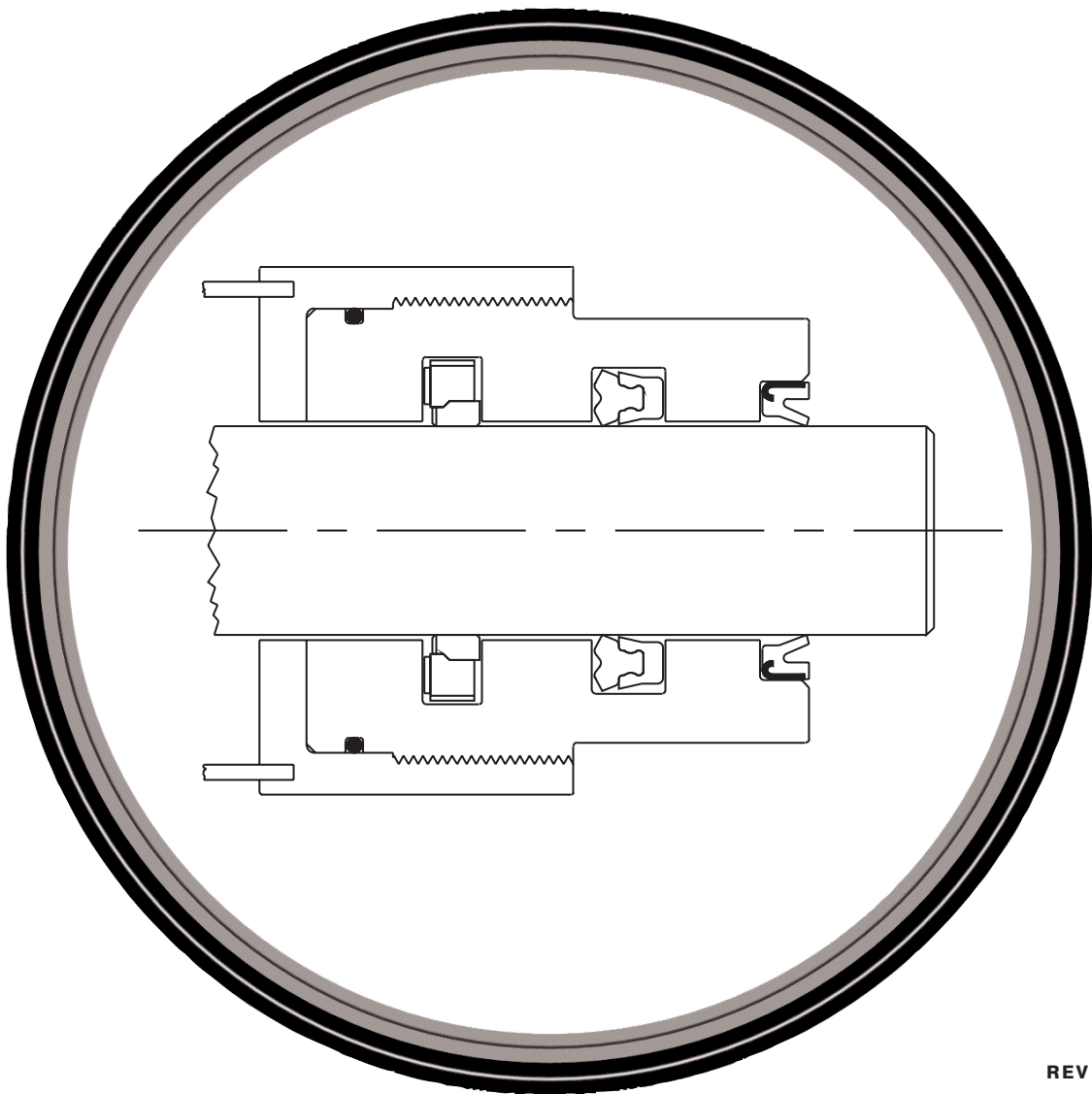




MACROTECH POLYSEAL, INC.

Service, Solutions, Performance

Buffer Seals Product Guide



REV #092003

BS-1000



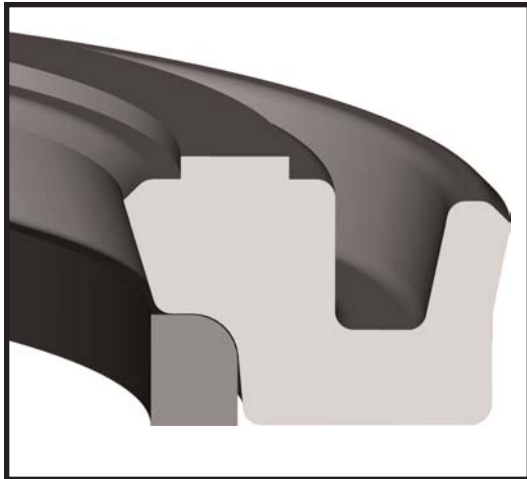
R STYLE

Traditional field proven design.
Often used as low friction rod seal.



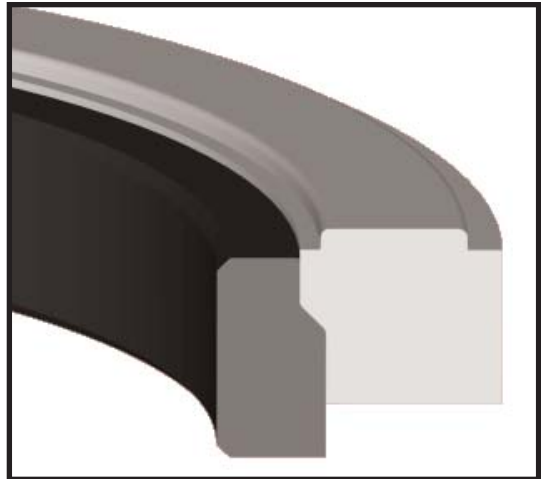
RM STYLE

Easy to install Lubrithane buffer.
Split anti-extrusion ring. Ideal for
small diameters.



RB STYLE

Lubrithane cup style buffer with
solid endless anti-extrusion ring.



RS STYLE

Heavy duty. Ideal for large rod
heavy duty service.

AVAILABLE COMPOUNDS	TEMP. RANGE (°F)	RECOMMENDED SERVICE
702 15% GLASS 5% MOLY	-100 +500	GENERAL PURPOSE - HYDRAULICS, WATER AND STEAM
741 40% BRONZE	-100 +500	HYDRAULIC AND HIGH-SPEED
707, P2506 Nylon	-400 +300	GENERAL PURPOSE, LOW ABRASION, HIGH STRENGTH
A8504 NBR	-65 +240	GENERAL PURPOSE, LOW TEMPERATURE NBR
A8501 NBR	-40 +275	GENERAL PURPOSE, HYDRAULIC NBR
V7501 FKM	-20 +400	FLUOROCARBON, SPECIAL FLUIDS AND TEMPERATURES
U1023	-65 +220 with intermittent use to 250	LUBRITHANE HP

Recommended Sizes



O-Ring for

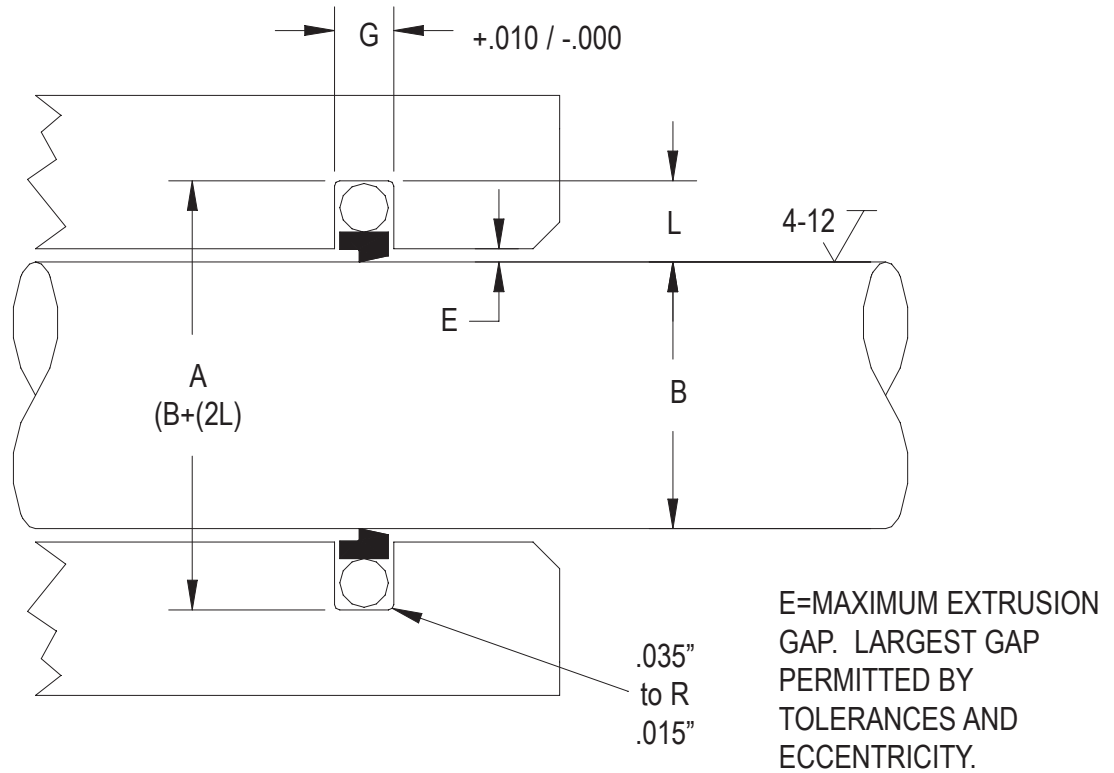
Rod Diameter	R-Style	R-Style	RM-Style	RB-Style	RS-Style
1.000	R101000	-122			
	R201000	-217	RM201000		
1.250	R101250	-126			
	R201250	-221	RM201250		
1.500	R101500	-130			
	R201500	-223	RM201500		
	R301500	-327	RM301500		
1.750	R201750	-225	RM201750		
	R301750	-329	RM301750		
2.000	R202000	-227	RM202000		
	R302000	-331	RM302000		
2.250	R202250	-229	RM202250		
	R302250	-333	RM302250		
2.500	R202500	-231	RM202500		
	R302500	-335	RM302500	RB302500	
2.750	R202750	-233	RM202750		
	R302750	-337	RM302750	RB302750	
3.000	R203000	-235	RM203000		
	R303000	-339	RM303000	RB303000	RS303000
3.250	R303250	-341			RS303250
3.500	R303500	-343		RB303500	RS303500
3.750	R303750	-345			RS303750
4.000	R304000	-347		RB304000	RS304000
	R404000	-424			RS404000
4.250	R304250	-349		RB304250	RS304250
	R404250	-426			RS404250
4.500	R304500	-351		RB304500	RS304500
	R404500	-428			RS404500
4.750	R304750	-353		RB304750	RS304750
	R404750	-430			RS404750
5.000	R305000	-355		RB305000	RS305000
	R405000	-432			RS405000
5.250	R305250	-357		RB305250	RS305250
	R405250	-434			RS405250
5.500	R305500	-359		RB305500	RS305500
	R405500	-436			RS405500

Recommended Sizes



O-Ring for

Rod Diameter	R-Style	R-Style	RM-Style	RB-Style	RS-Style
5.750	R305750	-361		RB305750	RS305750
	R405750	-437			RS405750
6.000	R306000	-362		RB306000	RS306000
	R406000	-438			RS406000
6.250	R306250	-363		RB306250	RS306250
	R406250	-439			RS406250
6.500	R306500	-364		RB306500	RS306500
	R406500	-440			RS406500
6.750	R306750	-365		RB306750	RS306750
	R406750	-441			RS406750
7.000	R307000	-366		RB307000	RS307000
	R407000	-442			RS407000
7.250	R307250	-367		RB307250	RS307250
	R407250	-443			RS407250
7.500	R307500	-368		RB307500	RS307500
	R407500	-444			RS407500
7.750	R307750	-369		RB307750	RS307750
	R407750	-445			RS407750
8.000	R308000	-370		RB308000	RS308000
	R408000	-445			RS408000
8.500	R408500	-446			RS408500
9.000	R409000	-447			RS409000
9.500	R409500	-448			RS409500
10.000	R410000	-449			RS410000
10.500	R410500	-450			RS410500
11.000	R411000	-451			RS411000
11.500	R411500	-452			RS411500
12.000	R412000	-453			RS412000
12.500					RS412500
13.000					RS413000
13.500					RS413500
14.000					RS414000
14.500					RS414500
15.000					RS415000
15.500					RS415500
16.000					RS416000



GLAND DIMENSIONS FOR ALL BUFFER SEAL STYLES ROD APPLICATIONS

(B) ROD DIAMETER	SUGGESTED DIAMETRICAL TOLERANCES*	(A) GROOVE DIAMETRICAL TOLERANCE	(G) GROOVE WIDTH	(L) GROOVE DEPTH	C/S SIZE
.31 to 1.5"	+.000/-.002	+.003/-.000	.126"	.149"	1(3/32")
.50 to 2.5"	+.000/-.003	+.004/-.000	.166"	.212"	2(1/8")
1.0 to 8.0"	+.000/-.004	+.005/-.000	.247"	.308"	3(3/16")
4.25 to 12"	+.000/-.005	+.006/-.000	.320"	.415"	4(1/4")

*Guide Only: Tighter Tolerances are required @ Higher Pressures

(E) MAXIMUM DIAMETRICAL CLEARANCE FOR R-STYLE

C/S	@ 1000 PSI	@ 3000 PSI	@ 5000 PSI	ABOVE 5000 PSI
1(3/32")	.018"	.016"	.008"	CONSULT FACTORY
2(1/8")	.024"	.018"	.009"	CONSULT FACTORY
3(3/16")	.030"	.024"	.018"	CONSULT FACTORY
4(1/4")	.040"	.030"	.024"	CONSULT FACTORY

(E) MAXIMUM DIAMETRICAL CLEARANCE FOR RB-STYLE

C/S	@ 1000 PSI	@ 3000 PSI	@ 5000 PSI	ABOVE 5000 PSI
3(3/16")	.030"	.022"	.018"	CONSULT FACTORY

(E) MAXIMUM DIAMETRICAL CLEARANCE FOR RM-STYLE

C/S	@ 1000 PSI	@ 3000 PSI	@ 5000 PSI	ABOVE 5000 PSI
2(1/8")	.022"	.018"	.012"	CONSULT FACTORY
3(3/16")	.030"	.022"	.018"	CONSULT FACTORY

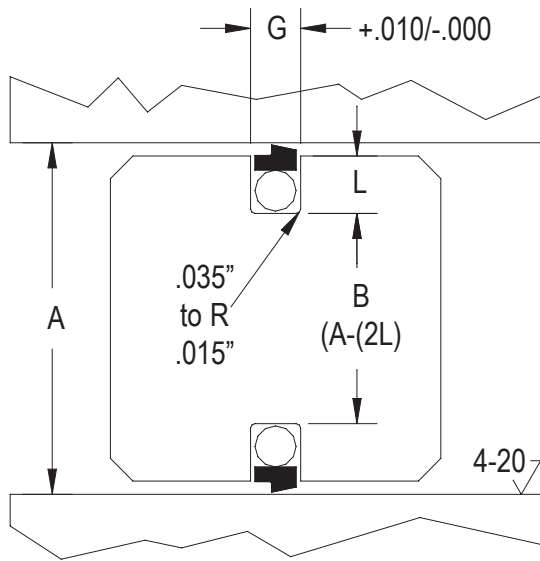
(E) MAXIMUM DIAMETRICAL CLEARANCE FOR RS-STYLE

C/S	MATERIAL	@ 1000 PSI	@ 3000 PSI	@ 5000 PSI	ABOVE 5000 PSI
3(3/16")	741	.030"	.024"	.018"	CONSULT FACTORY
4(1/4")	741	.040"	.030"	.024"	CONSULT FACTORY
3(3/16")	707	.040"	.030"	.024"	CONSULT FACTORY
4(1/4")	707	.046"	.036"	.030"	CONSULT FACTORY

**GLAND DIMENSIONS FOR
STANDARD BUFFER SEALS
PISTON APPLICATIONS**

A BORE DIAMETER	SUGGESTED DIAMETRICAL TOLERANCE*	(B) GROOVE DIAMETRICAL TOLERANCE	(G) GROOVE WIDTH	(L) GROOVE DEPTH	BUFFER SEAL C/S
.69 to 3.0"	+.002/- .000	+.000/- .002	.126"	.149"	1(3/32")
1.5 to 5.5"	+.003/- .000	+.000/- .004	.166"	.212"	2(1/8")
2.1 to 12"	+.004/- .000	+.000/- .006	.247"	.308"	3(3/16")
5.3 to 12"	+.005/- .000	+.000/- .007	.320"	.415"	4(1/4")

*Guide Only: Tighter Tolerances are required @ Higher Pressures.



FOR MAXIMUM
RECOMMENDED
EXTRUSION GAP (E)
SEE GUIDELINES FOR
R-STYLE PAGE 5.

OTHER ENGINEERED PLASTICS COMPOUNDS

COMP. NO.	DECRPTION	COMP. NO.	DECSRIPTION
700	VIRGIN (UNFILLED)	707	TYPE 6, 5% MOLY
701	25% GLASS (WHITE)	745	UNFILLED P.E.E.K.
702	15% GLASS, 5% MOLY	728	ACETAL
706	15% GLASS	776	VIRGIN UNMWPE
711	25% CARBON, GRAPHITE		
712	5% MOLY		
713	60% BRONZE		
714	55% BRONZE, 5% MOLY		
716	15% GRAPHITE		
733	15% CARBON, GRAPHITE		
734	10% CARBON, GRAPHITE		
741	40% BRONZE		

Buffer seals may also be designed for metric glands. Use standard conversion factors or consult Polyseal Engineering for proper size information.

MPI Rod Seals

N4, N5 Style U-Cup

Rod U-Cup

Spectraseal

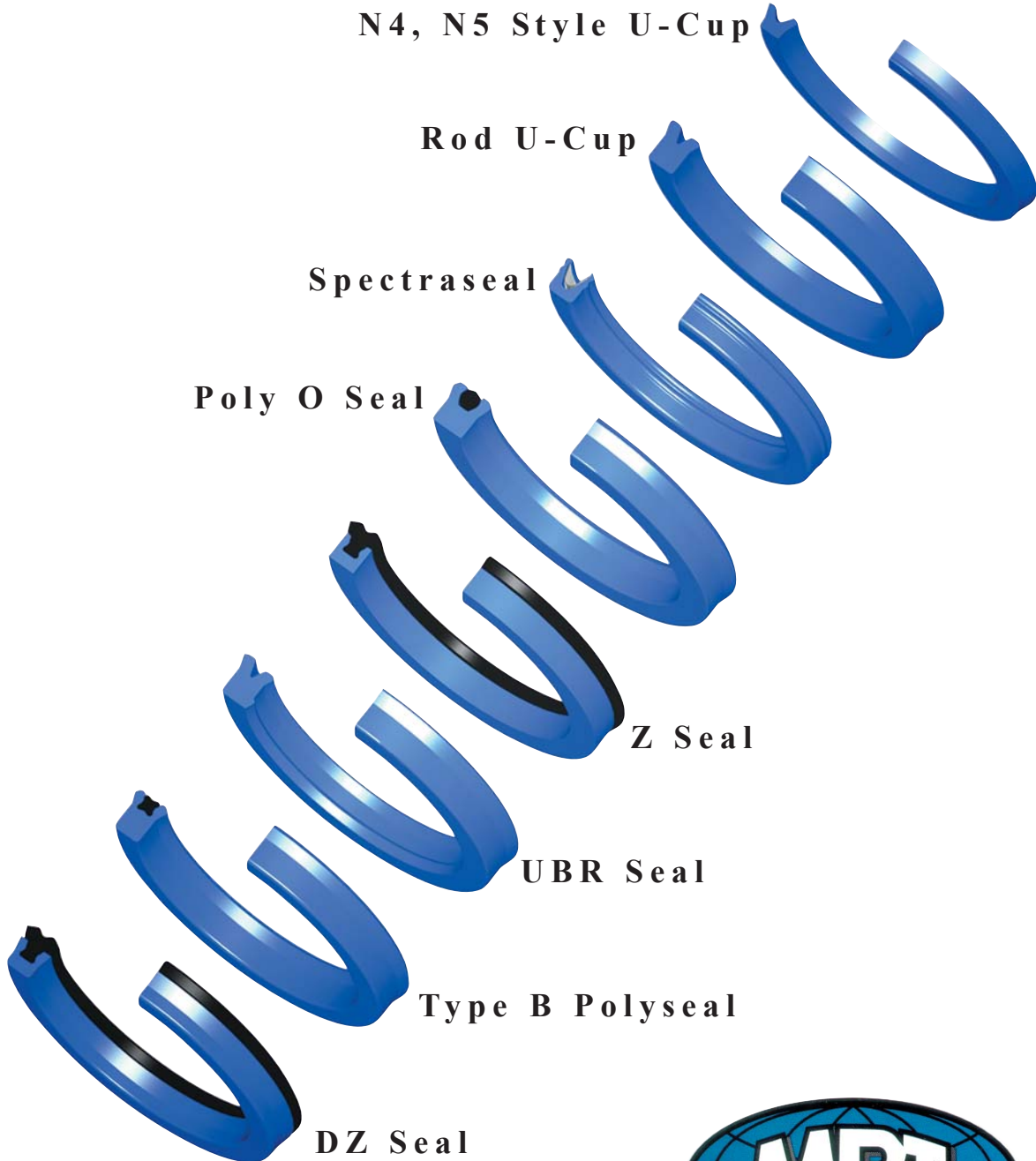
Poly O Seal

Z Seal

UBR Seal

Type B Polyseal

DZ Seal



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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.



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