

Calculating RCF from known RPM and Radius

General Rcf calculation equation:

$$RCF = 11.2 * R * \left(\frac{RPM}{1000}\right)^2$$

Where:

RCF = rotational centripetal force (xg)

R = radius of centrifuge from center of rotation to bottom of the tube (cm)

RPM = speed of centrifuge rotation (rotations per minute)

RCF calculation for Champion F-33, F-33V, F-33D:

$$RCF = 11.2 * 11.07cm * \left(\frac{RPM}{1000}\right)^2$$

Example Calculation:

At 2700rpm, the Rcf for F-33D centrifuge is 904xg because:

$$RCF = 11.2 * 11.07 * \left(\frac{2700}{1000}\right)^2$$

RCF = 904 xg