

Gansu Jiazeyuan advances Phosphorus fine chemicals project as key production lines begin commercial operations

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Company progresses phased expansion with phosphorus pentachloride unit entering commissioning, strengthening supply for agrochemical, pharmaceutical and battery industries



Gansu Jiazeyuan Technology Co., Ltd. has achieved a significant construction milestone at its integrated phosphorus-based fine chemicals project, with two major production lines entering stable commercial operation as the company expands its presence in China's specialty chemicals market.

The project, located in the Jinchang Economic and Technological Development Zone in Gansu Province, is being developed in multiple phases across a site spanning more than 70,000 square metres. The third phase represents an investment of RMB120 million (approximately \$ 17.63 million) and is designed to expand the company's production capacity for high-value phosphorus chemical intermediates.

Under the current phase, the facility is being equipped to manufacture 60,000 tonnes per year of phosphorus trichloride, 40,000 tonnes per year of phosphorus oxychloride and 30,000 tonnes per year of phosphorus pentachloride.

The company confirmed that its phosphorus trichloride and phosphorus oxychloride production units have now entered stable commercial operations, while the phosphorus pentachloride production line is undergoing final commissioning and performance testing ahead of full-scale production.

These products play a critical role across several industrial value chains. Phosphorus trichloride and phosphorus oxychloride are widely used as intermediates in the manufacture of crop protection chemicals, pharmaceuticals and dyes, while phosphorus pentachloride is an essential raw material for cephalosporin antibiotics and lithium battery materials. Construction work across the project's earlier phases is also continuing in parallel as Gansu Jiazeyuan builds an integrated phosphorus chemicals manufacturing platform.

The production complex incorporates end-to-end process capabilities covering yellow phosphorus melting, liquid chlorine vaporisation, chemical reaction systems, product recovery and finished product filling. Operations are supported by a digital central control system that continuously monitors critical production parameters—including temperature, pressure and process stability—allowing operators to optimise efficiency while enhancing operational safety. The latest milestone reflects continued investment in China's phosphorus chemicals industry, where demand remains supported by agriculture, pharmaceutical manufacturing and the rapidly expanding battery materials sector.