

DIPLOMATIC MOTION CONTROL MAKES EXPO 2020 DUBAI FLY

Diplomatic represents the engineering excellence of Made in Italy at Expo 2020 Dubai, where the Italian company designed and built the roof motion system of the United Arab Emirates pavilion, the most important of the entire Universal Exposition, designed by architect Santiago Calatrava in shape of falcon wings.

Parabiago (Milan, Italy), September 16th, 2021 – Diplomatic MS Spa has contributed with a futuristic engineering project to Expo 2020 Dubai, the Universal Exposition to be held in the United Arab Emirates from 1 October 2021 to 31 March 2022, the first to take place in Arabia.

Italy, as official participating country (<https://www.italyexpo2020.it/en/>), brings the excellence of its engineering to the Arabian Peninsula, but above all that all-Italian ability, now recognized in the world, to develop large tailor-made projects and transform major technological challenges into effective and innovative solutions.

In this context, Diplomatic was commissioned to create the hydraulic system for opening the roof of the United Arab Emirates pavilion, designed by architect Santiago Calatrava in the form of falcon wings, the symbol of the host nation.

"The pavilion designed by Santiago Calatrava," explains Paolo Leutenegger, General Manager of Diplomatic MS, "is a work of art and the first major difficulty is represented by the translation of aesthetic and experiential requirements into technical and engineering parameters. The Expo project represented an important challenge for our Group, both from a technical, and logistical - organizational point of view. The development of the wing motion system of the UAE pavilion is unique in the world."

This project is the largest hydraulic system of this kind ever built. The Diplomatic system consists of a 1 MW power hydraulic unit, with a tank containing 20,000 liters of oil, which distributes the pressurized oil through 2.5 km piping to the 46 hydraulic cylinders in the 28 wings.

"Wing motion must be perfect from an aesthetic point of view and this is helped by the architecture of the control electronics, featuring nine computers and a dedicated software, which manages over 2,000 control points distributed in the pavilion. The project is majestic", Leutenegger concludes.

The work is an expression of the Diplomatic Group's vision of being a global technological player for innovative motion control solutions; it will remain on display for the ten months of the Expo but is destined to leave its mark on the history of the Universal Exposition.

The project in figures

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

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

Press info: Sara Bernardelli, communications@duplomatic.com