Thermo Scientific compact centrifuges

5 ways a floor-standing centrifuge can optimize your cell culture lab
Address expanding centrifuge requirements while still considering space restraints in a cell culture lab

Traditionally, medium-sized, benchtop centrifuges have been most common in cell culture labs. However, over the last decade, the size of the typical cell culture centrifuge has increased due to a higher throughput requirement, the need for refrigeration, and advanced productivity in being able to perform multiple centrifugation applications. As larger units require valuable bench space, floor-standing versions can provide the same capabilities in addition to outstanding ergonomics and cleaning efficiencies while optimizing valuable space in a lab.

Free up space

Cell culture labs are usually small enclosed rooms where space, especially on the bench top, is at a premium. By placing the refrigeration system below the centrifuge, floor-standing models can reduce the footprint by approximately 25%, compared to benchtop models with the same capacity, and ultimately save the premium bench space for other important tasks or equipment.
Enhance ergonomics

When placed on a bench, centrifuges can be up to 135 cm/53 in tall, making loading and unloading samples and cleaning the centrifuge chamber challenging. Floor-standing centrifuges have a height of 84 cm/33.2 in, ensuring accessibility for all operators with excellent ergonomics for accessing samples, exchanging rotors, and cleaning properly without sacrificing proper ergonomics with strenuous reaching.

Remove equipment limitations

Centrifuges vibrate while spinning. These vibrations can be transferred through the bench to sensitive nearby equipment such as microscopes which may impact the use of these instruments. Moving the centrifuge to the floor removes the vibration from the bench, reducing its impact on surrounding equipment and thus enhancing productivity.

Improve workflow efficiency

In cell culture rooms, centrifuges are not generally placed in the most efficient location next to biological safety cabinets (BSC) or CO$_2$ incubators simply because of the lack of sufficient bench space. When a floor-standing centrifuge is placed next to the BSC or CO$_2$ incubator, it can help improve the workflow within cell culture suites by minimizing unnecessary transport of samples. This can help reduce the processing time of cells and the overall time cells are outside of a BSC or their ideal growth environment inside the CO$_2$ incubator, not only enhancing efficiencies of workflow, but also potentially improving results.

Helps reduce contamination risk

Contamination can reside on the bench top in the space between a centrifuge and the bench and consequently be released into the air. While it is very important periodically to clean this area to minimize contamination, the heavy weight of the centrifuge makes it difficult to move, and as a result this space is often neglected. By taking the centrifuge off the bench top workspace, the risk of air-borne contamination concern is minimized.