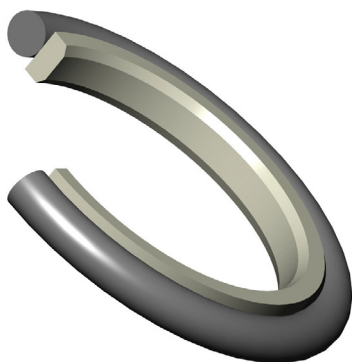


Glidetec™ Piston

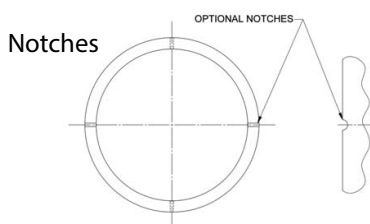


Glidetec™ Rod

Glidetec™ Options

Notches

Glidetec™ seals can be supplied with notches to optimize pressure response, in accordance with SAE AIR 1243. The piston designs typically have notched caps since they are bidirectional; rod types are typically unnotched.



O-Ring Energized Cap Seals

Bi-Directional Sealing

Greene Tweed's Glidetec™ o-ring energized cap seal offers simplicity and low cost. Suitable for use in spool valves or where AS or MIL spec grooves are not required, the Glidetec™ seal consists of a low-cost energizer and a heavy section cap. The Glidetec™ seal offers bidirectional sealing, low friction, and easy installation in compact single-piece glands.

Features and Benefits

- » Avalon® cap reduces dynamic and breakout friction versus single o-ring seals
- » Installs easily in compact single-piece glands, decreasing costs associated with maintenance
- » Use of industry standard o-rings means special designs are unnecessary, keeping costs low
- » Heavy section cap creates more stability in the gland
- » Cost-effective design for valve applications

Applications

- » Control modules in utility actuators
- » Linear actuators in landing gear systems
- » Valves in engine systems

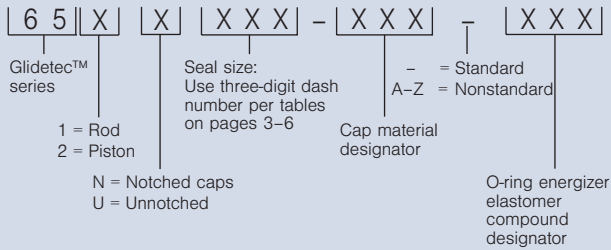
Glidetec™ Design

The Glidetec™ seal combines a cap typically made from our Avalon® (PTFE) material with an industry standard elastomeric energizer. Greene Tweed can also easily design o-rings and caps to fit custom nonstandard gland sizes.

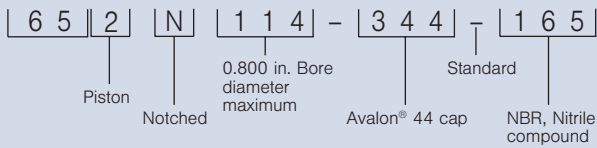
Note: See dimensional tables for Greene Tweed standard gland sizes.

Glidetec™ Part Numbering System

The part numbering system requires the use of the material designator tables found in the next column. For nonstandard designs, contact Greene Tweed engineering.



Part Numbering Example



Contact KLINGER for specific recommendations to suit higher performance requirements.

Material Designator Tables

Code	Elastomer Compound
160	NBR, Nitrile
161	NBR, Nitrile
165	NBR, Nitrile
193	NBR, Nitrile
409	FMVQ, Fluorosilicone
410	FMVQ, Fluorosilicone
735	FKM, Fluorocarbon
757	FKM, Fluorocarbon
772	FKM, Fluorocarbon
952	EPM, Ethylene Propylene
954	EPDM, Ethylene Propylene
963	EPDM, Ethylene Propylene
964	NBR, Nitrile

Code	Cap Material
301	Avalon® 01
043	Avalon® 07
019	Avalon® 09
344	Avalon® 44
069	Avalon® 50
357	Avalon® 57
379	Avalon® 69

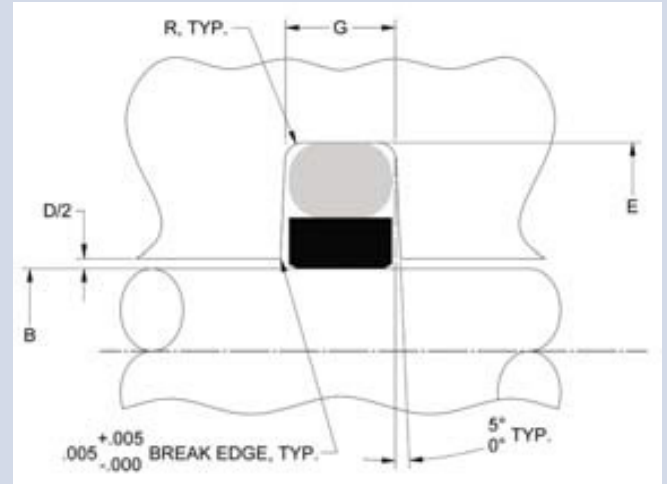
See Greene Tweed Surface Finish guidelines.

Rod Dimensional Information

Dash No.	E	B	O-Ring Dash No.	Dash No.	E	B	O-Ring Dash No.
	+0.001 -0.000	+0.000 -0.001			+0.002 -0.000	+0.000 -0.002	
006	0.259	0.123	007	128	1.748	1.498	129
007	0.290	0.154	008	129	1.810	1.560	130
008	0.321	0.185	009	130	1.873	1.623	131
009	0.353	0.217	010	131	1.935	1.685	132
010	0.422	0.248	011	132	1.998	1.748	133
011	0.484	0.310	012	133	2.060	1.810	134
012	0.547	0.373	013	134	2.123	1.873	135
	+0.002 -0.000	+0.000 -0.002		135	2.186	1.936	136
013	0.609	0.435	014	136	2.248	1.998	137
014	0.672	0.498	015	137	2.311	2.061	138
015	0.734	0.560	016	138	2.373	2.123	139
016	0.797	0.623	017	139	2.436	2.186	140
017	0.859	0.685	018	140	2.498	2.248	141
018	0.922	0.748	019	141	2.561	2.311	142
019	0.984	0.810	020	142	2.623	2.373	143
020	1.047	0.873	021	143	2.686	2.436	144
021	1.109	0.935	022	144	2.748	2.498	145
022	1.172	0.998	023	145	2.811	2.561	146
023	1.234	1.060	024	146	2.873	2.623	147
024	1.297	1.123	025	147	2.936	2.686	148
025	1.359	1.185	026	148	2.998	2.748	149
026	1.422	1.248	027	149	3.061	2.811	150
027	1.484	1.310	028	210	1.122	0.748	212
028	1.547	1.373	028	211	1.184	0.810	213
110	0.623	0.373	111	212	1.247	0.873	214
111	0.685	0.435	112	213	1.309	0.935	215
112	0.748	0.498	113	214	1.372	0.998	216
113	0.810	0.560	114	215	1.434	1.060	217
114	0.873	0.623	115	216	1.497	1.123	218
115	0.935	0.685	116	217	1.559	1.185	219
116	0.998	0.748	117	218	1.622	1.248	220
117	1.060	0.810	118	219	1.684	1.310	221
118	1.123	0.873	119	220	1.747	1.373	222
119	1.185	0.935	120	221	1.809	1.435	222
120	1.248	0.998	121	222	1.872	1.498	223
121	1.310	1.060	122	223	1.937	1.623	224
122	1.373	1.123	123	224	2.122	1.748	225
123	1.435	1.185	124	225	2.247	1.873	226
124	1.498	1.248	125	226	2.372	1.998	227
125	1.560	1.310	126	227	2.497	2.123	228
126	1.623	1.373	127	228	2.622	2.248	229
127	1.685	1.435	128	229	2.747	2.373	230

Rod Seal Installation

Rod Seal



Note: Rod diameters per AS4716. See Capabilities section for more information.

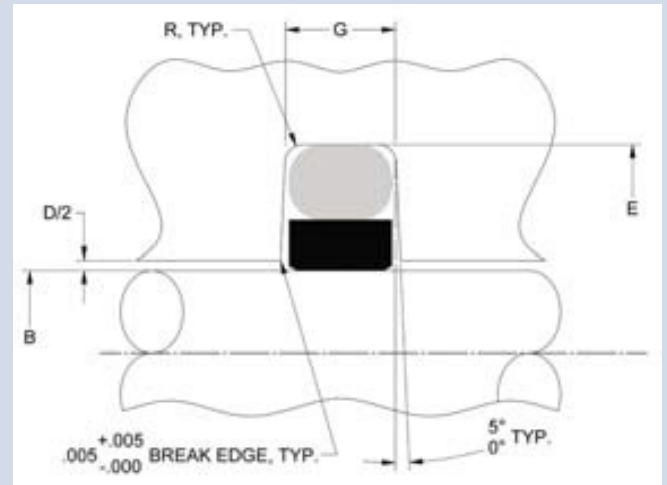
Rod Gland Dimensions (in Inches)

Dash No.	G Groove Width	R Radius	D
	+0.005/-0.000		
006 - 012	0.081	0.005/0.015	0.004
013 - 028	0.081	0.005/0.015	0.005
110 - 149	0.126	0.005/0.015	0.005
210 - 247	0.166	0.010/0.025	0.006
325 - 349	0.247	0.020/0.035	0.007
425 - 460	0.320	0.020/0.035	0.010

Rod Dimensional Information Continued (in Inches)

Dash No.	E	B	O-Ring Dash No.	Dash No.	E	B	O-Ring Dash No.
	+0.002 -0.000	+0.000 -0.002			+0.003 -0.000	+0.000 -0.003	
230	2.872	2.498	231	425	5.247	4.497	427
231	2.997	2.623	232	426	5.372	4.622	428
232	3.122	2.748	233	427	5.497	4.747	429
233	3.247	2.873	234	428	5.622	4.872	430
234	3.371	2.997	235	429	5.747	4.997	431
235	3.496	3.122	236	430	5.872	5.122	432
236	3.621	3.247	237	431	5.997	5.247	433
237	3.746	3.372	238	432	6.122	5.372	434
238	3.871	3.497	239	433	6.247	5.497	435
239	3.996	3.622	240	434	6.372	5.622	436
240	4.121	3.747	241	435	6.497	5.747	437
241	4.246	3.872	242	436	6.622	5.872	437
242	4.371	3.997	243	437	6.747	5.997	438
243	4.496	4.122	244	438	6.997	6.247	439
244	4.621	4.247	245	439	7.247	6.497	440
245	4.746	4.372	246	440	7.497	6.747	441
246	4.871	4.497	247	441	7.747	6.997	442
247	4.996	4.622	248	442	7.997	7.247	443
325	2.052	1.498	326	443	8.247	7.497	444
326	2.177	1.623	327	444	8.497	7.747	445
327	2.302	1.748	328	445	8.747	7.997	445
328	2.427	1.873	329	446	9.247	8.497	446
329	2.552	1.998	330		+0.004 -0.000	+0.000 -0.003	
330	2.677	2.123	331	447	9.747	8.997	447
331	2.802	2.248	332	448	10.247	9.497	448
332	2.927	2.373	333	449	10.747	9.997	449
333	3.052	2.498	334	450	11.247	10.497	450
334	3.177	2.623	335	451	11.747	10.997	451
335	3.302	2.748	336	452	12.247	11.497	452
336	3.427	2.873	337	453	12.747	11.997	453
337	3.551	2.997	338	454	13.247	12.497	454
338	3.676	3.122	339	455	13.747	12.997	455
339	3.801	3.247	340	456	14.247	13.497	456
340	3.926	3.372	341	457	14.747	13.997	457
341	4.051	3.497	342	458	15.247	14.497	458
342	4.176	3.622	343	459	15.747	14.997	459
343	4.301	3.747	344	460	16.247	15.497	460
344	4.426	3.872	345				
345	4.551	3.997	346				
346	4.676	4.122	347				
347	4.801	4.247	348				
348	4.926	4.372	349				
349	5.051	4.497	350				

Rod Seal



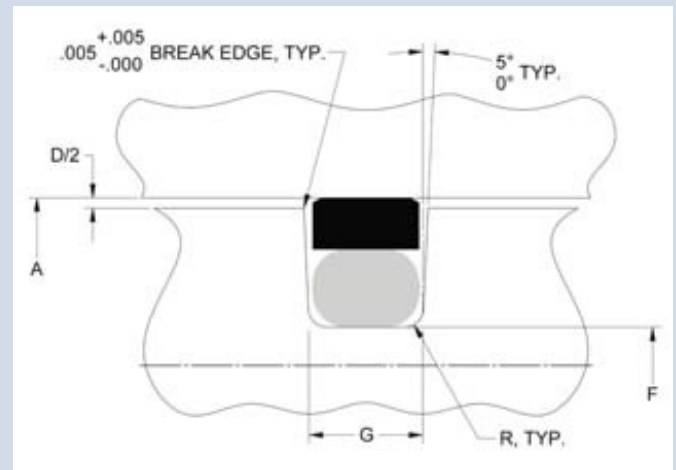
Note: Rod diameters per AS4716. See Capabilities section for more information.

Piston Dimensional Information (in Inches)

Dash No.	A	F	O-Ring Dash No.	Dash No.	A	F	O-Ring Dash No.
	+0.001 -0.000	+0.000 -0.001			+0.002 -0.000	+0.000 -0.002	
007	0.266	0.124	006	127	1.616	1.366	126
008	0.297	0.155	007	128	1.678	1.428	127
009	0.329	0.187	008	129	1.741	1.491	128
010	0.360	0.218	009	130	1.805	1.555	129
011	0.422	0.248	010	131	1.867	1.617	130
012	0.485	0.311	011	132	1.930	1.680	131
	+0.002 -0.000	+0.000 -0.002		133	1.992	1.742	132
013	0.550	0.376	012	134	2.055	1.805	133
014	0.613	0.439	013	135	2.118	1.868	134
015	0.675	0.501	014	136	2.180	1.930	135
016	0.738	0.564	015	137	2.243	1.993	136
017	0.800	0.626	016	138	2.305	2.055	137
018	0.863	0.689	017	139	2.368	2.118	138
019	0.925	0.751	018	140	2.430	2.180	139
020	0.991	0.817	019	141	2.493	2.243	140
021	1.053	0.879	020	142	2.555	2.305	141
022	1.116	0.942	021	143	2.618	2.368	142
023	1.178	1.004	022	144	2.680	2.430	143
024	1.241	1.067	023	145	2.743	2.493	144
025	1.303	1.129	024	146	2.805	2.555	145
026	1.366	1.192	025	147	2.868	2.618	146
027	1.428	1.254	026	148	2.930	2.680	147
028	1.491	1.317	027	149	2.993	2.743	148
110	0.550	0.300	109	210	0.991	0.617	208
111	0.613	0.363	110	211	1.053	0.679	209
112	0.675	0.425	111	212	1.116	0.742	210
113	0.738	0.488	112	213	1.178	0.804	211
114	0.800	0.550	113	214	1.241	0.867	212
115	0.863	0.613	114	215	1.303	0.929	213
116	0.925	0.675	115	216	1.366	0.992	214
117	0.991	0.741	116	217	1.428	1.054	215
118	1.053	0.803	117	218	1.491	1.117	216
119	1.116	0.866	118	219	1.553	1.179	217
120	1.178	0.928	119	220	1.616	1.242	218
121	1.241	0.991	120	221	1.678	1.304	219
122	1.303	1.053	121	222	1.741	1.367	220
123	1.366	1.116	122	223	1.805	1.430	221
124	1.428	1.178	123	224	1.867	1.493	222
125	1.491	1.241	124	225	1.930	1.555	223
126	1.553	1.303	125	226	1.992	1.618	224

Piston Seal Installation

Piston Seal



Note: Bore diameters per AS4716. See Capabilities section for more information.

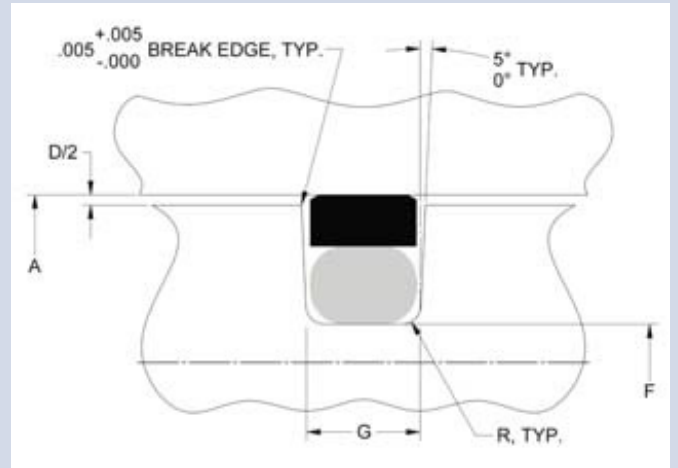
Piston Gland Dimensions (in Inches)

Dash No.	G Groove Width	R Radius	D
	+0.005/-0.000		
007 - 012	0.081	0.005/0.015	0.004
013 - 028	0.081	0.005/0.015	0.005
110 - 149	0.126	0.005/0.015	0.005
210 - 247	0.166	0.010/0.025	0.006
325 - 352	0.247	0.020/0.035	0.007
425 - 460	0.320	0.020/0.035	0.010

Piston Dimensional Information Continued (in Inches)

Dash No.	A	F	O-Ring Dash No.	Dash No.	A	F	O-Ring Dash No.
	+0.002 -0.000	+0.000 -0.002			+0.003 -0.000	+0.000 -0.003	
227	2.368	1.994	226	428	5.349	4.599	425
228	2.493	2.119	227	429	5.474	4.724	426
229	2.618	2.244	228	430	5.599	4.849	427
230	2.743	2.369	229	431	5.724	4.974	428
231	2.868	2.494	230	432	5.849	5.099	429
232	2.993	2.619	231	433	5.974	5.224	430
233	3.118	2.744	232	434	6.099	5.349	431
234	3.243	2.869	233	435	6.224	5.474	432
235	3.368	2.994	234	436	6.349	5.599	433
236	3.493	3.119	235	437	6.474	5.724	434
237	3.618	3.244	236	438	6.724	5.974	436
238	3.743	3.369	237	439	6.974	6.224	437
239	3.868	3.494	238	440	7.224	6.474	438
240	3.993	3.619	239	441	7.474	6.724	439
241	4.118	3.744	240	442	7.724	6.974	440
242	4.243	3.869	241	443	7.974	7.224	441
243	4.368	3.994	242	444	8.224	7.474	443
244	4.493	4.119	243	445	8.474	7.724	443
245	4.618	4.244	244	446	8.974	8.224	445
246	4.743	4.369	245		+0.004 -0.000	+0.000 -0.003	
247	4.868	4.494	246	447	9.474	8.724	446
325	1.867	1.313	323	448	9.974	9.224	447
326	1.992	1.438	324	449	10.474	9.724	448
327	2.118	1.564	325	450	10.974	10.224	449
328	2.243	1.689	326	451	11.474	10.724	450
329	2.368	1.814	327	452	11.974	11.224	451
330	2.493	1.939	328	453	12.474	11.724	452
331	2.618	2.064	329	454	12.974	12.224	453
332	2.743	2.189	330	455	13.474	12.724	454
333	2.868	2.314	331	456	13.974	13.224	455
334	2.993	2.439	332	457	14.474	13.724	456
335	3.118	2.564	333	458	14.974	14.224	457
336	3.243	2.689	334	459	15.474	14.724	458
337	3.368	2.814	335	460	15.974	15.224	459
338	3.493	2.939	336				
339	3.618	3.064	337				
340	3.743	3.189	338				
341	3.868	3.314	339				
342	3.993	3.439	340				
343	4.118	3.564	341				
344	4.243	3.689	342				
345	4.368	3.814	343				
346	4.493	3.939	344				
347	4.618	4.064	345				
348	4.743	4.189	346				
349	4.868	4.314	347				

Piston Seal



Note: Bore diameters per AS4716. See Capabilities section for more information.

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

KLINGER Limited

AUSTRALIA

Western Australia - Head Office
38 McDowell Street
Welshpool WA 6106

Queensland
Unit 3, 5-7 Roseanna Street
Gladstone QLD 4680

Tel: 1300 798 279
(calls within Australia)

Tel: +61 8 9251 1688
(calls outside Australia)

NEW ZEALAND

Tel: +64 272 735 045

SINGAPORE

105 Cecil Street #07-01, The Octagon
Singapore 069534
Tel: +65 6827 9045

KLINGER Thailand

501/2 Moo 2, Tambol Mabyangporn
Amphur Ruak Daeng
Rayong 21140 Thailand
Tel: +66 3306 0154