The Lucart Castelnuovo di Garfagnana tissue mill is part of the Lucart Group, one of the first European paper and tissue producers. The mill has inaugurated its cogeneration system which is comprised of a Taurus™ 70 gas turbine generator set, an air system with fans, burners, dampers, ducting and instrumentation for the hood, as well as a heat recovery steam generator, an air/air heat recovery and an air/water heat recovery system. The gas turbine flue gases are used to dry the paper without any further gas consumption, improving energy efficiency and reducing greenhouse gas emissions significantly.
Using the gas turbine exhaust in the drying process replaced the older system of methane burners, which are now off during normal operations and in full compliance with Lucart’s product quality parameters. In addition to the gas savings, drying costs in the tissue production are decreased considerably with the new cogeneration system. The cogeneration system has resulted in a 15 to 20 percent natural gas consumption savings, which correlates to an estimated reduction of CO2 emissions by 7,000 tons per year and NOx reduction of 3.5 tons per year.