SAAB BANK | RIYADH, SAUDI ARABIA

SAAB Bank

CARRIER air-cooled chillers

Chiller electricity use fell 17.14% with GACS adiabatic cooling system

Measured performance from three Carrier chillers upgraded with the GACS adiabatic cooling system

17.14%	14.66°C	3
MEASURED ENERGY REDUCTION	TEMPERATURE DROP BELOW AMBIENT	CARRIER CHILLERS UPGRADED



GACS installation at the SAAB Bank site

CUSTOMER

SAAB Bank operates Carrier chillers at its Riyadh site.

CHALLENGE

Reduce condenser inlet-air temperature and chiller electricity use during hot-weather operation.

GACS DESCRIPTION

Designed and manufactured in the UAE, GACS combines condenser protection with high-pressure evaporative pre-cooling, multi-stage water treatment, water recirculation and intelligent PLC control. It cools air entering the condenser coils to approximately 2°C above the ambient wet-bulb temperature.



TEST INSTRUMENTS USED DURING THE TEST

BTU Meter	Temperature & Humidity Reader	Eniscope (Energy Meter)
		

MEASURED PERFORMANCE

Three Carrier chillers upgraded with GACS used 17.14% less electricity.

During GACS operation, average condenser inlet air was 23.60°C compared with 38.26°C average ambient air, a 14.66°C difference.

TEST CONDITIONS Average ambient: 37.70°C OFF / 38.26°C ON | Relative humidity: 18.87% OFF / 22.54% ON

Energy and environmental conditions were monitored in both operating modes.