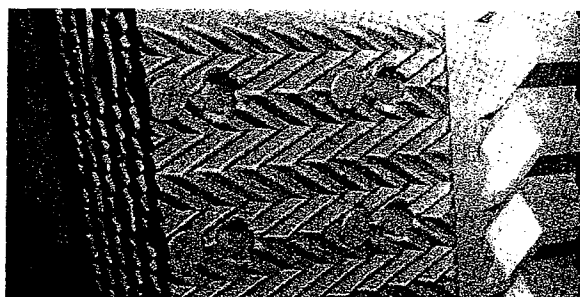
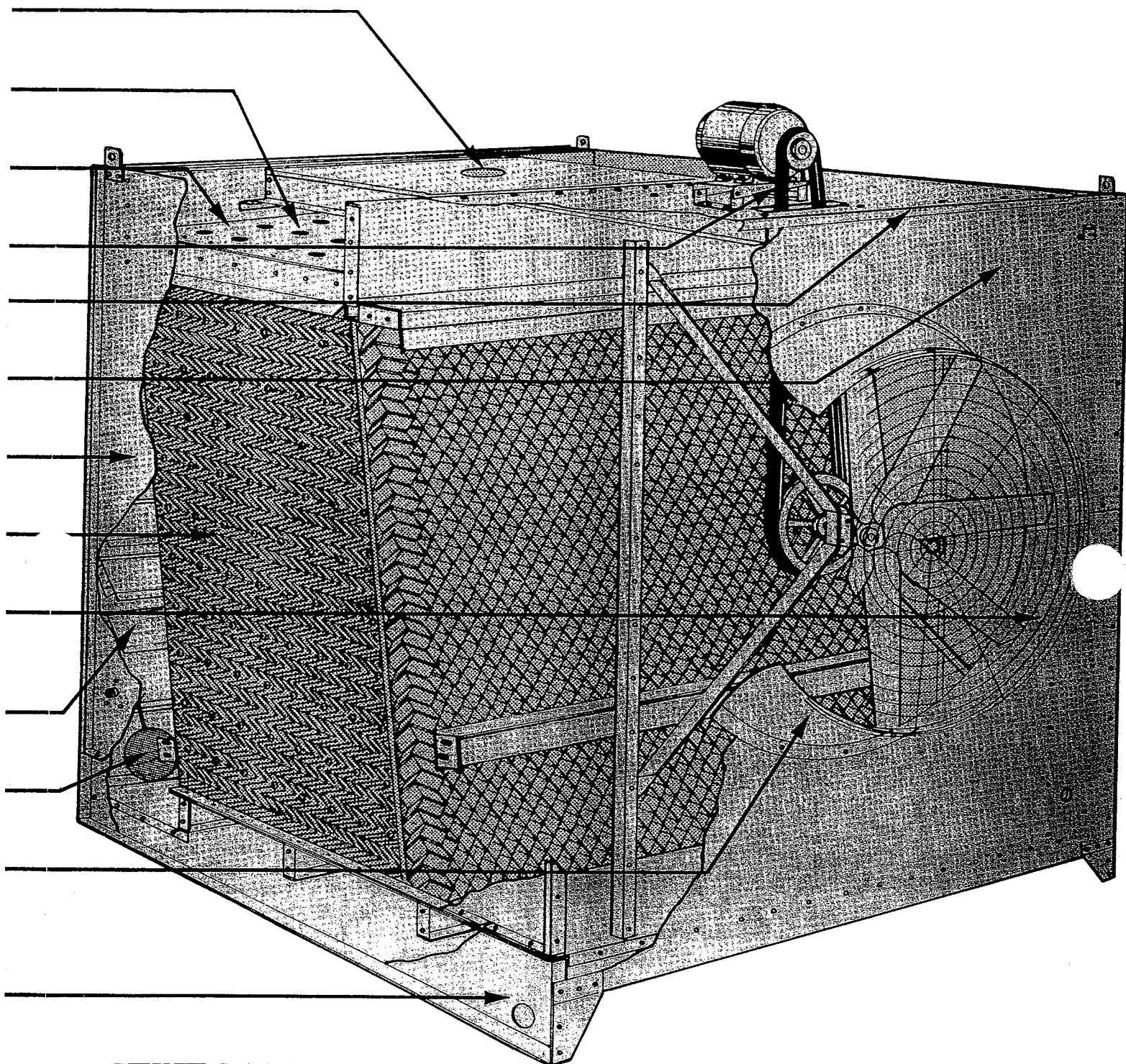
Marley 1 1/4"

FAN CYLINDER

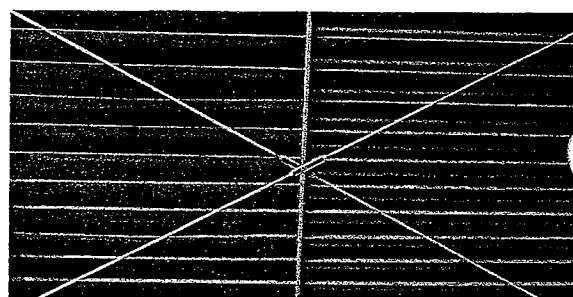
14 Gauge (Models 47100-47125)
12 Gauge (Model 47150)
11 Gauge (Model 47175)

SKID

12 Gauge



M106EH PVC Fill



Steel Inlet Louvers



47000 Super Aquatower

MODEL NUMBERS 47100, 47125, 47150, 47175

Superior design and constant refinement have made Marley's Aquatower the standard of packaged cooling towers. That standard is reaffirmed and the highly successful line is further broadened with the introduction of the Super Aquatower.

Available in four models, the Super Aquatower offers PVC fill and integral eliminators in a unique design that maximizes economy and efficiency. An intricate chevron configuration, conceived, tested and proven

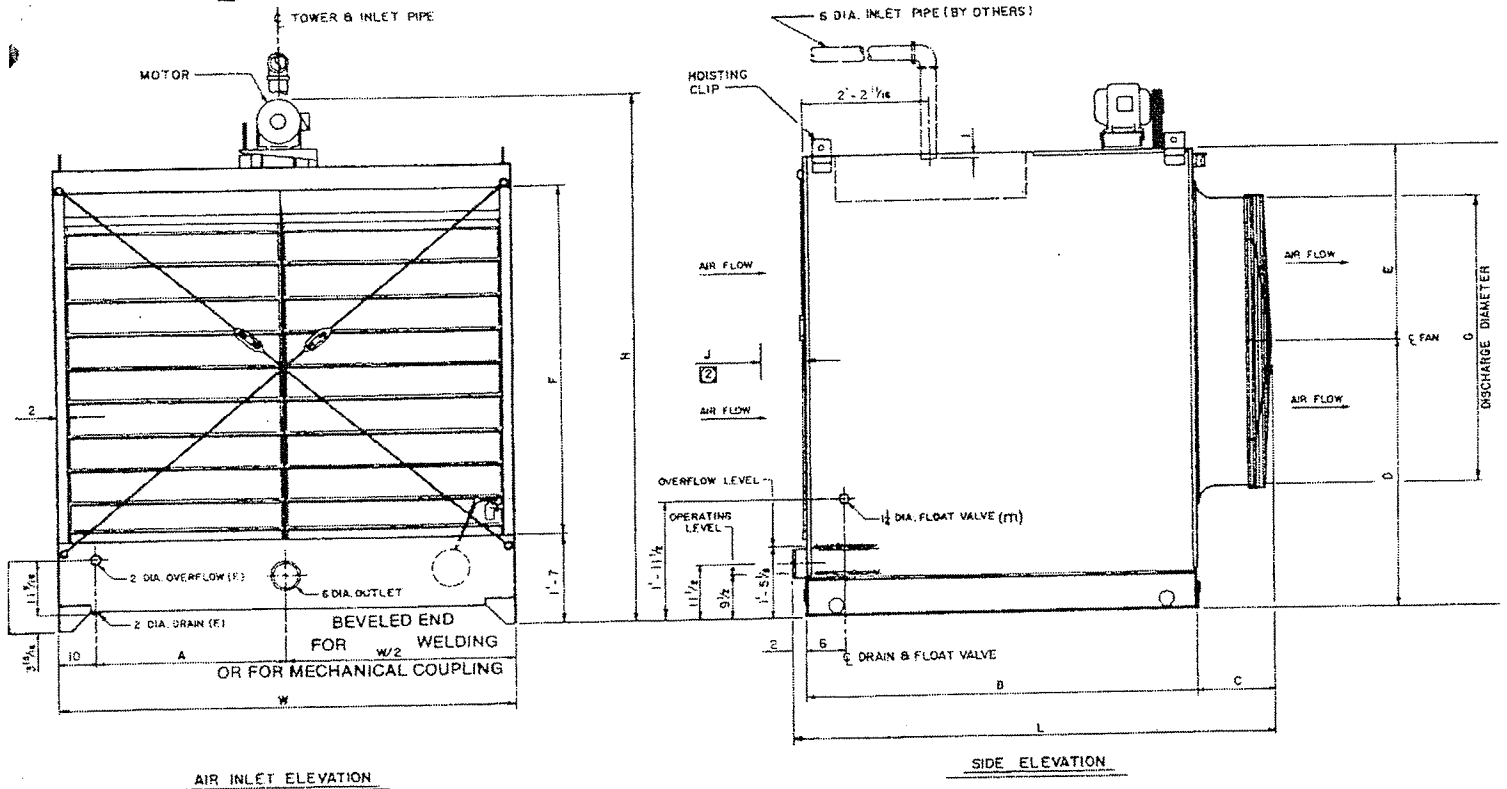
by Marley's research and development team, makes possible a significantly increased wetted surface. As a result, more air is placed in contact with more water affording more cooling per cubic foot. In combination with fans and fan cylinders designed for optimum air movement with the least applied horsepower, this fill and the Super Aquatower are able to provide maximum cooling in a minimum plan area with lower energy consumption.

Specifications

MODEL	47100	47125	47150	47175
Length	8'-3 5/8	8'-2 13/16	8'-4 7/16	8'-4 7/16
Width	7'-11	7'-11	9'-11	11'-11
Height	8'-3 5/8	9'-3	9'-4	9'-4
Shipping Weight (Lbs.)	2160	2400	2880	3260
Operating Weight (Lbs.)	4920	5160	6380	7480
Motor H.P.	5	7.5	7.5	7.5
Fan Diameter	48	54	66	66
RPM	647	582	449	442
CFM (approx.)	24,850	30,250	36,290	42,325
Bearing Housing	Marley 118	Marley 118	Marley 118	Marley 118
GPM Min.**	100	125	150	175
GPM Max.**	400	500	600	700
No. of Orifices/Tower	65	65	80	100
Suction (Beveled)	6"	6"	6"	6"
Overflow (Female)	2"	2"	2"	2"
Drain (Female)	2"	2"	2"	2"
Float Valve (Male)	1 1/4	1 1/4	1 1/4	1 1/4
Inlet Size	6"	6"	6"	6"
Operating Water Level	5"	5"	5"	5"
Overflow Level	1'-0 5/8	1'-0 5/8	1'-0 5/8	1'-0 5/8
OPTIONAL EQUIPMENT				
Air Inlet Screens	Shop Installed—No. 2 Mesh 16 Gauge Welded Wire Screen.—16 Ga. U-Edge Screen.			
Distribution Basin Cover	16 Ga. Steel Sheet Flanged Down on One End and Attached on the Other End to Splash Box With 3/8" Tap Screws.			
Vertical Discharge Duct (Requires Increase in Fan Motor HP)	14 Ga. Duct Opens Upwards for Vertical Discharge of Air. With 1 x 1 x .063 Screen Over Opening.			
Belt Guard	20 Ga. Belt and Sheave Guard Mounted on Top of Tower With 1/4" Tap Screws.			

**Thermal capacity varies with flow rate.

Dimensioning Data



TOWER	FAN DIA	FAN R.P.M.		FAN MOTOR H.P.		STATIC LIFT TO INLET OPENING	G.P.M. @	
		B	Z	B	Z		MIN	MAX
47100	48	647	741	5	7 1/2	7.063	100	400
47125	54	582	662	7 1/2	10	7.964	125	500
47150	66	449	502	1 1/2	10	7.964	150	600
47175	66	442	502	7 1/2	10	7.964	175	700

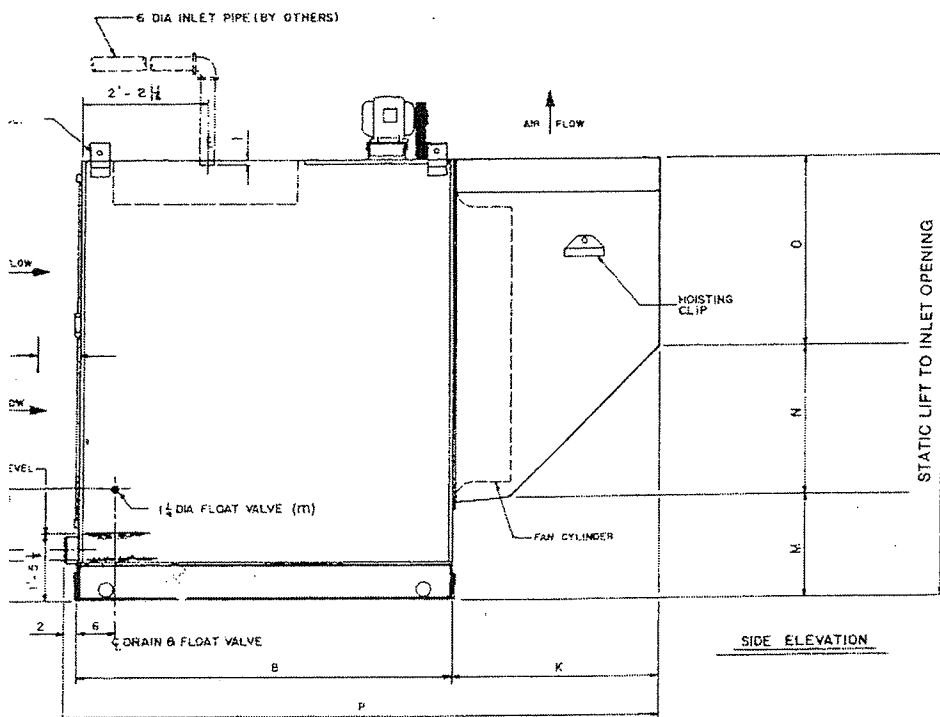
U—HORIZONTAL DISCHARGE Z—VERTICAL DISCHARGE (REQUIRES TEFC MOTORS)

TOWER DIMENSIONAL DATA																
TOWER	L	W	H	A	B	C	D	E	F	G	J	K	M	N	O	P
47100	8'-3 1/2"	7'-11"	8'-9 1/2"	3'-1 1/2"	6'-9 1/2"	1'-4"	4'-3"	2'-10"	5'-2"	4'-0 1/2"	6'-0"	3'-2 1/2"	1'-10 1/2"	2'-4 1/2"	2'-10 1/2"	10'-2 1/2"
47125	8'-2 1/2"	7'-11"	9'-3"	3'-1 1/2"	6'-8 3/4"	1'-3 1/2"	4'-2"	3'-9 1/2"	6'-0 3/4"	4'-6 1/2"	6'-0"	3'-2 1/2"	1'-5 1/2"	2'-4 1/2"	4'-2 1/2"	10'-1 1/2"
47150	8'-4 1/2"	9'-11"	9'-4"	4'-1 1/2"	6'-8 3/4"	1'-5 1/2"	4'-6"	3'-5 5/8"	6'-0 3/4"	5'-8 1/2"	7'-0"	3'-8 3/4"	1'-4 1/2"	2'-9 3/4"	3'-10 1/2"	10'-7 1/4"
47175	8'-4 1/2"	11'-11"	9'-4"	5'-1 1/2"	6'-8 3/4"	1'-5 1/2"	4'-6"	3'-5 5/8"	6'-0 3/4"	5'-6 1/2"	7'-0"	3'-8 3/4"	1'-4 1/2"	2'-9 3/4"	3'-10 1/2"	10'-7 1/4"

- ① FAN GUARD TO BE FIELD INSTALLED.
- ② MINIMUM CLEARANCE FOR ADEQUATE AIR SUPPLY. IF MINIMUM CLEARANCE CAN NOT BE ACHIEVED, CONSULT A MARLEY COOLING TOWER CO. SALES ENGINEER.
- ③ DOES NOT APPLY TO GRAVITY FLOW. GRAVITY FLOW REQUIRES OVERSIZE SUCTION OR BOTTOM OUTLET. THERMAL CAPACITY VARIES WITH FLOW RATE.
- ④ VERTICAL DISCHARGE HOOD TO BE FIELD INSTALLED

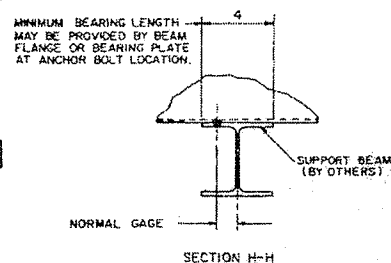
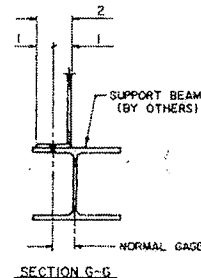
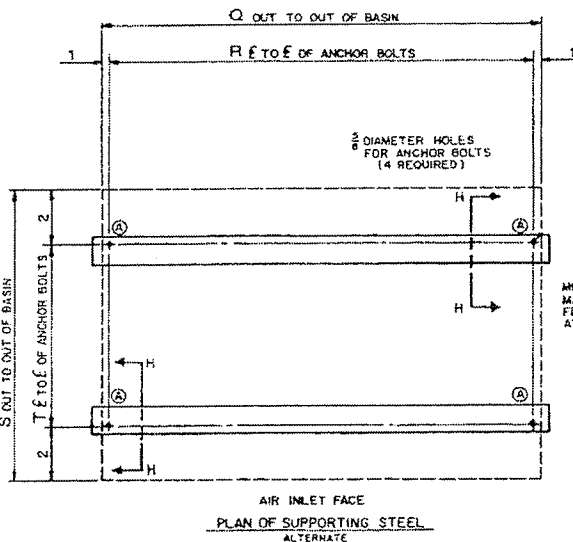
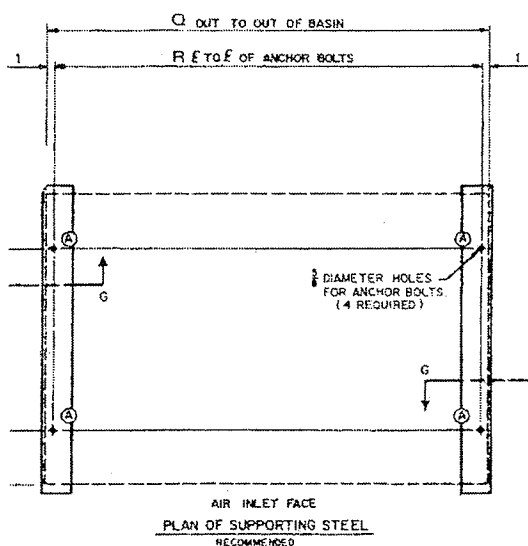
Standard motors are 3 phase, 60 Hertz, 230/460 volt or 200 volt, 1750 RPM

Optional motors are 3 phase, 60 Hertz, 460 volt, 2-speed, 1 winding, 1800/900 RPM



GENERAL NOTES

1. SUPPORTING STEEL purchaser to design, construct, and furnish supporting steel complete with $\frac{3}{4}$ inch diameter holes for anchor bolts to suit the general dimensions of this drawing. All steel must be framed flush and level at top. Maximum beam deflection to be $1/360$ of span, not to exceed $\frac{1}{2}$ inch.
2. TOWER DEAD LOADS maximum operating weights and max. dead loads are based on water level in cold water basin at overflow level.
3. TOWER LIVE LOADS wind loads are calculated on a basis of 30 pounds per square foot. Live loads are to be added to dead loads.
4. ANCHOR BOLTS all anchor bolts to be $\frac{1}{2}$ inch diameter and furnished by others.
5. PIER SUPPORT tower may be supported from piers at the four anchor bolt locations (A) as an alternate.
6. TOWER OBSTRUCTIONS air inlet face must have adequate air supply. If obstructions exist nearby which might affect air supply, consult a Marley Cooling Tower sales engineer.
7. ISOLATORS consult a Marley Cooling Tower Company sales engineer if tower is to be directly supported on vibration isolators. Isolations can cause deformation of basin flanges and basin modifications are required.



TOWER	DIMENSIONS				Super Aquatower w/o Vertical Discharge				Super Aquatower w/ Vertical Discharge			
	Q	B	S	T	(LBS) Shipping Weight	Maximum Operating Weight*	Max Dead Load at A	Max Live Load at A	Shipping Weight	Maximum Operating Weight*	Max Dead Load at A	Max Live Load at A
47-100	7'-11"	7'-9"	6'-9 1/4"	6'-5 1/4"	2160	4920	1230	440	2460	5220	1305	450
47-125	7'-11"	7'-9"	6'-8 1/4"	6'-4 1/4"	2400	5160	1290	520	2740	5500	1375	520
④ 47-150	9'-11"	9'-9"	6'-8 1/4"	6'-4 1/4"	2880	6380	1595	705	3220	6720	1680	705
④ 47-175	11'-11"	11'-9"	6'-8 1/4"	6'-4 1/4"	3260	7480	1870	845	3700	7920	1980	845

*REFER TO GENERAL NOTE 2



The Marley Cooling Tower Company • 5800 Foxridge Drive • Shawnee Mission, Kansas 66202