

HKB 吹壓式 低噪音型
FORCED DRAFT, LOW NOISE TYPE



KS COOLING TOWER

金日冷卻塔

逆流 側吹單面進風
COUNTERFLOW,
SINGLE SIDE AIR INTAKE



金日實業股份有限公司
KING SUN INDUSTRY CO., LTD.

Forced Draft Cooling Tower series HKB

The HKB series of centrifugal fan, forced draft cooling towers, are continually improved in accordance with tests and experience in a variety of conditions and climate. Our test equipments for heat transfer and efficiency research are commissioned to ITRI (Industrial Technology Research Institute) to project and setup, in accordance with CTI ATC-105 standard. Besides, our laboratory accredited by TAF (Taiwan Accreditation Foundation), can also proceed fan performance test in accordance with AMCA, ISO, JIS and CNS standards. A team of skilled engineers takes into consideration the suggestions of Sale and Servicing engineers to design and develop high quality cooling towers.

Series HKB Application

The design basis of HKB cooling tower is inlet water temp 95°F, outlet water temp 85°F, ambient wet bulb temp 78°F.

There are 7 models included in series HKB that exactly meet the requirements of different air conditioning, generator, refrigeration and process systems.

Totally enclosure basin type, cooling water will not be exposed to the surrounding directly. This design will cause the least problem of water splashing, pollution and evaporation due to wind and climate factors.

Centrifugal fans

To keep a quiet operation, all centrifugal fans are located at one side of this unit. Considering the reasons for both transport and installation cost, overall dimensions have been carefully designed. The maximum width of all the models is determined without special transport or permit. Particular protection is against atmospheric corrosion; hot dip galvanized steel is used and special painting cycles have been formulated to give further protection to the galvanized steel.

Container Compatible

Not only the road, but also the sea transportation has been carefully considered in designing HKB towers. All models after rearrange the structure support direction, are compatible with the modern and economic container, completely assembled and ready for operation. The remaining models are also compatible with containers after having been divided in two sections.

Filler

Due to extra-excellent design and manufacture, the filler in HKB series has a high air and water turbulence result a optimal heat transfer efficiency in the tower. It is vacuum formed by using polypropylene (PVC) sheets for superior mechanical and temperature resistance. Other filler with different flute sizes is also available for HKB models application.



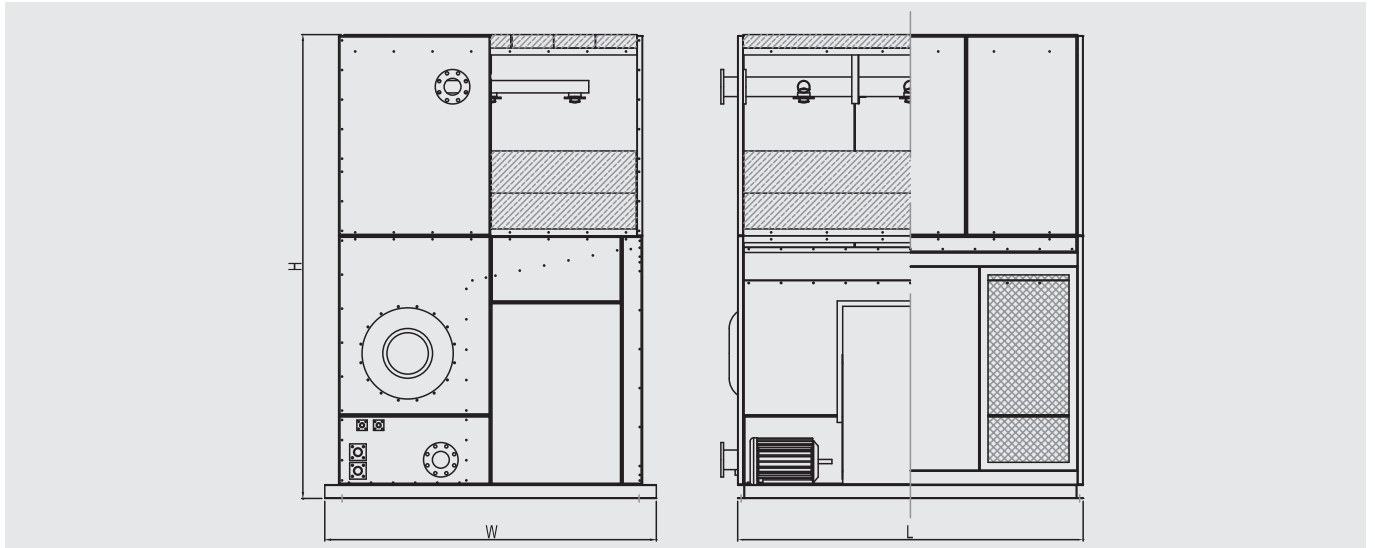
· 上本體
Upper Casing



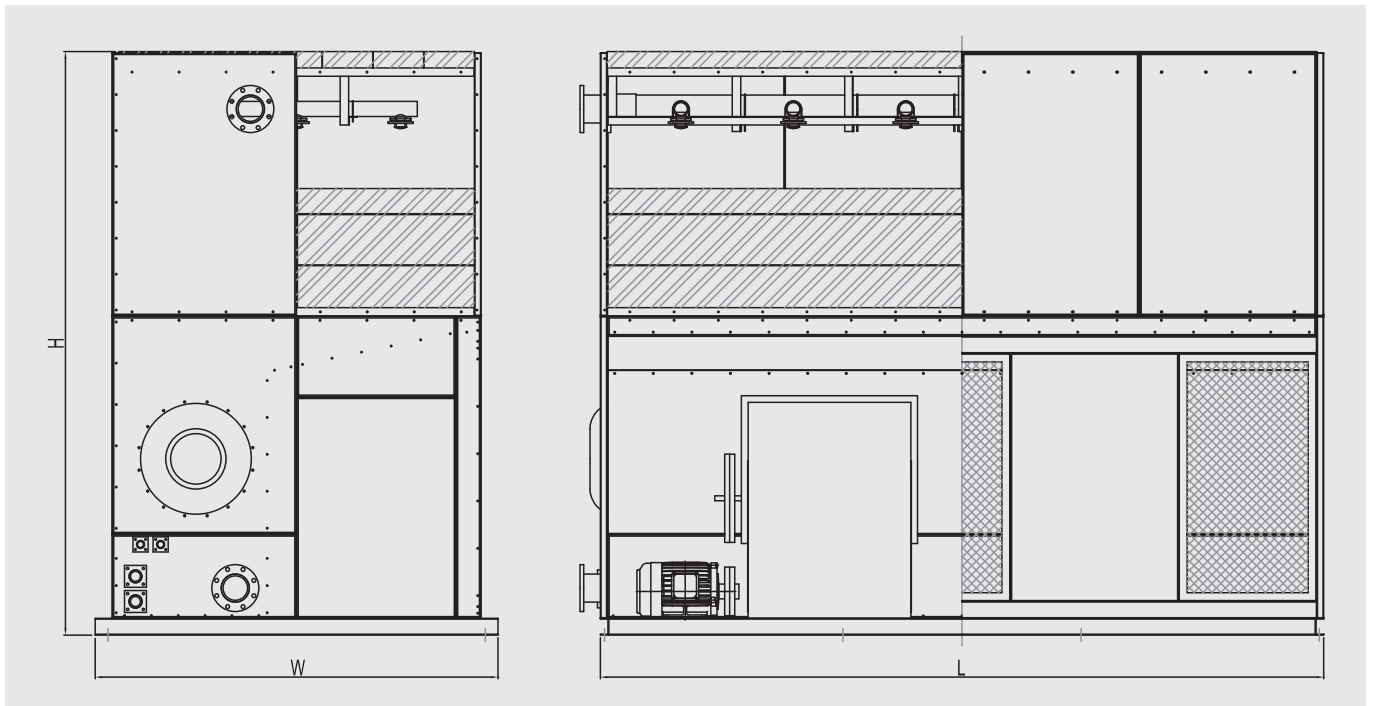
· 下本體
Lower Casing

Cooling tower

Plan and side view, and foundation drawings of HKB series cooling tower are as shown on following pages. The tower shall be built with 2mm thickness of galvanized sheets and will have centrifugal fans completely enclosed in the fan section. Air inlet is on a single side.

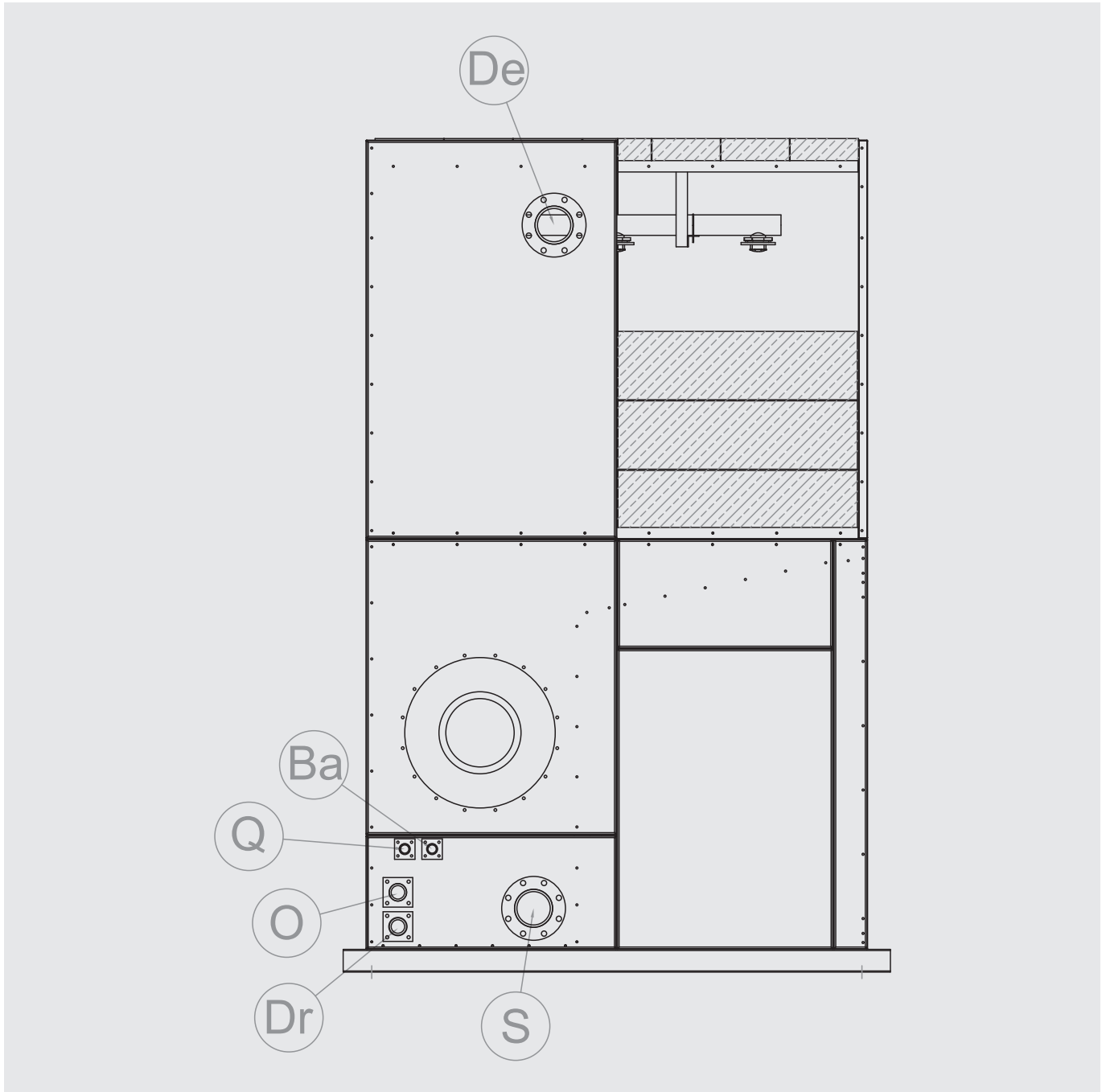


| HKB 型號 Model | HKB 公稱噸數 Nominal tons | 水流量 Flow rate GPM | 外型尺寸 Dimension (mm) | | | 馬達 Motor HP | 揚程 Head M | 重量 Weight (Kgs) | |
|--------------------|--------------------------------|-------------------------|------------------------|------|------|-------------------|-----------------|--------------------|-------------------------|
| | | | H | W | L | | | 自重 Dry Weight | 運轉重 Operation Weight |
| 1011 | 72 | 214.9 | 3870 | 2400 | 2500 | 10 | 5.4 | 1850 | 3550 |
| 1516 | 110 | 329.3 | 3870 | 2400 | 2500 | 15 | 5.6 | 1980 | 3680 |



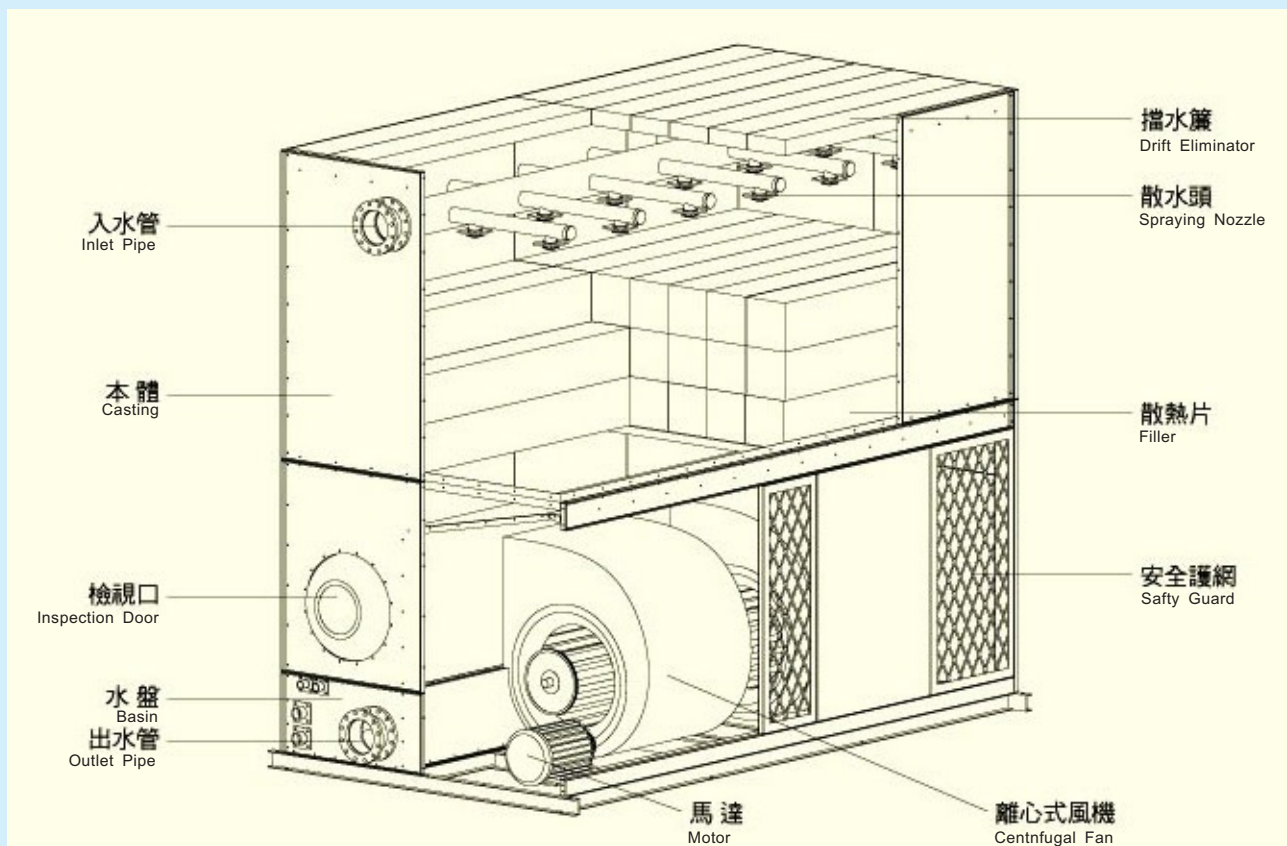
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|--------------------|--------------------------------|-------------------------|------------------------|------|------|-------------------|-----------------|--------------------|-------------------------|
| | | | H | W | L | | | 自重 Dry Weight | 運轉重 Operation Weight |
| 1521 | 148 | 443.8 | 4050 | 2400 | 4310 | 15 | 5.9 | 2440 | 6000 |
| 2026 | 192 | 575.5 | 4050 | 2400 | 4310 | 20 | 6.1 | 2490 | 6050 |
| 3031 | 220 | 658.8 | 4050 | 2400 | 4310 | 30 | 6.1 | 2530 | 6090 |
| 4036 | 264 | 790.9 | 4200 | 2400 | 4310 | 40 | 6.2 | 2580 | 6140 |
| 6046 | 384 | 1153.2 | 4900 | 3600 | 3700 | 60 | 7.5 | 5180 | 8280 |

· Nominal tons of cooling represents 3 GPM of water from a 95°F to 85°F at a 78°F entering wet bulb temperature



| HKB Model | 溫水入口 Inlet | 冷水入口 Outlet | 排水口 Drain | 溢水口 Over Flow | 補水口 Water Make Up | |
|-----------|---------------|----------------|--------------|------------------|-----------------------|------------------|
| | De | S | Dr | O | 自動 Automatic Ba | 手動 Quick Q |
| 1011 | 5"B(125A) | 5"B(125A) | 2"B(50A) | 2"B(50A) | 1"B(25A) | 1"B(25A) |
| 1516 | 5"B(125A) | 5"B(125A) | 2"B(50A) | 2"B(50A) | 1"B(25A) | 1"B(25A) |
| 1521 | 6"B(125A) | 6"B(125A) | 2 1/2"B(65A) | 2 1/2"B(65A) | 1 1/2"B(40A) | 1 1/2"B(40A) |
| 2026 | 8"B(200A) | 8"B(200A) | 2 1/2"B(65A) | 2 1/2"B(65A) | 1 1/2"B(40A) | 1 1/2"B(40A) |
| 3031 | 8"B(200A) | 8"B(200A) | 2 1/2"B(65A) | 2 1/2"B(65A) | 1 1/2"B(40A) | 1 1/2"B(40A) |
| 4036 | 8"B(200A) | 8"B(200A) | 2 1/2"B(65A) | 2 1/2"B(65A) | 1 1/2"B(40A) | 1 1/2"B(40A) |
| 6046 | 10"B(250A) | 10"B(250A) | 2 1/2"B(65A) | 2 1/2"B(65A) | 1 1/2"B(40A) | 1 1/2"B(40A) |

| Model | Temp | GPM Water flow indicated Hot Water , Cold Water and Wet-Bulb Temperature | | | | | | |
|-----------------|------------|--|------------|------------|------------|------------|------------|------------|
| | HWF | 95 | 100 | 97 | 102 | 95 | 96 | 95 |
| | CWF | 85 | 85 | 87 | 87 | 85 | 86 | 85 |
| | WBF | 78 | 78 | 78 | 80 | 80 | 80 | 76 |
| | | GPM | GPM | GPM | GPM | GPM | GPM | GPM |
| HKB-1011 | | 214.914 | 166.894 | 270.284 | 178.262 | 172.970 | 200.606 | 253.722 |
| HKB-1516 | | 329.280 | 258.916 | 410.914 | 275.772 | 267.442 | 308.602 | 386.806 |
| HKB-1521 | | 443.842 | 350.448 | 550.270 | 373.380 | 361.326 | 416.010 | 518.812 |
| HKB-2026 | | 575.515 | 460.464 | 708.212 | 489.817 | 473.306 | 541.183 | 644.266 |
| HKB-3031 | | 658.800 | 527.100 | 810.700 | 560.700 | 541.800 | 619.500 | 737.500 |
| HKB-4036 | | 790.860 | 634.354 | 970.494 | 675.220 | 652.582 | 744.898 | 915.908 |
| HKB-6046 | | 1153.246 | 929.869 | 1412.986 | 988.311 | 954.544 | 1088.311 | 1333.765 |
| | | | | | | | | |
| Model | Temp | GPM Water flow indicated Hot Water , Cold Water and Wet-Bulb Temperature | | | | | | |
| | HWF | 100 | 97 | 95 | 90 | 90 | 95 | 90 |
| | CWF | 85 | 87 | 80 | 80 | 80 | 80 | 80 |
| | WBF | 76 | 76 | 72 | 72 | 70 | 70 | 68 |
| | | GPM | GPM | GPM | GPM | GPM | GPM | GPM |
| HKB-1011 | | 194.334 | 315.560 | 154.448 | 201.292 | 234.024 | 177.576 | 265.286 |
| HKB-1516 | | 299.782 | 471.380 | 239.218 | 308.112 | 356.524 | 273.910 | 402.584 |
| HKB-1521 | | 404.466 | 631.218 | 324.282 | 414.834 | 478.240 | 369.068 | 538.216 |
| HKB-2026 | | 475.752 | 798.278 | 424.997 | 538.300 | 616.748 | 482.391 | 691.614 |
| HKB-3031 | | 544.600 | 913.800 | 486.500 | 616.200 | 706.000 | 552.200 | 791.700 |
| HKB-4036 | | 726.670 | 1093.190 | 587.412 | 738.822 | 844.760 | 663.754 | 944.720 |
| HKB-6046 | | 1062.337 | 1588.310 | 858.441 | 1077.921 | 1231.168 | 970.129 | 1374.025 |
| | | | | | | | | |
| Model | Temp | GPM Water flow indicated Hot Water , Cold Water and Wet-Bulb Temperature | | | | | | |
| | HWF | 90 | 95 | 100 | 95 | 98.6 | 98.6 | |
| | CWF | 80 | 85 | 85 | 80 | 89.6 | 89.6 | |
| | WBF | 66 | 75 | 75 | 68 | 80.6 | 84.2 | |
| | | GPM | GPM | GPM | GPM | GPM | GPM | |
| HKB-1011 | | 294.686 | 272.538 | 207.564 | 199.038 | 322.028 | 230.006 | |
| HKB-1516 | | 445.312 | 414.246 | 318.990 | 305.466 | 488.138 | 353.094 | |
| HKB-1521 | | 594.370 | 539.294 | 430.122 | 412.090 | 652.288 | 474.908 | |
| HKB-2026 | | 760.190 | 712.405 | 559.091 | 534.631 | 835.492 | 616.573 | |
| HKB-3031 | | 870.200 | 815.500 | 640.000 | 612.000 | 956.400 | 705.800 | |
| HKB-4036 | | 1038.604 | 975.002 | 769.104 | 735.784 | 1141.210 | 847.896 | |
| HKB-6046 | | 1507.791 | 1419.479 | 1146.492 | 1072.726 | 1657.141 | 1237.271 | |



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Data and specification are subject to be changed without prior notice.

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