



Success Story

RMX Technologies is commercializing a carbon fiber production technology that will significantly reduce the cost of making carbon fiber and OPF (oxidized polyacrylonitrile fiber). RMX Technologies also provides customized industrial material processing solutions that improve existing products and processes by applying advanced plasma, carbon fiber, ceramic and nanomaterial technologies to lower production costs and reduce processing times while potentially reducing environmental impact. RMX partners with clients from concept to production, resulting in cutting-edge advancements that provide a competitive advantage in cost, speed and functionality.

The company enjoys a close research partnership with the Oak Ridge National Laboratory (ORNL) that has resulted in multiple development contracts with ORNL in the field of low-cost carbon fiber. Through support from the Advanced Composites Employment Accelerator (ACE) program and assistance from the University of Tennessee Center for Industrial Services (UT CIS), RMX was able to utilize the help of a UT Knoxville mechanical engineering student who brought his expertise into RMX to support the development of the plasma oxidation system and preparation for commercialization of this important technology. This resulted in accelerating the schedule of advancing this development of a plasma oxidation oven that will reduce carbon fiber production costs.



Based on testing and data from this activity, RMX expects that this technology will reduce the price of carbon fiber processing by twenty percent. Cost reductions such as this are needed to make carbon fiber pricing competitive with other currently used materials such as steel. The company is now in process of utilizing this technology towards developing a larger volume, more commercially viable production process.

The project not only helped RMX scale up and further advance their plasma oxidation system, but company officials also cited benefits derived from university student engagement in this important research and development project that has positive implications for the carbon fiber industry.