

Recla Manufacturing Plant

A staple of Silandro, Italy for over 400 years, the Recla family knew the time was right to expand its manufacturing facilities to increase production of its world-renowned gourmet meat products. Located in a valley in the remote South Tyrol region of the Italian Alps, access to electricity was limited and costly. So the Recla manufacturing plant turned to a Capstone MicroTurbine® natural gas C1000 Power Package to empower its expansion.

A primary industry in the area, Recla produces ham, sausages, bacon, salami, prosciutto, and other high-end meat products in the Alto Adige Region of Italy that are distributed globally.

“Recla decided to invest again in this area and double its factory to increase production, but there was an energy problem,” said Ilario Vigani, CEO and President of IBT Group, the Capstone distributor in Italy. “This area has weak energy resources, and electrical energy is not readily available.”

With annual production in excess of 1 million pieces, Recla is the world’s second largest producer of speck – a dry-cured, lightly smoked prosciutto. Created from a treasured family recipe passed down through generations, the distinct flavor of Recla’s popular “Speck Alto Adige” is a savory combination of top-quality ingredients and an innovative curing process enriched by the region’s unique arid climate.

Installed as a combined heat and power (CHP) application, the Capstone system provides Recla one megawatt of electricity to supplement power. At the same time, a saturated steam generator uses the turbine’s waste heat to create steam used in the manufacturing process. In addition, a heat recovery module captures the waste heat to produce hot water.



At a glance

Location

Silandro, Italy

Commissioned

July 2010

Fuel

Natural Gas

Technologies

- Capstone C1000 Power Package.
- Saturated Steam Generator.
- Capstone Heat Recovery Module.

Results

- The combined heat and power system produces about 1MW of electricity, mainly for refrigeration, and 1,430kW of thermal power in the form of steam and hot water used in the manufacturing process.
- The system recovers over 80% of the primary energy source and saves about €300,000 annually.
- The system does not require lube oil or coolant, it saves about 350 tonnes equivalent of petrol (TEP) and 1,000 tonnes (1,102 tons) of CO₂ each year.
- The site is no longer crippled by production-halting blackouts and power failures.
- Emissions reduction from the C1000 is equivalent to removing 700 cars from the road or planting 730 acres of forest.
- The low-emissions and high efficiency system supports Recla’s environmental responsibility values.

“Once the C1000 was installed, Recla no longer suffered from blackouts and power failures. Recla recovers over 80 percent of the primary energy source and saves approximately €300,000 per year on energy costs.”

*— Ilario Vigani, CEO and President
IBT Group*

The Recla factory is highly automated. “The problem here is that we are the only ones in the area that use a lot of energy,” said Robert Recla, Technical Engineer at the Recla site. “That makes it very, very expensive. We needed a lot more electrical power, so the Capstone microturbines were what we needed.”

The Capstone Power Package produces 1MW of electricity and 1,430kW of thermal power generation in the form of steam.

Prior to installation of the C1000, Recla relied on a small stand-by generator that could not relieve the facility from regular utility blackouts that completely stopped factory production.

“Once the C1000 was installed, Recla no longer suffered from blackouts and power failures,” said IBT’s Vigani. “In addition to the reliability benefits of the C1000, Recla recovers over 80 percent of the primary energy source and saves approximately €300,000 per year on energy costs.”

With roots in the region dating back to 1620, the Recla family has made environmental responsibility a cornerstone of its business. The ultra-low emissions and high efficiency of the Capstone Power Package support the family’s values. For each C1000 turbine installed, emissions reductions are equivalent to removing 700 cars from the road or planting 730 acres of forest. In fact, South Tyrol leads the region in sustainable living with a goal of 70 percent renewable energy use by 2013.

Capstone’s low-maintenance air bearings require no lube oil or coolant. “In terms of energy savings, this system is able to save about 350 TEP, and they save around 1,000 tonnes (1,102 tons) of CO₂ per year,” Vigani said.



A natural gas C1000 Power Package provides heat and power to the Recla manufacturing plant in northern Italy. Recla produces salami, prosciutto, and other high-end meat products that are exported around the world.

“We’re proud to have found in Capstone products the same ethical values that both Recla and the Alto Adige Region have always believed in: high quality, environmental respect, complete reliability, and commitment to customers,” said Franz Recla, who owns the company with his brother, Gino. ■