



Gamma Products-G3000 Automatic Marinelli Changer



Each G3000 includes:

- Low background steel shield, 4" lead, 4" steel and 6" steel are available. Steel shields can be Cu/Sn graded.
- Available in 16 inch or 18 inches ID.
- 12 position turntable for 250, 500, 1000, 3000 or 4000 ml beakers.
- Stepping motor driven slide and sample elevator.
- 4 axis motor controller.
- Automatic sample entry door
- PC based controller for motor drive functions.
- Accommodates other sample containers (24 position if $3\frac{1}{4}$" dia), such as 3" water cans.
- Easy to adapt to new detectors or samples in the future.
- Accommodates detector end caps to >4 inch diameter.
- Installation, training, and on site warranty (48 states).

The G3000 has by far the largest installed base of any Marinelli changer available. It has been successfully adapted to many different sample containers in addition to Marinelli beakers. By careful choice of the adapters used to handle other containers it is usually possible to mix different sample containers in a run.

The G3000 is PC based. The acquisition PC communicates with the G3000 sample changer PC serial port via an RS232 interface or networked. The G3000 sample changer software supports random access of samples. For example, you can specify to count sample 4,5,7 and 4 again. The G3000 Automatic Sample Changer does not include detector, MCA, Spectroscopy PC or integration with the system.

The ability to accomplish unmanned sample changes can increase sample throughput by as much as 2 to 4 times that possible with manned intervention based on a 8 hour shift and 5 day a week staffing. Maximum advantage is achieved with sample count times in the 2-4 hr. range. You may wish to consider the combination of detector efficiency (as it effects count time and MDA) and auto changer in determining the most cost-effective approach for production gamma analysis.

When operated in a slave mode with a MCA system that supports on the fly spectrum inspection and evaluation, the G3000 can provide you with the ability to count to a specified MDA optimizing the counting times to each specific sample.

The reliability of the G3000 comes from it simplicity of design. All sample containers are handled from the bottom. On the turntable, on the slide, on the elevator, and in counting position on the end cap, the sample container is always supported from bottom and positively held by its own sides. Custom beakers or accessory holders with proprietary "handles" are not required. It also means that the system is not subject to dropping samples or getting lost in the event of a power failure. Sample loading onto the turntable is at a convenient height and can be accomplished while the system is in operation.

The motor control subsystem includes power supplies, drive logic, end or travel sensors and cabling for 4-axis automatic control. The PC Controller and running Microsoft operating systems works as a RS232 slave to the spectroscopy. The external mode using a PC serial port via an RS232 to communicate changer commands from an outside source. It does not include detector, MCA, Spectroscopy PC or Integration with it.

The G3000's design has made it easy for both Gamma Products and our customer to adapt G3000's in the field to changing detectors and sample containers. We can almost surely make a simple low cost adaptation for your sample containers of choice. Gamma can also provide complete systems including the sample changer, detector, electronics, and your choice of MCA system.

Model Number Key: G3000-xx-y-z xx = ID in inches; y = beaker size 1 for 250, 500 and 1000 ml beakers, 4 for 4000 ml beakers; z = S for steel walls

Size & Weight:

Turntables	32" dia for 250, 500 and 1000 ml
	46" dia for 4000 ml
Weight	6" steel with a 16" opening 6,000 lbs., 6" steel with an 18" opening ?????Lbs.
	4" lead with a 16" opening 5,500 lbs.