During routine ground testing of a shuttle engine, the measuring device for liquid oxygen failed, resulting in a fire that burned the test stand beyond repair. Scientists were looking for a more reliable way of measuring flow rates, which evaluate performance, reliability, and safety.

Through Small Business Innovation Research (SBIR) funding, Quality Monitoring and Control (QMC) developed the balanced flow meter (BFM). In 2007 the technology was designated Marshall Space Flight Center Invention of the year; in 2010 it won the Federal Laboratory Consortium National Excellence in Technology Transfer award.

QMC founded Aplus-QMC to commercialize the technology, which produces flow measurement accuracies around 0.2 percent in very harsh environments and with no moving parts. The product is now used at chemical plants, refineries, power plants, and pharmaceutical plants, and its success has create 100 new jobs.