

Brickell City Centre

Case Study - Miami, Florida

**BOSCH**

OVERVIEW

Brickell City Centre is a US\$1.05 billion (909,000,000 Euro) mixed-use development in Miami developed by Swire Properties Inc. (US and Hong Kong). Strategically located in the Brickell financial district, the 5.4 million square-foot (501,000 sq m) development spans 9.1 acres (3.6 Hectares), includes underground garage, two mid-rise office buildings, two residential towers, a hotel with residences, retail and entertainment space. Construction began in June 2012, and is expected to be completed late 2016. The project is expected to create approximately 2,500 jobs while under construction and approximately 3,700 after completion.



Alex Valdes, JASCKO Corp. & Larry Maurer, Thermal Concepts, discuss the site



Brickell City Centre Towers and site from above with CLIMATE RIBBON™

HEATING AND COOLING BY BOSCH

Featuring twin residential towers housing 820 condominium units, and a luxury hotel, the developers for Brickell City Centre knew that they needed a long-term, high-efficiency HVAC solution that they could integrate into the design. The developer understood that an initial investment in capital costs could save a significant amount of money in future operating costs.

Bosch Thermotechnology Corp. worked with Alex Valdes of Jascko Corp., a manufacturer's representative in South Florida, and Thermal Concepts, Inc. the mechanical contractor, to get the right combination of price, efficiency and footprint

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for the project. The three worked together to develop a specialized unit that fit in the limited space of the condos within the Centre. A custom variation of the Bosch FHP LV Model Water Source Heat Pump was designed and built for the residential condo units. These units are compact, yet extremely energy efficient, and an ideal choice for new construction or for energy-saving replacements.

“One of the challenges we had was to design a new product with single point power electrical heat in a small footprint package, and get the proper UL certification, which took approximately 4-5 months,” says Arthur Kunz, Bosch commercial sales manager for the Southeast.

The LV is an option-rich single stage product that is available in ½- to 6-ton sizes, and meets or exceeds ASHRAE 90.1 efficiency ratings. The unit comes with a unique sound package, designed to keep sound levels to a minimum while providing maximum comfort. They are water source heat pumps, so they do not require outside condensing air and permit easier placement in enclosed spaces, while allowing separate metering of utility costs for each condo unit.



Retail space being built beneath the Centre's innovative CLIMATE RIBBON™

Bosch Thermotechnology Corp.
boschheatingandcooling.com

Londonderry, NH, Ft. Lauderdale, FL, Williston, VT
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PROJECT STATISTICS

- ▶ 5.4 million square feet (501,000 sq m) total spans 9.1 acres (3.6 Hectares)
- ▶ 500,000 square-foot (46,450 sq m) shopping center
- ▶ 260,000 square feet (24,150 sq m) of office space in two towers
- ▶ 820 condominiums in two towers
- ▶ 263 hotel rooms
- ▶ 89 serviced apartments
- ▶ 2,600 parking spaces
- ▶ 800 modified FHP Model LV water source heat pumps
- ▶ An environmentally sophisticated and innovative CLIMATE RIBBON™ architectural feature that will provide active and positive climate control
- ▶ Phase II: One Brickell City Centre mixed-use tower schedule completed in 2019

ECONOMIC IMPACT

- ▶ Approximately US\$1 billion (909,000,000 Euro) in overall economic impact
- ▶ Approximately 1,700 construction jobs on average per year for four years
- ▶ Approximately 3,700 direct jobs and 2,500 indirect jobs after construction completion

CUSTOMIZED WATER SOURCE HEAT PUMPS

The units in this project were equipped with single-point electric heat and were seamlessly integrated into the structure's Building Management System, thereby providing operating feedback and easier serviceability. The heat pumps are supplied with water by a BAC cooling tower. Bosch was selected because of the positive relationship and good results achieved in past projects, the heat pumps were priced right and fit the reduced footprint in the residences. With Bosch FHP water source heat pump units providing smart comfort, efficient and quiet operation, the future Brickell City Centre residents can live in ultimate comfort with lower energy cost.

BOSCH APPLIANCES FEATURED IN RESIDENCES

Residences feature premium Bosch appliance package including 36 in. integrated panel refrigerator & freezer, 300 series microwave, integrated panel, extra-quiet dishwasher, built-in convection oven and ceramic glass stovetop.

Further Resources

[Swire Properties US Project Description](#)
[Brickell City Centre website](#)
[Air Conditioning News article July 2016](#)