

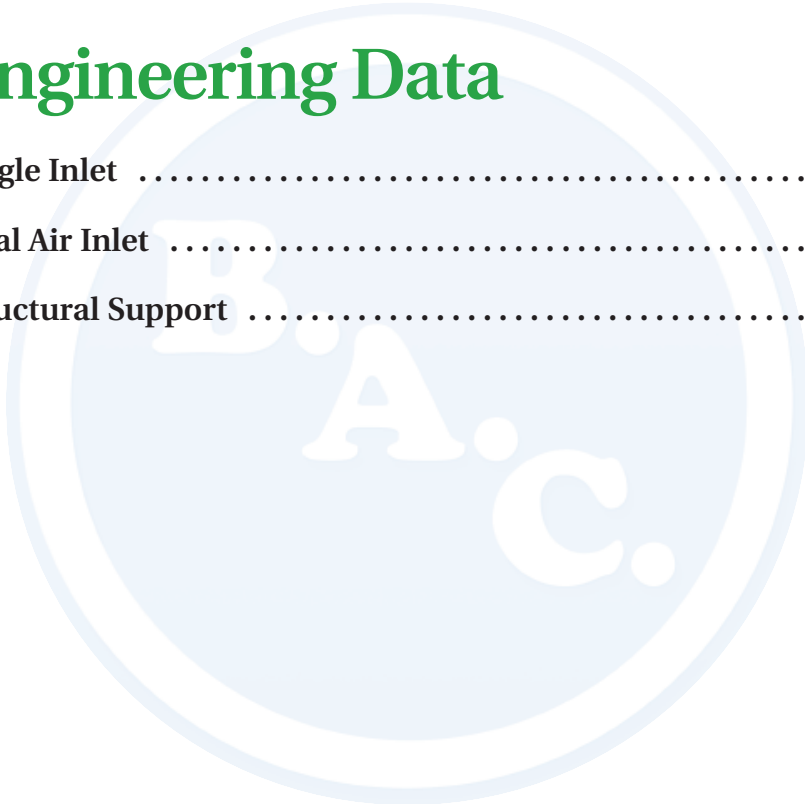
Engineering Data

FXV Closed Circuit Cooling Towers



Engineering Data

Single Inlet	1
Dual Air Inlet	2
Structural Support	5



Engineering Data

Single Air Inlet Models

FXV Engineering Data

Model Number	Nominal Tons ⁵	Motor HP		Weights (lbs)			Dimensions					Connection Sizes ^{2,3}		Spray Pump (GPM)	Internal Coil Volume (GAL)						
		Fan	Pump	Operating ¹	Shipping	Heaviest Section	L	W	H	A	P	Make-Up Water	Coil								
FXV-L421	30	5	1.5	7,730	5,050	2,900	6' 1-1/4"	8' 5-1/4"	13' 2-3/4"	6' 3/4"	1' 3-3/4"	1-1/2"	4"	190	46						
FXV-L422	41	5		8,190	5,370	3,220									60						
FXV-L423	46	5		8,680	5,710	3,560									74						
FXV-L424	55	7.5		9,160	6,050	3,900									88						
FXV-421	33	7.5		7,730	5,050	2,900									46						
FXV-422	46	7.5		8,190	5,370	3,220									60						
FXV-423	52	7.5		8,680	5,710	3,560									74						
FXV-424	59	10		9,160	6,050	3,900									88						
FXV-L431	53	7.5	2	11,230	7,160	4,240	9' 1-1/4"	8' 5-1/4"	13' 2-3/4"	6' 3/4"	1' 4-1/4"	1-1/2"	4"	290	69						
FXV-L432	68	7.5		11,930	7,650	4,730									90						
FXV-L433	75	7.5		12,630	8,140	5,220									112						
FXV-L434	86	10		13,380	8,680	5,760									133						
FXV-431	57	10		11,230	7,160	4,240									69						
FXV-432	73	10		11,930	7,650	4,730									90						
FXV-433	81	10		12,630	8,140	5,220									112						
FXV-434	95	15		13,380	8,680	5,760									133						
FXV-L441	83	10	3	14,200	8,760	5,120	12' 1-1/4"	8' 5-1/4"	13' 2-3/4"	6' 3/4"	1' 8-1/4"	1-1/2"	4"	500	91						
FXV-L442	100	10		15,150	9,410	5,770									120						
FXV-L443	110	10		16,080	10,060	6,420									149						
FXV-L444	130	15		17,070	10,770	7,130									178						
FXV-441	92	15		14,200	8,760	5,120									91						
FXV-442	111	15		15,150	9,410	5,770									120						
FXV-443	122	15		16,080	10,060	6,420						149									
FXV-444	140	20		17,070	10,770	7,130						178									
FXV-LQ440	79	10		15,150	9,410	5,770						124									
FXV-LQ441	116	15		17,070	10,770	7,130						182									
FXV-Q440	88	15		15,150	9,410	5,770						124									
FXV-Q441	125	20		17,070	10,770	7,130						182									
FXV-L641	126	15	5	18,560	10,890	6,730	12' 1-1/4"	11' 10"	15' 10-3/4"	8' 8-3/4"	1' 8-3/4"	1-1/2"	4"	715	146						
FXV-L642	154	15		20,050	11,930	7,770									192						
FXV-L643	169	15		21,550	12,980	8,820									238						
FXV-L644	193	20		23,050	14,040	9,880									284						
FXV-641	144	25		18,560	10,890	6,730									146						
FXV-642	175	25		20,050	11,930	7,770									192						
FXV-643	193	25		21,550	12,980	8,820									238						
FXV-644	215	30		23,050	14,040	9,880									284						
FXV-LT642	169	15		21,550	12,980	8,820						284									
FXV-T642	192	25		21,650	13,080	8,920						284									
FXV-LQ640	118	15		20,050	11,930	7,770						194									
FXV-LQ641	168	20		23,050	14,040	9,880						286									
FXV-Q640	134	25		20,050	11,930	7,770						194									
FXV-Q641	186	30		23,050	14,040	9,880						286									
FXV-L661	202	22.5		7.5	27,070	15,510						9,690	18' 1-1/4"	11' 10"	16' 4-1/4"	9' 2-1/4"	2' 3/8"	1-1/2"	4"	900	218
FXV-L662	234	22.5			29,290	17,070						11,250									288
FXV-L663	257	22.5	31,570		18,670	12,850	358														
FXV-L664	297	30	33,810		20,280	14,460	429														
FXV-661	231	40	27,070		15,510	9,690	218														
FXV-662	267	40	29,290		17,070	11,250	288														
FXV-663	295	40	31,570		18,670	12,850	358														
FXV-664	331	45	33,810		20,280	14,460	429														
FXV-LT662	263	22.5	33,790		20,260	14,440	429														
FXV-T662	297	40	33,810		20,280	14,460	429														
FXV-LQ660	189	22.5	29,290		17,070	11,250	299														
FXV-LQ661	269	30	33,810		20,280	14,460	439														
FXV-Q660	215	40	29,290		17,070	11,250	299														
FXV-Q661	299	45	33,810		20,280	14,460	439														

Do not use for construction. Refer to factory certified dimensions.



Engineering Data

Dual Air Inlet Models

FXV Engineering Data

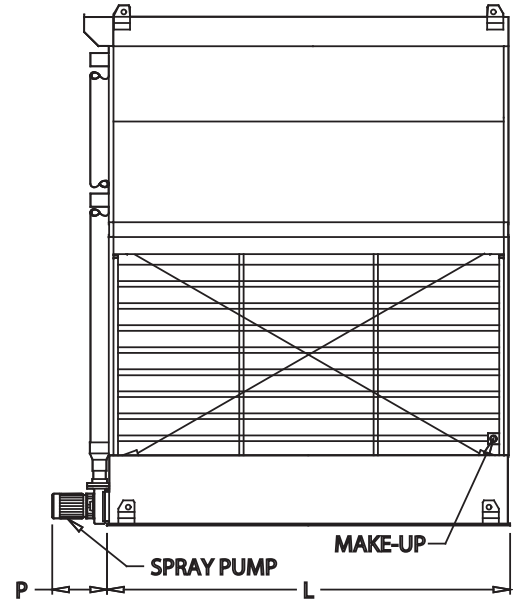
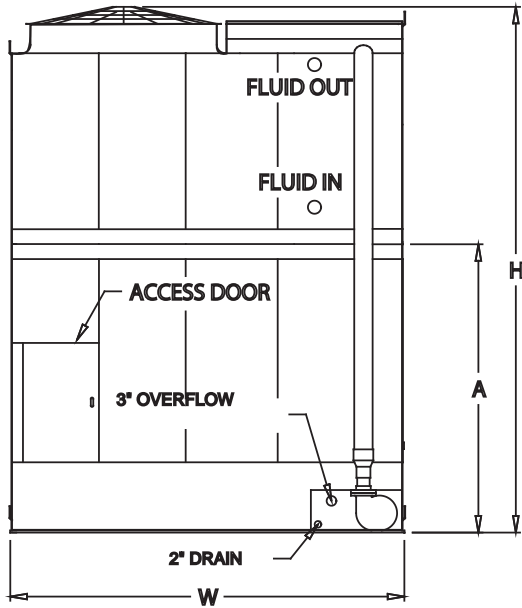
Model Number	Nominal Tons ⁵	Motor HP		Weights (lbs)			Dimensions			Spray Pump (GPM)	Internal Coil Volume (GAL)
		Fan	Pump	Operating ¹	Shipping	Heaviest Section	L	W	H		
FXV-288-31M	344	20	15	46,000	27,680	8,050	11' 11"	24' 1/2"	18' 10-3/8"	1,720	600
FXV-288-31N	367	25		46,030	27,710	8,050					600
FXV-288-31O	386	30		46,080	27,760	8,050					600
FXV-288-31P	419	40		46,240	27,920	8,050					600
FXV-288-31Q	445	50		46,250	27,930	8,050					600
FXV-288-31R	468	60		46,465	28,145	8,050					600
FXV-288-41M	364	20		49,690	30,440	9,430					712
FXV-288-41N	389	25		49,720	30,470	9,430					712
FXV-288-41O	412	30		49,770	30,520	9,430					712
FXV-288-41P	448	40		49,930	30,680	9,430					712
FXV-288-41Q	478	50		49,940	30,690	9,430					712
FXV-288-41R	502	60		50,155	30,905	9,430					712
FXV-288-2TM	349	20		49,690	30,440	9,430					712
FXV-288-2TN	372	25		49,720	30,470	9,430					712
FXV-288-2TO	392	30		49,770	30,520	9,430					712
FXV-288-2TP	424	40		49,930	30,680	9,430					712
FXV-288-2TQ	449	50		49,940	30,690	9,430					712
FXV-288-2TR	470	60		50,155	30,905	9,430					712
FXV-288-1QM	325	20		49,690	30,440	9,430					706
FXV-288-1QN	347	25		49,720	30,470	9,430					706
FXV-288-1QO	365	30	49,770	30,520	9,430	706					
FXV-288-1QP	394	40	49,930	30,680	9,430	706					
FXV-288-1QQ	418	50	49,940	30,690	9,430	706					
FXV-288-1QR	439	60	50,160	30,910	9,430	706					
FXV-364-31N	442	25	15	53,900	31,630	9,390	13' 11-1/8"	26' 3-1/2"	1,720	696	
FXV-364-31O	463	30		53,950	31,680	9,390				696	
FXV-364-31P	496	40		54,110	31,840	9,390				696	
FXV-364-31Q	525	50		54,120	31,850	9,390				696	
FXV-364-31R	550	60		54,335	32,065	9,390				696	
FXV-364-31S	579	75		54,435	32,165	9,390				696	
FXV-364-41N	464	25		58,260	34,910	11,030				828	
FXV-364-41O	489	30		58,310	34,960	11,030				828	
FXV-364-41P	530	40		58,470	35,120	11,030				828	
FXV-364-41Q	561	50		58,480	35,130	11,030				828	
FXV-364-41R	589	60		58,695	35,345	11,030				828	
FXV-364-41S	624	75		58,795	35,445	11,030				828	
FXV-364-2TN	443	25		58,260	34,910	11,030				828	
FXV-364-2TO	463	30		58,310	34,960	11,030				828	
FXV-364-2TP	498	40		58,470	35,120	11,030				828	
FXV-364-2TQ	526	50		58,480	35,130	11,030				828	
FXV-364-2TR	549	60		58,695	35,345	11,030				828	
FXV-364-2TS	574	75		58,795	35,445	11,030				828	
FXV-364-1QN	420	25		58,260	34,910	11,030				862	
FXV-364-1QO	442	30		58,310	34,960	11,030				862	
FXV-364-1QP	472	40	58,470	35,120	11,030	862					
FXV-364-1QQ	499	50	58,480	35,130	11,030	862					
FXV-364-1QR	522	60	58,700	35,350	11,030	862					
FXV-364-1QS	550	70	58,800	35,450	11,030	862					

Notes:

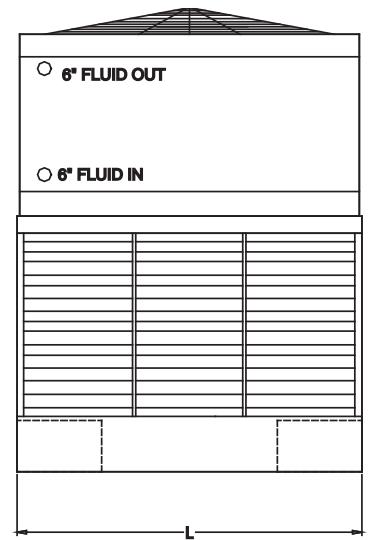
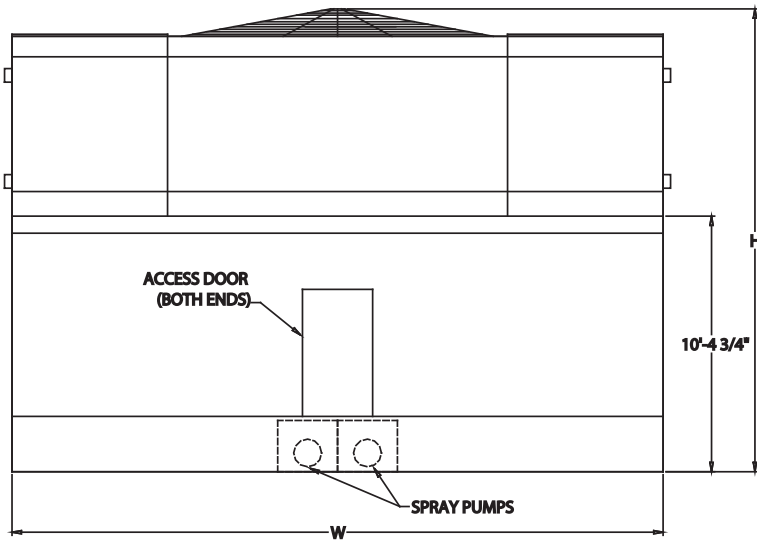
- Operating weight is for the tower with the water level in the cold water basin at the overflow.
- The actual size of the inlet and outlet connection may vary with the design flow rate. Consult unit print for dimensions.
- Inlet and outlet connections are beveled for welding.
- Standard make-up, drain and overflow connections are located on the bottom of the unit. Make-up connection is 1-1/2" MPT standpipe, drain is 2" FPT and overflow is 3" FPT. On single air-inlet models, standard make-up, drain and overflow connections are MPT.
- Models shipped with an optional gear drive or low sound fan may have heights up to 10.5" greater than shown. Models with Whisper Quiet Fans may have heights up to 5-1/2" greater than shown.
- Nominal tons of cooling represents 3 GPM of water cooled from 95°F to 85°F at a 78°F entering wet-bulb temperature.
- For FXV-44xx, the riser pipe diameter is 4". For FXV-6xx and all dual air inlet models, the riser pipe is 6".
- Dimensional reference drawings.



Dimensional Reference Drawings



Single Air Inlet Models



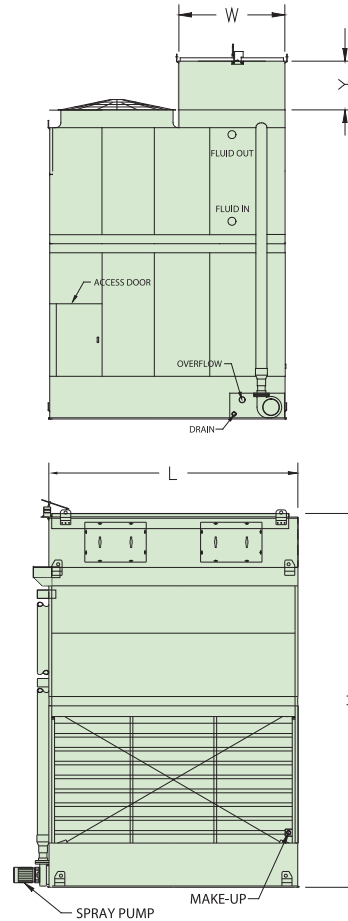
Dual Air Inlet Models

Engineering Data: Cold Weather Operation

FXV Heat Loss Data (BTUH)

FXV Engineering Data

Model Number	Standard Unit	Unit w/ PCD Hood	Unit w/ PCD Hood & Insulation
FXV-421	68,400	43,500	30,100
FXV-422	87,100	47,100	32,300
FXV-423	105,200	50,500	34,700
FXV-424	122,400	54,000	37,000
FXV-431	102,800	60,800	43,200
FXV-432	131,200	65,600	46,500
FXV-433	158,000	70,600	49,600
FXV-434	183,000	74,900	52,800
FXV-441	135,700	76,700	55,200
FXV-442	172,900	82,100	59,100
FXV-443	208,000	87,600	62,900
FXV-444	241,000	92,900	66,500
FXV-Q440	172,900	82,100	59,100
FXV-Q441	241,000	92,900	66,500
FXV-641	203,400	103,800	75,300
FXV-642	259,800	109,700	79,300
FXV-643	313,100	115,600	83,200
FXV-644	362,900	121,300	86,900
FXV-T642	362,900	121,300	86,900
FXV-Q640	259,800	109,700	79,300
FXV-Q641	362,900	121,300	86,900
FXV-661	304,500	158,200	118,000
FXV-662	387,500	165,500	123,000
FXV-663	404,700	172,400	127,600
FXV-664	536,900	179,100	132,200
FXV-T662	536,900	179,100	132,200
FXV-Q660	387,500	165,500	123,000
FXV-Q661	536,900	179,100	132,200
FXV-288-31x	760,200	280,700	202,000
FXV-288-41x	881,100	294,500	211,000
FXV-288-2TX	881,100	294,500	211,000
FXV-288-1Qx	881,100	294,500	211,000
FXV-364-31x	894,000	330,100	237,600
FXV-364-41x	1,036,200	346,400	248,100
FXV-364-2TX	1,036,200	346,400	248,100
FXV-364-1Qx	1,036,200	346,400	248,100



Notes:

- Heat loss based on 50°F entering coil water and -10°F ambient with 45 MPH wind (fans and pump off).
- One inch thick PVC nitrile rubber blend thermal insulation on both the PCD hood and the casing panels surrounding the coil.

Dimensional Data of Positive Closure Damper Hood

Model Number	Hood Ship. Weight (lbs.)	Operating Weight Add (lbs.)	Length (L)	Width (W)	Hood Height (Y)	Unit Height (H)
FXV-42x	390	320	5' 11-7/8"	3' 5-1/4"	2' 5-1/8"	15' 1-3/4"
FXV-43x	540	430	8' 11-7/8"	3' 5-1/4"	2' 5-1/8"	15' 1-3/4"
FXV-44x	720	570	11' 11-7/8"	3' 5-1/4"	2' 5-1/8"	15' 1-3/4"
FXV-64x	1,160	920	11' 11-7/8"	5' 3-1/2"	2' 5-1/8"	17' 9-3/4"
FXV-66x	1,650	1,300	17' 11-7/8"	5' 3-1/2"	2' 5-1/8"	17' 9-3/4"
FXV-288-xxx	1,300	1,040	11' 11"	6' 3-3/8"	2' 5-1/8"	20' 2-5/8"
FXV-364-xxx	1,500	1,200	13' 11-1/8"	6' 3-3/8"	2' 5-1/8"	20' 2-5/8"

Notes:

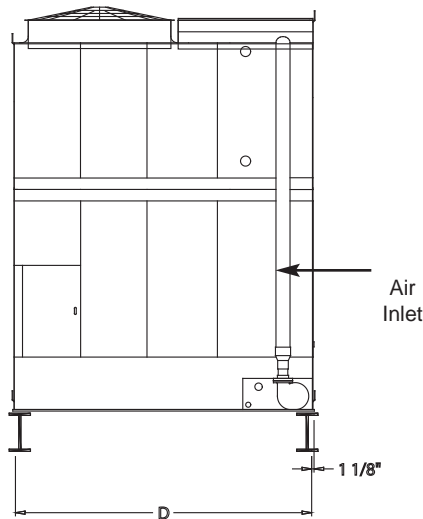
- Hood shipping weight includes shipping skid weight.



Structural Support

The recommended support arrangement for FXV Closed Circuit Cooling Towers consists of parallel I-beams positioned as shown on the drawings. Besides providing adequate support, the steel also serves to raise the unit above any solid foundation to assure access to the bottom of the tower. Alternate steel support designs include a cantilevered plan as indicated by the optional minimum "D" dimension in the table below. To support an FXV on columns or in an alternate arrangement not shown here, consult your local BAC Representative.

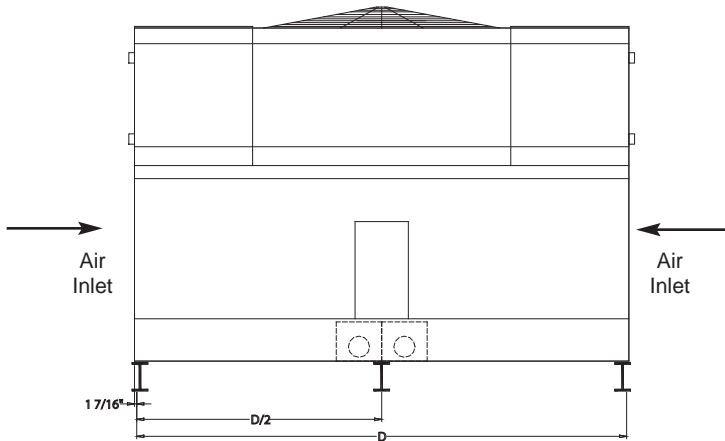
Single Air Inlet



Model Number	D	Optional Minimum D*	Maximum Deflection
FXV - 42x	8' 3"	5' 9"	3/16"
FXV - 43x	8' 3"	5' 9"	5/16"
FXV - 44x	8' 3"	5' 9"	3/8"
FXV - 64x	11' 7-3/4"	8' 0"	3/8"
FXV - 66x	11' 7-3/4"	8' 0"	1/2"

*When unit is supported with a cantilever plan, the side opposite the air inlet shall be cantilevered.

Dual Air Inlet



Model Number	D	Maximum Deflection
FXV-288-xxx	23' 9-1/8"	1/2"
FXV-364-xxx	26' 0-5/8"	1/2"

Notes:

- Support steel and anchor bolts to be designed and furnished by others.
- All support steel must be level at the top.
- Beams must be selected in accordance with accepted structural practice. Maximum deflection of beam under unit to be 1/360 of span, not to exceed 1/2 inch.
- If vibration isolation rails are to be used between the unit and supporting steel, be certain to allow for the length of the vibration rails (by others) when determining the length of the supporting steel, as vibration rail length and mounting hole locations may differ from those of the unit.
- If point vibration isolation is used with multi-cell units, the isolators must be located under the support steel, not between the support steel and the closed circuit cooling towers.