



COOLING TOWER

CROSS FLOW

MODEL :

BKC-S-SERIES



Member



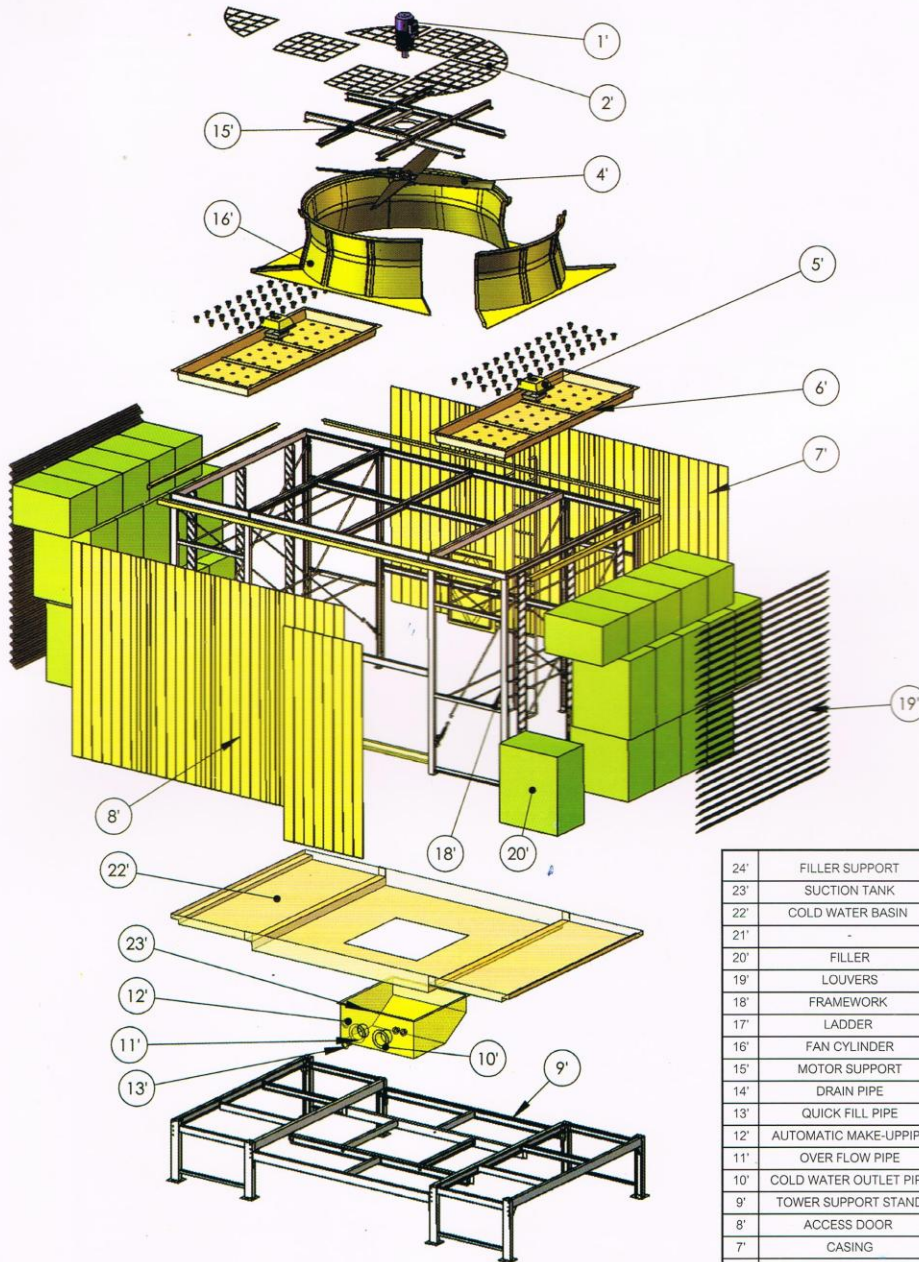
ISO 9001:2008



<http://www.bkkcooling.co.th>



Structural Detail



| | | | |
|----------|------------------------|-----|-------------------|
| 24' | FILLER SUPPORT | 16 | DWG.NO BKC-100-01 |
| 23' | SUCTION TANK | 64 | STD. |
| 22' | COLD WATER BASIN | 8 | DWG.NO BKC-100-03 |
| 21' | - | - | - |
| 20' | FILLER | 10 | STD. |
| 19' | LOUVERS | 10 | STD. |
| 18' | FRAMEWORK | 1 | DWG.NO BKC-200-01 |
| 17' | LADDER | 1 | DWG.NO BKC-100-01 |
| 16' | FAN CYLINDER | 4 | DWG.NO BKC-100-04 |
| 15' | MOTOR SUPPORT | 16 | DWG.NO BKC-200-2 |
| 14' | DRAIN PIPE | 1 | STD. |
| 13' | QUICK FILL PIPE | 2 | STD. |
| 12' | AUTOMATIC MAKE-UPPIPE | 1 | STD. |
| 11' | OVER FLOW PIPE | 1 | STD. |
| 10' | COLD WATER OUTLET PIPE | 1 | STD. |
| 9' | TOWER SUPPORT STAND | 1 | DWG.NO BKC-200-01 |
| 8' | ACCESS DOOR | 1 | DWG.NO BKC-100-04 |
| 7' | CASING | 10 | DWG.NO BKC-100-04 |
| 6' | HOT WATER BASIN | 2 | DWG.NO BKC-100-04 |
| 5' | DISTRIBUTION BOX | 2 | DWG.NO BKC-100-04 |
| 4' | FAN BRAD AND HUB | 1 | STD. |
| 3' | - | - | - |
| 2' | FAN GUARD | 8 | STD. |
| 1' | MOTOR | 1 | STD. |
| Part NO. | DISCRIPTION | QTY | REMARK |

Feature

1. Easy maintenance in FRP. Lower water basin.

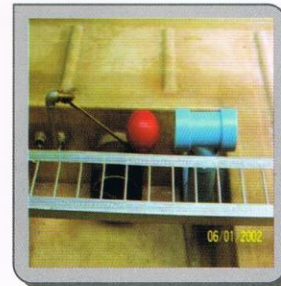
Lower water basin is made of fiberglass reinforced polyester resin (FRP), Eliminating corrosion which is the biggest enemy of cooling tower. Its lower plate has an incline for easy water flow as well as easy maintenance and cleaning.

2. Weather proof and rust resistant tower casings.

For tower casing, rust and shock resistant rigid Fiberglass Reinforced Polyester Resin (FRP), is used. Compared with the past materials, big advances were made to reduce weight. Such steel components as Post, Beam, Ladder ect., In other words, all steel components are give hot dipped galvanized treatment.

3. Hot water basin maintains stable water sprinkling.

Made of Fiberglass Reinforced Polyester Resin (FRP), it is more than ever durable and non-corrosive, maintaining stable water sprinkling. Our nozzle metering orifices used in the hot water basin specially designed to deliver the required water rate and highly resistant to temperature and weathering damage. The use of nozzle also provides uniform water distribution through out filler area with no need for a separate diffusion deck.



4. High efficiency fill which also eliminates water splash.

The newly developed B.K.K. packing for counter and cross flow tower is made of fire resistant, rigid poly vinyl chloride (PVC), lightweight and durable. It is contoured to prevent water splash as well as carry over, a very highly efficient fill.



5. Energy conserving low noise fan.

Developed by B.K.K. the axial flow aluminum alloy fan is not only low noise but capable of producing large volume air flow. Furthermore, adopting Bell mouth contour around the Fan cylinder enables using smaller fan motor serving the double purpose of energy conservation and minimum running cost.



6. Option mobile piping.

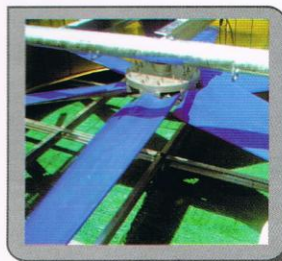
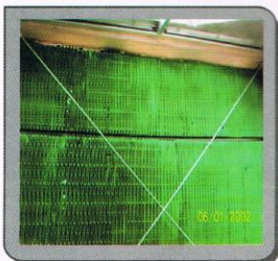
Piping can be freely positioned either on the louver side or panel side. Large outlet diameter of drain allows quick water discharge.

7. Unit construction system.

The tower is reassembled in the factory, knocked down into some unit, transported to the job site, and reassembled into the final shape. The quality is thus stable. The transport and set-up is easy and quickly.

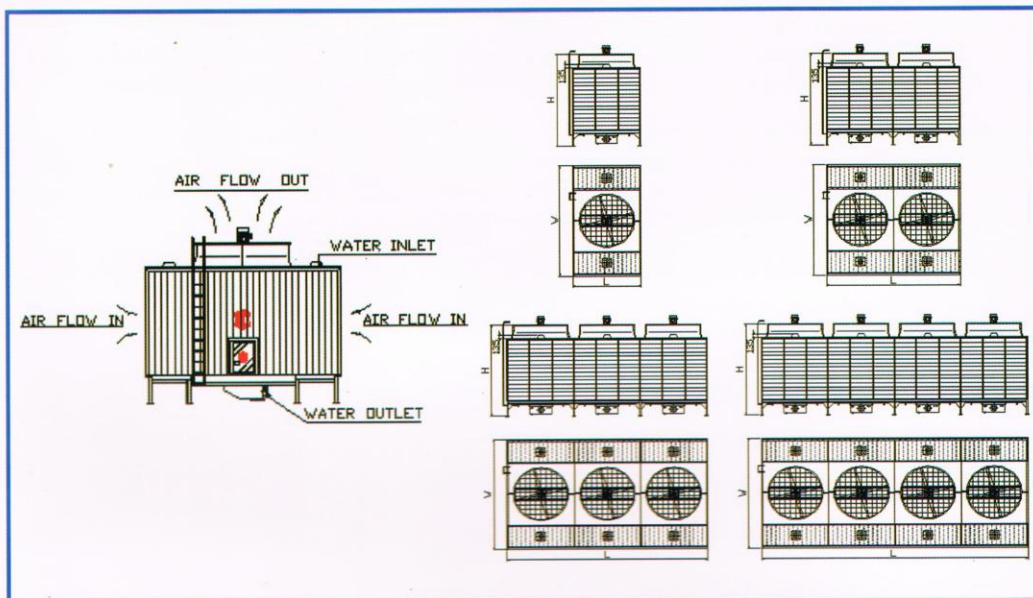
8. Footing for all models.

All the models are provided with footings. So the foundation is easy to prepare at a low level. No common base for the Vibra-Isolation Device is required.





Overall Dimension

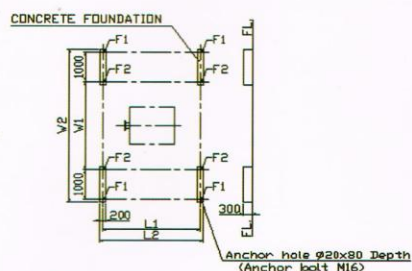


| TYPE BKC-S | WATER VOLUME | DIMENSION (mm) | | | AXIAL FLOW FAN | | | | WEIGHT (Kg.) | |
|-------------------|---------------------|----------------|------|------|--------------------------|-------|----|-----|--------------|-----------|
| | | | | | DIAMETER (ϕ mm) | MOTOR | | | | |
| | (l/min) | L | W | H | | HP | P | QTY | DRY | OPERATION |
| 80 | 1040 | 1470 | 3625 | 3175 | 1160 | 2 | 8 | 1 | 635 | 1950 |
| 100 | 1300 | 1870 | 4025 | 3175 | 1500 | 2 | 8 | 1 | 635 | 1950 |
| 125 | 1675 | 1870 | 4025 | 3525 | 1500 | 2 | 8 | 1 | 730 | 2150 |
| 150 | 1950 | 2120 | 4275 | 3525 | 1700 | 3 | 8 | 1 | 760 | 2190 |
| 175 | 2275 | 2120 | 4275 | 3675 | 1700 ^φ | 5 | 10 | 1 | 920 | 2620 |
| 200 | 2600 | 2570 | 4725 | 3825 | 2100 | 5 | 10 | 1 | 970 | 2730 |
| 225 | 2925 | 2570 | 4725 | 4075 | 2100 | 7.5 | 10 | 1 | 1130 | 3160 |
| 250 | 3250 | 2570 | 4725 | 4075 | 2100 | 7.5 | 10 | 1 | 1210 | 3360 |
| 300 | 3900 | 3070 | 5225 | 4375 | 2400 | 10 | 12 | 1 | 1480 | 3820 |
| 350 | 4550 | 3500 | 5225 | 4375 | 2400 | 10 | 12 | 1 | 1720 | 4540 |
| 400 | 5200 | 5070 | 4725 | 3850 | 2100 | 5 | 10 | 2 | 1930 | 5420 |
| 500 | 6500 | 5070 | 4725 | 4300 | 2100 | 7.5 | 10 | 2 | 2180 | 6300 |
| 600 | 7800 | 6070 | 5225 | 4350 | 2400 | 10 | 12 | 2 | 2350 | 6720 |
| 700 | 9100 | 7070 | 5225 | 4350 | 2400 | 10 | 12 | 2 | 2830 | 7530 |
| 800 | 10400 | 9070 | 5225 | 4050 | 2400 | 10 | 12 | 3 | 3830 | 10250 |
| 900 | 11700 | 9070 | 5225 | 4350 | 2400 | 10 | 12 | 3 | 4320 | 12070 |
| 1000 | 13000 | 10070 | 4725 | 4300 | 2100 | 7.5 | 10 | 4 | 4680 | 12940 |
| 1200 | 15600 | 12070 | 5225 | 4350 | 2400 | 10 | 12 | 4 | 5850 | 16670 |

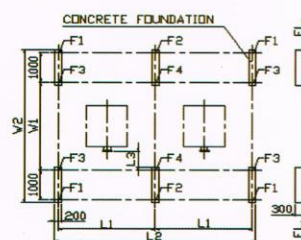
Model : BKC-S-250 & 350 RT (OPTION : Gear Reduced or Belt Drive)

1. Nominal Tons are defined as 13 l/min/Ton, Cooled from 37 °c to 32 °c with 27 °c wetbulb temperature.
2. Total pump head required for cooling tower circulation pump is the sum of condenser water pressure drop, piping friction loss and tower head.

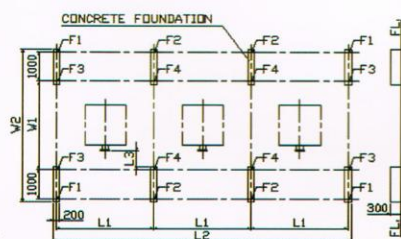
Foundation Dimension



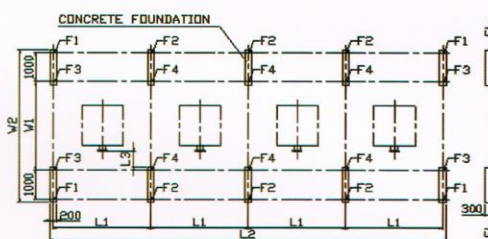
Model : BKC-S-80-350 RT



Model : BKC-S-400-700 RT



Model : BKC-S-800-900 RT

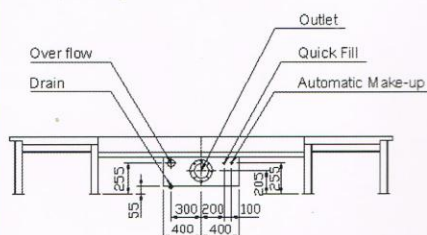


Model : BKC-S-1000-1200 RT

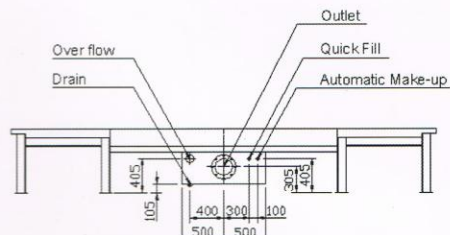
| TYPE | SYMBOL | | | | |
|-------|--------|-------|------|------|------|
| BKC-S | L1 | L2 | L3 | W1 | W2 |
| 80 | 1400 | 1600 | 200 | 1400 | 3600 |
| 100 | 1800 | 2000 | 400 | 1800 | 4000 |
| 125 | 1800 | 2000 | 400 | 1800 | 4000 |
| 150 | 2050 | 2250 | 525 | 2050 | 4250 |
| 175 | 2050 | 2250 | 525 | 2050 | 4250 |
| 200 | 2500 | 2700 | 600 | 2500 | 4700 |
| 225 | 2500 | 2700 | 600 | 2500 | 4700 |
| 250 | 2500 | 2700 | 600 | 2500 | 4700 |
| 300 | 3000 | 3200 | 850 | 3000 | 5200 |
| 350 | 3500 | 3700 | 1100 | 3000 | 5200 |
| 400 | 2500 | 5200 | 6000 | 2500 | 4700 |
| 500 | 2500 | 5200 | 6000 | 2500 | 4700 |
| 600 | 3000 | 6200 | 850 | 3000 | 5200 |
| 700 | 3500 | 7200 | 850 | 3500 | 5200 |
| 800 | 3000 | 9200 | 850 | 3000 | 5200 |
| 900 | 3000 | 9200 | 850 | 3000 | 5200 |
| 1000 | 2500 | 10200 | 600 | 2500 | 4700 |
| 1200 | 3000 | 12200 | 850 | 3000 | 5200 |

| LOADING DATA | | | |
|--------------|-----------|-----------|-----------|
| F-1 (kg.) | F-2 (kg.) | F-3 (kg.) | F-4 (kg.) |
| 150 | 300 | | |
| 165 | 320 | | |
| 180 | 360 | | |
| 200 | 390 | | |
| 220 | 420 | | |
| 240 | 450 | | |
| 270 | 530 | | |
| 300 | 560 | | |
| 340 | 630 | | |
| 420 | 720 | | |
| 240 | 480 | 450 | 900 |
| 300 | 600 | 300 | 1120 |
| 340 | 680 | 340 | 1260 |
| 420 | 840 | 420 | 1440 |
| 340 | 680 | 630 | 1260 |
| 420 | 840 | 420 | 1440 |
| 300 | 600 | 560 | 1120 |
| 340 | 680 | 630 | 1260 |

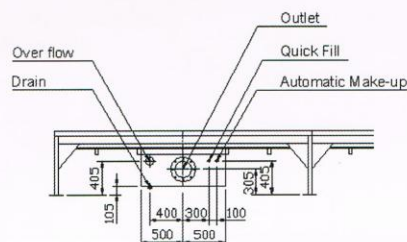
/// Piping Dimension & Arrangement



Model : BKC-S-80-175 RT



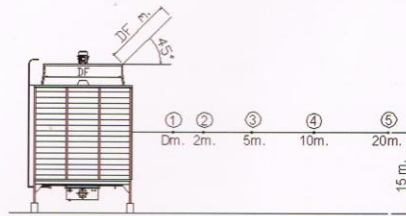
Model : BKC-S-200-350 RT



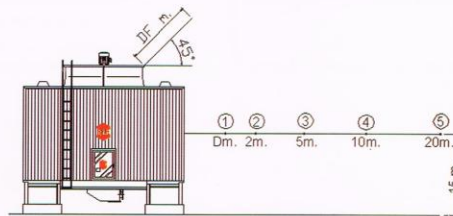
Model : BKC-S-400-1200 RT

| MODEL (RT) | PIPING DIMENSION | | | | | |
|------------|------------------|------------|----------------|------------|--------------|-----------------|
| | Outlet Pipe | Inlet Pipe | Over Flow Pipe | Drain Pipe | Make-Up Pipe | Quick Fill Pipe |
| 80 | 100 | 80x2 | 32 | 32 | 20 | 25 |
| 100 | 125 | 80x2 | 50 | 32 | 25 | 25 |
| 125 | 125 | 80x2 | 50 | 32 | 25 | 25 |
| 150 | 150 | 100x2 | 50 | 50 | 32 | 32 |
| 175 | 150 | 125x2 | 50 | 50 | 32 | 32 |
| 200 | 150 | 125x2 | 50 | 50 | 32 | 32 |
| 225 | 200 | 125x2 | 100 | 50 | 32 | 32 |
| 250 | 200 | 125x2 | 100 | 50 | 32 | 32 |
| 300 | 200 | 150x2 | 100 | 50 | 32 | 32 |
| 350 | 200 | 150x2 | 100 | 50 | 32 | 50 |
| 400 | 150x2 | 125x4 | 50x2 | 50x2 | 32x2 | 32x2 |
| 500 | 200x2 | 125x4 | 100x2 | 50x2 | 32x2 | 32x2 |
| 600 | 200x2 | 150x4 | 100x2 | 50x2 | 32x2 | 32x2 |
| 700 | 200x2 | 150x4 | 100x2 | 50x2 | 32x2 | 32x2 |
| 800 | 200x3 | 150x6 | 100x3 | 50x3 | 32x3 | 32x3 |
| 900 | 200x3 | 150x6 | 100x3 | 50x3 | 32x3 | 32x3 |
| 1000 | 200x4 | 125x8 | 100x4 | 50x4 | 32x4 | 32x4 |
| 1200 | 200x4 | 125x8 | 100x4 | 50x4 | 32x4 | 32x4 |

Measuring Point



Measuring direction (L)



Measuring direction (W)

1. Measuring point 1 is horizontal distance "D" equal to the width or length, away from the louvers or casting and 1.5 m. Above the floor level. If "D" is less than 1.5 m., take the distance of 1.5 m.
2. Measuring point 6 is 45° upper distance "Df" equal to the fan diameter, away from the top edge of the fan stack. If "Df" is less than 1.5 m., take the distance of 1.5 m.
3. Measured noise levels should not be affected by surroundings such as echo.
4. Noise levels should be measured based on A scale.

Noise Value

UNIT : dB (A)

| MODEL BKC-S (RT) | MEASURING DIRECTION | | | | | | | | | | | |
|------------------------|---------------------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
| | POINT | DISTANCE | POINT | DISTANCE | POINT | DISTANCE | POINT | DISTANCE | POINT | DISTANCE | POINT | DISTANCE |
| | 1 | Dm. | 2 | 2m. | 3 | 5m. | 4 | 10m. | 5 | 20m. | 6 | 45° Dfm |
| | L | W | L | W | L | W | L | W | L | W | L | W |
| 80 | 53 | 60 | 55 | 56 | 51 | 56 | 46 | 52 | 40 | 46 | 64 | 64 |
| 100 | 54 | 61 | 56 | 60 | 52 | 57 | 47 | 53 | 41 | 47 | 65 | 65 |
| 125 | 59 | 66 | 61 | 65 | 57 | 62 | 51 | 58 | 46 | 52 | 70 | 70 |
| 150 | 58 | 64 | 60 | 64 | 56 | 60 | 50 | 56 | 45 | 51 | 69 | 69 |
| 175 | 61 | 68 | 63 | 67 | 59 | 64 | 54 | 60 | 48 | 54 | 72 | 72 |
| 200 | 59 | 65 | 61 | 66 | 58 | 63 | 52 | 58 | 47 | 53 | 71 | 71 |
| 225 | 57 | 63 | 60 | 64 | 56 | 61 | 51 | 56 | 45 | 51 | 69 | 69 |
| 250 | 59 | 65 | 62 | 66 | 58 | 63 | 53 | 58 | 47 | 53 | 71 | 71 |
| 300 | 60 | 65 | 62 | 66 | 58 | 63 | 52 | 58 | 47 | 53 | 69 | 71 |
| 350 | 63 | 68 | 65 | 69 | 61 | 66 | 55 | 62 | 50 | 56 | 72 | 74 |
| 400 | 60 | 66 | 63 | 68 | 59 | 65 | 53 | 60 | 48 | 55 | 71 | 73 |
| 500 | 60 | 65 | 63 | 68 | 59 | 65 | 54 | 60 | 48 | 55 | 71 | 73 |
| 600 | 61 | 65 | 64 | 69 | 60 | 66 | 54 | 61 | 49 | 56 | 72 | 74 |
| 700 | 59 | 62 | 62 | 67 | 58 | 64 | 53 | 59 | 47 | 54 | 70 | 72 |
| 800 | 61 | 64 | 64 | 70 | 60 | 67 | 54 | 62 | 49 | 57 | 73 | 75 |
| 900 | 59 | 60 | 62 | 68 | 58 | 65 | 53 | 60 | 47 | 55 | 71 | 73 |
| 1000 | 61 | 62 | 64 | 70 | 60 | 67 | 55 | 62 | 49 | 57 | 73 | 75 |
| 1200 | 62 | 63 | 65 | 71 | 61 | 68 | 56 | 61 | 50 | 58 | 74 | 76 |



Project : Nestle (Vietnam)
Model : BKC-S-1500 RT x 4 Cells



Project : Srithai Superware (Vietnam)
Model : BKC-S-100 RT x 8 Cells



Project : Mega Bangna
Model : BKC-S-400 RT x 2 Cells = 1 Sets
BKC-S-600 RT x 2 Cells = 1 Sets
BKC-S-700 RT x 4 Cells = 4 Sets



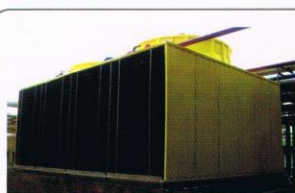
Project : Precision Plastic
Model : BKC-S-500 RT x 5 Cells = 7 Sets (35 Cells)



Project : Paolo Memorial Hospital
Model : BKC-S-250 RT = 2 Sets



Project : Thai Product Sugar Mill
Model : BKC-S-100 RT x 4 Cells = 2 Sets



Project : A.I. Energy
Model : BKC-S-400 RT x 2 Cells



Project : Pisan Steel
Model : BKC-S-350 RT x 8 Cells



Project : Hydrotek Co., Ltd
Model : BKC-S-700 RT x 1 Cells
BKC-S-800 RT x 2 Cells
BKC-S-1500 RT x 8 Cells

ZERTIFIKAT • CERTIFICATE • CERTIFICADO • CERTIFICAT



CERTIFICATE

The Certification Body
of TÜV SÜD Asia Pacific TÜV SÜD Group
certifies that



B.K.K. Cooling and Engineering Co., Ltd.
47/1 Moo 6 T. Mhon-nang, A. Panuenkom,
Chonburi 20140, Thailand
has established and applies
a Quality Management System for
Design and Manufacture of Cooling Tower

An audit was performed, Report No. 20041241
Proof has been furnished that the requirements
according to

ISO 9001:2008

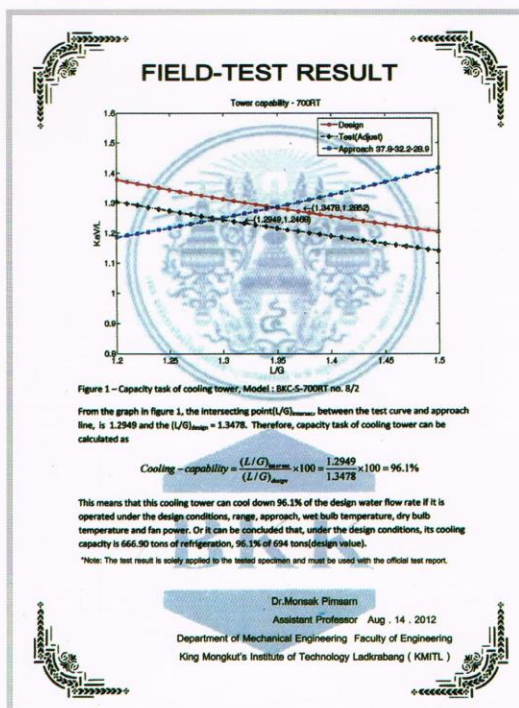
are fulfilled. The certificate is valid until 2015-02-05
Certificate Registration No. TUV100 11 1235
2012-02-06




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