



STATIC FACE™ SEAL

High-performance Seal for Face-mounted Assemblies

ELIMINATES EXTRUSION AND NIBBLING

Greene, Tweed's Static Face™ Seals are designed to eliminate sealing problems in face-mounted assemblies where large clearances can occur and/or pressures up to 10,000 psi (690 bar) are encountered. Engineered as a "drop-in" replacement for O-rings in seal glands with applied depth and length per MIL-G-5514, the Static Face seal consists of an L-shaped elastomeric sealing element with a hydro-mechanically energized mating back-up ring.

For the blind mounting conditions of pumps, valves and manifolds, use the "50" series designator for a press-fit backup that retains the seal within the gland for ease of assembly and field repairs.

At zero or low pressure the Static Face Seal's elastomeric element functions as a positive sealing element, much like an O-ring. As pressure builds, this element transmits system pressure to the anti-extrusion ring forcing it against the gland wall and bridging any extrusion gaps that are generated as a result of hardware expansion.



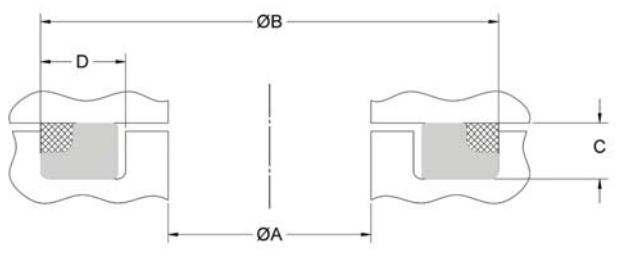
Static Face Seal

STATIC FACE CONFIGURATIONS

Standard aerospace Static Face seals are designed for internal pressurization. Seals for external pressurization are available on request.

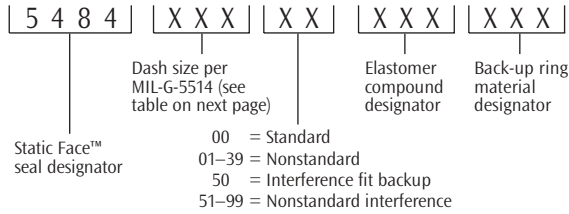
Gland Dimensions

Static Face Seal Gland

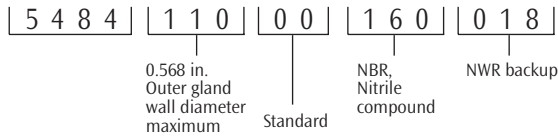


STATIC FACE™ PART NUMBERING SYSTEM

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



Part Numbering Example



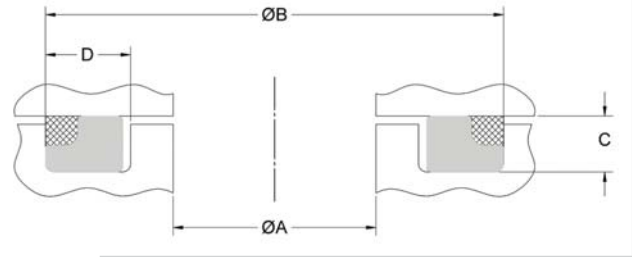
Contact your local Greene, Tweed representative for specific recommendations to suit higher performance requirements.

Material Designator Tables

CODE	ELASTOMER COMPOUND
160	NBR, Nitrile
161	NBR, Nitrile
409	FVMQ, Fluorosilicone
731	FKM, Fluorocarbon
772	FKM, Fluorocarbon
952	EPM, Ethylene Propylene
954	EPDM, Ethylene Propylene
964	NBR, Nitrile
965	HNBR, Hydrogenated Nitrile
987	NBR, Nitrile

CODE	BACK-UP MATERIAL
301	Avalon® 01
043	Avalon 07
019	Avalon 09
344	Avalon 44
357	Avalon 57
379	Avalon 69
389	Avalon 89
018	NWR
046	Arlon® 1000
039	Arlon 1330
036	Arlon 1555

For Reference: Static Face Seal Gland



Maximum Clearance Gaps

DASH NO.	RECOMMENDED MAXIMUM EXTRUSION GAP (IN INCHES) (at normal operating conditions)
008 – 028	0.008 in.
110 – 135	0.013 in.
210 – 247	0.018 in.
325 – 349	0.025 in.

See GT Surface Finish guidelines.

DIMENSIONAL INFORMATION (IN INCHES)

MIL-G-5514 GT DASH NO.	ØA MAX.	ØB* $\begin{matrix} +0.000 \\ -0.005 \end{matrix}$	C ± 0.001	GLAND WIDTH D $\begin{matrix} +0.010 \\ -0.000 \end{matrix}$
008	0.034	0.316	0.057	0.094
009	0.066	0.348		
010	0.097	0.379		
011	0.159	0.441		
012	0.222	0.504		
013	0.284	0.566		
014	0.347	0.629		
015	0.409	0.691		
016	0.472	0.754		
017	0.534	0.816		
018	0.597	0.879		
019	0.659	0.941		
020	0.722	1.004		
021	0.784	1.066		
022	0.847	1.129		
023	0.909	1.191		
024	0.972	1.254		
025	1.034	1.316		
026	1.097	1.379		
027	1.159	1.441		
028	1.222	1.504		
110	0.145	0.568	0.090	0.141
111	0.207	0.630		
112	0.270	0.693		
113	0.332	0.755		
114	0.395	0.818		
115	0.457	0.880		
116	0.520	0.943		
117	0.582	1.005		
118	0.645	1.068		
119	0.707	1.130		
120	0.770	1.193		
121	0.832	1.255		
122	0.895	1.318		
123	0.957	1.380		
124	1.020	1.443		
125	1.082	1.505		
126	1.145	1.568		
127	1.207	1.630		
128	1.270	1.693		
129	1.332	1.755		
130	1.395	1.818		
131	1.457	1.880		
132	1.520	1.943		
133	1.582	2.005		
134	1.645	2.068		
135	1.708	2.131		
210	0.448	1.012	0.122	0.188
211	0.510	1.074		
212	0.573	1.137		
213	0.635	1.199		
214	0.698	1.262		
215	0.760	1.324		
216	0.823	1.387		
217	0.885	1.449		
218	0.948	1.512		
219	1.010	1.574		
220	1.073	1.637		
221	1.135	1.699		

MIL-G-5514 GT DASH NO.	ØA MAX.	ØB* $\begin{matrix} +0.000 \\ -0.005 \end{matrix}$	C ± 0.001	GLAND WIDTH D $\begin{matrix} +0.010 \\ -0.000 \end{matrix}$
222	1.198	1.762	0.122	0.188
223	1.323	1.887		
224	1.448	2.012		
225	1.573	2.137		
226	1.698	2.262		
227	1.823	2.387		
228	1.948	2.512		
229	2.073	2.637		
230	2.198	2.762		
231	2.323	2.887		
232	2.448	3.012		
233	2.573	3.137		
234	2.698	3.262		
235	2.823	3.387		
236	2.948	3.512		
237	3.073	3.637		
238	3.198	3.762		
239	3.323	3.887		
240	3.448	4.012		
241	3.573	4.137		
242	3.698	4.262		
243	3.823	4.387		
244	3.948	4.512		
245	4.073	4.637		
246	4.198	4.762		
247	4.323	4.887		
325	1.052	1.895	0.187	0.281
326	1.177	2.020		
327	1.302	2.145		
328	1.427	2.270		
329	1.552	2.395		
330	1.677	2.520		
331	1.802	2.645		
332	1.927	2.770		
333	2.052	2.895		
334	2.177	3.020		
335	2.302	3.145		
336	2.427	3.270		
337	2.552	3.395		
338	2.677	3.520		
339	2.802	3.645		
340	2.927	3.770		
341	3.052	3.895		
342	3.177	4.020		
343	3.302	4.145		
344	3.427	4.270		
345	3.552	4.395		
346	3.677	4.520		
347	3.802	4.645		
348	3.927	4.770		
349	4.052	4.895		

* For 50 Series ØB Tolerance = $\begin{matrix} +0.000 \\ -0.003 \end{matrix}$



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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.

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