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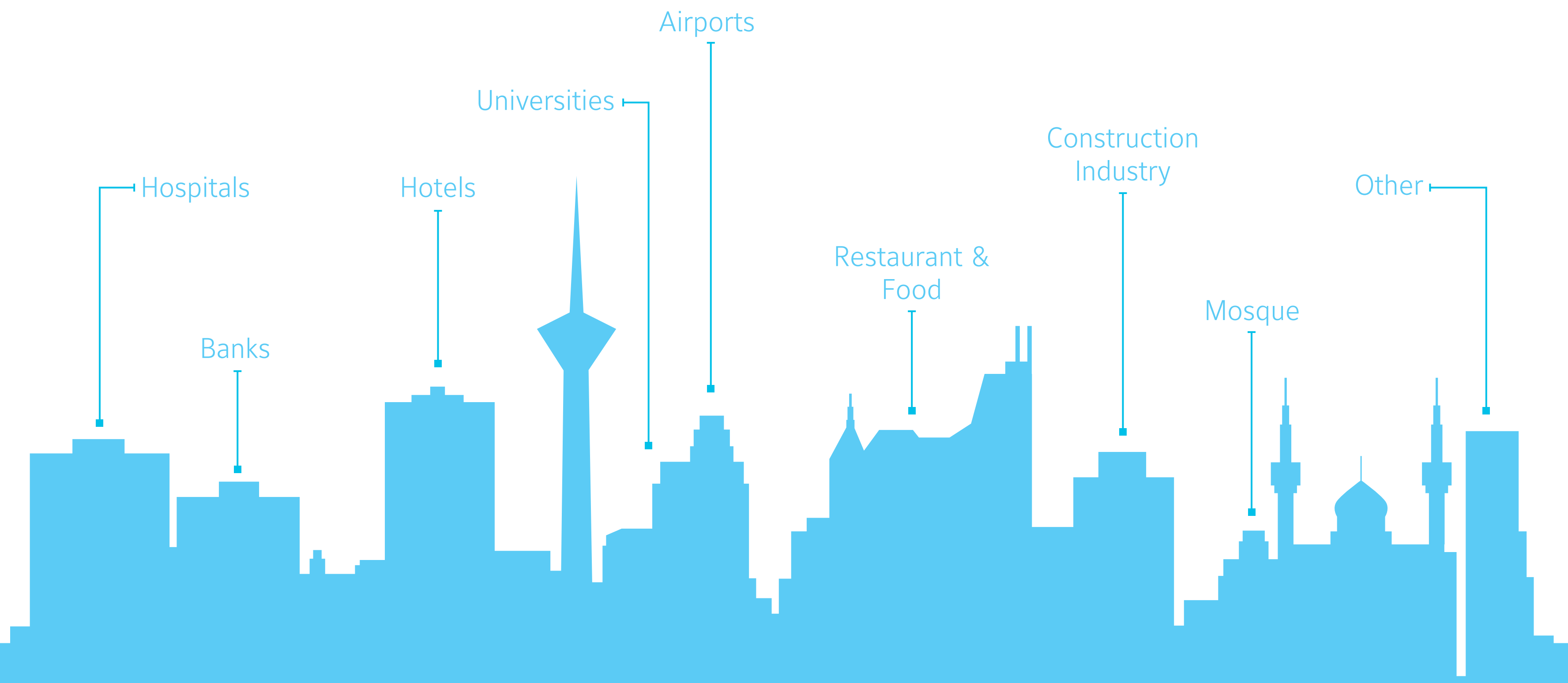
SARAN

CUBIC FIBERGLASS COOLING TOWER

Saran
Life's Pleasant Breeze



AIR CONDITIONING MFG.GROUP

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Contents

NOMENCLATURE

SR F CT EXQ - 100

- 100 — NOMINAL TONNAGE (TR)
- EXQ — CUBIC TYPE
- CT — COOLING TOWER
- F — FIBERGLASS
- SR — SARAN

Introduction

Saran cubic fiberglass cooling tower is an induced draft, cross flow, film filled, FRP multi-cell rectangular cooling tower designed for the equipment cooling, industrial process cooling and air conditioning applications.
Saran cubic fiberglass cooling tower is designed to meet maximum performance and reliability, and minimum maintenance.

Advantage

Saran cubic fiberglass cooling tower has so many advantages including following:

Energy Saving

The low speed, high efficiency fan and low pressure drop fill design to optimize the energy consumption.

High efficient fills

Waved fill design significantly increases cooling tower efficiency as its expansive surface area accelerates cooling. This increased efficiency translates to reduced pump head and horsepower requirements.

Corrosion Resistance

The casing, hot and cold-water distribution basins are made of FRP (an excellent non-corrosive material) and frame and other steel sections are hot dip galvanized to ensure corrosion resistance.

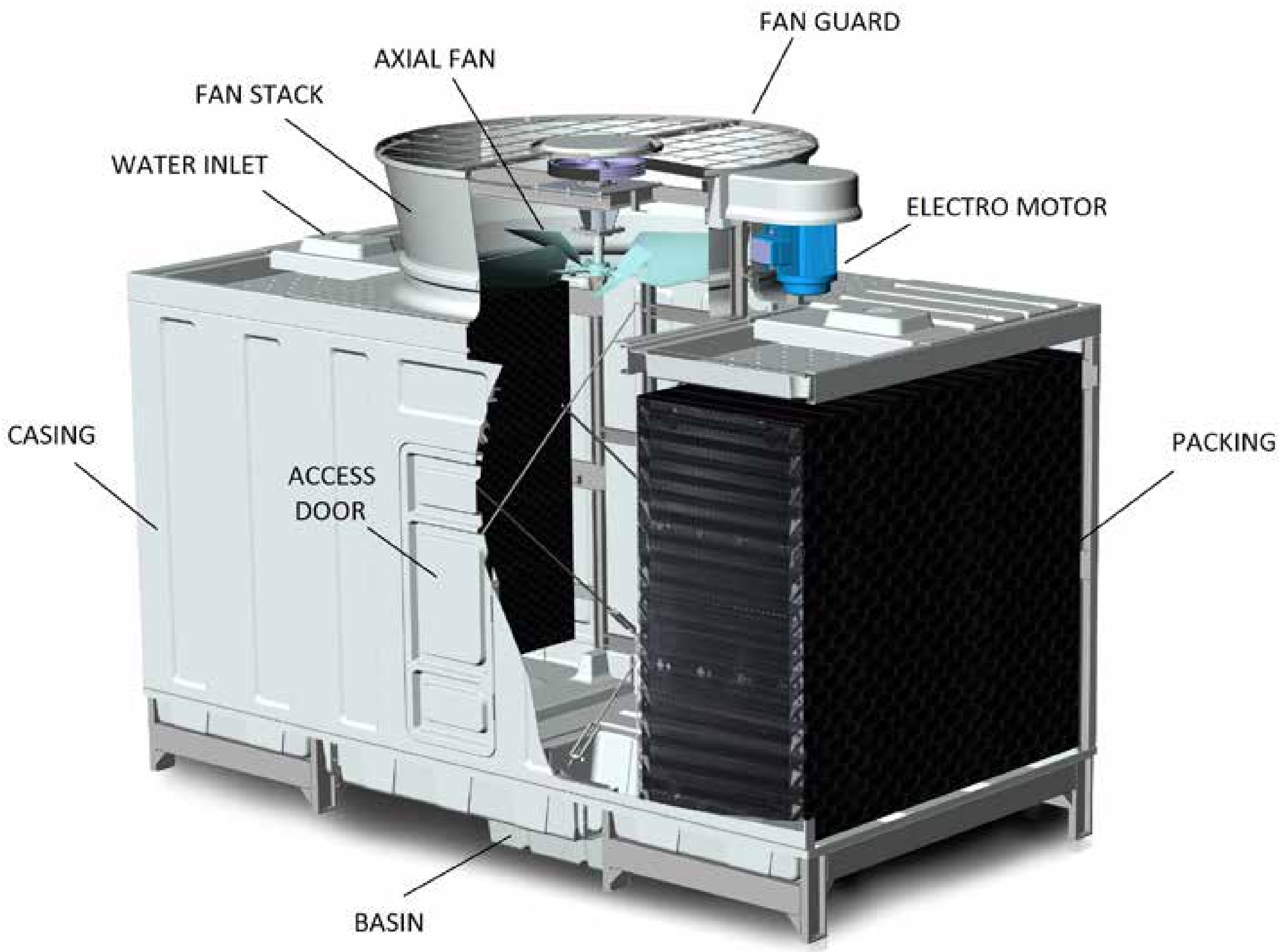
Low Noise level

The noise level is lowered by specifically designed low noise fan.

Space Saving & Light Weight

Incorporating the high performance fill, the installation space and operating weight are greatly reduced.

Structure & Component



Technical Data

Table 1: Technical Data

Model	Cap. (TR)	Water Flow (GPM)	Fan Assembly			Connections						Weight (kg)	
			Motor Power (HP)	Air Flow (CFM)	Dia. (mm)	Inlet	Outlet	Over Flow	Drain	Make up	Quick Fill	Net	Oper.
SRFCTEXQ-80	80	270	3	20000	1300	2*3"	4"	2"	2"	3/4"	3/4"	880	1790
SRFCTEXQ-100	100	350	3	25000	1300	2*3"	5"	2"	2"	3/4"	3/4"	890	1800
SRFCTEXQ-125	125	430	5.5	31500	1500	2*4"	5"	2"	2"	3/4"	3/4"	1010	2180
SRFCTEXQ-150	150	510	5.5	38000	1700	2*4"	6"	2"	2"	1"	1"	1290	2700
SRFCTEXQ-175	175	600	7.5	44500	1700	2*4"	6"	2"	2"	1"	1"	1300	2710
SRFCTEXQ-200	200	685	10	50500	1850	2*5"	6"	2"	2"	1"	1"	1390	2800
SRFCTEXQ-225	225	770	10	57000	2000	2*5"	8"	2"	2"	1"	1"	1530	3420
SRFCTEXQ-250	250	860	10	63500	2000	2*5"	8"	2"	2"	1"	1"	1540	3430

NOTE

- Nominal capacity and water Flow rate are based on 9°F Range, 9°F Approach, and 81°F WB temperature.

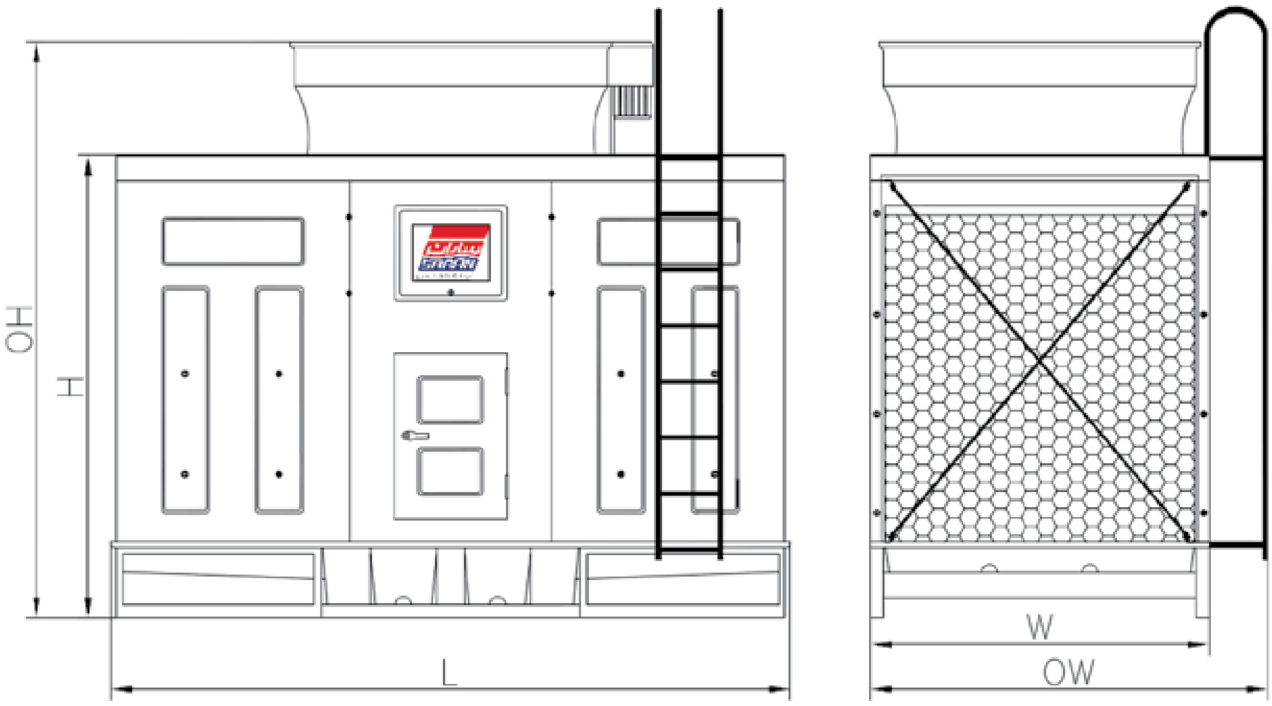


Table 2: Dimensions

Model	L	W	OW	H	OH
SRFCTEXQ-80	3750	1450	1700	2250	2830
SRFCTEXQ-100	3750	1450	1700	2250	2830
SRFCTEXQ-125	3950	1750	2110	2250	2830
SRFCTEXQ-150	4150	2050	2410	2800	3500
SRFCTEXQ-175	4150	2050	2410	2800	3500
SRFCTEXQ-200	4150	2050	2410	2800	3500
SRFCTEXQ-225	4450	2400	2760	2800	3550
SRFCTEXQ-250	4450	2400	2760	2800	3550

NOTE

- All dimensions are in mm.
- The above data is subject to change without prior notice.

Selection Procedure

To select a Saran cubic fiberglass cooling tower, the following information is required:

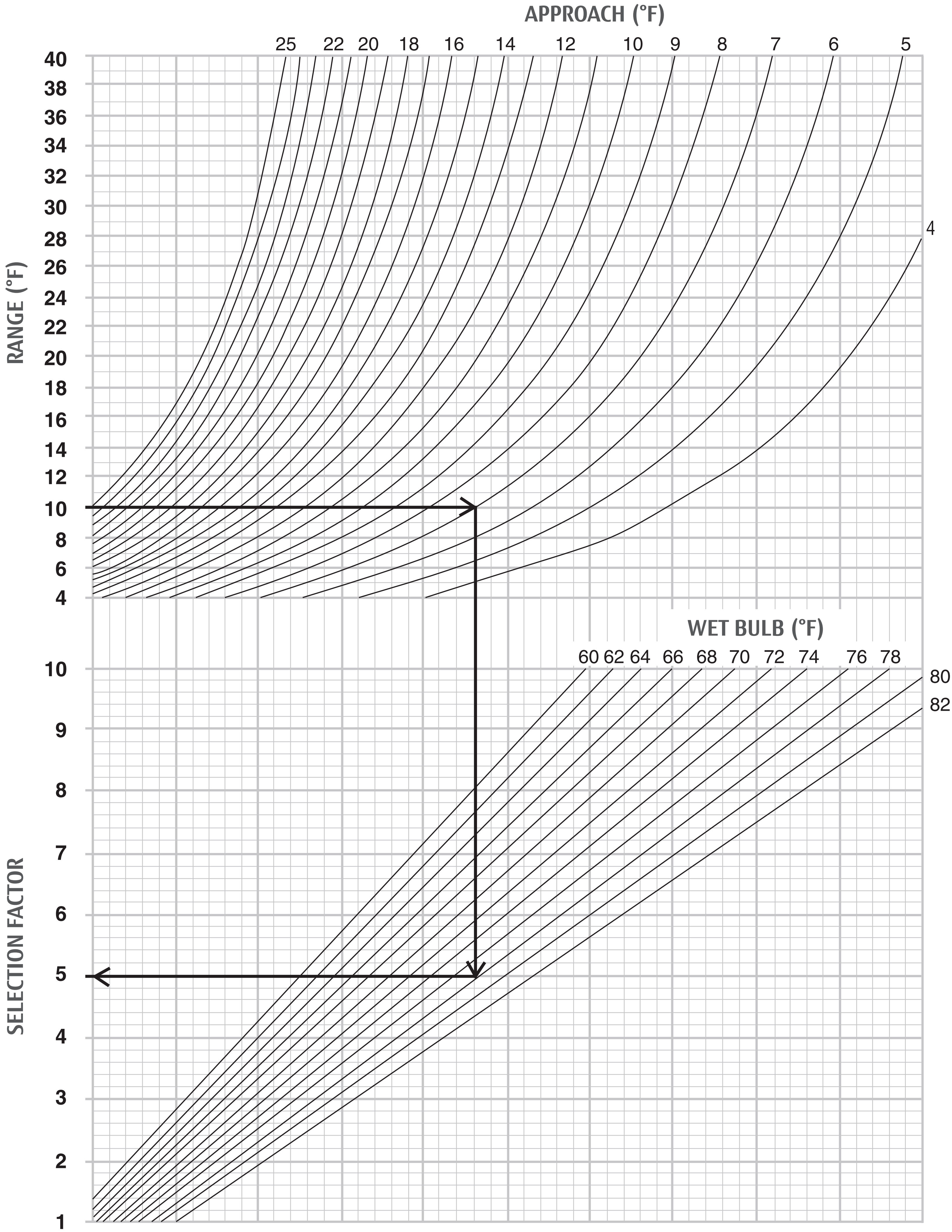
1- Required water flow rate
2- Entering water temperature
3- Leaving water temperature
4- Ambient wet bulb temperature

Step 1: Determine the water temperature range (entering water temperature minus leaving water temperature).
Step 2: Determine the approach of the leaving water temperature to the wet bulb temperature (leaving water temperature minus the wet bulb temperature).
Step 3: Refer to the selection factor graph and start with the calculated range from Step 1.
Step 4: Draw a horizontal line over to the correct approach line that was calculated in Step 2.
Step 5: Proceed vertically downward to intersect your design wet bulb curve.
Step 6: After intersecting the design wet bulb curve, continue horizontally left and record the selection factor number.
Step 7: Refer to the model selection graphs for tower selection. Enter the graph with the selection factor number on the vertical axis and your design flow rate on the horizontal axis. The selected model is at the intersection of the two lines. If the intersection point falls between two models, choose the upper model.

Selection Example

Given:
Entering water temperature: 95°F
Leaving water temperature: 85°F
Ambient wet bulb temperature: 78°F
Design flow rate: 350 GPM
Step1 – Calculate the Range:
Range = Entering water temperature - Leaving water temperature = 95°F- 85°F = 10°F
Step2 – Calculate the Approach:
Approach = Leaving water temperature - Design wet bulb = 85°F - 78°F = 7°F
Step 3
Enter the selection factor graph at 10°F range and follow the horizontal line to the intersection of the 7°F approach curve.
Step 4
Proceed vertically downward to intersect the design 78°F wet bulb curve.
Step 5
Next, proceed horizontally left to find the selection number (in this problem selection number is 5).
Step 6
By referring to the unit performance graph can see the intersection of the selection factor (5) and design flow rate(350 GPM) is falls between two models, so we select upper model (SRFCTEXQ-150).

Selection Factor Graph



Model Selection Graph