



STEAM CRACKER COLUMNS INSTALLED AT AMUR GCC

A key piece of core process equipment is being installed at the Amur Gas Chemical Complex.

The installation of a key piece of core process equipment is underway at the Amur Gas Chemical Complex, a joint venture between SIBUR and the China Petroleum & Chemical Corporation (Sinopec) that will produce polyethylene and polypropylene. On 22 August, the first column was installed for a steam cracker, a water wash column weighing in at about 1,500 tonnes and measuring 80.6 m high. A special gantry capable of lifting 2,500 tonnes was used to perform the task.

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The use of a gantry had a number of advantages over a crane for installing the column: it distributes the load more evenly and can position it with high precision, which allows the various elements of the equipment to be fit together properly for synchronised movement, ensuring an even and level lift.



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The AGCC steam cracker will become one of the largest of its kind in the world, with the total ethylene and propylene capacity hitting 2.7 mtpa. A number of experts said that the delivery of the AGCC column was a unique logistical operation: over the course of just more than a month, the equipment sailed around 5,000 km across the Korean Strait, the Sea of Japan, the Tatar Strait and up the Amur and Zeya Rivers. To transport the large-sized column, a special barge needed to be built, which arrived at the Amur GCC site in July 2021. To allow the column to be moved across the ground unobstructed, a railway overpass needed to be temporarily dismantled. To help you grasp the scale of the operation, watch this video that features the highlights.

In September, an alkaline washing column, a deethaniser, an absorber and other equipment were installed at the steam cracker construction site. At the beginning of autumn, a second giant structure also arrived to the construction site: the C3 Splitter, a commercial propylene splitter for the steam cracker, which weighs 1,040 tonnes and measures 111.6 metres tall. A total of 52 pieces of equipment with a total weight of 9,059 thousand tonnes were delivered to the construction site for the steam cracker, which will be used to produce polyethylene and polypropylene.

A total of 41 large-sized pieces of steam cracking equipment are scheduled for installation at the Amur GCC in 2021, 13 of which are columns. The AGCC should achieve mechanical availability and be launched in Q2 2024. On top of this, the Amur GCC saw the launch of several construction projects in September, including the site's 500 kV primary substation, as well as campsites for AGCC office staff, five hotels, a leisure centre with its own gym and a residential town fit for 9,000 people to accommodate contractors' construction workers near the site.

While the facility is currently approaching 25% completion, AGCC should achieve mechanical availability and be launched in Q2 2024.