



# Quality, Measurement & TESTING

**B**UCKLEY SYSTEMS PRODUCTS ARE CRITICAL COMPONENTS OF MEDICAL RADIOTHERAPY DEVICES AND BUSINESS-CRITICAL SEMICONDUCTOR IMPLANTERS. WE HAVE DEVELOPED A DEDICATED QUALITY TEAM AND MEASUREMENTS LABORATORY TO ENSURE WE DELIVER THE HIGHEST PERFORMANCE AND RELIABILITY.

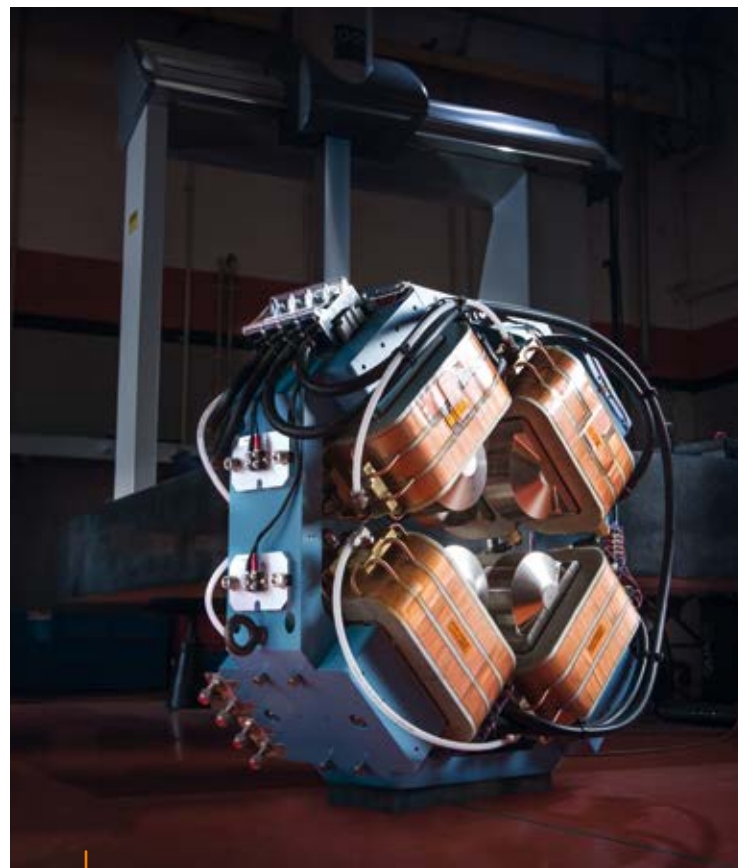
## THE RIGHT PROCESSES

Our quality systems are built on an ISO 9001 framework. That means robust process control and full traceability from drafting through to shipping.

Through decades of working with international customers across varied industries, Buckley Systems knows that one size does not fit all. We will work with you to develop a quality and testing plan, including mechanical inspection, functional tests, and a documentation package tailored to your systems and needs.

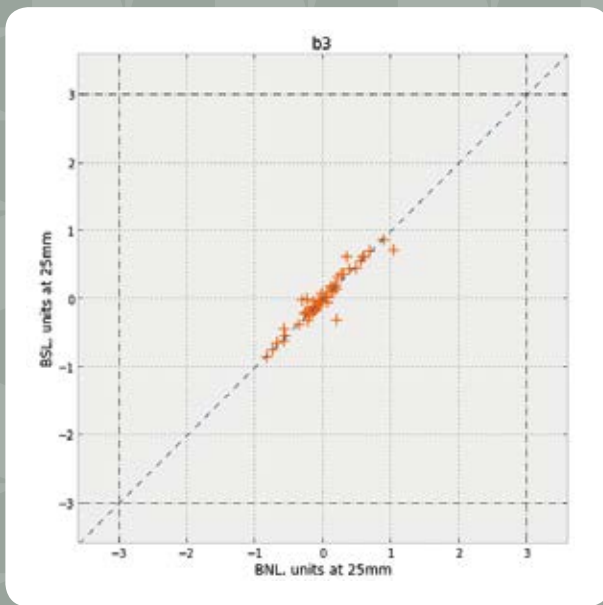
## A UNIFIED TEAM

Our quality and measurement team is closely linked to our design and physics capability. Because of our depth of experience with particle beam systems, we understand the significance of the measurements we're taking. That means we can help you to develop a robust measurement plan and carry it out to the highest level. And if there are any deviations from expected results, you can be confident that we'll address root causes and deliver quality and reliability.



An example of a Buckley Systems quadrupole doublet, ready for final measurement and inspection.





## WORLD-CLASS ROTATING-COIL MEASUREMENTS

Buckley Systems tested 90 multipole magnets for Brookhaven National Laboratory's (BNL) NLS-II Synchrotron light source. Multipole coefficients were measured to 22nd order and down to parts per million of the fundamental. These were independently verified to be consistent with BNL's best-in-world magnetic measurements. For example, this graph compares BNL and Buckley Systems measurements of the B3 coefficient of quadrupoles. Points represent magnets and dashed square shows specification.

## QUALITY FACILITIES

Buckley Systems has developed a quality and measurement laboratory, set in a temperature controlled area. Our facilities include a suite of fully calibrated mechanical metrology and magnetic measurement equipment.

### Mechanical Metrology

We use high-precision co-ordinate measuring machines (CMM) to measure parts and assemblies. Our operators are highly trained and bring the experience required to develop robust measurement plans and carry them out consistently.

## Magnetic Measurement

Buckley Systems develops speciality magnetic measurement equipment. Our 3D field mapping and rotating coil testing stations incorporate high stability power supplies (up to 3000A), DCCTs, Group 3 Gaussmeters, 3-axis stages with linear encoders, and custom rotating coils of various apertures.

We continue to develop our magnetic measurement capability. For example, we are currently developing a vibrating wire measurement system for extremely precise measurement of magnetic axes. We can work with you to develop bespoke magnetic measurement solutions to meet your exacting needs.



**BUCKLEY  
SYSTEMS**

Ingenious at work

To understand how we can forge an ingenious partnership with you, contact us on +1 978 948 3403 or +64 9 573 2200, visit [www.buckleysystems.com](http://www.buckleysystems.com), or email [sales@buckleysystems.com](mailto:sales@buckleysystems.com)

