

High Deflection Die Spring-White

Material	Color	Code					
Equivalent to SWOSC-V	white	SIMR					
Content	Error						
Load	±10%						
Shape angle	below 3°						
Free length	Tolerance	Cycle life: 1 million times (F=Lx50%) 0.3 million times (F=Lx55%)					
15~50	±0.5						
55~400	±1.5%						
Code No.			Inner Dia. (mm)	Spring rate N/mm(Kgf/mm)	Soild height (mm)	F=Lx50%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)
SIMR	10.5	15	6	10.46(1.07)	6	7.5	78.5 (8.0)
		20		7.85(0.80)	8	10	
		25		6.28(0.64)	10	12.5	
		30		5.23(0.53)	12	15	
		35		4.48(0.46)	14	17.5	
		40		3.92(0.40)	16	20	
		45		3.49(0.36)	18	22.5	
		50		3.14(0.32)	20	25	
		55		2.85(0.29)	22	27.5	
		60		2.62(0.27)	24	30	
		65		2.41(0.25)	26	32.5	
		70		2.24(0.23)	28	35	
		75		2.09(0.21)	30	37.5	
		80		1.96(0.20)	32	40	
SIMR	12.5	15	7	11.77(1.20)	6	7.5	88.3 (9.0)
		20		8.83(0.90)	8	10	
		25		7.06(0.72)	10	12.5	
		30		5.88(0.60)	12	15	
		35		5.04(0.51)	14	17.5	
		40		4.41(0.45)	16	20	
		45		3.92(0.40)	18	22.5	
		50		3.53(0.36)	20	25	
		55		3.21(0.33)	22	27.5	
		60		2.94(0.30)	24	30	
		65		2.72(0.28)	26	32.5	
		70		2.52(0.26)	28	35	
		75		2.35(0.24)	30	37.5	
		80		2.21(0.23)	32	40	
		90		1.96(0.20)	36	45	
		100		1.77(0.18)	40	50	

Code No.			Inner Dia. (mm)	Spring rate N/mm(Kgf/mm)	Soild height (mm)	F=Lx50%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)
SIMR	14.5	15	8.5	17.00(1.73)	6	7.5	127.5 (13.0)
		20		12.75(1.30)	8	10	
		25		10.20(1.04)	10	12.5	
		30		8.50(0.87)	12	15	
		35		7.28(0.74)	14	17.5	
		40		6.37(0.65)	16	20	
		45		5.67(0.58)	18	22.5	
		50		5.10(0.52)	20	25	
		55		4.64(0.47)	22	27.5	
		60		4.25(0.43)	24	30	
		65		3.92(0.40)	26	32.5	
		70		3.64(0.37)	28	35	
		75		3.40(0.35)	30	37.5	
		80		3.19(0.33)	32	40	
		90		2.83(0.29)	36	45	
		100		2.55(0.26)	40	50	
		125		2.04(0.21)	50	62.5	
150	1.70(0.17)	60	75				
SIMR	17	20	10.5	19.61(2.00)	8	10	196.1 (20.0)
		25		15.69(1.60)	10	12.5	
		30		13.08(1.33)	12	15	
		35		11.21(1.14)	14	17.5	
		40		9.81(1.00)	16	20	
		45		8.72(0.89)	18	22.5	
		50		7.85(0.80)	20	25	
		55		7.13(0.73)	22	27.5	
		60		6.54(0.67)	24	30	
		65		6.03(0.62)	26	32.5	
		70		5.60(0.57)	28	35	
		75		5.23(0.53)	30	37.5	
		80		4.90(0.50)	32	40	
		90		4.36(0.44)	36	45	
		100		3.92(0.40)	40	50	
		125		3.14(0.32)	50	62.5	
		150		2.62(0.27)	60	75	
175	2.24(0.23)	70	87.5				

Code No.			Inner Dia. (mm)	Spring rate N/mm(Kgf/mm)	Soild height (mm)	F=Lx50%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)
SIMR	21	25	13.5	23.54(2.40)	10	12.5	294.2 (30.0)
		30		19.61(2.00)	12	15	
		35		16.81(1.71)	14	17.5	
		40		14.71(1.50)	16	20	
		45		13.08(1.33)	18	22.5	
		50		11.77(1.20)	20	25	
		55		10.70(1.09)	22	27.5	
		60		9.81(1.00)	24	30	
		65		9.05(0.92)	26	32.5	
		70		8.41(0.86)	28	35	
		75		7.85(0.80)	30	37.5	
		80		7.35(0.75)	32	40	
		90		6.54(0.67)	36	45	
		100		5.88(0.60)	40	50	
		110		5.35(0.55)	44	55	
		120		4.90(0.50)	48	60	
		125		4.71(0.48)	50	62.5	
		130		4.53(0.46)	52	65	
		140		4.20(0.43)	56	70	
		150		3.92(0.40)	60	75	
175	3.36(0.34)	70	87.5				
200	2.94(0.30)	80	100				
SIMR	26	25	16.5	31.38(3.20)	10	12.5	392.3 (40.0)
		30		26.15(2.67)	12	15	
		35		22.42(2.29)	14	17.5	
		40		19.61(2.00)	16	20	
		45		17.43(1.78)	18	22.5	
		50		15.69(1.60)	20	25	
		55		14.26(1.45)	22	27.5	
		60		13.08(1.33)	24	30	
		65		12.07(1.23)	26	32.5	
		70		11.21(1.14)	28	35	
		75		10.46(1.07)	30	37.5	
		80		9.81(1.00)	32	40	
		90		8.72(0.89)	36	45	
		100		7.85(0.80)	40	50	
		110		7.13(0.73)	44	55	
		120		6.54(0.67)	48	60	
		125		6.28(0.64)	50	62.5	
		130		6.03(0.62)	52	65	
		140		5.60(0.57)	56	70	
		150		5.23(0.53)	60	75	
175	4.48(0.46)	70	87.5				
200	3.92(0.40)	80	100				
225	3.49(0.36)	90	112.5				
250	3.14(0.32)	100	125				

Code No.		Inner Dia. (mm)	Spring rate N/mm(Kgf/mm)	Soild height (mm)	F=Lx50%	
Code	Outer Dia. (mm)				Free length (mm)	Max compression F(mm)
SIMR	31	21	28.02(2.86)	14	17.5	490.3 (50.0)
			24.52(2.50)	16	20	
			21.79(2.22)	18	22.5	
			19.61(2.00)	20	25	
			17.83(1.82)	22	27.5	
			16.34(1.67)	24	30	
			15.09(1.54)	26	32.5	
			14.01(1.43)	28	35	
			13.08(1.33)	30	37.5	
			12.26(1.25)	32	40	
			10.90(1.11)	36	45	
			9.81(1.00)	40	50	
			8.92(0.91)	44	55	
			8.17(0.83)	48	60	
			7.85(0.80)	50	62.5	
			7.54(0.77)	52	65	
			7.00(0.71)	56	70	
			6.54(0.67)	60	75	
			6.13(0.63)	67	80	
			5.77(0.59)	68	85	
			5.60(0.57)	70	87.5	
5.45(0.56)	72	90				
5.16(0.53)	76	95				
4.90(0.50)	80	100				
3.92(0.40)	100	125				
3.27(0.33)	120	150				
SIMR	37	26	33.62(3.43)	14	17.5	588.4 (60.0)
			29.42(3.00)	16	20	
			26.15(2.67)	18	22.5	
			23.54(2.40)	20	25	
			21.40(2.18)	22	27.5	
			19.61(2.00)	24	30	
			18.10(1.85)	26	32.5	
			16.81(1.71)	28	35	
			15.69(1.60)	30	37.5	
			14.71(1.50)	32	40	
			13.08(1.33)	36	45	
			11.77(1.20)	40	50	
			10.70(1.09)	44	55	
			9.81(1.00)	48	60	
			9.41(0.96)	50	62.5	
			9.05(0.92)	52	65	
			8.41(0.86)	56	70	
			7.85(0.80)	60	75	
			7.35(0.75)	64	80	
			6.92(0.71)	68	85	
			6.72(0.69)	70	87.5	
6.54(0.67)	72	90				
6.19(0.63)	76	95				
5.88(0.60)	80	100				
4.71(0.48)	100	125				
3.92(0.40)	120	150				

Code No.			Inner Dia. (mm)	Spring rate N/mm(Kgf/mm)	Soild height (mm)	F=Lx50%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)
SIMR	43	50	31	33.34(3.40)	20	25	833.6 (85.0)
		60		27.79(2.83)	24	30	
		70		23.82(2.43)	28	35	
		80		20.84(2.13)	32	40	
		90		18.52(1.89)	36	45	
		100		16.67(1.70)	40	50	
		110		15.16(1.55)	44	55	
		120		13.89(1.42)	48	60	
		130		12.82(1.31)	52	65	
		140		11.91(1.21)	56	70	
		150		11.11(1.13)	60	75	
		160		10.42(1.06)	64	80	
		170		9.81(1.00)	68	85	
		180		9.26(0.94)	72	90	
		190		8.77(0.89)	76	95	
		200		8.34(0.85)	80	100	
		225		7.41(0.76)	90	112.5	
		250		6.67(0.68)	100	125	
		275		6.06(0.62)	110	137.5	
		300		5.56(0.57)	120	150	
SIMR	46	50	33	43.15(4.40)	20	25	1079 (110.0)
		60		35.96(3.67)	24	30	
		70		30.82(3.14)	28	35	
		80		26.97(2.75)	32	40	
		90		23.97(2.44)	36	45	
		100		21.57(2.20)	40	50	
		110		19.61(2.00)	44	55	
		120		17.98(1.83)	48	60	
		125		17.26(1.76)	50	62.5	
		130		16.60(1.69)	52	65	
		140		15.41(1.57)	56	70	
		150		14.38(1.47)	60	75	
		175		12.33(1.26)	70	87.5	
		200		10.79(1.10)	80	100	
		225		9.59(0.98)	90	112.5	
		250		8.63(0.88)	100	125	
		275		7.85(0.80)	110	137.5	
		300		7.19(0.73)	120	150	

Code No.			Inner Dia. (mm)	Spring rate N/mm(Kgf/mm)	Soild height (mm)	F=Lx50%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)
SIMR	50	50	36	52.96(5.40)	20	25	1324 (135.0)
		60		44.13(4.50)	24	30	
		70		37.83(3.86)	28	35	
		80		33.10(3.38)	32	40	
		90		29.42(3.00)	36	45	
		100		26.48(2.70)	40	50	
		110		24.07(2.45)	44	55	
		120		22.06(2.25)	48	60	
		130		20.37(2.08)	52	65	
		140		18.91(1.93)	56	70	
		150		17.65(1.80)	60	75	
		175		15.13(1.54)	70	87.5	
		200		13.24(1.35)	80	100	
		225		11.77(1.20)	90	112.5	
		250		10.59(1.08)	100	125	
		275		9.63(0.98)	110	137.5	
		300		8.83(0.90)	120	150	
350	7.57(0.77)	140	175				
400	6.62(0.68)	160	200				