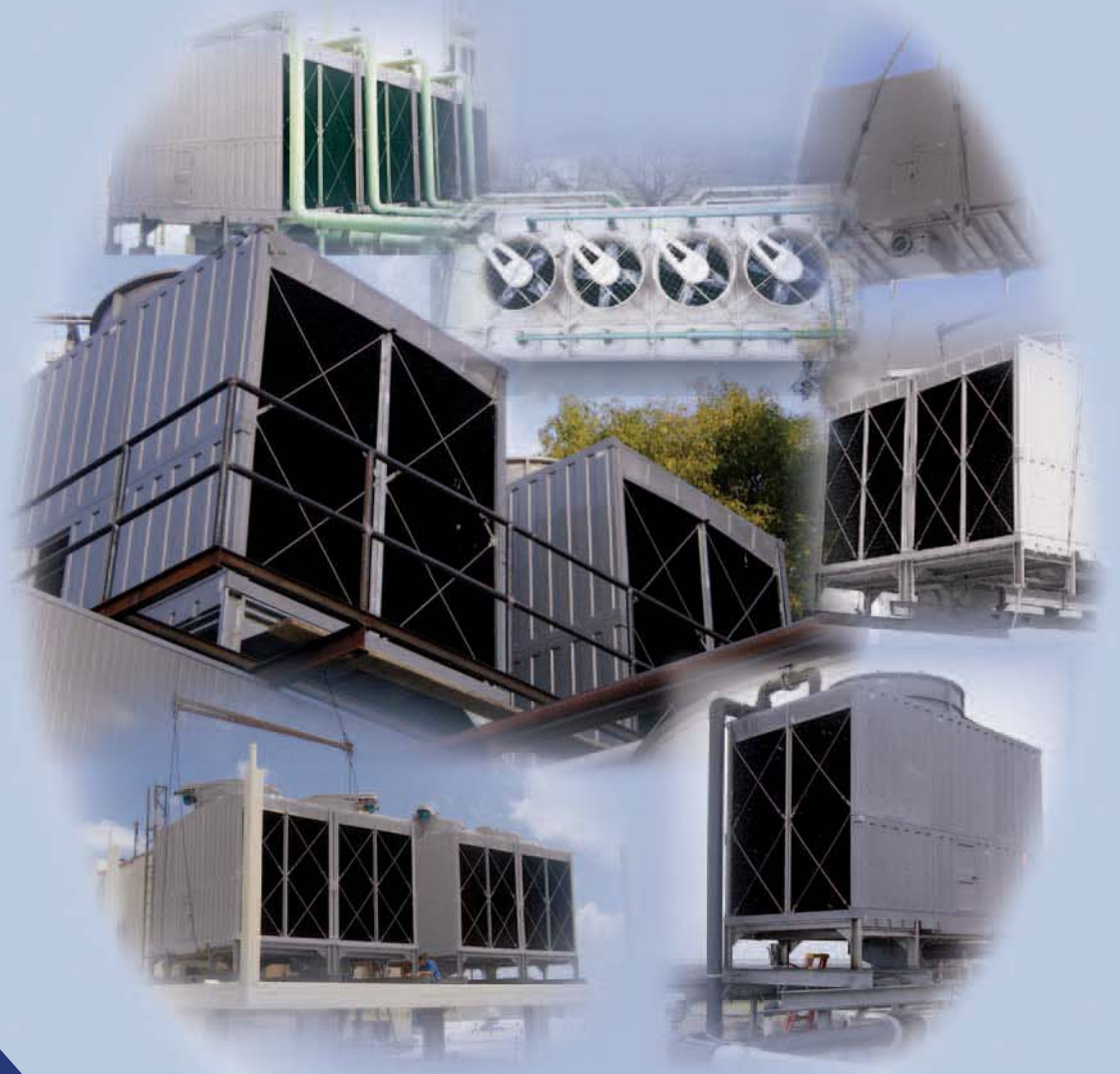
PROTEC®

Cross Flow Cooling Towers



FWS Series Cr oss Flow Cooling Towers

CTI CERTIFIED
FWS Series
No. 04-27-01

COOLING TECHNOLOGY INSTITUTE
CTI
EST. 1950

Cross Flow Design

Protec FWS Series cooling towers are factory or field assembled, cross flow cooling towers, designed to serve commercial, institutional and industrial loads. The range of cooling towers offered in the FWS Series is for single, double and multi-cell configurations. This heavy-duty cooling tower designed of non-corrosive materials is energy efficient and its cross flow design offers ease of maintenance. All major components of the Protec FWS Series: motors, axial fans, fan drive assembly and fill/media have been developed to ensure maximum efficiency with low energy consumption. The FWS Series small footprint provides space savings, ensuring the cooling tower meets the limited space requirements of new construction projects as well as the strict space requirements of replacement projects.

Design Features

WATER DISTRIBUTION SYSTEM

The FRP open type gravity flow hot water distribution system is non-corrosive and is designed for non-clogging operation and ease of inspection.

STEEL STRUCTURE & FASTENERS

All supporting steel members are available in stainless steel or galvanized. All fasteners are stainless steel.

FILL/MEDIA

The special designed fill is vacuum formed of PVC film with chemical and distortion resistance and is suitable for operation with inlet water of 130 degrees F. The configuration of the filler incorporates the function of drift eliminator, louver and wet deck surface.

MOTOR & DRIVE

The fan motors are totally enclosed fan cooled (TEFC) foot mounting. Motors are available outside of the fanstack. The fans are belt driven and are located in the fan stack ensuring free, and smooth air discharge together with high efficiency and low energy consumption.

AXIAL FAN

Corrosion resistant fan blades are adjustable pitch for maximum utilization of rated horsepower and optimum performance. The aerodynamic shape together with tip speed ensure a lower noise level.

WARRANTY

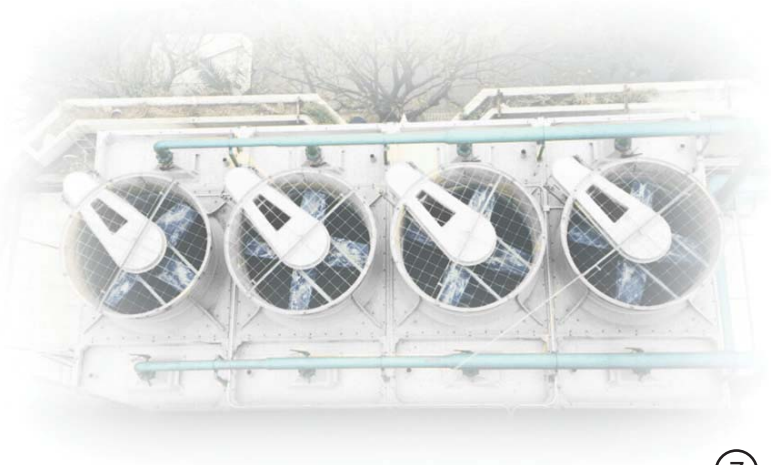
Protec warrants that the Mechanical Equipment and accessories (whether factory or field installed) shall be free from defects in material or workmanship for a period of one (1) year from the date of shipment and agrees to repair or replace, at its option, any parts that fail during said one (1) year period due to any such defects which would not have occurred had reasonable care been taken, provided that such parts have been inspected by Protec and found defective and provided the mechanical equipment and accessories have been given normal and proper usage and all parts and controls remain unaltered. This warranty does not apply to accident, improper use, alterations or damage resulting from operation not conforming with Protec's maintenance instructions and standards of operation.

PROTEC MAKES NO WARRANTY OF MERCHANTABILITY OF PRODUCTS OR OF THEIR FITNESS FOR ANY PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY WHICH EXTENDS BEYOND THE LIMITED WARRANTY ABOVE. PROTEC'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES RESULTING FROM DEFECTS SHALL IN NO EXTENT EXCEED THE COST OF REPAIR OR REPLACEMENT OF PARTS FOUND DEFECTIVE UPON EXAMINATION BY PROTEC. IN NO EVENT SHALL PROTEC BE LIABLE FOR INCIDENTAL INDIRECT OR CONSEQUENTIAL DAMAGES OR DAMAGES FOR INJURY TO PERSONS OR PROPERTY.

Protec shall not be responsible for freight to or from its plant in connection with the inspection, repair or replacement of parts under the terms of this limited warranty not for cost of removal or installation.

PROTEC®
6935 N.W. 50 Street, Miami, Florida 33166
Tel: (305) 594-3684 Fax: (305) 477-2514
www.protectowers.com info@protectowers.com

PROTEC®



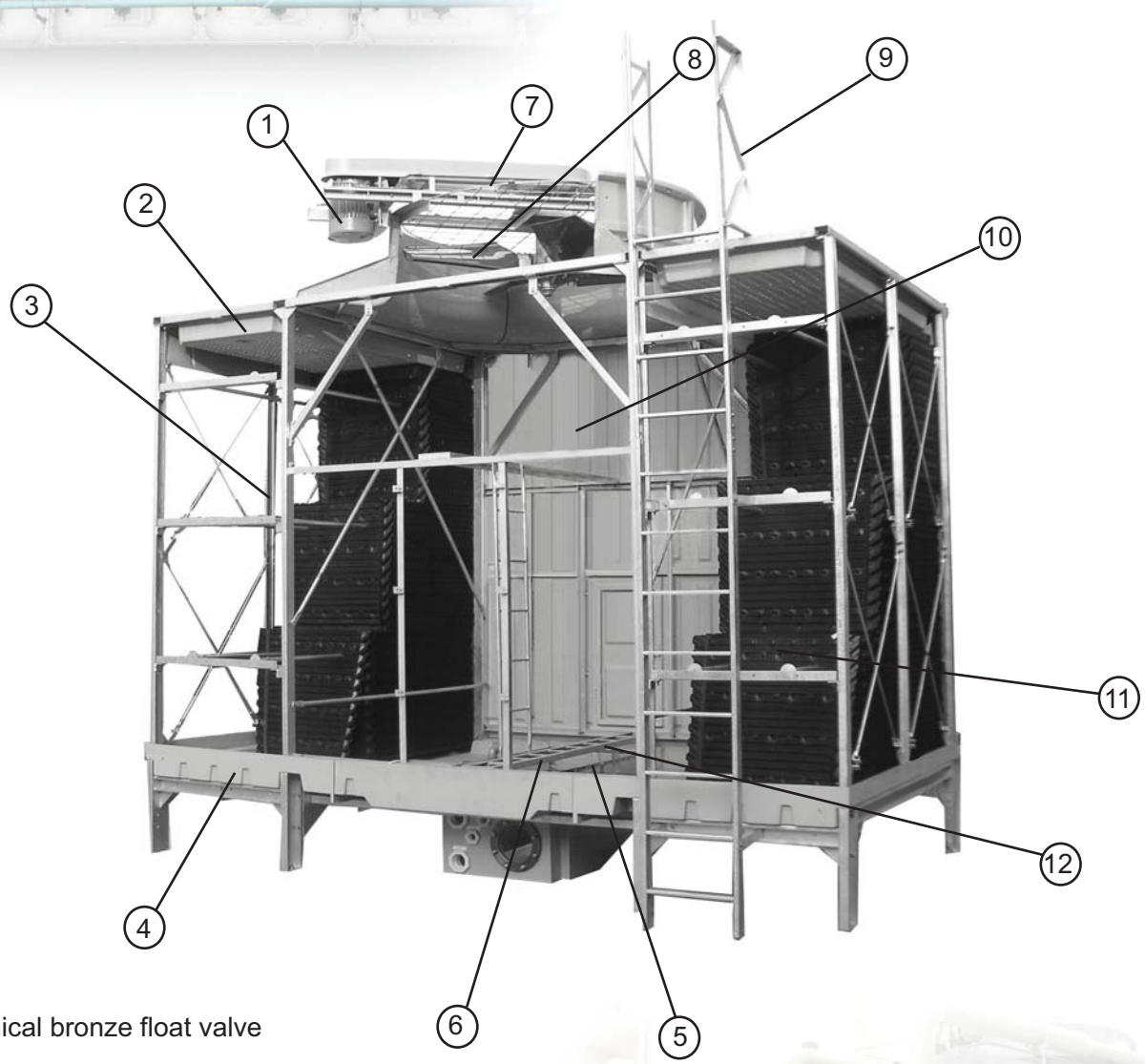
(1) TEFC Motor

(2) Fiberglass reinforced polyester gravity flow hot water distribution basin

(3) Structural metal components available in stainless steel or galvanized steel. All fasteners stainless steel

(4) Fiberglass reinforced polyester cold water basin

(5) Lift out stainless steel strainer



(6) Mechanical bronze float valve

(7) Belt drive assembly or gear drive assembly optional

(8) Corrosion resistant axial fan

(9) Access Ladder

(10) Fiberglass reinforced polyester casing panels

(11) PVC fill/media w/integral louvers and drift eliminators

(12) Internal walkway and ladder

CTI CERTIFIED FMS Series No. 04-27-01

MEMBER

SELECTION CHART

The capacities shown in this chart are for guidance purpose only. Please refer to the wet bulb of the area where the cooling tower will operate. For other values, please consult our local representative or our engineering department.

Model	Temp	Water Flow rate at indicated HWT, CWT & WBT (GPM)											
	HW °F	95	97	100	95	97	100	95	97	100	95	97	100
	CW °F	85	87	90	85	87	90	85	87	90	85	87	90
	WB °F	80	80	80	79	79	79	78	78	78	77	77	77
94-3.7		283	361	479	312	389	507	340	418	534	367	444	561
94-5.5		323	412	547	356	444	579	388	477	610	419	507	640
94-7.5		359	456	606	395	492	642	431	529	676	465	562	710
127-5.5		384	486	645	423	524	682	461	561	719	498	597	754
127-7.5		426	539	716	470	581	757	512	622	798	553	662	836
127-11		484	612	813	533	660	860	581	707	906	627	752	950
169-7.5		508	647	863	559	699	912	610	751	963	659	797	1011
169-11		577	735	980	635	794	1037	693	853	1094	749	906	1148
169-15		640	815	1087	705	881	1150	769	946	1213	831	1005	1274
200-7.5		559	716	973	619	780	1037	674	839	1095	739	896	1151
200-11		632	810	1100	700	882	1172	762	948	1238	836	1013	1301
200-15		691	885	1203	765	964	1282	833	1037	1353	914	1107	1423
250-7.5		618	795	1080	686	859	1143	745	925	1204	814	986	1269
250-11		707	909	1235	785	982	1307	852	1058	1377	930	1127	1451
250-15		781	1004	1364	867	1085	1444	941	1169	1521	1028	1245	1602
275-7.5		663	853	1158	736	921	1226	799	992	1292	873	1057	1361
275-11		751	966	1312	834	1043	1388	905	1124	1463	988	1197	1541
275-15		839	1080	1467	932	1167	1553	1012	1257	1636	1105	1339	1723
300-7.5		699	894	1200	774	964	1270	839	1033	1330	910	1101	1397
300-11		803	1027	1378	889	1108	1460	964	1187	1528	1045	1265	1605
300-15		892	1141	1531	988	1231	1622	1071	1319	1698	1162	1405	1784
330-7.5		773	989	1327	856	1067	1405	928	1143	1471	1006	1217	1545
330-11		892	1141	1531	988	1231	1622	1071	1319	1698	1162	1405	1784
330-15		982	1255	1684	1086	1354	1784	1178	1451	1867	1278	1545	1962
350-7.5		819	1047	1403	904	1132	1488	981	1210	1565	1068	1292	1646
350-11		937	1199	1606	1035	1296	1703	1123	1386	1792	1223	1478	1885
350-15		1042	1332	1784	1150	1441	1893	1248	1540	1991	1359	1643	2094
350-18.5		1116	1427	1912	1232	1543	2027	1337	1650	2133	1456	1760	2244
350-22		1190	1522	2039	1314	1646	2162	1426	1760	2275	1553	1877	2393
400-7.5		848	1085	1456	939	1170	1541	1018	1254	1614	1104	1335	1695
400-11		967	1237	1660	1071	1335	1758	1161	1430	1840	1259	1523	1933
400-15		1072	1370	1839	1186	1478	1947	1286	1584	2039	1395	1687	2142
400-18.5		1146	1465	1966	1268	1581	2082	1375	1694	2180	1491	1804	2290
400-22		1220	1560	2093	1350	1683	2217	1464	1803	2321	1588	1921	2438
500-7.5		908	1162	1556	1003	1256	1650	1088	1342	1736	1185	1432	1826
500-11		1027	1313	1759	1133	1420	1865	1230	1518	1962	1339	1619	2064
500-15		1146	1466	1963	1265	1585	2082	1373	1694	2191	1495	1808	2304
500-18.5		1220	1561	2090	1347	1688	2217	1462	1804	2333	1592	1925	2453
500-22		1295	1656	2217	1429	1790	2352	1551	1914	2475	1689	2042	2603
550-7.5		951	1198	1598	1044	1297	1686	1129	1383	1771	1224	1472	1861
550-11		1087	1370	1827	1194	1483	1927	1291	1581	2025	1399	1683	2128
550-15		1208	1522	2029	1326	1647	2141	1434	1756	2250	1554	1869	2363
550-18.5		1298	1635	2181	1425	1770	2301	1541	1887	2418	1670	2009	2540
550-22		1374	1731	2308	1508	1873	2435	1631	1997	2559	1768	2126	2688
600-11		1313	1654	2206	1442	1791	2327	1559	1909	2446	1690	2032	2570
600-15		1465	1845	2461	1608	1997	2596	1739	2129	2728	1885	2267	2866
600-18.5		1570	1978	2638	1724	2141	2783	1864	2283	2924	2021	2430	3072
600-22		1661	2093	2791	1824	2265	2944	1972	2415	3094	2138	2570	3250
600-30		1842	2321	3095	2022	2512	3265	2187	2678	3431	2371	2851	3605
700-11		1555	1959	2612	1707	2120	2756	1846	2261	2896	2001	2406	3043
700-15		1721	2168	2891	1889	2346	3050	2043	2502	3205	2215	2663	3367
700-18.5		1842	2321	3095	2022	2512	3265	2187	2678	3431	2371	2851	3605
700-22		1948	2453	3272	2138	2655	3452	2312	2831	3627	2506	3014	3811
700-30		2174	2739	3652	2387	2964	3853	2581	3161	4049	2798	3364	4254
700-37		2310	2910	3880	2536	3149	4094	2742	3358	4302	2972	3574	4519

1. Designation FWS-XXX-XX-X
   - No. of cells
   - Motor KW
   - Model No.

2. CTI Certification applies to operation with the wet bulb temp. between 60°F and 85°F, max. entering water temp. of 125°F, min. temp.range of 5°F, min. temp approach of 5°F

SELECTION CHART

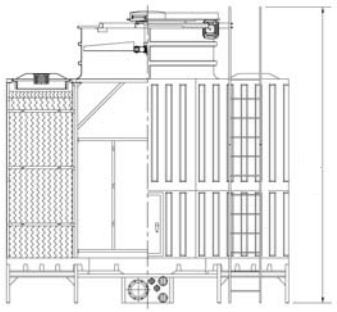
The capacities shown in this chart are for guidance purpose only. Please refer to the wet bulb of the area where the cooling tower will operate. For other values, please consult our local representative or our engineering department.

Model	Temp	Water Flow rate at indicated HWT, CWT & WBT (GPM)														
	HW ° F	95	97	100	95	97	100	95	97	100	95	100	98	95	100	98
	CW ° F	85	87	90	85	87	90	85	87	90	85	88	88	85	88	88
	WB ° F	76	76	76	75	75	75	74	74	74	73	73	73	72	72	72
94-3.7		393	469	586	418	495	611	443	518	635	467	512	580	490	531	603
94-5.5		448	536	669	477	565	697	505	592	725	533	584	662	559	606	688
94-7.5		497	594	742	529	626	773	562	656	804	592	648	734	621	672	763
127-5.5		532	631	789	567	665	821	601	698	855	633	689	779	665	716	812
127-7.5		590	700	875	628	737	910	667	774	948	703	764	864	738	794	900
127-11		671	795	994	714	837	1034	757	880	1077	798	868	982	838	902	1023
169-7.5		705	844	1057	750	891	1096	797	936	1140	841	922	1041	883	958	1083
169-11		801	959	1201	852	1012	1245	906	1063	1296	955	1048	1183	1003	1089	1230
169-15		888	1063	1332	944	1122	1381	1005	1179	1437	1060	1162	1311	1113	1207	1364
200-7.5		791	951	1206	846	1005	1259	898	1058	1311	950	1045	1191	1000	1086	1240
200-11		895	1075	1363	956	1136	1424	1016	1196	1482	1074	1181	1346	1131	1228	1402
200-15		978	1176	1490	1045	1242	1556	1110	1307	1620	1174	1291	1472	1236	1342	1533
250-7.5		873	1044	1327	934	1106	1383	991	1162	1443	1045	1150	1308	1098	1198	1361
250-11		998	1194	1517	1069	1265	1582	1133	1328	1650	1195	1316	1496	1256	1370	1556
250-15		1103	1319	1676	1180	1397	1747	1251	1467	1822	1320	1453	1653	1387	1513	1719
275-7.5		936	1120	1423	1002	1186	1484	1062	1246	1547	1121	1234	1403	1178	1284	1460
275-11		1060	1269	1612	1135	1343	1680	1203	1411	1753	1270	1398	1589	1334	1455	1653
275-15		1186	1419	1802	1269	1502	1879	1346	1578	1960	1420	1563	1777	1492	1627	1849
300-7.5		976	1162	1463	1040	1226	1522	1102	1289	1585	1159	1276	1440	1219	1322	1500
300-11		1121	1335	1681	1195	1409	1749	1267	1481	1821	1332	1466	1655	1401	1519	1723
300-15		1245	1483	1867	1327	1565	1943	1407	1645	2023	1480	1629	1838	1556	1688	1915
330-7.5		1079	1285	1618	1150	1356	1684	1219	1425	1753	1282	1412	1593	1349	1463	1659
330-11		1245	1483	1867	1327	1565	1943	1407	1645	2023	1480	1629	1838	1556	1688	1915
330-15		1370	1632	2054	1460	1722	2137	1548	1809	2225	1628	1792	2022	1712	1857	2106
350-7.5		1147	1366	1720	1220	1438	1792	1291	1513	1867	1360	1499	1695	1432	1559	1767
350-11		1313	1563	1969	1396	1646	2051	1477	1732	2137	1556	1716	1940	1639	1785	2023
350-15		1460	1737	2188	1552	1829	2279	1642	1925	2375	1730	1907	2156	1821	1983	2248
350-18.5		1564	1861	2344	1663	1960	2442	1759	2063	2545	1853	2043	2310	1951	2125	2408
350-22		1668	1985	2500	1773	2090	2604	1876	2200	2714	1976	2179	2464	2081	2266	2568
400-7.5		1184	1410	1775	1262	1488	1847	1337	1564	1923	1407	1549	1747	1479	1604	1820
400-11		1350	1608	2024	1439	1697	2107	1525	1783	2193	1604	1766	1993	1687	1830	2076
400-15		1495	1781	2242	1594	1879	2333	1690	1975	2429	1777	1956	2208	1869	2027	2299
400-18.5		1599	1904	2397	1704	2009	2495	1807	2112	2597	1900	2092	2360	1998	2167	2458
400-22		1702	2028	2552	1814	2140	2656	1923	2249	2765	2023	2227	2513	2127	2307	2617
500-7.5		1273	1515	1907	1353	1595	1987	1431	1678	2071	1508	1662	1880	1588	1729	1960
500-11		1439	1712	2156	1530	1803	2246	1618	1897	2341	1705	1879	2125	1795	1955	2215
500-15		1606	1911	2407	1707	2012	2508	1806	2118	2613	1903	2098	2372	2004	2182	2473
500-18.5		1710	2035	2563	1818	2143	2670	1923	2255	2782	2026	2234	2526	2133	2323	2633
500-22		1814	2159	2719	1929	2273	2833	2040	2393	2952	2150	2370	2680	2263	2465	2794
550-7.5		1306	1553	1942	1391	1633	2022	1469	1711	2100	1545	1701	1913	1619	1763	1988
550-11		1493	1776	2221	1590	1868	2312	1679	1957	2401	1766	1945	2188	1851	2016	2273
550-15		1658	1973	2467	1766	2074	2569	1865	2173	2668	1962	2161	2430	2056	2239	2525
550-18.5		1782	2120	2651	1898	2229	2760	2004	2336	2867	2108	2322	2612	2210	2406	2713
550-22		1886	2244	2806	2009	2359	2921	2121	2472	3034	2231	2458	2764	2339	2547	2872
600-11		1803	2145	2682	1920	2255	2792	2028	2363	2900	2133	2349	2642	2236	2435	2745
600-15		2011	2393	2992	2142	2516	3115	2262	2636	3235	2379	2620	2947	2494	2716	3062
600-18.5		2156	2565	3207	2296	2696	3339	2425	2825	3467	2550	2809	3159	2673	2911	3282
600-22		2280	2713	3393	2429	2853	3532	2565	2989	3668	2698	2971	3342	2828	3080	3472
600-30		2529	3009	3763	2694	3164	3917	2845	3315	4068	2992	3295	3707	3136	3415	3851
700-11		2135	2540	3176	2274	2670	3307	2401	2798	3434	2526	2782	3129	2647	2883	3250
700-15		2363	2811	3515	2516	2955	3659	2657	3096	3800	2795	3078	3463	2930	3190	3597
700-18.5		2529	3009	3763	2694	3164	3917	2845	3315	4068	2992	3295	3707	3136	3415	3851
700-22		2674	3181	3978	2848	3345	4141	3007	3504	4301	3163	3484	3918	3315	3610	4071
700-30		2985	3551	4441	3179	3734	4623	3357	3912	4801	3531	3889	4374	3701	4031	4544
700-37		3171	3773	4718	3377	3967	4911	3567	4156	5101	3751	4132	4647	3932	4282	4828

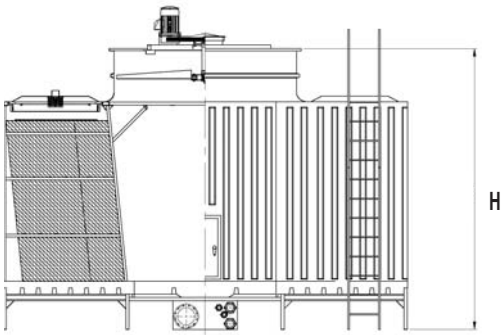
1. Designation FWS-XXX-XX-X
   - No. of cells
   - Motor KW
   - Model No.

2. CTI Certification applies to operation with the wet bulb temp. between 60°F and 85°F, max. entering water temp. of 125°F, min. temp.range of 5°F, min. temp approach of 5°F

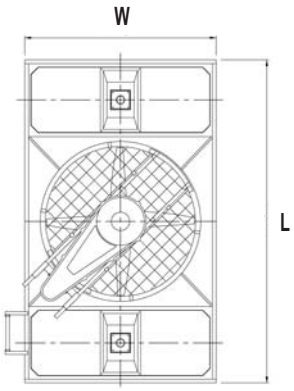
Dimensions



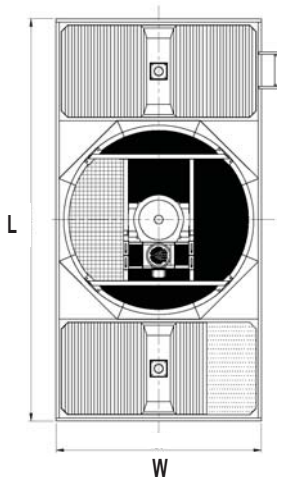
Model 94- 169



Model 200 - 700



Model 94- 169



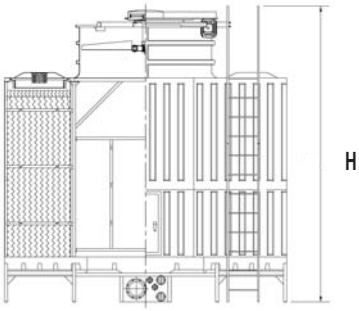
Model 200 - 700

Model	Nominal Tons	L	W	H (4)	H (5)	In	Out	Fan Dia.	Qty. of Fans	Motor H.P	Qty. of Motors	Dry Weight	Operating Weight
94-3.7	113	157-1/2"	78-3/4"	174-1/2"	181-3/4"	5"x2	6"	63"	1	5	1	3370	6440
94-5.5	129	157-1/2"	78-3/4"	174-1/2"	181-3/4"	5"x2	8"	63"	1	7.5	1	3400	6470
94-7.5	144	157-1/2"	78-3/4"	174-1/2"	181-3/4"	5"x2	8"	63"	1	10	1	3410	6490
127-5.5	154	173-1/4"	90-1/2"	174-1/2"	181-3/4"	5"x2	8"	70-3/4"	1	7.5	1	3760	7520
127-7.5	171	173-1/4"	90-1/2"	174-1/2"	181-3/4"	5"x2	8"	70-3/4"	1	10	1	3780	7540
127-11	194	173-1/4"	90-1/2"	174-1/2"	181-3/4"	5"x2	8"	70-3/4"	1	15	1	3880	7630
169-7.5	203	173-1/4"	102-3/8"	174-1/2"	181-3/4"	5"x2	8"	78-3/4"	1	10	1	4440	8710
169-11	231	173-1/4"	102-3/8"	174-1/2"	181-3/4"	5"x2	8"	78-3/4"	1	15	1	4550	8820
169-15	256	173-1/4"	102-3/8"	174-1/2"	181-3/4"	5"x2	8"	78-3/4"	1	20	1	4580	8850
200-7.5	225	181"	102"		170"	5"x2	8"	86-1/2"	1	10	1	5210	11081
200-11	254	181"	102"		170"	5"x2	8"	86-1/2"	1	15	1	5326	11197
200-15	278	181"	102"		170"	5"x2	8"	86-1/2"	1	20	1	5336	11206
250-7.5	248	189"	126"		170"	6"x2	8"	94-1/2"	1	10	1	5720	12916
250-11	284	189"	126"		170"	6"x2	8"	94-1/2"	1	15	1	5836	13032
250-15	314	189"	126"		170"	6"x2	8"	94-1/2"	1	20	1	5846	13042
275-7.5	266	204-3/4"	126"		170"	6"x2	8"	110-1/4"	1	10	1	5941	13442
275-11	302	204-3/4"	126"		170"	6"x2	8"	110-1/4"	1	15	1	6057	13558
275-15	337	204-3/4"	126"		170"	6"x2	8"	110-1/4"	1	20	1	6066	13568
300-7.5	280	232-1/4"	126"		172"	6"x2	8"	94-1/2"	1	10	1	6469	15928
300-11	321	232-1/4"	126"		172"	6"x2	8"	94-1/2"	1	15	1	6585	16044
300-15	357	232-1/4"	126"		172"	6"x2	8"	94-1/2"	1	20	1	6595	16054
330-7.5	309	248"	126"		172"	6"x2	10"	110-1/4"	1	10	1	6672	16437
330-11	357	248"	126"		172"	6"x2	10"	110-1/4"	1	15	1	6788	16553
330-15	393	248"	126"		172"	6"x2	10"	110-1/4"	1	20	1	6797	16563

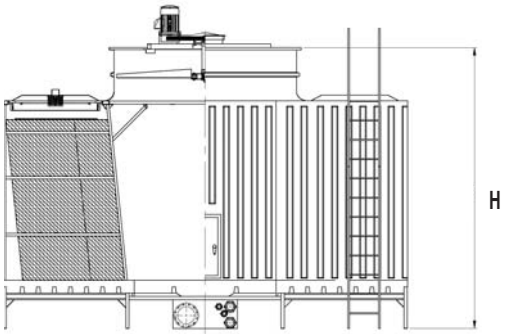
NOTES:

1. Nominal tons are based upon 95ºF Hot Water – 85ºF Cold Water – 78ºF Wet Bulb and 3 GPM/Ton.
2. For foundation dimensions and weight distribution, consult factory.
3. Continuing engineering research results in steady improvements. Therefore, these specifications and data are subject to change without notice. Consult with factory for current certified dimensions.
4. Height with the cooling tower motor out of the airstream.
5. Height with the cooling tower motor in the airstream.

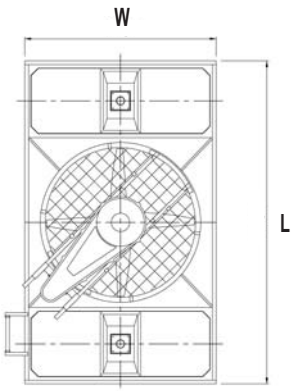
Dimensions



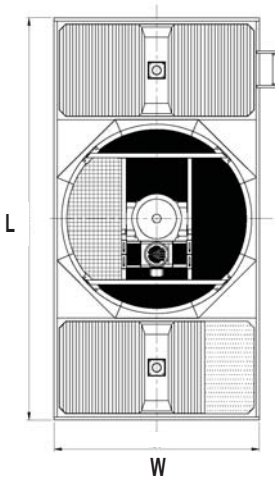
Model 94- 169



Model 200 - 700



Model 94- 169



Model 200 - 700

Model	Nominal Tons	L	W	H (5)	In	Out	Fan Dia.	Qty. of Fans	Motor H.P	Qty. of Motors	Dry Weight	Operating Weight
350-7.5	327	212-3/4"	141-3/4"	216-3/4"	6"x2	10"	118"	1	10	1	7023	19991
350-11	374	212-3/4"	141-3/4"	216-3/4"	6"x2	10"	118"	1	15	1	7139	20107
350-15	416	212-3/4"	141-3/4"	216-3/4"	6"x2	10"	118"	1	20	1	7149	20117
350-18.5	446	212-3/4"	141-3/4"	216-3/4"	6"x2	10"	118"	1	25	1	7309	20277
350-22	475	212-3/4"	141-3/4"	216-3/4"	6"x2	10"	118"	1	30	1	7404	20372
400-7.5	339	260"	141-3/4"	172"	6"x2	10"	118"	1	10	1	7125	15920
400-11	387	260"	141-3/4"	172"	6"x2	10"	118"	1	15	1	7241	16036
400-15	429	260"	141-3/4"	172"	6"x2	10"	118"	1	20	1	7250	16046
400-18.5	458	260"	141-3/4"	172"	6"x2	10"	118"	1	25	1	7411	16206
400-22	488	260"	141-3/4"	172"	6"x2	10"	118"	1	30	1	7506	16301
500-7.5	363	236-1/2"	165-1/2"	216-3/4"	6"x4	10"	134"	1	10	1	9189	28264
500-11	410	236-1/2"	165-1/2"	216-3/4"	6"x4	10"	134"	1	15	1	9305	28380
500-15	458	236-1/2"	165-1/2"	216-3/4"	6"x4	10"	134"	1	20	1	9315	28390
500-18.5	487	236-1/2"	165-1/2"	216-3/4"	6"x4	10"	134"	1	25	1	9475	28550
500-22	517	236-1/2"	165-1/2"	216-3/4"	6"x4	10"	134"	1	30	1	9570	28645
550-7.5	376	260"	141-3/4"	216-3/4"	6"x2	10"	118"	1	10	1	9482	29083
550-11	430	260"	141-3/4"	216-3/4"	6"x2	10"	118"	1	15	1	9598	29136
550-15	478	260"	141-3/4"	216-3/4"	6"x2	10"	118"	1	20	1	9608	29140
550-18.5	514	260"	141-3/4"	216-3/4"	6"x2	10"	118"	1	25	1	9769	29213
550-22	544	260"	141-3/4"	216-3/4"	6"x2	10"	118"	1	30	1	9863	29256
600-11	520	275-3/4"	165-1/2"	216-3/4"	6"x4	12"	145-1/2"	1	15	1	10973	30338
600-15	580	275-3/4"	165-1/2"	216-3/4"	6"x4	12"	145-1/2"	1	20	1	10983	30348
600-18.5	621	275-3/4"	165-1/2"	216-3/4"	6"x4	12"	145-1/2"	1	25	1	11144	30509
600-22	657	275-3/4"	165-1/2"	216-3/4"	6"x4	12"	145-1/2"	1	30	1	11238	30603
600-30	729	275-3/4"	165-1/2"	216-3/4"	6"x4	12"	145-1/2"	1	40	1	11255	30620
700-11	615	276-1/4"	197"	217"	6"x4	12"	145-1/2"	1	15	1	13114	36169
700-15	681	276-1/4"	197"	217"	6"x4	12"	145-1/2"	1	20	1	13125	36180
700-18.5	729	276-1/4"	197"	217"	6"x4	12"	145-1/2"	1	25	1	13285	36340
700-22	771	276-1/4"	197"	217"	6"x4	12"	145-1/2"	1	30	1	13380	36436
700-30	860	276-1/4"	197"	217"	6"x4	12"	145-1/2"	1	40	1	13398	36454
700-37	914	276-1/4"	197"	217"	6"x4	12"	145-1/2"	1	50	1	13498	36554

NOTES:

1. Nominal tons are based upon 95ºF Hot Water – 85ºF Cold Water – 78ºF Wet Bulb and 3 GPM/Ton
2. For foundation dimensions and weight distribution, consult factory.
3. Continuing engineering research results in steady improvements. Therefore, these specifications and data are subject to change without notice. Consult with factory for current certified dimensions.
4. Height with the cooling tower motor out of the airstream.
5. Height with the cooling tower motor in the airstream.

COOLING TOWER SPECIFICATIONS

A. Provide and install a cross flow induced draft vertical discharge cooling tower PROTEC Series FWS, flow rates, capacities and design temperature shall be as indicated on the drawings.

B. Tower manufacturer must be a member of the Cooling Technology Institute (CTI) and cooling tower shall be certified as per CTI Std. 201. Cooling tower manufacturer shall also guarantee capacities.

C. Structural framework shall be bolted with stainless steel fasteners. Casing and basin shall be molded of corrosion-resistant fiberglass reinforced polyester (FRP) material.

D. The fill/media shall be film-type polyvinyl chloride (PVC). The fill shall have integral louvers and drift eliminators. The fill shall be able to withstand operating temperatures up to 130 degrees F. Fill shall be hung from longitudinal support tubes.

E. Hot water basin shall be molded of corrosion-resistant fiberglass reinforced polyester (FRP) material of the open gravity type standard inlet connection for customer piping shall be through a support attached to the splash boxes. A water diverter is to be provided on the hot water basin floor under the splash box to break the velocity of water and distribute it evenly throughout the hot water basin floor.

Mechanical Equipment:

F. Fan shall be belt driven multi-blade adjustable pitch axial type, corrosion resistant construction. Motors shall be single speed, TEFC, 1.15 service factor with class F insulation, 1800 RPM and suitable for the electrical rating shown on the drawings.

G. Fan cylinder shall be constructed of corrosion-resistant fiberglass reinforced polyester (FRP) multi-segment type bolted together at vertical joints. A welded steel fan guard shall be furnished with all models.

H. A ladder to allow inspection and accessibility to the fan motor and upper portion of the tower cell shall be provided for all models.

I. All fiberglass reinforced polyester (FRP) materials shall contain UV (Ultraviolet) inhibitors and an exterior gel coat.

J. All fasteners shall be stainless steel and the rest of the structural metals (1) _____

Note: (1) Stainless steel or galvanized

PROTEC®
Cooling Towers, Inc.

CTI CERTIFIED FWS Series No. 04-27-01

6935 NW 50 Street, Miami, Florida 33166 Tel: 305-594-3684 Fax: 305-477-2514
www.protectowers.com info@protectowers.com