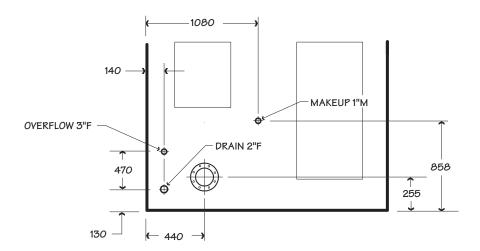
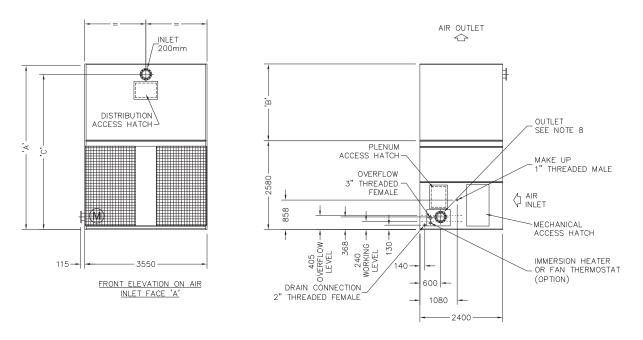
Model note 2	Nominal Tons	Motor		Dimensions		Design Operating	Shipping Weight		
	note 3	hp	С	Н	Inlet / Outlet dia	Weight lb	Weight/Cell	Heaviest Section	
901546M-1	214	25	12'-47/16"	13'-41/4"	8"			4012	
901546N-1	225	30	12'-47/16"	13'-41/4"	8"		6798		
901547M-1	239	25	13'-9%"	14'-9¾6"	8"	9416			
901547N-1	253	30	13'-9%"	14'-9¾6"	8"				
901548N-1	270	30	13'-9%"	14'-9¾6"	8"				
901548P-1	298	40	13'-9%"	14'-9¾6"	8"				
901549P-1	309	40	14'-9%16"	15'-9%"	8"				
901556N-1	286	2 x 15	11'-9½"	12'-9%"	8"			5329	
901556P-1	315	2 x 20	12'-47/16"	13'-41/4"	8"		9078		
901556Q-1	336	2 x 25	12'-47/16"	13'-41/4"	8"	10070			
901557Q-1	379	2 x 25	13'-9%"	14'-9¾16"	8"	13076			
901557R-1	400	2 x 30	13'-9%"	14'-9¾16"	8"				
901558R-1	429	2 x 30	13'-9%"	14'-9¾16"	8"				



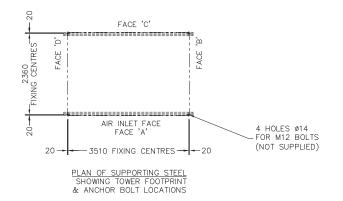
PIPING CONNECTIONS
ALL MODELS

## NOTE -

- 1 Use this bulletin for preliminary layouts only. Obtain current drawings from your Marley sales representative. All table data is per cell.
- 2 Last numeral of model number indicates number of cells. Change as appropriate for your selection.
- 3 Nominal tons are based upon 95°F HW, 85°F CW, 78°F WB and 3 gpm/ton. The Marley **UPDATE** web-based selection software provides MCW model recommendations based on specific design requirements.
- 4 Standard overflow is a 3" dia. F connection located on the side of the collection basin. Makeup water connection is a 1" dia. M connection located on the side of the collection. Drain is a 2"F connection located on the side of the collection basin.



END ELEVATION FACE 'D'



#### NOTES

 GENERAL AIR INLET FACES MUST HAVE AN ADEQUATE AIR SUPPLY. IF OBSTRUCTIONS EXIST, CONSULT YOUR SPX REPRESENTATIVE.

FABRICATION TOLERANCE IS ±1.5mm & ASSEMBLY TOLERANCE IS ±3mm. CONSULT SUPPLIERS OF SUPPORTING STRUCTURE FOR CONSTRUCTION TOLERANCE. ALL DIMENSIONS ARE IN mm & ALL WEIGHTS IN KILOGRAMS UNLESS OTHERWISE NOTED.

#### 2. PIPINO

ALL PIPE & FITTINGS TO BE SUPPLIED BY CUSTOMER

PIPEWORK MUST NOT BE SUPPORTED BY THE STRUCTURE.

STATIC LIFT FROM BASE OF TOWER = 'C'. CUSTOMER TO ADD LOSSES FOR DISTRIBUTION NOZZLES, EXTERNAL PIPEWORK & FITTINGS. EXTERNAL PIPEWORK MUST CLEAR THE TOWER SUFFICIENTLY TO PERMIT UNOBSTRUCTED MAINTENANCE ACCESS.

#### WATER LEVELS

THE INITIAL FILL SHOULD NOT EXCEED AN INTERNAL LEVEL OF 280mm. INTERNAL OPERATING LEVEL SHOULD BE MAINTAINED AT LEAST 140mm. TO AVOID WASTAGE, THE EXTERNAL SYSTEM VOLUME SHOULD NOT EXCEED THE DIFFERENCE BETWEEN THE ABOVE TWO LEVELS. IN ORDER TO COMPLY WITH LOCAL WATER SUPPLY AUTHORITY REGULATIONS, THE WATER PRESSURE AT THE MAKE—UP VALVE SHOULD NOT EXCEED 0.6bar, AND THE OVERFLOW CONNECTION SHOULD REMAIN UNRESTRICTED AT ALL TIMES. IF EITHER OF THESE REQUIREMENTS ARE NOT MET, IT IS THE CUSTOMERS RESPONSIBILITY TO ENSURE THEY STILL COMPLY WITH LOCAL REGULATIONS.

## 4. SUPPORTING STEEL

THE SUPPORTING STEEL IS TO BE DESIGNED, CONSTRUCTED AND FURNISHED BY THE CUSTOMER. IT SHALL INCLUDE CUSTOMER SUPPLIED M12 DIAMETER ANCHOR BOLTS AND WASHERS TO SUIT THE GENERAL DIMENSIONS OF THIS DRAWING. THE TOP SURFACE OF THE SUPPORTING STEEL MUST BE FRAMED FLUSH AND LEVEL. THE MAXIMUM BEAM DEFLECTION SHALL BE LIMITED TO 1/360 OF SPAN, NOT TO EXCEED 13mm AT THE ANCHOR BOLTS.

## 5. DESIGN OPERATING LOADS

THE DESIGN OPERATING LOADS SHOWN IN THE TABLE ARE BASED UPON THE VOLUME OF WATER IN THE COLLECTION BASIN TO OVERFLOW LEVEL.

- 6. SHIPPING WEIGHTS AND MAXIMUM OPERATING LOAD VALUES SHOWN IN TABLE DO NOT INCLUDE THE OPTIONAL EQUIPMENT WEIGHTS.
- 7. REFER TO LIFTING ARRANGEMENT DRAWINGS FOR LIFTING DETAILS.
- 8. REFER TO CONNECTION ARRANGEMENT DRAWING FOR DETAILS.
- 9. ALL THREADED CONNECTIONS COMPLY WITH BSP/ISO 7-1 BS FN10226-1

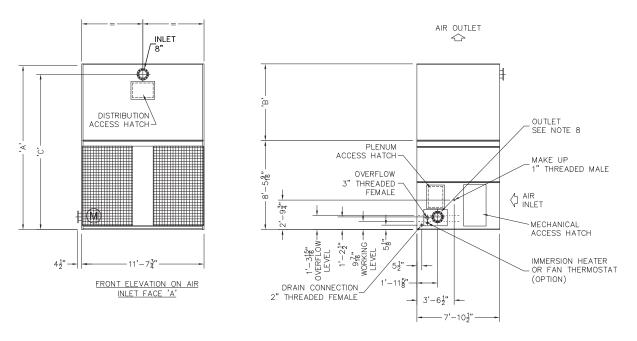
MODEL	А	В	С	MOTOR kW	S	HIPPING	3 & OP	ERATIN	IG
				KW	BASE	BASE TOP TOTAL WATER OPE	OPERATING		
901546M	4070	1490	3770	18.5	1689	866	2554	1187	3742
901546N	4070	1490	3770	22.0	1689	866	2554	1187	3742
901547M	4500	1920	4200	18.5	1681	1027	2709	1187	3896
901547N	4500	1920	4200	22.0	1681	1027	2709	1187	3896
901548N	4500	1920	4200	22.0	1820	1127	2947	1187	4134
901548P	4500	1920	4200	30.0	1820	1127	2947	1187	4134
901549P	4810	2230	4510	30.0	1820	1264	3084	1187	4271

) DENOTES MOTOR POSITION

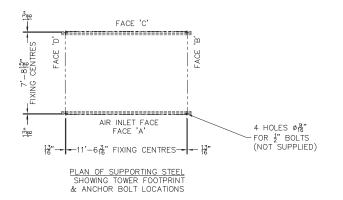
SI Units

ECO N	UMBER	GENE	RAL A	RRAN	GEMEN	T DRAWING			
REV BY	CHECKED			SERIES	MCW		SPX	Cooling Technolo	
	CHECKED		DELS	90154	6M -	901549P		Balcke   Hamon Dry Cooling   Marley	
REV.	DATE	DRAWN AT	28-11-06	CHKD BG	BG	ORDER NUMBER	1=50	DRAWING NUMBER G901—54	REV B

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END ELEVATION FACE 'D'



### NOTES

1. GENERAL AIR INLET FACES MUST HAVE AN ADEQUATE AIR SUPPLY. IF OBSTRUCTIONS EXIST, CONSULT YOUR SPX REPRESENTATIVE.

FABRICATION TOLERANCE IS  $\pm 1/6$  % ASSEMBLY TOLERANCE IS  $\pm 1/6$  % CONSULT SUPPLIERS OF SUPPORTING STRUCTURE FOR CONSTRUCTION TOLERANCE. ALL DIMENSIONS ARE IN INCHES & ALL WEIGHTS IN POUNDS UNLESS OTHERWISE NOTED.

2. PIPING

ALL PIPE & FITTINGS TO BE SUPPLIED BY CUSTOMER

PIPEWORK MUST NOT BE SUPPORTED BY THE STRUCTURE.

STATIC LIFT FROM BASE OF TOWER = 'C'. CUSTOMER TO ADD LOSSES FOR DISTRIBUTION NOZZLES, EXTERNAL PIPEWORK & FITTINGS EXTERNAL PIPEWORK MUST CLEAR THE TOWER SUFFICIENTLY TO PERMIT UNOBSTRUCTED MAINTENANCE ACCESS.

3. WATER LEVELS

THE INITIAL FILL SHOULD NOT EXCEED AN INTERNAL LEVEL OF 11". INTERNAL OPERATING LEVEL SHOULD BE MAINTAINED AT LEAST 5%". TO AVOID WASTAGE, THE EXTERNAL SYSTEM VOLUME SHOULD NOT EXCEED THE DIFFERENCE BETWEEN THE ABOVE TWO LEVELS. IN ORDER TO COMPLY WITH LOCAL WATER SUPPLY AUTHORITY REGULATIONS. THE WATER PRESSURE AT THE MAKE-UP VALVE SHOULD NOT EXCEED 8.7PS1, AND THE OVERFLOW CONNECTION SHOULD REMAIN UNRESTRICTED AT ALL TIMES. IF EITHER OF THESE REQUIREMENTS ARE NOT MET, IT IS THE CUSTOMERS RESPONSIBILITY TO ENSURE THEY STILL COMPLY WITH LOCAL REGULATIONS.

4. SUPPORTING STEEL THE SUPPORTING STEEL IS TO BE DESIGNED, CONSTRUCTED AND FURNISHED BY THE CUSTOMER. IT SHALL INCLUDE CUSTOMER SUPPLIED 1/8" DIAMETER ANCHOR BOLTS AND WASHERS TO SUIT THE GENERAL DIMENSIONS OF THIS DRAWING. THE TOP SURFACE OF THE SUPPORTING STEEL MUST BE FRAMED FLUSH AND LEVEL. THE MAXIMUM BEAM DEFLECTION SHALL BE LIMITED TO 1/360 OF SPAN, NOT TO EXCEED 1/2" AT THE ANCHOR BOLTS.

5. DESIGN OPERATING LOADS THE DESIGN OPERATING LOADS SHOWN IN THE TABLE ARE BASED UPON THE VOLUME OF WATER IN THE COLLECTION BASIN TO OVERFLOW LEVEL.

- 6. SHIPPING WEIGHTS AND MAXIMUM OPERATING LOAD VALUES SHOWN IN TABLE DO NOT INCLUDE THE OPTIONAL EQUIPMENT WEIGHTS.
- 7. REFER TO LIFTING ARRANGEMENT DRAWINGS FOR LIFTING DETAILS.
- 8. REFER TO CONNECTION ARRANGEMENT DRAWING FOR DETAILS.
- 9. ALL THREADED CONNECTIONS COMPLY WITH NPT ANSI/ASME B1.20.1

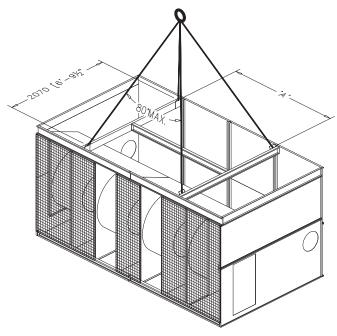
	MODEL	А	В	С	MOTOR HP			GHTS (	ERATIN lbs)	_
L						BASE	TOP	TOTAL	WATER	OPERATING
Г	901546M	13'-4 1/4"	4'-10 11/16"		25	3723	1908	5631	2618	8249
Г	901546N	13'-4 1/4"	4'-10 11/16"	12'-4 7/16"	30	3723	1908	5631	2618	8249
Г	901547M	14'-9 3/16"	6'-3 9/16"	13'-9 3/8"	25	3707	2265	5972	2618	8589
	901547N	14'-9 3/16"	6'-3 9/16"	13'-9 3/8"	30	3707	2265	5972	2618	8589
Г	901548N	14'-9 3/16"	6'-3 9/16"	13'-9 3/8"	30	4012	2485	6497	2618	9115
Г	901548P	14'-9 3/16"	6'-3 9/16"	13'-9 3/8"	40	4012	2485	6497	2618	9115
	901549P	15'-9 3/8"	7'-3 13/16"	14'-9 9/16"	40	4012	2786	6798	2618	9416

DENOTES MOTOR POSITION

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		1 1 0111123
ECO NUMBER	GENERAL ARRANGEMENT DRAWING	
REV. BY CHECKED	SERIES MCW	SPX Cooling Technologies
	MODELS 901546M - 901549P	Balcke   Hamon Dry Cooling   Marley
REV. DATE	DRAWN DATE CHKD APPD ORDER NUMBER	PLOT DRAWING NUMBER REV
	AT 1%-11-16 L RG L RG L	11=501 G901-54 I B I

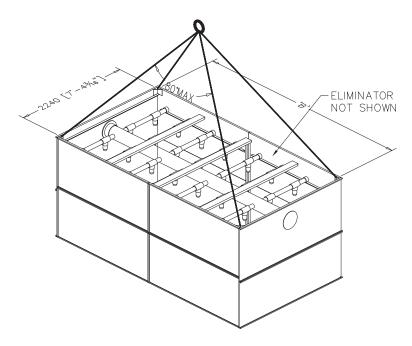


BASE SECTION
ATTACHMENT: 4 x Ø1¼" LIFTING EYES

_			
	MODEL	А	WEIGHT (lb)
9	01546X	4'-1 1/4"	3723
9	01547X	4'-1 1/4"	3707
9	01548X	4'-1 1/4"	4012
9	01549X	4'-1 1/4"	4012
9	01556X	10'-1 1/4"	5154
9	01557X	10'-1 1/4"	5329
9	01558X	10'-1 1/4"	5329

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TOP SECTION
ATTACHMENT: 4 x %" EYEBOLTS (DETACHABLE)

MODEL	В	WEIGHT (lb)
901546X	11'-1 1/2"	1908
901547X	11'-1 1/2"	2265
901548X	11'-1 1/2"	2485
901549X	11'-1 1/2"	2786
901556X	17'-1 1/2"	2915
901557X	17'-1 1/2"	3429
901558X	17'-1 1/2"	3749

# IMPORTANT

- 1. CUSTOMER TO ENSURE THAT ALL LIFTING EQUIPMENT COMPLIES WITH LOCAL & NATIONAL SAFETY REGULATIONS.
- 2. AREA TO BE CLEARED OF NON-ESSENTIAL PERSONNEL BEFORE LIFTING COMMENCES.
- 3. DO NOT ATTEMPT LIFTING IN ADVERSE WIND OR WEATHER CONDITIONS
- 4. DAMAGE TO PERSONNEL, PLANT OR EQUIPMENT RESULTING FROM THE FAILURE TO OBSERVE THESE GUIDELINES IS THE THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. SPREADER BARS MUST BE USED UNLESS CHAINS OF A SUITABLE LENGTH ARE UTILISED.

I-P Units

ECO NUMBER   LIFTING ARRANGEMENT DRAWING												
REV. BY	CHECKED			SERIES	S MCW		SPX	Cooling Technolo				
		МО	DELS	90154	6M -	9015	58R	Balcke   Hamon Dry Cooling   Marley				
REV.	DATE	DRAWN NL	08.12.06	CHKD BG	appd BG	ORDER	NUMBER	PLOT 1=1	drawing number G901—5XLA	REV B		