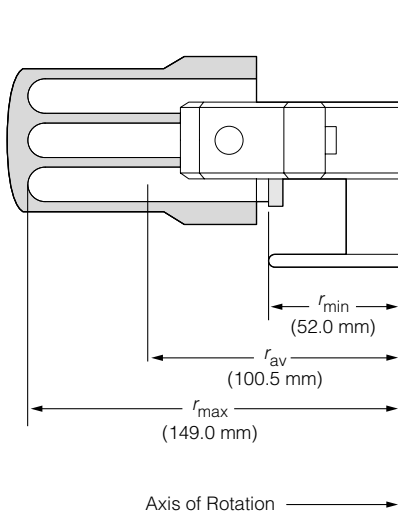


INSTRUCTIONS FOR USING THE S4180 SWINGING BUCKET ROTOR

In Beckman Coulter Allegra 21 Series, GS-15 Series, and Spinchron 15 Series Centrifuges



SPECIFICATIONS

Maximum speed

Refrigerated centrifuge. 5500 rpm

Nonrefrigerated centrifuge. 4500 rpm

Critical speed range* 500 to 1300 rpm

Density rating at maximum speed 1.2 g/mL

Relative Centrifugal Field† at maximum speed at r_{\max}

Refrigerated $5450 \times g$

Nonrefrigerated $3650 \times g$

Conditions requiring speed reductions. see RUN SPEEDS

Number of buckets 4

Nominal volume (largest tube). 180 mL

Maximum rotor capacity 720 mL

Maximum load allowed in each bucket at rated speed

(excluding weight of bucket) 300 grams

Approximate acceleration time to maximum speed

(rotor fully loaded, accel curve 9) 54 sec

Approximate deceleration time from maximum speed

(rotor fully loaded, decel curve 9) 40 sec

Weight of fully loaded rotor. 2.93 kg (6.45 lb)

Bucket material anodized aluminum

* The critical speed range is the range of speeds over which the rotor shifts so as to rotate about its center of mass. Passing through the critical speed range is characterized by some vibration.

† Relative Centrifugal Field (RCF) is the ratio of the centrifugal acceleration at a specified radius and speed ($r\omega^2$) to the standard acceleration of gravity (g) according to the following formula:

$$RCF = \frac{r\omega^2}{g}$$

where r is the radius in millimeters, ω is the angular velocity in radians per second ($2\pi \text{ RPM}/60$), and g is the standard acceleration of gravity (9807 mm/s^2). After substitution:

$$RCF = 1.12 r \left(\frac{\text{RPM}}{1000} \right)^2$$