



AEROSPACE STANDARD	AS4873	REV. A
	Issued 1997-06 Reaffirmed 2007-12 Stabilized 2014-05 Superseded by AS5857	
Gland Design, Elastomeric O-Ring Seals, Static Radial and Face 800 psi Maximum Service		

RATIONALE

AS4873 is determined to contain historical and stable technology. A replacement standard (AS5857) is available.

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1. SCOPE:

This document establishes standard gland dimensions for low pressure static radial O-ring seal applications and provides recommendations for modifying these glands in special applications. No provisions are made in this document for anti-extrusion devices.

1.1 Purpose:

The purpose of this document is to provide the aerospace industry with standardized dimensional criteria for static radial elastomeric O-ring seal glands for a service pressure of 800 psi maximum. This document supplements ARP1231.

2. REFERENCES:

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this specification and references cited herein, the text of this specification takes precedence. Nothing in this specification, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AS568	Aerospace Size Standard for O-rings
ARP1231	Gland Design, Elastomeric O-ring Seals, General Considerations and Military Standard MS33581

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2.1.2 ANSI Publications: Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

ANSI B46.1 - 1962 Surface Texture

3. GENERAL REQUIREMENTS

3.2 Gland Configurations:

3.2.1 Standard Glands: Figure 1 and Table 1 depicts rod and bore-mounted radial and face seal O-ring seal glands. Standard dimensions for these glands are tabulated in Figure 2. These dimensions are designed for use with seals conforming to AS568 tolerances except for the deviations in this document if any. Dimensions are computed in accordance with the criteria defined in Section 4 of this document and in ARP1231.

3.2.2 Exemption: Standard glands are not provided for the larger diameter bore-mounted applications. In these larger sizes, Diameter D becomes larger than the outside of the O-ring seal. This condition makes the installation of a seal impractical. Bore-mounted seal glands have been provided up to those sizes where diameter D is equal to or greater than the seal ID plus 1/2 (seal OD - seal ID).

3.2.3 Modified Glands: The standard gland dimensions may be modified to achieve an optimum sealing configuration. In selecting or computing gland dimensions, the criteria defined in ARP1231 and in Section 4 of this document should be consulted.

3.3 Surface Texture:

3.3.1 Figure 1 defines the preferred surface texture to be used with the glands described in this document. The 63 and 40 μin textures are satisfactory for most low pressure static applications. A 32 μin texture may be required if there is relative motion between seal and gland sealing surfaces during operation. However, if this relative motion becomes excessive, the applications should be considered dynamic and ARP1233 consulted.

4. DESIGN CRITERIA:

4.1 O-ring Seal Stretch:

4.1.1 Minimum Stretch: Static seals should be stretched a minimum of 2% at installation into the gland. This assures a snug fit in a short time for elastomers such as fluorocarbons which are slow to return to size after stretching.

4.1.2 Maximum Stretch: The as-installed seal stretch should be held to a low value consistent with the need for a 2% minimum stretch and with the gland dimensional tolerances needed for manufacture. Excessive stretches can cause stress cracking during operation particularly with nitrile seals. The maximum stretch resulting from the standard gland dimensions in Figure 2 varies from 2.5 to 10% depending on size. Of the sizes listed, 85% have a maximum stretch of less than 5%. Consideration should be given to reducing the seal stretch when there is a possibility of seal stress cracking.

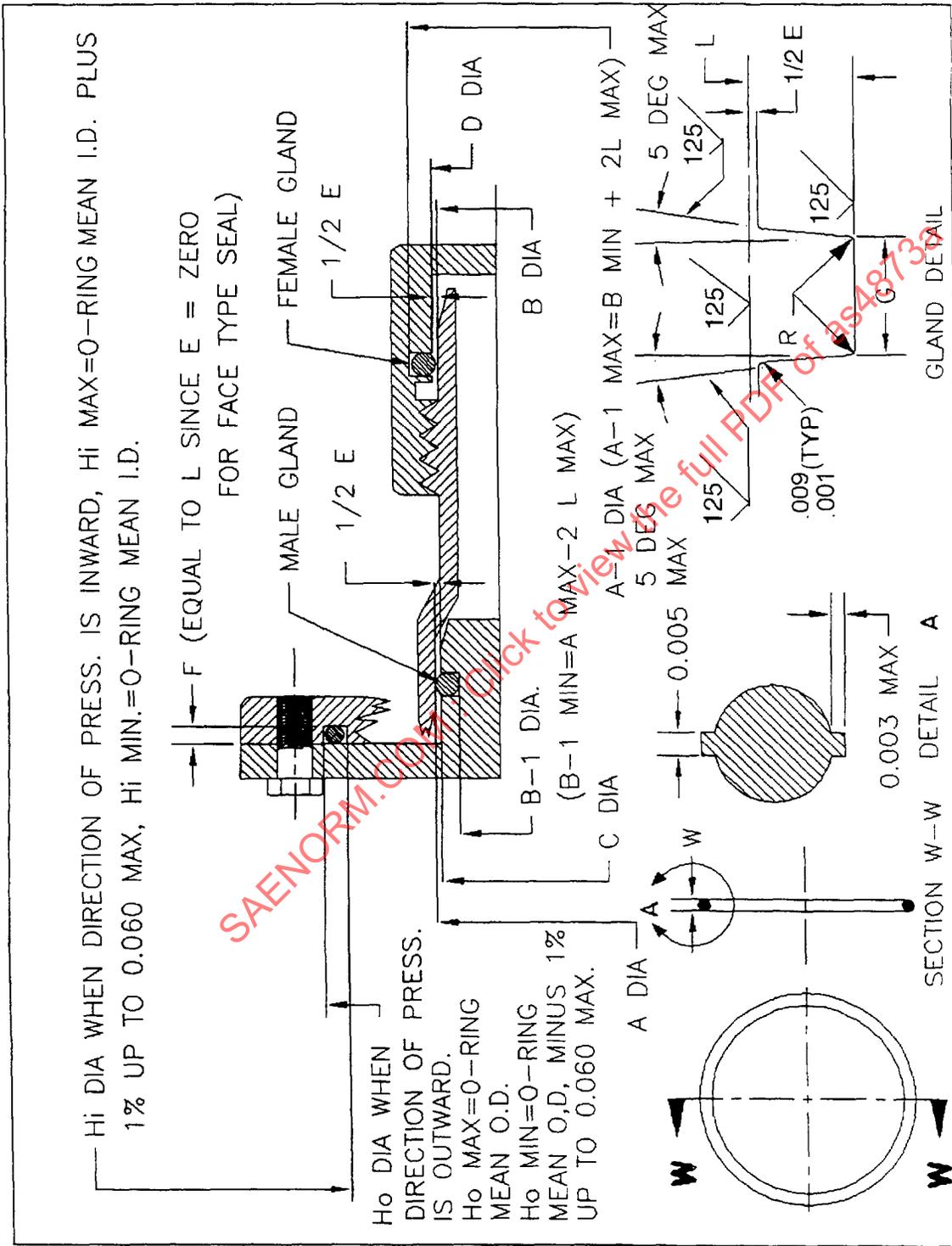


FIGURE 1

TABLE 1 - Standard Gland Dimensions in Inches

O-ring Size	W Cross Section Nominal	W Cross Section Actual	L Gland Depth	Squeeze Actual	Squeeze %	E Diametral Clearance (a & c)	G Fuel & Engine Oil Uses	G Vacuum & Gases	R Groove Radius	Eccentricity Max (b)
4 through 50	1/16	0.070 ±.003	0.050 to 0.054	0.013 to 0.023	19 to 32	0.002 to 0.010	0.101 to 0.107	0.082 to 0.088	0.005 to 0.015	0.002
110 through 178	3/32	0.103 ±.003	0.074 to 0.080	0.020 to 0.032	20 to 30	0.002 to 0.010	0.136 to 0.142	0.117 to 0.123	0.005 to 0.015	0.002
210 through 284	1/8	0.139 ±.004	0.101 to 0.107	0.028 to 0.042	20 to 30	0.003 to 0.011	0.177 to 0.187	0.157 to 0.163	0.010 to 0.025	0.003
325 through 395	3/16	0.210 ±.005	0.152 to 0.162	0.043 to 0.063	21 to 30	0.003 to 0.011	0.270 to 0.290	0.247 to 0.253	0.020 to 0.035	0.004
425 through 475	1/4	0.275 ±.006	0.201 to 0.211	0.058 to 0.080	21 to 29	0.004 to 0.012	0.342 to 0.362	0.322 to 0.328	0.020 to 0.035	0.005

- Clearance gap must be held to a minimum consistent with design requirements for temperature range variation.
- Total indicator reading between groove and adjacent bearing surface.
- Reduce maximum diametral clearance 50% when using Silicone O-rings.

O-Ring Size	Dimensions				A	A-1	B	B-1	C	D	G	Ho	F
					BORE ID (Male Gland)	GROOVE ID (Female Gland)	OD (Female Gland Sleeve)	GROOVE OD (Male Gland)	OD (Male Gland)	BORE ID (Female Gland)	GROOVE WIDTH	OD FACE GROOVE (Use for Internal Pressure only)	DEPTH FACE GROOVE
	ID	+/-	W	Mean OD (Ref)	+0.005 -0.000	-0.000 +	+0.000 -0.005	+0.000 -	+0.000 -0.003	+0.003 -0.000		+0.000 -	
4	0.070	.004		0.210	0.206	0.181		0.081	0.106	0.204	0.083	0.210	.002
5	.101	.004		.241	.237	.212		.112	.137	.235	.114	.241	.002
6	.114	.005		.254	.250	.225		.125	.150	.248	.127	.254	.003
7	.145	.005		.285	.281	.256		.156	.181	.279	.158	.285	.003
8	.176	.005		.316	.312	.287		.187	.212	.310	.189	.316	.003
9	.208	.005		.348	.344	.319		.219	.244	.342	.221	.348	.003
10	.239	.005		.379	.375	.350		.250	.275	.373	.252	.379	.004
11	.301	.005		.441	.437	.412		.312	.337	.435	.314	.441	.004
12	.364	.005		.504	.500	.475		.375	.400	.498	.377	.504	.005
13	.426	.005		.566	.562	.537		.437	.462	.560	.439	.566	.006
14	.489	.005		.629	.625	.600		.500	.525	.623	.502	.629	.006
15	.551	.005		.691	.687	.662		.562	.587	.685	.564	.691	.007
16	.614	.005		.754	.750	.725		.625	.650	.748	.627	.754	.008
17	.676	.005		.816	.812	.787		.687	.712	.810	.689	.816	.008
18	.739	.005		.879	.875	.850		.750	.775	.873	.752	.879	.009
19	.801	.005		.941	.937	.912		.812	.837	.935	.814	.941	.009
20	.864	.006		1.004	1.000	.975	.003	.875	.900	.998	.877	1.004	.010
21	.926	.006	0.070 +/-0.003	1.066	1.062	1.037		.937	.962	1.060	.939	1.066	.011
22	.989	.006		1.129	1.125	1.100		1.000	1.025	1.123	1.002	1.129	.011
23	1.051	.006		1.191	1.187	1.162		1.062	1.087	1.185	1.064	1.191	.012
24	1.114	.006		1.254	1.250	1.225		1.125	1.150	1.248	1.127	1.254	.013
25	1.176	.006		1.316	1.312	1.287		1.187	1.212	1.310	1.189	1.316	.013
26	1.239	.006		1.379	1.375	1.350		1.250	1.275	1.373	1.252	1.379	.014
27	1.301	.006		1.441	1.437	1.412		1.312	1.337	1.435	1.314	1.441	.014
28	1.364	.006		1.504	1.500	1.475		1.375	1.400	1.498	1.377	1.504	.015
29	1.426	.010		1.629	1.625	1.600		1.500	1.525	1.623	1.502	1.629	.016
30	1.614	.010		1.754	1.750	1.725		1.625	1.650	1.748	1.627	1.754	.018
31	1.739	.010		1.879	1.875	1.850		1.750	1.775	1.873	1.752	1.879	.019
32	1.864	.010		2.004	2.000	1.975		1.875	1.900	1.998	1.877	2.004	.020
33	1.989	.010		2.129	2.125	2.100		2.000	2.025	2.123	2.002	2.129	.021
34	2.114	.010		2.254	2.250	2.225		2.125	2.150	2.248	2.127	2.254	.023
35	2.239	.010		2.379	2.375	2.350		2.250	2.275	2.373	2.252	2.379	.024
36	2.364	.010		2.504	2.500	2.474		2.375	2.400	2.498	2.377	2.504	.025
37	2.489	.010		2.629	2.625	2.600		2.500	2.525	2.623	2.502	2.629	.026
38	2.614	.010		2.754	2.750	2.725		2.625	2.650	2.748	2.627	2.754	.028
39	2.739	.015		2.879	2.875	2.850		2.750	2.775	2.873	2.752	2.879	.029
40	2.864	.015		3.004	3.000	2.975		2.875	2.900	2.998	2.877	3.004	.030

FIGURE 2 - Standard Gland Dimensions in Inches

O-Ring Size	Dimensions				A	A-1	B	B-1	C	D	G	Ho	F
					BORE ID (Male Groove)	GROOVE ID (Female Groove)	OD (Female Groove)	GROOVE OD (Male Groove)	OD (Male Groove)	BORE ID (Female Groove)	GROOVE WIDTH	OD FACE GROOVE (Use for Internal Pressure only)	DEPTH FACE GROOVE
	ID	+/-	W	Mean OD (Ref)	+0.005 -0.006	-0.006 +	+0.000 -0.005	+0.006 -	+0.000 -0.003	+0.003 -0.008		+0.000 -	
41	2.989	.015		3.129	3.125	3.100		3.000	3.025	3.123	3.002	3.129	.031
42	3.239	.015	0.070	3.379	3.375	3.350		3.250	3.275	3.373	3.252	3.379	.034
43	3.489	.015	+/-0.003	3.629	3.625	3.600	.003	3.500	3.525	3.623	3.502	3.629	.036
44	3.739	.015		3.879	3.875	3.850		3.750	3.775	3.873	3.752	3.879	.039
45	3.989	.015		4.129	4.125	4.100		4.000	4.025	4.123	4.002	4.129	.041
46	4.239	.015		4.379	4.375	4.350		4.250	4.275	4.373	4.252	4.379	.044
47	4.489	.015		4.629	4.625	4.600		4.500	4.525	4.623	4.502	4.629	.046
48	4.739	.015		4.879	4.875	4.850		4.750	4.775	4.873	4.752	4.879	.049
49	4.989	.023		5.129	5.125	5.100		5.000	5.025	5.123	5.002	5.129	.051
50	5.239	.023		5.379	5.375	5.350		5.250	5.275	5.373	5.252	5.379	.054
110	0.362	.005		0.568	0.562	0.523		0.375	0.414	0.560	0.377	0.568	.006
111	.424	.005		.630	.624	.585		.437	.476	.622	.439	.630	.006
112	.487	.005		.693	.687	.648		.500	.539	.685	.502	.693	.007
113	.549	.005		.755	.749	.710		.562	.601	.747	.564	.755	.008
114	.612	.005		.818	.812	.773		.625	.664	.810	.627	.818	.008
115	.674	.005		.880	.874	.835		.687	.726	.872	.689	.880	.009
116	.737	.005		.943	.937	.898		.750	.789	.935	.752	.943	.009
117	.799	.006		1.005	.999	.960		.812	.851	.997	.814	1.005	.010
118	.862	.006		1.068	1.062	1.023		.875	.914	1.060	.877	1.068	.011
119	.924	.006		1.130	1.124	1.085		.937	.976	1.122	.939	1.130	.011
120	.987	.006		1.193	1.187	1.148		1.000	1.039	1.185	1.002	1.193	.012
121	1.049	.006		1.255	1.249	1.210		1.062	1.101	1.247	1.064	1.255	.013
122	1.112	.006		1.318	1.312	1.273		1.125	1.164	1.310	1.127	1.318	.013
123	1.174	.006		1.380	1.374	1.335		1.187	1.226	1.372	1.189	1.380	.014
124	1.237	.006		1.443	1.437	1.398		1.250	1.289	1.435	1.252	1.443	.014
125	1.299	.006		1.505	1.499	1.460		1.312	1.351	1.497	1.314	1.505	.015
126	1.362	.006	0.103	1.568	1.562	1.523		1.375	1.414	1.560	1.377	1.568	.016
127	1.424	.006	+/-0.003	1.630	1.624	1.585	.007	1.437	1.476	1.622	1.439	1.630	.016
128	1.487	.010		1.693	1.687	1.648		1.500	1.539	1.685	1.502	1.693	.017
129	1.549	.010		1.755	1.749	1.710		1.562	1.601	1.747	1.564	1.755	.017
130	1.612	.010		1.818	1.812	1.773		1.625	1.664	1.810	1.627	1.818	.018
131	1.674	.010		1.880	1.874	1.835		1.687	1.726	1.872	1.689	1.880	.019
132	1.737	.010		1.943	1.937	1.898		1.750	1.789	1.935	1.752	1.943	.019
133	1.799	.010		2.005	1.999	1.960		1.812	1.851	1.997	1.814	2.005	.020
134	1.862	.010		2.068	2.062	2.023		1.875	1.914	2.060	1.877	2.068	.021
135	1.925	.010		2.131	2.125	2.086		1.938	1.977	2.123	1.940	2.131	.021
136	1.987	.010		2.193	2.187	2.148		2.000	2.039	2.185	2.002	2.193	.022
137	2.050	.010		2.256	2.250	2.211		2.063	2.102	2.248	2.065	2.256	.023
138	2.112	.010		2.318	2.312	2.273		2.125	2.164	2.310	2.127	2.318	.023
139	2.175	.010		2.381	2.375	2.336		2.188	2.227	2.373	2.190	2.381	.024
140	2.237	.010		2.443	2.437	2.398		2.250	2.289	2.435	2.252	2.443	.024
141	2.300	.010		2.506	2.500	2.461		2.313	2.352	2.498	2.315	2.506	.025
142	2.362	.010		2.568	2.562	2.523		2.375	2.414	2.560	2.377	2.568	.026
143	2.425	.010		2.631	2.625	2.586		2.438	2.477	2.623	2.440	2.631	.026
144	2.487	.010		2.693	2.687	2.648		2.500	2.539	2.685	2.502	2.693	.027

FIGURE 2 (Continued)

O-Ring Size	Dimensions				A	A-1	B	B-1	C	D	G	Ho	F
					BORE ID (Male Chord)	GROOVE ID (Female Chord)	OD (Female Chord Shave)	GROOVE OD (Male Chord)	OD (Male Chord)	BORE ID (Female Chord)	GROOVE WIDTH	OD FACE GROOVE (Use for Internal Pressure only)	DEPTH FACE GROOVE
	ID	±	W	Mean OD (Rad)	+0.005 -.000	-.000	+	+0.000 -.005	+0.000	-.003	+0.003 -.000	+0.000	
145	2.550	.015		2.756	2.750	2.711		2.563	2.602	2.748	2.565	2.756	.028
146	2.612	.015		2.818	2.812	2.773		2.625	2.664	2.810	2.627	2.818	.028
147	2.675	.015		2.881	2.875	2.836		2.688	2.727	2.873	2.690	2.881	.029
148	2.737	.015		2.943	2.937	2.898		2.750	2.789	2.935	2.752	2.943	.029
149	2.800	.015		3.006	3.000	2.961		2.801	2.852	2.998	2.815	3.006	.030
150	2.862	.015		3.068	3.062	3.023		2.875	2.914	3.060	2.877	3.068	.031
151	2.927	.015		3.133	3.127	3.148		3.000	3.039	3.185	3.002	3.133	.032
152	3.237	.015		3.443	3.437	3.398		3.250	3.289	3.435	3.252	3.443	.034
153	3.487	.015		3.693	3.687	3.648		3.500	3.539	3.685	3.502	3.693	.037
154	3.737	.015	0.103 ±.003	3.943	3.937	3.898	.007	3.750	3.789	3.935	3.752	3.943	.039
155	3.987	.015		4.193	4.187	4.148		4.000	4.039	4.185	4.002	4.193	.04
156	4.237	.015		4.443	4.437	4.398		4.250	4.289	4.435	4.252	4.443	.04
157	4.487	.015		4.693	4.687	4.648		4.500	4.539	4.685	4.502	4.693	.04
158	4.737	.015		4.943	4.937	4.898		4.750	4.789	4.935	4.752	4.943	.04
159	4.987	.015		5.193	5.187	5.148		5.000	5.039	5.185	5.002	5.193	.052
160	5.237	.023		5.443	5.437	5.398		5.250	5.289	5.435	5.252	5.443	.054
161	5.487	.023		5.693	5.687	5.648		5.500	5.539	5.685	5.502	5.693	.057
162	5.737	.023		5.943	5.937	5.898		5.750	5.789	5.935	5.752	5.943	.060
163	5.987	.023		6.193	6.187	6.148		6.000	6.039	6.185	6.002	6.193	.060
164	6.237	.023		6.443	6.437	6.412		6.250	6.275	6.435	6.252	6.443	.060
165	6.487	.023		6.693	6.687	6.662		6.500	6.525	6.685	6.502	6.693	.060
166	6.737	.023		6.943	6.937	6.912		6.750	6.775	6.935	6.752	6.943	.060
167	6.987	.023		7.193	7.187	7.162		7.000	7.025	7.185	7.002	7.193	.060
168	7.237	.030		7.443	7.437	7.412		7.250	7.275	7.435	7.252	7.443	.060
169	7.487	.030		7.693	7.687	7.662		7.500	7.525	7.685	7.502	7.693	.060
170	7.737	.030		7.943	7.937	7.912		7.750	7.775	7.935	7.752	7.943	.060
171	7.987	.030		8.193	8.187	8.162		8.000	8.025	8.185	8.002	8.193	.060
172	8.237	.030		8.443	8.437	8.412		8.250	8.275	8.435	8.252	8.443	.060
173	8.487	.030		8.693	8.687	8.662		8.500	8.525	8.685	8.502	8.693	.060
174	8.737	.030		8.943	8.937	8.912		8.750	8.775	8.935	8.752	8.943	.060
175	8.987	.030		9.193	9.187	9.162		9.000	9.025	9.185	9.002	9.193	.060
176	9.237	.030		9.443	9.437	9.412		9.250	9.275	9.435	9.252	9.443	.060
177	9.487	.030		9.693	9.687	9.662		9.500	9.525	9.685	9.502	9.693	.060
178	9.737	.030		9.943	9.937	9.912		9.750	9.775	9.935	9.752	9.943	.060
210	0.734	.006	.139 ±.004	1.012	1.000	0.952		0.750	0.798	0.997	0.753	1.012	0.10
211	.796	.006		1.074	1.062	1.014		.812	.860	1.059	.815	1.074	0.11
212	.858	.006		1.137	1.125	1.077	.007	.875	.923	1.122	.878	1.137	0.11
213	.921	.006		1.199	1.187	1.139		.937	.985	1.184	.940	1.199	0.12
214	.984	.006		1.262	1.250	1.202		1.000	1.048	1.247	1.003	1.262	0.13
215	1.046	.006		1.324	1.312	1.264		1.062	1.110	1.309	1.065	1.324	0.13
216	1.109	.006		1.387	1.375	1.327		1.125	1.173	1.372	1.128	1.387	0.14
217	1.171	.006		1.449	1.437	1.389		1.187	1.235	1.434	1.190	1.449	0.14
218	1.234	.006		1.512	1.500	1.452		1.250	1.298	1.497	1.253	1.512	0.15
219	1.296	.006		1.574	1.562	1.514		1.312	1.360	1.559	1.315	1.574	0.15

FIGURE 2 (Continued)

O-Ring Size	Dimensions				A	A-1	B	B-1	C	D	G	H _o	F	
					BORE ID (Male Gland)	GROOVE ID (Female Gland)	OD (Female Gland Sleeve)	GROOVE OD (Male Gland)	OD (Male Gland)	BORE ID (Female Gland)	GROOVE WIDTH	OD FACE GROOVE (Use for Internal Pressure only)	DEPTH FACE GROOVE	
	ID	±	W	Mem OD (Ref)	+0.05 -0.08	-0.08 +	+0.00 -0.05	+0.00	+0.00 -0.03	+0.03 -0.00		+0.00		
220	1.359	.006		1.637	1.625	1.577		1.375	1.423	1.622	1.378		1.637	.016
221	1.421	.006		1.699	1.687	1.639		1.437	1.485	1.684	1.440		1.699	.017
222	1.484	.006		1.762	1.750	1.702		1.500	1.548	1.747	1.503		1.762	.018
223	1.609	.010		1.887	1.875	1.827		1.625	1.673	1.872	1.628		1.887	.019
224	1.734	.010		2.012	2.000	1.952		1.750	1.798	1.997	1.753		2.012	.020
225	1.859	.010		2.137	2.125	2.077		1.875	1.923	2.122	1.878		2.137	.021
226	1.984	.010		2.262	2.250	2.202		2.000	2.048	2.247	2.003		2.262	.023
227	2.109	.010		2.387	2.375	2.327		2.125	2.173	2.372	2.128		2.387	.024
228	2.234	.010		2.512	2.500	2.452		2.250	2.298	2.497	2.253		2.512	.025
229	2.359	.010		2.637	2.625	2.577		2.375	2.423	2.622	2.378		2.637	.026
230	2.484	.010	0.139	2.762	2.750	2.702		2.500	2.548	2.747	2.503		2.762	.028
231	2.609	.010	±0.004	2.887	2.875	2.827	.007	2.625	2.673	2.872	2.628	0.177	2.887	.029
232	2.734	.015		3.012	3.000	2.952		2.750	2.798	2.997	2.753	+0.010	3.012	.030
233	2.859	.015		3.137	3.125	3.077		2.875	2.923	3.122	2.878	-0.000	3.137	.031
234	2.984	.015		3.262	3.250	3.202		3.000	3.048	3.247	3.003	(0.157 +0.006 for vacuum and gases)	3.262	.033
235	3.109	.015		3.387	3.375	3.327		3.125	3.173	3.372	3.128		3.387	.034
236	3.234	.015		3.512	3.500	3.452		3.250	3.298	3.497	3.253		3.512	.035
237	3.359	.015		3.637	3.625	3.577		3.375	3.423	3.622	3.378		3.637	.036
238	3.484	.015		3.762	3.750	3.702		3.500	3.548	3.747	3.503		3.762	.038
239	3.609	.015		3.887	3.875	3.827		3.625	3.673	3.872	3.628		3.887	.039
240	3.734	.015		4.012	4.000	3.952		3.750	3.798	3.997	3.753		4.012	.040
241	3.859	.015		4.137	4.125	4.077		3.875	3.923	4.122	3.878		4.137	.041
242	3.984	.015		4.262	4.250	4.202		4.000	4.048	4.247	4.003		4.262	.043
243	4.109	.015		4.387	4.375	4.327		4.125	4.173	4.372	4.128		4.387	.044
244	4.234	.015		4.512	4.500	4.452		4.250	4.298	4.497	4.253		4.512	.045
245	4.359	.015		4.637	4.625	4.577		4.375	4.423	4.622	4.378		4.637	.046
246	4.484	.015		4.762	4.750	4.702		4.500	4.548	4.747	4.503		4.762	.048
247	4.609	.015		4.887	4.875	4.827		4.625	4.673	4.872	4.628		4.887	.049
248	4.734	.015		5.012	5.000	4.952		4.750	4.798	4.997	4.753		5.012	.050
249	4.859	.015		5.137	5.125	5.077		4.875	4.923	5.122	4.878		5.137	.051
250	4.984	.015		5.262	5.250	5.202		5.000	5.048	5.247	5.003		5.262	.053
251	5.109	.023		5.387	5.375	5.327		5.125	5.173	5.372	5.128		5.387	.054
252	5.234	.023		5.512	5.500	5.452		5.250	5.298	5.497	5.253		5.512	.055
253	5.359	.023		5.637	5.625	5.577		5.375	5.423	5.622	5.378		5.637	.056
254	5.484	.023		5.762	5.750	5.702		5.500	5.548	5.747	5.503		5.762	.057
255	5.609	.023		5.887	5.875	5.827		5.625	5.673	5.872	5.628		5.887	.059
256	5.734	.023		6.012	6.000	5.952		5.750	5.798	5.997	5.753		6.012	.060
257	5.859	.023		6.137	6.125	6.077		5.875	5.923	6.122	5.878		6.137	.060
258	5.984	.023		6.262	6.250	6.202		6.000	6.048	6.247	6.003		6.262	.060
259	6.234	.023		6.512	6.500	6.452		6.250	6.298	6.497	6.253		6.512	.060
260	6.484	.023		6.762	6.750	6.702		6.500	6.548	6.747	6.503		6.762	.060
261	6.734	.023		7.012	7.000	6.952		6.750	6.798	6.997	6.753		7.012	.060
262	6.984	.030		7.262	7.250	7.202		7.000	7.048	7.247	7.003		7.262	.060
263	7.234	.030		7.512	7.500	7.452		7.250	7.298	7.497	7.253		7.512	.060
264	7.484	.030		7.762	7.750	7.702		7.500	7.548	7.747	7.503		7.762	.060

FIGURE 2 (Continued)

O-Ring Size	Dimensions				A	A-1	B	B-1	C	D	G	Ho	F		
	ID	+L	W	Max OD (Ref)	BORE ID (Male Gland) + .005 - .000	GROOVE ID (Female Gland) - .000 +	OD (Female Gland Sleeve) + .000 - .005	GROOVE OD (Male Gland) + .000 -	OD (Male Gland) + .000 - .003	BORE ID (Female Gland) + .003 - .000	GROOVE WIDTH	OD FACE GROOVE (Use for Internal Pressure only) + .000 -	DEPTH FACE GROOVE		
265	7.734	.030	0.139 +/- .004	8.012	8.000	7.952	7.750	7.798	7.997	7.753	0.177 + .010 - .000 (0.157 + .006 - .000 for vacuum and gases)	8.012	.060		
266	7.984	.030		8.262	8.250	8.202	8.000	8.048	8.248	8.003		8.262	.060		
267	8.234	.030		8.512	8.500	8.452	8.250	8.298	8.497	8.253		8.512	.060		
268	8.484	.030		8.762	8.750	8.702	8.500	8.548	8.747	8.503		8.762	.060		
269	8.734	.030		9.012	9.000	8.952	8.750	8.798	8.997	8.753		9.012	.060		
270	8.984	.030	0.152 +/- .005	9.262	9.250	9.202	9.000	9.048	9.247	9.003	0.152 + .010 - .000 (0.157 + .006 - .000 for vacuum and gases)	9.262	.060		
271	9.234	.030		9.512	9.500	9.452	9.250	9.298	9.497	9.253		9.512	.060		
272	9.484	.030		9.762	9.750	9.702	9.500	9.548	9.747	9.503		9.762	.060		
273	9.734	.030		10.012	10.000	9.952	9.750	9.798	9.997	9.753		10.012	.060		
274	9.984	.030		10.262	10.250	10.202	10.000	10.048	10.247	10.003		10.262	.060		
275	10.484	.030		10.762	10.750	10.702	10.500	10.548	10.747	10.503		10.762	.060		
276	10.984	.030		11.262	11.250	11.202	11.000	11.048	11.247	11.003		11.262	.060		
277	11.484	.030		11.762	11.750	11.702	11.500	11.548	11.747	11.503		11.762	.060		
278	11.984	.030		12.262	12.250	12.202	12.000	12.048	12.247	12.003		12.262	.060		
279	12.484	.030		13.262	13.250	13.202	13.000	13.048	13.247	13.003		13.262	.060		
280	13.984	.030	0.152 +/- .005	14.262	14.250	14.202	14.000	14.048	14.247	14.003	0.152 + .010 - .000 (0.157 + .006 - .000 for vacuum and gases)	14.262	.060		
281	14.484	.030		15.262	15.250	15.202	15.000	15.048	15.247	15.003		15.262	.060		
282	15.955	.045		16.233	16.250	16.222	16.000	16.028	16.247	16.003		16.262	.060		
283	16.955	.045		17.233	17.250	17.222	17.000	17.028	17.247	17.003		17.262	.060		
284	17.955	.045		18.233	18.250	18.222	18.000	18.028	18.247	18.003		18.262	.060		
325	1.475	.010		0.210 +/- .005	1.895	1.875	1.804	1.500	1.571	1.872		1.503	0.270 + .020 - .000 (0.247 + .006 - .000 for vacuum and gases)	1.895	.019
326	1.600	.010			2.020	2.000	1.929	1.625	1.696	1.997		1.628		2.020	.020
327	1.725	.010			2.145	2.125	2.054	1.750	1.821	2.122		1.753		2.145	.021
328	1.850	.010			2.270	2.250	2.179	1.875	1.946	2.247		1.878		2.270	.023
329	1.975	.010			2.395	2.375	2.304	2.000	2.071	2.372		2.003		2.395	.024
330	2.100	.010	2.520		2.500	2.429	2.125	2.196	2.497	2.128	2.520	.025			
331	2.225	.010	2.645		2.625	2.554	2.250	2.321	2.622	2.253	2.645	.026			
332	2.350	.010	2.770		2.750	2.679	2.375	2.446	2.747	2.378	2.770	.028			
333	2.475	.010	2.895		2.875	2.804	2.500	2.571	2.872	2.503	2.895	.029			
334	2.600	.010	3.020		3.000	2.929	2.625	2.696	2.997	2.628	3.020	.030			
335	2.725	.015	0.210 +/- .005	3.145	3.125	3.054	2.750	2.821	3.122	2.753	0.270 + .020 - .000 (0.247 + .006 - .000 for vacuum and gases)	3.145	.031		
336	2.850	.015		3.270	3.250	3.179	2.875	2.946	3.247	2.878		3.270	.033		
337	2.975	.015		3.395	3.375	3.304	3.000	3.071	3.372	3.003		3.395	.034		
338	3.100	.015		3.520	3.500	3.429	3.125	3.196	3.497	3.128		3.520	.035		
339	3.225	.015		3.645	3.625	3.554	3.250	3.321	3.622	3.253		3.645	.036		
340	3.350	.015		3.770	3.750	3.679	3.375	3.446	3.747	3.378		3.770	.038		
341	3.475	.015		3.895	3.875	3.804	3.500	3.571	3.872	3.503		3.895	.039		
342	3.600	.015		4.020	4.000	3.929	3.625	3.696	3.997	3.628		4.020	.040		
343	3.725	.015		4.145	4.125	4.054	3.750	3.821	4.122	3.753		4.145	.041		
344	3.850	.015		4.270	4.250	4.179	3.875	3.946	4.247	3.878		4.270	.043		
345	3.975	.015	4.395	4.375	4.304	4.000	4.071	4.372	4.003	4.395	.044				
346	4.100	.015	4.520	4.500	4.429	4.125	4.196	4.497	4.128	4.520	.045				
347	4.225	.015	4.645	4.625	4.554	4.250	4.321	4.622	4.253	4.645	.046				
348	4.350	.015	4.770	4.750	4.679	4.375	4.446	4.747	4.378	4.770	.047				
349	4.475	.015	4.895	4.875	4.804	4.500	4.571	4.872	4.503	4.895	.049				

FIGURE 2 (Continued)

O-Ring Size	Dimensions				A		A-1		B		B-1		C		D		G		Ho		F	
					BORE ID (Male Chord)	GROOVE ID (Female Chord)	OD (Female Chord Sleeve)	GROOVE OD (Male Chord)	OD (Male Chord)	BORE ID (Female Chord)	GROOVE WIDTH	OD FACE GROOVE (Use for Internal Pressure only)	DEPTH FACE GROOVE									
	ID	+/-	W	Mean OD (Ref)	+0.05 -0.00	-0.00	+	+0.00 -0.05	+0.00	-	+0.00 -0.03	+0.03 -0.00		+0.00	-							
350	4.600	.015	0.210	5.020	5.000	4.929		4.625	4.696		4.997	4.628	0.270	5.020	.050	0.152						
351	4.725	.015	+/- .005	5.145	5.125	5.054	.015	4.750	4.821	.015	5.122	4.753	+0.20	5.145	.051	+0.010						
352	4.850	.015		5.270	5.250	5.179		4.875	4.946		5.247	4.878	-.000	5.270	.053	-.000						
353	4.975	.015		5.395	5.375	5.304		5.000	5.071		5.372	5.003	(0.247	5.395	.054							
354	5.100	.023		5.520	5.500	5.429		5.125	5.196		5.497	5.128	+0.06	5.520	.055							
355	5.225	.023		5.645	5.625	5.554		5.250	5.321		5.622	5.253	-.000	5.645	.056							
356	5.350	.023		5.770	5.750	5.679		5.375	5.446		5.747	5.378	for	5.770	.058							
357	5.475	.023		5.895	5.875	5.804		5.500	5.571		5.872	5.503	vacuum	5.895	.059							
358	5.600	.023		6.020	6.000	5.929		5.625	5.696		5.997	5.628	and	6.020	.060							
359	5.725	.023		6.145	6.125	6.054		5.750	5.821		6.122	5.753	gases)	6.145	.060							
360	5.850	.023		6.270	6.250	6.179		5.875	5.946		6.247	5.878		6.270	.060							
361	5.975	.023		6.395	6.375	6.304		6.000	6.071		6.372	6.003		6.395	.060							
362	6.100	.023		6.645	6.625	6.554		6.250	6.321		6.622	6.253		6.645	.060							
363	6.225	.023		6.895	6.875	6.804		6.500	6.571		6.872	6.503		6.895	.060							
364	6.350	.023		7.145	7.125	7.054		6.750	6.821		7.122	6.753		7.145	.060							
365	6.475	.023		7.395	7.375	7.304		7.000	7.071		7.372	7.003		7.395	.060							
366	6.600	.030		7.645	7.625	7.554		7.250	7.321		7.622	7.253		7.645	.060							
367	6.725	.030		7.895	7.875	7.804		7.500	7.571		7.872	7.503		7.895	.060							
368	6.850	.030		8.145	8.125	8.054		7.750	7.821		8.122	7.753		8.145	.060							
369	6.975	.030		8.395	8.375	8.304		8.000	8.071		8.372	8.003		8.395	.060							
370	7.100	.030		8.645	8.625	8.554		8.250	8.321		8.622	8.253		8.645	.060							
371	7.225	.030		8.895	8.875	8.804		8.500	8.571		8.872	8.503		8.895	.060							
372	7.350	.030		9.145	9.125	9.054		8.750	8.821		9.122	8.753		9.145	.060							
373	7.475	.030		9.395	9.375	9.304		9.000	9.071		9.372	9.003		9.395	.060							
374	7.600	.030		9.645	9.625	9.554		9.250	9.321		9.622	9.253		9.645	.060							
375	7.725	.030		9.895	9.875	9.804		9.500	9.571		9.872	9.503		9.895	.060							
376	7.850	.030		10.145	10.125	10.054		9.750	9.821		10.122	9.753		10.145	.060							
377	7.975	.030		10.395	10.375	10.304		10.000	10.071		10.372	10.003		10.395	.060							
378	8.100	.030		10.645	10.625	10.554		10.250	10.321		10.622	10.253		10.645	.060							
379	8.225	.030		10.895	10.875	10.804		10.500	10.571		10.872	10.503		10.895	.060							
380	8.350	.030		11.145	11.125	11.054		10.750	10.821		11.122	10.753		11.145	.060							
381	8.475	.030		11.395	11.375	11.304		11.000	11.071		11.372	11.003		11.395	.060							
382	8.600	.030		11.645	11.625	11.554		11.250	11.321		11.622	11.253		11.645	.060							
383	8.725	.030		11.895	11.875	11.804		11.500	11.571		11.872	11.503		11.895	.060							
384	8.850	.030		12.145	12.125	12.054		11.750	11.821		12.122	11.753		12.145	.060							
385	8.975	.030		12.395	12.375	12.304		12.000	12.071		12.372	12.003		12.395	.060							
386	9.100	.030		12.645	12.625	12.554		12.250	12.321		12.622	12.253		12.645	.060							
387	9.225	.030		12.895	12.875	12.804		12.500	12.571		12.872	12.503		12.895	.060							
388	9.350	.030		13.145	13.125	13.054		12.750	12.821		13.122	12.753		13.145	.060							
389	9.475	.030		13.395	13.375	13.304		13.000	13.071		13.372	13.003		13.395	.060							
390	9.600	.030		13.645	13.625	13.554		13.250	13.321		13.622	13.253		13.645	.060							
391	9.725	.030		13.895	13.875	13.804		13.500	13.571		13.872	13.503		13.895	.060							
392	9.850	.030		14.145	14.125	14.054		13.750	13.821		14.122	13.753		14.145	.060							
393	9.975	.030		14.395	14.375	14.304		14.000	14.071		14.372	14.003		14.395	.060							
394	10.100	.030		14.645	14.625	14.554		14.250	14.321		14.622	14.253		14.645	.060							
395	10.225	.030		14.895	14.875	14.804		14.500	14.571		14.872	14.503		14.895	.060							
396	10.350	.030		15.145	15.125	15.054		14.750	14.821		15.122	14.753		15.145	.060							
397	10.475	.030		15.395	15.375	15.304		15.000	15.071		15.372	15.003		15.395	.060							
398	10.600	.030		15.645	15.625	15.554		15.250	15.321		15.622	15.253		15.645	.060							
399	10.725	.030		15.895	15.875	15.804		15.500	15.571		15.872	15.503		15.895	.060							
400	10.850	.030		16.145	16.125	16.054		15.750	15.821		16.122	15.753		16.145	.060							
401	10.975	.030		16.395	16.375	16.304		16.000	16.071		16.372	16.003		16.395	.060							
402	11.100	.030		16.645	16.625	16.554		16.250	16.321		16.622	16.253		16.645	.060							
403	11.225	.030		16.895	16.875	16.804		16.500	16.571		16.872	16.503		16.895	.060							
404	11.350	.030		17.145	17.125	17.054		16.750	16.821		17.122	16.753		17.145	.060							
405	11.475	.030		17.395	17.375	17.304		17.000	17.071		17.372	17.003		17.395	.060							
406	11.600	.030		17.645	17.625	17.554		17.250	17.321		17.622	17.253		17.645	.060							
407	11.725	.030		17.895	17.875	17.804		17.500	17.571		17.872	17.503		17.895	.060							
408	11.850	.030		18.145	18.125	18.054		17.750	17.821		18.122	17.753		18.145	.060							
409	11.975	.030		18.395	18.375	18.304		18.000	18.071		18.372	18.003		18.395	.060							
410	12.100	.030		18.645	18.625	18.554		18.250	18.321		18.622	18.253		18.645	.060							
411	12.225	.030		18.895	18.875	18.804		18.500	18.571		18.872	18.503		18.895	.060							
412	12.350	.030		19.145	19.125	19.054		18.750	18.821		19.122	18.753		19.145	.060							
413	12.475	.030		19.395	19.375	19.304		19.000	19.071		19.372	19.003		19.395	.060							
414	12.600	.030		19.645	19.625	19.554		19.250	19.321		19.622	19.253		19.645	.060							
415	12.725	.030		19.895	19.875	19.804		19.500	19.571		19.872	19.503		19.895	.060							
416	12.850	.030		20.145	20.125	20.054		19.750	19.821		20.122	19.753		20.145	.060							
417	12.975	.030		20.395	20.375	20.304		20.000	20.071		20.372	20.003		20.395	.060							
418	13.100	.030		20.645	20.625	20.554		20.250	20.321		20.622	20.253		20.645	.060							
419	13.225	.030		20.895	20.875	20.804		20.500	20.571		20.872	20.503		20.895	.060							
420	13.350	.030		21.145	21.125	21.054		20.750	20.821		21.122	20.753		21.145	.060							
421	13.475	.030		21.395	21.375	21.304		21.000	21.071		21.372	21.003		21.395	.060							
422	13.600	.030		21.645	21.625	21.554		21.250	21.321		21.622	21.253		21.645	.060							
423	13.725	.030		21.895	21.875	21.804		21.500	21.571		21.872	21.503		21.895	.060							
424	13.850	.030		22.145	22.125	22.054		21.750	21.821		22.122	21.753		22.145	.060							
425	13.975	.030		22.395	22.375	22.304		22.000	22.071		22.372	22.003		22.395	.060							
426	14.100	.030		22.645	22.625	22.554		22.250	22.321		22.622	22.253		22.645	.060							
427	14.225	.030		22.895	22.875	22.804		22.500	22.571		22.872	22.503		22.895	.060							
428	14.350	.030		23.145	23.125	23.054		22.750	22.821		23.122	22.753		23.145	.060							
429	14.475	.030		23.395	23.375	23.304		23.000	23.071		23.372	23.003		23.395	.060							
430	14.600	.030		23.645	23.625	23.554		23.250	23.321													