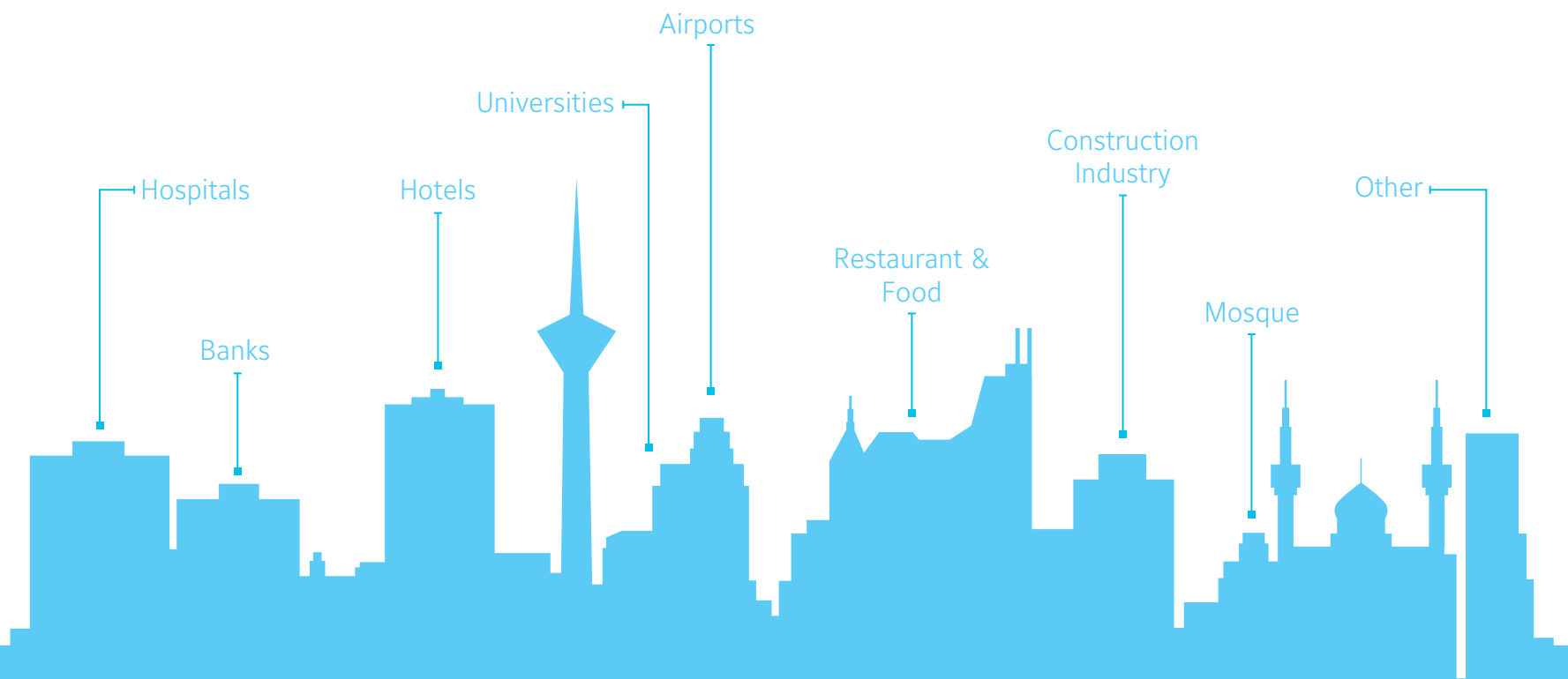




FIBERGLASS COOLING TOWER

Saran

Life's Pleasant Breeze



AIR CONDITIONING MFG.GROUP

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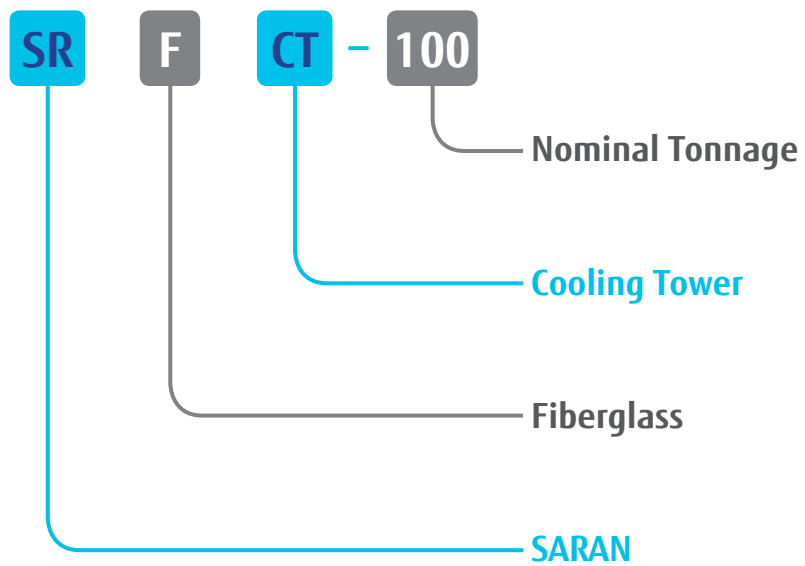


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NOMENCLATURE





Introduction

Saran fiberglass cooling tower is an induced draft, counter flow, film filled cooling towers designed for a multitude of refrigeration, air conditioning, and industrial process cooling applications.

The versatility of applications along with the broad range of capacities offered from 8 to 500 tons of refrigeration, make Saran fiberglass cooling towers the premium choice in industrial and commercial refrigeration and air conditioning.

Advantage

Saran 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.

High Efficiency Shape Design:

The cylindrical shape design of these cooling towers makes it possible to install in any direction and also makes the cooling tower more steady against high winds.

Space Saving & Light Weight:

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

Easy Hoisting or Crane Placement:

The tower can be preassembled in the factory for easy transport, lifting and site installation.



Selection Information

To select a Saran 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 graph and start with the calculated approach from Step 2.

Step 4: Draw a horizontal line over to the correct range line that was calculated in Step 1.

Step 5: Proceed vertically downward to intersect your design wet bulb curve.

Step 6: After intersecting the design wet bulb curve, continue horizontally right to intersect your design flow rate on the vertical axis. The selected model is at the intersection of the two lines. If intersection point falls between models, select model above intersection point.

Selection Example

Given:

Entering water temperature: 95°F

Leaving water temperature: 85°F

Ambient wet bulb temperature: 75°F

Design flow rate: 1000 GPM

Step 1 – Calculate the Range:

Range = Entering water temperature - Leaving water temperature = 95°F - 85°F = 10°F

Step 2 – Calculate the Approach:

Approach = Leaving water temperature - Design wet bulb = 85°F - 75°F = 10°F

Step 3

Enter the selection graph at 10°F approach and follow the horizontal line to the intersection of the 10°F range curve.

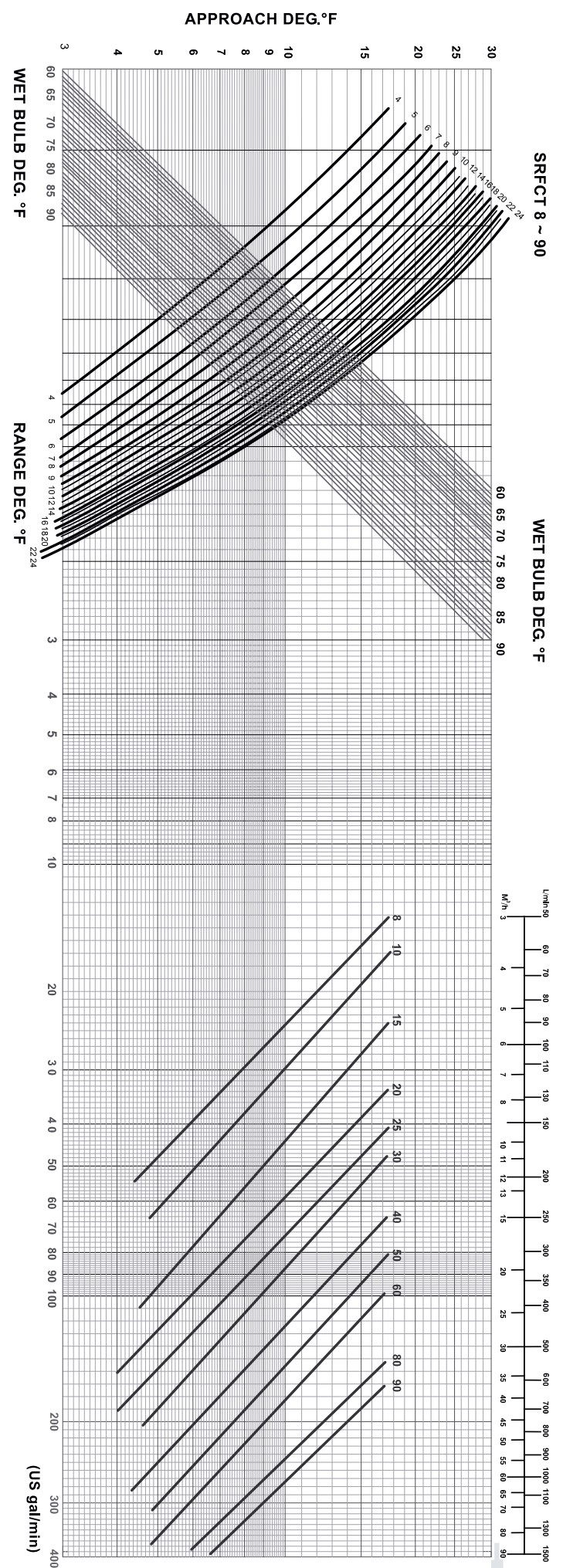
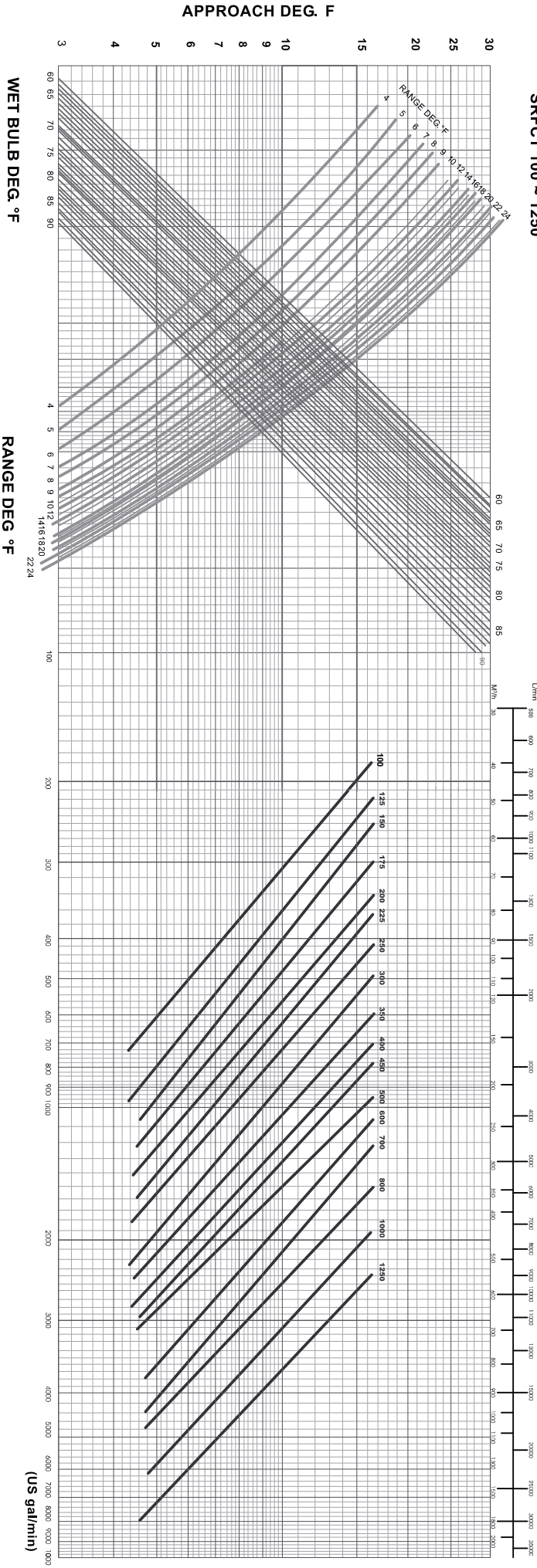
Step 4

Proceed vertically downward to intersect the design 75°F wet bulb curve.

Step 5

Next, proceed horizontally line to meet the 1000 GPM line, because of intersection point falls between two models, so we select model above intersection point (SRFCT-300).

Selection Chart





Technical Data

Table 1

Model	Nominal Tonnage	Pump		FAN			Weights	
		Water Flow Rate(GPM)	Nozzle Head(ft)	Motor Power (HP)	Air Flow Rate(CFM)	Dia.(cm)	Net (kg)	Opr.(kg)
SRFCT-8	8	27.7	4.3	0.25	3000	60	58	129
SRFCT-10	10	35.2	4.3	0.25	3150	60	60	151
SRFCT-15	15	42	5.2	0.5	6300	80	109	250
SRFCT-20	20	70.4	5.4	0.5	7150	80	114	268
SRFCT-25	25	87	6	0.5	7740	80	121	340
SRFCT-30	30	103	6.8	1	8450	80	168	380
SRFCT-40	40	139.5	6.8	1	9500	90	180	435
SRFCT-50	50	169.3	7.4	1.5	11200	90	225	540
SRFCT-60	60	204	8	2	14600	117	371	662
SRFCT-80	80	275	8	2	17800	117	410	771
SRFCT-90	90	310	10	3	22100	117	453	877
SRFCT-100	100	334	10	3	24500	117	518	996
SRFCT-125	125	430	11	4	27900	150	615	1326
SRFCT-150	150	516	11	4	30200	150	702	1434
SRFCT-175	175	602	13	4	33400	180	903	2513
SRFCT-200	200	689	14	5.5	48000	180	1044	2654
SRFCT-225	225	773	14	5.5	57800	180	1185	2796
SRFCT-250	250	862	15	7.5	66700	240	1297	3914
SRFCT-300	300	1021	15	7.5	77600	240	1496	4114
SRFCT-350	350	1205	16	7.5	84100	240	1617	5076
SRFCT-400	400	1387	16	10	91200	240	1860	5319
SRFCT-450	450	1561	17	15	107100	326	1987	7442
SRFCT-500	500	1738	17	15	120200	326	2031	7756



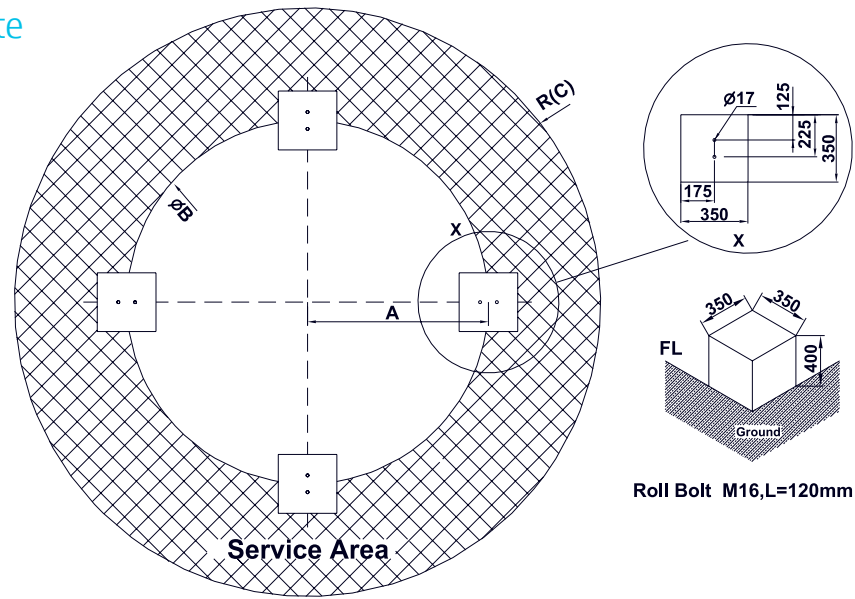
Physical Data

Table 2

Model	Connection Size						Dimension	
	Inlet (inch)	Outlet (inch)	Over Flow (inch)	Drain (inch)	Make Up (inch)	Quick Fill (inch)	Dia.(cm)	Height(cm)
SRFCT-8	1 1/2	1 1/2	1	1	1/2	-	98	140
SRFCT-10	1 1/2	1 1/2	1	1	1/2	-	98	165
SRFCT-15	2	2	1	1	1/2	-	118	170
SRFCT-20	2	2	1	1	1/2	-	140	180
SRFCT-25	2	2	1	1	1/2	-	140	205
SRFCT-30	3	3	1	1	1/2	-	170	200
SRFCT-40	3	3	1	1	1/2	-	180	220
SRFCT-50	3	3	1	1	1/2	-	190	238
SRFCT-60	4	4	1 1/2	1 1/2	1/2	1/2	212	254
SRFCT-80	4	4	1 1/2	1 1/2	1/2	1/2	212	254
SRFCT-90	4	4	1 1/2	1 1/2	1/2	1/2	259	267
SRFCT-100	4	4	1 1/2	1 1/2	1/2	1/2	259	267
SRFCT-125	6	6	2	2	3/4	1	295	284
SRFCT-150	6	6	2	2	3/4	1	295	284
SRFCT-175	6	6	2	2	1	1	372	296
SRFCT-200	6	6	2	2	1	1	372	296
SRFCT-225	6	6	2	2	1	1	372	296
SRFCT-250	8	8	2	2	1	1	443	359
SRFCT-300	8	8	2	2	1	1	443	359
SRFCT-350	8	8	2	2	1 1/2	1 1/2	486	373
SRFCT-400	8	8	2	2	1 1/2	1 1/2	486	373
SRFCT-450	10	10	2	2	2	2	552	393
SRFCT-500	10	10	2	2	2	2	552	393

Foundation Specification & Drawings

Armored Concrete
SRFCT_20~100



Steel
SRFCT_20~100

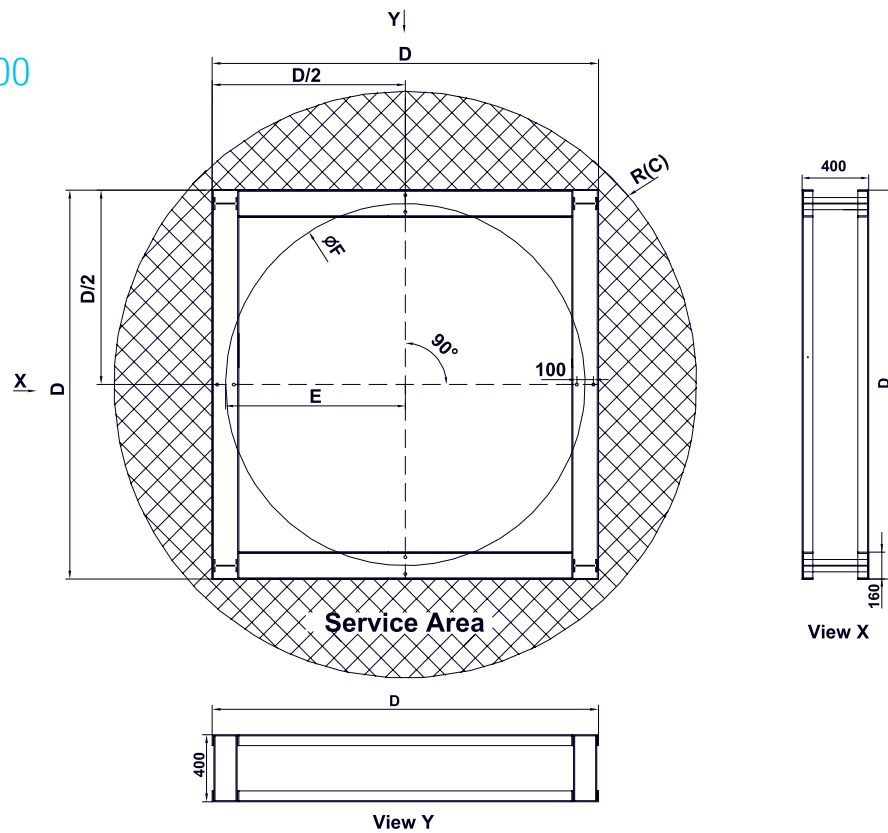


Table 3

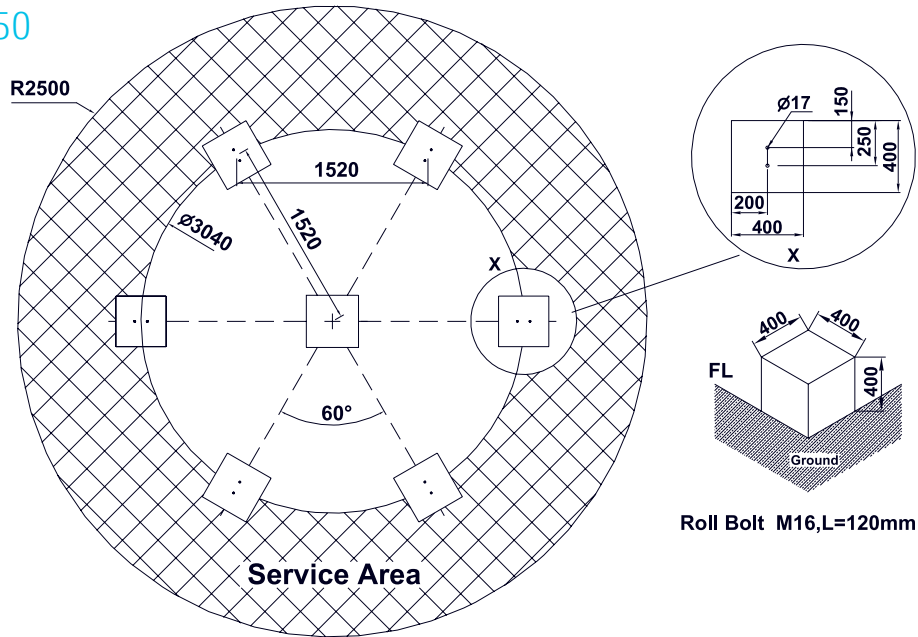
Model	A	B	C	D	E	F
SRFCT-20~40	565	1130	1225	1290	565	1130
SRFCT-50~80	860	1720	1500	1880	860	1720
SRFCT-90~100	1080	2160	1750	2320	1080	3500

NOTE

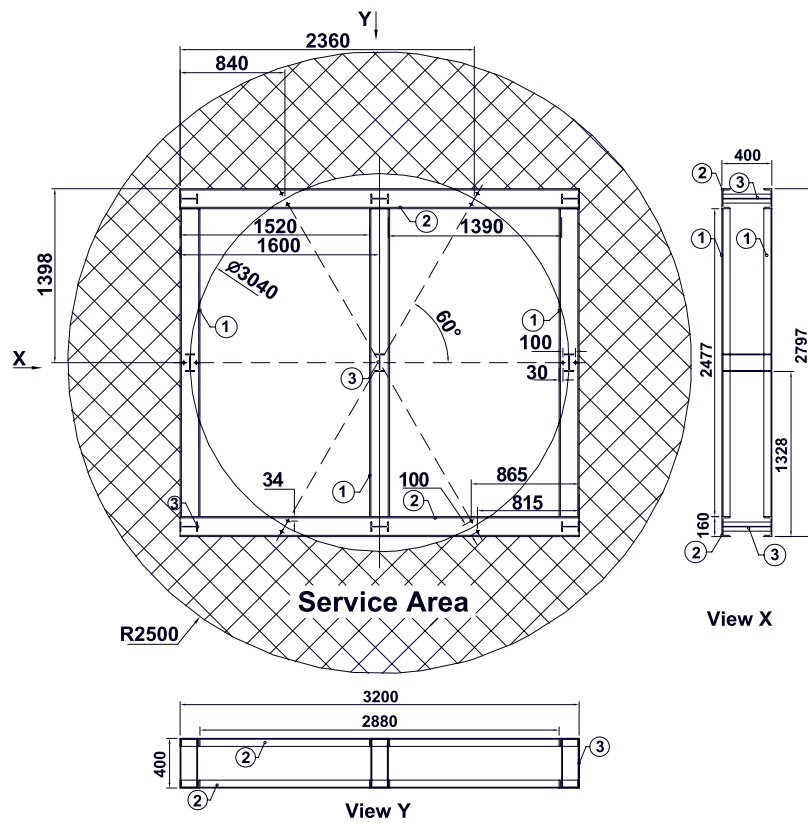
- All dimensions are in mm.
- All above data subject to change without notice.

Foundation Specification & Drawings (Cont.)

Armored Concrete
SRFCT_125~150



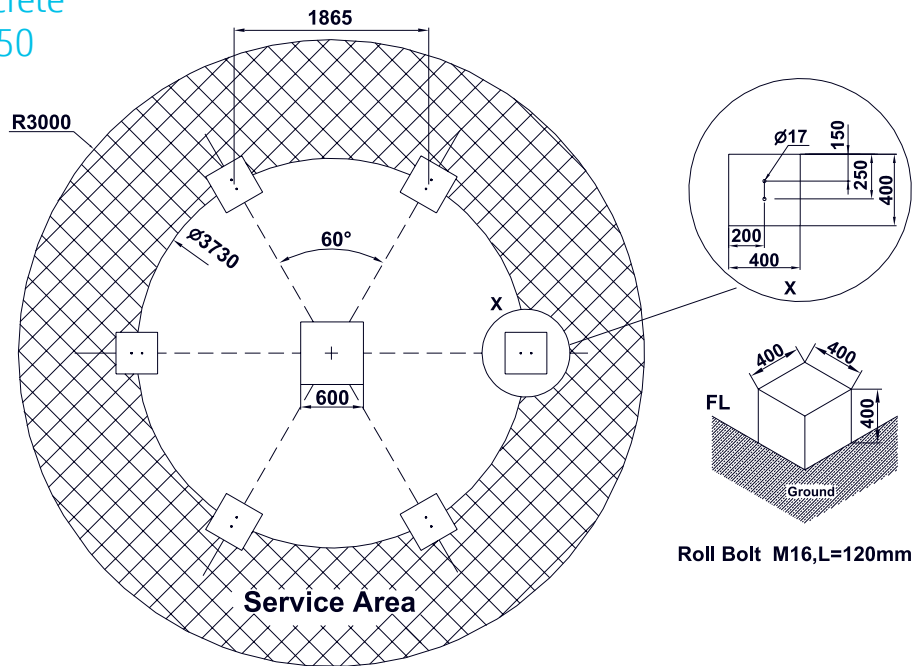
Steel
SRFCT_125~150



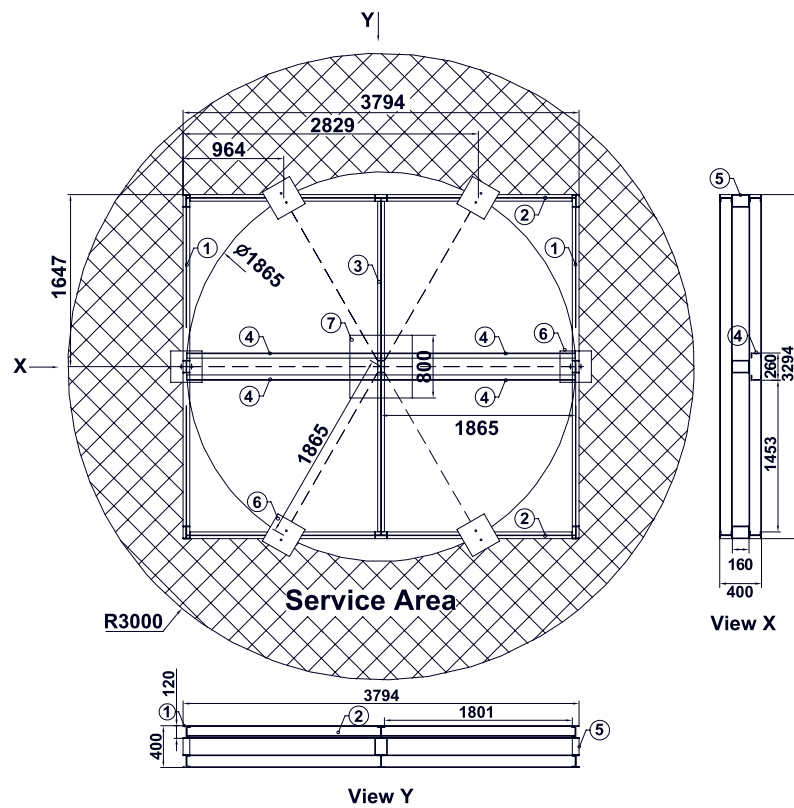
- NOTE**
- All dimensions are in mm.
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Foundation Specification & Drawings (Cont.)

Armored Concrete
SRFCT_125~150



Steel
SRFCT_125~150

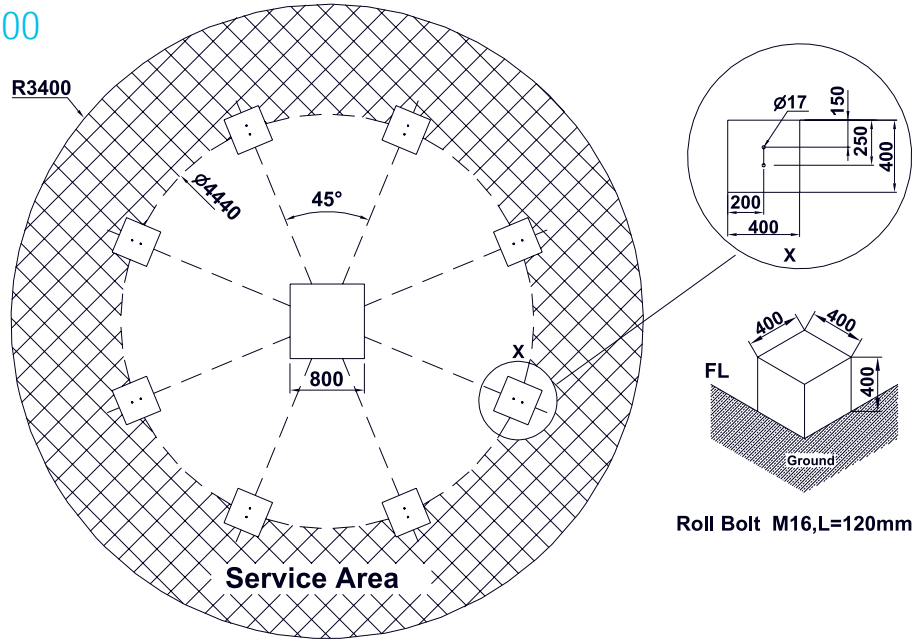


NOTE

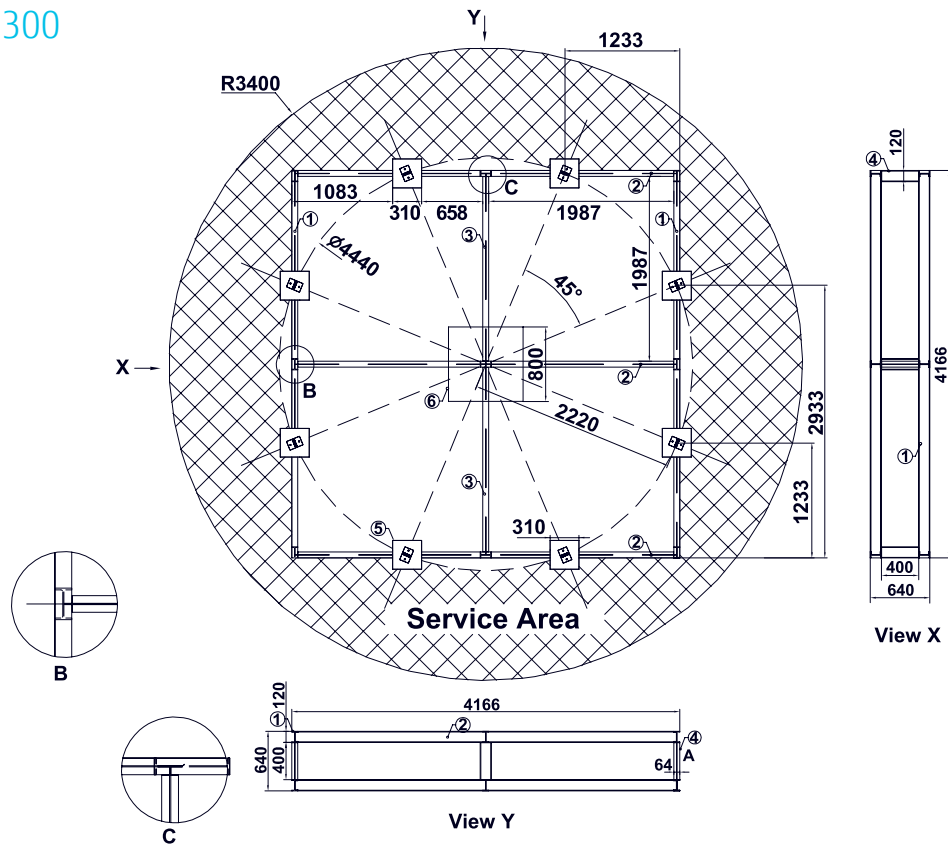
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Foundation Specification & Drawings (Cont.)

Armored Concrete
SRFCT_250~300



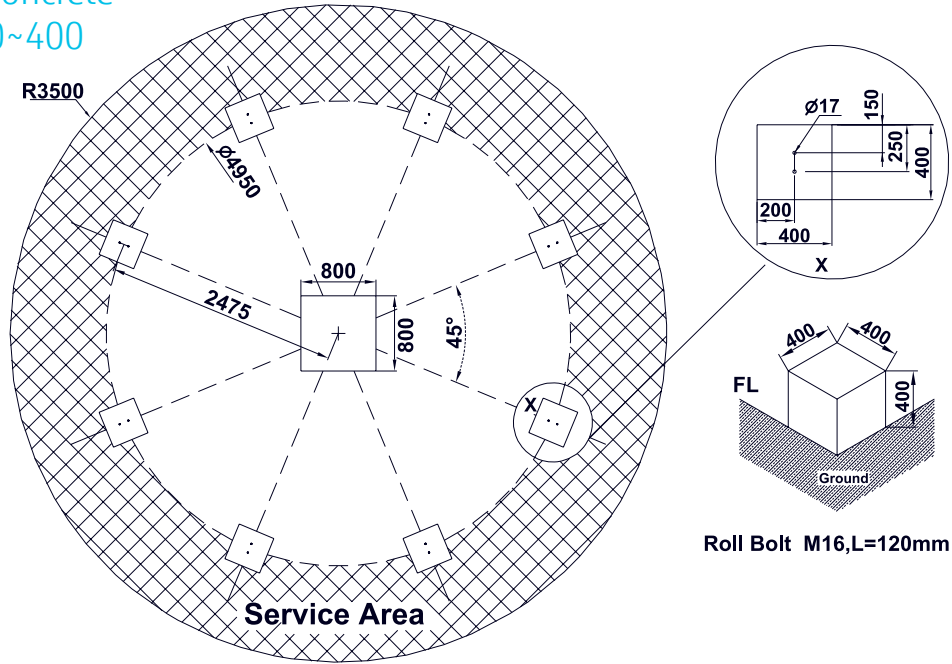
Steel
SRFCT_250~300



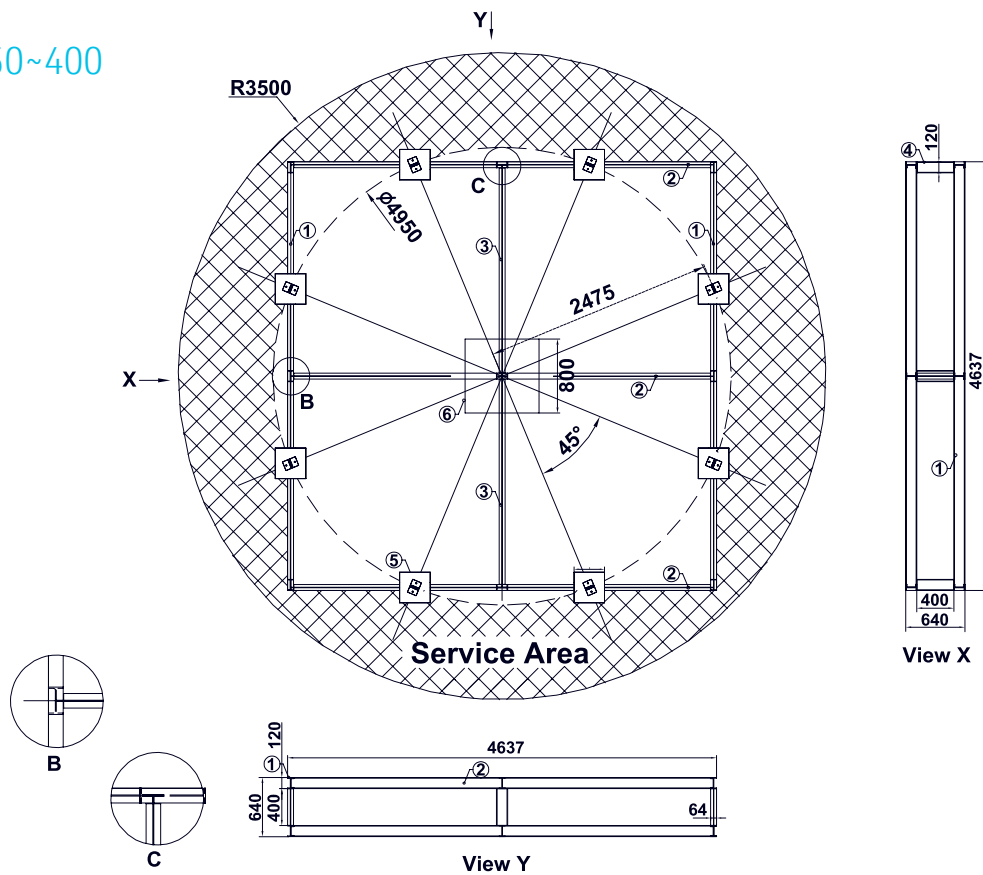
- NOTE**
- All dimensions are in mm.
 - All above data subject to change without notice.

Foundation Specification & Drawings (Cont.)

Armored Concrete
SRFCT_350~400



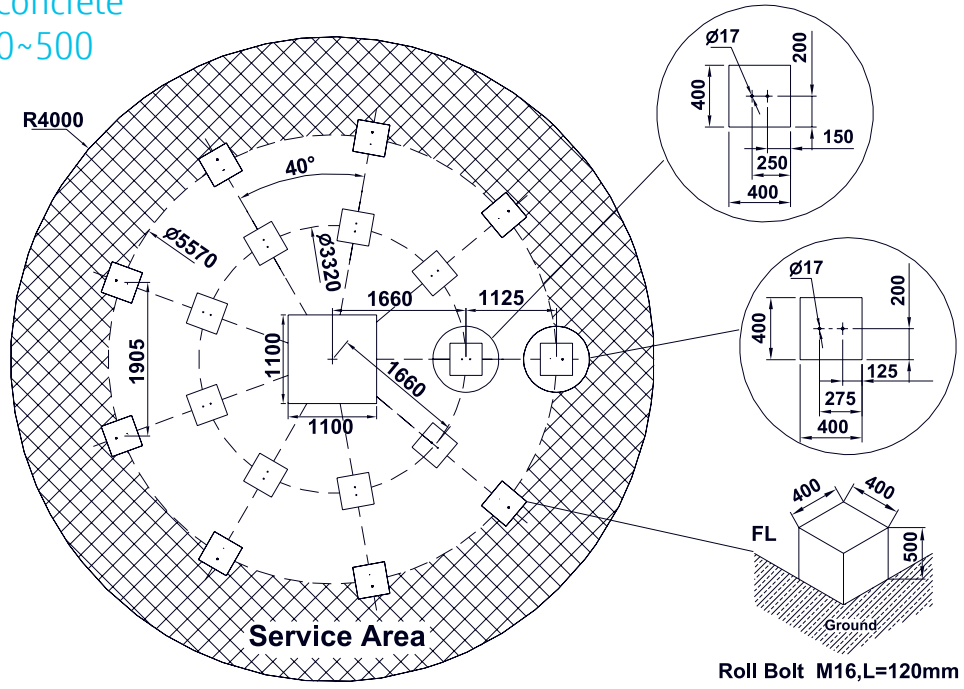
Steel
SRFCT_350~400



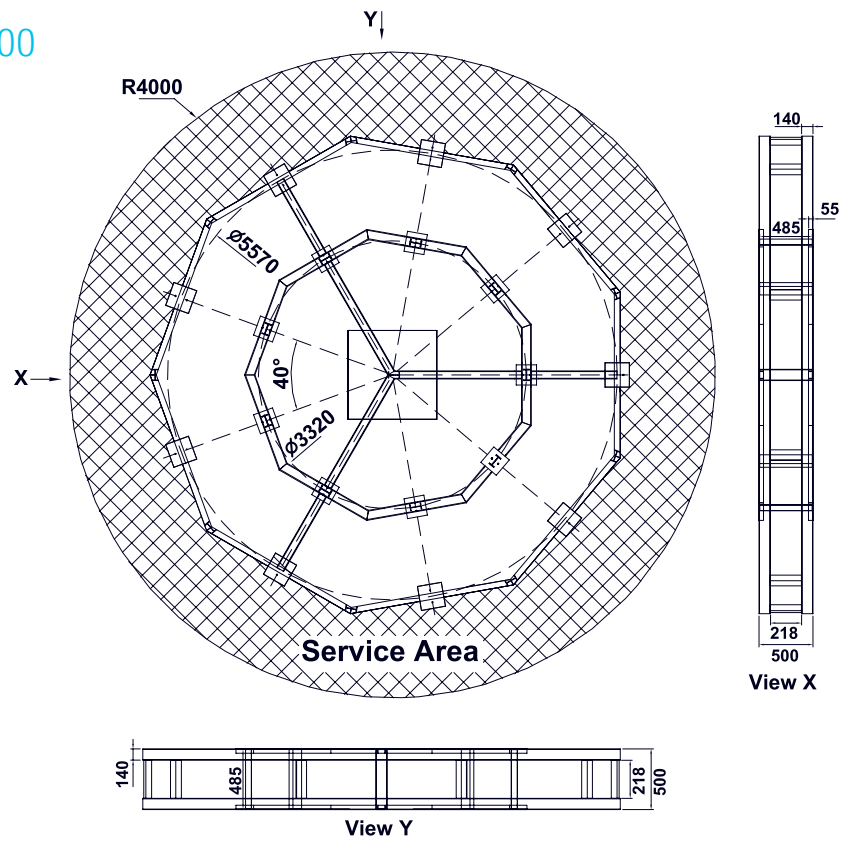
- NOTE**
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Foundation Specification & Drawings (Cont.)

Armored Concrete
SRFCT_450~500



Steel
SRFCT_450~500



- NOTE**
- All dimensions are in mm.
 - All above data subject to change without notice.