



# COOLING TECHNOLOGY INSTITUTE

P. O. Box 681807, Houston, Texas 77268 • 3845 Cypress Creek Parkway, Ste 420, Houston, Texas 77068  
Phone: 281.583.4087 • Fax: 281.537.1721 • email: vmanser@cti.org • <http://www.cti.org>

**Advance Cooling Towers Pvt. Ltd.**  
**Advance 2020 – Series A Line of CTI Certified Cooling Towers**  
**CTI Certification Validation Number C31A-07R05**  
**August 31, 2023 (Revision 5)**

**Group A Models (Standard AC Fan Type)**

(Note: Number of Certified Cells Denoted by Prefix 1 through 6)

A37-0.75	A91-3.75	A145-18.3
A37-1.10	A91-5.50	A145-22.0
A37-1.50	A91-7.50	A145-30.0
A37-2.20	A91-9.30	A145-37.0
A37-3.75	A91-11.0	A145-45.0
	A91-15.0	
A46-1.10	A100-7.50	A154-22.0
A46-1.50	A100-9.30	A154-30.0
A46-2.20	A100-11.0	A154-37.0
A46-3.75	A100-15.0	A154-45.0
A46-5.50	A100-18.3	A154-55.0
A55-1.10	A109-9.3	A163-22.0
A55-1.50	A109-11.0	A163-30.0
A55-2.20	A109-15.0	A163-37.0
A55-3.75	A109-18.3	A163-45.0
A55-5.50	A109-22.0	A163-55.0
A55-7.50		
A64-1.50	A118-11.0	A172-30.0
A64-2.20	A118-15.0	A172-37.0
A64-3.75	A118-18.3	A172-45.0
A64-5.50	A118-22.0	A172-55.0
A64-7.50	A118-30.0	A172-75.0
A64-9.30		
A73-2.20	A127-15.0	A181-37.0
A73-3.75	A127-18.3	A181-45.0
A73-5.50	A127-22.0	A181-55.0
A73-7.50	A127-30.0	A181-75.0
A73-9.30	A127-37.0	A181-100.0
A82-2.20	A136-18.3	A190-45.0
A82-3.75	A136-22.0	A190-55.0
A82-5.50	A136-30.0	A190-75.0
A82-7.50	A136-37.0	A190-100.0
A82-9.30	A136-45.0	A190-135.0
A82-11.0		

**See Footnotes, Last Page**



# COOLING TECHNOLOGY INSTITUTE

P. O. Box 681807, Houston, Texas 77268 • 3845 Cypress Creek Parkway, Ste 420, Houston, Texas 77068  
Phone: 281.583.4087 • Fax: 281.537.1721 • email: vmanser@cti.org • <http://www.cti.org>

**Advance Cooling Towers Pvt. Ltd.**  
**Advance 2020 – Series A Line of CTI Certified Cooling Towers**  
**CTI Certification Validation Number C31A-07R05**  
**August 31, 2023 (Revision 5)**

**Group B Models (EC Fan Type)**

(Note: Number of Certified Cells Denoted by Prefix 1 through 6)

A37ECMEDIUM

A82ECLOW

A37ECSTANDARD

A82ECMEDIUM

A82ECSTANDARD

A46ECLOW

A46ECMEDIUM

A46ECSTANDARD

A91ECLOW

A91ECMEDIUM

A91ECSTANDARD

A55ECLOW

A55ECMEDIUM

A55ECSTANDARD

A100ECLOW

A100ECMEDIUM

A100ECSTANDARD

A64ECLOW

A64ECMEDIUM

A64ECSTANDARD

A109ECLOW

A109ECMEDIUM

A109ECSTANDARD

A73ECLOW

A73ECMEDIUM

A73ECSTANDARD

**See Footnotes, Last Page**



# COOLING TECHNOLOGY INSTITUTE

P. O. Box 681807, Houston, Texas 77268 • 3845 Cypress Creek Parkway, Ste 420, Houston, Texas 77068  
Phone: 281.583.4087 • Fax: 281.537.1721 • email: [vmanser@cti.org](mailto:vmanser@cti.org) • <http://www.cti.org>

## **Advance Cooling Towers Pvt. Ltd. Advance 2020 – Series A Line of CTI Certified Cooling Towers CTI Certification Validation Number C31A-07R05 August 31, 2023 (Revision 5)**

### **Footnotes:**

1. Advance 2020 – Series A towers for export and domestic sales are by Advance Cooling Towers Pvt. Ltd.
2. Multi-cell models comprised of a combination of up to six (6) primary single-cells (listed above) are included in the certification. See example model number below.
3. Certified models listed above are for standard construction materials with FRP (Fiberglass Reinforced Plastic) casing, basin/sump and fan deck; HDG (Hot Dipped Galvanized) steel structure; belt drive fan; and, 415 Volt/50 Hz/3 Phase fan motor. Certification includes a number of options below which are also available.
4. Certified models with optional stainless steel 304, 316 grade or pultruded FRP Structure have the following suffixes added to the basic numeric model designation:
  - SS4 – 304 Grade Stainless Steel Structure
  - SS6 – 316 Grade Stainless Steel Structure
  - PLT – Pultruded FRP Structure
5. Certified models without the FRP basin/sump have the following suffix added to the basic numeric model designation:
  - WOB – Without Basin/Sump
6. Certified models with optional direct drive or gear drive in place of standard belt drive fan have the following suffixes added to the basic numeric model designation:
  - FD – Direct Drive Fan
  - FG – Gear Drive Fan
7. Certified models with optional fan motors suitable for 220, 380 or 460 Volt/60 Hz operation or flame proof motors have the following suffixes added to basic numeric model designation:
  - H – 60 Hz
  - MF – Motor Flame Proof
8. Certified models include use of optional external platform with railing/ladder for access.
9. Cooling Towers which include the suffix "X" added to the Model No's above (e.g. 1A37-0.75-X) are not covered under CTI Certification due to either application, product accessories or modifications.

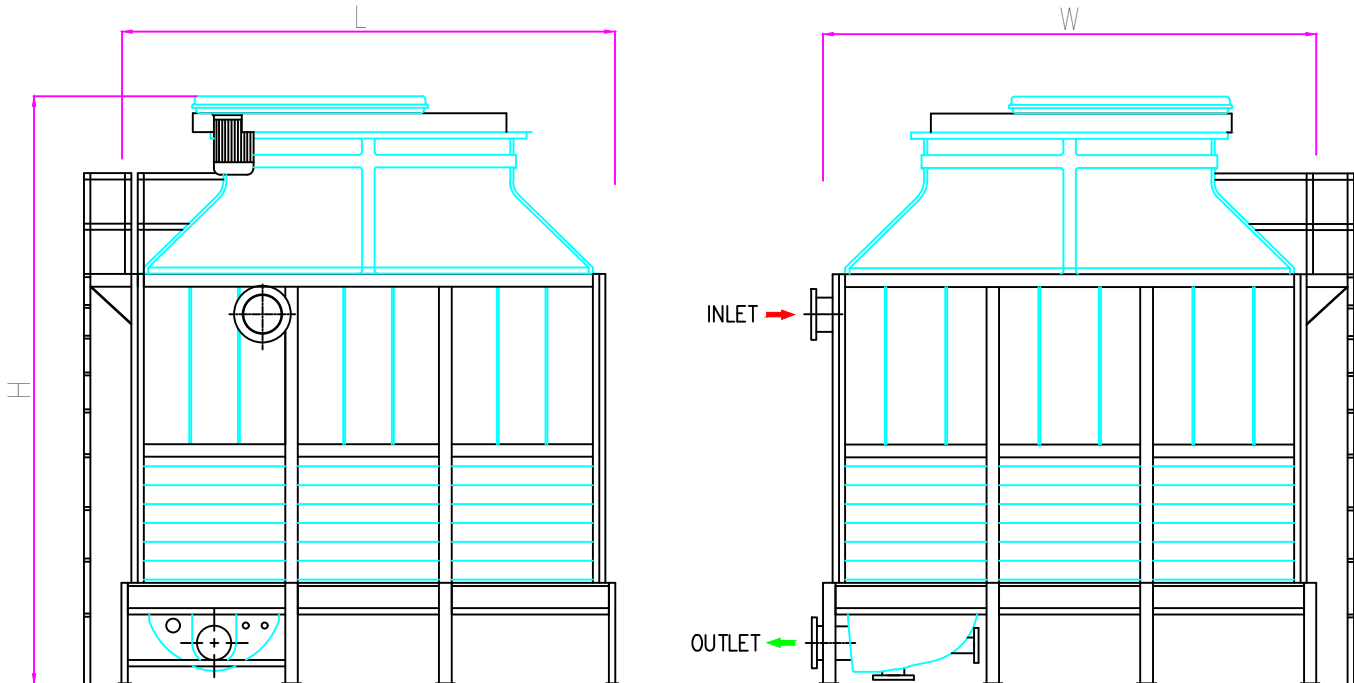
Example Model Number, Group A: 3A73-5.50

- where,    3 – prefix denoting number of certified cells (values 1 through 6)  
          A73 – line designation and model size code  
          5.50 – fan motor size

Example Model Number, Group B: 3A73ECLW

- where,    3 – prefix denoting number of certified cells (values 1 through 6)  
          A73EC – line designation and model size code  
          LOW – EC fan motor speed/power code

CTI CERTIFIED "SERIES A LINE OF COOLING TOWER"

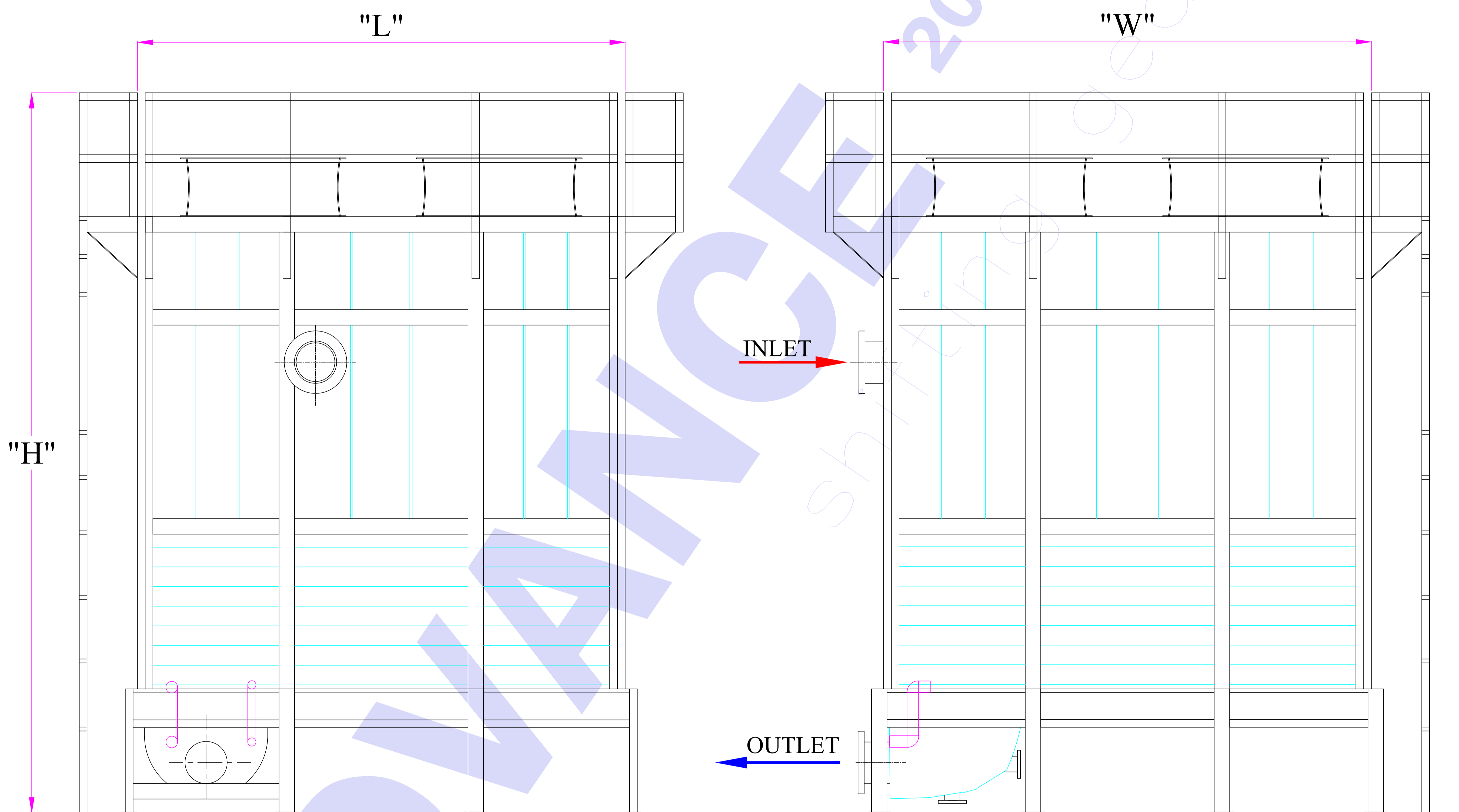


DIMENSIONS OF "SERIES - A" COOLING TOWERS							
Series "A" Model No	L mm	W mm	H mm	INLET Inches	OUTLET Inches	DRY WEIGHT Kg	OP. WEIGHT Kg
1A37	2080	2080	3960	6"	6"	800	1800
1A46	2080	2690	3960	6"	6"	940	2250
1A55	2690	2690	4460	8"	8"	1120	2910
1A64	3300	2690	4560	8"	8"	1375	3400
1A73	3300	3300	4560	10"	10"	1590	4000
1A82	3300	3910	4660	10"	10"	1765	4675
1A91	3910	3910	4660	10"	10"	1875	4975
1A100	4520	4520	5340	10"	10"	2255	7111
1A109	5130	5130	5340	8" X 2	10"	3350	7850
1A118	5590	5590	5150	10" X 2	*	3200	3910
1A127	6200	6200	5250	10" X 2	*	3660	4440
1A136	6810	6810	5355	10" X 2	*	4200	5430
1A145	7420	7420	5860	12" X 2	*	5030	7420
1A154	8080	8080	5915	12" X 2	*	5660	8250
1A163	8690	8690	5970	12" X 2	*	6250	9040
1A172	9300	9300	6525	12" X 3	*	7340	11120
1A181	11130	11130	6690	12" X 4	*	9970	14500
1A190	12960	12960	7605	12" X 6	*	12680	19215

NOTES: → DIMENSIONS GIVEN ABOVE ARE WITH BASIN FROM 1A37 TO 1A109 & WITHOUT BASIN/SUMP FROM 1A118 TO 1A190.

\* OUTLET SIZE TO BE SELECTED BY CLIENT ACCORDING TO VARIOUS OPERATING CONDITIONS.

## COOLING TOWER SERIES "A-EC" ALL MODEL CHART



DIMENSION CHART FOR SERIES "A-EC" COOLING TOWERS

"SERIES A-EC" MODEL (MAX # FANS)	LENGTH(mm) L	WIDTH(mm) W	HEIGHT(mm) H	INLET (INCHES)	OUTLET (INCHES)	DRY WEIGHT KG	OP. WEIGHT KG
1A37EC (1)	2080	2080	4150	6	6	800	1800
1A46EC (2)	2080	2690	4150	6	6	940	2250
1A55EC (4)	2690	2690	4650	8	8	1120	2910
1A64EC (4)	3300	2690	4650	8	8	1375	3400
1A73EC (4)	3300	3300	4650	10	10	1590	4000
1A82EC (6)	3300	3910	4650	10	10	1765	4675
1A91EC (6)	3910	3910	4650	10	10	1875	4975
1A100EC (9)	4520	4520	4650	10	10	3520	7515
1A109EC (12)	5130	5130	4650	8,8	10	4130	9300

\*THE DIMENSION CONSIDERED IS FOR COOLING TOWER WITH BASIN\*



Advanced 200 Series A RL 2016

Twin Cell Arrangement		All Flows in CW	
Conductivity (µS/cm)	Temp (°C)	Flow (L/min)	Flow (L/min)
1.00	18.00	18.00	18.00
10.00	16.00	16.00	16.00
100.00	14.00	14.00	14.00
1000.00	12.00	12.00	12.00
10000.00	10.00	10.00	10.00
100000.00	8.00	8.00	8.00
1000000.00	6.00	6.00	6.00
10000000.00	4.00	4.00	4.00
100000000.00	2.00	2.00	2.00
1000000000.00	0.00	0.00	0.00
10000000000.00	-2.00	-2.00	-2.00
100000000000.00	-4.00	-4.00	-4.00
1000000000000.00	-6.00	-6.00	-6.00
10000000000000.00	-8.00	-8.00	-8.00
100000000000000.00	-10.00	-10.00	-10.00
1000000000000000.00	-12.00	-12.00	-12.00
10000000000000000.00	-14.00	-14.00	-14.00
100000000000000000.00	-16.00	-16.00	-16.00
1000000000000000000.00	-18.00	-18.00	-18.00
10000000000000000000.00	-20.00	-20.00	-20.00
100000000000000000000.00	-22.00	-22.00	-22.00
1000000000000000000000.00	-24.00	-24.00	-24.00
10000000000000000000000.00	-26.00	-26.00	-26.00
100000000000000000000000.00	-28.00	-28.00	-28.00
1000000000000000000000000.00	-30.00	-30.00	-30.00
10000000000000000000000000.00	-32.00	-32.00	-32.00
100000000000000000000000000.00	-34.00	-34.00	-34.00
1000000000000000000000000000.00	-36.00	-36.00	-36.00
10000000000000000000000000000.00	-38.00	-38.00	-38.00
100000000000000000000000000000.00	-40.00	-40.00	-40.00
1000000000000000000000000000000.00	-42.00	-42.00	-42.00
10000000000000000000000000000000.00	-44.00	-44.00	-44.00
100000000000000000000000000000000.00	-46.00	-46.00	-46.00
1000000000000000000000000000000000.00	-48.00	-48.00	-48.00
10000000000000000000000000000000000.00	-50.00	-50.00	-50.00
100000000000000000000000000000000000.00	-52.00	-52.00	-52.00
1000000000000000000000000000000000000.00	-54.00	-54.00	-54.00
10000000000000000000000000000000000000.00	-56.00	-56.00	-56.00
100000000000000000000000000000000000000.00	-58.00	-58.00	-58.00
1000000000000000000000000000000000000000.00	-60.00	-60.00	-60.00
100.00	-62.00	-62.00	-62.00
1000.00	-64.00	-64.00	-64.00
100.00	-66.00	-66.00	-66.00
1000.00	-68.00	-68.00	-68.00
100.00	-70.00	-70.00	-70.00
1000.00	-72.00	-72.00	-72.00
100.00	-74.00	-74.00	-74.00
1000.00	-76.00	-76.00	-76.00
100.00	-78.00	-78.00	-78.00
1000.00	-80.00	-80.00	-80.00
100.00	-82.00	-82.00	-82.00
1000.00	-84.00	-84.00	-84.00
100.00	-86.00	-86.00	-86.00
1000.00	-88.00	-88.00	-88.00
100.00	-90.00	-90.00	-90.00
1000.00	-92.00	-92.00	-92.00
100.00	-94.00	-94.00	-94.00
1000.00	-96.00	-96.00	-96.00
100.00	-98.00	-98.00	-98.00
1000.00	-100.00	-100.00	-100.00























**Advance Series A Revision 5**

Condition Reference #		1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	24.00	25.00	26.00	27.00	28.00	29.00	30.00	31.00	32.00	33.00	34.00	35.00	36.00	37.00	38.00	39.00	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.00					
Wet Bulb °C		10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00				
Range °C		6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00		
Approach °C		4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00		
Inlet Water Temperature °C		20.00	22.00	23.00	23.00	23.00	25.00	23.00	25.00	26.00	25.00	28.00	26.00	28.00	29.00	28.00	31.00	28.00	30.00	31.00	30.00	31.00	31.00	31.00	34.00	33.00	36.00	34.00	36.00	37.00	36.00	39.00	37.00	38.00	39.00	40.00	39.00	42.00	39.00	41.00	42.00	41.00	44.00	42.00	44.00	45.00	44.00	47.00	45.00	48.00	47.00	49.00			
Outlet Water Temperature °C		14.00	16.00	17.00	14.00	17.00	17.00	19.00	19.00	17.00	19.00	20.00	20.00	22.00	23.00	20.00	23.00	22.00	24.00	25.00	22.00	25.00	25.00	27.00	28.00	25.00	28.00	28.00	30.00	31.00	28.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00
<b>Unit No. - See Column 21 For Units</b>																																																							
6A37CEMEDIUM		NA	104.00	119.50	NA	NA	NA	118.00	135.50	NA	112.25	NA	133.50	154.25	128.25	128.25	104.75	146.00	168.25	NA	140.00	119.75	167.25	192.00	102.00	163.75	137.75	193.75	222.50	118.50	187.75	159.75	224.50	238.00	137.50	216.00	176.75	246.50	283.50	151.50	239.50	206.00	289.50	333.00	178.50	282.00	168.00	152.00	213.50	186.00					
6A37CESTANDARD		NA	125.75	144.50	NA	NA	119.75	102.00	142.50	164.00	NA	136.00	116.00	162.00	186.25	154.75	154.75	126.50	176.50	203.50	107.75	169.00	144.75	202.00	232.75	123.25	195.50	166.00	234.25	269.00	143.00	226.75	192.75	271.50	313.00	166.25	261.50	213.75	298.00	343.50	183.00	290.25	249.00	351.00	403.00	215.50	342.00	228.00	184.00	258.00	225.00				
6A40CELOW		NA	NA	171.00	NA	NA	NA	168.50	193.00	NA	161.00	NA	191.00	210.50	NA	181.00	NA	209.00	239.50	NA	200.00	171.50	238.50	274.00	NA	211.25	196.50	276.00	316.00	170.75	269.00	228.00	319.00	367.00	197.50	308.50	252.50	350.50	403.00	217.00	322.50	294.00	411.00	473.00	255.50	402.50	265.50	317.50	304.00	266.00					
6A40CEMEDIUM		NA	183.00	210.50	NA	NA	174.50	NA	207.00	238.00	NA	198.00	169.25	238.50	270.50	NA	225.50	184.50	257.00	295.00	137.50	294.00	251.00	293.50	317.50	380.50	284.50	242.00	140.00	396.00	209.00	330.00	290.50	394.00	452.00	243.00	380.00	311.00	433.00	497.00	297.00	451.00	562.00	307.00	582.00	314.00	496.00	331.00	284.00	374.00	327.00				
6A40CESTANDARD		155.00	215.50	247.50	NA	NA	205.00	NA	243.50	280.00	NA	232.50	199.00	276.50	318.00	189.25	264.50	217.00	302.00	347.00	185.00	289.00	248.00	345.00	396.50	211.50	334.00	284.00	399.00	458.00	245.00	387.00	329.00	462.00	531.00	284.50	445.00	365.00	508.00	582.50	318.00	494.00	424.50	395.00	684.00	368.00	581.00	389.00	313.00	439.00	384.00				
6A43CELOW		NA	171.50	196.50	NA	163.25	NA	193.50	227.00	NA	185.00	158.50	220.00	252.00	NA	210.50	172.50	239.50	275.00	NA	229.75	197.00	274.25	314.00	169.00	265.50	225.50	316.50	136.00	307.50	261.50	367.00	420.00	227.50	353.50	290.50	403.00	461.00	290.00	392.00	338.00	472.00	541.00	294.00	460.50	307.50	250.00	349.00	304.50						
6A43CEMEDIUM		154.00	213.50	246.25	NA	202.25	174.00	201.50	277.50	NA	220.50	197.50	274.50	315.50	188.50	261.50	211.00	299.50	344.00	184.00	310.00	277.00	360.00	303.00	390.00	318.00	311.50	282.00	196.00	495.00	243.50	394.50	327.00	493.00	538.00	288.50	442.00	363.50	504.00	580.00	311.00	491.00	433.00	592.00	680.00	378.00	303.50	312.00	437.00	381.00					
6A43CESTANDARD		195.50	272.00	312.00	166.00	259.00	221.00	307.50	353.50	188.00	293.50	251.00	349.50	401.50	214.00	334.50	274.00	438.00	498.00	383.00	498.00	233.50	365.50	436.00	501.00	267.50	422.00	329.00	516.00	310.00	462.00	631.00	385.50	670.00	227.00	553.00	395.50	640.00	461.00	737.00	395.50	625.00	537.00	795.00	686.00	466.00	736.00	493.00	397.00	356.00	485.00				
6A46CELOW		177.50	246.50	282.50	151.00	235.00	200.50	278.50	319.50	171.00	266.50	228.00	316.50	363.50	194.50	303.00	248.00	345.00	396.00	212.00	311.00	283.50	394.00	452.00	242.50	382.50	320.00	456.00	523.00	281.00	443.00	377.00	528.00	605.00	326.50	509.00	418.00	579.00	665.00	359.00	565.00	486.00	680.00	780.00	423.00	665.00	444.00	360.00	502.00	438.00					
6A46CEMEDIUM		232.00	322.00	370.00	197.00	307.00	262.00	365.00	419.00	223.00	348.00	297.50	414.00	475.50	263.50	396.00	324.00	452.00	518.50	277.00	432.50	370.50	516.50	592.50	247.00	500.00	425.00	598.00	686.00	367.00	580.00	493.00	692.00	795.00	427.00	687.00	546.00	761.00	874.00	469.00	740.00	638.00	893.00	1025.00	552.00	870.00	582.00	471.00	657.00	575.00					
6A46CESTANDARD		254.00	359.00	423.00	239.00	343.00	293.50	406.00	466.50	248.00	387.50	331.00	461.50	520.00	302.00	440.50	361.00	509.00	576.00	369.00	491.00	412.50	574.00	660.00	323.00	556.25	461.00	664.00	764.00	406.00	646.00	548.00	770.00	884.00	474.00	742.00	606.00	846.00	970.00	521.00	823.00	706.00	991.00	1139.00	621.00	962.00	648.00	524.00	733.00	640.00					
6A73CELOW		236.00	327.00	375.00	NA	312.00	267.00	370.00	425.00	227.50	353.00	302.50	420.00	483.00	268.50	403.00	330.00	454.00	527.00	282.00	440.00	377.00	534.00	601.00	323.00	508.00	432.00	606.00	696.00	374.00	589.00	501.00	703.00	805.00	435.00	677.00	555.00	770.00	885.00	478.00	752.00	647.00	905.00	1036.00	562.00	884.00	580.00	478.00	667.00	583.00					
6A73CEMEDIUM		306.50	426.00	489.00	260.50	406.00	346.50	482.00	533.00	285.00	460.00	391.00	547.00	628.00	385.00	524.00	429.00	597.00	682.00	364.00	572.00	489.75	682.00	784.00	419.00	661.00	562.00	789.00	908.00	485.00	767.00	652.00	912.00	1032.00	584.00	882.00	723.00	1005.00	1155.00	620.00	979.00	840.00	1180.00	1355.00	729.00	1152.00	770.00	623.00	970.00	760.00					
6A73CESTANDARD		339.00	472.00	541.00	288.00	449.00	383.50	534.00	613.00	326.00	509.00	435.00	606.00	696.00	371.00	580.00	475.00	661.00	759.00	465.00	633.00	543.00	755.00	868.00	463.00	732.00	622.00	874.00	1004.00	537.00	848.00	711.00	1012.00	1164.00	623.00	975.00	800.00	1111.00	1277.00	685.00	1083.00	929.00	1305.00	1497.00	806.00	1272.00	852.00	688.00	964.00	842.00					
6A82CELOW		NA	348.00	399.00	NA	311.50	NA	393.00	451.00	NA	376.00	322.50	447.00	513.00	NA	427.50	351.00	487.00	559.00	NA	467.00	401.00	556.00	639.00	343.00	540.00	459.00	643.00	738.00	398.00	625.00	533.00	745.00	855.00	462.00	719.00	990.00	838.00	937.00	507.00	707.00	687.00	958.00	1099.00	597.00	938.00	626.00	508.00	708.00	613.00					
6A82CEMEDIUM		197.00	309.00	388.00	111.00	343.00	414.00	1576.00	662.00	352.00	550.00	470.00	654.00	752.00	403.00	628.00	531.00	714.00	820.00	437.00	684.00	586.00	833.00	938.00	500.00	790.00	671.00	944.00	1089.00	580.00	915.00	779.00	1094.00	1237.00	674.00	1054.00	864.00	1201.00	1380.00	740.00	1168.00	1005.00	1408.00	1617.00	872.00	1375.00	950.00	741.00	1039.00	908.00					
6A82CESTANDARD		400.00	557.00	639.00	340.00	530.00	452.00	630.00	723.00	385.00	601.00	514.00	715.00	822.00	437.00	684.00	560.00	780.00	897.00	477.00	747.00	640.00	891.00	1025.00	546.00	864.00	733.00	1030.00	1189.00	633.00	1000.00</																								