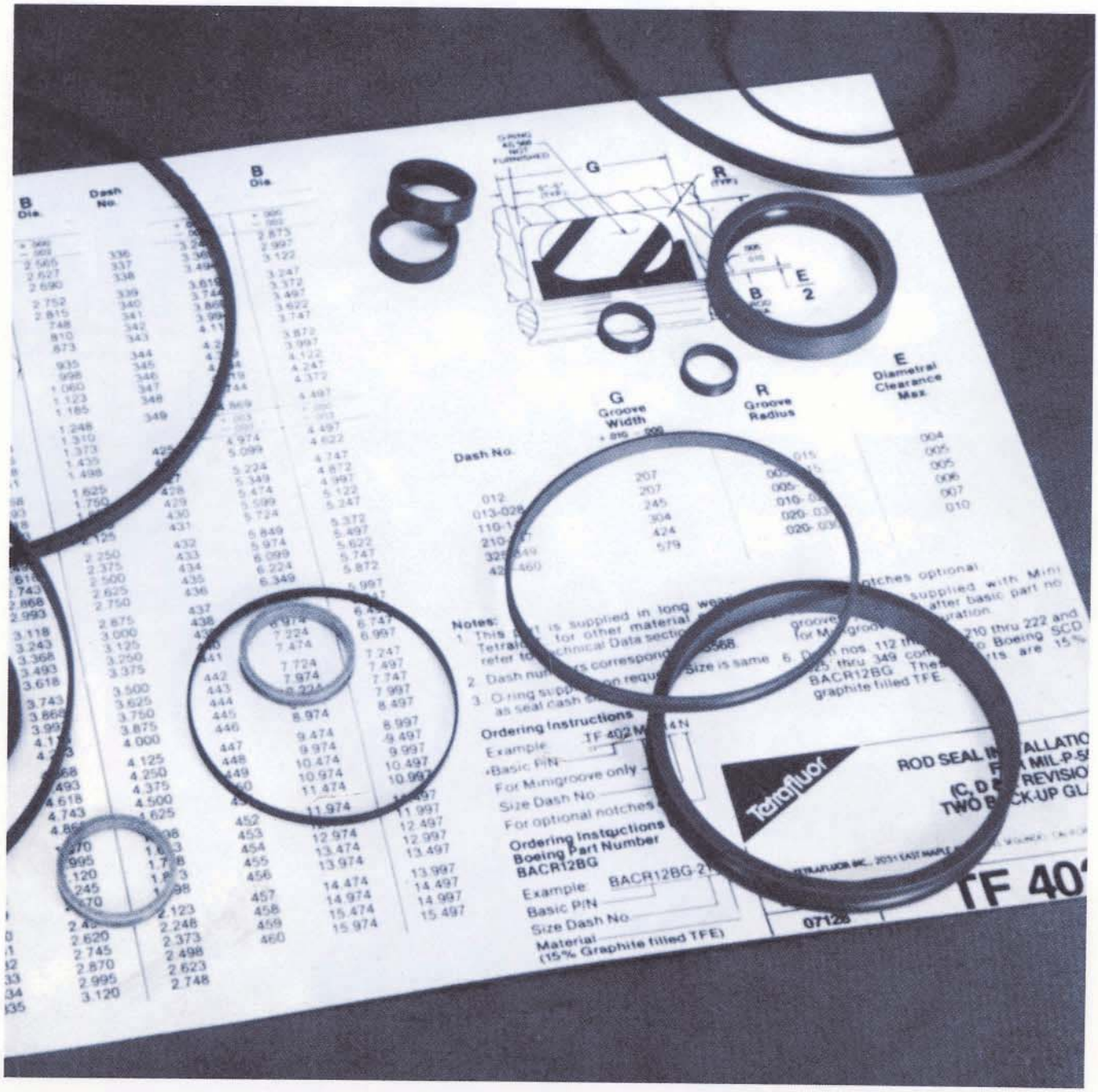
CoorsTek
Amazing Solutions.

Seals Selector Handbook

FORMERLY TETRAFLUOR



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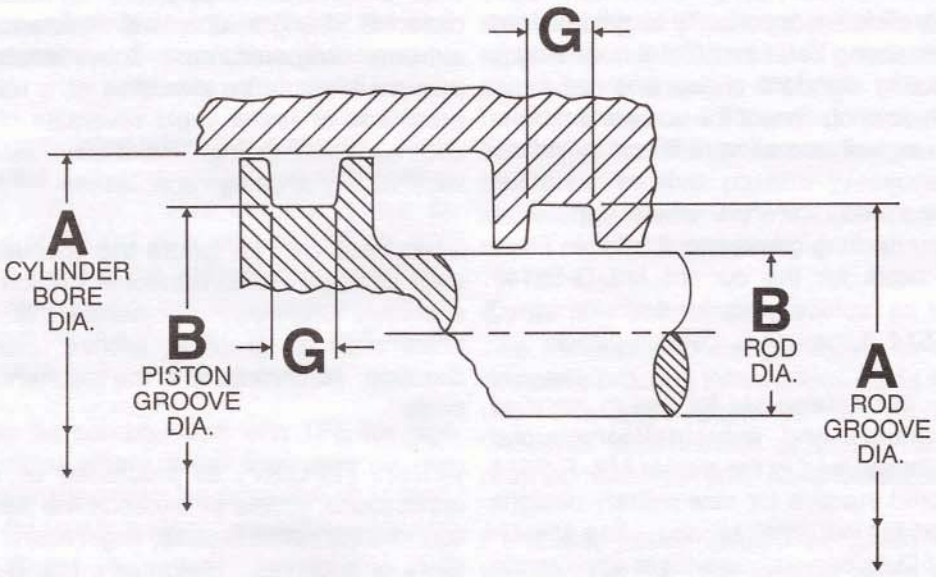


Comparison of MIL-G-5514F with MIL-P-5514 Revisions C, D, and E

MIL-P-5514A & B are the original series specifications which are now obsolete for new design...Dimensionally MIL-P-5514A & B differ significantly from MIL-P-5514C, D & E and MIL-G-5514F.

Dash No.	Comments
-110, -112, -114, -116 and -337 thru -349	Cylinder bore and piston groove diameters of Rev. F are .001 less than those specified for Revisions C, D & E.
-327 thru -336	Cylinder bore and piston groove diameters of Rev. F are .002 less than those specified for Revisions C, D & E.
-325 and -326	Cylinder bore and piston groove diameters of Rev. F are .003 less than those specified for Revisions C, D & E.
-210 thru -247	Width (G) of one-back-up grooves of Rev. F is .010 greater than those specified for Revisions C, D & E.
-425 thru -460	Width (G) of one-back-up grooves of Rev. F is .035 greater than those specified for Revisions C, D & E.

TECHNICAL DATA SECTION

Seals Design

Thanks for giving CoorsTek the opportunity to get involved with your sealing application. You'll find that this catalog is easy to use for selecting standard piston and rod seals since each installation drawing shows the complete dimensioning of seal glands as well as mating rods and cylinders.

The seal configurations also reference, where applicable, the appropriate military packing gland specification. Thus, there are CoorsTek seals for the current MIL-G-5514F gland designs as well as replacements for seals designed to operate in MIL-P-5514, A through E revision glands.

Some seals shown in this catalog are for use in modified military/aerospace glands and industrial/commercial standards. Some of those used in the earlier MIL-P-5514 revisions are considered inactive for new military designs but can be considered for industrial service. The MIL-G-5514 designs, "Heavy-Duty Service", are more appropriate for current fluid power systems, which require longer seal life and longer periods of operation at elevated temperature.

CoorsTek's patented MiniGroove® feature can be supplied on most sealing surfaces. This exclusive process helps seal against low pressures and yields even lower friction coefficients than normally available.

The material property charts will assist you in selecting the right material for the job. While such charts are helpful, they should not be considered the ultimate authority but should be used as a guide only. In the long run, the best authority is the experience that comes with designing literally thousands of seals for aircraft, military and industrial applications. Let CoorsTek get involved at the outset of your design and we can probably save you a lot of time and money in the long run.

Materials

"Teflon*" is the registered trademark of the DuPont Company for its fluorocarbon resins and is known generically as PTFE (polytetrafluoroethylene). There are about a dozen manufacturers of PTFE resins today who supply the raw materials to processors. CoorsTek processes these materials and fabricates finished parts for customers throughout the world...and has been doing this for over a quarter of a century.

In addition to the general properties of Teflon* and Teflon* blends shown on the charts, there are other authoritative works on the subject, which have been published by the major manufacturers of fluorocarbon resins. These publications are available to you through your CoorsTek representative.

Teflon* seals provide the lowest coefficient of friction available with state-of-the-art materials as well as other excellent mechanical properties for low moisture absorption, dielectric strength, chemical resistance and operation at extreme temperatures. Some seals are designed to prevent blowout or extrusion of a rubber O-ring at high pressures or under rapid reversals of pressure. Others, such as Teflon* O-rings, make excellent static seals under a wide variety of design conditions.

In no case can we ignore the specially processed resins such as virgin PTFE Tetralon® - which is processed for its extremely long-wearing properties - or materials containing fillers such as graphite, bronze, glass or molybdenum disulfide. All contribute to the mechanical properties of the seals.

VIRGIN TEFLON*, as processed by CoorsTek for seals applications, meets or exceeds the MIL-R-8791 specification. As the name implies, virgin resins are molded without fillers or additives. Historically, MIL-R-8791 has been the one selected by seal designers when they want to be assured of getting virgin material. A recent MIL-R-8791 specification (Amendment 1 to the "C" Revision) was changed to permit the use of reprocessed material, which left the design engineer somewhat at a loss when it came to specifying virgin Teflon*. Revision "D", however, specifically excludes the use of reprocessed materials. In any event, CoorsTek does not approve the use of reprocessed Teflon* for seals design. A callout such as MIL-R-8791, under any revision, is interpreted by CoorsTek as premium grade virgin PTFE.

There is another common specification, AMS3651, which is sometimes specified by the seal designer who may be under the erroneous assumption that it, too, is virgin PTFE. Unfortunately, AMS3651 does allow the use of reprocessed material and the design engineer must be very selective in his choice of suppliers to be sure he is getting virgin PTFE when it is required.

TETRALON® is virgin PTFE, and is a registered trademark of CoorsTek for its longwearing Teflon* material, which also embodies superior anti-extrusion and dimensional stability properties. Otherwise, there is virtually no noticeable difference in the mechanical properties of Tetralon® vs. Teflon* except that the former will outwear Teflon* by anywhere from 10 to 100 times. This material is color-coded blue by means of a special dye. It should be noted that, in some applications, Tetralon® might require a few additional "wearing in" cycles to burnish the cylinder or rod. After that, it will wear for a very long time as a most effective seal.

GLASS FIBER is widely used filler for PTFE seals. Depending upon the amount used (which is commonly either 15% or 25% by weight), it is most beneficial in improving resistance to extrusion and cold flow but at the

expense of low breakaway friction and elongation. Care should be taken when selecting any glass fill that the seal does not create an excessive wear problem if the mating surface is aluminum or other relatively soft material.

TETRALON® 720 is formulated without any abrasive fillers and thus overcomes the problems associated with sealing against soft mating surfaces. This material offers an impressive wear ratio of 1000:1 over unfilled TFE as well as thermal stability exceeding that of most conventionally filled TFE. Tetralon® 720 has been qualified as the standard seal material on the B-1 aircraft as well as on many current aircraft systems.

GRAPHITE filler may be compounded with TFE for high load-carrying applications where initial wear and general strengthening characteristics must be provided. It is most often recommended for use in water or water-based fluids.

BRONZE is added to TFE resins and has been shown to increase substantially the wear properties of seals, especially in long-stroke, highly loaded applications. TETRALON® 510 is a proprietary CoorsTek compound, which utilizes a bronze filler, is an excellent bearing material, with the best wear factor of any filled composition known. The designer must be careful when using this material in certain corrosive environments where the bronze may be subjected to chemical attack or in those applications where dielectric strength is critical.

These are a few of the PTFE materials compounded by CoorsTek for seals and bearings applications. In general, the selection of a seal material my be made by the experienced designer, but when there is some question about usage or you desire assistance in the selection, please contact us as early in the design stage as possible. We can provide you with more complete historical data and help get your system design off to a good start.

Consider the MiniGroove®

"MiniGrooving" is an exclusive secondary machining operation used to create very fine multiple peaks and valleys on the circumference of the sealing face. This proprietary process results in high unit loading of the seal even at low force levels to significantly reduce low-pressure leakage. In addition, the grooves act as reservoirs to retain a volume of lubricating fluid, thus minimizing wear.

The MiniGroove feature can be ordered on any CoorsTek rod or piston seal by adding "M" after the basic part number (see design charts).

Side Wall Notches

Side wall notches are an optional feature of CoorsTek seals. However, we do recommend notches for dynamic seals used in bi-directional pressure applications to assure rapid response of the seal to pressure surges and sudden pressure reversals. Although notches are sometimes recommended on TFE seals to prevent possible side wall sealing, CoorsTek seals are designed with sufficient end clearance so that positive pressure under the seal is maintained. Notching of CoorsTek seals used in single-acting pistons or rod seals is not normally required.

Ordering Information

The installation drawings shown in this catalog contain complete ordering information. Parts that are approved for use by Boeing Airplane Co. may be ordered either by the CoorsTek part number or Boeing part number and the drawing notes consider either selection.

Particular notice should be given to the materials of construction for the various seals. Although material selection and seal configuration are somewhat interdependent, the seal material specified on the drawings is more often the result of our having produced most of that particular configuration in that particular material, obviously because most of the applications demanded it. But a change from, say, MIL-H-5606 hydraulic oil to water as a lubricant could have a significant effect on the choice of material to use for the seal.

CoorsTek has devised a simple, easily identifiable code for changing materials within a given part number. The Material Property chart depicts the more commonly used of some 100 materials used in seal design.

Example: the basic material for Part Number TF731 shown on page 50 is molybdenum-disulfide-filled TFE and, thus, the callout for the -214 size is specified.

TF731-214

If, however, the application called for a food and drug approved material, the designer may use the same configuration but modify the material to virgin TFE:

TF731-214 (000)

For a bronze-impregnated material such as Tetralon®- 510:

TF731-214 (050)

The Material Property chart will go a long way to helping you find the right material for the job. If we can be of any assistance, please call your local distributor or factory Customer Service Representative.

*Teflon is DuPont's Registered Trademark

Material Properties

Material Code	Description	Filler	Tensile Strength ASTM D-1457 (psi)	Elongation ASTM D-1457 (%)	Specific Gravity ASTM D-1457
(000)	Virgin Teflon	None	3500	300	2.15
(010)	AMS 3651	None	1500	75	2.15
(050)	Tetralon® 510	Bronze/Other	2200	150	3.12
(052)	TFC-045	Bronze	2000	90	3.75
(053)	TF-619	Bronze/Moly	1800	80	3.60
(300)	Tetralon 720	Polymeric	2300	250	2.04
(430)	Tetralon	None	3500	300	2.15
(440)	Tetralon TFC-031	Glass	2800	250	2.20
(450)	Tetralon TFC-033	Glass	2200	150	2.22
(460)	TFC-086	Glass-Moly	2700	225	2.20
(470)	TFC-618	Glass-Moly	1600	30	2.65
(490)	TFC-082	Glass-Moly	2500	200	2.21
(500)	TFC-033	Glass	2200	150	2.22
(520)	TFC-031	Glass	2800	250	2.20
(530)	TFC-030	Glass	3000	275	2.17
(558)	TFC-025	Carbon-Graphite	1800	100	2.09
(570)	TFC-021	Graphite	2000	140	2.10
(572)	TFC-617	Glass-Graphite	2500	225	2.13
(591)	TFC-616	Moly	3000	250	2.17
(600)	TFC-108	Carbon-Graphite	2000	85	2.04
(611)	TFC-608	Carbon	1800	60	2.05

TECHNICAL DATA SECTION

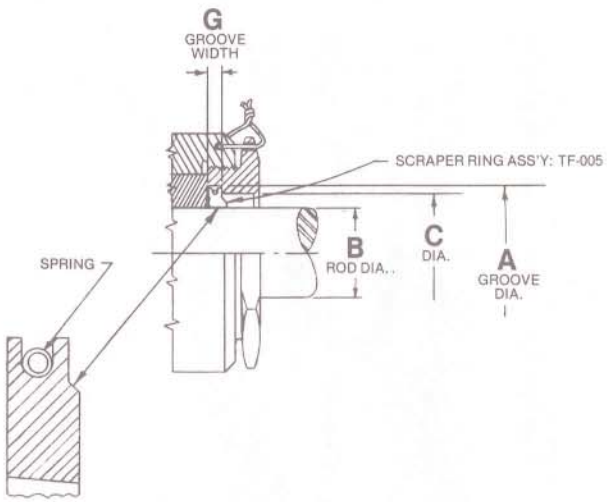
Deformation Under Load ASTM D-621 (%)	Coefficient of Thermal Expansion ASTM D-696 in/in/°F x 10^{-5}	Hardness Shore D	Coefficient of Friction ASTM D-1894		Dielectric Strength ASTM D-149A (V/mil)	Wear Factor K x 10^{-10} in^3-min / lb-ft-hr
			Static	Dynamic		
7.9	6.8	51	.09	.07	1500	15,000
12.0	7.0	53	.09	.08	350	—
3.0	6.3	56	.13	.08	—	3
2.3	4.3	65	.13	.07	—	5
2.0	3.9	62	.13	.09	—	5
3.2	6.4	56	.09	.05	—	5
7.3	6.5	52-58	.07	.06	—	*
4.1	5.7	58	.09	.05	430	6
3.9	4.3	58	.12	.07	320	6
3.9	5.2	60	.10	.05	650	6
2.0	3.2	67	.15	.09	—	8
3.8	5.2	58	.06	.04	—	9
3.9	4.3	58	.12	.07	320	6
4.1	5.7	58	.09	.05	430	7
6.1	6.3	55	.04	.07	—	—
2.0	5.9	64	.09	.08	—	—
2.5	5.9	58-60	.07	.05	—	—
6.6	6.0	56	.09	.05	—	9
5.0	6.4	58	.17	.13	—	8
4.8	6.2	60	.08	.05	—	6
4.6	4.8	62	.16	.13	—	10

Note: These data are shown for information and comparison, and should not be used for design purposes.

*Tetralon is virgin TFE, color coded blue by means of a special dye to differentiate it from conventionally processed TFE. The wear resistant property of Tetralon is at least 10 to 100 times greater than white virgin TFE.

Dash No.	A Dia.	B Dia.	C Dia.
	+.004 −.000	+.000 −.002	+.005 −.000
3/8	.636	.373	.523
7/16	.697	.435	.585
1	.760	.498	.647
2	.823	.560	.710
3	.885	.623	.772
4	.948	.685	.834
5	1.010	.748	.897
6	1.086	.810	.949
7	1.148	.873	1.012
8	1.210	.935	1.074
9	1.273	.998	1.136
10	1.335	1.060	1.199
11	1.398	1.123	1.262
12	1.460	1.185	1.324
13	1.523	1.248	1.386
14	1.614	1.310	1.480
15	1.677	1.373	1.542
16	1.739	1.435	1.605
17	1.802	1.498	1.668
18	1.927	1.623	1.793
19	2.052	1.748	1.918
20	2.177	1.873	2.043
21	2.302	1.998	2.178
22	2.427	2.123	2.303
23	2.552	2.248	2.428
24	2.677	2.373	2.553
25	2.802	2.498	2.678
26	2.989	2.623	2.834
27	3.114	2.748	2.959
28	3.239	2.873	3.084
29	3.364	2.997	3.209
30	3.489	3.122	3.334
31	3.614	3.247	3.459
32	3.729	3.372	3.584
33	3.864	3.497	3.709
34	3.989	3.622	3.834
35	4.114	3.747	3.959
36	4.239	3.872	4.084
37	4.427	3.997	4.240
38	4.552	4.122	4.365
39	4.677	4.247	4.490
40	4.802	4.372	4.615

Dash No.	A Dia.	B Dia.	C Dia.
	+.005 −.000	+.000 −.003	+.005 −.000
41	4.927	4.497	4.740
42	5.052	4.622	4.865
43	5.177	4.747	4.990
44	5.302	4.872	5.115
45	5.427	4.997	5.240
46	5.552	5.122	5.365
47	5.677	5.247	5.490
48	5.802	5.372	5.615
49	5.927	5.497	5.740
50	6.114	5.622	5.896
51	6.239	5.747	6.022
52	6.364	5.872	6.146
53	6.489	5.997	6.272
54	6.739	6.247	6.522
55	6.989	6.497	6.772
56	7.239	6.747	7.022
57	7.489	6.997	7.272
58	7.739	7.247	7.522
59	7.989	7.497	7.772
60	8.239	7.747	8.022
61	8.489	7.997	8.272
62	8.989	8.497	8.772
63	9.489	8.997	9.272
64	9.989	9.497	9.772
65	10.489	9.997	10.272
66	10.989	10.497	10.772
67	11.489	10.997	11.272
68	11.989	11.497	11.772
69	12.489	11.997	12.272
70	12.989	12.497	12.772
71	13.489	12.997	13.272



Dash No.	G Groove Width +.005 −.000
3/8-25	.104
26-36	.119
37-49	.135
50-67	.151
68-71	.166

Notes:

1. Dash numbers 1 through 71 are dimensionally equivalent to Boeing SCD BACS34A. If ordered under TF 005, they will be supplied in TFE per MIL-R-8791. For other material callouts, see technical data section.
2. Spring is 300 series stainless steel. For other materials, consult factory.
3. Dash numbers are the same as MS-28776.
4. Installation is in accordance with AND 10075/MS33675.
5. Rod diameter from MIL-G-5514.

Ordering Instructions

Example: TF 005-19
Basic P/N
Size Dash No.

Ordering Instructions for Boeing Part. No. BACS34A

Example: BACS 34A-19-A or C
Basic P/N
Size Dash No.
Material

(A-BMS8-121 Type I, GR B, CL I Virgin TFE)
(C-BMS8-121 Type II, GR B, CL I,15% Grapnite Filled TFE)
(No Suffix — Material is TFE per MIL-R-8791)

Tetrafluor

ROD SCRAPER INSTALLATION

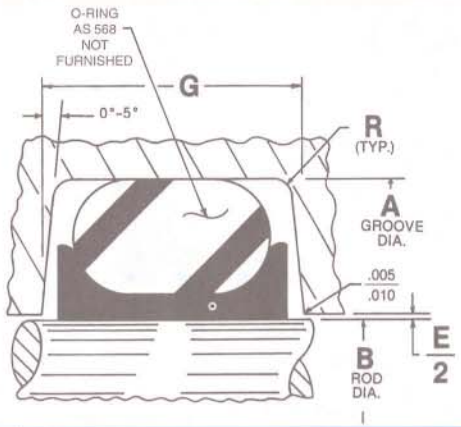
CODE IDENT. 07128

TF 005

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.547	.435
014	.610	.498
015	.672	.560
016	.735	.623
017	.797	.685
018	.860	.748
019	.922	.810
020	.985	.873
021	1.047	.935
022	1.110	.998
023	1.172	1.060
024	1.235	1.123
025	1.297	1.185
026	1.360	1.248
027	1.422	1.310
028	1.485	1.373
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.988	.810
118	1.051	.873
119	1.113	.935
120	1.176	.998
121	1.238	1.060
122	1.301	1.123
123	1.363	1.185
124	1.426	1.248
125	1.488	1.310
126	1.551	1.373
127	1.613	1.435
128	1.676	1.498
129	1.738	1.560
130	1.801	1.623
131	1.863	1.685
132	1.926	1.748
133	1.988	1.810
134	2.051	1.873
135	2.114	1.936
136	2.176	1.998
137	2.239	2.061
138	2.301	2.123
139	2.364	2.186
140	2.426	2.248
141	2.489	2.311
142	2.551	2.373
143	2.614	2.436
144	2.676	2.498

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.739	2.561
146	2.801	2.623
147	2.864	2.686
148	2.926	2.748
149	2.989	2.811
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.988
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.866	1.623
224	1.991	1.748
225	2.116	2.873
226	2.241	2.998
227	2.366	2.123
228	2.491	2.248
229	2.616	2.373
230	2.741	2.498
231	2.866	2.623
232	2.991	2.748
233	3.116	2.873
234	3.240	2.997
235	3.365	3.122
236	3.490	3.247
237	3.615	3.372
238	3.740	3.497
239	3.865	3.622
240	3.990	3.747
241	4.115	3.872
242	4.240	3.997
243	4.365	4.122
244	4.490	4.247
245	4.615	4.372
246	4.740	4.497
247	4.865	4.622
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
	+.004 −.000	+.000 −.003
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 -.000	R Groove Radius	E Diametral Clearance Max.
012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-126	.141	.005-.015	.005
127-132	.141	.005-.015	.006
133-149	.141	.005-.015	.007
210-222	.188	.010-.025	.005
223-224	.188	.010-.025	.006
225-245	.188	.010-.025	.007
246-247	.188	.010-.025	.008
325-327	.281	.020-.035	.006
328-349	.281	.020-.035	.007
425-438	.375	.020-.035	.009
439-460	.375	.020-.035	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Example: TF 878 M-214N

- Basic P/N
- For Minigroove only
- Size Dash No.
- For optional notches only

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-G-5514 (F REVISION) NO BACK-UP GLAND HEAVY DUTY SERVICE

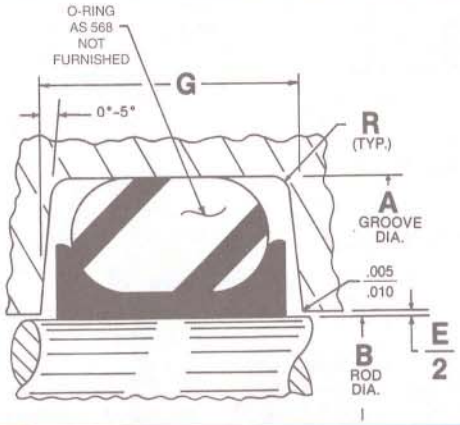
CODE IDENT. 07128

TF878

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.547	.435
014	.610	.498
015	.672	.560
016	.735	.623
017	.797	.685
018	.860	.748
019	.922	.810
020	.985	.873
021	1.047	.935
022	1.110	.998
023	1.172	1.060
024	1.235	1.123
025	1.297	1.185
026	1.360	1.248
027	1.422	1.310
028	1.485	1.373
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.988	.810
118	1.051	.873
119	1.113	.935
120	1.176	.998
121	1.238	1.060
122	1.301	1.123
123	1.363	1.185
124	1.426	1.248
125	1.488	1.310
126	1.551	1.373
127	1.613	1.435
128	1.676	1.498
129	1.738	1.560
130	1.801	1.623
131	1.863	1.685
132	1.926	1.748
133	1.988	1.810
134	2.051	1.873
135	2.114	1.936
136	2.176	1.998
137	2.239	2.061
138	2.301	2.123
139	2.364	2.186
140	2.426	2.248
141	2.489	2.311
142	2.551	2.373
143	2.614	2.436
144	2.676	2.498

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.739	2.561
146	2.801	2.623
147	2.864	2.686
148	2.926	2.748
149	2.989	2.811
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.988
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.866	1.623
224	1.991	1.748
225	2.116	2.873
226	2.241	2.998
227	2.366	2.123
228	2.491	2.248
229	2.616	2.373
230	2.741	2.498
231	2.866	2.623
232	2.991	2.748
233	3.116	2.873
234	3.240	2.997
235	3.365	3.122
236	3.490	3.247
237	3.615	3.372
238	3.740	3.497
239	3.865	3.622
240	3.990	3.747
241	4.115	3.872
242	4.240	3.997
243	4.365	4.122
244	4.490	4.247
245	4.615	4.372
246	4.740	4.497
247	4.865	4.622
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
	+.004 −.000	+.000 −.003
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 -.000	R Groove Radius	E Diametral Clearance Max.
012	.149	.005-.015	.004
013-028	.149	.005-.015	.005
110-126	.183	.005-.015	.005
127-132	.183	.005-.015	.006
133-149	.183	.005-.015	.007
210-222	.235	.010-.025	.005
223-224	.235	.010-.025	.006
225-245	.235	.010-.025	.007
246-247	.235	.010-.025	.008
325-327	.334	.020-.035	.006
328-349	.334	.020-.035	.007
425-438	.475	.020-.035	.009
439-460	.475	.020-.035	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Example: TF 872 M-214N

- Basic P/N
- For Minigroove only
- Size Dash No.
- For optional notches only

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-G-5514 (F REVISION) NO BACK-UP GLAND HEAVY DUTY SERVICE

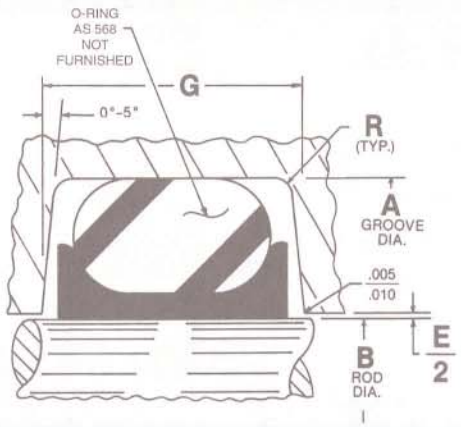
CODE IDENT. 07128

TF872

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.547	.435
014	.610	.498
015	.672	.560
016	.735	.623
017	.797	.685
018	.860	.748
019	.922	.810
020	.985	.873
021	1.047	.935
022	1.110	.998
023	1.172	1.060
024	1.235	1.123
025	1.297	1.185
026	1.360	1.248
027	1.422	1.310
028	1.485	1.373
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.988	.810
118	1.051	.873
119	1.113	.935
120	1.176	.998
121	1.238	1.060
122	1.301	1.123
123	1.363	1.185
124	1.426	1.248
125	1.488	1.310
126	1.551	1.373
127	1.613	1.435
128	1.676	1.498
129	1.738	1.560
130	1.801	1.623
131	1.863	1.685
132	1.926	1.748
133	1.988	1.810
134	2.051	1.873
135	2.114	1.936
136	2.176	1.998
137	2.239	2.061
138	2.301	2.123
139	2.364	2.186
140	2.426	2.248
141	2.489	2.311
142	2.551	2.373
143	2.614	2.436
144	2.676	2.498

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.739	2.561
146	2.801	2.623
147	2.864	2.686
148	2.926	2.748
149	2.989	2.811
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.988
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.866	1.623
224	1.991	1.748
225	2.116	2.873
226	2.241	2.998
227	2.366	2.123
228	2.491	2.248
229	2.616	2.373
230	2.741	2.498
231	2.866	2.623
232	2.991	2.748
233	3.116	2.873
234	3.240	2.997
235	3.365	3.122
236	3.490	3.247
237	3.615	3.372
238	3.740	3.497
239	3.865	3.622
240	3.990	3.747
241	4.115	3.872
242	4.240	3.997
243	4.365	4.122
244	4.490	4.247
245	4.615	4.372
246	4.740	4.497
247	4.865	4.622
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
	+.004 −.000	+.000 −.003
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 -.000	R Groove Radius	E Diametral Clearance Max.
012	.207	.005-.015	.004
013-028	.207	.005-.015	.005
110-126	.245	.005-.015	.005
127-132	.245	.005-.015	.006
133-149	.245	.005-.015	.007
210-222	.304	.010-.025	.005
223-224	.304	.010-.025	.006
225-245	.304	.010-.025	.007
246-247	.304	.010-.025	.008
325-327	.424	.020-.035	.006
328-349	.424	.020-.035	.007
425-438	.579	.020-.035	.009
439-460	.579	.020-.035	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Example: TF 238 M-214N

- Basic P/N
- For Minigroove only
- Size Dash No.
- For optional notches only

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-G-5514 (F REVISION) NO BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT. 07128

TF238

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
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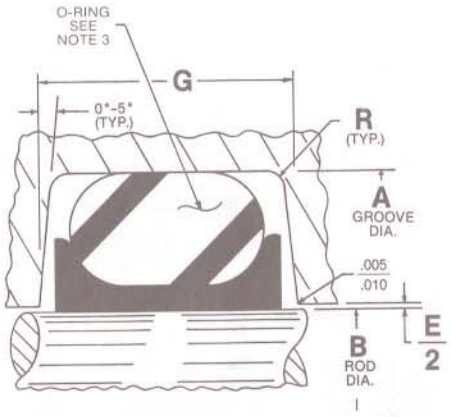
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-149	.141	.005-.015	.005
210-247	.188	.010-.025	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

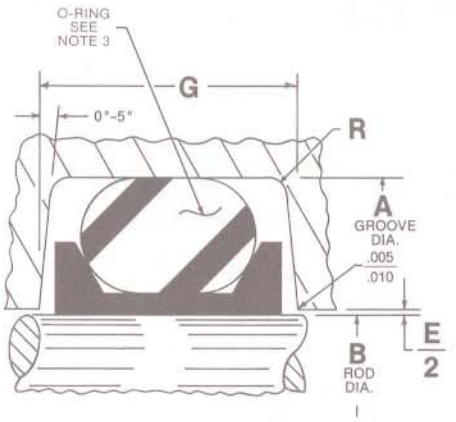
Ordering Instructions

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT.	
07128	**TF 875**

Dash No.	A Dia.	B Dia.	Dash No.	A Dia.	B Dia.	Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002		+.002 −.000	+.000 −.002		+.002 −.000	+.000 −.002
014	.613	.501	222	1.741	1.498	344	4.244	3.872
015	.675	.563	223	1.868	1.625	345	4.369	3.997
016	.738	.626	224	1.993	1.750	346	4.494	4.122
017	.800	.688	225	2.118	1.875	347	4.619	4.247
018	.863	.751	226	2.243	2.000	348	4.744	4.372
019	.925	.813	227	2.368	2.125	349	4.869	4.497
020	.993	.881	228	2.493	2.250		+.003 −.000	+.000 −.003
021	1.055	.943	229	2.618	2.375			
022	1.118	1.006	230	2.743	2.500	425	4.974	4.497
023	1.180	1.068	231	2.868	2.625	426	5.099	4.622
024	1.243	1.131	232	2.993	2.750	427	5.224	4.747
025	1.305	1.193	233	3.118	2.875	428	5.349	4.872
026	1.368	1.256	234	3.243	3.000	429	5.474	4.997
027	1.430	1.318						
028	1.493	1.381	235	3.368	3.125	430	5.599	5.122
			236	3.493	3.250	431	5.724	5.247
110	.551	.373	237	3.618	3.375	432	5.849	5.372
111	.613	.435	238	3.743	3.500	433	5.974	5.497
112	.676	.498	239	3.868	3.625	434	6.099	5.622
113	.738	.560	240	3.993	3.750	435	6.224	5.747
114	.801	.623	241	4.118	3.875	436	6.349	5.872
115	.863	.685	242	4.243	4.000	437	6.474	5.997
116	.926	.748	243	4.368	4.125	438	6.724	6.247
117	.993	.815	244	4.493	4.250	439	6.974	6.497
118	1.056	.878	245	4.618	4.375	440	7.224	6.747
119	1.118	.940	246	4.743	4.500	441	7.474	6.997
120	1.181	1.003	247	4.868	4.625	442	7.724	7.247
121	1.243	1.065	325	1.870	1.498	443	7.974	7.497
122	1.306	1.128	326	1.995	1.623	444	8.224	7.747
123	1.368	1.190	327	2.120	1.748	445	8.474	7.997
124	1.431	1.253	328	2.245	1.873	446	8.974	8.497
125	1.493	1.315	329	2.370	1.998	447	9.474	8.997
126	1.558	1.380	330	2.495	2.123	448	9.974	9.497
127	1.620	1.442	331	2.620	2.248	449	10.474	9.997
210	.991	.748	332	2.745	2.373	450	10.974	10.497
211	1.053	.810	333	2.870	2.498	451	11.474	10.997
212	1.116	.873	334	2.995	2.623	452	11.974	11.497
213	1.178	.935	335	3.120	2.748	453	12.474	11.997
214	1.241	.998	336	3.245	2.873	454	12.974	12.497
215	1.303	1.060	337	3.369	2.997	455	13.474	12.997
216	1.366	1.123	338	3.494	3.122	456	13.974	13.497
217	1.428	1.185	339	3.619	3.247	457	14.474	13.997
218	1.491	1.248	340	3.744	3.372	458	14.974	14.497
219	1.553	1.310	341	3.869	3.497	459	15.474	14.997
220	1.616	1.373	342	3.994	3.622	460	15.974	15.497
221	1.678	1.435	343	4.119	3.747			



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
004-012	.094	.005-.015	.004
110-116	.141	.005-.015	.005
210-222	.188	.010-.020	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.008

Notes

1. This part is supplied in virgin TFE. For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is same as seal size.
4. Parts Dash Nos. 110 thru 116; 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12AT and are supplied in VTFE per AMS 3651.
5. Sidewall notches optional.
6. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12AT (See Note 4)

Example: BACRI2AT-214

Basic P/N

Size Dash No.

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND

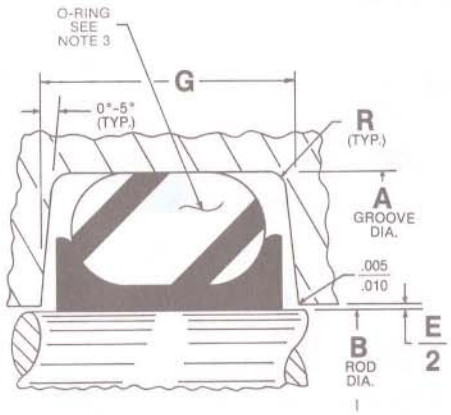
CODE IDENT. 07128

TF 393

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-149	.141	.005-.015	.005
210-247	.188	.010-.025	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Sidewall notches optional.
5. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND

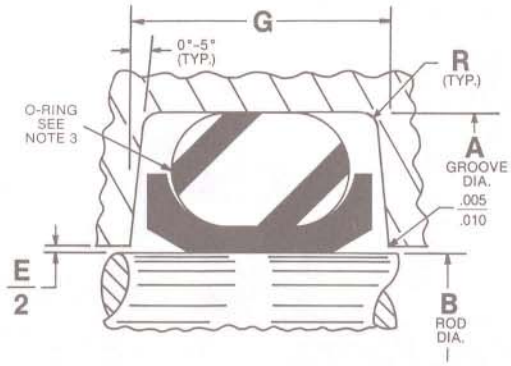
CODE IDENT. 07128

TF 426

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
006	.235	.123
007	.266	.154
008	.297	.185
009	.329	.217
010	.360	.248
011	.422	.310
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
334	2.995	2.623
335	3.120	2.748
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
004-012	.094	.005-.015	.004
110-116	.141	.005-.015	.005
210-222	.188	.010-.025	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.010

Notes:

1. This part is supplied in virgin TFE. For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is same as seal size.
4. Sidewall notches optional.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.
6. Dash nos. 006 thru 012, 110 thru 116, 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12BD.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12BD (See Note 6)

Example: BACR12BD-214N-AorB

Basic P/N

Size Dash No.

For Optional Notches Only

Material Code

A-BMS8-121 Typ. 1, GR.B, CL. 1
B-MIL-R-8791

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND

CODE IDENT. 07128

TF 452

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
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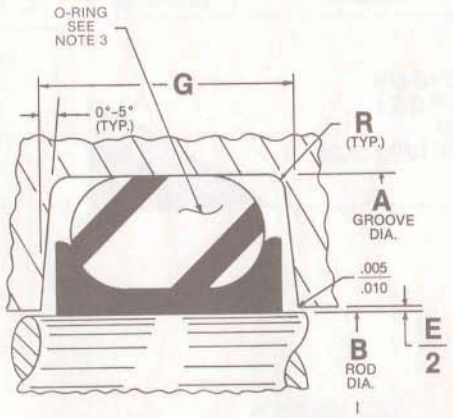
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.149	.005-.015	.004
013-028	.149	.005-.015	.005
110-149	.183	.005-.015	.005
210-247	.225	.010-.025	.006
325-349	.334	.020-.030	.007
425-460	.440	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

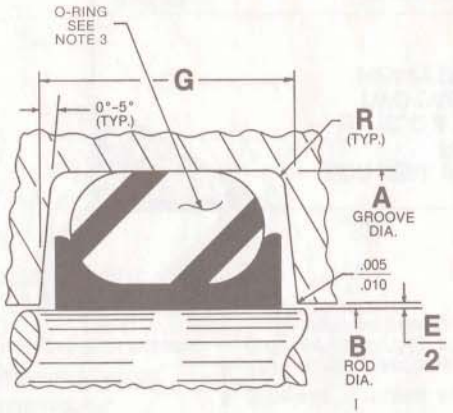
ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) ONE BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT.	TF 931
07128	

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.149	.005-.015	.004
013-028	.149	.005-.015	.005
110-149	.183	.005-.015	.005
210-247	.225	.010-.025	.006
325-349	.334	.020-.030	.007
425-460	.440	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Sidewall notches optional.
5. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

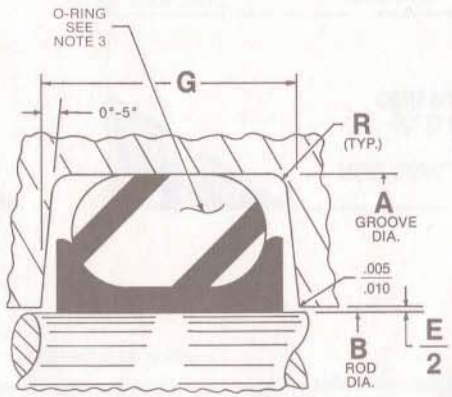
ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) ONE BACK-UP GLAND

CODE IDENT.	TF 404
07128	

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.207	.005-.015	.004
013-028	.207	.005-.015	.005
110-149	.245	.005-.015	.005
210-247	.304	.010-.025	.006
325-349	.424	.020-.030	.007
425-460	.579	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) TWO BACK-UP GLAND HEAVY DUTY SERVICE

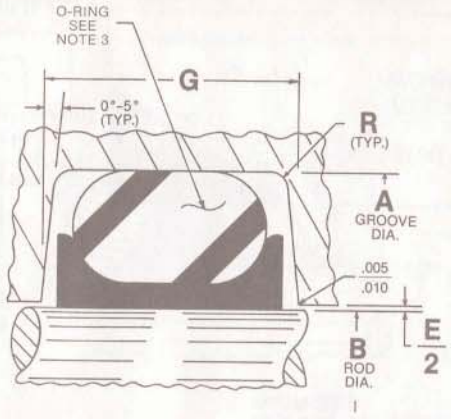
CODE IDENT. 07128

TF 934

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.207	.005-.015	.004
013-028	.207	.005-.015	.005
110-149	.245	.005-.015	.005
210-247	.304	.010-.025	.006
325-349	.424	.020-.030	.007
425-460	.579	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Sidewall notches optional.
5. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.
6. Dash nos. 112 thru 116, 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12BG. These parts are 15% graphite filled TFE.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12BG

Example: BACR12BG-214A
Basic P/N
Size Dash No.
Material (15% Graphite filled TFE)

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) TWO BACK-UP GLAND

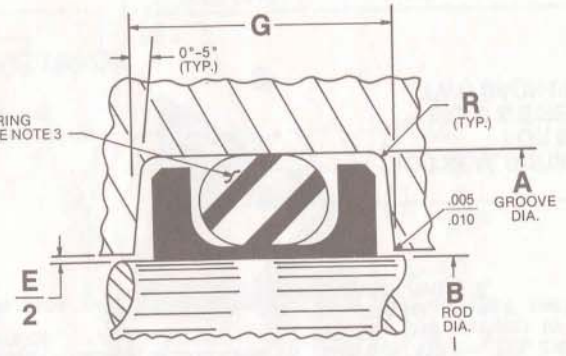
CODE IDENT. 07128

TF 402

Dash No.	A Dia. +.002 −.000	B Dia. +.000 −.002
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435

Dash No.	A Dia. +.002 −.000	B Dia. +.000 −.002
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747

Dash No.	A Dia. +.002 −.000	B Dia. +.000 −.002
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	A Dia. +.003 −.000	B Dia. +.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
014-028	.207	.005-.015	.005
110-127	.245	.005-.015	.005
210-247	.304	.010-.025	.006
325-349	.424	.020-.030	.007
425-460	.579	.020-.030	.010

Notes:

1. This part is supplied in virgin TFE. For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is same as seal size.
4. Parts supplied with sidewall notches.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.
6. Dash nos. 110 thru 116, 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12BJ.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12BJ (See Note 6)

Example: BACR12BJ-214-AorB

Basic P/N

Size Dash No.

Material Code

A-BMS8-121 Typ. 1,GR.B, CL. 1

B-MIL-R-8791

Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) TWO BACK-UP GLAND

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

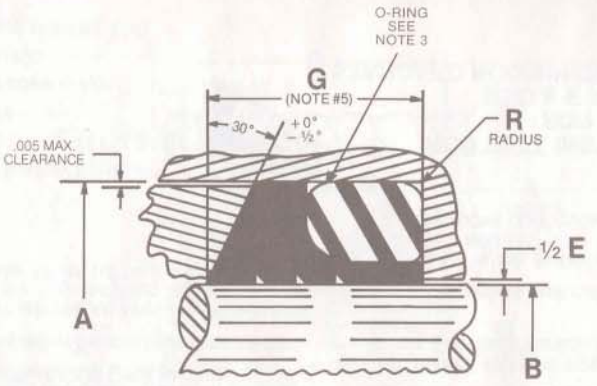
CODE IDENT. 07128

TF 451

Dash No.	A Dia.	B Dia.
	+.000 −.001	+.001 −.000
006	.235	.123
007	.266	.154
008	.297	.185
009	.329	.217
010	.360	.248
011	.422	.300
012	.485	.373
	+.000 −.002	+.002 −.000
110	.551	.378
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
325	1.870	1.498
326	1.995	1.623

Dash No.	A Dia.	B Dia.
	+.000 −.002	+.002 −.000
327	2.120	1.748
328	2.244	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.737
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.000 −.003	+.003 −.000
425	4.974	4.497
426	5.098	4.622
427	5.224	4.747
428	5.349	4.822
429	5.474	4.997
430	5.599	5.122

Dash No.	A Dia.	B Dia.
	+.000 −.003	+.003 −.000
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
006-012	.207	.005-.015	.004
110-116	.245	.005-.015	.005
210-222	.304	.010-.025	.006
325-349	.424	.020-.030	.007
425-460	.579	.020-.030	.010

Notes:

1. This part is supplied in virgin TFE. For other material callouts, refer to Technical Data section.
2. Dash numbers correspond to AS 568.
3. O-ring supplied on request. Size is same as seal dash size.
4. The TF455 rod seal is approved by Boeing Airplane Co. Under SCD BACS11AA see instructions for ordering Boeing Part No.
5. Groove width "G" per MIL-P-5514 rev. C, D, & E modified as shown.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACS11AA

Example: BACS11AA-214-A

Basic P/N

Size Dash No.

VTFE per BMS-8-121 TYP 1, GR. A., CL. 1

Tetrafluor

ROD SEAL INSTALLATION (FOOT SEAL) FOR MIL-P-5514 (C, D & E REVISIONS) MODIFIED TWO BACK-UP GLAND

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

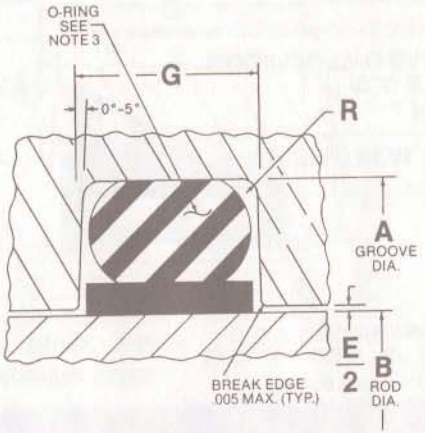
CODE IDENT. 07128

TF 455

Dash No.	A Dia. +.001 —.000	B Dia. +.000 —.001
006	.266	.123
007	.297	.154
008	.329	.185
009	.360	.217
010	.422	.248
011	.485	.310
012	.550	.373
	+.002 —.000	**+.000 —.002**
013	.613	.438
014	.675	.501
015	.738	.563
016	.800	.626
017	.863	.688
018	.927	.751
019	.993	.813
020	1.055	.881
021	1.118	.943
022	1.180	1.006
023	1.243	1.068
024	1.305	1.131
025	1.368	1.193
026	1.430	1.256
027	1.493	1.318
110	.613	.373
111	.676	.435
112	.738	.498
113	.801	.560
114	.863	.623
115	.926	.685
116	.993	.748
117	1.056	.815
118	1.118	.878
119	1.181	.940
120	1.243	1.003
121	1.306	1.065
122	1.368	1.128
123	1.431	1.190
124	1.493	1.253
125	1.558	1.315
126	1.620	1.380
127	1.683	1.442
128	1.742	1.505
129	1.805	1.564
130	1.867	1.627
131	1.930	1.689

Dash No.	A Dia. +.002 —.000	B Dia. +.000 —.002
132	1.992	1.752
133	2.055	1.814
134	2.118	1.877
135	2.180	1.940
136	2.243	2.002
137	2.305	2.065
138	2.368	2.127
139	2.430	2.190
140	2.493	2.252
141	2.555	2.315
142	2.618	2.377
143	2.680	2.440
144	2.743	2.502
145	2.805	2.565
146	2.868	2.627
147	2.930	2.690
148	2.993	2.752
210	1.053	.748
211	1.116	.810
212	1.178	.873
213	1.241	.935
214	1.303	.998
215	1.336	1.060
216	1.428	1.123
217	1.491	1.185
218	1.553	1.248
219	1.616	1.310
220	1.678	1.373
221	1.741	1.435
222	1.868	1.498
223	1.993	1.625
224	2.118	1.750
225	2.243	1.875
226	2.368	2.000
227	2.493	2.125
228	2.618	2.250
229	2.743	2.375
230	2.868	2.500
231	2.993	2.625
232	3.118	2.750
233	3.243	2.875
234	3.368	3.000
235	3.493	3.125
236	3.618	3.250
237	3.743	3.375
238	3.868	3.500

Dash No.	A Dia. +.002 —.000	B Dia. +.000 —.002
239	3.993	3.625
240	4.118	3.750
241	4.243	3.875
242	4.368	4.000
243	4.493	4.125
244	4.618	4.250
245	4.743	4.375
246	4.868	4.500
325	1.995	1.498
326	2.120	1.623
327	2.245	1.748
328	2.370	1.873
329	2.495	1.998
330	2.620	2.123
331	2.745	2.248
332	2.870	2.373
333	2.995	2.498
334	3.120	2.623
335	3.245	2.748
336	3.369	2.873
337	3.494	2.997
338	3.619	3.122
339	3.744	3.247
340	3.869	3.372
341	3.994	3.497
342	4.119	3.622
343	4.244	3.747
344	4.369	3.872
345	4.494	3.997
346	4.619	4.122
347	4.744	4.247
348	4.869	4.372
	+.003 —.000	**+.000 —.003**
425	5.099	4.497
426	5.224	4.622
427	5.349	4.747
428	5.474	4.872
429	5.099	4.997
430	5.224	5.122
431	5.849	5.247
432	5.974	5.372
433	6.099	5.497
434	6.224	5.622
435	6.349	5.747
436	6.474	5.872



Dash No.	G Groove Width +.005 -.000	R Groove Radius	E Diametral Clearance Max.
006-012	.079	.005-.015	.004
013-027	.079	.005-.015	.005
110-148	.112	.005-.015	.005
210-246	.149	.010-.025	.006
325-348	.221	.020-.030	.007
425-436	.297	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is one Dash no. higher than seal size. For example, TF-461-214 uses 215 O-ring.
4. The TF-461 rod seals fit all rod diameters per MIL-P-5514 Rev. C, D &E.
5. The TF-461 rod seal may also be used for rod diameters manufactured to MIL-G-5514F.
6. Sidewall notches optional.
7. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Example: TF 461 M-214N

- Basic P/N
- For Minigroove only
- Size Dash No.
- For optional notches only

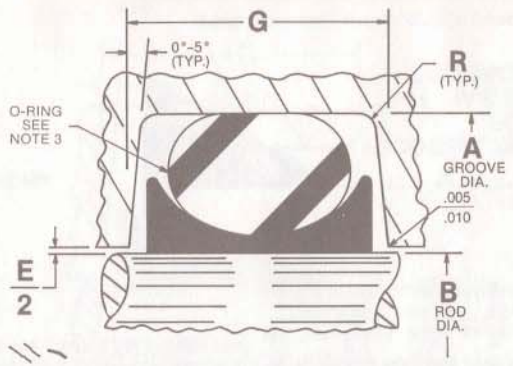
Tetrafluor

ROD SEAL INSTALLATION FOR MIL-P-5514 (C,D & E REVISIONS) STANDARD ROD/SPECIAL GLAND

CODE IDENT. 07128

TF461

Dash No. AN6227 Series	Dash No. AS568 Series	A Dia. +.000 −.002	B Dia. +.001 −.001
1	006	.236	.123
2	007	.267	.154
3	008	.298	.185
4	009	.330	.217
5	010	.361	.248
6	011	.423	.310
7	012	.486	.373
8	110	.552	.373
9	111	.614	.435
10	112	.677	.498
11	113	.739	.560
12	114	.802	.623
13	115	.864	.685
14	116	.927	.748
15	210	.992	.747
16	211	1.054	.809
17	212	1.117	.872
18	213	1.179	.934
19	214	1.242	.997
20	215	1.304	1.059
21	216	1.367	1.122
22	217	1.429	1.184
23	218	1.492	1.247
24	219	1.554	1.309
25	220	1.617	1.372
26	221	1.679	1.434
27	222	1.742	1.497
	325	1.871	1.497
29	326	1.996	1.622
30	327	2.121	1.747
31	328	2.246	1.872
32	329	2.371	1.997
33	330	2.496	2.122
34	331	2.621	2.247
35	332	2.746	2.372
36	333	2.871	2.497
37	334	2.996	2.622
38	335	3.121	2.747
39	336	3.246	2.872
40	337	3.370	2.996
41	338	3.495	3.121
42	339	3.620	3.246
43	340	3.745	3.371
44	341	3.870	3.496
45	342	3.995	3.621
46	343	4.120	3.746
47	344	4.245	3.871
48	345	4.370	3.996
49	346	4.495	4.121
50	347	4.620	4.246
51	348	4.745	4.371
52	349	4.870	4.496
88	425	4.975	4.496
53	426	5.100	4.621
54	427	5.225	4.746
55	428	5.350	4.871
56	429	5.475	4.996
57	430	5.600	5.121
58	431	5.725	5.246
59	432	5.850	5.371
60	433	5.975	5.496
61	434	6.100	5.621
62	435	6.225	5.746
63	436	6.350	5.871
64	437	6.475	5.996
65	438	6.725	6.246
66	439	6.975	6.496
67	440	7.225	6.746
68	441	7.475	6.996
69	442	7.725	7.246
70	443	7.975	7.496
71	444	8.225	7.746
72	445	8.475	7.996
73	446	8.975	8.496
74	447	9.475	8.996
75	448	9.975	9.496
76	449	10.475	9.996
77	450	10.975	10.496
78	451	11.475	10.996
79	452	11.975	11.496
80	453	12.475	11.996
81	454	12.975	12.496
82	455	13.475	12.996
83	456	13.975	13.496
84	457	14.475	13.996
85	458	14.975	14.496
86	459	15.475	14.996
87	460	15.975	15.496



Dash No.	G Groove Width +.005 −.000	R Groove Radius Max.	E Diametral Clearance Max.
006-012	.138	.005-.015	.005
110-116	.171	.005-.015	.005
210-222	.208	.010-.025	.006
325-349	.311	.020-.035	.007
425-429	.408	.020-.035	.008
430-460	.408	.020-.035	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash nos. correspond to dash nos. of AS 568. Dash nos. of "AN" series O-rings are shown for cross reference only.
3.
4. Sidewall notches optional.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

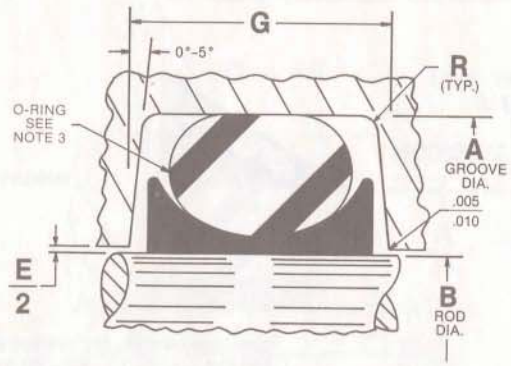
Tetrafluor

ROD SEAL INSTALLATION
FOR MIL-P-5514
(A & B REVISIONS)
ONE BACK-UP GLAND

CODE IDENT. 07128

TF 388

Dash No. AN6227	Dash No. AN6230	Dash No. AS568	A Dia. +.002 −.000	B Dia. +.000 −.002
		014	.610	.498
		015	.672	.560
		016	.735	.623
		017	.797	.685
		018	.860	.748
		019	.922	.810
		020	.985	.873
		021	1.047	.935
		022	1.110	.998
		023	1.172	1.060
		024	1.235	1.123
		025	1.297	1.185
		026	1.360	1.248
		027	1.422	1.310
		028	1.485	1.373
			+.002 −.000	+.001 −.001
10		112	.677	.498
11		113	.739	.560
12		114	.802	.623
13		115	.864	.685
14		116	.927	.748
		117	.989	.810
		118	1.052	.873
		119	1.114	.935
		120	1.183	.998
		121	1.239	1.060
		122	1.302	1.123
		123	1.364	1.185
		124	1.427	1.248
		125	1.489	1.310
		126	1.552	1.373
		127	1.614	1.435
15		210	.992	.747
16		211	1.054	.809
17		212	1.117	.872
18		213	1.179	.934
19		214	1.242	.997
20		215	1.304	1.059
21		216	1.367	1.122
22		217	1.429	1.184
23		218	1.492	1.247
24		219	1.554	1.309
25		220	1.617	1.372
26		221	1.679	1.434
27		222	1.742	1.497
	1	223	1.867	1.622
	2	224	1.992	1.747
	3	225	2.117	1.872
	4	226	2.242	1.997
	5	227	2.367	2.122
	6	228	2.492	2.247
	7	229	2.617	2.372
	8	230	2.742	2.497
	9	231	2.867	2.622
	10	232	2.992	2.747
	11	233	3.117	2.872
	12	234	3.242	2.997
	13	235	3.367	3.122
	14	236	3.492	3.247
	15	237	3.617	3.372
	16	238	3.742	3.497
	17	239	3.867	3.622
	18	240	3.992	3.747
	19	241	4.117	3.872
	20	242	4.242	3.997
	21	243	4.367	4.122
	22	244	4.492	4.247
	23	245	4.617	4.372
	24	246	4.742	4.497
	25	247	4.867	4.622
	28	325	1.871	1.497
	29	326	1.996	1.622
	30	327	2.121	1.747
	31	328	2.246	1.872
	32	329	2.371	1.997
	33	330	2.496	2.122
	34	331	2.621	2.247
	35	332	2.746	2.372
	36	333	2.871	2.497
	37	334	2.996	2.622
	38	335	3.121	2.747
	39	336	3.246	2.872
	40	337	3.370	2.996
	41	338	3.495	3.121
	42	339	3.620	3.246
	43	340	3.745	3.371
	44	341	3.870	3.496
	45	342	3.995	3.621
	46	343	4.120	3.746
	47	344	4.245	3.871
	48	345	4.370	3.996
	49	346	4.495	4.121
	50	347	4.620	4.246
	51	348	4.745	4.371
	52	349	4.870	4.496
	53	425	4.975	4.496
	54	426	5.100	4.621
	55	427	5.225	4.746
	56	428	5.350	4.871
	57	429	5.475	4.996
	58	430	5.600	5.121
	59	431	5.725	5.246
	60	432	5.850	5.371
	61	433	5.975	5.496
	62	434	6.100	5.621
	63	435	6.225	5.746
	64	436	6.350	5.871
	65	437	6.475	5.996
	66	438	6.725	6.246
	67	439	6.975	6.496
	68	440	7.225	6.746
	69	441	7.475	6.996
	70	442	7.725	7.246
	71	443	7.975	7.496
	72	444	8.225	7.746
	73	445	8.475	7.996
	74	446	8.975	8.496
	75	447	9.475	8.996
	76	448	9.975	9.496
	77	449	10.475	9.996
	78	450	10.975	10.496
	79	451	11.475	10.996
	80	452	11.975	11.496
	81	453	12.475	11.996
	82	454	12.975	12.496
	83	455	13.475	12.996
	84	456	13.975	14.496
	85	457	14.475	13.996
	86	458	14.975	14.496
	87	459	15.475	14.996
		460	15.975	15.496



Dash No.	G Groove Width +.005 −.000	R Groove Radius Max.	E Diametral Clearance Max.
014-028	.205	.015	.005
112-127	.238	.015	.005
210-247	.275	.025	.006
325-329	.410	.035	.007
425-429	.538	.035	.008
430-460	.538	.035	.010

Notes:

1. This part supplied in long wearing Tetralon®, for other material callouts refer to Technical Data section.
2. Dash nos. of this dwg correspond to dash nos. of AS 568. Dash nos. of "AN" seriesO-rings are shown for cross reference only.
3.
4. Gland dimensions for AS dash nos. 223 thru 247 permit dynamic applications using O-rings normally restricted to static seals.
5. Sidewall notches optional.
6. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

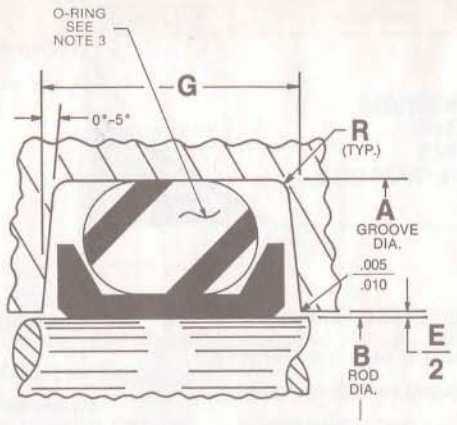
ROD SEAL INSTALLATION FOR MIL-P-5514 (A & B REVISIONS) TWO BACK-UP GLAND

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

CODE IDENT. 07128

TF 400

Dash No.	A Dia.	B Dia.	Dash No.	A Dia.	B Dia.	Dash No.	A Dia.	B Dia.	Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001		+.002 −.000	+.000 −.002		+.002 −.000	+.000 −.002		+.002 −.000	+.000 −.002
006	.256	.125	127	1.633	1.437	231	2.888	2.625	330	2.520	2.125
007	.287	.156	128	1.696	1.500	232	3.013	2.750	331	2.645	2.250
008	.318	.187	129	1.758	1.562	233	3.138	2.875	332	2.770	2.375
009	.349	.219	130	1.821	1.625	234	3.263	3.000	333	2.895	2.500
010	.381	.250	131	1.883	1.687	235	3.388	3.125	334	3.020	2.625
011	.443	.312	132	1.946	1.750	236	3.513	3.250	335	3.145	2.750
012	.506	.375	133	2.008	1.812	237	3.638	3.375	336	3.270	2.875
	+.002 −.000	+.000 −.002	134	2.071	1.875	238	3.763	3.500	337	3.395	3.000
013	.568	.437	135	2.133	1.937	239	3.888	3.625	338	3.520	3.125
014	.631	.500	136	2.196	2.000	240	4.013	3.750	339	3.645	3.250
015	.693	.562	137	2.258	2.062	241	4.138	3.875	340	3.770	3.375
016	.756	.625	138	2.321	2.125	242	4.263	4.000	341	3.895	3.500
017	.818	.687	139	2.383	2.187	243	4.388	4.125	342	4.020	3.625
018	.881	.749	140	2.446	2.250	244	4.513	4.250	343	4.145	3.750
019	.943	.812	141	2.508	3.312	245	4.638	4.375	344	4.270	3.875
020	1.006	.875	142	2.571	2.375	246	4.763	4.500	345	4.395	4.000
021	1.068	.937	143	2.633	2.437	247	4.888	4.625	346	4.520	4.125
022	1.131	1.000	144	2.696	2.500	248	5.013	4.750	347	4.645	4.250
023	1.193	1.062	145	2.758	2.562	249	5.138	4.875	348	4.770	4.375
024	1.256	1.125	146	2.821	2.625	250	5.263	5.000	349	4.895	4.500
025	1.318	1.187	147	2.883	2.687	251	5.388	5.125		+.003 −.000	+.000 −.003
026	1.381	1.250	148	2.946	2.750	252	5.513	5.250	425	5.014	4.500
027	1.443	1.312	149	3.008	2.812	253	5.638	5.375	426	5.139	4.625
028	1.506	1.375	150	3.071	2.875	254	5.763	5.500	427	5.264	4.750
029	1.631	1.500	151	3.196	3.000	255	5.888	5.625	428	5.389	4.875
030	1.756	1.625	152	3.446	3.250	256	6.013	5.750	429	5.514	5.000
031	1.881	1.750	153	3.696	3.500	257	6.138	5.875	430	5.639	5.125
032	2.006	1.875	154	3.946	3.750	258	6.263	6.000	431	5.764	5.250
033	2.131	2.000	155	4.196	4.000	259	6.513	6.250	432	5.889	5.375
034	2.256	2.125	156	4.446	4.250	260	6.763	6.500	433	6.014	5.500
035	2.381	2.250	157	4.696	4.500	261	7.013	6.750	434	6.139	5.625
036	2.506	2.375	158	4.946	4.750	262	7.263	7.000	435	6.264	5.750
037	2.631	2.500	159	5.196	5.000	263	7.513	7.250	436	6.389	5.875
038	2.756	2.625	160	5.446	5.250	264	7.763	7.500	437	6.514	6.000
039	2.881	2.750	161	5.696	5.500	265	8.013	7.750	438	6.764	6.250
040	3.006	2.875	162	5.946	5.750	266	8.263	8.000	439	7.014	6.500
041	3.131	3.000	163	6.196	6.000	267	8.513	8.250	440	7.264	6.750
042	3.381	3.250	210	1.013	.750	268	8.763	8.500	441	7.514	7.000
043	3.631	3.500	211	1.075	.812	269	9.013	8.750	442	7.764	7.250
044	3.881	3.750	212	1.138	.875	270	9.263	9.000	443	8.014	7.500
110	.562	.375	213	1.200	.937	271	9.513	9.250	444	8.264	7.750
111	.625	.437	214	1.263	1.000	272	9.763	9.500	445	8.514	8.000
112	.696	.500	215	1.325	1.062	273	10.013	9.750	446	9.014	8.500
113	.758	.562	216	1.388	1.125	274	10.263	10.000	447	9.514	9.000
114	.821	.625	217	1.450	1.187	275	10.763	10.500	448	10.014	9.500
115	.883	.687	218	1.513	1.250	276	11.263	11.000	449	10.514	10.000
116	.946	.750	219	1.575	1.312	277	11.763	11.500	450	11.014	10.500
117	1.008	.812	220	1.638	1.375	278	12.263	12.000	451	11.514	11.000
118	1.071	.875	221	1.700	1.437	279	13.263	13.000	452	12.014	11.500
119	1.133	.937	222	1.763	1.500	280	14.263	14.000	453	12.514	12.000
120	1.196	1.000	223	1.888	1.625	281	15.263	15.000	454	13.014	12.500
121	1.258	1.062	224	2.013	1.750	325	1.895	1.500	455	13.514	13.000
122	1.321	1.125	225	2.138	1.875	326	2.020	1.625	456	14.014	13.500
123	1.383	1.187	226	2.263	2.000	327	2.145	1.750	457	14.514	14.000
124	1.446	1.250	227	2.388	2.125	328	2.270	1.875	458	15.014	14.500
125	1.508	1.312	228	2.513	2.250	329	2.395	2.000	459	15.514	15.000
126	1.571	1.375	229	2.638	2.375				460	16.014	15.500
			230	2.763	2.500						



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
006-044	.094	.005-.015	.004
110-163	.141	.005-.015	.005
210-281	.188	.010-.020	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.008

Notes

1. This part is supplied in molybdenum disulphide filled TFE. For other material callouts, refer to Technical Data section.
2. Dash numbers correspond to AS 568.
3. O-ring size is same as seal size.
4. Rod diameters are in accordance with standard industrial practice.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.
6. Sidewall notches optional.

Ordering Instructions

Tetrafluor

ROD SEAL INSTALLATION
FOR STANDARD ROD
SPECIAL GROOVE
NO BACK-UP GLAND
INDUSTRIAL SERVICE

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

CODE IDENT. 07128

TF 732

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
006	.268	.125
007	.299	.156
008	.331	.188
009	.362	.219
010	.424	.250
011	.487	.312
012	.550	.375
	+.002 −.000	+.000 −.002
013	.610	.437
014	.672	.500
015	.735	.562
016	.797	.625
017	.860	.687
018	.922	.750
019	.985	.812
020	1.047	.875
021	1.110	.937
022	1.172	1.000
023	1.235	1.062
024	1.297	1.125
025	1.360	1.187
026	1.422	1.250
027	1.485	1.312
	+.003 −.000	+.000 −.003
110	.611	.375
111	.674	.437
112	.736	.500
113	.799	.562
114	.861	.625
115	.924	.687
116	.986	.750
117	1.049	.812
118	1.111	.875
119	1.174	.937
120	1.236	1.000
121	1.299	1.062
122	1.361	1.125
123	1.424	1.188
124	1.486	1.250
125	1.549	1.312
126	1.611	1.375
127	1.674	1.437
128	1.736	1.500
129	1.799	1.562
130	1.861	1.625
131	1.924	1.687
132	1.986	1.750
133	2.049	1.812
134	2.112	1.875
135	2.174	1.937
136	2.237	2.000
137	2.299	2.062
138	2.362	2.125
139	2.424	2.188

Dash No.	A Dia.	B Dia.
	+.003 −.000	+.000 −.003
140	2.487	2.250
141	2.549	2.312
142	2.612	2.375
143	2.674	2.437
144	2.737	2.500
145	2.799	2.562
146	2.862	2.625
147	2.924	2.687
148	2.987	2.750
	+.004 −.000	+.000 −.004
210	1.050	.750
211	1.113	.812
212	1.175	.875
213	1.238	.937
214	1.300	1.000
215	1.363	1.062
216	1.425	1.125
217	1.488	1.187
218	1.550	1.250
219	1.613	1.312
220	1.675	1.375
221	1.738	1.437
222	1.863	1.500
223	1.988	1.625
224	2.113	1.750
225	2.238	1.875
226	2.363	2.000
227	2.488	2.125
228	2.613	2.250
229	2.738	2.375
230	2.863	2.500
231	2.988	2.625
232	3.113	2.750
233	3.238	2.875
234	3.363	3.000
235	3.488	3.125
236	3.613	3.250
237	3.738	3.375
238	3.863	3.500
239	3.988	3.625
240	4.113	3.750
241	4.238	3.875
242	4.363	4.000
243	4.488	4.125
244	4.613	4.250
245	4.738	4.375
246	4.863	4.500
247	4.988	4.625
	+.005 −.000	+.000 −.005
325	1.991	1.500
326	2.116	1.625
327	2.241	1.750
328	2.366	1.875
329	2.491	2.000

Dash No.	A Dia.	B Dia.
	+.005 −.000	+.000 −.005
330	2.616	2.125
331	2.741	2.250
332	2.866	2.375
333	2.991	2.500
334	3.116	2.625
335	3.241	2.750
336	3.366	2.875
337	3.491	3.000
338	3.616	3.125
339	3.741	3.250
340	3.866	3.375
341	3.991	3.500
342	4.116	3.625
343	4.241	3.750
344	4.366	3.875
345	4.491	4.000
346	4.616	4.125
347	4.741	4.250
348	4.866	4.375
	+.006 −.000	+.000 −.006
425	5.093	4.500
426	5.218	4.625
427	5.343	4.750
428	5.468	4.875
429	5.593	5.000
430	5.718	5.125
431	5.843	5.250
432	5.968	5.375
433	6.093	5.500
434	6.218	5.625
435	6.343	5.750
436	6.468	5.875
437	6.718	6.000
438	6.968	6.250
439	7.218	6.500
440	7.468	6.750
441	7.718	7.000
442	7.968	7.250
443	8.218	7.500
444	8.468	7.750
445	8.968	8.000
446	9.468	8.500
447	9.968	9.000
448	10.468	9.500
449	10.968	10.000
450	11.468	10.500
451	11.968	11.000
452	12.468	11.500
453	12.968	12.000
454	13.468	12.500
455	13.968	13.000
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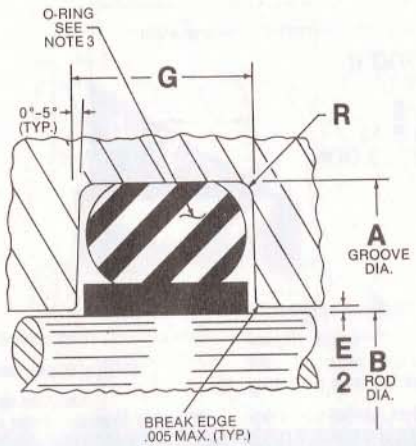
458	15.468	14.500
459	15.968	15.000



Dash No.	G Groove Width +.005 −.000	R Groove Radius	E Diametral Clearance Max.
006-027	.079	.005-.015	.004
110-148	.112	.005-.015	.005
210-247	.149	.010-.025	.006
325-348	.221	.020-.035	.007
425-459	.297	.020-.035	.008

Notes:

1. This part is supplied in long wearing Tetralon® For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is one Dash no. higher than seal size. For example, TF-481-214 uses 215 O-ring.
4. Rod diameter "B" per recommended industrial practice.
5. Sidewall notches optional.
6. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

ROD SEAL INSTALLATION
STANDARD ROD
SPECIAL GLAND
INDUSTRIAL SERVICE

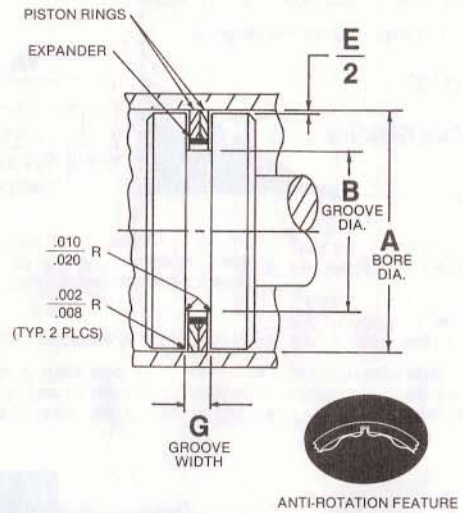
CODE IDENT. 07128

TF 481

Dash No.	A	B	G
	+.002 −.000	+.004 −.004	+.001 −.001
112	.675	.429	.126
113	.738	.428	.126
114	.800	.490	.126
115	.863	.553	.126
116	.925	.615	.126
210	.991	.681	.126
211	1.053	.743	.126
212	1.116	.806	.126
213	1.178	.868	.126
214	1.241	.931	.126
215	1.303	.993	.126
216	1.366	1.056	.126
217	1.428	.994	.126
218	1.491	1.057	.126
219	1.553	1.119	.126
220	1.616	1.182	.126
221	1.678	1.244	.126
222	1.741	1.307	.126
325	1.867	1.433	.126
326	1.992	1.558	.126
327	2.118	1.684	.126
328	2.243	1.809	.126
329	2.368	1.934	.126
330	2.493	2.059	.126

Dash No.	A	B	G
	+.002 −.000	+.004 −.004	+.001 −.001
331	2.618	2.184	.126
332	2.743	2.309	.126
333	2.868	2.434	.126
334	2.993	2.559	.126
335	3.118	2.684	.126
336	3.243	2.809	.126
337	3.368	2.934	.126
338	3.493	3.059	.126
339	3.618	3.184	.126
340	3.743	3.309	.126
341	3.868	3.434	.126
342	3.993	3.559	.126
343	4.118	3.558	.126
344	4.243	3.683	.126
345	4.368	3.808	.126
346	4.493	3.933	.126
347	4.618	4.058	.126
348	4.743	4.183	.126
349	4.868	4.308	.126

Dash No.	A	B	G
	+.003 −.000	+.004 −.004	+.001 −.001
425	4.974	4.414	.189
426	5.099	4.539	.189
427	5.224	4.664	.189
428	5.349	4.789	.189
429	5.474	4.914	.189
430	5.599	5.039	.189
431	5.724	5.164	.189
432	5.849	5.289	.189
433	5.974	5.414	.189
434	6.099	5.539	.189
435	6.224	5.664	.189
436	6.349	5.789	.189
437	6.474	5.914	.189
438	6.724	6.164	.189
439	6.974	6.414	.189
440	7.224	6.664	.189
441	7.474	6.914	.189
442	7.724	7.164	.189
443	7.974	7.414	.189
444	8.224	7.664	.189
445	8.474	7.914	.189
446	8.974	8.414	.189
447	9.474	8.914	.189



Dash No.	E Diametral Clearance Max.
112-334	.005
335-342	.006
343-349	.007
425 & UP	.008

Notes:

1. This part is supplied in long wearing Tetralon® For other material callouts, refer to Technical Data section.
2. Bore dimensions conform to MIL-G-5514 F.
3. Dash nos. of this drawing correspond to Dash nos. of AS-568 uniform dash numbering system for O-rings.
4. The TF 1055 series piston ring is furnished in sets consisting of two TF 1056 piston rings and one TF 1057 expander.
5. Expander Mat'l: Steel, 12-9-2 maraging stainless.

Ordering Information

Example: TF 1055 - 214
Piston Ring Set No.
Size Dash No.

Tetrafluor

PISTON RING INSTALLATION FOR MIL-G-5514 (F REVISION)

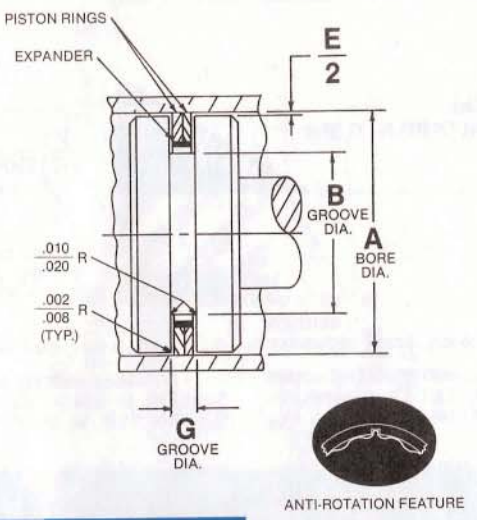
CODE IDENT. 07128

TF 1055

Dash No.	A	B	G
	+.002 −.000	+.004 −.004	+.001 −.001
112	.676	.430	.126
113	.738	.428	.126
114	.801	.491	.126
115	.863	.553	.126
116	.926	.616	.126
210	.991	.681	.126
211	1.053	.743	.126
212	1.116	.806	.126
213	1.178	.868	.126
214	1.241	.931	.126
215	1.303	.993	.126
216	1.366	1.056	.126
217	1.428	.994	.126
218	1.491	1.057	.126
219	1.553	1.119	.126
220	1.616	1.182	.126
221	1.678	1.244	.126
222	1.741	1.307	.126
325	1.870	1.436	.126
326	1.995	1.561	.126
327	2.120	1.686	.126
328	2.245	1.811	.126
329	2.370	1.936	.126
330	2.495	2.061	.126

Dash No.	A	B	G
	+.002 −.000	+.004 −.004	+.001 −.001
331	2.620	2.186	.126
332	2.745	2.311	.126
333	2.870	2.436	.126
334	2.995	2.561	.126
335	3.120	2.686	.126
336	3.245	2.811	.126
337	3.369	2.935	.126
338	3.494	3.060	.126
339	3.619	3.185	.126
340	3.744	3.310	.126
341	3.869	3.435	.126
342	3.994	3.560	.126
343	4.119	3.559	.126
344	4.244	3.684	.126
345	4.369	3.809	.126
346	4.494	3.934	.126
347	4.619	4.059	.126
348	4.744	4.184	.126
349	4.869	4.309	.126

Dash No.	A	B	G
	+.003 −.000	+.004 −.004	+.001 −.001
425	4.974	4.414	.189
426	5.099	4.539	.189
427	5.224	4.664	.189
428	5.349	4.789	.189
429	5.474	4.914	.189
430	5.599	5.039	.189
431	5.724	5.164	.189
432	5.849	5.289	.189
433	5.974	5.414	.189
434	6.099	5.539	.189
435	6.224	5.664	.189
436	6.349	5.789	.189
437	6.474	5.914	.189
438	6.724	6.164	.189
439	6.974	6.414	.189
440	7.224	6.664	.189
441	7.474	6.914	.189
442	7.724	7.164	.189
443	7.974	7.414	.189
444	8.224	7.664	.189
445	8.474	7.914	.189
446	8.974	8.414	.189
447	9.474	8.914	.189



Dash No.	E Diametral Clearance Max.
112-334	.005
335-342	.006
343-349	.007
425 & UP	.008

Notes:

1. Piston rings are supplied in virgin TFE per MIL-R-8791. For other mat'l callouts refer to Technical Data section.
2. Bore dimensions conform to MIL-P-5514 C, D & E.
3. Dash nos. of this drawing correspond to Dash nos. of AS-568 uniform dash numbering system for O-rings.
4. The TF 516 series piston ring is furnished in sets consisting of two TF 566 piston rings and one TF 551 expander.
5. Expander Mat'l: Type 301 S.S. per MIL-S-5059; Alternate Material: 17-7PH CRES.
6. For installation with anti-rotation pin, use part no. TF 558.

Ordering Information

Example: TF 516-214-A
Piston Ring Set No.
Size Dash No.
Alternate 17-7PH Expander Mat'l

Tetrafluor

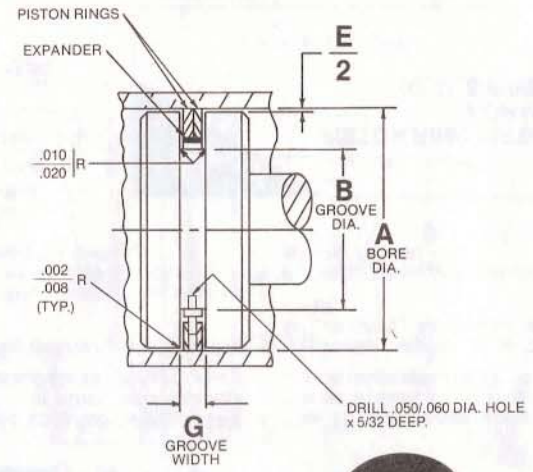
PISTON RING INSTALLATION FOR MIL-P-5514 (C, D, & E REVISIONS)

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

CODE IDENT. 07128

TF 516

Dash No.	A	B	G	Dash No.	A	B	G	Dash No.	A	B	G
	+.002 −.000	+.004 −.004	+.001 −.001		+.002 −.000	+.004 −.004	+.001 −.001		+.003 −.000	+.004 −.004	+.001 −.001
112	.676	.430	.126	331	2.620	2.186	.126	425	4.974	4.414	.189
113	.738	.428	.126	332	2.745	2.311	.126	426	5.099	4.539	.189
114	.801	.491	.126	333	2.870	2.436	.126	427	5.224	4.664	.189
115	.863	.553	.126	334	2.995	2.561	.126	428	5.349	4.789	.189
116	.926	.616	.126	335	3.120	2.686	.126	429	5.474	4.914	.189
210	.991	.681	.126	336	3.245	2.811	.126	430	5.599	5.039	.189
211	1.053	.743	.126	337	3.369	2.935	.126	431	5.724	5.164	.189
212	1.116	.806	.126	338	3.494	3.060	.126	432	5.849	5.289	.189
213	1.178	.868	.126	339	3.619	3.185	.126	433	5.974	5.414	.189
214	1.241	.931	.126	340	3.744	3.310	.126	434	6.099	5.539	.189
215	1.303	.993	.126	341	3.869	3.435	.126	435	6.224	5.664	.189
216	1.366	1.056	.126	342	3.994	3.560	.126	436	6.349	5.789	.189
217	1.428	.994	.126	343	4.119	3.559	.126	437	6.474	5.914	.189
218	1.491	1.057	.126	344	4.244	3.684	.126	438	6.724	6.164	.189
219	1.553	1.119	.126	345	4.369	3.809	.126	439	6.974	6.414	.189
220	1.616	1.182	.126	346	4.494	3.934	.126	440	7.224	6.664	.189
221	1.678	1.244	.126	347	4.619	4.059	.126	441	7.474	6.914	.189
222	1.741	1.307	.126	348	4.744	4.184	.126	442	7.724	7.164	.189
325	1.870	1.436	.126	349	4.869	4.309	.126	443	7.974	7.414	.189
326	1.995	1.561	.126					444	8.224	7.664	.189
327	2.120	1.686	.126					445	8.474	7.914	.189
328	2.245	1.811	.126					446	8.974	8.414	.189
329	2.370	1.936	.126					447	9.474	8.914	.189
330	2.495	2.061	.126								



ANTI-ROTATION FEATURE

Dash No.	E Diametral Clearance Max.
112-334	.005
335-342	.006
343-349	.007
425 & UP	.008

Notes:

1. Piston rings are supplied in virgin TFE per MIL-R-8791. For other mat'l callouts refer to Technical Data section.
2. Bore dimensions conform to MIL-P-5514 C, D & E.
3. Dash nos. of this drawing correspond to Dash nos. of AS-568 uniform dash numbering system for O-rings.
4. The TF 558 series piston ring is furnished in sets consisting of two TF 559 piston rings, one TF 560 expander and one TF 006 anti-rotation pin.
5. Expander Mat'l: Type 301 stainless steel per MIL-S-5059; Alternate Mat'l: 17-7PH CRES.
6. For installation without anti-rotation pin, use part no. TF 565 or TF 516 configurations.

Ordering Information

Example: TF 558-214-A
Piston Ring Set No.
Size Dash No.
Alternate 17-7PH Expander Mat'l

Tetrafluor

PISTON RING INSTALLATION FOR MIL-P-5514 (C, D, & E REVISIONS)

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

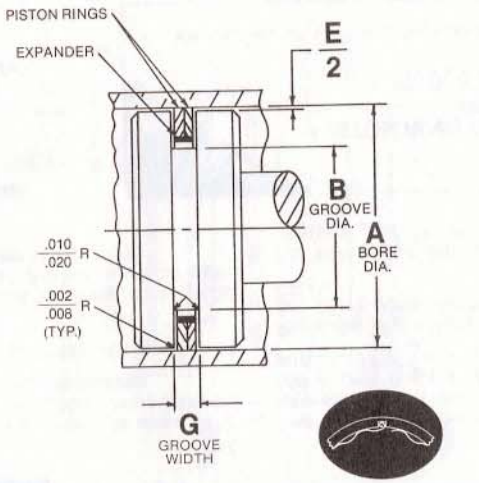
CODE IDENT. 07128

TF 558

Dash No.	A +.002 −.000	B +.004 −.004	G +.001 −.001
112	.676	.430	.126
113	.738	.428	.126
114	.801	.491	.126
115	.863	.553	.126
116	.926	.616	.126
210	.991	.681	.126
211	1.053	.743	.126
212	1.116	.806	.126
213	1.178	.868	.126
214	1.241	.931	.126
215	1.303	.993	.126
216	1.366	1.056	.126
217	1.428	.994	.126
218	1.491	1.057	.126
219	1.553	1.119	.126
220	1.616	1.182	.126
221	1.678	1.244	.126
222	1.741	1.307	.126
325	1.870	1.436	.126
326	1.995	1.561	.126
327	2.120	1.686	.126
328	2.245	1.811	.126
329	2.370	1.936	.126
330	2.495	2.061	.126

Dash No.	A +.002 −.000	B +.004 −.004	G +.001 −.001
331	2.620	2.186	.126
332	2.745	2.311	.126
333	2.870	2.436	.126
334	2.995	2.561	.126
335	3.120	2.686	.126
336	3.245	2.811	.126
337	3.369	2.935	.126
338	3.494	3.060	.126
339	3.619	3.185	.126
340	3.744	3.310	.126
341	3.869	3.435	.126
342	3.994	3.560	.126
343	4.119	3.559	.126
344	4.244	3.684	.126
345	4.369	3.809	.126
346	4.494	3.934	.126
347	4.619	4.059	.126
348	4.744	4.184	.126
349	4.869	4.309	.126

Dash No.	A +.003 −.000	B +.004 −.004	G +.001 −.001
425	4.974	4.414	.189
426	5.099	4.539	.189
427	5.224	4.664	.189
428	5.349	4.789	.189
429	5.474	4.914	.189
430	5.599	5.039	.189
431	5.724	5.164	.189
432	5.849	5.289	.189
433	5.974	5.414	.189
434	6.099	5.539	.189
435	6.224	5.664	.189
436	6.349	5.789	.189
437	6.474	5.914	.189
438	6.724	6.164	.189
439	6.974	6.414	.189
440	7.224	6.664	.189
441	7.474	6.914	.189
442	7.724	7.164	.189
443	7.974	7.414	.189
444	8.224	7.664	.189
445	8.474	7.914	.189
446	8.974	8.414	.189
447	9.474	8.914	.189



Dash No.	E Diametral Clearance Max.
112-334	.005
335-342	.006
343-349	.007
425 & UP	.008

Notes:

1. Piston rings are supplied in virgin TFE per MIL-R-8791. For other mat'l callouts refer to Technical Data section.
2. Bore dimensions conform to MIL-P-5514 C, D & E.
3. Dash nos. of this drawing correspond to Dash nos. of AS-568 uniform dash numbering system for O-rings.
4. The TF 565 series piston ring is furnished in sets consisting of two TF 566 piston rings and one TF 567 expander.
5. Expander Mat'l: Type 301 S.S. per MIL-S-5059; Alternate Mat'l: 17-7PH CRES.
6. For installation with anti-rotation pin, use part no. TF 558.

Ordering Information

Example: TF 565-214-A
Piston Ring Set No.
Size Dash No.
Alternate 17-7PH Expander Mat'l

Tetrafluor

PISTON RING INSTALLATION FOR MIL-P-5514 (C, D, & E REVISIONS)

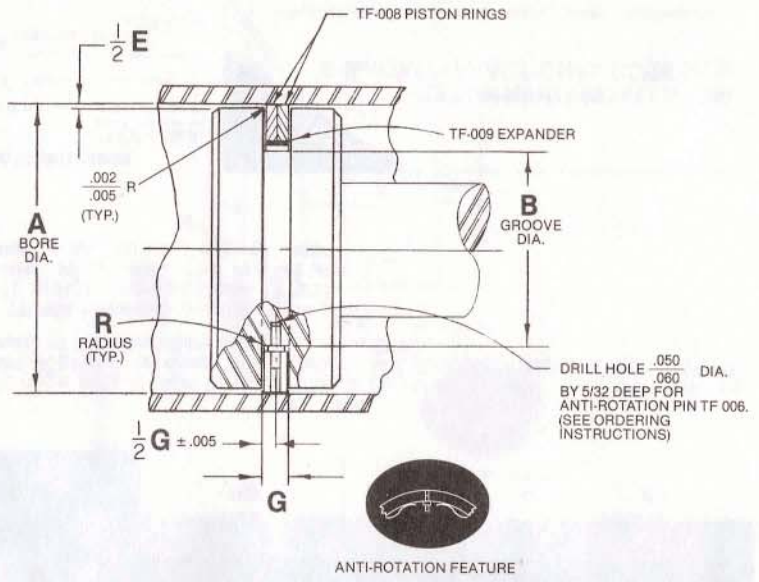
CODE IDENT. 07128

TF 565

Dash No.	A Dia.	B Dia.
	+.001 −.001	+.004 −.004
8	.500	.254
9	.562	.316
10	.625	.379
11	.687	.441
12	.750	.442
13	.812	.504
14	.875	.567
15	.937	.629
	+.002 −.000	
16	1.000	.692
17	1.062	.754
18	1.125	.817
19	1.187	.879
20	1.250	.942
21	1.312	1.004
22	1.375	1.067
23	1.437	1.005
24	1.500	1.068
25	1.562	1.130
26	1.625	1.193
27	1.687	1.255
28	1.750	1.318
29	1.812	1.380
30	1.875	1.443
31	1.937	1.505
32	2.000	1.568
33	2.062	1.630
34	2.125	1.693
35	2.187	1.755
36	2.250	1.818

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.004 −.004
37	2.312	1.880
38	2.375	1.943
39	2.437	2.005
40	2.500	2.068
41	2.562	2.130
42	2.625	2.193
43	2.687	2.255
44	2.750	2.318
45	2.812	2.380
46	2.875	2.443
47	2.937	2.505
48	3.000	2.568
49	3.062	2.630
50	3.125	2.693
51	3.187	2.755
52	3.250	2.818
53	3.312	2.880
	+.003 −.000	
54	3.375	2.943
55	3.437	3.005
56	3.500	3.068
57	3.562	3.130
58	3.625	3.193
59	3.687	3.255
60	3.750	3.318
61	3.812	3.380
62	3.875	3.443
63	3.937	3.505
64	4.000	3.568

Dash No.	A Dia.	B Dia.
	+.003 −.000	+.004 −.004
65	4.125	3.565
66	4.250	3.690
67	4.375	3.815
68	4.500	3.940
69	4.625	4.065
70	4.750	4.190
71	4.875	4.315
72	5.000	4.440
73	5.125	4.565
74	5.250	4.690
75	5.375	4.815
76	5.500	4.940
77	5.625	5.065
78	5.750	5.190
79	5.875	5.315
80	6.000	5.440
81	6.125	5.565
82	6.250	5.690
83	6.375	5.815
84	6.500	5.940
85	6.625	6.065
86	6.750	6.190
87	6.875	6.315
88	7.000	6.440
89	7.250	6.690
90	7.500	6.940
91	7.750	7.190
92	8.000	7.440
93	8.500	7.940
94	9.000	8.440
95	9.500	8.940



Dash No.	G Groove Width +.001 −.001	R Groove Radius Max.	E Diametral Clearance Max.
8-64	.126	.020	.005
65-95	.189	.030	.007

Notes:

1. Piston rings are supplied in virgin TFE per MIL-R-8791. For other mat'l callouts refer to Technical Data section.
2. Each TF 010 assembly consists of two TF 008 piston rings, one TF 009 expander and one TF006 anti-rotation pin. Rings are to be rotated at installation so that step cuts are 180° apart.
3. Expander Mat'l: Type 301 S.S. per MIL-S-5059; Alternate Mat'l: 17-7PH CRES.

Ordering Instructions

Example: TF010-19-T

- Basic P/N
- Size Dash No.
- Anti-Rotation Pin (If required)

Tetrafluor

PISTON RING INSTALLATION STANDARD FRACTIONAL BORE SIZE

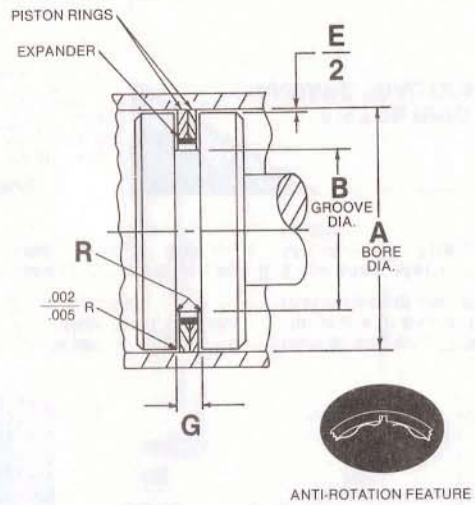
CODE IDENT. 07128

TF 010

Dash No.	A Dia. +.001 −.001	B Dia. +.004 −.004
8	.500	.254
9	.562	.316
10	.625	.379
11	.687	.441
12	.750	.442
13	.812	.504
14	.875	.567
15	.937	.629
A Dia. +.002 −.000		
16	1.000	.692
17	1.062	.754
18	1.125	.817
19	1.187	.879
20	1.250	.942
21	1.312	1.004
22	1.375	1.067
23	1.437	1.005
24	1.500	1.068
25	1.562	1.130
26	1.625	1.193
27	1.687	1.255
28	1.750	1.318
29	1.812	1.380
30	1.875	1.443
31	1.937	1.505
32	2.000	1.568
33	2.062	1.630
34	2.125	1.693
35	2.187	1.755
36	2.250	1.818

Dash No.	A Dia. +.002 −.000	B Dia. +.004 −.004
37	2.312	1.880
38	2.375	1.943
39	2.437	2.005
40	2.500	2.068
41	2.562	2.130
42	2.625	2.193
43	2.687	2.255
44	2.750	2.318
45	2.812	2.380
46	2.875	2.443
47	2.937	2.505
48	3.000	2.568
49	3.062	2.630
50	3.125	2.693
51	3.187	2.755
52	3.250	2.818
53	3.312	2.880
A Dia. +.003 −.000		
54	3.375	2.943
55	3.437	3.005
56	3.500	3.068
57	3.562	3.130
58	3.625	3.193
59	3.687	3.255
60	3.750	3.318
61	3.812	3.380
62	3.875	3.443
63	3.937	3.505
64	4.000	3.568

Dash No.	A Dia. +.003 −.000	B Dia. +.004 −.004
65	4.125	3.565
66	4.250	3.690
67	4.375	3.815
68	4.500	3.940
69	4.625	4.065
70	4.750	4.190
71	4.875	4.315
72	5.000	4.440
73	5.125	4.565
74	5.250	4.690
75	5.375	4.815
76	5.500	4.940
77	5.625	5.065
78	5.750	5.190
79	5.875	5.315
80	6.000	5.440
81	6.125	5.565
82	6.250	5.690
83	6.375	5.815
84	6.500	5.940
85	6.625	6.065
86	6.750	6.190
87	6.875	6.315
88	7.000	6.440
89	7.250	6.690
90	7.500	6.940
91	7.750	7.190
92	8.000	7.440
93	8.500	7.940
94	9.000	8.440
95	9.500	8.940



Dash No.	G Groove Width +.001 −.001	R Groove Radius Max.	E Diametral Clearance Max.
8-64	.126	.020	.005
65-95	.189	.030	.007

Notes:

1. Piston rings are supplied in virgin TFE per MIL-R-8791. For other mat'l call-outs refer to Technical Data section.
2. Each TF 054 assembly consists of two TF 052 piston rings and one TF 053 expander. Rings are to be rotated at installation so that step cuts are 180° apart.
3. Expander Mat'l: Type 301 S.S. per MIL-S-5059; Alternate Mat'l: 17-7PH CRES.

Ordering Instructions

Example: TFO54-19-A
Basic P/N
Size Dash No.
Alternate
17-7PH Expander Mat'l

Tetrafluor

PISTON RING INSTALLATION
STANDARD FRACTIONAL BORE SIZE

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

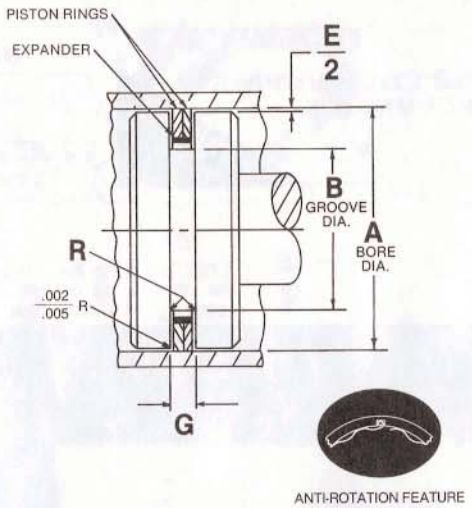
CODE IDENT. 07128

TF 054

Dash No.	A Dia.	B Dia.
	+.001 −.001	+.004 −.004
8	.500	.254
9	.562	.316
10	.625	.379
11	.687	.441
12	.750	.442
13	.812	.504
14	.875	.567
15	.937	.629
	+.002 −.000	
16	1.000	.692
17	1.062	.754
18	1.125	.817
19	1.187	.879
20	1.250	.942
21	1.312	1.004
22	1.375	1.067
23	1.437	1.005
24	1.500	1.068
25	1.562	1.130
26	1.625	1.193
27	1.687	1.255
28	1.750	1.318
29	1.812	1.380
30	1.875	1.443
31	1.937	1.505
32	2.000	1.568
33	2.062	1.630
34	2.125	1.693
35	2.187	1.755
36	2.250	1.818

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.004 −.004
37	2.312	1.880
38	2.375	1.943
39	2.437	2.005
40	2.500	2.068
41	2.562	2.130
42	2.625	2.193
43	2.687	2.255
44	2.750	2.318
45	2.812	2.380
46	2.875	2.443
47	2.937	2.505
48	3.000	2.568
49	3.062	2.630
50	3.125	2.693
51	3.187	2.755
52	3.250	2.818
53	3.312	2.880
	+.003 −.000	
54	3.375	2.943
55	3.437	3.005
56	3.500	3.068
57	3.562	3.130
58	3.625	3.193
59	3.687	3.255
60	3.750	3.318
61	3.812	3.380
62	3.875	3.443
63	3.937	3.505
64	4.000	3.568

Dash No.	A Dia.	B Dia.
	+.003 −.000	+.004 −.004
65	4.125	3.565
66	4.250	3.690
67	4.375	3.815
68	4.500	3.940
69	4.625	4.065
70	4.750	4.190
71	4.875	4.315
72	5.000	4.440
73	5.125	4.565
74	5.250	4.690
75	5.375	4.815
76	5.500	4.940
77	5.625	5.065
78	5.750	5.190
79	5.875	5.315
80	6.000	5.440
81	6.125	5.565
82	6.250	5.690
83	6.375	5.815
84	6.500	5.940
85	6.625	6.065
86	6.750	6.190
87	6.875	6.315
88	7.000	6.440
89	7.250	6.690
90	7.500	6.940
91	7.750	7.190
92	8.000	7.440
93	8.500	7.940
94	9.000	8.440
95	9.500	8.940



Dash No.	G Groove Width +.001 −.001	R Groove Radius Max.	E Diametral Clearance Max.
8-64	.126	.020	.005
65-95	.189	.030	.007

Notes:

1. Piston rings are supplied in virgin TFE per MIL-R-8791. For other mat'l callouts refer to Technical Data section.
2. Each TF 568 assembly consists of two TF 052 piston rings and one TF 569 expander. Rings are to be rotated at installation so that step cuts are 180° apart.
3. Expander Mat'l: Type 301 S.S. per MIL-S-5059; Alternate Mat'l: 17-7PH CRES.

Ordering Instructions

Example: TF 568-19-A
Basic P/N
Size Dash No.
Alternate 17-7PH Expander Mat'l

Tetrafluor

PISTON RING INSTALLATION
STANDARD FRACTIONAL BORE SIZE

TETRAFLUOR INC., 2051 EAST MAPLE AVENUE, EL SEGUNDO, CALIFORNIA 90245

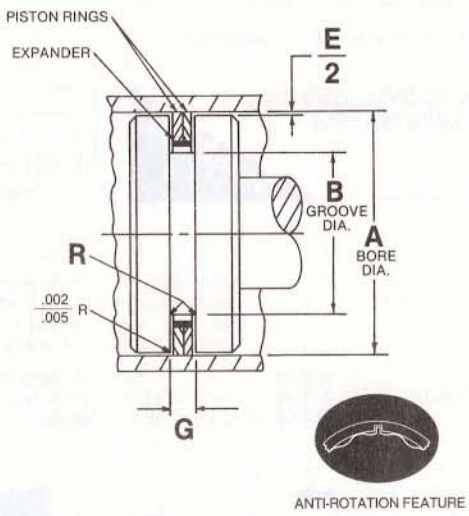
CODE IDENT. 07128

TF 568

Dash No.	A Dia. +.001 −.001	B Dia. +.004 −.004
8	.500	.254
9	.562	.316
10	.625	.379
11	.687	.441
12	.750	.442
13	.812	.504
14	.875	.567
15	.937	.629
A Dia. +.002 −.000		
16	1.000	.692
17	1.062	.754
18	1.125	.817
19	1.187	.879
20	1.250	.942
21	1.312	1.004
22	1.375	1.067
23	1.437	1.005
24	1.500	1.068
25	1.562	1.130
26	1.625	1.193
27	1.687	1.255
28	1.750	1.318
29	1.812	1.380
30	1.875	1.443
31	1.937	1.505
32	2.000	1.568
33	2.062	1.630
34	2.125	1.693
35	2.187	1.755
36	2.250	1.818

Dash No.	A Dia. +.002 −.000	B Dia. +.004 −.004
37	2.312	1.880
38	2.375	1.943
39	2.437	2.005
40	2.500	2.068
41	2.562	2.130
42	2.625	2.193
43	2.687	2.255
44	2.750	2.318
45	2.812	2.380
46	2.875	2.443
47	2.937	2.505
48	3.000	2.568
49	3.062	2.630
50	3.125	2.693
51	3.187	2.755
52	3.250	2.818
53	3.312	2.880
A Dia. +.003 −.000		
54	3.375	2.943
55	3.437	3.005
56	3.500	3.068
57	3.562	3.130
58	3.625	3.193
59	3.687	3.255
60	3.750	3.318
61	3.812	3.380
62	3.875	3.443
63	3.937	3.505
64	4.000	3.568

Dash No.	A Dia. +.003 −.000	B Dia. +.004 −.004
65	4.125	3.565
66	4.250	3.690
67	4.375	3.815
68	4.500	3.940
69	4.625	4.065
70	4.750	4.190
71	4.875	4.315
72	5.000	4.440
73	5.125	4.565
74	5.250	4.690
75	5.375	4.815
76	5.500	4.940
77	5.625	5.065
78	5.750	5.190
79	5.875	5.315
80	6.000	5.440
81	6.125	5.565
82	6.250	5.690
83	6.375	5.815
84	6.500	5.940
85	6.625	6.065
86	6.750	6.190
87	6.875	6.315
88	7.000	6.440
89	7.250	6.690
90	7.500	6.940
91	7.750	7.190
92	8.000	7.440
93	8.500	7.940
94	9.000	8.440
95	9.500	8.940



Dash No.	G Groove Width +.001 −.001	R Groove Radius Max.	E Diametral Clearance Max.
8-64	.126	.020	.005
65-95	.189	.030	.007

Notes:

1. Piston rings are supplied in virgin TFE per MIL-R-8791. For other mat'l callouts refer to Technical Data section.
2. Each TF 639 assembly consists of two TF 052 piston rings and one TF 551 expander. Rings are to be rotated at installation so that step cuts are 180° apart.
3. Expander Mat'l: Type 301 S.S. per MIL-S-5059; Alternate Mat'l: 17-7PH CRES.

Ordering Instructions

Example: TF 639-19-A
Basic P/N
Size Dash No.
Alternate 17-7PH Expander Mat'l

Tetrafluor

PISTON RING INSTALLATION
STANDARD FRACTIONAL BORE SIZE

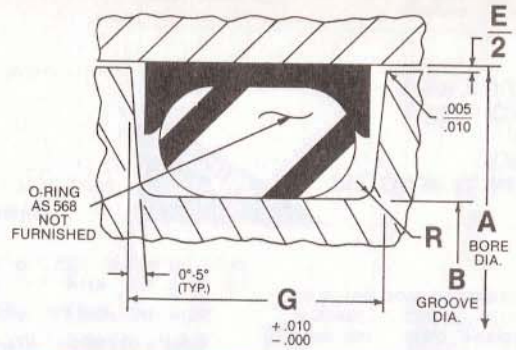
CODE IDENT. 07128

TF 639

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.627
017	.800	.688
018	.863	.751
019	.925	.813
020	.991	.879
021	1.053	.941
022	1.116	1.004
023	1.178	1.066
024	1.241	1.129
025	1.303	1.191
026	1.366	1.254
027	1.428	1.316
028	1.491	1.379
110	.550	.372
111	.613	.435
112	.675	.497
113	.738	.560
114	.800	.622
115	.863	.685
116	.925	.747
117	.991	.813
118	1.053	.875
119	1.116	.938
120	1.178	1.000
121	1.241	1.063
122	1.303	1.125
123	1.366	1.188
124	1.428	1.250
125	1.491	1.313
126	1.553	1.375
127	1.616	1.438
128	1.678	1.500
129	1.741	1.563
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.867	1.624
224	1.992	1.749
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.867	1.495
326	1.992	1.620
327	2.118	1.746
328	2.243	1.871
329	2.368	1.996
330	2.493	2.121
331	2.618	2.246
332	2.743	2.371
333	2.868	2.496
334	2.993	2.621
335	3.118	2.746

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.243	2.871
337	3.368	2.996
338	3.493	3.121
339	3.618	3.246
340	3.743	3.371
341	3.868	3.496
342	3.993	3.621
343	4.118	3.746
344	4.243	3.871
345	4.368	3.996
346	4.493	4.121
347	4.618	4.246
348	4.743	4.371
349	4.868	4.496
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
	+.004 −.000	+.000 −.003
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-129	.141	.005-.015	.005
130-140	.141	.005-.015	.006
141-149	.141	.005-.015	.007
210-222	.188	.010-.025	.005
223-227	.188	.010-.025	.006
228-243	.188	.010-.025	.007
244-247	.188	.010-.025	.008
325-329	.281	.020-.035	.006
330-345	.281	.020-.035	.007
346-349	.281	.020-.035	.008
425-445	.375	.020-.035	.009
446	.375	.020-.035	.010
447-460	.375	.020-.035	.011

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Example: TF 936 M - 214 N

- Basic P/N
- For Minigroove only
- Size Dash No.
- For optional notches only

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-G-5514 (F REVISION) NO BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT	
07128	**TF 936**

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.627
017	.800	.688
018	.863	.751
019	.925	.813
020	.991	.879
021	1.053	.941
022	1.116	1.004
023	1.178	1.066
024	1.241	1.129
025	1.303	1.191
026	1.366	1.254
027	1.428	1.316
028	1.491	1.379
110	.550	.372
111	.613	.435
112	.675	.497
113	.738	.560
114	.800	.622
115	.863	.685
116	.925	.747
117	.991	.813
118	1.053	.875
119	1.116	.938
120	1.178	1.000
121	1.241	1.063
122	1.303	1.125
123	1.366	1.188
124	1.428	1.250
125	1.491	1.313
126	1.553	1.375
127	1.616	1.438
128	1.678	1.500
129	1.741	1.563
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.867	1.624
224	1.992	1.749
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.867	1.495
326	1.992	1.620
327	2.118	1.746
328	2.243	1.871
329	2.368	1.996
330	2.493	2.121
331	2.618	2.246
332	2.743	2.371
333	2.868	2.496
334	2.993	2.621
335	3.118	2.746

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.243	2.871
337	3.368	2.996
338	3.493	3.121
339	3.618	3.246
340	3.743	3.371
341	3.868	3.496
342	3.993	3.621
343	4.118	3.746
344	4.243	3.871
345	4.368	3.996
346	4.493	4.121
347	4.618	4.246
348	4.743	4.371
349	4.868	4.496
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
	+.004 −.000	+.000 −.003
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
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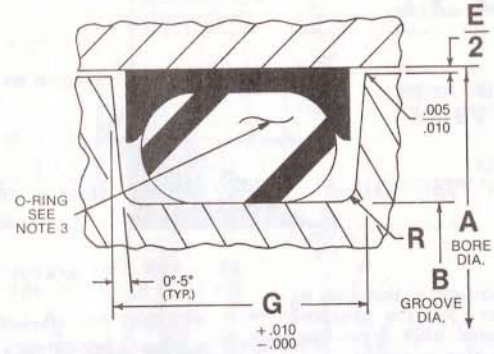
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.149	.005-.015	.004
013-028	.149	.005-.015	.005
110-129	.183	.005-.015	.005
130-140	.183	.005-.015	.006
141-149	.183	.005-.015	.007
210-222	.235	.010-.025	.005
223-227	.235	.010-.025	.006
228-243	.235	.010-.025	.007
244-247	.235	.010-.025	.008
325-329	.334	.020-.035	.006
330-345	.334	.020-.035	.007
346-349	.334	.020-.035	.008
425-445	.475	.020-.035	.009
446	.475	.020-.035	.010
447-460	.475	.020-.035	.011

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Example: TF 873 M - 214 N

- Basic P/N
- For Minigroove only
- Size Dash No.
- For optional notches only

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-G-5514 (F REVISION) ONE BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT	
07128	**TF 873**

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.627
017	.800	.688
018	.863	.751
019	.925	.813
020	.991	.879
021	1.053	.941
022	1.116	1.004
023	1.178	1.066
024	1.241	1.129
025	1.303	1.191
026	1.366	1.254
027	1.428	1.316
028	1.491	1.379
110	.550	.372
111	.613	.435
112	.675	.497
113	.738	.560
114	.800	.622
115	.863	.685
116	.925	.747
117	.991	.813
118	1.053	.875
119	1.116	.938
120	1.178	1.000
121	1.241	1.063
122	1.303	1.125
123	1.366	1.188
124	1.428	1.250
125	1.491	1.313
126	1.553	1.375
127	1.616	1.438
128	1.678	1.500
129	1.741	1.563
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.867	1.624
224	1.992	1.749
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.867	1.495
326	1.992	1.620
327	2.118	1.746
328	2.243	1.871
329	2.368	1.996
330	2.493	2.121
331	2.618	2.246
332	2.743	2.371
333	2.868	2.496
334	2.993	2.621
335	3.118	2.746

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.243	2.871
337	3.368	2.996
338	3.493	3.121
339	3.618	3.246
340	3.743	3.371
341	3.868	3.496
342	3.993	3.621
343	4.118	3.746
344	4.243	3.871
345	4.368	3.996
346	4.493	4.121
347	4.618	4.246
348	4.743	4.371
349	4.868	4.496
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
	+.004 −.000	+.000 −.003
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
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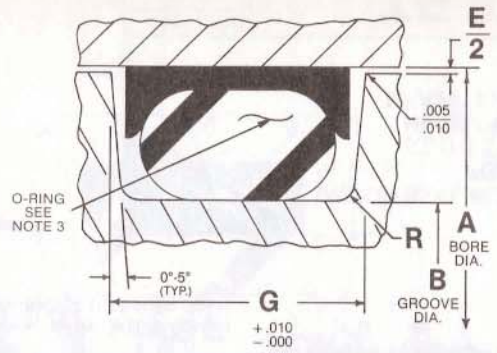
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.207	.005-.015	.004
013-028	.207	.005-.015	.005
110-129	.245	.005-.015	.005
130-140	.245	.005-.015	.006
141-149	.245	.005-.015	.007
210-222	.304	.010-.025	.005
223-227	.304	.010-.025	.006
228-243	.304	.010-.025	.007
244-247	.304	.010-.025	.008
325-329	.424	.020-.035	.006
330-345	.424	.020-.035	.007
346-349	.424	.020-.035	.008
425-445	.579	.020-.035	.009
446	.579	.020-.035	.010
447-460	.579	.020-.035	.011

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

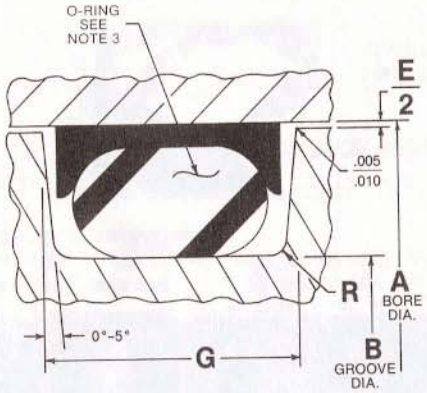
PISTON SEAL INSTALLATION FOR MIL-G-5514 (F REVISION) TWO BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT.	
07128	**TF 239**

Dash No.	A Dia. +.001 −.000	B Dia. +.000 −.001
012	.485	.373
	A Dia. +.002 −.000	B Dia. +.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia. +.002 −.000	B Dia. +.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia. +.002 −.000	B Dia. +.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	A Dia. +.003 −.000	B Dia. +.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-149	.141	.005-.015	.005
210-247	.188	.010-.025	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

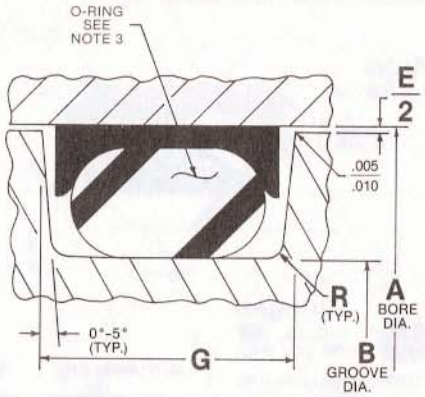
PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT.	TF 876
07128	

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-149	.141	.005-.015	.005
210-247	.188	.010-.025	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Sidewall notches optional.
5. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND

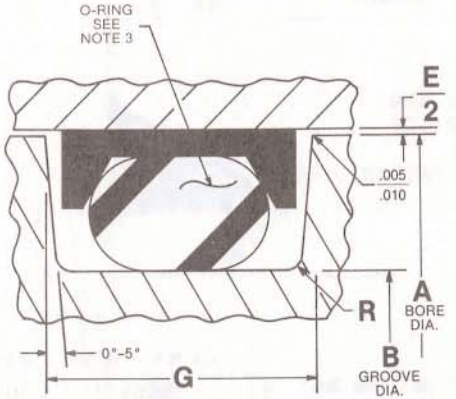
CODE IDENT. 07128

TF 435

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
004	.190	.076
005	.221	.108
006	.235	.123
007	.266	.154
008	.297	.185
009	.329	.217
010	.360	.248
011	.422	.310
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
004-012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-127	.141	.005-.015	.005
210-247	.188	.010-.020	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.008

Notes

1. This part is supplied in virgin TFE. For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is same as seal size.
4. Parts Dash Nos. 110 thru 116; 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12AS and are supplied in VTFE per AMS 3651.
5. Sidewall notches optional.
6. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12AS (See Note 4)

Example: BACR12AS-214
Basic P/N
Size Dash No.

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND

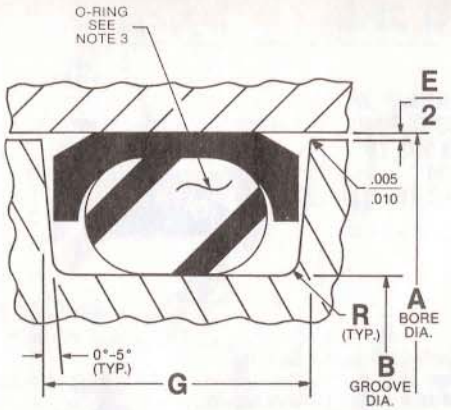
CODE IDENT. 07128

TF 385

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
006	.235	.123
007	.266	.154
008	.297	.185
009	.329	.217
010	.360	.248
011	.422	.310
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
334	2.995	2.623
335	3.120	2.748
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
004-012	.094	.005-.015	.004
013-028	.094	.005-.015	.005
110-149	.141	.005-.015	.005
210-247	.188	.010-.025	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.010

Notes:

1. This part is supplied in virgin TFE. For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is same as seal size.
4. Sidewall notches optional.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.
6. Dash nos. 006 thru 012, 110 thru 116, 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12BE.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12BE (See Note 6)

Example: BACR12BE-214-AorB

Basic P/N

Size Dash No.

Material Code

A-BMS8-121 Typ. 1, GR.B, CL. 1
B-MIL-R-8791

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) NO BACK-UP GLAND

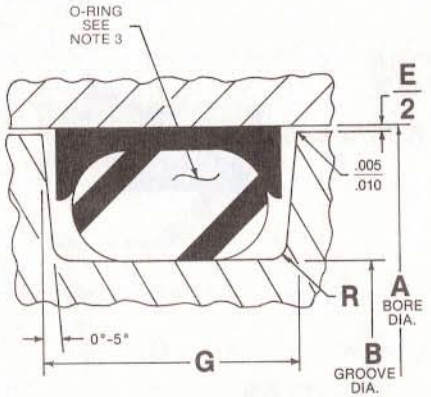
CODE IDENT. 07128

TF 453

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.149	.005-.015	.004
013-028	.149	.005-.015	.005
110-149	.183	.005-.015	.005
210-247	.225	.010-.025	.006
325-349	.334	.020-.030	.007
425-460	.440	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

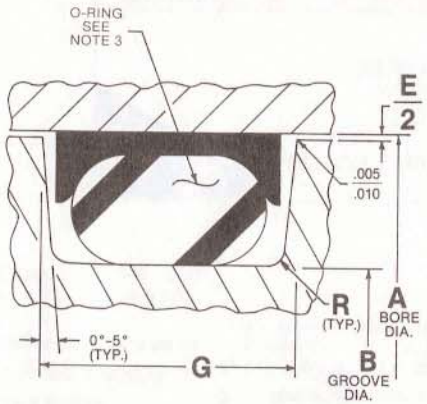
PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) ONE BACK-UP GLAND HEAVY DUTY SERVICE

CODE IDENT.	
07128	**TF 877**

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.149	.005-.015	.004
013-028	.149	.005-.015	.005
110-149	.183	.005-.015	.005
210-247	.225	.010-.025	.006
325-349	.334	.020-.030	.007
425-460	.440	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Sidewall notches optional.
5. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) ONE BACK-UP GLAND

CODE IDENT. 07128

TF 403

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
128	1.683	1.505
129	1.742	1.564
130	1.805	1.627
131	1.867	1.689
132	1.930	1.752
133	1.992	1.814
134	2.055	1.877
135	2.118	1.940
136	2.180	2.002
137	2.243	2.065
138	2.305	2.127
139	2.368	2.190
140	2.430	2.252
141	2.493	2.315
142	2.555	2.377
143	2.618	2.440
144	2.680	2.502

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
145	2.743	2.565
146	2.805	2.627
147	2.868	2.690
148	2.930	2.752
149	2.993	2.815
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
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444	8.224	7.747
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447	9.474	8.997
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449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
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453	12.474	11.997
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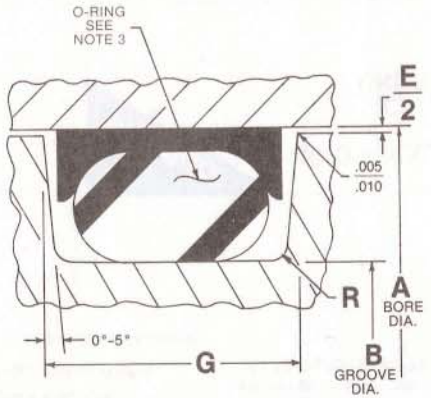
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.207	.005-.015	.004
013-028	.207	.005-.015	.005
110-149	.245	.005-.015	.005
210-247	.304	.010-.025	.006
325-349	.424	.020-.030	.007
425-460	.579	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Suitable for use with MIL-P-83461 O-rings in MIL-H-83282 hydraulic fluid as well as with all standard hydraulic fluids and O-ring compounds.
5. Sidewall notches optional.
6. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) TWO BACK-UP GLAND HEAVY DUTY SERVICE

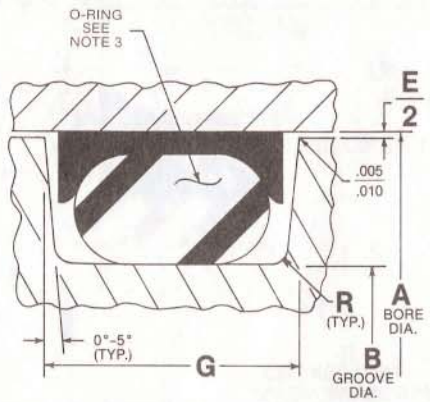
CODE IDENT. 07128

TF 935

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
004	.190	.076
005	.221	.108
006	.235	.123
007	.266	.154
008	.297	.185
009	.329	.217
010	.360	.248
011	.422	.310
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
012	.207	.005-.015	.004
013-028	.207	.005-.015	.005
110-149	.245	.005-.015	.005
210-247	.304	.010-.025	.006
325-349	.424	.020-.030	.007
425-460	.579	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash numbers correspond to AS568.
3. O-ring supplied on request. Size is same as seal dash size.
4. Sidewall notches optional.
5. This part also supplied with Mini grooves®; add "M" after basic part no. for Minigroove configuration.
6. Dash nos. 004 thru 012, 110 thru 116, 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12BF. These parts are 15% graphite filled TFE.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12BF

Example: BACR12BF-214A

Basic P/N

Size Dash No.

Material Code (15% Graphite filled TFE)

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) TWO BACK-UP GLAND

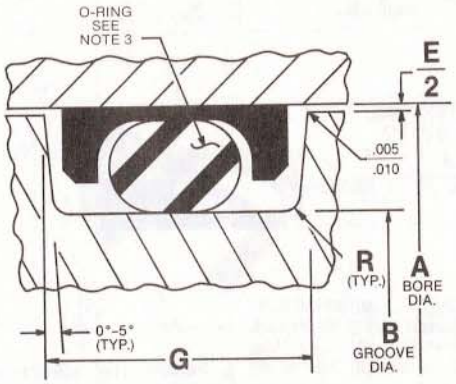
CODE IDENT. 07128

TF 429

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
004	.190	.076
005	.221	.108
006	.235	.123
007	.266	.154
008	.297	.185
009	.329	.217
010	.360	.248
011	.422	.310
012	.485	.373
	+.002 −.000	+.000 −.002
013	.550	.438
014	.613	.501
015	.675	.563
016	.738	.626
017	.800	.688
018	.863	.751
019	.925	.813
020	.993	.881
021	1.055	.943
022	1.118	1.006
023	1.180	1.068
024	1.243	1.131
025	1.305	1.193
026	1.368	1.256
027	1.430	1.318
028	1.493	1.381
110	.551	.373
111	.613	.435
112	.676	.498
113	.738	.560
114	.801	.623
115	.863	.685
116	.926	.748
117	.993	.815
118	1.056	.878
119	1.118	.940
120	1.181	1.003
121	1.243	1.065
122	1.306	1.128
123	1.368	1.190
124	1.431	1.253
125	1.493	1.315
126	1.558	1.380
127	1.620	1.442
210	.991	.748
211	1.053	.810
212	1.116	.873
213	1.178	.935

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
214	1.241	.998
215	1.303	1.060
216	1.366	1.123
217	1.428	1.185
218	1.491	1.248
219	1.553	1.310
220	1.616	1.373
221	1.678	1.435
222	1.741	1.498
223	1.868	1.625
224	1.993	1.750
225	2.118	1.875
226	2.243	2.000
227	2.368	2.125
228	2.493	2.250
229	2.618	2.375
230	2.743	2.500
231	2.868	2.625
232	2.993	2.750
233	3.118	2.875
234	3.243	3.000
235	3.368	3.125
236	3.493	3.250
237	3.618	3.375
238	3.743	3.500
239	3.868	3.625
240	3.993	3.750
241	4.118	3.875
242	4.243	4.000
243	4.368	4.125
244	4.493	4.250
245	4.618	4.375
246	4.743	4.500
247	4.868	4.625
325	1.870	1.498
326	1.995	1.623
327	2.120	1.748
328	2.245	1.873
329	2.370	1.998
330	2.495	2.123
331	2.620	2.248
332	2.745	2.373
333	2.870	2.498
334	2.995	2.623
335	3.120	2.748
336	3.245	2.873
337	3.369	2.997
338	3.494	3.122
339	3.619	3.247

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
340	3.744	3.372
341	3.869	3.497
342	3.994	3.622
343	4.119	3.747
344	4.244	3.872
345	4.369	3.997
346	4.494	4.122
347	4.619	4.247
348	4.744	4.372
349	4.869	4.497
	+.003 −.000	+.000 −.003
425	4.974	4.497
426	5.099	4.622
427	5.224	4.747
428	5.349	4.872
429	5.474	4.997
430	5.599	5.122
431	5.724	5.247
432	5.849	5.372
433	5.974	5.497
434	6.099	5.622
435	6.224	5.747
436	6.349	5.872
437	6.474	5.997
438	6.724	6.247
439	6.974	6.497
440	7.224	6.747
441	7.474	6.997
442	7.724	7.247
443	7.974	7.497
444	8.224	7.747
445	8.474	7.997
446	8.974	8.497
447	9.474	8.997
448	9.974	9.497
449	10.474	9.997
450	10.974	10.497
451	11.474	10.997
452	11.974	11.497
453	12.474	11.997
454	12.974	12.497
455	13.474	12.997
456	13.974	13.497
457	14.474	13.997
458	14.974	14.497
459	15.474	14.997
460	15.974	15.497



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
004-012	.207	.005-.015	.004
013-028	.207	.005-.015	.005
110-127	.245	.005-.015	.005
210-247	.304	.010-.025	.006
325-349	.424	.020-.030	.007
425-460	.579	.020-.030	.010

Notes:

1. This part is supplied in virgin TFE. For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is same as seal size.
4. Parts supplied with sidewall notches.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.
6. Dash nos. 008 thru 012, 110 thru 116, 210 thru 222 and 325 thru 349 conform to Boeing SCD BACR12BH.

Ordering Instructions

Ordering Instructions for Boeing Part Number BACR12BH (See Note 6)

Example: BACR12BH-214-AorB

Basic P/N

Size Dash No.

Material Code

A-BMS8-121 Typ. 1, GR.B, CL. 1
B-MIL-R-8791

Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) TWO BACK-UP GLAND

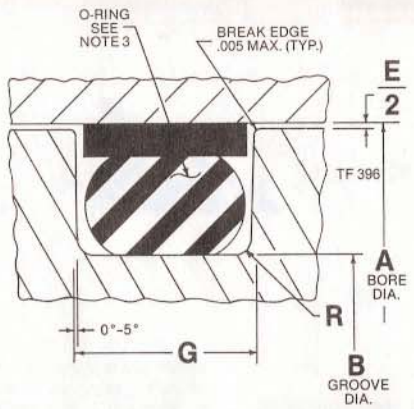
CODE IDENT. 07128

TF 454

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
006	.235	.093
007	.266	.123
008	.297	.154
009	.329	.185
010	.360	.217
011	.422	.248
012	.485	.310
	+.002 −.000	+.000 −.002
013	.550	.373
014	.613	.438
015	.675	.501
016	.738	.563
017	.800	.626
018	.863	.688
019	.925	.751
020	.993	.813
021	1.055	.881
022	1.118	.943
023	1.180	1.006
024	1.243	1.068
025	1.305	1.131
026	1.368	1.193
027	1.430	1.256
028	1.493	1.318
111	.613	.373
112	.676	.435
113	.738	.498
114	.801	.560
115	.863	.623
116	.926	.685
117	.993	.748
118	1.056	.815
119	1.118	.878
120	1.181	.940
121	1.243	1.003
122	1.306	1.065
123	1.368	1.128
124	1.431	1.190
125	1.493	1.253
126	1.558	1.315
127	1.620	1.380
128	1.683	1.442
129	1.742	1.505
130	1.805	1.564
131	1.867	1.627
132	1.930	1.689

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
133	1.992	1.752
134	2.055	1.814
135	2.118	1.877
136	2.180	1.940
137	2.243	2.002
138	2.305	2.065
139	2.368	2.127
140	2.430	2.190
141	2.493	2.252
142	2.555	2.315
143	2.618	2.377
144	2.680	2.440
145	2.743	2.502
146	2.805	2.565
147	2.868	2.627
148	2.930	2.690
149	2.993	2.752
211	1.053	.748
212	1.116	.810
213	1.178	.873
214	1.241	.935
215	1.303	.998
216	1.366	1.060
217	1.428	1.123
218	1.491	1.185
219	1.553	1.248
220	1.616	1.310
221	1.678	1.373
222	1.741	1.435
223	1.868	1.498
224	1.993	1.625
225	2.118	1.750
226	2.243	1.875
227	2.368	2.000
228	2.493	2.125
229	2.618	2.250
230	2.743	2.375
231	2.868	2.500
232	2.993	2.625
233	3.118	2.750
234	3.243	2.875
235	3.368	3.000
236	3.493	3.125
237	3.618	3.250
238	3.743	3.375
239	3.868	3.500
240	3.993	3.625

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
241	4.118	3.750
242	4.243	3.875
243	4.368	4.000
244	4.493	4.125
245	4.618	4.250
246	4.743	4.375
247	4.868	4.500
326	1.995	1.498
327	2.120	1.623
328	2.245	1.748
329	2.370	1.873
330	2.495	1.998
331	2.620	2.123
332	2.745	2.248
333	2.870	2.373
334	2.995	2.498
335	3.120	2.623
336	3.245	2.748
337	3.369	2.873
338	3.494	2.997
339	3.619	3.122
340	3.744	3.247
341	3.869	3.372
342	3.994	3.497
343	4.119	3.622
344	4.244	3.747
345	4.369	3.872
346	4.494	3.997
347	4.619	4.122
348	4.744	4.247
349	4.869	4.372
	+.003 −.000	+.000 −.003
426	5.099	4.497
427	5.224	4.622
428	5.349	4.747
429	5.474	4.872
430	5.599	4.997
431	5.724	5.122
432	5.849	5.247
433	5.974	5.372
434	6.099	5.497
435	6.224	5.622
436	6.349	5.747
437	6.474	5.872



Dash No.	G Groove Width +.005 −.000	R Groove Radius	E Diametral Clearance Max.
006-012	.080	.005-.015	.004
013-028	.080	.005-.015	.005
111-149	.113	.005-.015	.005
211-247	.149	.010-.025	.006
326-349	.220	.020-.030	.007
426-437	.295	.020-.030	.010

Notes:

1. This part is supplied in long wearing Tetralon® For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS568 numbering system.
3. O-ring supplied on request. Size is one Dash No. lower than seal size. For example, TF-396-214 uses 213 O-ring.
4. TF 396 piston seals fit all bore diameters per MIL-P-5514 Rev. C, D & E.
5.
6. Sidewall notches optional.
7. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

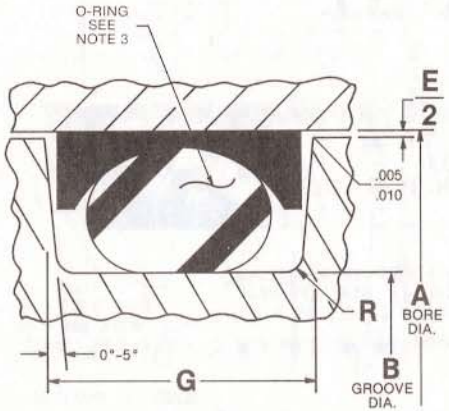
Tetrafluor

PISTON SEAL INSTALLATION FOR MIL-P-5514 (C, D & E REVISIONS) STANDARD BORE/SPECIAL GLAND

CODE IDENT. 07128

TF 396

Dash No. AN6227	Dash No. AS568	A Dia. +.001 −.001	B Dia. +.002 −.000
1	006	.250	.137
2	007	.281	.168
3	008	.312	.199
4	009	.344	.231
5	010	.375	.262
6	011	.4375	.3245
7	012	.500	.387
8	110	.5625	.3835
9	111	.625	.446
10	112	.6875	.5085
11	113	.750	.571
12	114	.8125	.6335
13	115	.875	.696
14	116	.9375	.7585
15	210	1.001	.756
16	211	1.063	.818
17	212	1.126	.881
18	213	1.188	.943
19	214	1.251	1.006
20	215	1.313	1.068
21	216	1.376	1.131
22	217	1.438	1.193
23	218	1.501	1.256
24	219	1.563	1.318
25	220	1.626	1.381
26	221	1.688	1.443
27	222	1.751	1.506
28	325	1.876	1.502
29	326	2.001	1.627
30	327	2.126	1.752
31	328	2.251	1.877
32	329	2.376	2.002
33	330	2.501	2.127
34	331	2.626	2.252
35	332	2.751	2.377
36	333	2.876	2.502
37	334	3.001	2.627
38	335	3.126	2.752
39	336	3.251	2.877
40	337	3.377	3.003
41	338	3.502	3.128
42	339	3.627	3.253
43	340	3.752	3.378
44	341	3.877	3.503
45	342	4.002	3.628
46	343	4.127	3.753
47	344	4.252	3.878
48	345	4.377	4.003
49	346	4.502	4.128
50	347	4.627	4.253
51	348	4.752	4.378
52	349	4.877	4.503
88	425	5.003	4.524
53	426	5.128	4.649
54	427	5.253	4.774
55	428	5.378	4.899
56	429	5.503	5.024
57	430	5.628	5.149
58	431	5.753	5.274
59	432	5.878	5.399
60	433	6.003	5.524
61	434	6.128	5.649
62	435	6.253	5.774
63	436	6.378	5.899
64	437	6.503	6.024
65	438	6.753	6.274
66	439	7.003	6.524
67	440	7.253	6.774
68	441	7.503	7.024
69	442	7.753	7.274
70	443	8.003	7.524
71	444	8.253	7.774
72	445	8.503	8.024
73	446	9.003	8.524
74	447	9.503	9.024
75	448	10.003	9.524
76	449	10.503	10.024
77	450	11.003	10.524
78	451	11.503	11.024
79	452	12.003	11.524
80	453	12.503	12.024
81	454	13.003	12.524
82	455	13.503	13.024
83	456	14.003	13.524
84	457	14.503	14.024
85	458	15.003	14.524
86	459	15.503	15.024
87	460	16.003	15.524



Dash No.	G Groove Width +.005 −.000	R Groove Radius	E Diametral Clearance Max.
006-012	.138	.005-.015	.005
110-116	.171	.005-.015	.005
210-222	.208	.010-.025	.006
325-349	.311	.020-.035	.007
425-429	.408	.020-.035	.008
430-460	.408	.020-.035	.010

Notes:

1. This part is supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash nos. correspond to dash nos. of AS 568. Dash nos. of "AN" series O-rings are shown for cross reference only.
3.
4. Sidewall notches optional.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

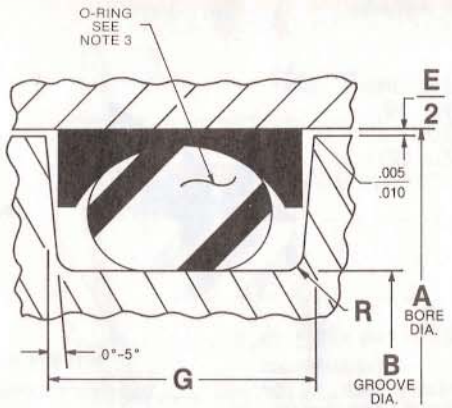
Tetrafluor

PISTON SEAL INSTALLATION
FOR MIL-P-5514
(A & B REVISIONS)
ONE BACK-UP GLAND

CODE IDENT. 07128

TF 395

Dash No. AN6227 SERIES	Dash No. AN6230 SERIES	Dash No. AS568 SERIES	A Dia. +.001 −.001	B Dia. +.002 −.000
8		110	.5625	.3835
9		111	.625	.446
10		112	.6875	.5085
11		113	.750	.571
12		114	.8125	.6335
13		115	.875	.696
14		116	.9375	.7585
15		210	1.001	.756
16		211	1.063	.818
17		212	1.126	.881
18		213	1.188	.943
19		214	1.251	1.006
20		215	1.313	1.068
21		216	1.376	1.131
22		217	1.438	1.193
23		218	1.501	1.256
24		219	1.563	1.318
25		220	1.626	1.381
26		221	1.688	1.443
27		222	1.751	1.506
	1	223	1.876	1.631
	2	224	2.001	1.756
	3	225	2.126	1.881
	4	226	2.251	2.006
	5	227	2.376	2.131
	6	228	2.501	2.256
	7	229	2.626	2.381
	8	230	2.751	2.506
	9	231	2.876	2.631
	10	232	3.001	2.756
	11	233	3.126	2.881
	12	234	3.251	3.006
	13	235	3.376	3.131
	14	236	3.501	3.256
	15	237	3.626	3.381
	16	238	3.751	3.506
	17	239	3.876	3.631
	18	240	4.001	3.756
	19	241	4.126	3.881
	20	242	4.251	4.006
	21	243	4.376	4.131
	22	244	4.501	4.256
	23	245	4.626	4.381
	24	246	4.751	4.506
	25	247	4.876	4.631
28		325	1.876	1.502
29		326	2.001	1.627
30		327	2.126	1.752
31		328	2.251	1.877
32		329	2.376	2.002
33		330	2.501	2.127
34		331	2.626	2.252
35		332	2.751	2.377
36		333	2.876	2.502
37		334	3.001	2.627
38		335	3.126	2.752
39		336	3.251	2.877
40		337	3.377	3.003
41		338	3.502	3.128
42		339	3.627	3.253
43		340	3.752	3.378
44		341	3.877	3.503
45		342	4.002	3.628
46		343	4.127	3.753
47		344	4.252	3.878
48		345	4.377	4.003
49		346	4.502	4.128
50		347	4.627	4.253
51		348	4.752	4.378
52		349	4.877	4.503
88		425	5.003	4.524
53		426	5.128	4.649
54		427	5.253	4.774
55		428	5.378	4.899
56		429	5.503	5.024
57		430	5.628	5.149
58		431	5.753	5.274
59		432	5.878	5.399
60		433	6.003	5.524
61		434	6.128	5.649
62		435	6.253	5.774
63		436	6.378	5.899
64		437	6.503	6.024
65		438	6.753	6.274
66		439	7.003	6.524
67		440	7.253	6.774
68		441	7.503	7.024
69		442	7.753	7.274
70		443	8.003	7.524
71		444	8.253	7.774
72		445	8.503	8.024
73		446	9.003	8.524
74		447	9.503	9.024
75		448	10.003	9.524
76		449	10.503	10.024
77		450	11.003	10.524
78		451	11.503	11.024
79		452	12.003	11.524
80		453	12.503	12.024
81		454	13.003	12.524
82		455	13.503	13.024
83		456	14.003	13.524
84		457	14.503	14.024
85		458	15.003	14.524
86		459	15.503	15.024
87		460	16.003	15.524



Dash No.	G Groove Width +.005 −.000	R Groove Radius	E Diametral Clearance Max.
110-116	.238	.005-.015	.005
210-247	.275	.010-.025	.006
325-349	.410	.020-.035	.007
425-429	.538	.020-.035	.008
430-460	.538	.020-.035	.010

Notes:

1. This part supplied in long wearing Tetralon®; for other material callouts refer to Technical Data section.
2. Dash nos. correspond to dash nos. of AS 568. Dash nos. of "AN" series O-rings are shown for cross reference only.
3.
4. Gland dimensions for AS dash no's 223 thru 247 permit dynamic applications using o-rings normally restricted to static seals.
5. Sidewall notches optional.
6. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

PISTON SEAL INSTALLATION
FOR MIL-P-5514
(A & B REVISIONS)
TWO BACK-UP GLAND

CODE IDENT. 07128

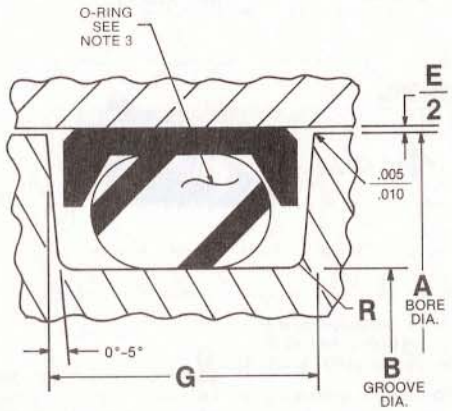
TF 405

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
006	.250	.119
007	.281	.150
008	.312	.181
009	.343	.213
010	.375	.244
011	.437	.306
012	.500	.369
	+.002 −.000	+.000 −.002
013	.562	.431
014	.625	.494
015	.687	.556
016	.750	.619
017	.812	.681
018	.875	.744
019	.937	.806
020	1.000	.869
021	1.062	.931
022	1.125	.994
023	1.187	1.056
024	1.250	1.119
025	1.312	1.181
026	1.375	1.244
027	1.437	1.306
028	1.500	1.369
029	1.625	1.494
030	1.750	1.619
031	1.875	1.744
032	2.000	1.869
033	2.125	1.994
034	2.250	2.119
035	2.375	2.244
036	2.500	2.369
037	2.625	2.494
038	2.750	2.619
039	2.875	2.844
040	3.000	2.869
041	3.125	2.994
042	3.375	3.244
043	3.625	3.494
044	3.875	3.744
045	4.125	3.994
110	.562	.366
111	.625	.429
112	.687	.491
113	.750	.554
114	.812	.616
115	.875	.679
116	.937	.741
117	1.000	.804
118	1.062	.866
119	1.125	.929
120	1.187	.991
121	1.250	1.054
122	1.312	1.116
123	1.375	1.179
124	1.437	1.241
125	1.500	1.304

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
126	1.562	1.366
127	1.625	1.429
128	1.687	1.491
129	1.750	1.554
130	1.812	1.616
131	1.875	1.679
132	1.937	1.741
133	2.000	1.804
134	2.062	1.866
135	2.125	1.929
136	2.187	1.991
137	2.250	2.054
138	2.312	2.116
139	2.375	2.179
140	2.437	2.241
141	2.500	2.304
142	2.562	2.366
143	2.625	2.429
144	2.687	2.491
145	2.750	2.554
146	2.812	2.616
147	2.875	2.679
148	2.937	2.741
149	3.000	2.804
150	3.062	2.866
151	3.187	2.991
152	3.437	3.241
153	3.687	3.491
154	3.937	3.741
155	4.187	3.991
156	4.437	4.241
157	4.687	4.491
158	4.937	4.741
159	5.187	4.991
160	5.437	5.241
161	5.687	5.491
162	5.937	5.741
163	6.187	5.991
210	1.000	.737
211	1.062	.799
212	1.125	.862
213	1.187	.924
214	1.250	.987
215	1.312	1.049
216	1.375	1.112
217	1.437	1.174
218	1.500	1.237
219	1.562	1.299
220	1.625	1.362
221	1.687	1.424
222	1.750	1.487
223	1.875	1.612
224	2.000	1.737
225	2.125	1.862
226	2.250	1.987
227	2.375	2.112
228	2.500	2.237
229	2.625	2.362

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
230	2.750	2.487
231	2.875	2.612
232	3.000	2.737
233	3.125	2.862
234	3.250	2.987
235	3.375	3.112
236	3.500	3.237
237	3.625	3.362
238	3.750	3.487
239	3.875	3.612
240	4.000	3.737
241	4.125	3.862
242	4.250	3.987
243	4.375	4.112
244	4.500	4.237
245	4.625	4.362
246	4.750	4.487
247	4.875	4.612
248	5.000	4.737
249	5.125	4.862
250	5.250	4.987
251	5.375	5.112
252	5.500	5.237
253	5.625	5.362
254	5.750	5.487
255	5.875	5.612
256	6.000	5.737
257	6.125	5.862
258	6.250	5.987
259	6.500	6.237
260	6.750	6.487
261	7.000	6.737
262	7.250	6.987
263	7.500	7.237
264	7.750	7.487
265	8.000	7.737
266	8.250	7.987
267	8.500	8.237
268	8.750	8.487
269	9.000	8.737
270	9.250	8.987
271	9.500	9.237
272	9.750	9.487
273	10.000	9.737
274	10.250	9.987
275	10.750	10.487
276	11.250	10.987
277	11.750	11.487
278	12.250	11.987
279	13.250	12.987
280	14.250	13.987
281	15.250	14.987
325	1.875	1.480
326	2.000	1.605
327	2.125	1.730
328	2.250	1.855
329	2.375	1.980
330	2.500	2.105

Dash No.	A Dia.	B Dia.
	+.002 −.000	+.000 −.002
331	2.625	2.230
332	2.750	2.355
333	2.875	2.480
334	3.000	2.605
335	3.125	2.730
336	3.250	2.855
337	3.375	2.980
338	3.500	3.105
339	3.625	3.230
340	3.750	3.355
341	3.875	3.480
342	4.000	3.605
343	4.125	3.730
344	4.250	3.855
345	4.375	3.980
346	4.500	4.105
347	4.625	4.230
348	4.750	4.355
349	4.875	4.480
	+.003 −.000	+.000 −.003
425	5.000	4.485
426	5.125	4.610
427	5.250	4.735
428	5.373	4.860
429	5.500	4.985
430	5.625	5.110
431	5.750	5.235
432	5.875	5.360
433	6.000	5.485
434	6.125	5.610
435	6.250	5.735
436	6.375	5.860
437	6.500	5.985
438	6.750	6.235
439	7.000	6.485
440	7.250	6.735
441	7.500	6.985
442	7.750	7.235
443	8.000	7.485
444	8.250	7.735
445	8.500	7.985
446	9.000	8.485
447	9.500	8.985
448	10.000	9.485
449	10.500	9.985
450	11.000	10.485
451	11.500	10.985
452	12.000	11.485
453	12.500	11.985
454	13.000	12.485
455	13.500	12.985
456	14.000	13.485
457	14.500	13.985
458	15.000	14.485
459	15.500	14.985
460	16.000	15.485



Dash No.	G Groove Width +.010 −.000	R Groove Radius	E Diametral Clearance Max.
006-044	.094	.005-.015	.004
110-163	.141	.005-.015	.005
210-281	.188	.010-.020	.006
325-349	.281	.020-.030	.007
425-460	.375	.020-.030	.008

Notes

1. This part is supplied in molybdenum disulphide filled TFE. For other material callouts, refer to Technical Data section.
2. Dash numbers correspond to AS 568.
3. O-ring size is same as seal size.
4. Bore diameters are in accordance with standard industrial practice.
5. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.
6. Sidewall notches optional.

Ordering Instructions

Tetrafluor

PISTON SEAL INSTALLATION FOR STANDARD BORE SPECIAL GROOVE NO BACK-UP GLAND INDUSTRIAL SERVICE

CODE IDENT. 07128

TF 731

Dash No.	A Dia.	B Dia.
	+.001 −.000	+.000 −.001
007	.281	.139
008	.312	.169
009	.344	.200
010	.375	.231
011	.437	.263
012	.500	.325
	+.002 −.000	+.000 −.002
013	.562	.388
014	.625	.452
015	.687	.515
016	.750	.577
017	.812	.640
018	.875	.702
019	.937	.765
020	1.000	.827
021	1.062	.890
022	1.125	.952
023	1.188	1.015
024	1.250	1.078
025	1.312	1.140
026	1.375	1.202
027	1.437	1.265
028	1.500	1.327
	+.003 −.000	+.000 −.003
111	.625	.388
112	.687	.451
113	.750	.513
114	.812	.576
115	.875	.638
116	.937	.701
117	1.000	.763
118	1.062	.826
119	1.125	.888
120	1.188	.951
121	1.250	1.013
122	1.312	1.076
123	1.375	1.138
124	1.437	1.201
125	1.500	1.263
126	1.562	1.326
127	1.625	1.388
128	1.687	1.451
129	1.750	1.513
130	1.812	1.576
131	1.875	1.638
132	1.937	1.701
133	2.000	1.763
134	2.062	1.826
135	2.125	1.888
136	2.188	1.951
137	2.250	2.013
138	2.312	2.076
139	2.375	2.138
140	2.437	2.201

Dash No.	A Dia.	B Dia.
	+.003 −.000	+.000 −.003
141	2.500	2.263
142	2.562	2.326
143	2.625	2.388
144	2.687	2.451
145	2.750	2.513
146	2.812	2.576
147	2.875	2.638
148	2.937	2.701
149	3.000	2.763
	+.004 −.000	+.000 −.004
211	1.062	.762
212	1.125	.824
213	1.188	.887
214	1.250	.950
215	1.312	1.012
216	1.375	1.074
217	1.437	1.137
218	1.500	1.199
219	1.562	1.262
220	1.625	1.324
221	1.688	1.387
222	1.750	1.450
223	1.875	1.512
224	2.000	1.637
225	2.125	1.762
226	2.250	1.887
227	2.375	2.012
228	2.500	2.137
229	2.625	2.262
230	2.750	2.387
231	2.875	2.512
232	3.000	2.637
233	3.125	2.762
234	3.250	2.887
235	3.375	3.012
236	3.500	3.137
237	3.625	3.262
238	3.750	3.387
239	3.875	3.512
240	4.000	3.637
241	4.125	3.762
242	4.250	3.887
243	4.375	4.012
244	4.500	4.137
245	4.625	4.262
246	4.750	4.387
247	4.875	4.512
	+.005 −.000	+.000 −.005
326	2.000	1.509
327	2.125	1.634
328	2.250	1.759
329	2.375	1.884
330	2.500	2.009
331	2.625	2.134

Dash No.	A Dia.	B Dia.
	+.005 −.000	+.000 −.005
332	2.750	2.259
333	2.875	2.384
334	3.000	2.509
335	3.125	2.634
336	3.250	2.759
337	3.375	2.884
338	3.500	3.009
339	3.625	3.134
340	3.750	3.259
341	3.875	3.384
342	4.000	3.509
343	4.125	3.634
344	4.250	3.759
345	4.375	3.884
346	4.500	4.009
347	4.625	4.134
348	4.750	4.259
349	4.875	4.384
	+.006 −.000	+.000 −.006
426	5.125	4.532
427	5.250	4.657
428	5.375	4.782
429	5.500	4.907
430	5.625	5.032
431	5.750	5.157
432	5.875	5.282
433	6.000	5.407
434	6.125	5.532
435	6.250	5.657
436	6.375	5.782
437	6.500	5.907
438	6.750	6.032
439	7.000	6.282
440	7.250	6.532
441	7.500	6.782
442	7.750	7.032
443	8.000	7.282
444	8.250	7.532
445	8.500	7.782
446	9.000	8.032
447	9.500	8.532
448	10.000	9.032
449	10.500	9.532
450	11.000	10.032
451	11.500	10.532
452	12.000	11.032
453	12.500	11.532
454	13.000	12.032
455	13.500	12.532
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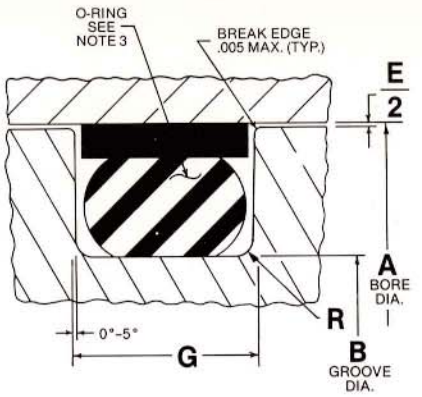
459	15.500	14.532
460	16.000	15.032



Dash No.	G Groove Width +.005 −.000	R Groove Radius	E Diametral Clearance Max.
007-028	.079	.005-.015	.004
111-149	.112	.005-.015	.005
211-247	.149	.010-.025	.006
326-349	.221	.020-.035	.007
426-460	.297	.020-.035	.008

Notes:

1. This part is supplied in long wearing Tetralon® For other material callouts, refer to Technical Data section.
2. Dash nos. correspond to those of AS 568.
3. O-ring supplied on request. Size is one Dash No. lower than seal size. For example, TF-487-214 uses 213 O-ring.
4. Bore diameter "A" per recommended industrial practice.
5. Sidewall notches optional.
6. This part also supplied with Minigrooves®; add "M" after basic part no. for Minigroove configuration.

Ordering Instructions

Tetrafluor

PISTON SEAL INSTALLATION
STANDARD BORE
SPECIAL GLAND
INDUSTRIAL SERVICE

CODE IDENT. 07128

TF 487

CoorsTek

Amazing Solutions.

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IMPERIAL GRAPHICS 2/01