



Microcentrifuge Purchasing Guide:

SciLogex Knowledge Library



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Integral in chemical, medical, biological and even in industrial laboratories, centrifugation is a process that segregates heterogeneous solid and liquid mixtures through spinning and centrifugal force. Choosing the type of centrifuge equipment to use for your application would depend on the type and volume of samples you will be working with. Small sample volume applications call for [microcentrifuges](#), also known as microfuges. Featuring a compact footprint to fit on a table-top, built with rotors for speed altering, and may come refrigerated or ventilated (non-refrigerated), a microcentrifuge can spin 2ml or less liquid samples at high speeds, making these ideal for microtube processing, pelleting nucleic acids, microfiltration of fluid solutions, isolation of macromolecules, and other routine laboratory work.

Finding the perfect unit for your application is vital but can somehow be tricky given the extensive selection of microcentrifuges in the market. Having a basic understanding on the different types of microcentrifuges, unit specifications and functions, as well as other factors to consider before actually buying a unit can not only help you save time, budget, and effort but also lead you to making better purchasing decisions. Let this simple purchasing guide from Sciologex assist you in acquiring the right microcentrifuge to meet your application requirements.

Getting the most suitable microcentrifuge for your facility entails proper review of your application requirements. Do an initial run through of what your application demands from you by answering the list of questions below:

What type of sample tubes are you planning to run?

Selecting what type of tube to use will greatly depend on the type of samples you will be working with. Some tube options available include those with curved or straight walls or those that come with screw tops or pop tops. Most microcentrifuges have rotors that are designed to spin 18-24 1.5ml or 2.0 ml microtubes. If you will be spinning any unusual tube sizes, make sure the unit you are buying is capable of running these or include adaptors for these.

Some microcentrifuges have specially designed rotors to accommodate other sample tube formats like 5 mL tubes, cryotubes, HPLC tubes, PCR strip tubes, microtiter plates and hematocrit capillary tubes. If you will be working with multiple sample tube formats, don't forget to check how much flexibility the device you are eyeing on offers, seeing if it allows rotor switching.

What is your required capacity?

To get the most from the microcentrifuge you are procuring, think of your application's required throughput or how many samples you are planning to process at a time or in one day. The capacity of the microfuge rotor as well as the size of tubes the unit should be using highly rely on your expected throughput.

Microcentrifuges may come with a swing bucket or fixed angle rotor that is compatible and can handle 12, 16, 20, 24, 30, or even 48 standard tubes. If you will be dealing with tubes that contain toxic substances, be sure to get a unit with a chemical resistant rotor.

When it comes to speed, you can either get microcentrifuges with rotors that spin at a fixed speed rate or at variable speed rate. In deciding what model to go for, you should always consider not just your current applications but your future ones as well.

If you are looking for high speed microcentrifuges that can work on 12 or 24 1.5 / 2.0 mL of sample tubes, you can take a look at the [SCIOLOGEX SCI-12 Plus High Speed Personal Microcentrifuge](#), [SCIOLOGEX SCI24 High Speed Micro-Centrifuge](#), and [SCIOLOGEX SCI24R High Speed Microcentrifuge](#), all available at Sciologex.

Will you be needing refrigerated or non-refrigerated microcentrifuges?

If you have samples that must be maintained at a specific temperature or if you will be frequently operating the microcentrifuge, you should get a refrigerated model. A refrigerated unit is ideal if you are dealing with human or animal biological samples that must be kept cool, if you are working on applications such as chemical precipitation, or if you simply want to prevent sample deterioration. Otherwise, you should look for a non-refrigerated (also called as a ventilated or ambient-temperature) microcentrifuge that allow heat produced during a run to disperse instead.

High speed refrigerated microcentrifuges are ideal for high-end research applications including physical and chemical analysis, biochemistry, cellular and molecular biology for clinical labs and blood donation centers. If you require a unit that can accommodate 12 sample tubes at a time, you can check out [SCIOLOGEX SCI-12 Plus High Speed Personal Microcentrifuge](#). This can spin 12 1.5/2.0mL microtubes and has a speed of 100-15000rpm with maximum RCF of 15000xg. It can provide all visual information through its large LCD display and has plenty other features including over-speed detection, pulse operation for quick spins, quiet operation, and brushless motor drive.

Need a microcentrifuge certified with CE, cTUVus, and FCC? Check out the [SCIOLOGEX SCI24R High Speed Refrigerated Micro-Centrifuge](#). Featuring a 24 place 1.5/2.0 ml bio-safe aluminum rotor, brushless motor drive, large LCD display, a -20C -40C temperature range, and capable of 15000rpm, this micro centrifuge is perfect for sedimentation of cells and viruses, separation of sub-cellular organelles, and isolation of DNA, RNA, proteins or lipids.

You may also want to check out the lightweight [SCIOLOGEX SCI24 High Speed Micro-Centrifuge](#) built with a special double cooling air design that minimizes rotor heating. The unit is supplied with a 24 place 1.5/2.0ml bio-safe aluminum rotor, a brushless motor, and a large LCD display. Other features include additional rotors (4 x 8-tube PCR strip rotor), low noise level, and a max speed of 15000rpm (10rpm increments).

**All microcentrifuge from Scilogex come with a 2 year warranty.*

Other Factors to Consider:

Ease of Use

An easy-to-operate microcentrifuge can make way for uninterrupted protocols, lesser errors, and improved results. Go for units with interchangeable rotors if you are spinning various samples in various tube types. If the microfuge will be handled by multiple users in a day, be sure to get a unit that offers programmability.

Laboratory Safety and Comfort

Avoid any conflict, disturbance, or unnecessary noise inside your laboratory by selecting low-noise microcentrifuges.

Cleaning and Maintenance

Microcentrifuges can be unsanitary and contaminated due to radioactive materials and bacteria from samples processed. Cleaning the instrument has to be frequent and should be easy. A great option is going for microcentrifuges that have easy detachable rotors and can also be interchangeable. Models with a brushless motor that ensure good maintenance for the unit is recommended for any laboratory as well.

Achieve efficient and productive laboratory protocols by choosing the most appropriate microcentrifuge for your workroom. Considering the key points mentioned above can guide you in picking the best model for your applications. If you need further assistance and advice for effective solutions or on what microcentrifuge model to purchase, you can always rely and seek help from industry experts like [Scilogex](#).

Meet requirements for all your areas of research with our large inventory of innovative lab equipment including [microcentrifuges](#). 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,
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