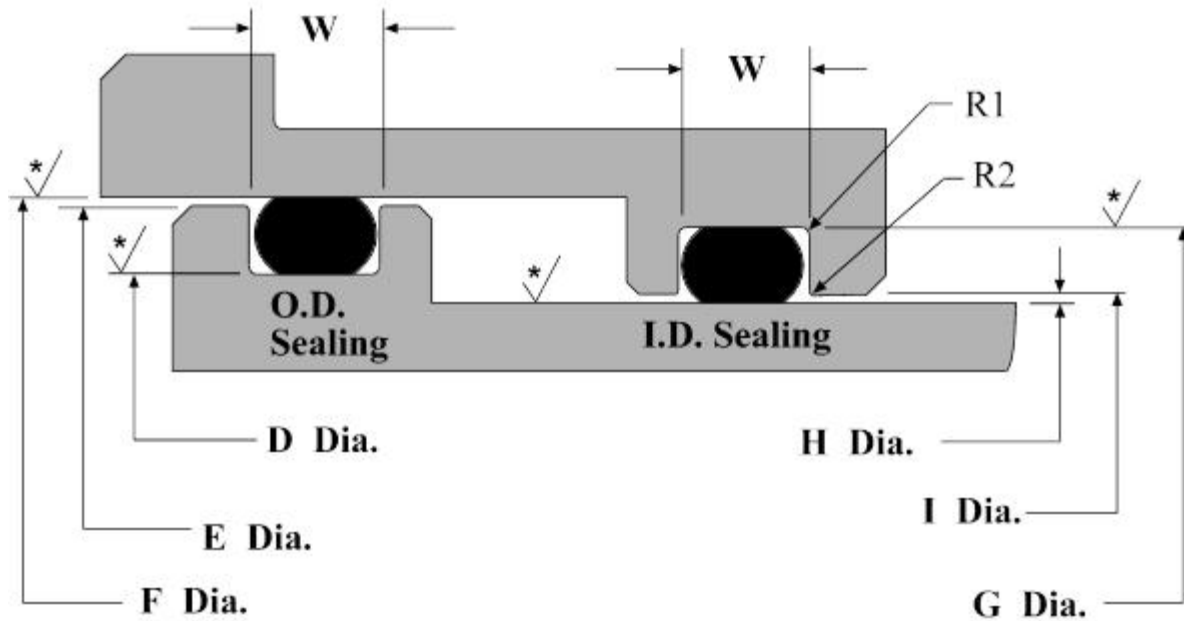


## Dynamic (moving) Rod and Piston O-Ring Gland Default Design Chart

### DYNAMIC ROD AND PISTON GLAND INFORMATION

THESE TYPES OF GLANDS ARE USED  
 IN MOST DYNAMIC APPLICATIONS



\* Recommended surface finish:

16 Ra max. for gases and 32 Ra max. for fluids. All dynamic applications to have 16 Ra max.

### Dynamic O-Ring Gland Width and Depth and Diameter Default Recommendations

AS568 DASH SIZES	O-RING CROSS-SECTION		GLAND WIDTH (W)		GLAND CORNER RADII (MAX.)	
	NOM.	TOL (+/-)	NOM.	TOL (+/-)	R1	R2
-0XX	0.070	0.003	0.095	0.002	0.007	0.005
-1XX	0.103	0.004	0.142	0.003	0.007	0.005
-2XX	0.139	0.004	0.189	0.003	0.017	0.005
-3XX	0.210	0.005	0.283	0.003	0.027	0.005
-4XX	0.275	0.006	0.377	0.003	0.027	0.005

## Dynamic (moving) Rod and Piston O-Ring Gland Default Design Chart

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-006	0.070	0.003	0.114	0.005	0.139	0.247	0.249	0.234	0.124	0.126
-007	0.070	0.003	0.145	0.005	0.170	0.278	0.280	0.265	0.155	0.157
-008	0.070	0.003	0.176	0.005	0.201	0.309	0.311	0.296	0.186	0.188
-009	0.070	0.003	0.208	0.005	0.233	0.341	0.343	0.328	0.218	0.220
-010	0.070	0.003	0.239	0.005	0.264	0.372	0.374	0.359	0.249	0.251
-011	0.070	0.003	0.301	0.005	0.326	0.434	0.436	0.421	0.311	0.313
-012	0.070	0.003	0.364	0.005	0.389	0.497	0.499	0.484	0.374	0.376

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-104	0.103	0.003	0.112	0.005	0.136	0.310	0.312	0.300	0.124	0.126
-105	0.103	0.003	0.143	0.005	0.167	0.341	0.343	0.331	0.155	0.157
-106	0.103	0.003	0.174	0.005	0.198	0.372	0.374	0.362	0.186	0.188
-107	0.103	0.003	0.206	0.005	0.230	0.404	0.406	0.394	0.218	0.220
-108	0.103	0.003	0.237	0.005	0.261	0.435	0.437	0.425	0.249	0.251
-109	0.103	0.003	0.299	0.005	0.323	0.497	0.499	0.487	0.311	0.313
-110	0.103	0.003	0.362	0.005	0.386	0.560	0.562	0.550	0.374	0.376
-111	0.103	0.003	0.424	0.005	0.448	0.622	0.624	0.612	0.436	0.438
-112	0.103	0.003	0.487	0.005	0.511	0.685	0.687	0.675	0.499	0.501
-113	0.103	0.003	0.549	0.007	0.573	0.747	0.749	0.737	0.561	0.563
-114	0.103	0.003	0.612	0.009	0.636	0.810	0.812	0.800	0.624	0.626
-115	0.103	0.003	0.674	0.009	0.698	0.872	0.874	0.862	0.686	0.688
-116	0.103	0.003	0.737	0.009	0.761	0.935	0.937	0.925	0.749	0.751

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-201	0.139	0.004	0.171	0.005	0.195	0.434	0.437	0.427	0.185	0.188
-202	0.139	0.004	0.234	0.005	0.258	0.497	0.500	0.490	0.248	0.251
-203	0.139	0.004	0.296	0.005	0.320	0.559	0.562	0.552	0.310	0.313
-204	0.139	0.004	0.359	0.005	0.383	0.622	0.625	0.615	0.373	0.376
-205	0.139	0.004	0.421	0.005	0.445	0.684	0.687	0.677	0.435	0.438
-206	0.139	0.004	0.484	0.005	0.508	0.747	0.750	0.740	0.498	0.501
-207	0.139	0.004	0.546	0.007	0.570	0.809	0.812	0.802	0.560	0.563
-208	0.139	0.004	0.609	0.009	0.633	0.872	0.875	0.865	0.623	0.626

## Dynamic (moving) Rod and Piston O-Ring Gland Default Design Chart

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-209	0.139	0.004	0.671	0.009	0.695	0.934	0.937	0.927	0.685	0.688
-210	0.139	0.004	0.734	0.010	0.758	0.997	1.000	0.990	0.748	0.751
-211	0.139	0.004	0.796	0.010	0.820	1.059	1.062	1.052	0.810	0.813
-212	0.139	0.004	0.859	0.010	0.883	1.122	1.125	1.115	0.873	0.876
-213	0.139	0.004	0.921	0.010	0.945	1.184	1.187	1.177	0.935	0.938
-214	0.139	0.004	0.984	0.010	1.008	1.247	1.250	1.240	0.998	1.001
-215	0.139	0.004	1.046	0.010	1.070	1.309	1.312	1.302	1.060	1.063
-216	0.139	0.004	1.109	0.012	1.133	1.372	1.375	1.365	1.123	1.126
-217	0.139	0.004	1.171	0.012	1.195	1.434	1.437	1.427	1.185	1.188
-218	0.139	0.004	1.234	0.012	1.258	1.497	1.500	1.490	1.248	1.251
-219	0.139	0.004	1.296	0.012	1.320	1.559	1.562	1.552	1.310	1.313
-220	0.139	0.004	1.359	0.012	1.383	1.622	1.625	1.619	1.373	1.376
-221	0.139	0.004	1.421	0.012	1.445	1.684	1.687	1.677	1.435	1.438
-222	0.139	0.004	1.484	0.015	1.508	1.747	1.750	1.740	1.498	1.501

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-309	0.210	0.005	0.412	0.005	0.442	0.809	0.812	0.805	0.435	0.438
-310	0.210	0.005	0.475	0.005	0.505	0.872	0.875	0.868	0.498	0.501
-311	0.210	0.005	0.537	0.007	0.567	0.934	0.937	0.930	0.560	0.563
-312	0.210	0.005	0.600	0.009	0.630	0.997	1.000	0.993	0.623	0.626
-313	0.210	0.005	0.662	0.009	0.692	1.059	1.062	1.055	0.685	0.688
-314	0.210	0.005	0.725	0.010	0.755	1.122	1.125	1.118	0.748	0.751
-315	0.210	0.005	0.787	0.010	0.817	1.184	1.187	1.180	0.810	0.813
-316	0.210	0.005	0.850	0.010	0.880	1.247	1.250	1.243	0.873	0.876
-317	0.210	0.005	0.912	0.010	0.942	1.309	1.312	1.305	0.935	0.938
-318	0.210	0.005	0.975	0.010	1.005	1.372	1.375	1.368	0.998	1.001
-319	0.210	0.005	1.037	0.010	1.067	1.434	1.437	1.430	1.060	1.063
-320	0.210	0.005	1.100	0.012	1.130	1.497	1.500	1.493	1.123	1.126
-321	0.210	0.005	1.162	0.012	1.192	1.559	1.562	1.555	1.185	1.188
-322	0.210	0.005	1.225	0.012	1.255	1.622	1.625	1.618	1.248	1.251
-323	0.210	0.005	1.287	0.012	1.317	1.684	1.687	1.680	1.310	1.313
-324	0.210	0.005	1.350	0.012	1.380	1.747	1.750	1.743	1.373	1.376
-325	0.210	0.005	1.475	0.015	1.505	1.872	1.875	1.868	1.498	1.501
-326	0.210	0.005	1.600	0.015	1.630	1.997	2.000	1.993	1.623	1.626
-327	0.210	0.005	1.725	0.015	1.755	2.122	2.125	2.118	1.748	1.751
-328	0.210	0.005	1.850	0.015	1.880	2.247	2.250	2.243	1.873	1.876
-329	0.210	0.005	1.975	0.018	2.005	2.372	2.375	2.368	1.998	2.001

## Dynamic (moving) Rod and Piston O-Ring Gland Default Design Chart

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-330	0.210	0.005	2.100	0.018	2.130	2.497	2.500	2.493	2.123	2.126
-331	0.210	0.005	2.225	0.018	2.255	2.622	2.625	2.618	2.248	2.251
-332	0.210	0.005	2.350	0.018	2.380	2.747	2.750	2.743	2.373	2.376
-333	0.210	0.005	2.475	0.020	2.505	2.872	2.875	2.868	2.498	2.501
-334	0.210	0.005	2.600	0.020	2.630	2.997	3.000	2.993	2.623	2.626
-335	0.210	0.005	2.725	0.020	2.755	3.122	3.125	3.118	2.748	2.751
-336	0.210	0.005	2.850	0.020	2.880	3.247	3.250	3.243	2.873	2.876
-337	0.210	0.005	2.975	0.024	3.005	3.372	3.375	3.368	2.998	3.001
-338	0.210	0.005	3.100	0.024	3.130	3.497	3.500	3.493	3.123	3.126
-339	0.210	0.005	3.225	0.024	3.255	3.622	3.625	3.618	3.248	3.251
-340	0.210	0.005	3.350	0.024	3.380	3.747	3.750	3.743	3.373	3.376
-341	0.210	0.005	3.475	0.024	3.505	3.872	3.875	3.868	3.498	3.501
-342	0.210	0.005	3.600	0.028	3.630	3.997	4.000	3.993	3.623	3.626
-343	0.210	0.005	3.725	0.028	3.755	4.122	4.125	4.118	3.748	3.751
-344	0.210	0.005	3.850	0.028	3.880	4.247	4.250	4.243	3.873	3.876
-345	0.210	0.005	3.975	0.028	4.005	4.372	4.375	4.368	3.998	4.001
-346	0.210	0.005	4.100	0.028	4.130	4.497	4.500	4.493	4.123	4.126
-347	0.210	0.005	4.225	0.030	4.255	4.622	4.625	4.618	4.248	4.251
-348	0.210	0.005	4.350	0.030	4.380	4.747	4.750	4.743	4.373	4.376
-349	0.210	0.005	4.475	0.030	4.505	4.872	4.875	4.868	4.498	4.501

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-425	0.275	0.006	4.475	0.033	4.528	4.998	5.002	4.971	4.497	4.501
-426	0.275	0.006	4.600	0.033	4.653	5.123	5.127	5.096	4.622	4.626
-427	0.275	0.006	4.725	0.033	4.778	5.248	5.252	5.221	4.747	4.751
-428	0.275	0.006	4.850	0.033	4.903	5.373	5.377	5.346	4.872	4.876
-429	0.275	0.006	4.975	0.037	5.028	5.498	5.502	5.471	4.997	5.001
-430	0.275	0.006	5.100	0.037	5.153	5.623	5.627	5.596	5.122	5.126
-431	0.275	0.006	5.225	0.037	5.278	5.748	5.752	5.721	5.247	5.251
-432	0.275	0.006	5.350	0.037	5.403	5.873	5.877	5.846	5.372	5.376
-433	0.275	0.006	5.475	0.037	5.528	5.998	6.002	5.971	5.497	5.501
-434	0.275	0.006	5.600	0.037	5.653	6.123	6.127	6.096	5.622	5.626
-435	0.275	0.006	5.725	0.037	5.778	6.248	6.252	6.221	5.747	5.751
-436	0.275	0.006	5.850	0.037	5.903	6.373	6.377	6.346	5.872	5.876
-437	0.275	0.006	5.975	0.037	6.028	6.498	6.502	6.471	5.997	6.001
-438	0.275	0.006	6.225	0.040	6.278	6.748	6.752	6.721	6.247	6.251
-439	0.275	0.006	6.475	0.040	6.528	6.998	7.002	6.971	6.497	6.501

## Dynamic (moving) Rod and Piston O-Ring Gland Default Design Chart

DASH SIZE	O-RING CROSS-SECTION		O-RING DIAMETER		O.D. SEALING TYPE GLAND DIA (D)	O.D. SEALING TYPE PISTON DIA (E)	O.D. SEALING TYPE BORE DIA (F)	I.D. SEALING TYPE GLAND DIA (G)	I.D. SEALING TYPE ROD DIA (H)	I.D. SEALING TYPE BORE DIA (I)
	NOM	TOL +/-	NOM	TOL +/-	+0.000 / -.002	+0.000 / -.001	+0.002 / -.000	+0.002 / -.000	+0.000 / -.002	+0.001 / -.000
-440	0.275	0.006	6.725	0.040	6.778	7.248	7.252	7.221	6.747	6.751
-441	0.275	0.006	6.975	0.040	7.028	7.498	7.502	7.471	6.997	7.001
-442	0.275	0.006	7.225	0.045	7.278	7.748	7.752	7.721	7.247	7.251
-443	0.275	0.006	7.475	0.045	7.528	7.998	8.002	7.971	7.497	7.501
-444	0.275	0.006	7.725	0.045	7.778	8.248	8.252	8.221	7.747	7.751
-445	0.275	0.006	7.975	0.045	8.028	8.498	8.502	8.471	7.997	8.001
-446	0.275	0.006	8.475	0.055	8.528	8.998	9.002	8.971	8.497	8.501
-447	0.275	0.006	8.975	0.055	9.028	9.498	9.502	9.471	8.997	9.001
-448	0.275	0.006	9.475	0.055	9.528	9.998	10.002	9.971	9.497	9.501
-449	0.275	0.006	9.975	0.055	10.028	10.498	10.502	10.471	9.997	10.001
-450	0.275	0.006	10.475	0.060	10.528	10.998	11.002	10.971	10.497	10.501
-451	0.275	0.006	10.975	0.060	11.028	11.498	11.502	11.471	10.997	11.001
-452	0.275	0.006	11.475	0.060	11.528	11.998	12.002	11.971	11.497	11.501
-453	0.275	0.006	11.975	0.060	12.028	12.498	12.502	12.471	11.997	12.001
-454	0.275	0.006	12.475	0.060	12.528	12.998	13.002	12.971	12.497	12.501
-455	0.275	0.006	12.975	0.060	13.028	13.498	13.502	13.471	12.997	13.001
-456	0.275	0.006	13.475	0.070	13.528	13.998	14.002	13.971	13.497	13.501
-457	0.275	0.006	13.975	0.070	14.028	14.498	14.502	14.471	13.997	14.001
-458	0.275	0.006	14.475	0.070	14.528	14.998	15.002	14.971	14.497	14.501
-459	0.275	0.006	14.975	0.070	15.028	15.498	15.502	15.471	14.997	15.001
-460	0.275	0.006	15.475	0.070	15.528	15.998	16.002	15.971	15.497	15.501