



Gas Generator Sets

MTU CHP PLANT ENSURES THAT ROSES THRIVE ALL YEAR LONG

A CHP plant from the Rolls-Royce brand MTU has been generating electric power and heat in the greenhouses of the family-run Wimceco Rose Nursery.

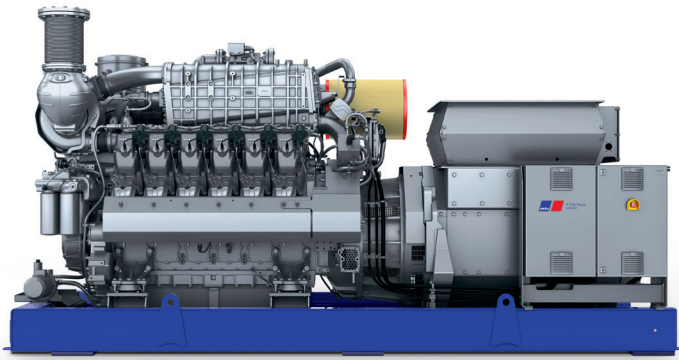
Who Rose nursery Wimceco
What CHP plant with 12V MTU Series 4000 gas engine
Where Boechout, Belgium

Since the middle of April 2017, a CHP plant from the Rolls-Royce solution brand MTU has been generating electric power and heat to ensure that the roses in the greenhouses of the family-run Wimceco Rose Nursery in the Belgian town of Boechout grow and thrive throughout the year. The plant replaced an existing power plant that was getting on in years. Greenhouse operator Van Nuffelen, whose

company has been cultivating roses for some 30 years now, says: “We place great value on environmentally friendly and energy-efficient production, which is why we decided in favour of an MTU brand CHP plant.”

Electric power for the greenhouse lamps

The combined heat and power plant is based on an high-speed 12V4000L64 gas-powered engine from MTU. With an electrical output of 1,523kWe and a thermal output of 1,912kW, it achieves a total efficiency level of 99,9 per cent. The electric power is used primarily for the greenhouse lamps and, if required, is fed into the public grid. The greenhouses, which cover an area of 1.75 hectares, are heated



Based on 12V MTU Series 4000 gas engine

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using the heat extracted from the exhaust gas and the engine's cooling system. In addition, the cleaned exhaust gases from the engines are injected into the greenhouses to increase the level of CO₂ and boost plant growth. Greenhouse operator Van Nuffelen expects to achieve an annual production of 5.5 Mio roses in his greenhouse facility in Boechout. These include varieties such as Sweet Avalanche, Red Eagle, White Soda, Jumilia and Miss Piggy, which are available in a colour range from light pink, dusty pink, to dark red, champagne and white. They are exported to European countries, go to whole salers and florists, and are also sold in the shop directly to rose lovers.

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Van Nuffelen
Greenhouse operator

Rolls-Royce delivered the complete CHP plant in cooperation with system integrator Tecoma. Van Nuffelen and MTU Benelux have concluded a long-term maintenance contract for the combined heat and power plant covering approximately 63,000 hours of operation over the next 10 years.

Rolls-Royce provides world-class power solutions and complete lifecycle support under our product and solution brand MTU. Through digitalization and electrification, we strive to develop drive and power generation solutions that are even cleaner and smarter and thus provide answers to the challenges posed by the rapidly

growing societal demands for energy and mobility. We deliver and service comprehensive, powerful and reliable systems, based on both gas and diesel engines, as well as electrified hybrid systems. These clean and technologically advanced solutions serve our customers in the marine and infrastructure sectors worldwide.