

G-Force x RCF Calculations

The following are average RCF (g-force) ratings for the indicated rotors. Note that the maximum RCF exceeds the average as indicated below. $RCF = 1.118 \times 10^{-6} \times \text{radius (in mm)} \times (\text{RPM})^2$

RCF _{av}	RPM					
	JS13.1 (max=13000)	Beckman J2 JA14 (max=14000)	JA20 (max=20000)	Dupont microfuge (max=12000)	Fisher micro7 (max=10000)	Beckman GS-6 (max=4000)
500 x g						1836
1,000 x g	3141	3222	3571	3300	3993	2596
2,000 x g	4442	4557	5051	4667	5647	3671
3,000 x g	5440	5581	6186	5715	6916	4496
4,000 x g	6282	6444	7143	6600	7986	
5,000 x g	7023	7205	7986	7379	8929	
6,000 x g	7694	7893	8748	8083	9781	
7,000 x g	8310	8525	9449	8730	10654	
8,000 x g	8884	9114	10102	9333		
9,000 x g	9423	9666	10714	9899		
10,000 x g	9933	10189	11294	10435		
11,000 x g	10417	10867	11845	10944		
12,000 x g	10881	11162	12372	11431		
13,000 x g	11325	11618	12877	11898		
14,000 x g	11753	12056	13363			
15,000 x g	12165	12479	13832			
16,000 x g	12564	12888	14286			
17,000 x g	12951	13285	14725			
18,000 x g		13670	15152			
19,000 x g			15567			
20,000 x g			15972			
RCF _{max} / RCF _{average}	1.55	1.59	1.54	1.15	1.28	1.35
Radius _{min} / Radius _{max} (mm)	41/140	35/137	32/108	70/94	40/72	85/180

Maximum rcf for common centrifugeware(x g)

corex glass 15 or 30 ml tube:	12100
15 ml polystyrene conical:	1800
15 ml polypropylene conical:	6000
50 ml polypropylene conical:	9400
50 ml oak ridge polypropylene:	50000
250 ml polypropylene:	13200