

Miami Rising



A second 39-meter separate placing boom is working on the parking structure.

In what will be the tallest condominium high rise in Miami, concrete contractor Form Works, Inc., Fort Lauderdale, Florida, has joined forces with Cherokee Pumping of Florida of West Palm Beach, to take it to the top on the 67-story structure. In what is more than a contractor/pumper relationship, Form Works is using their own separate placing boom on the project, while the pumper is supplying the pump, personnel and expertise to make the project successful.

“We bought the 39-meter placing boom because it is a good investment,” explains Hugo Hernandez, Form Works project

manager. “It is low maintenance, fits the majority of projects, has the lowest picking weight in its class, and saves us rental fees.” The Schwing unit is the latest Generation 2 design that separates the power pack and hydraulic reservoir from the boom to afford an enhanced weight-to-reach ratio. “At 12,890 pounds, the 39-meter boom is perfect for many of the Form Works projects,” according to Wayne Bylsma, president of Cherokee Pumping, which owns several 39-meter placing booms. “We are supplying all of the pumping personnel and the boom operator. We also maintain the boom. It is

a win-win situation because it allows our booms to be available for other projects.”

Fast Tracking

In placing the 15,000-square foot decks, the mast is centrally located and reaches all of the pour areas with a horizontal reach of 114 feet. The roll-and-fold boom can slew over a 550-degree range and pour right up to the mounting mast, if necessary. Total available coverage of the boom is 40,000 square feet.

The pour sequence of one complete deck every four days keeps the pumping

SPECS

Project: **Marquis Luxury Condominium**—Miami, Florida

Owner: **Leviev Boymelgreen Marquis Developers of Florida**—Miami, Florida

Architect: **Arquitectonica**—Miami, Florida

Concrete Contractor: **Form Works, Inc.**—Fort Lauderdale, Florida

Concrete Pumping Contractor: **Cherokee Pumping of Florida**—West Palm Beach, Florida

Equipment: **Schwing 39-meter separate placing boom, Schwing BP 8800 stationary pump**



Schwing BP 8800 has broken many high-rise pumping records and will take it to the top on the tallest condo in Miami.

and placing crews busy. “We pump half of a deck on Monday, place the vertical work for that half on Tuesday, finish pumping the deck on Wednesday, and complete the vertical work on Thursday. On Friday we are on the next deck,” Hernandez explains. Each deck consumes 387 yards in the floors and 320 yards in the walls and columns.

Cherokee has supplied a self-climbing mast at the request of project personnel because the tower crane is tied up with other material lifting chores. The self-climbing system utilizes a hydraulic cylinder to jack the mast and boom through pre-engineered holes in the decks. Floor frames with a pin and wedges stabilize the mast in the

frames at two deck locations. The hydraulic jack is braced on the lowest floor frame and lifts the placing boom/mast combination in a matter of minutes. “On these fast-track projects, self-climbing is the only way to go. We are pumping on the decks every day and we have to be ready for the next deck in a matter of hours,” according to Bylsma.

The concrete contractor supplied the separate placing boom, and the pumper supplied the crew and the pump to make excellent progress on the Marquis condo in Miami.



Granite Through Hard Pipe

Mix designs for the building vary from 6,000 to 12,000 psi strengths. “The concrete is a granite mix, which is not easy to pump normally,” Hernandez said. “But we are ahead of schedule, so Cherokee is doing their job.” Tarmac is supplying the concrete for Marquis.

Cherokee is using a Schwing BP 8800 on the record-setting project. The pump is no stranger to high performance. Similar concrete pumps have topped out some of the tallest buildings in the world. “This pump has an impressive resume,” states Bylsma. “It is meeting all of Form Works’ expectations on Marquis.” Pipeline routing is not making the pump’s job any easier, however. Several ninety-degree bends are required to reach the standpipe for the placing boom. Despite the hard pipe requirements, the pump is achieving 70 yards per hour at the 46th floor. “We haven’t needed to switch to the high-pressure setting on the pump,” according to Cherokee on-site manager Rudy Rivero.

The pump is now doing double-duty to pour an attached 14-level parking structure. An additional pipeline has been routed from a diversion valve placed near the standpipe for the tower to service another 39-meter placing boom on the new parking structure. The 18,000-square foot levels are pumped in two separate pours, with the 39-meter boom able to reach all areas. This boom belongs to Cherokee and is equipped with a self-climbing mast as well.

To Great Heights

Marquis, which required FAA approval because of its height, will be topped out at the end of January. Occupancy is set for sometime in late 2008. It will include approximately 300 units, and will also incorporate a luxury hotel on the lower floors along with retail shops and restaurants.

When asked if he will attend World of Concrete during the critical upper floor placements of the tower, Hernandez said, “This is the tallest condo in Miami and the tallest building for Form Works. But the way things are going, I’m not worried. I’ll be at the show.” □