



Mattei Germany - partner of the Austrian energy producer and distributor in the field of micro-cogeneration

COGENERATION COMPRESSORS

The compressors, highly customized, were born from the Mattei experience of compressors and cogeneration of Wels Strom. The high quality gas production, together with the reliable vane technology and the team's knowledge have been Mattei stepping stones.

Cogeneration according to Wels Strom GmbH..

Wels Strom GmbH is an Austrian company, held by the EWW AG Group (51%) and by Energie AG Oberösterreich (49%), operating within the field of energy distribution. The first hydropower plant of the former E-Werk Wels was built at the city of Wels, Austria, in 1900 and is still in operation today.

In 2002, as a result of the market liberalization in the sector, the Wels Strom GmbH was officially founded. Since 2005 the company has been operating in the field of cogeneration. At the core of this environmentally friendly process, which allows for the simultaneous production of electricity and heat, there are high-efficiency plants for water treatment and biogas production equipped with oil-free Capstone micro-turbines.

"To operate, microturbines need gas at a pressure of 5.2 bar. In this process, the Mattei compressors play an essential role, since they compress the gas in microturbines, which is then fed into the distribution network. To date, we have installed about a hundred of Mattei compressors in our plants," Mr. Leopold Berger, Head of the Energy System at Wels Strom GmbH, confirms. He is in charge of a team of engineers developing up to 15 micro-cogeneration plants a year.

.. and Mattei compressors contribution

The cooperation between Mattei and Wels Strom GmbH started in 2008: "The first Mattei compressors were bought for being integrated in a gas treatment plant," Mr. Berger states. "A great deal of customization was necessary in order to optimize the use of the MC series machines for this particular type of production. Later, after having gained a certain experience, we started to fine-tune a system that is better performing for bio-gas production. And once again, the Mattei compressors turned out as being the best solution."

Today, at the Wels Strom GmbH plants, close to the highly customized MC series devices (in different sizes MC80, MC86, MC111), the GC111 compressor is also running. This model has an integrated oil radiator of the GC series, which has been designed and developed by Mattei later, in order to meet specific needs for the compression of sweet and acid gas and biogas.

Many are the strengths of the rotary vane technology found by Mr. Berger: "The machines' compact and integrated design along with a reduced number of components favours the compressor handling and leads to a long product life-cycle, not least thanks to the wear-resistant vanes and rotors made of cast iron. The filtering system ensures an



Design, durability, high gas quality and efficiency on the basis of the cooperation, which dates back to the year 2008.

optimum gas quality - an essential feature, above all in delicate environments like that of gas applications. In addition, the presence of suction and pressure control valves eliminates the risk of gas leaks."

Why Mattei

Design, durability and optimum gas quality, but also efficiency and reliability: "Thanks to the low rotation speed, Mattei compressors are very efficient and reliable over time. Actually, they are able to operate up to 8,000 hours non-stop in the dry natural gas treatment without the need of maintenance interventions and

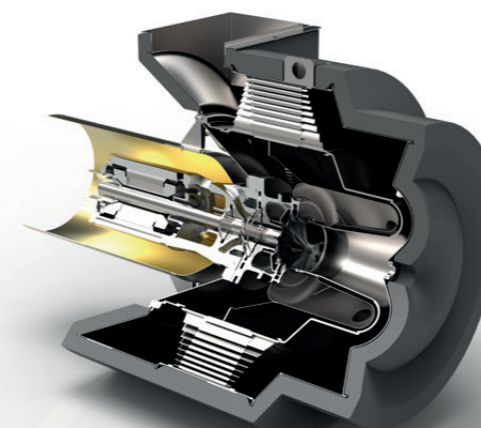
4,000 hours in the case of humid biogas" Mr. Berger adds.

"Choosing Mattei compressors, we have been able to count on the expertise and know-how of Walter Jaguttis and his team from Mattei Germany" the Head of the Energy Division at Wels Strom GmbH concludes. "Mattei has proved to be an experienced and attentive partner. Their willingness and helpfulness to talk about our needs has been such an important added value for developing a profitable cooperation over the time and realizing non-standard high-performance solutions, with an optimum return on our initial investment."

G and GC Series



Mattei's rotary vane Gas Compressors are designed to compress sweet, sour and bio gasses. The range covers 4kW up to 200kW available as a stand-alone gas end for local packaging or as customer specification gas compressor packages. All versions come complete with automatic flow control at a constant delivery pressure, integrated or remote cooler and threaded or flanged gas intake facility. The compressors are compact and easy to install, offering reliable operation and constant performance throughout time.



MC Series



Mattei design integration allows the compressor to be powered by any type of power system: electric and hydraulic motors, internal combustion or through take-offs. The integration of the oil chamber and oil separator, non-return and minimum pressure valve, regulation valve and oil filter makes it compact and easy to install. In the "M" models, as opposed to the "MC", the oil cooling system is not integrated in the compress. This allows to position the radiator in a more suitable place according to the machine it is built in. All "M" and "MC" groups, for the OEM applications, can be equipped with an high efficiency intake filter. This filter can be installed in a cool and clean environment in order to improve the compressor's performances.

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