

0.077" to .755"

Standard Material  
Carbon Spring Steel

Standard Finish  
Phosphate and oil

MS 90707

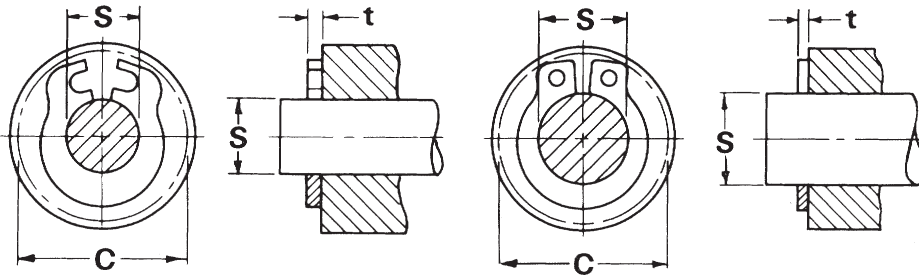


1440

**GRIP RING  
EXTERNAL**

May be used without grooves

† Thrust load calculations see page 5



PART NO.	SHAFT				RING				C	APPROX Wt. LB / 1000 PCS.	Tc+ (lb.f)
	DIAMETER S				FREE DIAMETER		THICKNESS				
	min. (inch)	max. (inch)	fraction	mm	D inches	Tol. inches	t inches	Tol. inches			
1440-7	.077	.081	5/64	2.0	.074		.024		.25	.08	11
1440-9	.092	.096	3/32	2.4	.089		.025		.26	.10	11
1440-11	.116	.120	-	3.0	.112	+0.02	.024		.29	.14	16
1440-12	.123	.127	1/8	3.2	.120	-0.03	.025	±0.02	.33	.24	20
1440-13	.134	.138	-	3.5	.130		.025		.31	.27	20
1440-15	.154	.158	5/32	4.0	.150	+0.02	.025		.36	.30	23
1440-18	.185	.189	3/16	4.8	.181	-0.04	.035		.44	.55	25
1440-19	.194	.200	-	5.0	.187		.032		.44	.45	30
1440-23	.234	.239	15/64	6.0	.224	±0.03	.039	±0.03	.50	.85	35
1440-25	.247	.253	1/4	6.3	.238	+0.02 -0.04	.035		.50	.74	35
1440-27	.274	.278	-	7.0	.264	±0.04	.039		.54	.93	40

PART NUMBER	SHAFT				RING				C	APPROX Wt. LB / 1000 PCS.	Tc+ (lb.f)
	DIAMETER S				FREE DIAMETER		THICKNESS				
	min. (inch)	max. (inch)	fraction	mm	D inches	Tol. inches	t inches	Tol. inches			
1440-31	.310	.317	5/16	8.0	.298	+0.03 -0.05	.042		.67	1.39	44
1440-35	.351	.357	-	9.0	.341	±0.04	.047	±0.03	.74	1.76	50
1440-37	.372	.379	3/8	9.5	.354	+0.03 -0.05	.042		.73	1.72	60
1440-39	.391	.397	-	10.0	.380	±0.04	.047		.76	2.08	60
1440-43	.434	.440	7/16	11.0	.412	+0.03 -0.05	.050		.80	2.61	61
1440-50	.496	.505	1/2	12.7	.470		.050		.90	2.91	65
1440-55	.550	.556	-	14.0	.531		.059		.99	5.40	76
1440-59	.587	.593	19/32	15.0	.571	+0.04	.059		1.06	6.16	81
1440-62	.620	.631	5/8	16.0	.593	-0.06	.062	±0.04	1.06	5.70	85
1440-75	.745	.755	3/4	19.0	.706		.062		1.30	6.88	91

0.394" to 2.00"

Standard Material  
Carbon Spring Steel

Standard Finish  
Phosphate  
and oil

MS 3217



1460

**HEAVY DUTY  
EXTERNAL**

PART NO.	SHAFT			RING				GROOVE				APPROX Wt. LB / 1000 PCS.	THRUST LOAD (LBS)	
	DIAMETER S			THICKNESS		FREE DIAMETER		DIAMETER		WIDTH				
	Frac. inch	Dec. inch	mm	t inches	Tol. inches	D inches	Tol. inches	C1	G inches	Tol. inches	W inches			Tol. inches
1460-39	-	.394	10.0	.035		.362	+0.03	.58	.368		.039		.70	2000
1460-42	-	.428	10.9	.035		.394	-0.08	.62	.402	+0.01	.039	+0.03	.86	2300
1460-47	-	.473	12.0	.042		.435		.66	.444	-0.02	.046	-0.00	1.4	3000
1460-50	1/2	.500	12.7	.050	±0.02	.460		.72	.468		.056		1.6	3900
1460-59	-	.591	15.0	.050		.543		.83	.555		.056		2.2	4500
1460-62	5/8	.625	15.9	.050		.575		.86	.588		.056	+0.04	2.3	4800
1460-66	-	.669	17.0	.050		.616	+0.05	.90	.629		.056	-0.00	2.6	5200
1460-75	3/4	.750	19.0	.078		.689	-0.10	1.08	.704	+0.01	.086		5.6	9000
1460-75	-	.787	20.0	.078		.689		1.12	.740	-0.03	.086		5.6	9000
1460-87	7/8	.875	22.2	.078		.804		1.20	.821		.086		7.5	10400
1460-98	63/64	.984	25.0	.078		.906		1.30	.925		.086		7.8	11500
1460-98	1	1.000	25.4	.078		.906		1.31	.938		.086		7.8	11500
1460-106	11/16	1.062	27.0	.093		.978		1.46	.998		.103		11.5	15000
1460-112	1 1/8	1.125	28.6	.093		1.036		1.52	1.059		.103		12.5	16000
1460-118	-	1.181	30.0	.093		1.087		1.57	1.111		.103		13.5	16500
1460-118	13/16	1.188	30.2	.093	±0.03	1.087	+0.10	1.57	1.111		.103	+0.05	13.5	16500
1460-125	1 1/4	1.250	31.7	.093		1.150	-0.15	1.63	1.174	+0.02	.103	-0.00	14.9	17500
1460-131	15/16	1.312	33.3	.093		1.208		1.69	1.234	-0.04	.103		16.0	18000
1460-137	13/8	1.375	34.9	.093		1.268		1.75	1.291		.103		17.8	19500
1460-137	-	1.378	35.0	.093		1.268		1.75	1.291		.103		17.8	19500
1460-150	1 1/2	1.500	38.1	.109		1.380		1.98	1.406		.120		27.0	24500
1460-156	19/16	1.562	39.7	.109		1.437		2.05	1.468		.120		31.0	26000
1460-156	-	1.575	40.0	.109		1.43		2.06	1.480		.120		31.0	26000
1460-175	13/4	1.750	44.4	.109		1.608	+0.13	2.25	1.650	+0.03	.120		33.4	29000
1460-175	-	1.772	45.0	.109		1.608	.020	2.27	1.669	-0.04	.120		33.4	29000
1460-193	1 15/16	1.938	49.2	.125		1.782		2.48	1.826		.139		48.6	37000
1460-193	131/32	1.969	50.0	.125	±0.04	1.782		2.50	1.850		.139	+0.06	48.6	37000
1460-200	2	2.000	50.8	.125		1.840		2.53	1.880		.139	-0.00	50.6	38000

