It’s more than twice as tall as the Empire State Building (381 meters) and 35 stories taller than the world’s second tallest building, Shanghai Tower.

How Much Water The Burj Khalifa Actually Uses

249,908 gallons of water... The average family uses 400 gallons per day, so the Burj Khalifa uses more than 600x that amount.

An additional 132 miles of piping supplies the fire emergency system and 21 miles supplies chilled water for the air conditioning system.

The water available on-site is desalinated sea water from the Persian Gulf. The pumps have the pressures of 30 bar (unit of pressure).

The drainage pipes are nearly 2 feet in diameter. The mechanical floors house:

- Condensation
- Wind
- Water
- Temperature

The Burj Khalifa uses a single-stack drainage system. A single-stack drainage system doesn’t separate wastewater. About 15 million gallons of water is produced yearly from condensation.

Pre-cooling of the water is required in the summer. This water is collected and drained in a separate piping system to a holding tank in the basement parking garage.

Pipe guides and ball joints were installed at various building levels, enabling free movement of the pipework while accounting for seismic vibrations, building deflection and acoustic requirements.

The water system is soundproofed, so guests can’t hear the water flowing through the building!

The design of the tower is inspired by the shape of the Hymenocallis flower.