

World's tallest building opens

The \$4 billion, 160-storey *Burj Dubai* towers 818 metres above Dubai city and became the world's tallest building when it overtook the *Taipei 101* in July 2007

124th floor
Observation platform

54 Otis
elevators
travelling
at up to
10 m/s

Cooling
system
sufficient
to create
12,750
tonnes
of ice
each day

Armani
Hotel

700
private
apartments

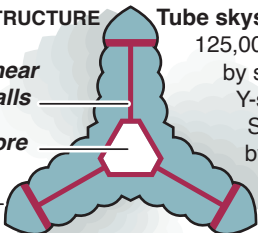
Corporate
offices and
suites

Spire
Visible
from 95km
away

STRUCTURE

**Shear
walls**

Core



Tube skyscraper: Giant tube with 125,000 openings – supported by shear wall **buttresses** in Y-shaped clockwise spiral. Structure locked together by hexagonal core, which stops building from twisting in wind

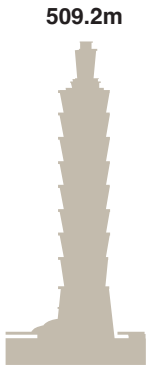
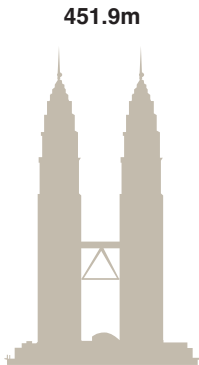
Cladding: 24,348 panels over total wall area of 132,190sq m, including 103,000sq m of reflective double-glazing and 15,500sq m of stainless steel

WORLD'S TALLEST BUILDINGS (to architectural top)

442m

451.9m

509.2m



1973

Willis (Sears) Tower
Chicago

1998

Petronas Towers
Malaysia

2004

Taipei 101
Taiwan

Foundations: 192 piles to depths of 50 metres and 10,000-tonne foundation slab requiring over 45,000 cubic metres of concrete

Sources: Emaar Properties, Openshaw Properties, Skidmore, Owings and Merrill

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