

Phoenix PL™

All-Fiberglass Counterflow
Heavy-Duty Modular Cooling Tower

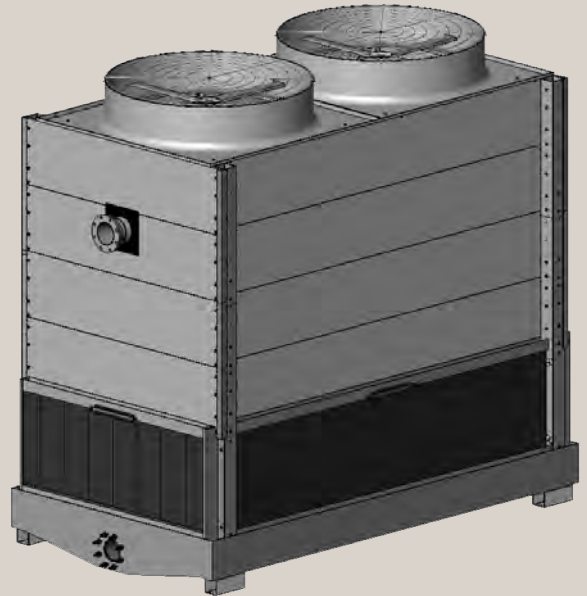
We do things differently and it makes all the difference for you.™

Phoenix PL

Ideal for small footprint, low-capacity applications

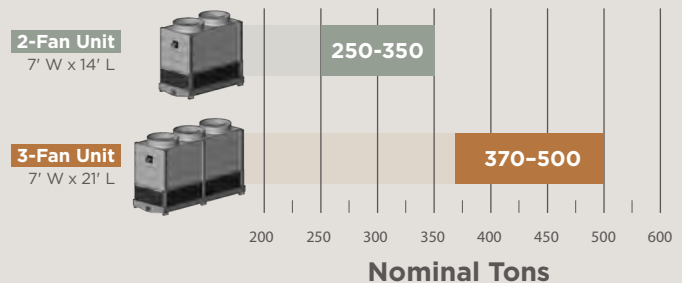
The CCS Phoenix PL is the modular version of the Phoenix fiberglass cooling tower, providing the same exceptional Phoenix value and performance, along with rapid installation, low lifetime maintenance, and a 50-year life expectancy.

The Phoenix PL features single-point electrical and piping connections as well as state-of-the-art direct drive system for each fan. The Phoenix PL is the perfect cooling tower for owners and operators with greywater, high TSS levels or high cycles of concentration. FM Approval is available depending on the application.



Thermal Capacities

The Phoenix PL is available in three different box sizes, with fill options that meet your performance demands and accommodate a wide range of water quality environments.



A 7' W x 7' L 120-140 ton single-fan unit is also available.

Available Options

- Fill type options for different water quality environments
- Basin heater
- Mechanical or electronic water level controller
- 316 stainless steel column anchors
- Single-point electrical connection

ISO 9001:2015



Five-year CCS-direct warranty from fan to basin and everything in between.



The Phoenix PL can be configured to be FM Approved per Approvals Class 4930.



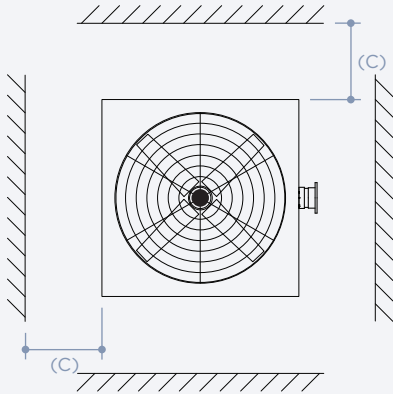
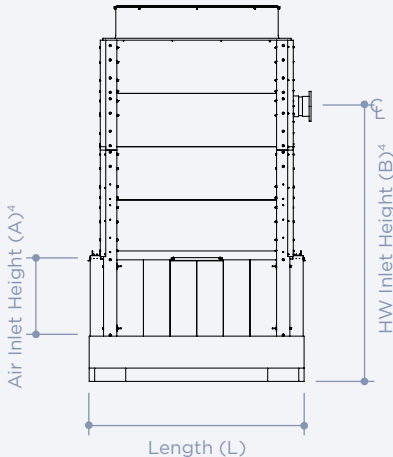
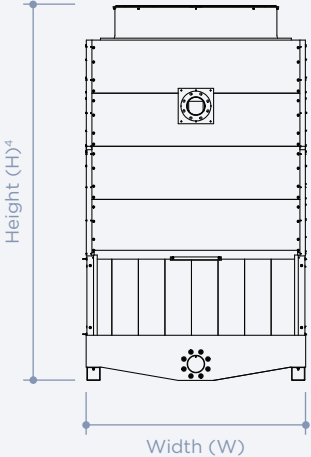
Manufacturers published thermal performance is certified by the Cooling Technology Institute under the provisions of STD-201 (15).
Certification Validation Number: C79B-20R00

The Phoenix PL is ideal for heavy duty applications.



Phoenix PL™ Engineering Data

Phoenix PL 1-Fan Unit



Distance from Obstruction

This information is intended for guidelines and preliminary information only. Do not use for construction. Adequate clearance for air supply must be maintained around the tower. Consult your CCS representative for assistance.

Model No.	Water Quality			Nominal Tons ¹	Motor HP	Weights ²		Dimensions ³							
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C		
1S-PLC-0707-1001-G3	●			123	10										
1S-PLC-0707-1001-D3		●		123	10										
1S-PLC-0707-1001-F3			●	130	10	4,525	11,300	8'-7/8"	8'-3 1/4"	14'-1"	3'-0"	10'-4"	3'-0"		
1S-PLC-0707-1501-G3	●			135	15										
1S-PLC-0707-1501-D3		●		137	15										
1S-PLC-0707-1501-F3			●	147	15										

1. Based on 3 GPM per ton at 95°F-85°F-78°F, ASL.

2. Weights and loads are in pounds.

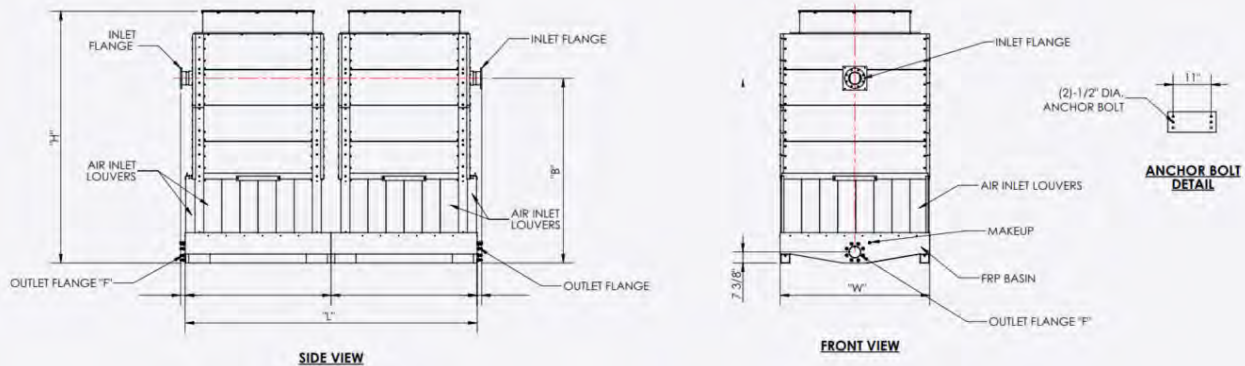
3. All dimensions are nominal.

4. From bottom of basin support to top of fan stack.

Phoenix PL 1-Fan Unit Configuration

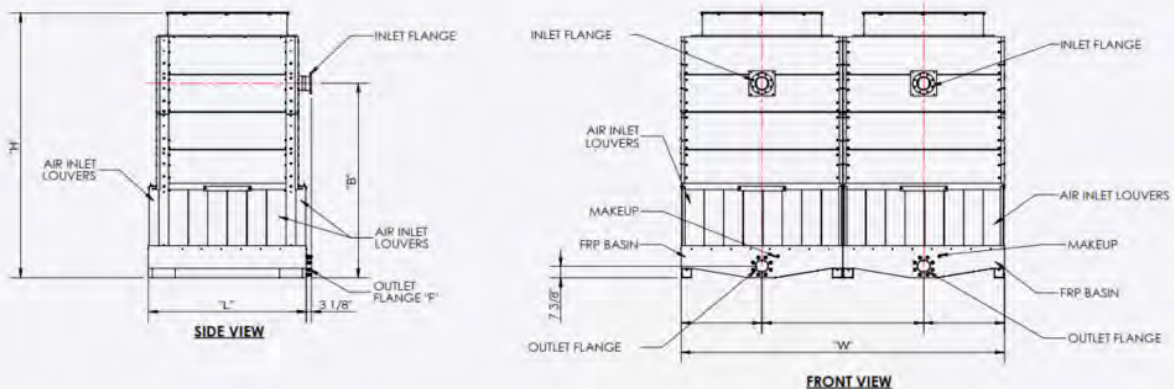
Inline

Model No.	Water Quality			Nominal Ton ¹	Total HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
2I-PLC0707-1001-G3	x			248	20	9,050	22,600	16'-1 3/4"	8'-3 1/4"	14'-1"	3'	10'-4"	3'
2I-PLC0707-1001-D3		x		245	20								
2I-PLC0707-1001-F3			x	261	30								
2I-PLC0707-1501-D3		x		274	20								
2I-PLC0707-1501-F3			x	294	30								



Back to Back

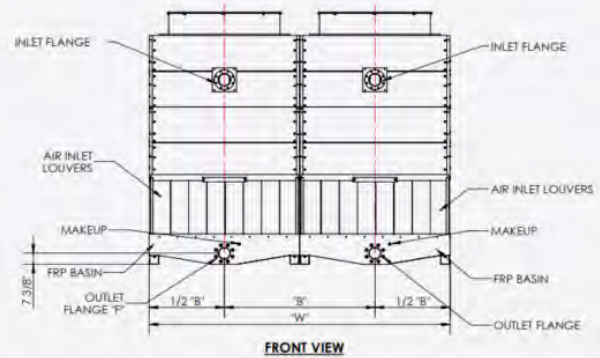
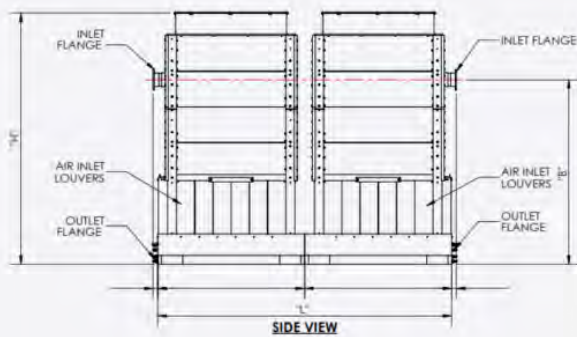
Model No.	Water Quality			Nominal Ton ¹	Total HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
2B-PLC0707-1001-G3	x			248	20	9,050	22,600	8'-7/8"	16'-6 1/2"	14'-1"	3'	10'-4"	3'
2B-PLC0707-1001-D3		x		245	20								
2B-PLC0707-1001-F3			x	261	30								
2B-PLC0707-1501-D3		x		274	20								
2B-PLC0707-1501-F3			x	294	30								



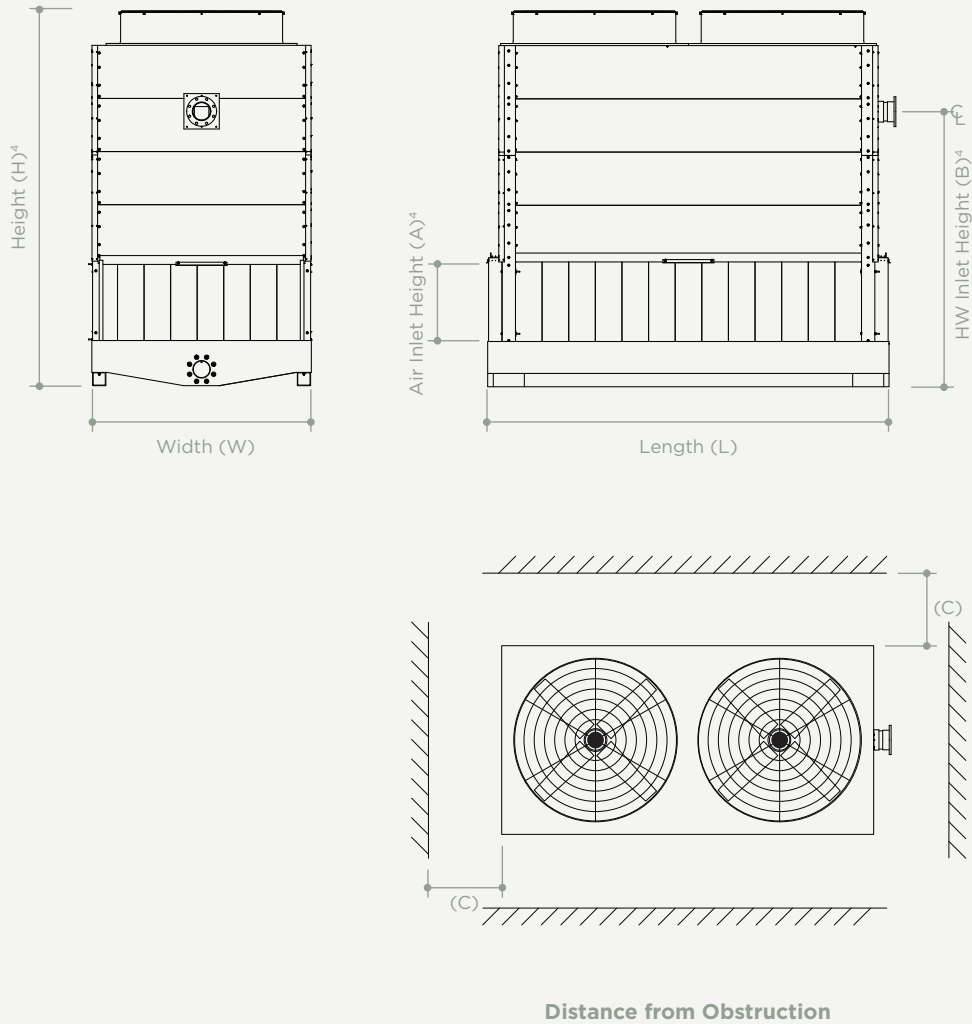
Phoenix PL 1-Fan Unit

Quad

Model No.	Water Quality			Nominal Ton ¹	Total HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
4Q-PLC0707-1001-G3	x			487	40	18,100	45,200	16'-1 3/4"	16'-6 1/2"	14'-1"	3'	10'-4"	3'
4Q-PLC0707-1001-D3		x		478	40								
4Q-PLC0707-1001-F3			x	515	40								
4Q-PLC0707-1501-D3		x		547	60								
4Q-PLC0707-1501-F3			x	580	60								



Phoenix PL 2-Fan Unit



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Model No.	Water Quality			Nominal Tons ¹	Motor HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
1S-PLC-0714-2002-G3	●			251	20	6,240	19,815	15'-7/8"	8'-3 1/4"	14'-1"	3'-0"	10'-4"	3'-0"
1S-PLC-0714-2002-D3		●		248	20								
1S-PLC-0714-2002-F3			●	262	20								
1S-PLC-0714-2502-G3	●			269	25								
1S-PLC-0714-2502-D3		●		267	25								
1S-PLC-0714-2502-F3			●	280	25								
1S-PLC-0714-2002-G4	●			279	20	6,425	20,450	15'-7/8"	8'-3 1/4"	14'-1"	3'-0"	10'-4"	3'-0"
1S-PLC-0714-2002-D4		●		274	20								
1S-PLC-0714-2002-F4			●	282	20								
1S-PLC-0714-2502-G4	●			299	25								
1S-PLC-0714-2502-D4		●		294	25								
1S-PLC-0714-2502-F4			●	301	25								
1S-PLC-0714-3002-G4	●			316	30	6,875	21,325	15'-7/8"	8'-3 1/4"	16'-1"	3'-0"	12'-4"	3'-0"
1S-PLC-0714-3002-D4		●		312	30								
1S-PLC-0714-3002-F4			●	317	30								
1S-PLC-0714-2002-G5	●			296	20								
1S-PLC-0714-2002-D5		●		288	20								
1S-PLC-0714-2002-F5			●	291	20								
1S-PLC-0714-2502-G5	●			317	25	7,020	21,910	15'-7/8"	8'-3 1/4"	16'-1"	3'-0"	12'-4"	3'-0"
1S-PLC-0714-2502-D5		●		309	25								
1S-PLC-0714-2502-F5			●	310	25								
1S-PLC-0714-3002-G5	●			335	30								
1S-PLC-0714-3002-D5		●		328	30								
1S-PLC-0714-3002-F5			●	327	30								
1S-PLC-0714-2002-G6	●			306	20	7,020	21,910	15'-7/8"	8'-3 1/4"	16'-1"	3'-0"	12'-4"	3'-0"
1S-PLC-0714-2002-D6		●		296	20								
1S-PLC-0714-2002-F6			●	295	20								
1S-PLC-0714-2502-G6	●			328	25								
1S-PLC-0714-2502-D6		●		318	25								
1S-PLC-0714-2502-F6			●	315	25								
1S-PLC-0714-3002-G6	●			347	30	7,020	21,910	15'-7/8"	8'-3 1/4"	16'-1"	3'-0"	12'-4"	3'-0"
1S-PLC-0714-3002-D6		●		337	30								
1S-PLC-0714-3002-F6			●	332	30								

1. Based on 3 GPM per ton at 95°F-85°F-78°F, ASL.

2. Weights and loads are in pounds.

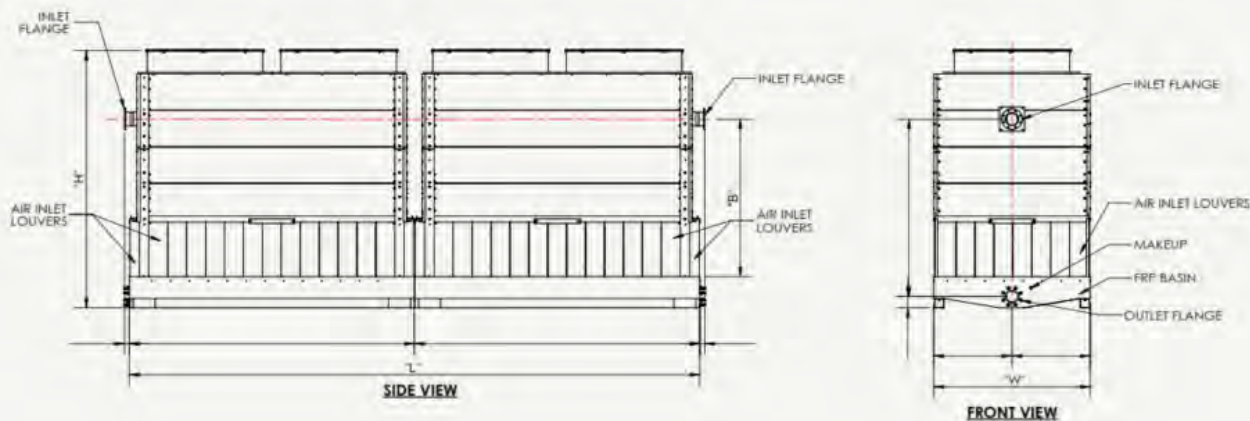
3. All dimensions are nominal.

4. From bottom of basin support to top of fan stack.

Phoenix PL 2-Fan Unit Configurations

Inline

Model No.	Water Quality			Nominal Ton ¹	Total HP	Weights ²		Dimensions ³						
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C	
2I-PLC0714-2002-G3	x			500	40	12,480	39,630	30'-1 3/4"	8'-3 1/4"	14'-1"	3'	10'-4"	3'	
2I-PLC0714-2002-D3		x		494	40									
2I-PLC0714-2002-F3			x	526	40									
2I-PLC0714-2502-G3	x			536	50									
2I-PLC0714-2502-D3		x		530	50									
2I-PLC0714-2502-F3			x	561	50									
2I-PLC0714-2002-G4	x			555	40	12850	40900	30'-1 3/4"	8'-3 1/4"	14'-1"	3'	10'-4"	3'	
2I-PLC0714-2002-D4		x		544	40									
2I-PLC0714-2002-F4			x	564	40									
2I-PLC0714-2502-G4	x			595	50									
2I-PLC0714-2502-D4		x		585	50									
2I-PLC0714-2502-F4			x	603	50									
2I-PLC0714-3002-G4	x			630	60	13,750	42,650	30'-1 3/4"	8'-3 1/4"	16'-1"	3'	12'-4"	3'	
2I-PLC0714-3002-D4		x		620	60									
2I-PLC0714-3002-F4			x	636	60									
2I-PLC0714-2002-G5	x			589	40									
2I-PLC0714-2002-D5		x		574	40									
2I-PLC0714-2002-F5			x	584	40									
2I-PLC0714-2502-G5	x			632	50	14040	43820	30'-1 3/4"	8'-3 1/4"	16'-1"	3'	12'-4"	3'	
2I-PLC0714-2502-D5		x		616	50									
2I-PLC0714-2502-F5			x	623	50									
2I-PLC0714-3002-G5	x			669	60									
2I-PLC0714-3002-D5		x		653	60									
2I-PLC0714-3002-F5			x	657	60									
2I-PLC0714-2002-G6	x			610	40	14040	43820	30'-1 3/4"	8'-3 1/4"	16'-1"	3'	12'-4"	3'	
2I-PLC0714-2002-D6		x		590	40									
2I-PLC0714-2002-F6			x	592	40									
2I-PLC0714-2502-G6	x			654	50									
2I-PLC0714-2502-D6		x		634	50									
2I-PLC0714-2502-F6			x	632	50									
2I-PLC0714-3002-G6	x			692	60	14040	43820	30'-1 3/4"	8'-3 1/4"	16'-1"	3'	12'-4"	3'	
2I-PLC0714-3002-D6		x		672	60									
2I-PLC0714-3002-F6			x	666	60									

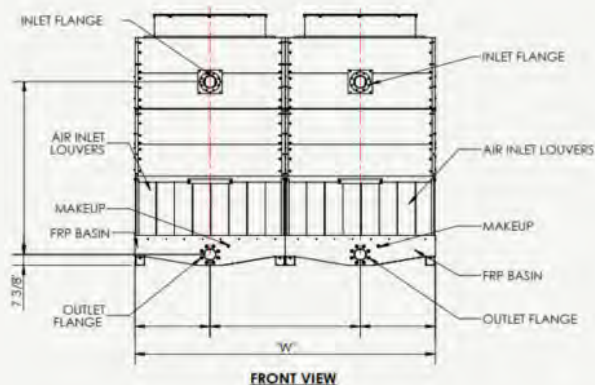
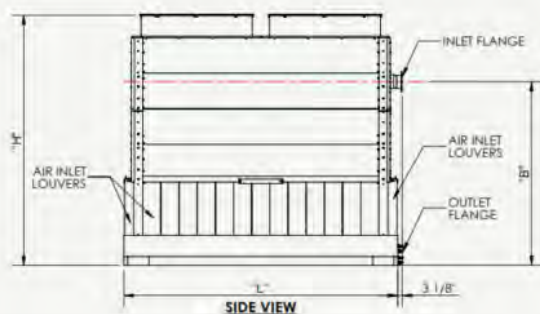


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Phoenix PL 2-Fan Unit Configurations

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Model No.	Water Quality			Nominal Ton ¹	Total HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
2B-PLC0714-2002-G3	x			488	40	12,480	39,630						
2B-PLC0714-2002-D3		x		482	40								
2B-PLC0714-2002-F3			x	516	40								
2B-PLC0714-2502-G3	x			524	50								
2B-PLC0714-2502-D3		x		518	50								
2B-PLC0714-2502-F3			x	551	50								
2B-PLC0714-2002-G4	x			546	40	12850	40900	15'-7/8"	16'-6 1/2"	14'-1"	3'	10'-4"	3'
2B-PLC0714-2002-D4		x		536	40								
2B-PLC0714-2002-F4			x	561	40								
2B-PLC0714-2502-G4	x			586	50								
2B-PLC0714-2502-D4		x		576	50								
2B-PLC0714-2502-F4			x	596	50								
2B-PLC0714-3002-G4	x			620	60	13,750	42,650						
2B-PLC0714-3002-D4		x		610	60								
2B-PLC0714-3002-F4			x	628	60								
2B-PLC0714-2002-G5	x			582	40								
2B-PLC0714-2002-D5		x		567	40								
2B-PLC0714-2002-F5			x	578	40								
2B-PLC0714-2502-G5	x			624	50	14040	43820	15'-7/8"	16'-6 1/2"	16'-1"	3'	12'-4"	3'
2B-PLC0714-2502-D5		x		608	50								
2B-PLC0714-2502-F5			x	617	50								
2B-PLC0714-3002-G5	x			660	60								
2B-PLC0714-3002-D5		x		645	60								
2B-PLC0714-3002-F5			x	651	60								
2B-PLC0714-2002-G6	x			604	40								
2B-PLC0714-2002-D6		x		584	40								
2B-PLC0714-2002-F6			x	587	40								
2B-PLC0714-2502-G6	x			647	50								
2B-PLC0714-2502-D6		x		628	50								
2B-PLC0714-2502-F6			x	627	50								
2B-PLC0714-3002-G6	x			685	60								
2B-PLC0714-3002-D6		x		665	60								
2B-PLC0714-3002-F6			x	662	60								

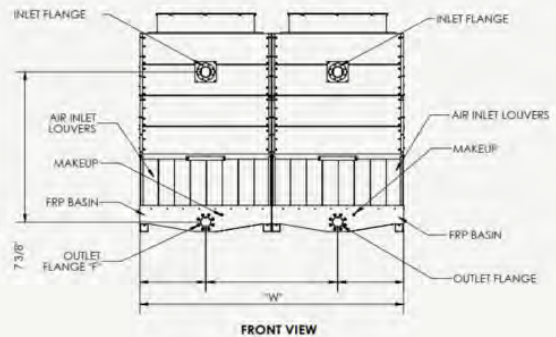
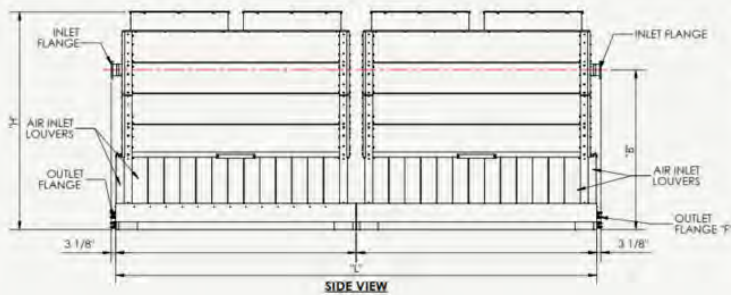


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Phoenix PL 2-Fan Unit Configurations

Quad

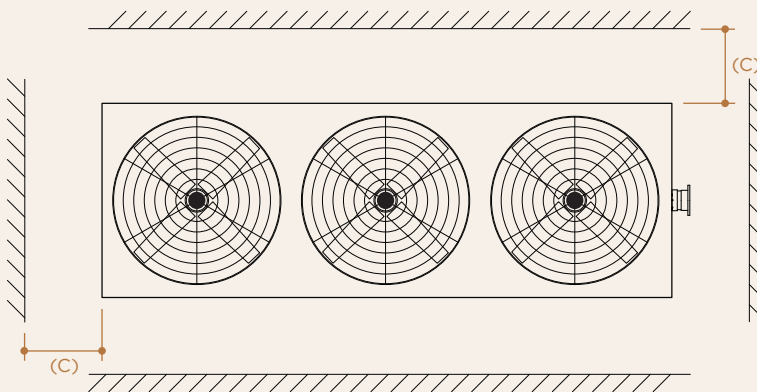
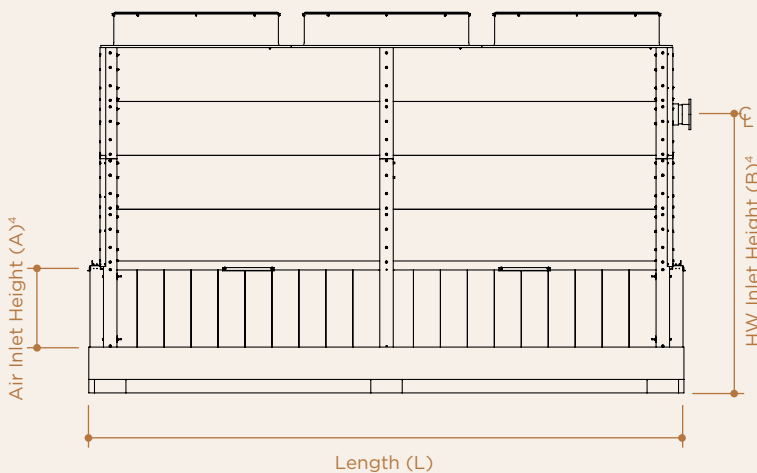
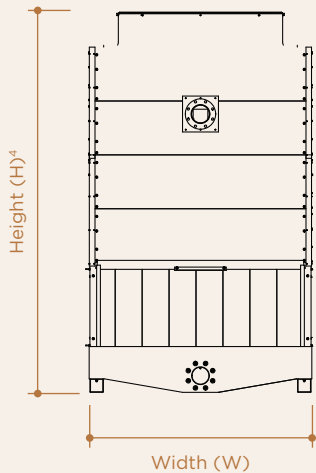
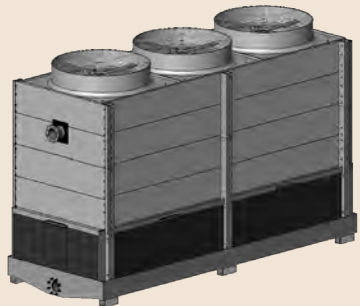
Model No.	Water Quality			Nominal Ton ¹	Total HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
4Q-PLC0714-2002-F3			x	1027	80	25,700	81,800	30'-1 3/4"	16'-6 1/2"	14'-1"	3'	10'-4"	3'
4Q-PLC0714-2002-D4		x		1055	80								
4Q-PLC0714-2002-F4			x	1106	80								
4Q-PLC0714-2502-F4			x	1182	100	27,500	85,300	30'-1 3/4"	16'-6 1/2"	16'-1"	3'	12'-4"	3'
4Q-PLC0714-2002-G5	x			1143	80								
4Q-PLC0714-2002-D5		x		1116	80								
4Q-PLC0714-2002-F5			x	1146	80	28080	87640	30'-1 3/4"	16'-6 1/2"	16'-1"	3'	12'-4"	3'
4Q-PLC0714-2502-F5			x	1223	100								
4Q-PLC0714-3002-F5			x	1291	120								
4Q-PLC0714-2002-G6	x			1194	80	28080	87640	30'-1 3/4"	16'-6 1/2"	16'-1"	3'	12'-4"	3'
4Q-PLC0714-2002-D6		x		1152	80								
4Q-PLC0714-2002-F6			x	1163	80								
4Q-PLC0714-2502-D6		x		1238	100								
4Q-PLC0714-2502-F6			x	1242	100								
4Q-PLC0714-3002-F6			x	1311	120								



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Phoenix PL 3-Fan Unit



Distance from Obstruction

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Model No.	Water Quality			Nominal Tons ¹	Motor HP	Weights		Dimensions ³								
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C			
1S-PLC-0721-3003-G3	●			374	30											
1S-PLC-0721-3003-D3		●		370	30	8,735	29,100									
1S-PLC-0721-3003-F3			●	391	30											
1S-PLC-0721-3003-G4	●			416	30											
1S-PLC-0721-3003-D4		●		408	30			22'-7/8"	8'-3 1/4"	14'-1"	3'-0"	10'-4"	3'-0"			
1S-PLC-0721-3003-F4			●	421	30											
1S-PLC-0721-4503-G4	●			472	45	9,025	30,050									
1S-PLC-0721-4503-D4		●		465	45											
1S-PLC-0721-4503-F4			●	474	45											
1S-PLC-0721-3003-G5	●			441	30											
1S-PLC-0721-3003-D5		●		431	30											
1S-PLC-0721-3003-F5			●	435	30	9,730	31,415									
1S-PLC-0721-4503-G5	●			501	45											
1S-PLC-0721-4503-D5		●		490	45											
1S-PLC-0721-4503-F5			●	490	45											
1S-PLC-0721-3003-G6	●			457	30			22'-7/8"	8'-3 1/4"	16'-1"	3'-0"	12'-4"	3'-0"			
1S-PLC-0721-3003-D6		●		443	30											
1S-PLC-0721-3003-F6			●	441	30											
1S-PLC-0721-4503-G6	●			519	45	10,030	32,375									
1S-PLC-0721-4503-D6		●		504	45											
1S-PLC-0721-4503-F6			●	496	45											

1. Based on 3 GPM per ton at 95°F-85°F-78°F, ASL.

2. Weights and loads are in pounds.

3. All dimensions are nominal.

4. From bottom of basin support to top of fan stack.

Water Quality – Why It Matters

Greywater? High TSS levels? No Problem. The Phoenix PL can handle all of them!

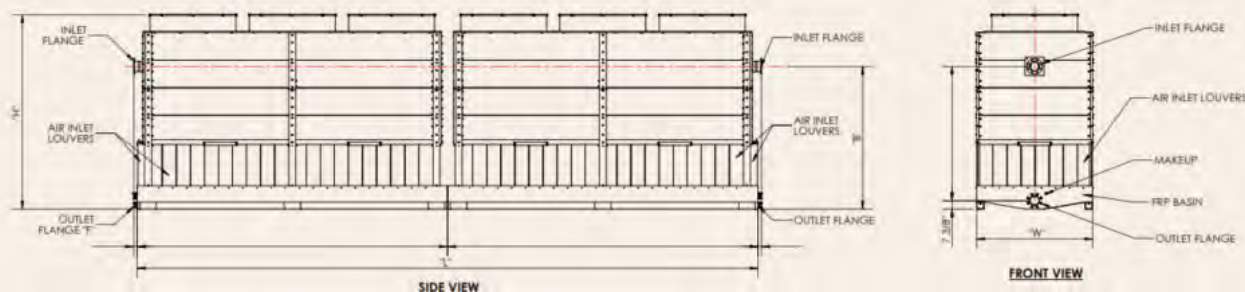
Whether your application involves water that is clean, or from the dirtiest industrial application, CCS uses the best available fill technology to balance the need for fouling resistance while ensuring optimal thermal performance.

Water Quality	Poor	Average	Good
Allowed TSS with good microbial control (ppm)	<300	<200	<100
Allowed TSS with poor microbial control (ppm)	<100	<50	<25
Allowed oil and grease concentration (ppm)	<12.5	<7.5	<5

Phoenix PL 3-Fan Unit

Inline

Model No.	Water Quality			Nominal Ton ¹	Total Motor HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
2I-PLC0721-3003-G3	x			744	60	17,470	58,200	44'-1 3/4"	8'-3 1/4"	14'-1"	3'	10'-4"	3'
2I-PLC0721-3003-D3		x		735	60								
2I-PLC0721-3003-F3			x	784	60								
2I-PLC0721-3003-G4	x			828	60	18050	60100						
2I-PLC0721-3003-D4		x		812	60								
2I-PLC0721-3003-F4			x	843	60								
2I-PLC0721-4503-G4	x			940	90								
2I-PLC0721-4503-D4		x		925	90								
2I-PLC0721-4503-F4			x	948	90								
2I-PLC0721-3003-G5	x			880	60	19460	62830						
2I-PLC0721-3003-D5		x		858	60								
2I-PLC0721-3003-F5			x	872	60								
2I-PLC0721-4503-G5	x			999	90								
2I-PLC0721-4503-D5		x		976	90								
2I-PLC0721-4503-F5			x	980	90								
2I-PLC0721-3003-G6	x			912	60	20,060	64,750	44'-1 3/4"	8'-3 1/4"	16'-1"	3'	12'-4"	3'
2I-PLC0721-3003-D6		x		882	60								
2I-PLC0721-3003-F6			x	885	60								
2I-PLC0721-4503-G6	x			1035	90								
2I-PLC0721-4503-D6		x		1004	90								
2I-PLC0721-4503-F6			x	994	90								

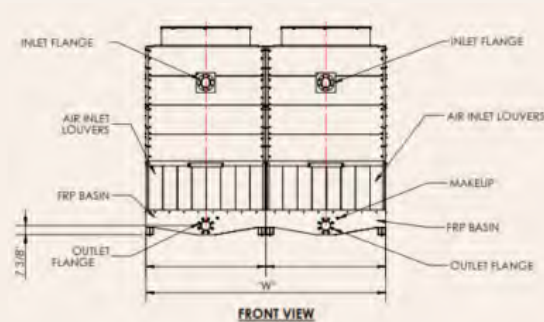
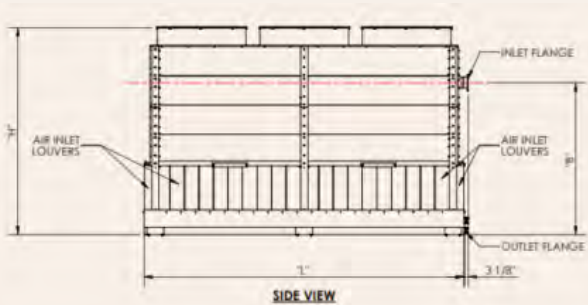


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Phoenix PL 3-Fan Unit

Back to Back

Model No.	Water Quality			Nominal Ton ¹	Total Motor HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
2B-PLC0721-3003-G3	x			723	60	17,470	58,200	22'-7/8"	16'-6 1/2"	14'-1"	3'	10'-4"	3'
2B-PLC0721-3003-D3		x		716	60								
2B-PLC0721-3003-F3			x	768	60								
2B-PLC0721-3003-G4	x			810	60	18050	60100						
2B-PLC0721-3003-D4		x		796	60								
2B-PLC0721-3003-F4			x	830	60								
2B-PLC0721-4503-F4			x	934	90	19460	62830						
2B-PLC0721-3003-G5	x			864	60								
2B-PLC0721-3003-D5		x		843	60								
2B-PLC0721-3003-F5			x	862	60	20,060	64,750	22'-7/8"	16'-6 1/2"	16'-1"	3'	12'-4"	3'
2B-PLC0721-4503-D5		x		960	90								
2B-PLC0721-4503-F5			x	969	90								
2B-PLC0721-3003-G6	x			898	60								
2B-PLC0721-3003-D6		x		870	60								
2B-PLC0721-3003-F6			x	876	60								
2B-PLC0721-4503-G6	x			1019	90								
2B-PLC0721-4503-D6		x		990	90								
2B-PLC0721-4503-F6			x	985	90								

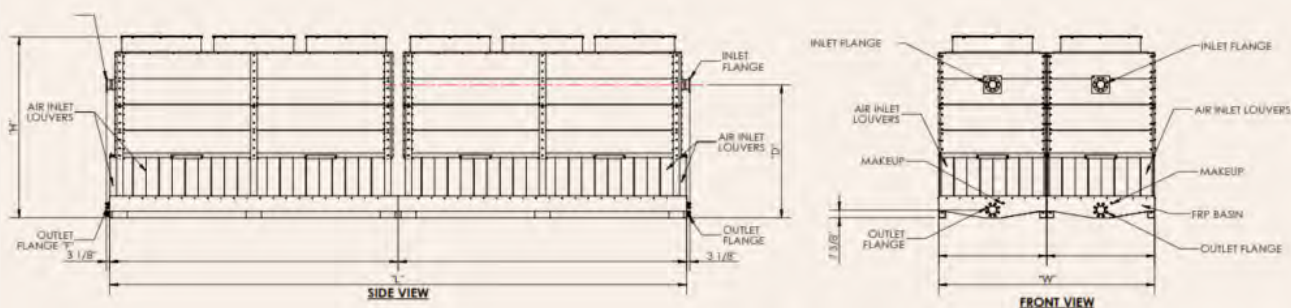


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Phoenix PL 3-Fan Unit

Quad

Model No.	Water Quality			Nominal Ton ¹	Total HP	Weights ²		Dimensions ³					
	Poor	Average	Good			Shipping	Operating	L	W	H ⁴	A	B	C
4Q-PLC0721-3003-F5			x	1706	120	38,920	125,660	44'-1 3/4"	16'-6 1/2"	16'-1"	3'	12'-4"	3'
4Q-PLC0721-3003-F6			x	1734	120	40,120	129,500						



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CCS Phoenix PL™ Fiberglass Counterflow Heavy-Duty Modular Cooling Tower

Composite Cooling Solutions (CCS) is a custom cooling tower solutions provider specializing in the design and build of both field-erected and modular fiberglass cooling towers. Our exclusive tower structure is unlike any other on the market — using custom-engineered components and a flexible, open-frame design to enable faster and safer project execution and lower costs over the life of the tower. From our founding leaders who pioneered the cooling tower industry to our experienced and responsive teams, you can rely on CCS to deliver a lasting solution for your cooling needs.

We do things differently and it makes all the difference for you.™



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Front cover: The CCS Phoenix PL heavy-duty modular cooling tower.



The Phoenix PL can be configured to be FM Approved per Approvals Class 4930.

Composite Cooling Solutions' cooling towers (or parts thereof) are covered and protected by one or more of the following United States Patents (and other pending U.S. patent applications): U.S. Patent No. 7,257,734, U.S. Patent No. 7,607,646, U.S. Patent No. 7,997,562, U.S. Patent No. 8,376,323 and U.S. Patent No. 8,602,397



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