
Press Release

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MAN Energy Solutions consolidates leadership in global PTA Market

Company wins order for four trains for production of purified terephthalic acid in China

Jiangsu Jiatong Energy Co. Ltd., a major manufacturer of purified terephthalic acid (PTA), has placed an order with MAN Energy Solutions for 4 × 1.25 Mega TPY PTA (MPTA) trains. The machinery trains will be deployed in a PTA production plant based in Rudong, Nantong City, Jiangsu province in the People's Republic of China. Delivery and installation of the four MEGA-MPTA trains is scheduled for Q1 2022.

As the world's population rises, so too does the need for basic materials such as PTA, required for everyday products like bottles, disposable masks, plastic film and textile fibers. In line with a growing market demand for turbomachinery solutions with high capacities, each of the four MPTA trains delivered by MAN Energy Solutions will have a total capacity of 1.25 million metric tons per annum.

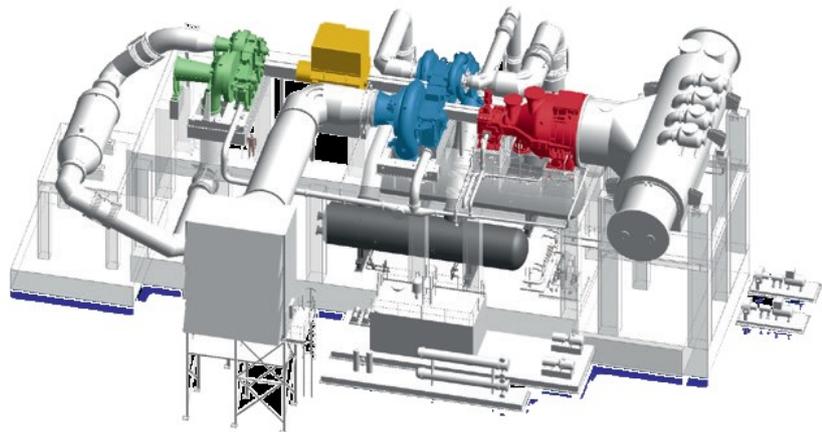
“Our compression systems are the beating heart of PTA production and, as such, exert a significant influence on profitability. The industry appreciates the benefits of our compact compressor-train units, which are highly efficient and boost production output,” stated Thoralf Schaefer, Head of Sales, Basic Industries at MAN Energy Solutions.

He continued: “This new project represents just the latest achievement in our long history. MAN Energy Solutions is the worldwide market leader in the development and manufacturing of machinery trains for the ever-growing PTA industry. Over the last sixteen years, we have installed, and made operational, a total of 48 MAN PTA turbomachinery trains at customer plants the world over.”

Ronnie Rihan Su, Head of Industrial Region Asia Pacific at MAN Energy Solutions added: “We are honored to provide our state-of-art MPTA trains to Jiangsu Jiatong Energy. Our customer will benefit from the unrivaled quality and reliability our technology solution has to offer, as well as the in-depth technical know-how that MAN Energy Solutions has gathered throughout the years.”

The order consists of 4 × 1.25 Mega TPY PTA trains with standardized designs; each comprising four different machines. The core machine is the integrally geared radial air compressor used for the oxidation process. Purified terephthalic acid is produced by catalytic oxidation of p-xylene, a liquid extracted by cracking coal or petroleum with atmospheric oxygen. The power needed for the compressor is provided by the integrally-g geared radial expander and steam turbine, which also produce electricity in the generator using surplus steam. In the start-up phase, this generator is operated as a motor to support performance. Furthermore, the process-heat produced is used to generate steam, which is supplied to the low-pressure condensing steam turbine. At the same time, the expander uses the waste gas from the production process for energy recovery.

MAN Energy Solutions enables its customers to achieve sustainable value creation in the transition towards a carbon neutral future. Addressing tomorrow's challenges within the marine, energy and industrial sectors, we improve efficiency and performance at a systemic level. Leading the way in advanced engineering for more than 250 years, we provide a unique portfolio of technologies. Headquartered in Germany, MAN Energy Solutions employs some 14,000 people at over 120 sites globally. Our after-sales brand, MAN PrimeServ, offers a vast network of service centres to our customers all over the world.



Visualization of a PTA train by MAN Energy Solutions: integrally geared compressor (blue), steam turbine (red), expander (green), motor/generator (yellow)



A PTA machinery train by MAN Energy Solutions