

VERTICAL AEROSPACE & HANWHA AEROSPACE TO COLLABORATE ON ELECTRIC MECHANICAL ACTUATOR

News / Manufacturer



Vertical Aerospace and Hanwha Aerospace agreed to establish a joint development program for the design, testing, manufacture and supply of the electromechanical actuators for Vertical's VX4 electric aircraft. The scope includes tilt and pitch control for the four forward propellers, and aerodynamic control surface actuation on the wing and V-tail.

Hanwha's state of the art reliable and lightweight electric actuator solutions with built-in systems monitoring and redundancy will be a key element in enabling the VX4 to meet the stringent safety levels being set globally for eVTOLs. This will be achieved whilst avoiding the complexity, maintenance burden and costs associated with traditional actuation systems. Hanwha's highly advanced manufacturing capabilities will support a rapid and cost-competitive production ramp-up.

Vertical and Hanwha will work together on optimising the design for lightweight and smart electric mechanical actuators specifically tailored to the VX4's needs. The collaboration will cover the actuator systems both for Vertical's certification programme aircraft and the production aircraft in its pre-orderbook. Vertical has a market-leading pre-order book by value for more than 1,400 aircraft from global customers including American Airlines, Virgin Atlantic, Avolon, Bristow, Marubeni, Iberojet and FLYINGGROUP, as well as Japan Airlines (JAL), Gol, Air Greenland,

Gozen Holding and AirAsia, through Avolon's VX4 placements.

Michael Cervenka, President of Vertical, commented: "We are delighted to initiate this partnership with Hanwha. Vertical is extremely impressed by Hanwha's highly advanced technical and manufacturing capabilities, and we are looking forward to working together on achieving zero emissions air mobility. This partnership will help ensure that the VX4 achieves the highest safety, reliability, and performance standards and that we can scale the programme to meet the demand of our market-leading pre-order book by value."

Hyun-Woo Shin, CEO of Hanwha, said: "Hanwha Aerospace has proved its outstanding ability on the electronic mechanical actuator through multiple military and civil aircraft programs, and we are excited to provide engineering solutions and price competitiveness to Vertical Aerospace, an industry leader. We are really pleased with this strategic partnership, and look forward to entering the eVTOL market as a tier one partner to Vertical. With Hanwha Aerospace's high-end technology and utmost reliability in the UAM eVTOL industry, we believe we will deliver a critical component that is best-in-class in support of Vertical's mission."

Hanwha Aerospace has long-established expertise in aerospace technology and flight critical actuator systems development and manufacturing across a broad portfolio of civil and defense aerospace and space applications. By providing an innovative and differentiated design, Hanwha expects to maintain and enhance its partnership with Vertical Aerospace, a global leader in the eVTOL industry.

Vertical's partnership with Hanwha Aerospace builds on its industrial partnership, with partners including Rolls-Royce, Honeywell, Microsoft, Solvay, GKN, and Leonardo, the former three of which are also investors into Vertical.

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