

## THE UAE FALCON TAKES FLIGHT AT EXPO 2020 DUBAI

**Expo 2020 Dubai is starting today. At the Universal Expo Diplomatic represents the engineering excellence of Made in Italy thanks to the roof wing motion system system of the United Arab Emirates falcon shaped pavilion, the national symbol of the country hosting the event.**

*Parabiago (Milan, Italy), October 1<sup>st</sup>, 2021* – Today at EXPO 2020 Dubai, the falcon of the United Arab Emirates pavilion officially takes off. Diplomatic MS Spa has created, with an innovative engineering project, the hydraulic system for opening the roof of the United Arab Emirates pavilion, designed by architect Santiago Calatrava in the shape of falcon wings, the symbol of the host nation.

The UAE pavilion is the largest in EXPO: it covers 15,000 square meters and reaches a height of 27.8 meters. Calatrava and his team have developed a true work of art, which will be converted into the home of the national history museum of the Emirates and represents a focal point of the Universal Exposition, allowing visitors to immerse themselves in the history and future of the country.

Diplomatic MS Spa took care of the design and construction of the roof of the pavilion, taking up an important challenge: the movement of the 28 carbon fiber wings that make up the roof of the building, inspired by the flight of the falcon, must be perfect not only functionally, but also from an aesthetic point of view. This is helped by the architecture of the control electronics, where nine dedicated computers and software manage over 2,000 control points distributed throughout the pavilion.

From today the Diplomatic system will open and close the roof in combination with light effects that give unique emotions to the public visiting the pavilion.

This project is, in fact, the largest hydraulic system of this kind ever built. The Diplomatic system consists of a 1 MW hydraulic power plant, with a tank containing 20 thousand liters of oil, which supplies 46 hydraulic cylinders distributed on 28 wings with the pressurized fluid.

The result of Diplomatic's work is a harmonious, fluid and perfectly synchronized motion that conveys the idea of perfection, power, and control.

### The project in figures

- 1 MW installed power
- A tank containing 20 thousand liters of oil
- 46 hydraulic cylinders on 28 wings
- 2.5 km piping
- 17 electrical cabinets, featuring 9 PLCs, 25 km of optical fiber and cabling, over 2,000 control points distributed throughout the pavilion.

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The **Diplomatic Group** - Headquarters in Parabiago (Milan), Italy, 96 million euros of consolidated turnover and over 450 employees as of 31.12.2020 - designs and manufactures technological solutions for motion control in various sectors. It operates on the market with three brands: **Diplomatic Motion Solutions** for industrial applications, **Hydreco** for mobile applications and **Continental Hydraulics** for North America. The Group is present worldwide, with its own production plants in the USA, China, India, Australia, Italy, Great Britain, and sales offices in various areas around the world. [www.duplomatic.com](http://www.duplomatic.com)

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