COOLING TOWERS







*Mark owned by the Cooling Technology Institute

Discover a NEW degree of flexibility

The Advanced Crossflow Series (AXS) from EVAPCO—a new spin on crossflow cooling tower technology.

Modular Hot Water Basins:

- Steel covers in easy to handle sections
- Gravity distribution basins
- Large orifice, non-clog nozzles
- Integral weir dams to accommodate at least 50% design flow

EVAPAK Crossflow Fill:

- High efficiency bonded block fill
- Polyvinyl Chloride (PVC)
- Prevents air bypass
- Impervious to rot, decay and biological attack
- Integral louvers and drift eliminators
- Easy to handle
- Flame spread rating of 5 per ASTM E84-81a

Cold Water Basin End Covers (optional):

- Prevents sunlight and debris from entering basin
- Easy lift-off with handles



The EVAPCO Performance Guarantee

Every AXS product is rigorously thermal performance tested by EVAPCO and then independently certified by the Cooling Technology Institute (CTI) so you know you are getting a solution that's guaranteed to get the job done.

*Mark owned by the Cooling Technology Institute



Drive System:

- Solid back multi groove power band belt is standard
- Premium efficient, inverter capable, cooling tower duty motor
- Heavy duty pillow block bearings with the minimum L-10 life of 100,000 hours
- Extended lubrication lines
- Corrosion resistant cast aluminum sheaves



Exclusive 5 Year Motor and Drive Warranty

Single Side Inlet (optional):

- Self-balancing
- Includes all interior piping (factory installed)
- Includes all exterior piping (ships loose for field installation)

Two (2) Oversized Access Doors:

- Swing-in doors on each side wall
- Easy access to interior of unit

Bottom Supported Fill:

- Non-sagging
- Minimum 3" above basin floor
- Easy to clean under
- Allows room for optional sump sweeper piping





About EVAPCO

EVAPCO is the global innovator in heat transfer solutions. Our pledge is to make everyday life easier, more comfortable, more reliable, and more sustainable for people everywhere. With manufacturing facilities and sales offices in more than 40 countries and 28 patents worldwide in the last 10 years alone—we are the team that engineers and contractors know they can count on for life.

CONTACT

your local EVAPCO Representative or visit **evapco.com** to learn more.

Models: AXS 12-11G22 to AXS 12-11P22

Single Stack Cooling Towers



	Nominal	ASHRAE	Fan	Air Flow	Weights (LBS)		
Model No.	Tonnage	STD 90.1 (gpm/HP)	Motor (HP)	(CFM)	Shipping	Operating	
AXS 12-11G22	312	220.1	5	75,900	11,800	25,990	
AXS 12-11H22	353	166.4	7.5	86,100	11,850	26,040	
AXS 12-11122	386	136.5	10	94,100	11,860	26,060	
AXS 12-11J22	438	103.2	15	106,700	11,970	26,160	
AXS 12-11K22	479	84.6	20	116,600	12,030	26,220	
AXS 12-11L22	513	72.5	25	124,900	12,060	26,250	
AXS 12-11M22	543	63.9	30	132,200	12,110	26,300	
AXS 12-11N22	594	52.4	40	144,500	12,300	26,490	
AXS 12-11022	636	44.9	50	154,900	12,400	26,590	
AXS 12-11P22	673	39.6	60	163,900	12,640	26,830	

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.

Models: AXS 12-16122 to AXS 12-16Q22

Double Stack Cooling Towers



	Nominal	ASHRAE	Fan	Air Flow		Weights (LBS)	
Model No.	Tonnage	STD 90.1 (gpm/HP)	Motor (HP)	(CFM)	Shipping	Operating	Heaviest Section ⁺
AXS 12-16122	493	169.8	10	120,500	15,350	36,290	9,220
AXS 12-16J22	557	127.9	15	136,100	15,450	36,390	9,330
AXS 12-16K22	607	104.5	20	148,400	15,510	36,450	9,390
AXS 12-16L22	649	89.4	25	158,700	15,540	36,480	9,420
AXS 12-16M22	686	78.7	30	167,600	15,590	36,530	9,470
AXS 12-16N22	748	64.4	40	182,700	15,780	36,720	9,660
AXS 12-16022	799	55.0	50	195,300	15,880	36,820	9,760
AXS 12-16P22	844	48.5	60	206,300	16,120	37,060	10,000
AXS 12-16Q22	903	41.4	75	220,600	16,230	37,170	10,110

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.

Models: AXS 12-19122 to AXS 12-19Q22

Double Stack Cooling Towers



	Nominal	ASHRAE	Fan	Air Flow		Weights (LBS)	
Model No.	Tonnage	STD 90.1 (gpm/HP)	Motor (HP)	(CFM)	Shipping	Operating	Heaviest Section *
AXS 12-19122	547	187.8	10	127,900	16,410	37,350	9,220
AXS 12-19J22	618	141.4	15	144,400	16,510	37,450	9,330
AXS 12-19K22	674	115.6	20	157,400	16,570	37,510	9,390
AXS 12-19L22	720	98.9	25	168,300	16,600	37,540	9,420
AXS 12-19M22	761	87.0	30	177,800	16,650	37,590	9,470
AXS 12-19N22	829	71.2	40	193,800	16,840	37,780	9,660
AXS 12-19022	887	60.9	50	207,200	16,940	37,890	9,760
AXS 12-19P22	937	53.6	60	218,800	17,180	38,120	10,000
AXS 12-19Q22	1002	45.8	75	234,000	17,290	38,230	10,110

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.

Models: AXS 12-22122 to AXS 12-22R22

Double Stack Cooling Towers



	Nominal	ASHRAE	Fan	Air Flow		Weights (LBS)	
Model No.	Tonnage	STD 90.1 (gpm/HP)	Motor (HP)	(CFM)	Shipping	Operating	Heaviest Section *
AXS 12-22122	576	201.1	10	132,600	18,830	39,770	10,370
AXS 12-22J22	650	151.4	15	149,800	18,930	39,870	10,480
AXS 12-22K22	709	123.8	20	163,300	18,990	39,930	10,540
AXS 12-22L22	758	105.9	25	174,600	19,020	39,960	10,570
AXS 12-22M22	800	93.2	30	184,400	19,070	40,010	10,620
AXS 12-22N22	872	76.2	40	201,000	19,260	40,200	10,810
AXS 12-22022	933	65.2	50	214,900	19,360	40,310	10,910
AXS 12-22P22	985	57.4	60	227,000	19,600	40,540	11,150
AXS 12-22Q22	1053	49.1	75	242,700	19,710	40,650	11,260
AXS 12-22R22	1148	40.1	100	264,600	20,560	41,500	12,110

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.

Models: AXS 14-11H24 to AXS 14-11P24

Single Stack Cooling Towers



	Nominal	ASHRAE	Fan	Air Flow	Weights (LBS)		
Model No.	Tonnage	STD 90.1 (gpm/ HP)	Motor (HP)	(CFM)	Shipping	Operating	
AXS 14-11H24	387	182.7	7.5	104,900	14,270	32,190	
AXS 14-11124	423	149.8	10	114,400	14,330	32,250	
AXS 14-11J24	479	113.2	15	129,200	14,290	32,210	
AXS 14-11K24	524	92.9	20	140,900	14,360	32,270	
AXS 14-11L24	561	79.6	25	150,700	14,540	32,450	
AXS 14-11M24	594	70.2	30	159,200	14,590	32,500	
AXS 14-11N24	650	57.6	40	173,500	14,750	32,670	
AXS 14-11024	696	49.3	50	185,500	14,760	32,680	
AXS 14-11P24	737	43.5	60	195,900	15,000	32,920	

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.

Models: AXS 14-16J24 to AXS 14-16R24

Double Stack Cooling Towers



	Nominal	ASHRAE	Fan	Air Flow		Weights (LBS)	
Model No.	Tonnage	STD 90.1 (gpm/HP)	Motor (HP)	(CFM)	Shipping	Operating	Heaviest Section *
AXS 14-16J24	615	141.8	15	141,100	19,760	46,410	11,660
AXS 14-16K24	671	116.0	20	153,800	19,820	46,470	11,720
AXS 14-16L24	717	99.2	25	164,400	20,000	46,650	11,900
AXS 14-16M24	758	87.3	30	173,600	20,050	46,700	11,950
AXS 14-16N24	826	71.4	40	189,300	20,210	46,860	12,110
AXS 14-16O24	883	61.1	50	202,400	20,220	46,870	12,120
AXS 14-16P24	911	53.7	60	213,800	20,470	47,120	12,360
AXS 14-16Q24	975	46.0	75	228,600	20,630	47,280	12,520
AXS 14-16R24	1062	37.6	100	249,200	21,590	48,240	13,490

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.

Models: AXS 14-19J24 to AXS 14-19R24

Double Stack Cooling Towers



701011711121	015	/0./	50	100,100	21,310	17,750	11,750
AXS 14-19N24	919	79.2	40	202,900	21,470	48,120	12,110
AXS 14-19024	982	67.7	50	217,000	21,480	48,130	12,120
AXS 14-19P24	1014	59.6	60	229,200	21,720	48,370	12,360
AXS 14-19Q24	1085	51.0	75	245,100	21,880	48,530	12,520
AXS 14-19R24	1182	41.7	100	267,200	22,850	49,490	13,490

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.

Models: AXS 14-22J24 to AXS 14-22S24

Double Stack Cooling Towers



	Nominal	ASHRAE	Fan		Weights (LBS)		S)
Model No.	Tonnage	STD 90.1 (gpm/HP)	Motor (HP)	Air Flow (CFM)	Shipping	Operating	Heaviest Section *
AXS 14-22 J24	718	168.1	15	156,000	22,340	48,990	12,590
AXS 14-22K24	783	137.5	20	170,100	22,400	49,050	12,650
AXS 14-22L24	837	117.6	25	181,900	22,580	49,230	12,830
AXS 14-22M24	884	103.5	30	192,100	22,630	49,280	12,880
AXS 14-22N24	964	84.6	40	209,400	22,790	49,440	13,040
AXS 14-22024	1031	72.4	50	223,900	22,800	49,450	13,050
AXS 14-22P24	1089	63.7	60	236,500	23,050	49,700	13,290
AXS 14-22Q24	1164	54.5	75	252,900	23,210	49,860	13,450
AXS 14-22R24	1269	44.6	100	275,700	24,170	50,820	14,420
AXS 14-22S24	1357	38.1	125	294,800	24,710	51,360	14,960

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.

AXS Design Features

Cold Water Basin End Covers

The cold water basin can be provided with removable end covers that protect the end of the basin from dirt, debris and sunlight while still allowing for access under the fill for thorough cleaning.



EVAPAK[®] Crossflow Fill

The UV inhibited PVC fill media in every AXS cooling tower is bottom supported, bonded block fill which maintains its rigidity through years of use. The bottom supported design ensures that the fill will never sag which prevents loss of heat transfer and minimizes the risk of under deposit corrosion due to dirt and debris build up.



Oversized Access Doors

The standard oversized access doors are located on each side wall of the cooling tower for easy, unobstructed access to the plenum area from either side of the cooling tower.



Structural Steel Support

All AXS Models

Suggested I-Beam Arrangement



Longitudinal Steel Support Arrangement



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.

Equipment Layout Guidelines

All AXS Models

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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