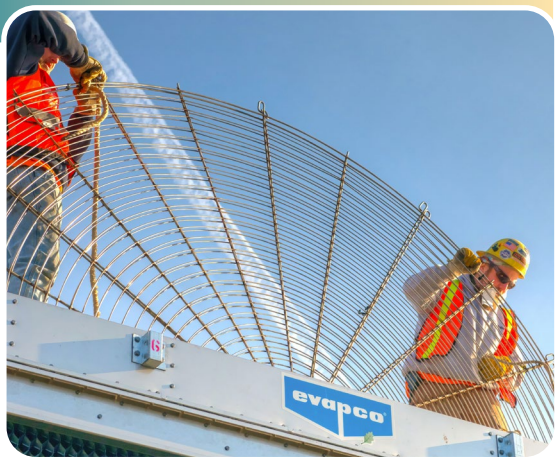
evapco for LIFE

COOLING TOWERS



AXS ENGINEERING DATA

5 Year MOTOR AND DRIVE WARRANTY

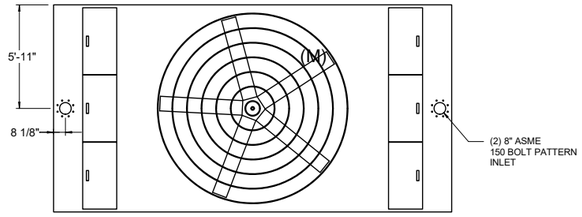
CTI CERTIFIED

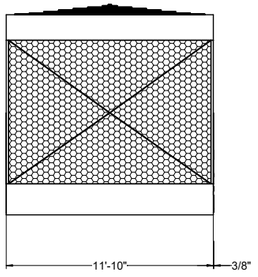
† Mark owned by the Cooling Technology Institute

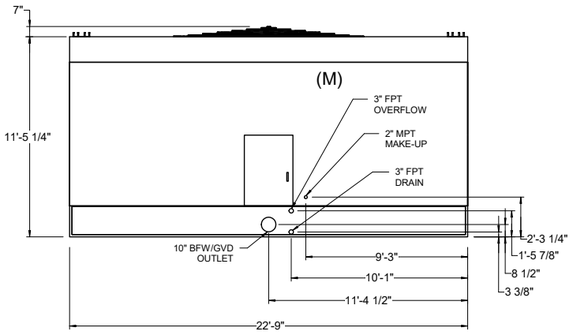
ADVANCED CROSSFLOW SERIES

A New Spin on Crossflow Cooling Tower Technology

Models: AXS 12-9G22 to AXS 12-9P22



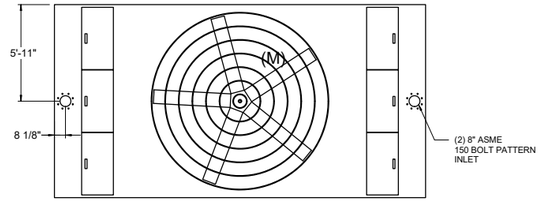


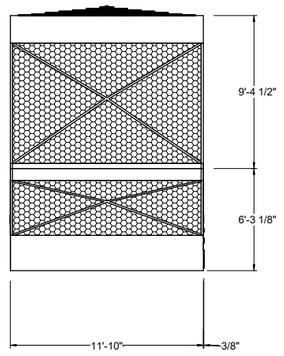


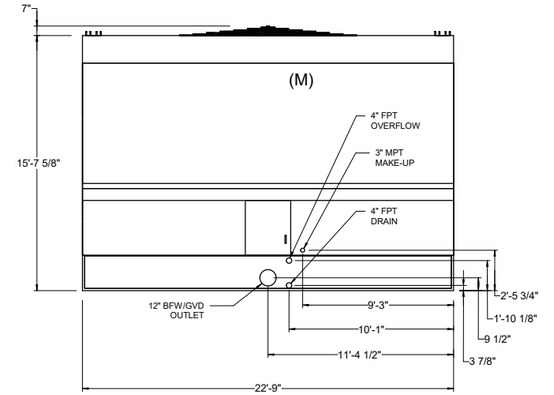
Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)	
					Shipping Weight	Operating Weight
AXS 12-9G22	317	233.9	5	77,000	12,340	25,190
AXS 12-9H22	357	175.7	7.5	86,800	12,400	25,240
AXS 12-9I22	389	143.4	10	94,500	12,420	25,260
AXS 12-9J22	438	107.6	15	106,500	12,520	25,370
AXS 12-9K22	477	87.8	20	115,900	12,590	25,430
AXS 12-9L22	509	75.0	25	123,700	12,620	25,460
AXS 12-9M22	537	65.9	30	130,500	12,670	25,520
AXS 12-9N22	584	53.7	40	141,900	12,870	25,710
AXS 12-9O22	623	45.9	50	151,500	12,980	25,820
AXS 12-9P22	657	40.3	60	159,700	13,230	26,070

NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
(2) Do not use catalog drawings for certified prints. Dimensions and weights are subject to change.
(3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.
(4) Fan guard does not ship factory mounted.
(5) Nominal tonnage is based on 3 gpm per ton at 95°F entering water temperature, 85°F leaving water temperature, and 78°F wet-bulb temperature

Models: AXS 12-13I22 to AXS 12-13Q22





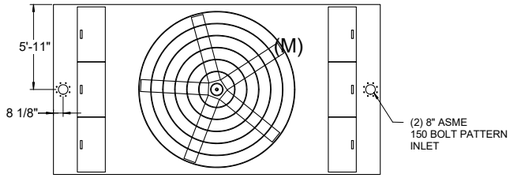


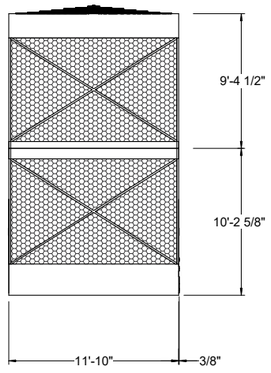
Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)		
					Shipping Weight	Heaviest* Section	Operating Weight
AXS 12-13I22	479	172.8	10	116,800	16,910	10,410	35,490
AXS 12-13J22	533	128.3	15	130,000	17,010	10,520	35,590
AXS 12-13K22	575	103.8	20	140,300	17,080	10,580	35,660
AXS 12-13L22	610	88.1	25	148,800	17,110	10,620	35,690
AXS 12-13M22	640	77.0	30	156,200	17,160	10,670	35,740
AXS 12-13N22	691	62.3	40	168,500	17,360	10,870	35,940
AXS 12-13O22	733	52.9	50	178,800	17,470	10,970	36,050
AXS 12-13P22	769	46.3	60	187,600	17,720	11,220	36,300
AXS 12-13Q22	816	39.3	75	199,000	17,880	11,390	36,460

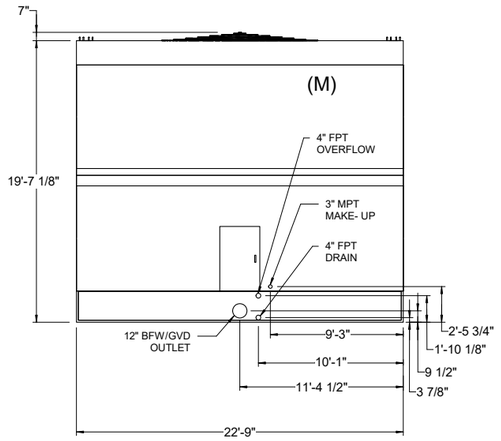
NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
(2) Do not use catalog drawings for certified prints. Dimensions and weights are subject to change.
(3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.
(4) Nominal tonnage is based on 3 gpm per ton at 95°F entering water temperature, 85°F leaving water temperature, and 78°F wet-bulb temperature

* Heaviest section is upper section.

Models: AXS 12-17I22 to AXS 12-17Q22







Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)		
					Shipping Weight	Heaviest* Section	Operating Weight
AXS 12-17I22	548	197.2	10	128,100	18,590	10,410	37,170
AXS 12-17J22	616	147.9	15	144,100	18,690	10,520	37,270
AXS 12-17K22	676	121.7	20	158,200	18,760	10,580	37,340
AXS 12-17L22	721	103.8	25	168,700	18,790	10,620	37,370
AXS 12-17M22	762	91.5	30	178,400	18,840	10,670	37,420
AXS 12-17N22	831	74.8	40	194,400	19,040	10,870	37,620
AXS 12-17O22	880	63.4	50	206,000	19,150	10,970	37,730
AXS 12-17P22	914	54.9	60	214,000	19,400	11,220	37,980
AXS 12-17Q22	982	47.1	75	229,700	19,560	11,390	38,140

NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
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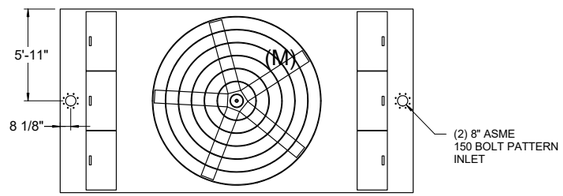
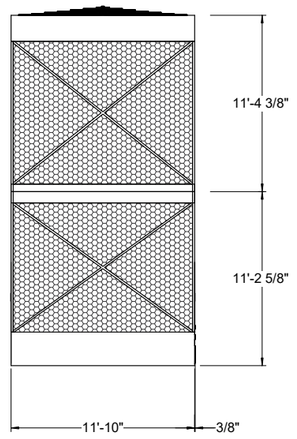
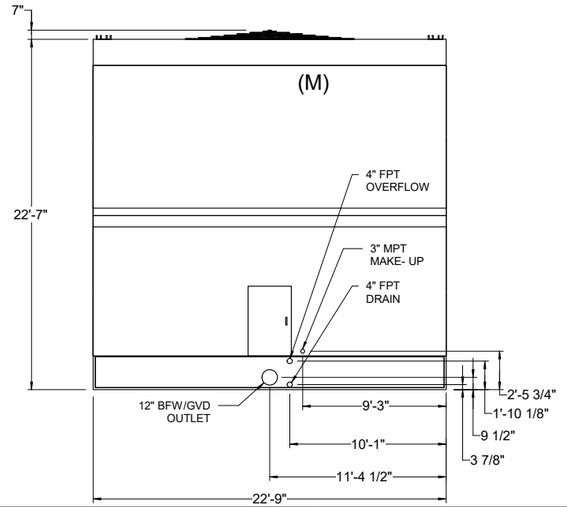
(3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.
(4) Nominal tonnage is based on 3 gpm per ton at 95°F entering water temperature, 85°F leaving water temperature, and 78°F wet-bulb temperature

* Heaviest section is upper section.

Models: AXS 12-20I22 to AXS 12-20R22





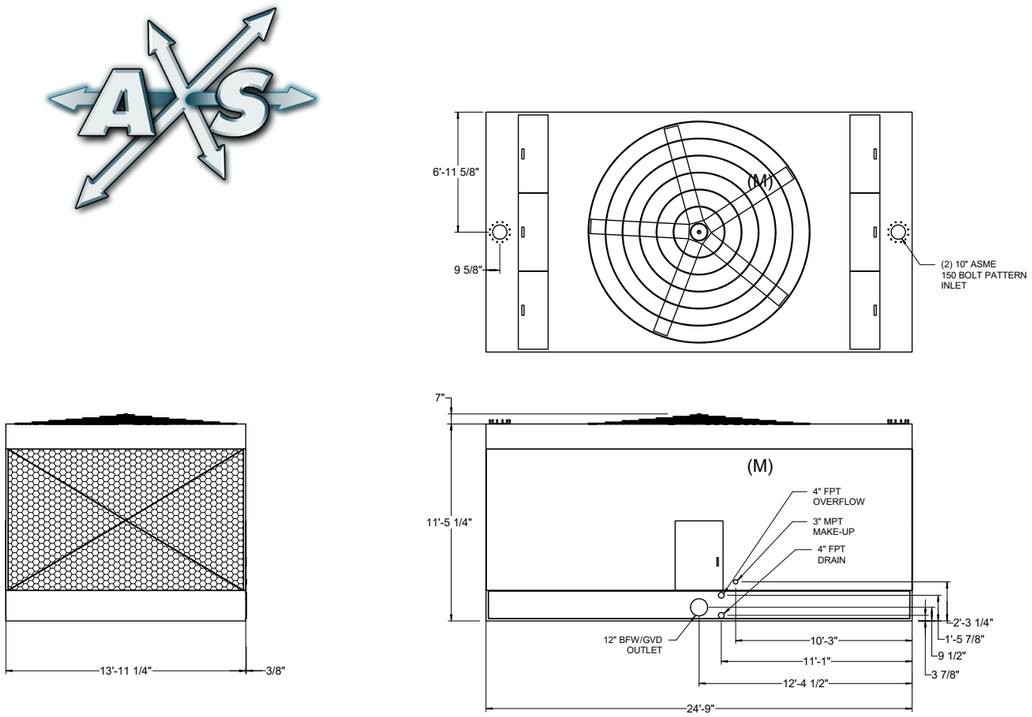


Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)		
					Shipping Weight	Heaviest* Section	Operating Weight
AXS 12-20I22	548	196.4	10	126,100	19,880	11,290	38,460
AXS 12-20J22	629	150.2	15	144,600	19,990	11,390	38,570
AXS 12-20K22	693	124.1	20	159,300	20,050	11,460	38,630
AXS 12-20L22	747	107.1	25	171,800	20,090	11,490	38,670
AXS 12-20M22	794	94.9	30	182,700	20,140	11,540	38,720
AXS 12-20N22	874	78.3	40	200,900	20,340	11,740	38,920
AXS 12-20O22	971	69.6	50	223,400	20,450	11,850	39,030
AXS 12-20P22	1022	61.0	60	235,000	20,690	12,100	39,270
AXS 12-20Q22	1087	52.0	75	250,100	20,860	12,260	39,440
AXS 12-20R22	1178	42.2	100	270,900	21,250	12,650	39,830

NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
(2) Do not use catalog drawings for certified prints. Dimensions and weights are subject to change.
(3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.
(4) Fan guard does not ship factory mounted.
(5) Nominal tonnage is based on 3 gpm per ton at 95°F entering water temperature, 85°F leaving water temperature, and 78°F wet-bulb temperature

* Heaviest section is upper section.

Models: AXS 14-9H24 to AXS 14-9P24



Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)	
					Shipping Weight	Operating Weight
AXS 14-9H24	412	199.8	7.5	102,600	14,780	30,960
AXS 14-9I24	446	162.2	10	111,000	14,850	31,030
AXS 14-9J24	499	120.9	15	124,200	14,800	30,990
AXS 14-9K24	540	98.1	20	134,400	14,870	31,050
AXS 14-9L24	574	83.5	25	142,900	15,060	31,240
AXS 14-9M24	603	73.1	30	150,200	15,110	31,290
AXS 14-9N24	653	59.4	40	162,600	15,280	31,460
AXS 14-9O24	694	50.5	50	172,900	15,290	31,470
AXS 14-9P24	730	44.2	60	181,700	15,550	31,730

NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
(2) Do not use catalog drawings for certified prints. Dimensions and weights are subject to change.
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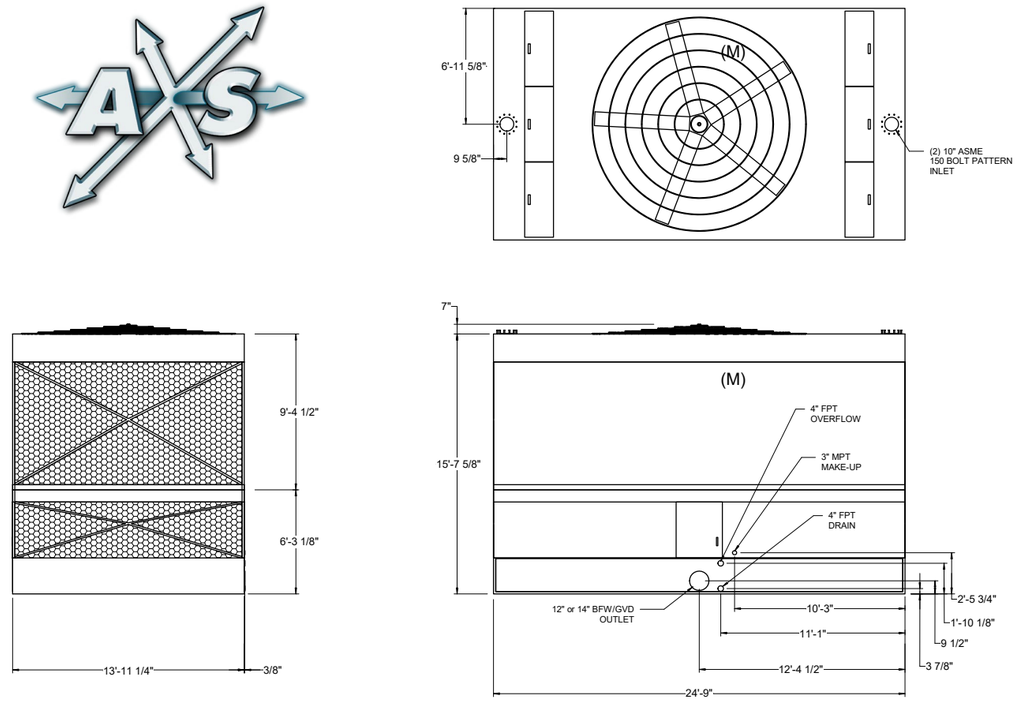
(4) Fan guard does not ship factory mounted.
(5) Nominal tonnage is based on 3 gpm per ton at 95°F entering water temperature, 85°F leaving water temperature, and 78°F wet-bulb temperature

Models: AXS 14-13J24 to AXS 14-13R24



Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)		
					Shipping Weight	Heaviest* Section	Operating Weight
AXS 14-13J24	634	152.6	15	154,700	19,970	12,340	43,580
AXS 14-13K24	684	123.5	20	166,900	20,040	12,400	43,650
AXS 14-13L24	726	104.8	25	177,000	20,230	12,590	43,830
AXS 14-13M24	761	91.6	30	185,800	20,280	12,650	43,890
AXS 14-13N24	822	74.1	40	200,400	20,450	12,820	44,060
AXS 14-13O24	871	62.9	50	212,600	20,460	12,830	44,070
AXS 14-13P24	914	55.0	60	223,100	20,720	13,080	44,330
AXS 14-13Q24	970	46.7	75	236,700	20,880	13,250	44,490
AXS 14-13R24	1047	37.8	100	255,400	21,360	13,730	44,970

NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
(2) Do not use catalog drawings for certified prints. Dimensions and weights are subject to change.
(3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.
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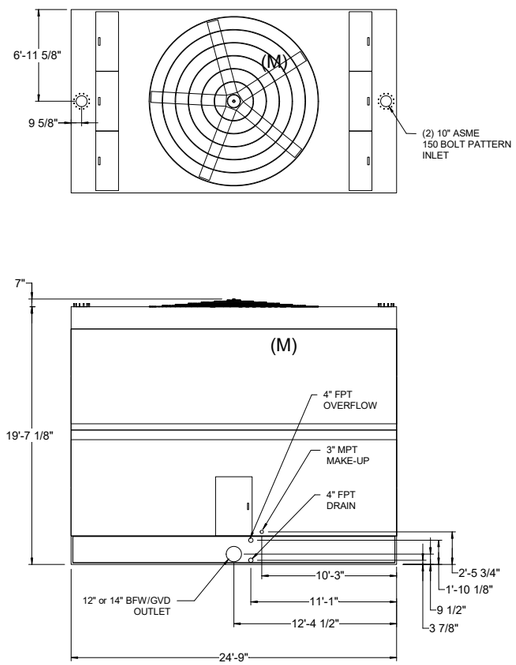
* Heaviest section is upper section.

Models: AXS 14-17J24 to AXS 14-17R24



Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)		
					Shipping Weight	Heaviest* Section	Operating Weight
AXS 14-17J24	671	161.1	15	156,300	21,870	12,340	45,480
AXS 14-17K24	738	132.9	20	171,900	21,940	12,400	45,540
AXS 14-17L24	795	114.5	25	185,100	22,130	12,590	45,730
AXS 14-17M24	870	104.5	30	202,800	22,180	12,650	45,790
AXS 14-17N24	941	84.7	40	219,200	22,350	12,820	45,960
AXS 14-17O24	999	72.0	50	232,900	22,360	12,830	45,970
AXS 14-17P24	1050	63.0	60	244,600	22,620	13,080	46,220
AXS 14-17Q24	1115	53.6	75	259,900	22,780	13,250	46,390
AXS 14-17R24	1206	43.4	100	280,900	23,260	13,730	46,870

NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
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(3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.
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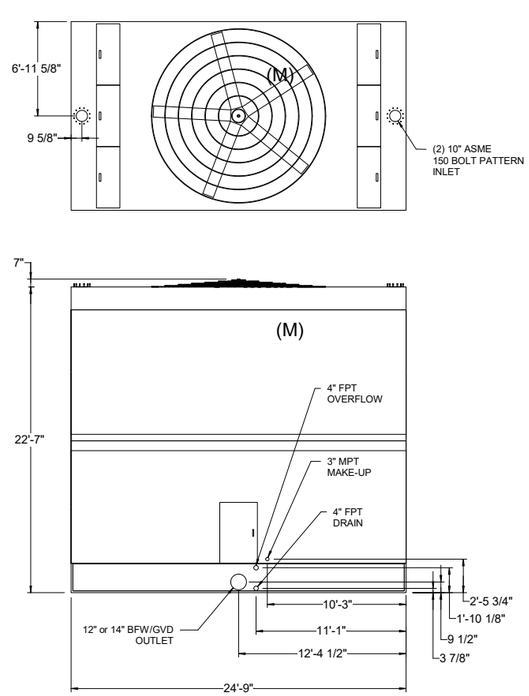
* Heaviest section is upper section.

Models: AXS 14-20J24 to AXS 14-20S24

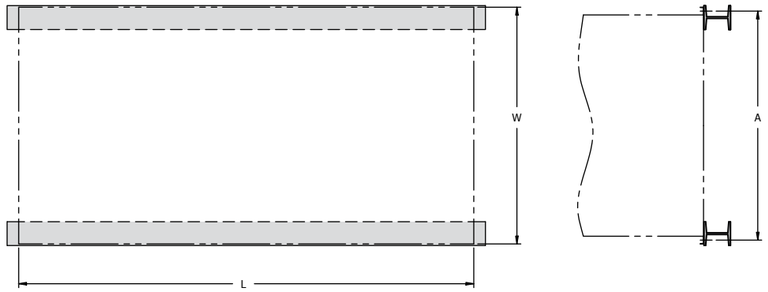


Model Number	Nominal Tonnage	ASHRAE STD 90.1 (gpm/HP)	Fan Motor (HP)	Airflow (CFM)	Weights (LBS)		
					Shipping Weight	Heaviest* Section	Operating Weight
AXS 14-20J24	778	185.8	15	181,200	23,310	13,310	46,910
AXS 14-20K24	843	151.1	20	196,500	23,370	13,370	46,980
AXS 14-20L24	898	128.7	25	209,200	23,560	13,560	47,170
AXS 14-20M24	970	115.9	30	226,100	23,610	13,620	47,220
AXS 14-20N24	1045	93.7	40	243,600	23,780	13,790	47,390
AXS 14-20O24	1108	79.4	50	258,100	23,790	13,800	47,400
AXS 14-20P24	1161	69.4	60	270,600	24,050	14,050	47,660
AXS 14-20Q24	1231	58.8	75	286,700	24,220	14,220	47,830
AXS 14-20R24	1326	47.5	100	308,900	24,700	14,700	48,300
AXS 14-20S24	1405	40.3	125	327,300	25,800	15,800	49,400

NOTE: (1) An adequately sized bleed line must be installed in the cooling tower system to prevent build-up of impurities in the recirculated water.
(2) Do not use catalog drawings for certified prints. Dimensions and weights are subject to change.
(3) Adequate spacing must be allowed for access to the cooling tower. Refer to EVAPCO's Equipment Layout Manual.
(4) Fan guard does not ship factory mounted.
(5) Nominal tonnage is based on 3 gpm per ton at 95°F entering water temperature, 85°F leaving water temperature, and 78°F wet-bulb temperature

* Heaviest section is upper section.

Suggested I-Beam Arrangement



Longitudinal Steel Support Arrangement

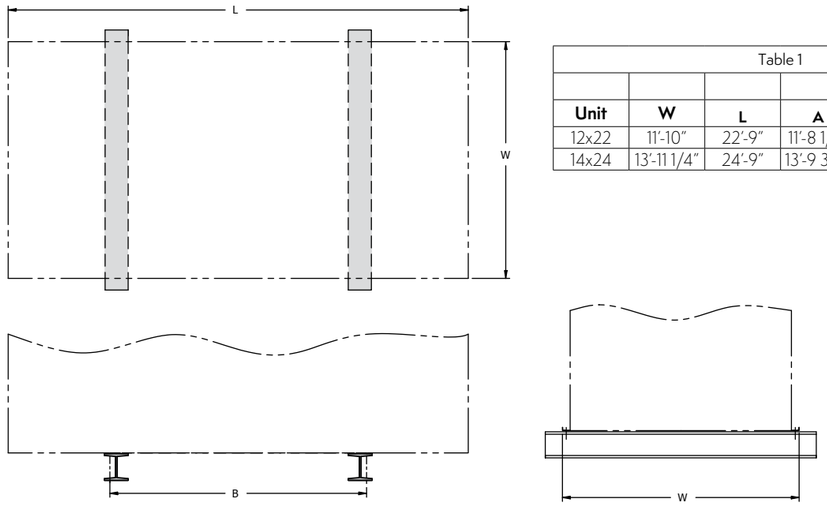


Table 1

				Standard	Minimum
Unit	**W**	**L**	**A**	**B**	**B**
12x22	11'-10"	22'-9"	11'-8 1/2"	12'-10"	9'-6"
14x24	13'-11 1/4"	24'-9"	13'-9 3/4"	15'-4"	12'

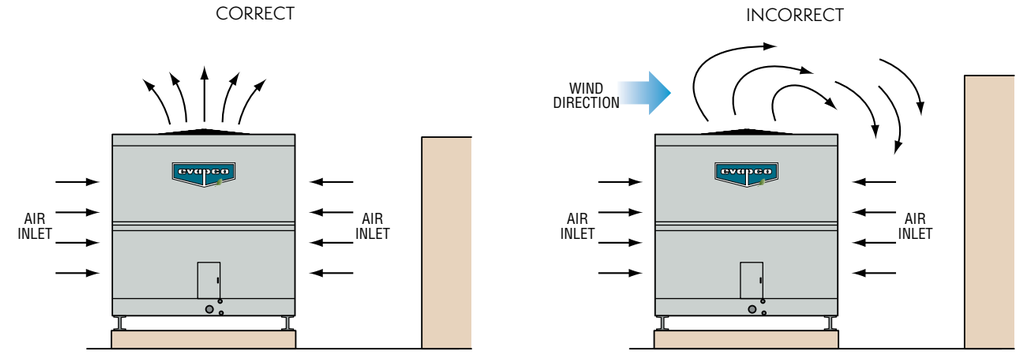
Transverse Steel Support Arrangement

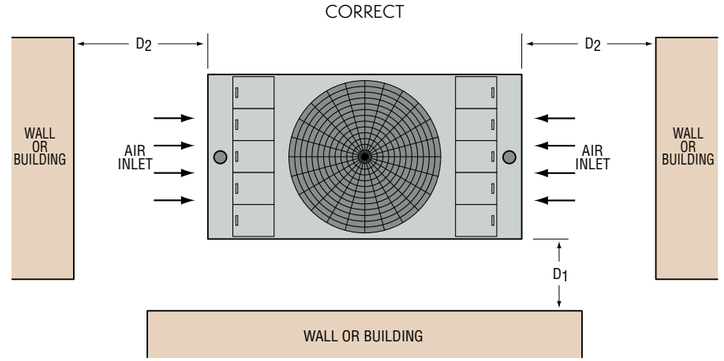
NOTES:
1. These are suggested arrangements for preliminary layout purposes. Consult your EVAPCO representative for factory certified steel support drawings.
2. Beams should be sized in accordance with accepted structural practices. Maximum deflection of beam under unit to be 1/360 of the unit length, not to exceed 1/2".
3. Deflection may be calculated by using 55% of the operating weight as a uniform load on each beam.
4. Beams should be level before setting the unit in place. Do not level the unit by shimming between it and the I-beams.
5. Support beams and anchor bolts are to be furnished by others.
6. Dimensions, weights and data are subject to change without notice. Refer to the factory certified drawings for exact dimensions.
7. The unit will have pre-punched anchor bolt holes in the standard and minimum hole spacing locations only (see B dimensions from table 1). All other anchor bolt holes will be located and drilled by others
8. For alternate beam positioning, please consult your EVAPCO representative.

NOTE: OPTIONAL BOTTOM CONNECTIONS WILL REQUIRE THE UNIT TO BE ELEVATED TO ALLOW FOR PIPING.

Unit Layout

Since evaporative cooling equipment requires large quantities of air, adequate spacing around the unit must be provided for it to perform properly. An equally important consideration when laying out the equipment is to locate the unit so that recirculation is minimized. The top of the cooling tower must be equal to or higher than any adjacent walls, buildings or other structures. When the top of the unit is lower than the surrounding structures recirculation can be a major problem.





	Minimum Dimension (ft.)*				
Unit	D1	D2 - one unit	D2 - two units	D2 - three units	D2 - four units
Single Stack - 12' wide	3.5	7	11	13.5	15
Double Stack - 12' wide	3.5	7.5	12	15.5	18
Single Stack - 14' wide	3.5	8	12	14.5	16
Double Stack - 14' wide	3.5	8	13	16.5	19

*Minimum dimensions will increase on multi-cell installations.
CONSULT FACTORY FOR LARGER INSTALLATIONS.

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