

OTC SERIES (400-1600 TR)

CROSS FLOW TOP DISCHARGE (TRAPEZIODAL) COOLING TOWERS





GENERAL SPECIFICATION

STRUCTURE : The structure is designed to withstand wind load of 30 psf .

Trapeziodal cooling towers consists of modular bolted subassemblies cross - braced with tension rods , (No welding at all) .

CASING :Casing of galvanized steel sheets give full protection against corrosion , corrugated asbestos cement board casing is applied with vertical corrugations is another alternate for trapeziodal cooling towers . Corrugated casing joints are lapped .

BASINS :Heavy gauge galvanized steel sheets are used to fabricate basins . Tower basins are completed with make up water float control valve as well as over flow, drain and suction fitting .

FILLING : Preservative - treated Russian or Finn timber are used . Design assures permanent fill alignment and configuration .

WATER DISTRIBUTION

Gravity water distribution system for uniform distribution of hot water over the entire fill area is considered , using flange and collector .

FAN :Low speed, noiseless, multi -blade pressed galvanized steel or aluminum induced- draft propeller fans are standard equipment on some **OMRAN TAHVIEH** cross flow cooling towers . Fans are designed to grantte adequate air flow between suction and discharge ports for the provision of maximum heat transfer and tower performance requirements .

DRIVE : Cubic cooling tower fans are beltdrive or gearedreducer drive as well as belt drive. Option of double speed fan for belt drive cooling towers on request is possible .

SERIES COOLING TOWER SELECTION PROCEDURE

1. CALCULATE "K" factor

Design hot water temperature = HWT °F

Design cold water temperature = CWT °F

Environment wet bulb temperature = WBT °F

$$K = \frac{HWT - CWT}{HWT - WBT}$$

- Add 8 to 10 percent to "K." for usage efficiency reduction.

2. Enter the"OTC" chart at "K" factor

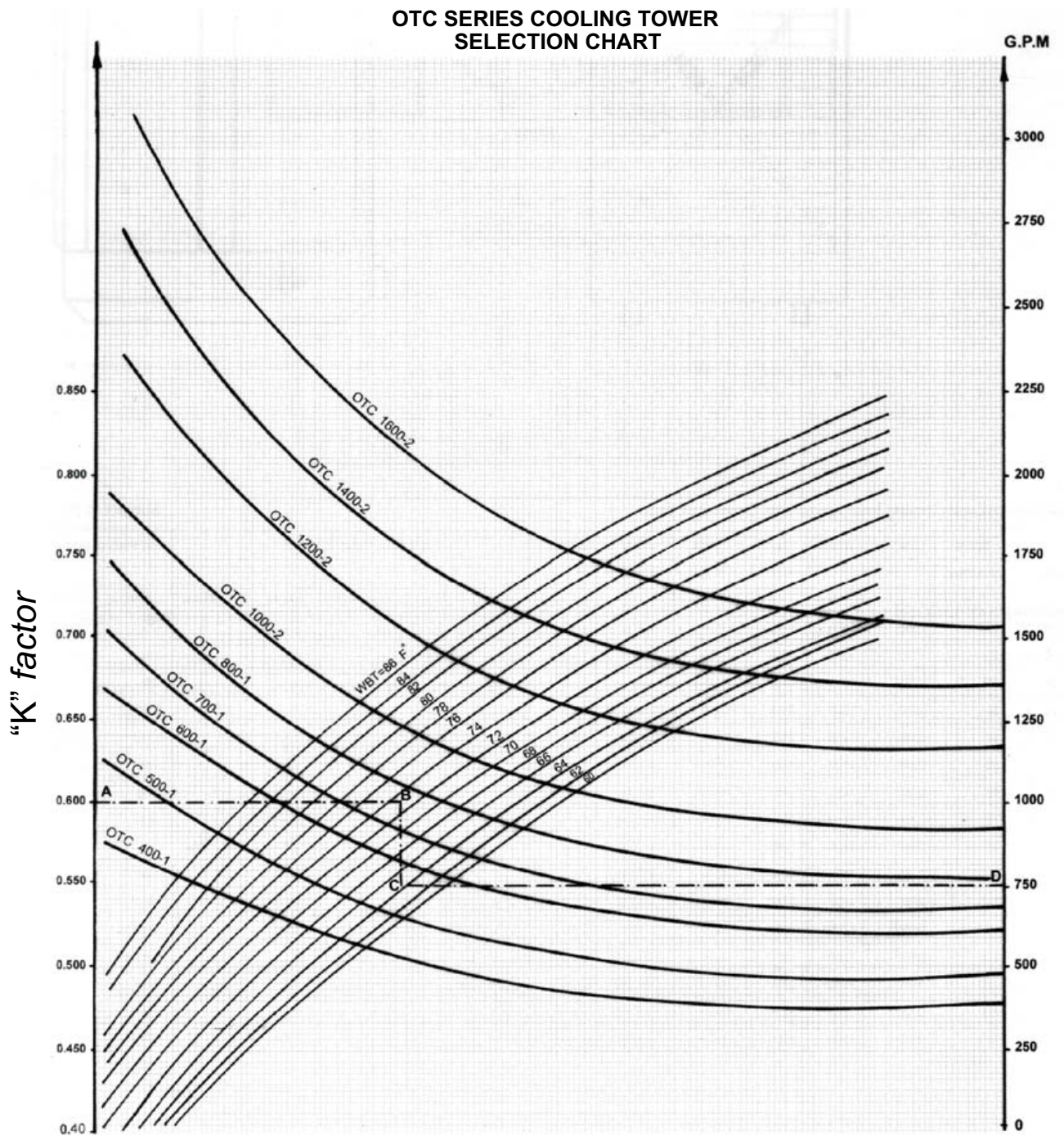
and draw horizontal line to intersection with environment wet bulb temperature " WBT " .

. Proceed vertically to intersection with a line horizontally drawn from design flow rate "G.P.M."

. Select model at intersection of these lines, (IF INTERSECTION POINT FALLS BETWEEN MODELS, SELECT MODEL TO THE RIGHT).

** FOR CONDITIONS NOT AVAILABLE ON CHARTS CONSULT OMRAN SALES OFFICE.*

SELECTION CHART



PLEASE WHEN RELATIVE HUMIDITY IS HIGH CONSULT OMRAN SALES OFFICE

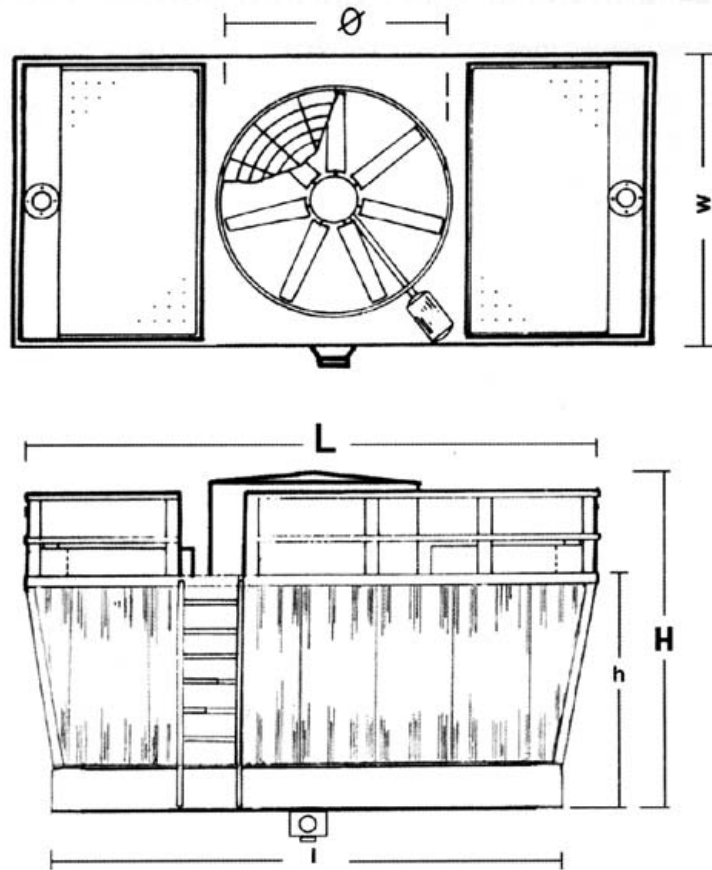


TABLE :1

OMRAN TAHVIEH Trapeziodal Cooling Tower Approximate Dimensional Data:

Subject to modification

MODEL	TONS NOMINAL TR	LENGHT		WIDTH W	HIGHT		FAN NO.x DIA ϕ	MOTOR HP	PIPING CONNECTIONS					APPROXIMATE WEIGHT $\times 10^3$ Kg	
		AT FAN DECK LEVEL L	AT BASIN LEVEL I		BODY h	TOTAL H			INLET	OUTLET	OVER FLOW	MAKE UP	DRAIN		
														SHIPPING	OPERATING
OTC 400 - 1	400	6500	5500	2500	2350	3400	1 x 2050	10	2 x 5"	8"	1 1/2"	1"	3"	4.5	10
OTC 500 - 1	500	6500	5500	2850	2550	3600	1 x 2200	15	2 x 5"	8"	1 1/2"	1"	3"	5.2	12
OTC 600 - 1	600	6800	5800	2850	2950	4000	1 x 2200	20	2 x 6"	10"	2"	1 1/2"	4"	5.9	13
OTC 700 - 1	700	6800	5800	2850	3350	4400	1 x 2200	20	2 x 6"	10"	2"	1 1/2"	4"	6.3	14.2
OTC 800 - 1	800	7000	6000	3000	3450	4500	1 x 2300	20	2 x 6"	10"	2"	1 1/2"	4"	7.1	15.5
OTC 1000 - 2	1000	6500	5500	5700	2550	3600	2 x 2200	2 x 15	4 x 5"	12"	2"	2"	5"	10.4	24
OTC 1200 - 2	1200	6800	5800	5700	2950	4000	2 x 2200	2 x 20	4 x 6"	14"	2"	2"	5"	11.8	26
OTC 1400 - 2	1400	6800	5800	5700	3350	4400	2 x 2200	2 x 20	4 x 6"	14"	2"	2"	5"	12.6	28.4
OTC 1600 - 2	1600	7000	6000	6000	3450	4500	2 x 2300	2 x 20	4 x 6"	14"	2"	2"	5"	14.2	31

ALL DIMENSIONS ARE IN mm



Geareducer Drive



Double Speed Beltdrive



Single Speed Belt Dtive

PROJECT INFORMATION**SERVICE LOG**

DATE	COMMENTS

PROJECT INFORMATION

System	
Model Number	Date of Start-Up
Serial Number	Service Contractor
Refrigerant	Phone
Electrical Supply	Fax

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Due to National Refrigeration is policy of continuous product improvement, we reserve the right to make changes without notice.