

SERDANG HOSPITAL - MALAYSIA

PROJECT REPORT

Serdang Hospital, which is expected to be operational in 2004, will be *the* reference center for cardiology, cardiothoracic, urology and nephrology surgery. The hospital will provide affordable, quality treatment for heart patients from the lower income group. The center will cooperate with the Selayang Hospital, which specializes in renal care and liver transplants. The 608-bed Serdang Hospital, which will cost RM300 million or U.S.\$79 million, is one of the electronic hospital networks planned by the Malaysian Government to provide better health care services.



To assist with project design Cristopia engineers performed simulation studies using Cristopia's "Stockaid 2000" & simulation software. The purpose of this simulation was to check the discharge rate capability in the design specifications mentioned below as per ARI Standard 900:

- 4.3°C Leaving Temperature
- 9.5 °C Return Temperature

Using the "Stockaid 2000" simulation software Cristopia technical staff can provide the most appropriate design answers to consulting engineer's questions.

Technical Data

Peak Cooling Load: 2,000 RT
Base chiller: 2 x 400 RT (40%)
Brine chiller: 2 x 374 RT (37%)
STL: 452 RT (23%)
Storage capacity: 6,000 ton-hours
Storage volume: 400 m³
Nodule type: AC.00
2 STL tanks of 200 m³ each

At Serdang Hospital the STL combines the ability to discharge cooling energy at a high rate with low operating cost. 23% saving on the operating cost has been estimated.