C.Q.M.
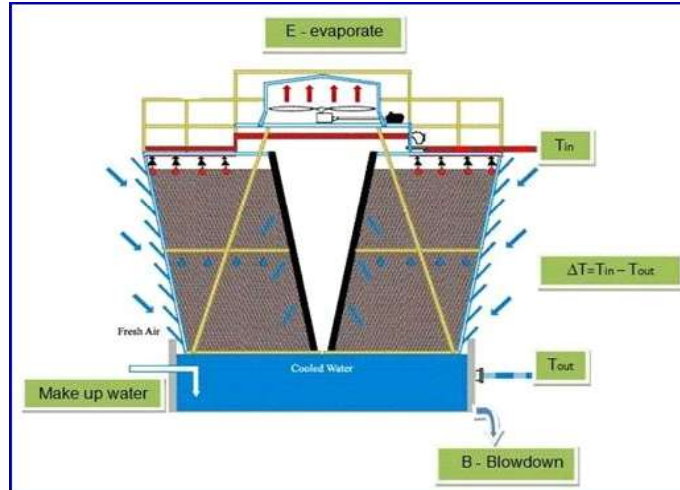# K.A.N.- Japan Corporation

CONSOLIDATED REPORT OF TOTAL SAVINGS FROM SRS INSTALLATION

CUSTOMER: **Dai Nippon Printing**
INSTALLATION SITE: **0**
COOLING TOWER SIZE (TR) 480
YEAR OF INSTALLATION 2005

CALCULATION OF EVAPORATION FLOW RATE ACORDING TO:		$mc_P \, \Delta T = E \, \lambda$
m - Cooling water flow in the system [Ton / hr]	304	Ton/hr
TR - Cooling tower capacity [TR]	480	TR
Cp - Specific heat - [Ton cal / Ton water ºc]	1	Ton cal / Ton water ºC
Ti - inlet cooling water temp [ºc]	22.3	ºC
To -outlet cooling water temp [ºc]	18.0	ºC
?T - ?T = Ti - To	4.4	
Cooling tower conductivity withuot CQM	1,351	µs
Cooling tower conductivity with CQM	4500	µs
Makeup water conductivity µs	358	µs
λ latent heat evaporating water temp. [Ton Cal / Ton w	540	Ton cal / Ton water ºC
E - Evaporating water [Ton / hr]	2.46	Ton/hr

SAVINGS IN DRAINAGE FLOW RATE:			B = E/ (C-1)	
	BEF. SRS	WITH SRS	SAVINGS	
B - Drainage flow rate	0.88	0.21	0.67	Ton/hr
E - Evaporation flow rate	2.46	2.46		Ton/hr
C - Concentration cycle	3.78	12.58		

CALCULATION OF SAVINGS:		
Cooling tower working hours per year	4500	hr / yr
Average utilization capacity	80%	usd / m3
Cost of one cubic water	1.42	usd / m3
Cost of chemical treatment to one cubic water	0.68	usd / m3
Water savings from drainage	3,443	usd / m3
Chemical treatment savings	18,163	usd / m3
Water savings from re-utilization	1,087	usd
TOTAL SAVINGS	**22,693**	usd/yr