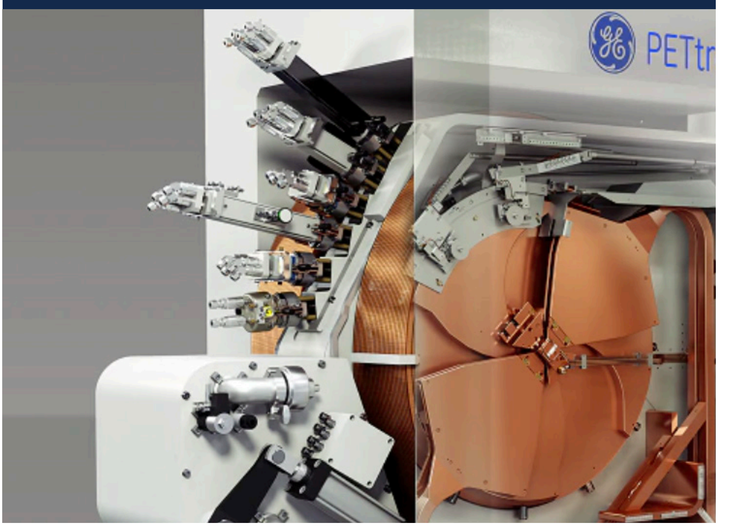
PETtrace Cyclotron



GE has expanded our PETtrace cyclotron capabilities, in combination with our FASTlab 2 developer, to produce ^{68}Ga. That's because a lack of access to radioisotopes can hinder your molecular imaging and precision health practice. Ongoing shortages of the generators that produce ^{68}Ga create serious challenges for medical professionals who are treating a variety of patients. With our PETtrace cyclotron, we are meeting your biggest Theranostics challenge with the capability to significantly increase production of ^{68}Ga.

That's because we recognize that tracer production and PET/CT go hand in hand. Because of the relatively short half-lives of PET radioisotopes, it's a race against the clock to produce a radioactive isotope, synthesize it into a radiopharmaceutical, and get it to the patient. To go in search of true discovery with PET, access to a cyclotron is necessary, and yet they are considered the most difficult and sophisticated part of a PET installation.

With the end goal of making true discovery possible for more healthcare providers, each system in our portfolio of cyclotrons is designed to make it easier to implement and operate a tracer production facility. To accomplish this, we focus on three key areas of innovation: reduced risk of radiation, ease of use, and reliability.

Our systems are all based on our industry-leading vertical, mid-plane cyclotron design. This design has minimal space requirements and, when combined with quick-release components, it significantly reduces radiation dose to maintenance personnel.

Our systems are also fully automated, so that isotope production requires no more than five simple steps from start to finish. As a result, routine operation can be performed by a trained hospital technician, which significantly simplifies the initial setup and daily operation of a facility.

Finally, our cyclotrons are built for reliability with an unmatched, guaranteed uptime and backed by the largest footprint of service support in the industry. Starting with these foundational principles, we built a portfolio of cyclotrons designed to meet your unique needs for capacity, siting and tracer types. Whether you are building a PET facility from the ground up to support an entire region or looking for an in-house solution, our cyclotrons will quickly put your organization on the path to true discovery.

Solid Target Platform

Designed for the industry-leading PETtrace cyclotron, the fully automated PETtrace Solid Target Platform seamlessly integrates each of the components in the production chain, providing a simple and reliable supply of radiometal-based diagnostic tracers to support therapeutic programs and development of new Dx/Tx pairings. With the PETtrace Solid Target Platform, enough ^{68}Ga can be produced in one single run to support more than 10 PSMA patients. The easy-to-use, integrated solution produces radiometal tracers with a reduced footprint, lower operator dose, and decreased cost, starting with ^{68}Ga. The platform helps open the door for further developments in Theranostics to create large quantities of imaging tracers to pair with current and future therapeutics.