



RSA SEAL®

With Full Heel Bearing

RUGGED “U”-TYPE SEAL FOR LOW TEMPERATURES

Greene, Tweed’s RSA Seal® (Rubber-Spring Actuated) offers low compression set, high tear resistance, modulus, abrasion resistance and long life in rugged operating conditions. The RSA seal with full heel bearing is a compact, pressure-compensating U-type seal made from a proprietary high-molecular weight elastomer formulated for low-temperature performance. It incorporates an O-ring energizer to apply uniform radial loading on the seal’s back-beveled lip. The Avalon® heel bearing serves as a low friction, high-shear strength stabilizer to maintain exact lip-point interference between the seal and sealing surface. This results in no leakage during ovalization and breathing during deflection of the strut.

FEATURES & BENEFITS

- Dry sealing through low-temperature and low-pressure conditions, reducing potential leakage and alleviating environmental concerns
- Proprietary, specially formulated urethane elastomer provides low compression set leading to high resilience along with high tear strength and high abrasion resistance
- Service proven long life in rugged operating conditions enables designers to meet objectives of increasing system pressures and equipment weight reductions
- Elliptical annulus design provides free space behind the energizer allowing for axial expansion and assuring positive retention of the rubber springs; the energizer remains wholly within the seal at all times ensuring maximum radial force at the seal lips, optimizing low temperature/low pressure performance

APPLICATIONS

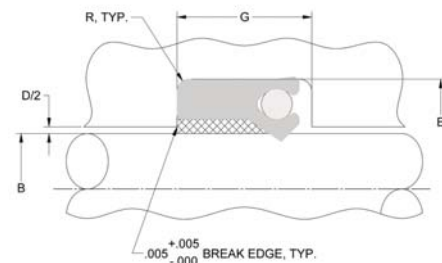
- Dynamic, unidirectional landing gear applications
- Accumulators and reservoirs
- Unidirectional utility actuators



RSA Seal with Heel Bearing

RSA CONFIGURATION

RSA Rod with Heel Bearing

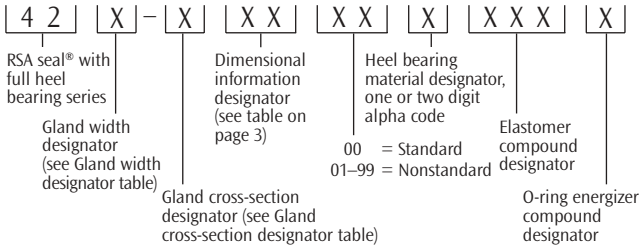


*Note: R and D as specified in AS4716.

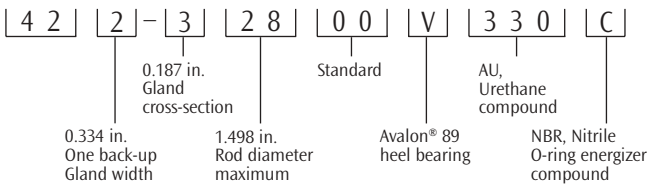


RSA SEAL® PART NUMBERING SYSTEM

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
330	AU, Urethane
369	AU, Urethane
845	EPDM, Ethylene Propylene
927	FKM, Fluorocarbon
984	XNBR, Carboxylated Nitrile

CODE	HEEL BEARING MATERIAL
Q	Avalon 07
B	Avalon 09
AA	Avalon 44
AG	Avalon 57
V	Avalon 89

CODE	O-RING ENERGIZER COMPOUND
C	165 NBR, Nitrile
H	193 NBR, Nitrile
G	367 AU, Urethane
D	735 FKM, Fluorocarbon
R	757 FKM, Fluorocarbon
J	963 EPDM, Ethylene Propylene

Gland Cross-Section Designator Table

GLAND CX (NOM.)	GLAND WIDTH (+0.010 -0.000) CODE					
	*G	DESIGNATOR	G	DESIGNATOR	G	DESIGNATOR
0.122	0.188	1	0.235	2	0.304	7
0.187	0.281	1	0.334	2	0.424	7
0.240	0.375	1	0.475	2	0.579	7

*Note: This seal type is not recommended for no back-up gland width.

Gland Width Designator Table

GLAND CX (NOM.)	DESIGNATOR
0.122	1
0.187	3
0.240	4

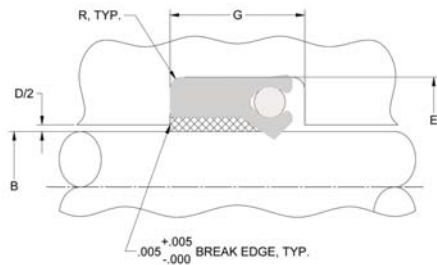
See GT Surface Finish guidelines.

DIMENSIONAL INFORMATION (IN INCHES)

GLAND CX CODE	GREENE, TWEED SIZE DASH NO. DESIGNATOR	MIL-G-5514/AS4716 DASH NO.	B ROD +0.000 -0.002	E GLAND +0.002 -0.000
1	15	210	0.748	0.991
	16	211	0.810	1.053
	17	212	0.873	1.116
	18	213	0.935	1.178
	19	214	0.998	1.241
	20	215	1.060	1.303
	21	216	1.123	1.366
	22	217	1.185	1.428
	23	218	1.248	1.491
	24	219	1.310	1.553
	25	220	1.373	1.616
	26	221	1.435	1.678
	27	222	1.498	1.741
	3	28	325	1.498
29		326	1.623	1.995
30		327	1.748	2.120
31		328	1.873	2.245
32		329	1.998	2.370
33		330	2.123	2.495
34		331	2.248	2.620
35		332	2.373	2.745
36		333	2.498	2.870
37		334	2.623	2.995
38		335	2.748	3.120
39		336	2.873	3.245
40		337	2.997	3.369
41		338	3.122	3.494
42		339	3.247	3.619
43		340	3.372	3.744
44		341	3.497	3.869
45		342	3.622	3.994
46		343	3.747	4.119
47		344	3.872	4.244
48		345	3.997	4.369
49		346	4.122	4.494
50		347	4.247	4.619
51		348	4.372	4.744
52		349	4.497	4.869

GLAND CX CODE	GREENE, TWEED SIZE DASH NO. DESIGNATOR	MIL-G-5514/AS4716 DASH NO.	B ROD +0.000 -0.003	E GLAND +0.003 -0.000
4	52	425	4.497	4.974
	53	426	4.622	5.099
	54	427	4.747	5.229
	55	428	4.872	5.349
	56	429	4.997	5.474
	57	430	5.122	5.599
	58	431	5.247	5.724
	59	432	5.372	5.849
	60	433	5.497	5.974
	61	434	5.622	6.099
	62	435	5.747	6.224
	63	436	5.872	6.349
	64	437	5.997	6.474
	65	438	6.247	6.724
66	439	6.497	6.974	
67	440	6.747	7.224	
68	441	6.997	7.474	
69	442	7.247	7.724	
70	443	7.497	7.974	
71	444	7.747	8.224	
72	445	7.997	8.474	
73	446	8.497	8.97	
4	74	447	8.997	9.474
	75	448	9.497	9.974
	76	449	9.997	10.474
	77	450	10.497	10.974
	78	451	10.997	11.474
	79	452	11.497	11.974
	80	453	11.997	12.474
	81	454	12.497	12.974
	82	455	12.997	13.474
	83	456	13.497	13.974
	84	457	13.997	14.474
	85	458	14.497	14.974
	86	459	14.997	15.474
	87	460	15.497	15.974

For Reference: RSA Rod with Heel Bearing



*Note: R and D as specified in MIL-G-5514/AS4716.



Contact Us

Greene, Tweed & Co.
Aerospace
Kulpsville, PA, USA

Tel: +1.215.256.9521
Tel: +1.800.220.4733
Fax: +1.215.513.9411

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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