

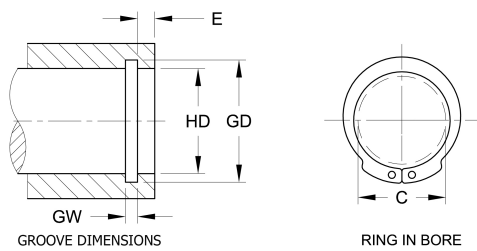
RING DIMENSIONS

S&M Series IIV Internal Inverted Ring	HOUSING DIAMETER			RING DIMENSIONS																
	ASME-B18-27-4NA11 MIL-R-21248 MS-16627	DEC. FRAC. INCH	FRAC. DEC. INCH	MM	FREE DIAMETER		THICKNESS		LARGE SECTION		SMALL SECTION		LUG		HOLE DIAMETER					
RING NUMBER	HD	HD	HD	FD	TOL.	T	TOL.	L	TOL.	S	TOL.	U	TOL.	H	TOL.					
IIV0062	.625	5/8	15.88	.675	+.010	.025	+.002	.072	+/- .004	.036	+/- .004	.072	+/- .004	.030	+.010 -.002					
IIV0075	.750	3/4	19.05	.808		.035		.085	.042	.085	.042	.085	.042	.085		.042				
IIV0081	.812	13/16	20.64	.877		.042		.092	.044	.092	.044	.092	.044	.092		.044				
IIV0087	.875	7/8	22.23	.944		.042		.099	+/- .005	.047	+/- .005	.099	+/- .005	.099		+/- .005	.042			
IIV0093	.938	15/16	23.81	1.015		.042		.106	.051	.106	.051	.106	.051	.106		.051	.042			
IIV0100	1.000	1	25.40	1.081	.042	.113	.054	.113	.054	.113	.054	.113	.054	.042						
IIV0106	1.062	1 1/16	26.99	1.150	+.015	.050	+.002	.120	+.006	.057	+.006	.120	+.006	.050	+.015 -.010					
IIV0112	1.125	1 1/8	28.58	1.217		.050		.123		.059		.123		.059		.123	.059	.123	.059	
IIV0118	1.188	1 3/16	30.16	1.283		.050		.126		.060		.126		.060		.126	.060	.126	.060	
IIV0125	1.250	1 1/4	31.75	1.351		.050		.129		.061		.129		.061		.129	.061	.129	.061	
IIV0131	1.312	1 5/16	33.34	1.418		.050		.132		+/- .006		.063		+/- .006		.132	+/- .006	.132	+/- .006	.050
IIV0137	1.375	1 3/8	34.93	1.486	.050	.135	.065	.135	.065	.135	.065	.135	.065	.050						
IIV0143	1.438	1 7/16	36.51	1.552	.050	.144	.069	.144	.069	.144	.069	.144	.069	.076						
IIV0150	1.500	1 1/2	38.10	1.622	.050	.148	.070	.148	.070	.148	.070	.148	.070	.076						
IIV0156	1.562	1 9/16	39.69	1.688	+.020	.062	+.003	.158	+.007	.074	+.007	.158	+.007	.076	+.020 -.013					
IIV0162	1.625	1 5/8	41.28	1.756		.062		.162		.077		.162		.077		.162	.077	.162	.077	
IIV0168	1.688	1 11/16	42.86	1.823		.062		.166		.079		.166		.079		.166	.079	.166	.079	
IIV0175	1.750	1 3/4	44.45	1.891		.062		.170		.082		.170		.082		.170	.082	.170	.082	
IIV0187	1.875	1 7/8	47.63	2.025		.062		.188		+/- .007		.090		+/- .007		.188	+/- .007	.188	+/- .007	.076
IIV0200	2.000	2	50.80	2.160	.062	.208	.100	.208	.100	.208	.100	.208	.100	.076						
IIV0206	2.062	2 1/16	52.39	2.224	.078	.218	.106	.218	.106	.218	.106	.218	.106	.094						
IIV0212	2.125	2 1/8	53.98	2.295	+.025	.078	+.003	.223	+.008	.108	+.008	.223	+.008	.094	+.025 -.015					
IIV0237	2.375	2 3/8	60.33	2.567		.078		.243		.115		.243		.115		.243	.115	.243	.115	
IIV0243	2.438	2 7/16	61.91	2.634		.078		.248		.117		.248		.117		.248	.117	.248	.117	
IIV0250	2.500	2 1/2	63.50	2.700		.078		.254		.120		.254		.120		.254	.120	.254	.120	
IIV0262	2.625	2 5/8	66.68	2.840		.093		.266		.128		.266		.128		.266	.128	.266	.128	
IIV0275	2.750	2 3/4	69.85	2.975	.093	.278	.134	.278	.134	.278	.134	.278	.134	.109						
IIV0283	2.812	2 13/16	71.44	3.063	.093	.286	.139	.286	.139	.286	.139	.286	.139	.109						
IIV.283	2.835		72.00	3.063	.093	.286	.139	.286	.139	.286	.139	.286	.139	.109						
IIV0287	2.875	2 7/8	73.03	3.105	.093	.290	.139	.290	.139	.290	.139	.290	.139	.109						
IIV0300	3.000	3	76.20	3.245	.093	.302	.143	.302	.143	.302	.143	.302	.143	.109						
IIV0315	3.156	3 5/32	80.17	3.408	+.030	.109	+.002	.314	+.008	.149	+.008	.314	+.008	.125	+.030 -.020					
IIV0325	3.250	3 1/4	82.50	3.509		.109		.318		.151		.318		.151		.318	.151	.318	.151	
IIV0334	3.346	3 11/32	84.93	3.611		.109		.321		.155		.321		.155		.321	.155	.321	.155	
IIV0350	3.500	3 1/2	88.90	3.780		.109		.324		+/- .008		.154		+/- .008		.324	+/- .008	.324	+/- .008	.125
IIV0356	3.562	3 9/16	90.49	3.850		.109		.326		.155		.326		.155		.326	.155	.326	.155	.125
IIV0400	4.000	4	101.60	4.350	.109	.338	.161	.338	.161	.338	.161	.338	.161	.125						

Rings must not be over-expanded during installation, since this will lead to ring failure. Providing groove has been machined to recommended dimensions, play between the groove diameter and the inside ring diameter indicates that the ring has been over-expanded.

*C=Ring clearance diameter after ring is applied into groove.

For plated, phosphate-coated, and stainless steel rings, the maximum ring thickness may not be exceeded by .002".



APPROX. WT. PER 1000 RINGS (Lbs.)	ROCKWELL HARDNESS (CARBON STEEL W/O PLATING)	Static Thrust Load (Lbs.) Sharp Corner Abutment		RING CLEARANCE	GROOVE DIMENSIONS				EDGE MARGIN	S&M Series IIV Internal Inverted Ring
		RING	GROOVE		DIAMETER		WIDTH			ASME-B18-27-4NA11 MIL-R-21248 MS-16627
					TR	TG**	C*	GD		
.70	30N 68.5-72.0	1000	450	.47	.665	+/- .002	.029	+ .003 - .000	.060	IIV0062
1.31	30N 68.5-72.0	1600	610	.56	.796	+/- .003	.039		.069	IIV0075
1.97	30N 67.5-71.0	2600	715	.61	.862		.046		.075	IIV0081
2.15	30N 67.5-71.0	2800	860	.66	.931		.046	.084	IIV0087	
2.74	30N 67.5-71.0	3000	1020	.71	1.000	+/- .004	.046	.093	IIV0093	
2.85	30N 67.5-71.0	3200	1160	.75	1.066		.046	.099	IIV0100	
3.75	C 48-52	4100	1200	.80	1.130		.056	.102	IIV0106	
4.38	C 48-52	4400	1400	.86	1.197	+/- .005	.056	.108	IIV0112	
4.70	C 48-52	4600	1500	.91	1.262		.056	.111	IIV0118	
4.88	C 48-52	4900	1700	.97	1.330		.056	.120	IIV0125	
5.32	C 48-52	5100	1900	1.02	1.396	+ .004 - .000	.056	.126	IIV0131	
5.85	C 48-52	5400	2000	1.08	1.461		.056	.129	IIV0137	
6.30	C 48-52	5500	2200	1.12	1.528		.056	.135	IIV0143	
6.80	C 48-52	5800	2400	1.18	1.594	+/- .005	.056	.141	IIV0150	
8.92	C 48-52	7500	2500	1.20	1.658		.068	.144	IIV0156	
10.40	C 48-52	7900	2800	1.27	1.725		.068	.150	IIV0162	
11.70	C 48-52	8200	3100	1.32	1.792	+/- .006	.068	.156	IIV0168	
11.5	C 48-52	8500	3300	1.38	1.858		.068	.162	IIV0175	
14.5	C 48-52	9100	3700	1.47	1.989		.068	.171	IIV0187	
17.0	C 48-52	9700	4300	1.55	2.122	+ .005 - .000	.068	.183	IIV0200	
22.4	C 48-52	12600	4500	1.59	2.186		.086	.186	IIV0206	
24.3	C 48-52	13000	4600	1.64	2.251		.086	.189	IIV0212	
27.9	C 48-52	14500	5900	1.86	2.517	+ .005 - .000	.086	.213	IIV0237	
28.7	C 48-52	14900	6200	1.92	2.584		.086	.216	IIV0243	
30.0	C 48-52	15300	6500	1.96	2.648		.086	.222	IIV0250	
45.6	C 48-52	19000	7000	2.06	2.781	+ .005 - .000	.103	.234	IIV0262	
47.8	C 48-52	20000	7800	2.15	2.914		.103	.246	IIV0275	
49.5	C 48-52	20500	8200	2.20	2.980		.103	.252	IIV0283	
49.5	C 48-52	20500	8500	2.22	3.006	+ .005 - .000	.103	.258	IIV.283	
50.2	C 48-52	21000	8800	2.25	3.051		.103	.264	IIV0287	
52.6	C 48-52	21800	9600	2.36	3.182		.103	.273	IIV0300	
69.5	C 48-52	27000	10700	2.50	3.348	+ .005 - .000	.120	.288	IIV0315	
72.6	C 48-52	28000	11000	2.50	3.446		.120	.294	IIV0325	
75.6	C 48-52	28000	11600	2.66	3.546		.120	.300	IIV0334	
80.3	C 48-52	29000	12000	2.81	3.710	+ .005 - .000	.120	.315	IIV0350	
82.4	C 48-52	30000	13000	2.87	3.776		.120	.321	IIV0356	
97.4	C 48-52	34000	16000	3.50	4.240		.120	.360	IIV0400	

TG **=Groove wall thrust loads shown are for grooves machined in cold-rolled steel with a tensile yield strength of 45,000 psi.

For housing material with greater or lesser yield strength, groove wall thrust load increases or decreases proportionally.

Standard Material= is Carbon Spring Steel (SAE 1060-1090)

Standard finish= Oil-dipped