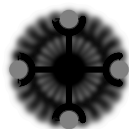


# Centrifuge Calculator



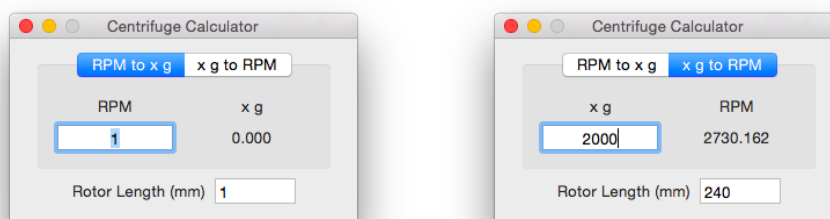
This program has been designed to be small and simple, it uses the relationship, equation 1, to calculate the relative centrifugal force, RCF, felt by a sample spinning at a number of revolutions per minute, RPM, at a distance from the rotor,  $r$ , measured in millimeters.

$$\text{RCF} = \left( \frac{\text{RPM}}{1000} \right)^2 \times r \times 1.118 \quad (1)$$

It can also calculate the required number of RPM required for a sample to experience a desired RCF, using equation 2.

$$\text{RPM} = \sqrt{\frac{\text{RCF}}{r \times 1.118}} \times 1000 \quad (2)$$

It should be noted that in the program RCF is named as “x g”. The two terms are interchangeable and “x g” is used in the program as many laboratory centrifuges and scientific publications refer to RCF as “x g”.



The figure on the left shows the program startup screen. Simply entering numbers, as shown on the figure on the right, will provide the result requested in either RPM or “x g”, depending on which tab is selected by the user, for a given rotor length.



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