



**V4S**

# **COOLING TOWER**






**FOR INDUSTRIES - HVAC - PROCESS APPLICATION**



MEMBER

**TCS - CROSS FLOW CLOSED LOW NOISE TYPE**

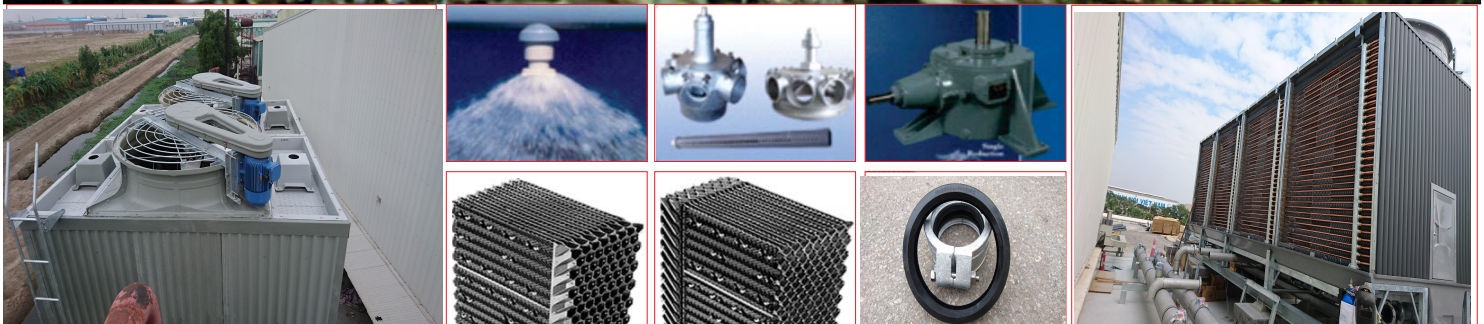
## PRODUCT FEATURES

-  Energy saver
-  Low noise level
-  Low drift loss
-  Quake proof design
-  Guaranteed thermal performance

VSC SERIES OPEN LOW NOISE TYPE - TCS SERIES LOW NOISE CLOSED TYPE

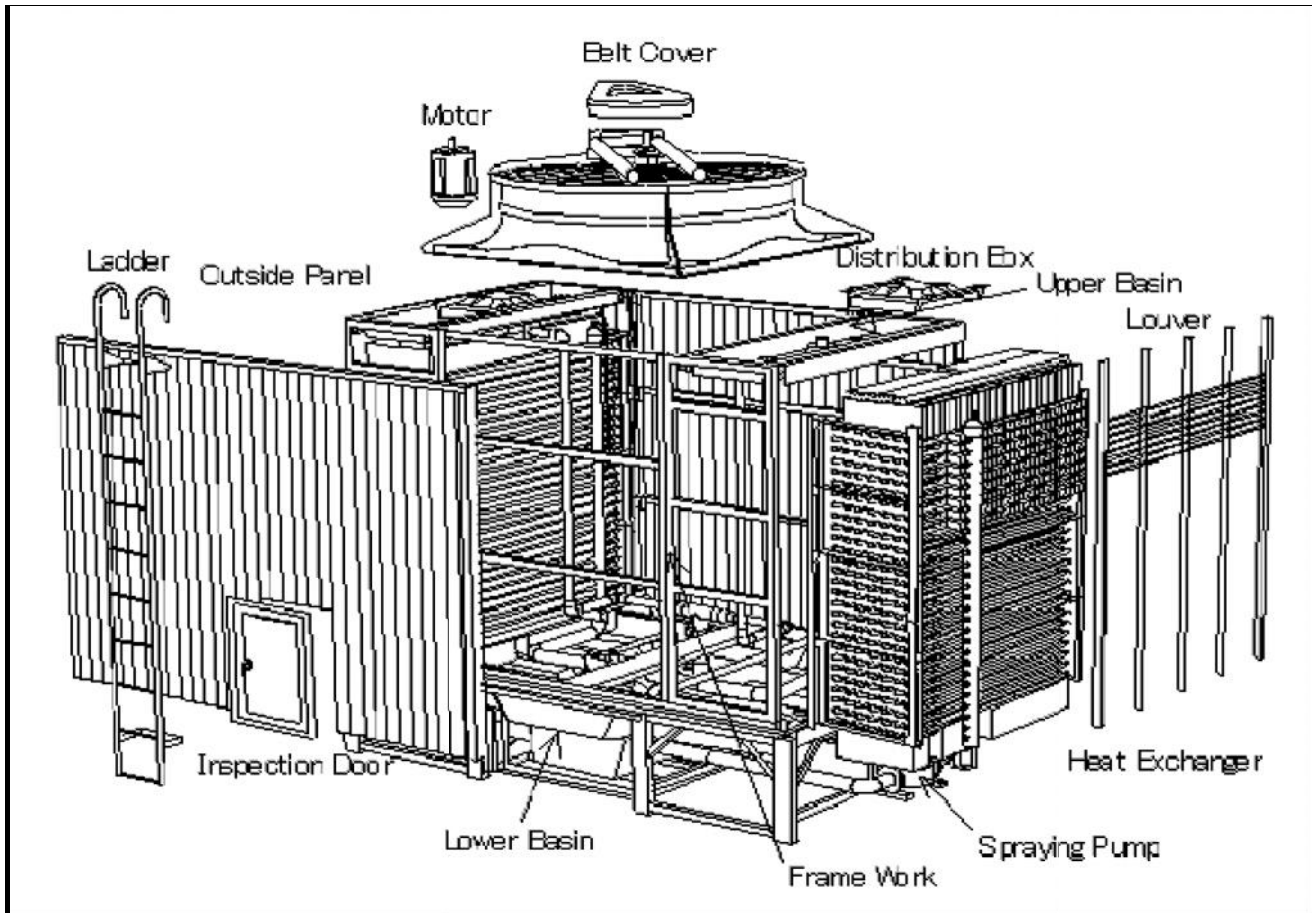
CROSS FLOW TYPE - SQUARE COUNTER FLOW TYPE - CLOSED TYPE

## COOLING TOWER COMPONENTS



**V4S COOLING TOWER INDUSTRY CO.,LTD**

## Structure of TCS <Closed> type Cooling Tower



Design concept-wise, the closed cooling tower is the opposite of the open type in the sense that circulating water never contacts ambient air during cooling process. There are two independent sources of water used for the closed type tower : Circulating water and spray water.

Circulating water runs only inside a totally enclosed copper tube while spray water runs down through. Infill. In this system, spray water cools circulating water running inside the copper tube circuit without contacting with each other directly.

In this way water never gets concentrated due to the fact that no evaporation takes place in the tube. Based on this fact, the equipment such as chiller is totally protected against scale, and time & cost for maintenance can be minimized.

In the region under low W.B. temperature (about 8 °C), closed-type cooling tower can be connected to main cooling equipment directly to function as "COLD WATER GENERATOR" such as chiller.

This system is called "free-cooling" and it greatly contributes to energy-saving.

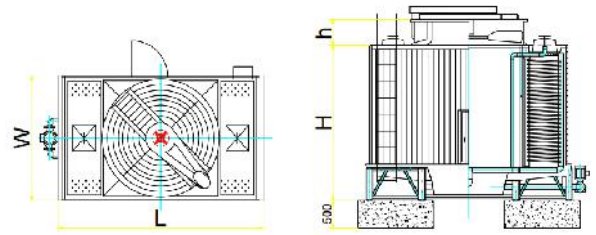
Heat exchanger : Seamless phosphorus dioxide copper tube is used for the circuit, and the filling pieces are loaded at each individual stage to maximize cooling efficiencies.

For Fan unit, Lower basin, Internal body and Framework, refer to page 1 for detail

# TCS (Closed) type Cooling Tower

## CLOSED TYPE (Low noise)

TSC



Model	Flow rate m <sup>3</sup> /h					Dimensions (mm)				Weight		
	Inlet (°C)	37.0	37.5	37.7	38.0	40.0	Length	Width	Height	Fan height	Net	Ope.
Outlet (°C)	32.0					32.0						
W.B (°C)	28.0					28.0						
TCS-25RT	16.8	14.4	14.2	13.8	12	2120	1370	1630	500	270	500	
30	20.1	18.9	18.6	18.1	15.7	2120	1370	1730	500	300	550	
40	27.9	26.7	26.1	25.5	22	2120	1370	1930	500	350	670	
50	36	34.2	33.7	32.8	28.4	2970	1470	2175	400	890	2200	
60	44.1	35.7	35	36	31.5	2970	1470	2175	400	1100	2430	
80	52.2	49.5	48.6	47.4	41.1	3230	1870	2475	400	1370	2930	
100	67.5	64.8	63.6	62	53.7	3230	1870	2675	400	1520	3000	
125	84	80.1	74.9	72.96	63.1	3630	2270	2825	470	1800	3800	
150	91.5	87.6	86.1	83.9	72.6	3230	3700	2175	400	2600	5400	
175	114	110.7	100.3	97.7	91.6	3230	3700	2475	400	2860	5760	
200	126	121.5	119.7	116.7	101	3230	3700	2675	400	3000	6000	
225	150	135.9	133.9	132.6	113.7	3430	4100	2675	470	3300	6760	
250	171.6	163.5	153.4	148.2	132.7	3630	4500	2825	470	3680	7620	
265	180	173.4	163	157.5	140	3230	5530	2175	400	4300	8650	
300	199.5	190.8	187.2	181.5	158	3230	5530	2675	400	4560	9000	
350	231	222.7	218.4	211.9	184.3	3430	6130	2825	470	5160	10400	
400	292.5	254.7	249.6	242.3	241.5	3230	7360	2630	400	6080	12000	
450	322.8	288.9	280.8	272.7	265.5	3430	8160	2675	470	6600	13520	
500	354	336.3	312	303.2	279.6	3630	8960	2825	470	7360	15240	

# TCS (Closed) type Cooling Tower

Model TCS	Fan spec.					Piping size			Sound level (dB) (A)				
	Dia	Kw	Pole	Spray pump (Kw/Q'ty)	Nos	Water In/Out	Overflow Drain	Make- up (Auto/ Manual)	Louver side		Panel side		Fan45° Dm (min:1.5m)
	mm	kw	P						2m	10m	2m	10m	
25RT	970	1.1	6	0.75/1	1	80	34	15	52.0				
30	970	1.5	6	0.75/1	1	80	34	15	58.0				
40	970	2.2	8	0.75/1	1	80	34	15	59.0				
50	1150	2.2	4/8	0.75/1	1	80	50	15	67.0	59.0	62.5	57.0	71.0
60	1150	2.2	4/8	1.5/1	1	125	50	15	67.0	59.0	62.5	57.0	71.0
80	1600	3.7	4	1.5/1	1	125	50	15	67.5	59.0	63.0	57.0	72.0
100	1400	2.2	4	1.5/1	1	125	50	15	63.5	56.0	59.5	54.0	70.0
125	1400	3.7	4	2.2/1	1	125	50	15	64.5	57.0	60.0	53.5	69.5
150	1600	3.7	4	1.5/2	2	125	50x2	20	65.0	57.0	61.0	54.5	70.5
175	1600	5.5	4	1.5/2	2	125	50x2	20	66.0	58.0	62.0	55.5	71.5
200	1800	5.5	4	1.5/2	2	125	50x2	20	66.0	58.0	62.0	55.0	72.0
225	2000	5.5	4	1.5/2	2	125	50x2	20	66.0	58.0	62.0	56.0	72.0
250	2000	5.5	4	2.2 /2	2	125	50x2	20	67.0	59.0	62.5	56.5	73.0
265	1600	5.5	4	1.5/3	3	125x3	50x3	32	72.0	64.0	67.5	60.0	76.0
300	1600	3.7	4	1.5/3	3	125x3	50x2	25	67.5	60.0	62.5	56.5	72.5
350	1600	5.5	4	1.5/3	3	125x3	50x3	25	68.5	61.0	63.5	57.5	73.5
400	1800	5.5	4	1.5/4	4	125x4	50x4	25	68.5	61.0	63.5	57.5	74.0
450	2000	5.5	4	1.5/4	4	125x4	50x4	32	68.5	61.0	63.5	58.0	74.0
500	2000	7.5	4	2.2/4	4	125x4	50x4	32	69.5	62.0	64.0	58.5	75.0



**V4S COOLING TOWER INDUSTRY CO.,LTD**

**Add :** 3/115 Lane, Dinh cong Str, Thanh liet Ward,  
Hoang mai Dist, Hanoi City, Vietnam.

**Tell :** +84.4.35400488

**E-mail :** [support@coolingtower.com.vn](mailto:support@coolingtower.com.vn)

**Website :** <http://www.coolingtower.com.vn>