



Clinical Centrifuge Purchasing Guide:

SciLogex Knowledge Library



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Crucial in blood collection and banking, haematology, immunology, chemistry, and biology applications, a clinical centrifuge is basic and vital equipment in medical facilities and hospitals. Commonly used for the separation of plasma and whole blood components as well as diagnostic examination of urea, serum, and other bodily fluids, this compact and low-speed device is operated on a daily basis to accommodate routine applications in clinical and research laboratories.

With a variety of models to choose from, plenty of medical and lab supply stores available, and an increasing number of online sellers, finding the most appropriate clinical centrifuge to meet your protocol requirements might be challenging and a bit overwhelming. Sciologex understands this and has prepared a simple guide to help you identify the best fit unit to invest on. Read on for key points and tips to consider when purchasing the ideal clinical centrifuge for your applications.

Review Sample Type, Sample Volume, and Expected Throughput

Before acquiring a clinical centrifuge, it is important to take into account your application's expected throughput or how many samples you will be processing at a time or in a day, the sample volumes as well as the sample types you will be working with. Once you have an idea on your expected throughput, you can now identify the tube sizes and tube formats to look out for.

Available sample tubes are either made from glass or plastic and with capacities varying from 1ml to 100ml. Weigh the pros and cons of each container type, with glass vials cracking or shattering under pressure if surface integrity is compromised and plastic vials being somewhat porous.

Some sample tube formats and specimen containers used in clinical centrifuges include cryotubes, HPLC tubes, PCR strip tubes, plates, and bags. Be sure to go for units with rotors and adaptors capable of handling the tube sizes and formats you require. If you will be spinning various sample tube formats and tube sizes, don't forget to check the capacity of the unit you are getting and if it is flexible enough to permit rotor switching.

If you will be running samples that may come with toxic substances or hazardous materials, search for clinical centrifuges with chemical resistant rotors. To avoid incidents that may cause contaminations in a laboratory, like tubes breaking while spinning or transporting, take into consideration clinical centrifuges with an auto shutdown feature if the lid is left open. Ensure laboratory safety by choosing either a centrifuge featuring a rotor with a plastic or metal lid. Metallic lids are stronger and do not break easily compared to plastic lids but plastic ones prevent corrosion and may come as transparent.

Looking for a high-accuracy clinical centrifuge that can accommodate various tube sizes and formats? Consider getting the [SCIOLOGEX SCI412S Clinical Centrifuge](#) that also features easy-to-read LED display and sound alert, robust plastic rotor, and excellent balance technology for low-noise and stable operation. This unit also allows for quick spins through a PULSE key as well as gentle braking at low speeds while ensuring efficient separation.

Check the Type of Rotor Your Application Requires

The type of rotor a clinical centrifuge should have greatly depends on the specific application the equipment will be used for. Swinging-bucket and fixed-angle rotors are the two main types of centrifuge rotors available in the market. These are briefly explained below.

- **Swinging-Bucket Rotors (Horizontal Rotors)** - swings out when under the influence of a centrifugal field, holds tubes at an approximate 90° angle relative to the axis of rotation, recommended for sedimentation with smaller centrifugal forces pelleted materials collect at the bottom of a conical centrifuge tube, used for batch harvesting of whole cells from growth media, high-capacity processing of blood collection tubes, as well as high-volume processing of tissue culture.
- **Fixed-Angle Rotors** - hold tubes at a stable angle (usually between 25° to 40°) relative to the axis of rotation, used for pelleting particles from suspension and removing excess debris or for collecting pellets, recommended for sedimentation with high centrifugal forces, pelleted materials form sedimentation on the side of a conical centrifuge tube.

Need clinical centrifuges that come with adaptors for various sized tubes and with different rotor options to select from? You can check out the compact [SCIOLOGEX SCI636 Multi-Purpose Clinical Centrifuge](#) that can be purchased with a swing-out or fixed angle rotor, offers automatic rotor detection, and features a brushless motor to quickly drive and effortlessly accelerate the rotor to set speed.

Determine Available Laboratory Space and Decide on Budget to Allocate

Before you start looking for a clinical centrifuge, keep in mind the available space in your laboratory as this can influence the accessibility of the equipment. If you have a spacious laboratory and will be using the clinical centrifuge frequently, you can go for floor standing models that can support not just a wide range of rotors but can also accommodate a variety of protocols. On the other hand, if you have a small workroom, is not short on bench space, and is only working on small throughput applications, then you can opt for benchtop models instead.

It is important to review how much budget your lab is willing to spend for the clinical centrifuge purchase. If you are tight on resources, you can opt for benchtop centrifuges that are expected to be priced lower compared to floor standing ones, given the numerous options available. If funding is not a problem, you can go for floor standing models that are quite more expensive compared to benchtop counterparts and are often selected for either high-speed or high-capacity processing. Aside from these, don't forget to allocate budget for your centrifuge consumables as well, including the sample containers to use.

Other Factors to Consider

Prior to purchasing a clinical centrifuge, you can also go through this short list of questions and answer based on the specific applications you will be focusing on.

- What is your maximum and minimum relative centrifugal force (RCF, g-force) requirement? Most clinical centrifuges can spin at an RCF of 3,000 x g or lower while spinning sample tubes.
- Depending on your expected throughput, what are your spin speed requirements? This will determine the revolutions per minute the centrifuge you are getting can provide.
- How many users will be working on the centrifuge?

Interested in a lightweight clinical centrifuge capable of spinning from 300-4500 rpm and with a max RCF of 2490xg? Try the [SCIOLOGEX SCI412 Clinical Centrifuge](#) that can be set to run for 30 seconds to 99 minutes or configured for continuous running. The unit also allows modification of parameters once set speed has been reached.

Scilogex showcases not just an inventory of quality clinical centrifuges that are compatible with various conical centrifuge tubes, vacu tubes, and collection tubes, but also a wide selection of clinical centrifuge rotor options, letting you choose units with max rcf/xg ranging from 2500xg to 25150xp and RPMs from 300 to 15000.

All clinical centrifuges carried by Scilogex come with a 2 year warranty and offer reliability as these conform to international safety standards and regulations, and are certified with CE, cTUVus, and FCC.

Meet requirements for all your areas of research with our large inventory of innovative lab equipment including [clinical centrifuges](#). With lab products manufactured under an ISO9001 facility, available warranty options, and lab experts for pre-purchase support and product recommendations, Scilogex only guarantees quality and excellence.



If you require product assistance or have any product inquiries,
feel free to contact us at 877-724-5643 or email us at info@scilogex.com today!

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