

**INDUSTRIAL
RSA SCRAPER™**
*Compression - Actuated
Exclusion Device*



The Greene, Tweed RSA Scraper is a compression-actuated exclusion device proven to provide near-perfect contaminant exclusion in extremely rugged service conditions. Based on the well-established principle of compression-actuation, it maintains constant rod and gland contact even in extreme cold, and under high linear speeds and heavy side loading, assuring a tight seal at both the dynamic and static interfaces.

SCRAPER CONFIGURATION

The RSA Scraper's straightforward one-piece design eliminates the major contaminant path found in split configurations, and its rectangular cross-section virtually eliminates roll or twist. Actuated with a highly resilient elastomeric energizer, the RSA Scraper is designed to retain sufficient upstream fluid to assure lubrication of the primary seal.

TABLE 1 DIMENSIONAL INFORMATION

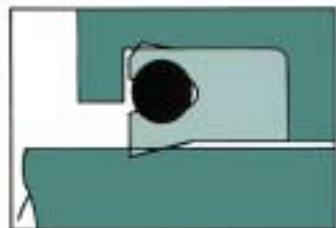
NOMINAL CROSS SECTION	O-RING DASH NUMBER	ØD ROD DIA.	ØD GLAND DIA.	ØL GLAND LIP DIA. (+.010 -.000)	G GLAND LENGTH (+.010 -.000)		GREENE, TWEED PART NUMBER			
					SHORT	STANDARD				
1/8	204	.373	.616	.485	.188	.235	4553-20400-320B			
	205	.435	.678	.546			4553-20500-320B			
	206	.498	.741	.610			4553-20600-320B			
	207	.560	.803	.672			4553-20700-320B			
	208	.623	.866	.735			4553-20800-320B			
	209	.685	.928	.797			4553-20900-320B			
	210	.748	.991	.860			4553-21000-320B			
	211	.810	1.053	.922			4553-21100-320B			
	212	.873	1.116	.985			4553-21200-320B			
	213	.935	1.178	1.047			4553-21300-320B			
	214	.998	1.241	1.110			4553-21400-320B			
	215	1.060	1.303	1.172			4553-21500-320B			
	216	1.123	1.366	1.235			4553-21600-320B			
	217	1.185	1.428	1.297			4553-21700-320B			
	218	1.248	1.491	1.360			4553-21800-320B			
	219	1.310	1.553	1.422			4553-21900-320B			
	220	1.373	1.616	1.485			4553-22000-320B			
	221	1.435	1.678	1.547			4553-22100-320B			
	222	1.498 +.000	1.741 +.002	1.610			4553-22200-320B			
	3/16	325	1.498 -.002	1.870 -.000			1.674	.281	.334	4553-32500-320B
		326	1.623	1.995			1.799			4553-32600-320B
		327	1.748	2.120			1.924			4553-32700-320B
328		1.873	2.245	2.049	4553-32800-320B					
329		1.998	2.370	2.174	4553-32900-320B					
330		2.123	2.495	2.299	4553-33000-320B					
331		2.248	2.620	2.424	4553-33100-320B					
332		2.373	2.745	2.549	4553-33200-320B					
333		2.498	2.870	2.674	4553-33300-320B					
334		2.623	2.995	2.799	4553-33400-320B					
335		2.748	3.120	2.924	4553-33500-320B					
336		2.873	3.245	3.049	4553-33600-320B					
337		2.997	3.369	3.173	4553-33700-320B					
338		3.122	3.494	3.299	4553-33800-320B					
339		3.247	3.619	3.423	4553-33900-320B					
340		3.372	3.744	3.548	4553-34000-320B					
341		3.497	3.869	3.673	4553-34100-320B					
342		3.622	3.994	3.799	4553-34200-320B					
343		3.747	4.119	3.923	4553-34300-320B					
344		3.872	4.244	4.048	4553-34400-320B					
345		3.997	4.369	4.173	4553-34500-320B					
346		4.122	4.494	4.299	4553-34600-320B					
347		4.247	4.619	4.423	4553-34700-320B					
348		4.372	4.744	4.548	4553-34800-320B					
349		4.497	4.869	4.673	4553-34900-320B					

Notes:

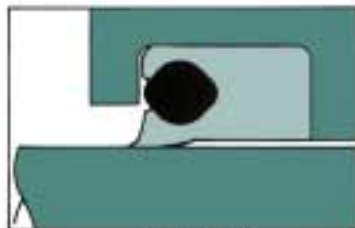
1. The Greene, Tweed part number specifies the standard gland length (preferred for better anti-roll stability), #320 urethane compound for the scraper and #191 compound (60 durometer nitrile) for the energizer.
2. Where axial space is restricted use shore gland length (for other gland lengths, and other seal materials, please contact GTC Engineering).
3. Tooling may not be available for all combinations of seal sizes and materials. Contact GTC Engineering for further information. The RSA Scraper will not fit NFPA-T3.19.7 R1 glands or MS33675 glands.

INDUSTRIAL RSA SCRAPER™

Rubber Spring Actuated Exclusion Device

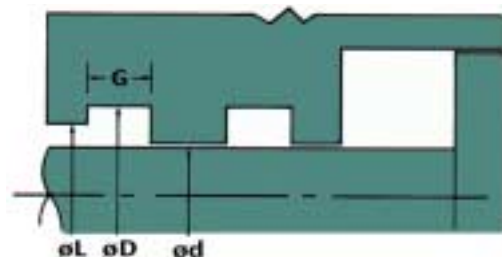


FREE-STANDING



INSTALLED

GLAND DETAIL



Gland details to MIL-G-5514F unless otherwise specified.

TABLE 2 DIMENSIONAL INFORMATION

NOMINAL CROSS SECTION	O-RING DASH NUMBER	ØD ROD DIA.	ØD GLAND DIA.	ØL GLAND LIP DIA. (+.010 -0.000)	G GLAND LENGTH (+.010 -0.000)		GREENE, TWEED PART NUMBER
					SHORT	STANDARD	
1/4	425	4.497	4.974	4.726	.375	.475	4553-42500-320B
	426	4.622	5.099	4.851			4553-42600-320B
	427	4.747	5.224	4.976			4553-42700-320B
	428	4.872	5.349	5.101			4553-42800-320B
	429	4.997	5.474	5.226			4553-42900-320B
	430	5.122	5.599	5.341			4553-43000-320B
	431	5.247	5.724	5.476			4553-43100-320B
	432	5.372	5.849	5.601			4553-43200-320B
	433	5.497	5.974	5.726			4553-43300-320B
	434	5.622	6.099	5.841			4553-43400-320B
	435	5.747	6.224	5.976			4553-43500-320B
	436	5.872	6.349	6.101			4553-43600-320B
	437	5.997	6.474	6.226			4553-43700-320B
	438	6.247	6.724	6.476			4553-43800-320B
	439	6.497+.000	6.974+.003	6.726			4553-43900-320B
	440	6.747 -.003	7.224 -.000	6.976			4553-44000-320B
	441	6.997	7.474	7.226			4553-44100-320B
	442	7.247	7.724	7.476			4553-44200-320B
	443	7.497	7.974	7.726			4553-44300-320B
	444	7.747	8.224	7.976			4553-44400-320B
	445	7.997	8.474	8.226			4553-44500-320B
	446	8.497	8.974	8.726			4553-44600-320B
	447	8.997	9.474	9.226			4553-44700-320B
	448	9.497	9.974	9.726			4553-44800-320B
	449	9.997	10.474	10.226			4553-44900-320B
	450	10.497	10.974	10.726			4553-45000-320B
	451	10.997	11.474	11.226			4553-45100-320B
	452	11.497	11.974	11.726			4553-45200-320B
453	11.997	12.474	12.226	4553-45300-320B			
454	12.497	12.974	12.726	4553-45400-320B			

GLAND DESIGN

Designed for "snap-in" O-ring glands, the RSA Scraper eliminates the need for costly followers and complex gland designs, and can be wholly incorporated into the bearing retaining nut (will also fit two-piece gland configurations). In larger sizes, the RSA Scraper can be designed to fit virtually all existing specialty exclusion device glands. NOTE: The downstream portion of the scraper gland should be increased to one-half of gland depth to prevent contaminant packing.

SURFACE FINISHES

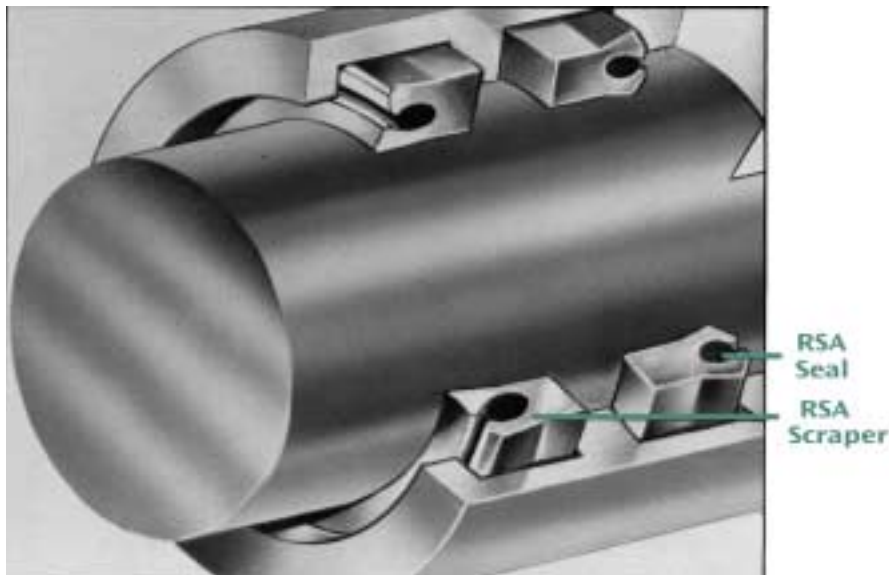
For optimal scraper performance, we recommend a dynamic (rod) finish of 16µ in. RMS maximum, and a static (gland) finish of 32µ in. RMS maximum. Less than optimal, but acceptable performance is possible with finishes to 32µ in. RMS dynamic, and 64µ in. RMS static.

MATERIALS

The standard industrial RSA Scraper is manufactured of Greene, Tweed's proprietary #320 urethane polymer and its energizer of #191 compound, a 60 durometer, high modulus, low-compression set nitrile elastomer. Other materials and compounds are available. Please contact GTC Engineering for specific recommendations.

INDUSTRIAL RSA SCRAPER™

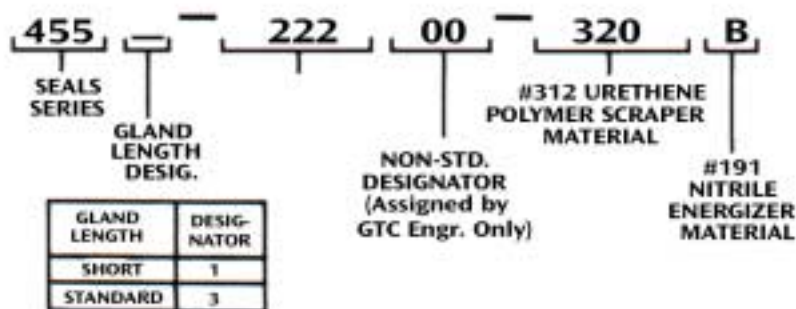
Rubber Spring Actuated Exclusion Device



**TABLE 3 320 COMPOUND
TYPICAL PHYSICAL PROPERTIES**

Hardness Shore A	94
Tensile Strength (psi)	6400
Ultimate Elongation	475%
Modulus @ 100% Elongation (psi)	1973
Modulus @ 300% Elongation (psi)	3542
Brittle Point (ASTM D-746)	<-40°F
Tear Strength (pli) (ASTM D-624-Die C)	850
Resilience-Bayshore ASTM D-2632-67)	35.7%
Compression Set-Method B	
22 hr./158°F	25%
70 hr./158°F	30%
70 hr./212°F	35%

PART NUMBERING



www.gtweed.com

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

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