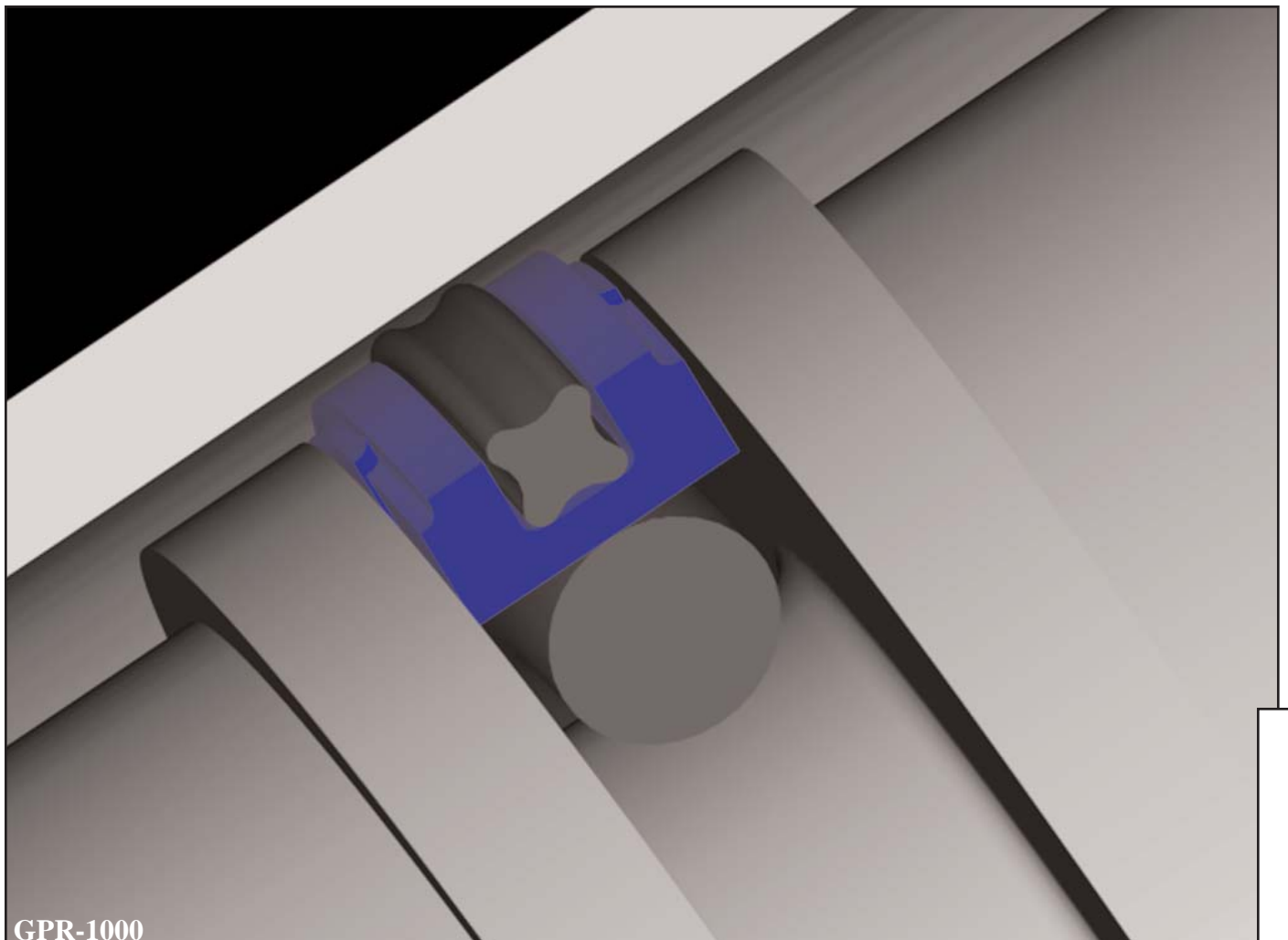




MACROTECH POLYSEAL, INC.

# Grooved Piston Rings AP Seal, GP Seal

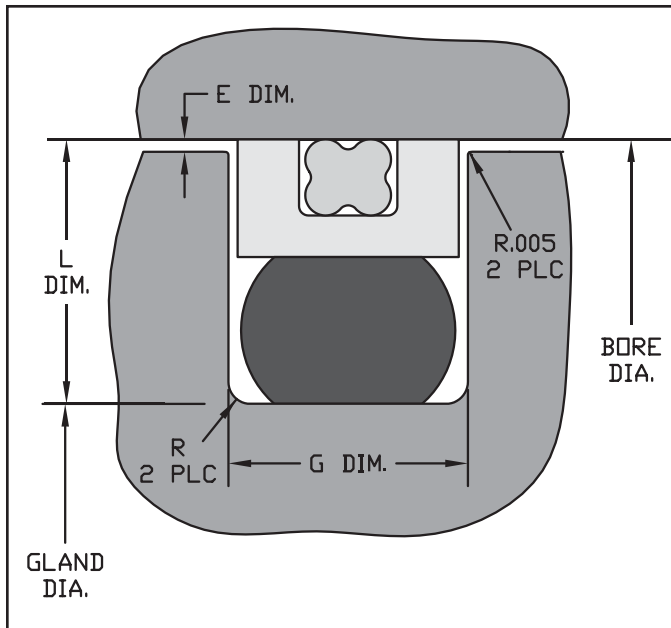


GPR-1000

Rev. #GPR1000-C

GPR-1000

# Recommended Gland Dimensions



Diametrical Tolerances			
Bore	Tol.	Gland	Tol.
1.000 to 2.000	+0.003 -0.000	.500 to 1.750	+0.000 -0.003
2.001 to 5.250	+0.004 -0.000	1.751 to 4.634	+0.000 -0.004
5.251 to 7.750	+0.005 -0.000	4.535 to 6.045	+0.000 -0.005
7.751 to 10.000	+0.006 -0.000	6.046 to 9.165	+0.000 -0.006
10.001 to 14.000	+0.008 -0.000	9.166 to 13.125	+0.000 -0.008

Series	Gland Diameter	G	L Ref	R Max	E Maximum Diametrical Clearance		
					1000 PSI	3000 PSI	5000 PSI
2	Bore -.424	.210/.215	.212	.015	.018	.006	.004
3	Bore -.616	.288/.293	.308	.025	.024	.008	.005
4	Bore -.840	.375/.380	.420	.035	.030	.010	.006
5	Bore -.920	.375/.380	.460	.035	.030	.010	.006

AP and GP type Piston Rings are designed to provide a positive bi-directional fluid seal in applications requiring good seal-ability at low

pressure differentials. They have been proven to be effective in piston accumulators and medium duty hydraulic cylinders.

## Grooved Piston Ring Compound List

No.	Description	Recommended Service
702	15% Glass, 5% Moly	General Purpose
716	15% Graphite	Low Friction
741	40% Bronze	General Purpose
711	25% Carbon Graphite	High Temperatures and Pressures
A8501	NBR (70A)	
V7501	Fluorocarbon (75A)	

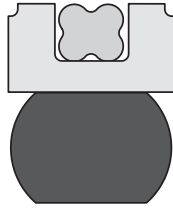
The materials listed above are some of the more common materials used in grooved piston rings and AP seals.

If your application has unique requirements, there are numerous other compounds available.

# Part Numbering Guide

**AP - 4 06000 - 741 - A8501**

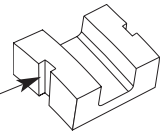
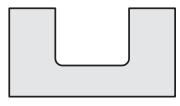
<b>Type</b>	<b>Series</b>	<b>Seal Diameter</b>	<b>Seal Cap Material</b>	<b>Elastomer Materials</b>
AP - Grooved Piston Seal Assembly	2 = 1/8 3 = 3/16 4 = 1/4 5 = 1/4 Extended	5 Digits for Bore Diameter 06000 = Ø6.000	See Materials Specification	See Materials Specification



Note: All AP seals are notched on both sides for venting.

**GP - 4 06000 - 741 - N**

<b>Type</b>	<b>Series</b>	<b>Seal Diameter</b>	<b>Seal Cap Material</b>	<b>Indicates Vent Notch</b>
GP - Grooved Piston Seal Ring	2 = 1/8 3 = 3/16 4 = 1/4 5 = 1/4 Extended	5 Digits for Bore Diameter 06000 = Ø6.000	See Materials Specification	(GP available with or without vent notch)

Note: Customer supplies elastomer components.

## GP Seal - Elastomer Loader and Dynamic Seal Sizes

SERIES 2			SERIES 3		SERIES 3				SERIES 4		SERIES 5	
BORE	Loader	Dynamic	Loader	Dynamic	BORE	Loader	Dynamic	Loader	Dynamic	Loader	Dynamic	
1.000	-207	-020			5.000	-348	-158					
1.125	-209	-022			5.125	-349	-158					
1.250	-211	-024			5.250	-350	-159					
1.375	-213	-026			5.375	-351	-159	-425	-251			
1.500	-215	-028			5.500	-352	-160	-426	-252			
1.625	-217	-029			5.625	-353	-160	-427	-253			
1.750	-219	-030			5.750	-354	-161	-428	-254			
1.875	-221	-031			6.000	-356	-162	-430	-256			
2.000	-222	-032	-324	-133	6.250	-358	-163	-432	-258			
2.125			-325	-135	6.500	-360	-164	-434	-259			
2.250			-326	-137	6.750	-361	-165	-436	-260			
2.375			-327	-139	7.000	-362	-166	-437	-261			
2.500			-328	-141	7.250	-363	-167	-438	-262			
2.625			-329	-143	7.500	-364	-168	-439	-263			
2.750			-330	-145	7.750	-365	-169	-440	-264			
2.875			-331	-147	8.000	-366	-170	-441	-265			
3.000			-332	-149	8.250			-442	-266			
3.125			-333	-150	8.500			-443	-267			
3.250			-334	-151	8.750			-444	-268			
3.375			-335	-151	9.000			-445	-269			
3.500			-336	-152	9.250			-445	-270			
3.625			-337	-152	9.500			-446	-271			
3.750			-338	-153	9.750			-446	-272			
3.875			-339	-153	10.000			-447	-273			
4.000			-340	-154	10.500					-448	-274	
4.125			-341	-154	11.000					-449	-275	
4.250			-342	-155	11.500					-450	-276	
4.375			-343	-155	12.000					-451	-277	
4.500			-344	-155	12.500					-452	-278	
4.625			-345	-156	13.000					-453	-278	
4.750			-346	-157	13.500					-454	-279	
4.875			-347	-157	14.000					-455	-279	

Note: It is necessary to stretch endless piston rings in diameter to install them in many applications. Care must be taken to stretch PTFE rings without damage. Instructions for installation tools and recommendations are available.

Please contact the engineering department for non standard parts.

1-800-453-8742 • [www.polyseal.com](http://www.polyseal.com)

## IMPORTANT NOTICE

We reserve the right to make changes without notice in our products and in the information and content of this brochure. The statements and information in the brochure are intended to serve only as guides. There are not warranties or binding descriptions of the products.

## NOTICE OF EXCLUSIVE WARRANTY AND REMEDY

Briefly, our exclusive warranty is against defects in materials and workmanship at the time of shipment. It is in lieu of all other warranties. *There is no implied warranty of merchantability or fitness for a particular purpose.* The exclusive remedy is replacement of defective products or, at our option, refund of their purchase price. *All damages exceeding the purchase price are excluded,* whether consequential or otherwise and regardless of cause. The terms and conditions on our printed quotation contain a much more complete statement of our Exclusive Warranty and Remedy.



**MACROTECH POLYSEAL, INC.**

P.O. Box 26627 Salt Lake City, UT 84126  
(801) 973-9171 (800) 453-8742  
Fax (801) 973-9188 (800) 825-7325  
info@polyseal.com

Visit us on the Internet at  
[www.polyseal.com](http://www.polyseal.com)

*Authorized MPI Distributor:*



**Minneapolis**

5250 West 73rd Street  
Edina, MN 55439  
Tel: (952) 835-1700  
Fax: (952) 835-1701

**Chicago**

6380 West Howard  
Niles, IL 60714  
Tel: (847) 675-1444  
Fax: (847) 675-8889

sales@rtdyger.com  
[www.rtdyger.com](http://www.rtdyger.com)