

**The world's
most energy
efficient
skyscraper**



Acknowledged as the world's most energy-efficient 'green' building, the gently curved Pearl River Tower is constantly in the public spotlight and media. Architects Skidmore, Owings & Merrill designed mechanical floors with funnel-like openings at approximately one-third and two-thirds of the way up, to house wind turbines that generate energy for the building.

The innovative approach for the ultramodern building included an integrated access solution of six BMUs to keep the building immaculate for its role as a world-leading example of best-practice architecture.

The tower was designed with energy efficiency in mind. Its roof is lined with solar panels and therefore has no terrace space to install BMUs. All Building Maintenance Units are housed within the building and are launched from retracting panels.

The CoxGomyl building access solution consists of three pairs of BMUs located in different positions. The first pair of BMUs located at level 69 are designed to service the side panels of the building on the east and west elevations. Four-stage telescopic jibs with an outreach of 17.25m can luff to 70°, and have the ability to slew between +/- 100° to reach the topmost panel of the building's end elevation.

Both systems are fitted with 3.6m wide cradles, and are able to extend their width up to 5.6m to ensure the flexibility of every drop.

There are another two pairs of BMUs with a combination of fixed length and telescopic jib design features. These are housed at the mechanical floors on level 69 and level 48 respectively to service the front and rear elevations of the building.

All systems located on level 69 include glass-handling capabilities to allow glass replacement on all building elevations.

FACTS & FIGURES

Commencement	2009
Completion	2012
Building height	310m
Floor count	71
No. of BMUs	6
Outreach	Up to 17.25m
Building type	Office





Technical Data - Pearl River Tower, Guangzhou, China

BMU type	Parapet Mounted	Long Reach	Parapet Mounted
Service area	48/F to the roof (Front and Rear elevations)	G/F to the roof (Side elevations)	G/F to 48/F (Front and Rear elevations)
Jib type	2-stage telescopic and slewing jib	4-stage telescopic and luffing jib	Fixed & 2-stage telescopic jib
Outreach	Up to 5.5m	Up to 17.25m	Up to 3.75m
Jib retracted length	2.88m	5.57m	2.2m
Jib slew angle	+/- 100 deg	+/- 95 deg	/
Cross bar slew angle	+/- 100 deg	+/- 90 deg	/
BMU slew angle	/	+/- 90 deg	/
Drum hoist type	Multi-layer drum hoist	Multi-layer drum hoist	Multi-layer drum hoist
Actual hoist height	280m	297m	200m
Cradle SWL	230kg	230kg	230kg
Cradle length	2.61m	3.6m	2.61m
Cradle restraint system	Lanyards	Lanyards with side shifting capability	Lanyards
Track system	Twin parapet mounted	/	Twin parapet mounted
Track gauge	2.9m	/	2.62m
Communication	Intercom	Intercom	Intercom
Features	External track mounted	Hydraulic cradle leveling	External track mounted

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