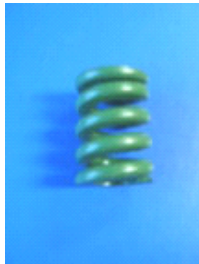




MASCOT SPRING ISO DIE SPRING



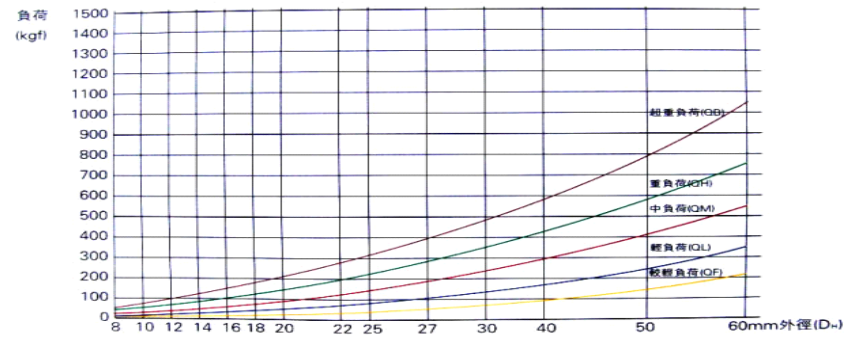
Light Duty Die Springs (GREEN)

Medium Duty Die Springs (BLUE)

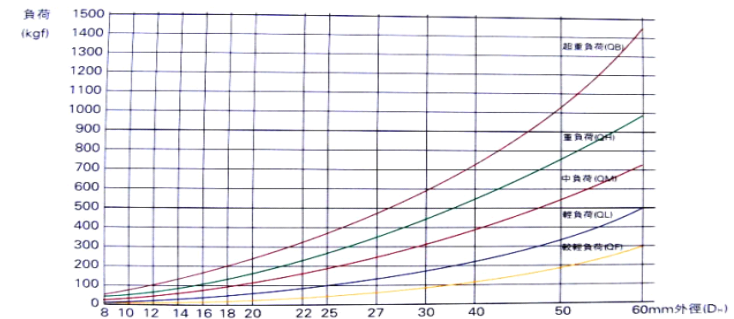
Heavy Duty Die Springs (RED)

Extra Heavy Duty Die Springs (YELLOW)

■ 使用100萬回曲線



■ 使用30萬回曲線



MSC Light Duty Die Springs (轻负荷型模具弹簧) ISO SPECIFICATION SERIES (ISO规范系列) GREEN (绿色)											
CATALOG NUMBER	Hole Dia (mm)	Rod Dia (mm)	Free Length (mm)	Load at 1/10 in. Def (lb)	For Optimum Life (25% of free length)		For Long Life (30% of free length)		Maximum Operating Def. (35% of free length)		Maximum Deflection
	A	B	C		Load (ld)	Deflection (mm)	Load (ld)	Deflection (mm)	Load (ld)	Deflection (mm)	Deflection (mm)
116-104	10.0	5.0	25	10.0	62.5	6.3	75.0	7.5	87.5	8.8	10.3
116-105			32	8.5	68.0	8.0	81.6	9.6	95.2	11.2	13.1
116-116			38	6.8	64.6	9.5	77.5	11.4	90.4	13.3	15.6
116-107			44	6.0	66.0	11.0	79.2	13.2	92.4	15.4	18.0
116-108			51	5.0	63.8	12.8	76.5	15.3	89.3	17.9	20.9
116-110			64	4.3	68.8	16.0	82.6	19.2	96.3	22.4	26.0
116-112			76	3.2	60.8	19.0	73.0	22.8	85.1	26.6	31.2
116-148			305	1.1	83.9	76.3	100.7	91.5	117.4	106.8	125.0
116-204	12.5	6.3	25	17.9	111.9	6.3	134.3	7.5	156.6	8.8	10.3
116-205			32	16.4	131.2	8.0	157.4	9.6	183.7	11.2	13.1
116-206			38	13.6	129.2	9.5	155.0	11.4	180.9	13.3	15.6
116-207			44	12.1	133.1	11.0	159.7	13.2	186.3	15.4	18.0
116-208			51	11.4	145.4	12.8	174.4	15.3	203.5	17.9	20.9
116-210			64	9.3	148.8	16.0	178.6	19.2	208.3	22.4	26.0
116-212			76	7.1	134.9	19.0	161.9	22.8	188.9	26.6	31.2
116-214			89	5.4	120.2	22.3	144.2	26.7	168.2	31.2	36.5
116-248	305	1.4	106.8	76.3	128.1	91.5	149.5	106.8	125.0		
116-304			25	23.4	146.3	6.3	175.5	7.5	204.8	8.8	10.3
116-305			32	22.9	183.2	8.0	219.8	9.6	256.5	11.2	13.1
116-306			38	19.3	183.4	9.5	220.0	11.4	256.7	13.3	15.6
116-307			44	17.1	188.1	11.0	225.7	13.2	263.3	15.4	18.0

ISO DIE SPRING

116-308	16.0	8.0	51	15.7	200.2	12.8	240.2	15.3	280.2	17.9	20.9
116-310			64	10.7	171.2	16.0	205.4	19.2	239.7	22.4	26.0
116-312			76	10.0	190.0	19.0	228.0	22.8	266.0	26.6	31.2
116-314			89	8.6	191.4	22.3	229.6	26.7	267.9	31.2	36.5
116-316			102	7.8	198.9	25.5	238.7	30.6	278.5	35.7	41.8
116-348			305	2.5	190.6	76.3	228.8	91.5	266.9	106.8	125.0
116-404	20.0	10.0	25	55.8	348.8	6.3	418.5	7.5	488.3	8.8	10.2
116-405			32	45.0	360.0	8.0	432.0	9.6	504.0	11.2	12.5
116-406			38	33.3	316.4	9.5	379.6	11.4	442.9	13.3	15.0
116-407			44	30.0	330.0	11.0	396.0	13.2	462.0	15.4	18.0
116-408			51	24.5	312.4	12.8	374.9	15.3	437.3	17.9	20.0
116-410			64	20.0	320.0	16.0	384.0	19.2	448.0	22.4	25.0
116-412			76	16.0	304.0	19.0	364.8	22.8	425.6	26.6	30.0
116-414			89	14.0	311.5	22.3	373.8	26.7	436.1	31.2	35.0
116-416			102	12.0	306.0	25.5	367.2	30.6	428.4	35.7	41.0
116-418			115	10.9	313.4	28.8	376.1	34.5	438.7	40.3	46.0
116-420			127	9.5	301.6	31.8	362.0	38.1	422.3	44.5	51.0
116-422			139	8.4	291.9	34.8	350.3	41.7	408.7	48.7	56.0
116-424			152	7.5	285.0	38.0	342.0	45.6	399.0	53.2	61.0
116-448			305	4.0	305.0	76.3	366.0	91.5	427.0	106.8	122.0
116-504	25.0	12.5	25	100.0	625.0	6.3	750.0	7.5	875.0	8.8	10.2
116-505			32	80.3	642.4	8.0	770.9	9.6	899.4	11.2	12.5
116-506			38	62.0	589.0	9.5	706.8	11.4	824.6	13.3	15.0
116-507			44	52.9	581.9	11.0	698.3	13.2	814.7	15.4	18.0
116-508			51	44.0	561.0	12.8	673.2	15.3	785.4	17.9	20.0
116-510			64	35.2	563.2	16.0	675.8	19.2	788.5	22.4	25.0
116-512			76	28.0	532.0	19.0	638.4	22.8	744.8	26.6	30.0
116-514			89	24.0	534.0	22.3	640.8	26.7	747.6	31.2	35.0
116-516			102	21.1	538.1	25.5	645.7	30.6	753.3	35.7	41.0
116-518			115	18.7	537.6	28.8	645.2	34.5	752.7	40.3	46.0
116-520			127	16.7	530.2	31.8	636.3	38.1	742.3	44.5	51.0

ISO DIE SPRING

116-522			139	15.3	531.7	34.8	638.0	41.7	744.3	48.7	56.0
116-524			152	14.0	532.0	38.0	638.4	45.6	744.8	53.2	61.0
116-528			178	12.5	556.3	44.5	667.5	53.4	778.8	62.3	71.0
116-532			203	10.4	527.8	50.8	633.4	60.9	738.9	71.1	81.0
116-548			305	7.0	533.8	76.3	640.5	91.5	747.3	106.8	122.0
116-606			38	94.0	893.0	9.5	1071.6	11.4	1250.2	13.3	15.0
116-607			44	79.5	874.5	11.0	1049.4	13.2	1224.3	15.4	18.0
116-608			51	67.0	854.3	12.8	1025.1	15.3	1196.0	17.9	20.0
116-610			64	53.0	848.0	16.0	1017.6	19.2	1187.2	22.4	25.0
116-612			76	44.0	836.0	19.0	1003.2	22.8	1170.4	26.6	30.0
116-614			89	37.2	827.7	22.3	993.2	26.7	1158.8	31.2	35.0
116-616			102	32.0	816.0	25.5	979.2	30.6	1142.4	35.7	41.0
116-618	32.0	16.0	115	29.0	833.8	28.8	1000.5	34.5	1167.3	40.3	46.0
116-620			127	25.0	793.8	31.8	952.5	38.1	1111.3	44.5	51.0
116-622			139	23.0	799.3	34.8	959.1	41.7	1119.0	48.7	56.0
116-624			152	21.5	817.0	38.0	980.4	45.6	1143.8	53.2	61.0
116-628			178	18.2	809.9	44.5	971.9	53.4	1133.9	62.3	71.0
116-632			203	15.8	801.9	50.8	962.2	60.9	1122.6	71.1	81.0
116-640			254	12.5	793.8	63.5	952.5	76.2	1111.3	88.9	102.0
116-648			305	10.3	785.4	76.3	942.5	91.5	1099.5	106.8	122.0
116-708			51	92.0	1173.0	12.8	1407.6	15.3	1642.2	17.9	20.0
116-710			64	73.0	1168.0	16.0	1401.6	19.2	1635.2	22.4	25.0
116-712			76	63.0	1197.0	19.0	1436.4	22.8	1675.8	26.6	30.0
116-714			89	51.0	1134.8	22.3	1361.7	26.7	1588.7	31.2	35.0
116-716			102	43.0	1096.5	25.5	1315.8	30.6	1535.1	35.7	41.0
116-718			115	39.6	1138.5	28.8	1366.2	34.5	1593.9	40.3	46.0
116-720	40.0	20.0	127	37.0	1174.8	31.8	1409.7	38.1	1644.7	44.5	51.0
116-722			139	32.0	1112.0	34.8	1334.4	41.7	1556.8	48.7	56.0
116-724			152	28.0	1064.0	38.0	1276.8	45.6	1489.6	53.2	61.0
116-728			178	25.2	1121.4	44.5	1345.7	53.4	1570.0	62.3	71.0
116-732			203	22.7	1152.0	50.8	1382.4	60.9	1612.8	71.1	81.0

ISO DIE SPRING

116-740			254	17.0	1079.5	63.5	1295.4	76.2	1511.3	88.9	102.0
116-748			305	14.8	1128.5	76.3	1354.2	91.5	1579.9	106.8	122.0
116-810	50.0	25.0	64	156.0	2496.0	16.0	2995.2	19.2	3494.4	22.4	25.0
116-812			76	125.0	2375.0	19.0	2850.0	22.8	3325.0	26.6	30.0
116-814			89	109.0	2425.3	22.3	2910.3	26.7	3395.4	31.2	35.0
116-816			102	94.0	2379.0	25.5	2876.4	30.6	3355.8	35.7	41.0
116-818			115	81.0	2328.8	28.8	2794.5	34.5	3260.3	40.3	46.0
116-820			127	71.0	2254.3	31.8	2705.1	38.1	3156.0	44.5	51.0
116-822			139	66.5	2310.9	34.8	2773.1	41.7	3235.2	48.7	56.0
116-824			152	60.0	2280.0	38.0	2736.0	45.6	3192.0	53.2	61.0
116-828			178	52.0	2314.0	44.5	2776.8	53.4	3239.6	62.3	71.0
116-832			203	44.0	2233.0	50.8	2679.6	60.9	3126.2	71.1	81.0
116-840			254	35.0	2222.5	63.5	2667.0	76.2	3111.5	88.9	102.0
116-848			305	28.5	2173.1	76.3	2607.8	91.5	3042.4	106.8	122.0
116-912	63.0	38.0	76	189.0	3591.0	19.0	4309.2	22.8	5027.4	26.6	30.0
116-914			89	158.0	3515.5	22.3	4218.6	26.7	4921.7	31.2	35.0
116-916			102	131.0	3340.5	25.5	4008.6	30.6	4676.7	35.7	41.0
116-918			115	116.0	3335.0	28.8	4002.0	34.5	4669.0	40.3	46.0
116-920			127	103.0	3270.3	31.8	3924.3	38.1	4578.4	44.5	51.0
116-924			152	84.3	3203.4	38.0	3844.1	45.6	4484.8	53.2	61.0
116-928			178	71.5	3181.8	44.5	3818.1	53.4	4454.5	62.3	71.0
116-932			203	61.7	3131.3	50.8	3757.5	60.9	4383.8	71.1	81.0
116-940			254	47.0	2984.5	63.5	3581.4	76.2	4178.3	88.9	102.0
116-948			305	38.2	2912.8	76.3	3495.3	91.5	4077.9	106.8	122.0

MSC Medium Duty Die Springs (中负荷型模具弹簧) ISO SPECIFICATION SERIES (ISO规范系列) BLUE (蓝色)											
CATALOG NUMBER	Hole Dia (in)	Rod Dia (in)	Free Length (in)	Load at 1/10 in. Def (lb)	For Optimum Life (25% of free length)		For Long Life (30% of free length)		Maximum Operating Def. (35% of free length)		Maximum Deflection
	A	B	C		Load (ld)	Deflection (mm)	Load (ld)	Deflection (mm)	Load (ld)	Deflection (mm)	Deflection (mm)
117-104	10.0	5.0	25	16.0	80.0	5.0	100.0		120.0	7.5	9.5
117-105			32	13.0	83.2	6.4	104.0	8.0	124.8	9.6	12.2
117-106			38	11.9	90.4	7.6	113.1	9.5	135.7	11.4	14.4
117-117			44	10.3	90.6	8.8	113.3	11.0	136.0	13.2	16.7
117-108			51	8.9	90.8	10.2	113.5	12.8	136.2	15.3	19.4
117-110			64	7.5	96.0	12.8	120.0	16.0	144.0	19.2	24.3
117-112			76	5.3	80.6	15.2	100.7	19.0	120.8	22.8	28.9
117-148			305	1.6	97.6	61.0	122.0	76.3	146.4	91.5	116.0
117-117	12.5	6.3	25	30.0	150.0	5.0	187.5	6.3	225.0	7.5	9.5
117-205			32	24.8	158.7	6.4	198.4	8.0	238.1	9.6	12.2
117-206			38	21.4	162.6	7.6	203.3	9.5	244.0	11.4	14.4
117-207			44	18.5	162.8	8.8	203.5	11.0	244.2	13.2	16.7
117-208			51	15.5	158.1	10.2	197.6	12.8	237.2	15.3	19.4
117-210			64	12.1	154.9	12.8	193.6	16.0	232.3	19.2	24.3
117-212			76	10.2	155.0	15.2	193.8	19.0	232.6	22.8	28.9
117-214			89	8.4	149.5	17.8	186.9	22.3	224.3	26.7	33.8
117-248	305	2.1	128.1	61.0	160.1	76.3	192.2	91.5	116.0		
117-304	16.0	8.0	25	49.4	247.0	5.0	308.8	6.3	370.5	7.5	9.5
117-305			32	37.1	237.4	6.4	296.8	8.0	356.2	9.6	12.2
117-306			38	33.9	257.6	7.6	322.1	9.5	386.5	11.4	14.4
117-307			44	30.0	264.0	8.8	330.0	11.0	396.0	13.2	16.7
117-308			51	26.4	269.3	10.2	336.6	12.8	403.9	15.3	19.4
117-310			64	20.5	262.4	12.8	328.0	16.0	393.6	19.2	24.3
117-312			76	17.8	270.6	15.2	338.2	19.0	405.8	22.8	28.9

117-314			89	15.2	270.6	17.8	338.2	22.3	405.8	26.7	33.8
117-316			102	13.5	275.4	20.4	344.3	25.5	413.1	30.6	38.8
117-348			305	4.8	292.8	61.0	366.0	76.3	439.2	91.5	116.0
117-404			25	98.0	490.0	5.0	612.5	6.3	735.0	7.5	9.4
117-405			32	72.6	464.6	6.4	580.8	8.0	697.0	9.6	12.0
117-406			38	56.0	425.6	7.6	532.0	9.5	638.4	11.4	14.0
117-407			44	47.5	418.0	8.8	522.5	11.0	627.0	13.2	16.5
117-408			51	41.7	425.3	10.2	531.7	12.8	638.0	15.3	19.0
117-410			64	32.3	413.4	12.8	516.8	16.0	620.2	19.2	24.0
117-412	20.0	10.0	76	25.1	381.5	15.2	476.9	19.0	572.3	22.8	28.0
117-414			89	22.0	391.6	17.8	489.5	22.3	587.4	26.7	33.0
117-416			102	19.8	403.9	20.4	504.9	25.5	605.9	30.6	38.0
117-418			115	18.1	416.3	23.0	520.4	28.8	624.5	34.5	43.0
117-420			127	16.6	421.6	25.4	527.1	31.8	632.5	38.1	48.0
117-422			139	15.1	419.8	27.8	524.7	34.8	629.7	41.7	52.0
117-424			152	13.2	401.3	30.4	501.6	38.0	601.9	45.6	57.0
117-448			305	6.1	372.1	61.0	465.1	76.3	558.2	91.5	114.0
117-504			25	147.0	735.0	5.0	918.8	6.3	1102.5	7.5	9.4
117-505			32	118.0	755.2	6.4	944.0	8.0	1132.8	9.6	12.0
117-506			38	93.0	706.8	7.6	883.5	9.5	1060.2	11.4	14.0
117-507			44	80.8	711.0	8.8	888.8	11.0	1066.6	13.2	16.5
117-508			51	68.6	699.7	10.2	874.7	12.8	1049.6	15.3	19.0
117-510			64	53.0	678.4	12.8	848.0	16.0	1017.6	19.2	24.0
117-512			76	43.2	656.6	15.2	820.8	19.0	985.0	22.8	28.0
117-514	25.0	12.5	89	38.2	680.0	17.8	850.0	22.3	1019.9	26.7	33.0
117-516			102	33.0	673.2	20.4	841.5	25.5	1009.8	30.6	38.0
117-518			115	28.0	644.0	23.0	805.0	28.8	966.0	34.5	43.0
117-520			127	25.9	657.9	25.4	822.3	31.8	986.8	38.1	48.0
117-522			139	23.2	645.0	27.8	806.2	34.8	967.4	41.7	52.0
117-524			152	20.8	632.3	30.4	790.4	38.0	948.5	45.6	57.0
117-528			178	17.8	633.7	35.6	792.1	44.5	950.5	53.4	67.0

117-532			203	15.8	641.5	40.6	801.9	50.8	962.2	60.9	76.0
117-548			305	10.2	622.2	61.0	777.8	76.3	933.3	91.5	114.0
117-606			38	185.0	1406.0	7.6	1757.5	9.5	2109.0	11.4	14.0
117-607			44	158.0	1390.4	8.8	1738.0	11.0	2085.6	13.2	16.5
117-608			51	134.0	1366.8	10.2	1708.5	12.8	2050.2	15.3	19.0
117-610			64	99.0	1267.2	12.8	1584.0	16.0	1900.8	19.2	24.0
117-612			76	80.5	1223.6	15.2	1529.5	19.0	1835.4	22.8	28.0
117-614			89	69.1	1230.0	17.8	1537.5	22.3	1845.0	26.7	33.0
117-616			102	58.8	1199.5	20.4	1499.4	25.5	1799.3	30.6	38.0
117-618	32.0	16.0	115	51.5	1184.5	23.0	1480.6	28.8	1776.8	34.5	43.0
117-620			127	44.8	1137.9	25.4	1422.4	31.8	1706.9	38.1	48.0
117-622			139	42.3	1175.9	27.8	1469.9	34.8	1763.9	41.7	52.0
117-624			152	37.8	1149.1	30.4	1436.4	38.0	1723.7	45.6	57.0
117-628			178	32.5	1157.0	35.6	1446.3	44.5	1735.5	53.4	67.0
117-632			203	28.9	1173.3	40.6	1466.7	50.8	1760.0	60.9	76.0
117-640			254	21.4	1087.1	50.8	1358.9	63.5	1630.7	76.2	95.0
117-648			305	18.3	1116.3	61.0	1395.4	76.3	1674.5	91.5	114.0
117-708			51	181.6	1852.3	10.2	2315.4	12.8	2778.5	15.3	19.0
117-710			64	140.0	1792.0	12.8	2240.0	16.0	2688.0	19.2	24.0
117-712			76	108.0	1641.6	15.2	2052.0	19.0	2462.4	22.8	28.0
117-714			89	90.7	1614.5	17.8	2018.1	22.3	2421.7	26.7	33.0
117-716			102	81.0	1652.4	20.4	2065.5	25.5	2478.6	30.6	38.0
117-718			115	71.8	1651.4	23.0	2064.3	28.8	2477.1	34.5	43.0
117-720	40.0	20.0	127	62.7	1592.6	25.4	1990.7	31.8	2388.9	38.1	48.0
117-722			139	57.5	1598.5	27.8	1998.1	34.8	2397.8	41.7	52.0
117-724			152	51.6	1598.6	30.4	1960.8	38.0	2353.0	45.6	57.0
117-728			178	44.1	1570.0	35.6	1962.5	44.5	2354.9	53.4	67.0
117-732			203	36.7	1490.0	40.6	1862.5	50.8	2235.0	60.9	76.0
117-740			254	30.1	1529.1	50.8	1911.4	63.5	2293.6	76.2	95.0
117-748			305	24.6	1500.6	61.0	1875.8	76.3	2250.9	91.5	114.0
117-810			64	209.0	2675.2	12.8	3344.0	16.0	4012.8	19.2	24.0

ISO DIE SPRING

117-812			76	168.0	2553.6	15.2	3192.0	19.0	3830.4	22.8	28.0
117-814			89	140.0	2492.0	17.8	3115.0	22.3	3738.0	26.7	33.0
117-816			102	119.0	2427.6	20.4	3034.5	25.5	3641.4	30.6	38.0
117-818			115	106.0	2438.0	23.0	3047.5	28.8	3657.0	34.5	43.0
117-820			127	97.0	2463.8	25.4	3079.8	31.8	3695.7	38.1	48.0
117-822	50.0	25.0	139	87.0	2418.6	27.8	3023.3	34.8	3627.9	41.7	52.0
117-824			152	80.0	2432.0	30.4	3040.0	38.0	3648.0	45.6	57.0
117-828			178	69.5	2474.2	35.6	3092.8	44.5	3711.3	53.4	67.0
117-832			203	59.8	2427.9	40.6	3034.9	50.8	3641.8	60.9	76.0
117-836			229	50.9	2331.2	45.8	2914.0	57.3	3496.8	68.7	86.0
117-840			254	43.9	2230.1	50.8	2787.7	63.5	3345.2	76.2	95.0
117-848			305	38.6	2354.6	61.0	2943.3	76.3	3531.9	91.5	114.0
117-912			76	312.0	4742.4	15.2	5928.0	19.0	7113.6	22.8	28.0
117-914			89	260.0	4628.0	17.8	5785.0	22.3	6942.0	26.7	33.0
117-916			102	221.0	4508.4	20.4	5635.5	25.5	6762.6	30.6	38.0
117-918			115	187.0	4301.0	23.0	5376.3	28.8	6451.5	34.5	43.0
117-920			127	168.0	4267.2	25.4	5334.0	31.8	6400.8	38.1	48.0
117-924	63.0	38.0	152	136.0	4134.4	30.4	5168.0	38.0	6201.6	45.6	57.0
117-928			178	114.0	4058.4	35.6	5073.0	44.5	6087.6	53.4	67.0
117-932			203	100.0	4060.0	40.6	5075.0	50.8	6090.0	60.9	76.0
117-936			229	89.2	4085.4	45.8	5106.0	57.3	6128.0	68.7	86.0
117-940			254	78.4	3982.7	50.8	4978.4	63.5	5974.1	76.2	95.0
117-948			305	64.7	3946.7	61.0	4933.4	76.3	5920.1	91.5	114.0

MSC Heavy Duty Die Springs (重负荷型模具弹簧) ISO SPECIFICATION SERIES (ISO规范系列) RED (红色)											
CATALOG NUMBER	Hole Dia (in)	Rod Dia (in)	Free Length (in)	Load at 1/10 in. Def (lb)	For Optimum Life (25% of free length)		For Long Life (30% of free length)		Maximum Operating Def. (35% of free length)		Maximum Deflection
	A	B	C		Load (ld)	Deflection (mm)	Load (ld)	Deflection (mm)	Load (ld)	Deflection (mm)	Deflection (mm)
118-104	10.0	5.0	25	22.1	82.9	3.8	110.5	5.0	138.1	6.3	7.5
118-105			32	17.5	84.0	4.8	112.0	6.4	140.0	8.0	9.6
118-106			38	17.1	97.5	5.7	130.0	7.6	162.5	9.5	11.4
118-107			44	15.0	99.0	6.6	132.0	8.8	165.0	11.0	13.2
118-118			51	12.8	97.9	7.7	130.6	10.2	163.2	12.8	15.3
118-110			64	10.7	102.7	9.6	137.0	12.8	171.2	16.0	19.2
118-112			76	7.5	85.5	11.4	114.0	15.2	142.5	19.0	22.8
118-148			305	2.1	96.1	45.8	128.1	61.0	160.1	76.3	91.5
118-118	12.5	6.3	25	42.1	157.9	3.8	210.5	5.0	263.1	6.3	7.5
118-118			32	33.2	159.4	4.8	212.5	6.4	265.6	8.0	9.6
118-206			38	29.3	167.0	5.7	222.7	7.6	278.4	9.5	11.4
118-207			44	24.6	162.4	6.6	216.5	8.8	270.6	11.0	13.2
118-208			51	19.6	149.9	7.7	199.9	10.2	249.9	12.8	15.3
118-210			64	15.0	144.0	9.6	192.0	12.8	240.0	16.0	19.2
118-212			76	13.2	150.5	11.4	200.6	15.2	250.8	19.0	22.8
118-214			89	11.4	152.2	13.4	202.9	17.8	253.7	22.3	26.7
118-248	305	2.8	128.1	45.8	170.8	61.0	213.5	76.3	91.5		
118-304	16.0	8.0	25	75.7	283.9	3.8	378.5	5.0	473.1	6.3	7.5
118-305			32	52.8	253.4	4.8	337.9	6.4	422.4	8.0	9.6
118-306			38	48.5	276.5	5.7	368.6	7.6	460.8	9.5	11.4
118-307			44	42.8	282.5	6.6	376.6	8.8	470.8	11.0	13.2
118-308			51	37.1	283.8	7.7	378.4	10.2	473.0	12.8	15.3
118-310			64	30.3	290.9	9.6	387.8	12.8	484.8	16.0	19.2
118-312			76	25.7	293.0	11.4	390.6	15.2	488.3	19.0	22.8

118-314			89	21.7	289.7	13.4	386.3	17.8	482.8	22.3	26.7
118-316			102	19.3	295.3	15.3	393.7	20.4	492.2	25.5	30.6
118-348			305	7.1	324.8	45.8	433.1	61.0	541.4	76.3	91.5
118-404			25	216.0	810.0	3.8	1080.0	5.0	1350.0	6.3	7.5
118-405			32	168.0	806.4	4.8	1075.2	6.4	1344.0	8.0	9.6
118-406			38	129.0	735.3	5.7	980.4	7.6	1225.5	9.5	11.0
118-407			44	112.0	739.2	6.6	985.6	8.8	1232.0	11.0	13.0
118-408			51	94.0	719.1	7.7	958.8	10.2	1198.0	12.8	15.0
118-410			64	72.1	692.2	9.6	922.9	12.8	1153.6	16.0	19.0
118-412	20.0	10.0	76	59.7	680.6	11.4	907.4	15.2	1134.3	19.0	23.0
118-414			89	50.5	674.2	13.4	898.9	17.8	1123.6	22.3	27.0
118-416			102	44.2	676.3	15.3	901.7	20.4	1127.1	25.5	31.0
118-418			115	38.4	662.4	17.3	883.2	23.0	1104.0	28.8	35.0
118-420			127	34.1	649.6	19.1	866.1	25.4	1082.7	31.8	38.0
118-422			139	31.0	646.4	20.9	861.8	27.8	1077.3	34.8	42.0
118-424			152	28.2	643.0	22.8	857.3	30.4	1071.6	38.0	46.0
118-448			305	15.0	686.3	45.8	915.0	61.0	1143.8	76.3	91.0
118-504			25	375.0	1406.3	3.8	1875.0	5.0	2343.8	6.3	7.5
118-505			32	297.0	1425.6	4.8	1900.8	6.4	2376.0	8.0	9.6
118-506			38	219.0	1248.3	5.7	1664.4	7.6	2080.5	9.5	11.0
118-507			44	187.0	1234.2	6.6	1645.6	8.8	2057.0	11.0	13.0
118-508			51	156.0	1193.4	7.7	1591.2	10.2	1989.0	12.8	15.0
118-510			64	123.0	1180.8	9.6	1574.4	12.8	1968.0	16.0	19.0
118-512			76	99.0	1128.6	11.4	1504.8	15.2	1881.0	19.0	23.0
118-514	25.0	12.5	89	84.0	1121.4	13.4	1495.2	17.8	1869.0	22.3	27.0
118-516			102	73.0	1116.9	15.3	1489.2	20.4	1861.5	25.5	31.0
118-518			115	65.0	1121.3	17.3	1495.0	23.0	1868.8	28.8	35.0
118-520			127	57.7	1099.2	19.1	1465.6	25.4	1832.0	31.8	38.0
118-522			139	52.7	1098.8	20.9	1465.1	27.8	1831.3	34.8	42.0
118-524			152	47.8	1089.8	22.8	1453.1	30.4	1816.4	38.0	46.0
118-528			178	41.0	1094.7	26.7	1459.6	35.6	1824.5	44.5	53.0

118-532			203	35.8	1090.1	30.5	1453.5	40.6	1816.9	50.8	61.0
118-548			305	22.9	1047.7	45.8	1396.9	61.0	1746.1	76.3	91.0
118-606			38	388.0	2211.6	5.7	2948.8	7.6	3686.0	9.5	11.0
118-607			44	324.0	2138.4	6.6	2851.2	8.8	3564.0	11.0	13.0
118-608			51	272.0	2080.8	7.7	2774.4	10.2	3468.0	12.8	15.0
118-610			64	212.0	2035.2	9.6	2713.6	12.8	3392.0	16.0	19.0
118-612			76	172.0	1960.8	11.4	2614.4	15.2	3268.0	19.0	23.0
118-614			89	141.0	1882.4	13.4	2509.8	17.8	3137.3	22.3	27.0
118-616			102	122.0	1866.6	15.3	2488.8	20.4	3111.0	25.5	31.0
118-618	32.0	16.0	115	107.0	1845.8	17.3	2461.0	23.0	3076.3	28.8	35.0
118-620			127	93.0	1771.7	19.1	2362.2	25.4	2952.8	31.8	38.0
118-622			139	86.0	1793.1	20.9	2390.8	27.8	2988.5	34.8	42.0
118-624			152	78.0	1778.4	22.8	2371.2	30.4	2964.0	38.0	46.0
118-628			178	67.2	1794.2	26.7	2392.3	35.6	2990.4	44.5	53.0
118-632			203	59.1	1799.6	30.5	2399.5	40.6	2999.3	50.8	61.0
118-640			254	46.4	1767.8	38.1	2357.1	50.8	2946.4	63.5	76.0
118-648			305	38.0	1738.5	45.8	2318.0	61.0	2897.5	76.3	91.0
118-708			51	350.0	2677.5	7.7	3570.0	10.2	4462.5	12.8	15.0
118-710			64	269.0	2582.4	9.6	3443.2	12.8	4304.0	16.0	19.0
118-712			76	219.0	2496.6	11.4	3328.8	15.2	4161.0	19.0	23.0
118-714			89	190.0	2536.5	13.4	3382.0	17.8	4227.5	22.3	27.0
118-716			102	163.0	2493.9	15.3	3325.2	20.4	4156.5	25.5	31.0
118-718			115	142.0	2449.5	17.3	3266.0	23.0	4082.5	28.8	35.0
118-720	40.0	20.0	127	128.0	2438.4	19.1	3251.0	25.4	4064.0	31.8	38.0
118-722			139	115.0	2397.8	20.9	3197.0	27.8	3996.3	34.8	42.0
118-724			152	105.0	2394.0	22.8	3192.0	30.4	3990.0	38.0	46.0
118-728			178	89.0	2376.3	26.7	3168.4	35.6	3960.5	44.5	53.0
118-732			203	77.0	2344.7	30.5	3126.2	40.6	3907.8	50.8	61.0
118-740			254	61.0	2324.1	38.1	3098.8	50.8	3873.5	63.5	76.0
118-748			305	51.0	2333.3	45.8	3111.0	61.0	3888.8	76.3	91.0
118-810			64	413.0	3964.8	9.6	5286.4	12.8	6608.0	16.0	19.0

ISO DIE SPRING

118-812			76	339.0	3864.6	11.4	5152.8	15.2	6441.0	19.0	23.0
118-814			89	288.0	3844.8	13.4	5126.4	17.8	6408.0	22.3	27.0
118-816			102	245.0	3748.5	15.3	4998.0	20.4	6247.5	25.5	31.0
118-818			115	215.0	3708.8	17.3	4945.0	23.0	6181.3	28.8	35.0
118-820			127	192.0	3657.6	19.1	4876.8	25.4	6096.0	31.8	38.0
118-822	50.0	25.0	139	168.0	3502.8	20.9	4670.4	27.8	5838.0	34.8	42.0
118-824			152	154.0	3511.2	22.8	4681.6	30.4	5852.0	38.0	46.0
118-828			178	134.0	3577.8	26.7	4770.4	35.6	5963.0	44.5	53.0
118-832			203	117.0	3562.7	30.5	4750.2	40.6	5937.8	50.8	61.0
118-840			254	89.0	3390.9	38.1	4521.2	50.8	5651.5	63.5	76.0
118-848			305	73.0	3339.8	45.8	4453.0	61.0	5566.3	76.3	91.0

MSC Extra Heavy Duty Die Springs (超重负荷型模具弹簧) ISO SPECIFICATION SERIES (ISO规范系列YELLOW/黄色)											
CATALOG NUMBER	Hole Dia (in)	Rod Dia (in)	Free Length (in)	Load at 1/10 in. Def (lb)	For Optimum Life (25% of free length)		For Long Life(30% of free length)		Maximum Operating Def. (35% of free length)		Maximum Deflection
	A	B	C		Load(ld)	Deflection (mm)	Load(ld)	Deflection (mm)	Load(ld)	Deflection (mm)	Deflection(mm)
119-104	10.0	5.0	25	36.8	138.0	3.8	156.4	4.3	184.0	5.0	6.2
119-105			32	27.9	133.9	4.8	151.8	5.4	178.6	6.4	8.0
119-106			38	23.7	135.1	5.7	153.1	6.5	180.1	7.6	9.5
119-107			44	19.2	126.7	6.6	143.6	7.5	169.0	8.8	11.0
119-108			51	16.5	126.2	7.7	143.1	8.7	168.3	10.2	13.0
119-110			64	13.2	126.7	9.6	143.6	10.9	169.0	12.8	16.0
119-112			76	10.9	124.3	11.4	140.8	12.9	165.7	15.2	19.0
119-148			305	2.6	119.0	45.8	134.8	51.9	158.6	61.0	76.0
119-205	12.5	6.3	25	58.5	219.4	3.8	248.6	4.3	292.5	5.0	6.2
119-205			32	43.9	210.7	4.8	238.8	5.4	281.0	6.4	8.0
119-119			38	36.0	205.2	5.7	232.6	6.5	273.6	7.6	9.5
119-207			44	30.3	200.0	6.6	226.6	7.5	266.6	8.8	11.0
119-208			51	26.2	200.4	7.7	227.2	8.7	267.2	10.2	13.0
119-210			64	21.2	203.5	9.6	230.7	10.9	271.4	12.8	16.0
119-212			76	17.1	194.9	11.4	220.9	12.9	259.9	15.2	19.0
119-214			89	14.5	193.6	13.4	219.4	15.1	258.1	17.8	22.0
119-248	305	4.3	196.7	45.8	223.0	51.9	262.3	61.0	76.0		
119-304	16.0	8.0	25	118.0	442.5	3.8	501.5	4.3	590.0	5.0	6.2
119-305			32	89.0	427.2	4.8	484.2	5.4	596.6	6.4	8.0
119-306			38	72.1	411.0	5.7	465.8	6.5	548.0	7.6	9.5
119-307			44	60.9	401.9	6.6	455.5	7.5	535.9	8.8	11.0
119-308			51	52.3	400.1	7.7	453.4	8.7	533.5	10.2	13.0
119-310			64	41.2	395.5	9.6	448.3	10.9	527.4	12.8	16.0
119-312			76	34.1	388.7	11.4	440.6	12.9	518.3	15.2	19.0
119-314			89	29.5	393.8	13.4	446.3	15.1	525.1	17.8	22.0

119-316			102	25.6	391.7	15.3	443.9	17.3	522.2	20.4	26.0
119-348			305	8.4	384.3	45.8	435.5	51.9	512.4	61.0	76.0
119-404			25	293.0	1098.8	3.8	1245.3	4.3	1465.0	5.0	6.2
119-405			32	224.0	1075.2	4.8	1218.6	5.4	1433.6	6.4	8.0
119-406			38	177.0	1008.9	5.7	1143.4	6.5	1345.2	7.6	9.5
119-407			44	149.0	983.4	6.6	1114.5	7.5	1311.2	8.8	11.0
119-408			51	128.0	979.2	7.7	1109.8	8.7	1305.6	10.2	13.0
119-410			64	99.0	950.4	9.6	1077.1	10.9	1267.2	12.8	16.0
119-412	20.0	10.0	76	81.7	931.4	11.4	1055.6	12.9	1241.8	15.2	19.0
119-414			89	69.5	927.8	13.4	1051.5	15.1	1237.1	17.8	22.0
119-416			102	60.6	927.2	15.3	1050.8	17.3	1236.2	20.4	26.0
119-418			115	53.0	914.3	17.3	1036.2	19.6	1219.0	23.0	29.0
119-420			127	47.5	904.9	19.1	1025.5	21.6	1206.5	25.4	32.0
119-422			139	43.0	896.6	20.9	1016.1	23.6	1195.4	27.8	35.0
119-424			152	39.0	889.2	22.8	1007.8	25.8	1185.6	30.4	38.0
119-448			305	21.2	969.9	45.8	1099.2	51.9	1293.2	61.0	76.0
119-505			32	374.4	1797.1	4.8	2036.7	5.4	2396.2	6.4	8.0
119-506			38	346.0	1972.2	5.7	2235.2	6.5	2629.6	7.6	9.5
119-507			44	244.0	1610.4	6.6	1825.1	7.5	2147.2	8.8	11.0
119-508			51	207.5	1587.4	7.7	1799.0	8.7	2116.5	10.2	13.0
119-510			64	161.0	1545.6	9.6	1751.7	10.9	2060.8	12.8	16.0
119-512			76	130.8	1491.1	11.4	1689.9	12.9	1988.2	15.2	19.0
119-514	25.0	12.5	89	110.5	1475.2	13.4	1671.9	15.1	1966.9	17.8	22.0
119-516			102	96.3	1473.4	15.3	1669.8	17.3	1964.5	20.4	26.0
119-518			115	85.7	1478.3	17.3	1675.4	19.6	1971.1	23.0	29.0
119-520			127	76.3	1453.5	19.1	1647.3	21.6	1938.0	25.4	32.0
119-524			152	63.5	1447.8	22.8	1640.8	25.8	1930.4	30.4	38.0
119-528			178	53.9	1439.1	26.7	1631.0	30.3	1918.8	35.6	44.0
119-532			203	47.0	1431.2	30.5	1622.0	34.5	1908.2	40.6	51.0
119-548			305	30.9	1413.7	45.8	1602.2	51.9	1884.9	61.0	76.0
119-606			38	528.2	3010.7	5.7	3412.2	6.5	4014.3	7.6	9.5

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119-607			44	424.4	2801.0	6.6	3174.5	7.5	3734.7	8.8	11.0		
119-608			51	353.0	2700.5	7.7	3060.5	8.7	3600.6	10.2	13.0		
119-610			64	269.2	2584.3	9.6	2928.9	10.9	3445.8	12.8	16.0		
119-612			76	218.5	2490.9	11.4	2823.0	12.9	3321.2	15.2	19.0		
119-614			89	180.3	2407.0	13.4	2727.9	15.1	3209.3	17.8	22.0		
119-616	32.0	16.0	102	155.0	2371.5	15.3	2687.7	17.3	3162.0	20.4	26.0		
119-618			115	140.0	2415.0	17.3	2737.0	19.6	3220.0	23.0	29.0		
119-620			127	124.0	2362.2	19.1	2677.2	21.6	3149.6	25.4	32.0		
119-624			152	102.0	2325.6	22.8	2635.7	25.8	3100.8	30.4	38.0		
119-628			178	88.2	2354.9	26.7	2668.9	30.3	3139.9	35.6	44.0		
119-632			203	76.0	2314.2	30.5	2622.8	34.5	3085.6	40.6	51.0		
119-640			254	60.8	2316.5	38.1	2625.3	43.2	3088.6	50.8	64.0		
119-648			305	49.0	2241.8	45.8	2540.7	51.9	2989.0	61.0	76.0		
119-708			40.0	20.0	51	628.0	4804.2	7.7	5444.8	8.7	6405.6	10.2	13.0
119-710					64	487.0	4675.2	9.6	5298.6	10.9	6233.6	12.8	16.0
119-712	76	379.0			4320.6	11.4	4896.7	12.9	5760.8	15.2	19.0		
119-714	89	321.0			4285.4	13.4	4856.7	15.1	5713.8	17.8	22.0		
119-716	102	281.0			4299.3	15.3	4872.5	17.3	5732.4	20.4	26.0		
119-718	115	245.0			4226.3	17.3	4789.8	19.6	5635.0	23.0	29.0		
119-720	127	221.0			4210.1	19.1	4771.4	21.6	5613.4	25.4	32.0		
119-724	152	168.0			3830.4	22.8	4341.1	25.8	5107.2	30.4	38.0		
119-732	203	132.0			4019.4	30.5	4555.3	34.5	5359.2	40.6	51.0		
119-740	254	107.0			4076.7	38.1	4620.3	43.2	5435.6	50.8	64.0		
119-748	305	87.8	4016.9	45.8	4552.4	51.9	5355.8	61.0	76.0				
119-810	50.0	25.0	64	709.0	6806.4	9.6	7713.9	10.9	9075.2	12.8	16.0		
119-812			76	572.0	6520.8	11.4	7390.2	12.9	8694.4	15.2	19.0		
119-814			89	475.0	6341.3	13.4	7186.8	15.1	8455.0	17.8	22.0		
119-816			102	405.0	6196.5	15.3	7022.7	17.3	8262.0	20.4	26.0		
119-818			115	352.0	6072.0	17.3	6881.6	19.6	8096.0	23.0	29.0		
119-820			127	316.0	6019.8	19.1	6822.4	21.6	8026.4	25.4	32.0		
119-824			152	239.0	5449.2	22.8	6175.8	25.8	7265.6	30.4	38.0		

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119-832	203	187.0	5694.2	30.5	6453.4	34.5	7592.2	40.6	51.0
119-840	254	153.0	5829.3	38.1	6606.5	43.2	7772.4	50.8	64.0
119-848	305	127.0	5810.3	45.8	6585.0	51.9	7747.0	61.0	76.0

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