

MICRO-ULTRA RCF CHART

These tables give the unsealed maximum RCF in *g* for all currently available SORVALL® Micro-ultra fixed-angle rotors and the sealed maximum RCF in *g* for all currently available SORVALL® Micro-ultra swinging bucket and vertical rotors up to 150,000 rpm.

To find the average or minimum RCF, consult your rotor instruction manual for the average or minimum radius, and use the formula given below:

$K = [2.53 \times 10^{11} \ln (R_{max}/R_{min})] / (\text{rpm})^2$ $\text{RCF} = 11.17r (\text{rpm}/1000)^2$ where *r* = radius in centimeters

	FIXED-ANGLE									
ROTOR: RADIUS, max. cm:	S150-AT	RP120-AT	S120-AT2	S120-AT3	RP100-AT	RP100-AT2	RP100-AT3	RP100-AT4	S100-AT3	S100-AT4
	3.58	3.73	4.04	4.04	3.90	3.90	3.90	4.84	3.90	4.84
RPM	RCF									
20,000	15,995	16,666	18,051	18,051	17,425	17,425	17,425	21,625	17,425	21,625
25,000	24,993	26,040	28,204	28,204	27,227	27,227	27,227	33,789	27,227	33,789
30,000	35,990	37,498	40,614	40,614	39,207	39,207	39,207	48,657	39,207	48,657
35,000	48,986	51,039	55,280	55,280	53,365	53,365	53,365	66,227	53,365	66,227
40,000	63,982	66,663	72,203	72,203	69,701	69,701	69,701	86,500	69,701	86,500
45,000	80,977	84,370	91,382	91,382	88,215	88,215	88,215	109,477	88,215	109,477
50,000	99,972	104,160	112,817	112,817	108,908	108,908	108,908	135,157	108,908	135,157
55,000	120,966	126,034	136,509	136,509	131,778	131,778	131,778	163,540	131,778	163,540
60,000	143,959	149,991	162,456	162,456	156,827	156,827	156,827	194,626	156,827	194,626
62,500	156,205	162,750	176,277	176,277	170,168	170,168	170,168	211,183	170,168	211,183
65,000	168,952	176,031	190,661	190,661	184,054	184,054	184,054	228,415	184,054	228,415
67,500	182,198	189,832	205,609	205,609	198,484	198,484	198,484	246,324	198,484	246,324
70,000	195,944	204,154	221,121	221,121	213,459	213,459	213,459	264,908	213,459	264,908
72,500	210,190	218,997	237,198	237,198	228,978	228,978	228,978	284,168	228,978	284,168
75,000	224,936	234,361	253,838	253,838	245,042	245,042	245,042	304,103	245,042	304,103
77,500	240,182	250,245	271,043	271,043	261,650	261,650	261,650	324,715	261,650	324,715
80,000	255,927	266,650	288,812	288,812	278,803	278,803	278,803	346,002	278,803	346,002
82,500	272,172	283,576	307,144	307,144	296,501	296,501	296,501	367,965	296,501	367,965
85,000	288,918	301,023	326,041	326,041	314,743	314,743	314,743	390,604	314,743	390,604
87,500	306,163	318,991	345,502	345,502	333,529	333,529	333,529	413,918	333,529	413,918
90,000	323,908	337,479	365,527	365,527	352,860	352,860	352,860	437,909	352,860	437,909
92,500	342,152	356,488	386,116	386,116	372,736	372,736	372,736	462,575	372,736	462,575
95,000	360,897	376,019	407,269	407,269	393,156	393,156	393,156	487,917	393,156	487,917
97,500	380,142	396,069	428,987	428,987	414,121	414,121	414,121	513,934	414,121	513,934
100,000	399,886	416,641	451,268	451,268	435,630	435,630	435,630	540,628	435,630	540,628
102,500	420,130	437,733	474,113	474,113	K = 11.7	K = 11.8	K = 7.0	K = 15.9	K = 7.0	K = 15.9
105,000	440,874	459,347	497,523	497,523						
107,500	462,118	481,481	521,497	521,497						
110,000	483,862	504,136	546,034	546,034						
112,500	506,106	527,311	571,136	571,136						
115,000	528,849	551,008	596,802	596,802						
117,500	552,093	575,225	623,032	623,032						
120,000	575,836	599,963	649,826	649,826						
122,500	600,079	K = 9.0	K = 8.2	K = 7.8						
125,000	624,822									
127,500	650,065									
130,000	675,807									
132,500	702,050									
135,000	728,792									
137,500	756,034									
140,000	783,777									
142,500	812,019									
145,000	840,760									
147,500	870,002									
150,000	899,744									
	K = 6.1									

MICRO-ULTRA RCF CHART (continued)

These tables give the unsealed maximum RCF in *g* for all currently available SORVALL® Micro-ultra fixed-angle rotors and the sealed maximum RCF in *g* for all currently available SORVALL® Micro-ultra swinging bucket and vertical rotors up to 150,000 rpm.

To find the average or minimum RCF, consult your rotor instruction manual for the average or minimum radius, and use the formula given below:

$K = [2.53 \times 10^{11} \ln (R_{max}/R_{min})] / (rpm)^2$ $RCF = 11.17r (rpm/1000)^2$ where *r* = radius in centimeters

ROTOR: RADIUS, max. cm:	FIXED-ANGLE									
	S100-AT5	S100-AT6	RP80-AT	S80-AT2 outer	S80-AT2 inner	S80-AT3	RP80-AT2 outer	RP80-AT2 inner	RP70-AT	S70-AT
RPM	RCF									
20,000	21,983	24,127	25,021	22,340	18,989	25,914	22,340	18,989	25,065	25,065
22,000	26,599	29,194	30,275	27,031	22,977	31,356	27,031	22,977	30,329	30,329
24,000	31,655	34,743	36,030	32,170	27,344	37,317	32,170	27,344	36,094	36,094
26,000	37,151	40,775	42,285	37,755	32,091	43,795	37,755	32,091	42,361	42,361
28,000	43,086	47,289	49,041	43,786	37,218	50,792	43,786	37,218	49,128	49,128
30,000	49,461	54,286	56,297	50,265	42,725	58,307	50,265	42,725	56,397	56,397
32,000	56,275	61,766	64,053	57,190	48,612	66,341	57,190	48,612	64,168	64,168
34,000	63,530	69,728	72,310	64,563	54,878	74,893	64,563	54,878	72,439	72,439
36,000	71,223	78,172	81,067	72,382	61,524	83,963	72,382	61,524	81,212	81,212
38,000	79,357	87,099	90,325	80,647	68,550	93,551	80,647	68,550	90,486	90,486
40,000	87,930	96,509	100,083	89,360	75,956	103,658	89,360	75,956	100,262	100,262
42,000	96,943	106,401	110,342	98,519	83,741	114,283	98,519	83,741	110,539	110,539
44,000	106,396	116,776	121,101	108,126	91,907	125,426	108,126	91,907	121,317	121,317
46,000	116,288	127,633	132,360	118,179	100,452	137,087	118,179	100,452	132,596	132,596
48,000	126,620	138,973	144,120	128,678	109,377	149,267	128,678	109,377	144,377	144,377
50,000	137,391	150,795	156,380	139,625	118,681	161,965	139,625	118,681	156,659	156,659
52,000	148,602	163,100	169,141	151,018	128,366	175,181	151,018	128,366	169,443	169,443
54,000	160,253	175,887	182,402	162,859	138,430	188,916	162,859	138,430	182,727	182,727
56,000	172,343	189,157	196,163	175,146	148,874	203,169	175,146	148,874	196,513	196,513
58,000	184,873	202,910	210,425	187,879	159,697	217,940	187,879	159,697	210,801	210,801
60,000	197,843	217,145	225,187	201,060	170,901	233,230	201,060	170,901	225,589	225,589
62,000	211,252	231,862	240,450	214,687	182,484	249,037	214,687	182,484	240,879	240,879
64,000	225,101	247,063	256,213	228,762	194,447	265,363	228,762	194,447	256,671	256,671
66,000	239,390	262,745	272,477	243,283	206,790	282,208	243,283	206,790	272,963	272,963
68,000	254,118	278,910	289,240	258,250	219,513	299,570	258,250	219,513	289,757	289,757
70,000	269,286	295,558	306,505	273,665	232,615	317,451	273,665	232,615	307,052	307,052
72,000	284,894	312,689	324,270	289,526	246,097	335,851	289,526	246,097	K = 30.6	K = 30.6
74,000	300,941	330,301	342,535	305,835	259,959	354,768	305,835	259,959		
76,000	317,428	348,397	361,300	322,590	274,201	374,204	322,590	274,201		
78,000	334,355	366,975	380,566	339,791	288,823	394,158	339,791	288,823		
80,000	351,721	386,035	400,333	357,440	303,824	414,630	357,440	303,824		
82,000	369,527	405,578	K = 23.4	K = 13.5	K = 16.5	K = 23.1	K = 13.5	K = 16.5		
84,000	387,772	425,604								
86,000	406,458	446,112								
88,000	425,582	467,103								
90,000	445,147	488,576								
92,000	465,151	510,532								
94,000	485,595	532,970								
96,000	506,478	555,891								
98,000	527,801	579,294								
100,000	549,564	603,180								
	K = 18.8	K = 17.6								

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	FIXED-ANGLE		VERTICAL			SWINGING-BUCKET	
ROTOR: RADIUS, max. cm	RP45-A	S45-A	RP120-VT	S120-VT	RP100-VT	RP55-S	S55-S
RPM	RCF						
20,000	24,663	24,663	13,895	13,895	15,951	34,225	34,225
22,000	29,843	29,843	16,814	16,814	19,300	41,412	41,412
24,000	35,515	35,515	20,009	20,009	22,969	49,284	49,284
26,000	41,681	41,681	23,483	23,483	26,957	57,840	57,840
28,000	48,340	48,340	27,235	27,235	31,263	67,081	67,081
30,000	55,493	55,493	31,265	31,265	35,889	77,006	77,006
32,000	63,138	63,138	35,572	35,572	40,834	87,616	87,616
34,000	71,277	71,277	40,158	40,158	46,098	98,910	98,910
36,000	79,909	79,909	45,021	45,021	51,680	110,889	110,889
38,000	89,035	89,035	50,163	50,163	57,582	123,552	123,552
40,000	98,653	98,653	55,582	55,582	63,803	136,900	136,900
42,000	108,765	108,765	61,279	61,279	70,343	150,932	150,932
44,000	119,371	119,371	67,254	67,254	77,202	165,648	165,648
45,000	124,858	124,858	70,346	70,346	80,751	173,263	173,263
46,000	K = 66.6	K = 66.6	73,507	73,507	84,380	181,050	181,050
48,000			80,038	80,038	91,876	197,135	197,135
50,000			86,847	86,847	99,692	213,906	213,906
52,000			93,933	93,933	107,827	231,360	231,360
54,000			101,298	101,298	116,281	249,499	249,499
55,000			105,085	105,085	120,628	258,826	258,826
56,000			108,941	108,941	125,054	K = 43.7	K = 43.7
58,000			116,861	116,861	134,146		
60,000			125,059	125,059	143,557		
62,000			133,536	133,536	153,287		
64,000			142,290	142,290	163,336		
66,000			151,322	151,322	173,704		
68,000			160,632	160,632	184,391		
70,000			170,220	170,220	195,397		
72,500			182,595	182,595	209,603		
75,000			195,405	195,405	224,308		
77,500			208,649	208,649	239,511		
80,000			222,328	222,328	255,212		
82,500			236,440	236,440	271,412		
85,000			250,987	250,987	288,111		
87,500			265,968	265,968	305,308		
90,000			281,383	281,383	323,003		
92,500			297,233	297,233	341,197		
95,000			313,517	313,517	359,889		
97,500			330,235	330,235	379,080		
100,000			347,387	347,387	398,769		
102,500			364,973	364,973	K = 9.4		
105,000			382,994	382,994			
107,500			401,449	401,449			
110,000			420,338	420,338			
112,500			439,662	439,662			
115,000			459,419	459,419			
117,500			479,611	479,611			
120,000			500,237	500,237			
			K = 7.8	K = 7.8			

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